# Appendix A

# **Public Engagement Meeting Summaries**

# City of North Tonawanda, Tonawanda Island BOA

Steering Committee Meeting #1 | September 23, 2014

#### **Attendees**

Steering Committee Members
Rich Andres, Niagara County Legislator, District 8
Chris Bauer, Department of State
Amy Fisk, Niagara County Economic Development
Paul Hempel, North Tonawanda Waterfront Commission
Barb Hughes, Webster's Bistro
Larry Kuebler, North Tonawanda Waterfront Commission
Dale Marshall, City Engineer
Kevin O'Connor, North Tonawanda Waterfront Commission
Greg Sutton, Department of Environmental Conservation
Mike Zimmerman, Lumber City Development Corporation

#### **Consulting Team**

Allie Balling, Allieway Marketing
Kimberly Baptiste, Bergmann Associates, Project Manager
Chip Grieco, Jaeckle Fleischmann & Mugel
Sue Hopkins, Bergmann Associates
Andrew Raus, Bergmann Associates
Kelly Thompson, Bergmann Associates

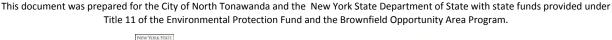
### **Welcome & Introductions**

Mike Zimmerman welcomed the group to the meeting and thanked everyone for participating in the Step 3 Implementation Strategy. Kimberly Baptiste summarized the meeting agenda, which included the following items:

- Welcome & Introductions
- Overview of Step 2: How we got here
- Overview of the project (scope and schedule)
- Discussion: Where are we now?
- Wrap-up

Bergmann Associates is the prime consultant for this project, supporting the LCDC's public engagement activities and conducting the technical tasks described in the scope of work. Bergmann is also managing the subconsultants on the team, including:

- Allie Balling, Allieway Marketing (marketing and branding for strategic sites)
- Chip Grieco, Jaeckle Fleischmann and Mugel (legal and economic development assistance)
- Michael N'dolo, Camoin Associates (not in attendance) (market and housing analyses, financial proformas)









# Overview of Step 2: How we got here

Kimberly provided an overview of the project background, noting that the City completed the Step 2 Nomination Project in 2010 and afterwards received a \$423,000 grant to complete the Step 3 Implementation Project.

The Step 2 Nomination was a 14-month project focusing on a comprehensive analysis of existing conditions and potential redevelopment opportunities. As part of the project, the City offered numerous public engagement opportunities where the community provided feedback on the future vision for the BOA. The project ultimately identified strategic redevelopment sites, with a focus on Tonawanda Island and the downtown core.

# **Step 3 Project Schedule and Scope**

Kimberly provided an overview of the project scope, by first explaining that the overall objectives are to define future land uses for all underutilized sites and brownfields, describe implementation techniques and projects to accelerate desired redevelopment of those sites, establish a local management structure to ensure implementation, and develop marketing materials to support implementation.

Kimberly reviewed the project schedule and scope, noting that the project is expected to be completed over the course of 18 months, during which time the Steering Committee will meet approximately seven times. There will be three public meetings and two rounds of formal stakeholder interviews.

The scope of work includes the following major components, described in more detail in the hand out materials:

**Public Participation.** As noted above, the project will include numerous opportunities for public participation, including Steering Committee meetings, public meetings, and stakeholder interviews.

**Project Website.** Kimberly noted that Bergmann will build a project-specific website that will be linked to the LCDC's main website, but will act as a stand-alone page. It will have a password-protected section where Steering Committee members can access all meeting information. The website will be designed for future flexibility to allow a transition from a primarily project-based website to a broader marketing/branding website for the BOA.

**Strategic Sites.** The Implementation Strategy will include a description of future uses for all strategic sites, both in broad terms (i.e. commercial, industrial, etc) and specific land use alternatives. For specific strategic site alternatives, the strategy will include the following information:

- Reuse Strategies
- Cost-benefit scenario
- Design alternatives and illustrations
- Profiles for marketing purposes

**Virtual BOA.** The Virtual BOA is a 3D GIS model of existing conditions and proposed future build out. The 3D model can be used for evaluating proposed development alternatives and as a marketing tool.

**Implementation Techniques.** For this task, the City and consulting team will evaluate existing zoning to determine if it is consistent with the proposed Step 2 master plan. The Step 2 master plan identified zoning updates. This phase will involve implementation of those changes, including development of design guidelines and form-based code standards.

**Housing Analysis and Needs Assessment.** Camoin Associates will complete this task, addressing the market for future residential units as well as needs within existing residential neighborhoods.

River Road Transportation Enhancements Plan (TEP). One of the largest components of the work plan, the River Road TEP is equivalent to a transportation Project Scoping Report, which will help position the

City to receive TIP funding for improvements within the corridor. Kelly Thompson explained that, as part of the TEP, her team will model traffic and examine capacity and trip generation to determine mitigation needs for the corridor, including bicycle and pedestrian improvements.

**Phasing and Identification of Implementation Projects.** This task will include a detailed description and timeline for implementation steps, including necessary pre-construction activities, future studies/feasibility assessments, and funding sources.

**SEQRA.** The project will include a Generic Environmental Impact Statement for the entire BOA, to be based on the full build-out scenario.

Kimberly also noted that the Step 3 report itself will be a continuation of the Step 2 report.

### Discussion: Where are we now?

Kimberly led the group through a discussion of relevant changes and developments within the BOA since the completion of the Nomination Study in 2010. Below is a summary of the group's discussion:

**Buffalo Bolt site.** The City has sold parcels within this site, though there two parcels remaining. Taylor Devices purchased some of the parcels and have re-occupied an existing building. No new structures have been built to date.

**Former Pirson Auto site (22 Main Street).** This site is for sale and has generated significant interest. It has some environmental issues.

**600 River Road site.** The site was formerly part of Tonawanda Ironworks, which is now part of the Brownfield Cleanup Program (BCP). It is believe the current owner will propose a restricted residential apartment/townhome project, including three buildings and 70 units (or possibly a hotel). No development applications have been submitted, although the owner has submitted multiple permit applications for site work.

CarQuest building (between Manhattan and River Road). This building is reportedly for sale.

**Marina and Gratwick Park.** Since 2010, the City constructed the Marina as part of a multi-phase master plan.

**Fire Training Site.** The site is currently being used as staging for the island bridge reconstruction project. It is not used as a fire training site.

**Site #15 (on Tonawanda Island, west of Island Boulevard).** This site was previously for sale but does not appear to be listed currently.

**Site #18** (Metzger site). This 4-acre site is for sale, for \$500,000.

**Riviera Theater.** The theater is undergoing a remediation and expansion project.

**Swing Bridge.** Discussions during Phase 2 explored the idea of converting the swing bridge into a pedestrian crossing. The boaters prefer it in its current configuration.

Former Booth Oil. This 2.5-acre site has been noted as a possible location for incubator space.

Site #9 (between Robinson, Sommer and N. Marion Streets) has been considered for senior housing.

### Wrap-up and Next Steps

Kimberly thanked everyone for participating in the kick-off meeting and noted that future meeting dates will be identified.

# City of North Tonawanda, Tonawanda Island BOA

Steering Committee Meeting #2 | December 5, 2014

# **Attendees**

#### **Steering Committee Members**

Rich Andres, Niagara County Legislator, District 8

Chris Bauer, Department of State

Amy Fisk, Niagara County Economic Development

Joe Fonzi, Resident

Paul Hempel, North Tonawanda Waterfront Commission

Larry Kuebler, North Tonawanda Waterfront Commission

Dale Marshall, City Engineer

Kevin O'Connor, North Tonawanda Waterfront Commission

Greg Sutton, Department of Environmental Conservation

Mike Zimmerman, Lumber City Development Corporation

## **Consulting Team**

Allie Balling, Allieway Marketing

Sue Hopkins, Bergmann Associates

Michael N'dolo, Camoin Associates

### **Welcome & Introductions**

Sue Hopkins welcomed the group to the meeting and thanked everyone for being there. She summarized the meeting agenda, which included the following items:

- Master Plan Updates
- Traffic Analysis Progress
- Market Analysis
- Marketing and Branding
- Wrap-up

## **Master Plan Updates**

Sue Hopkins provided an overview of updates made to the Master Plan, which were made to reflect recent and ongoing projects as well as discussion with the Steering Committee. (Site numbers below correspond to the revised Master Plan graphic provided at the meeting).

- **Site # 2: Buffalo Bolt Business Park Redevelopment**. The Master plan was updated to reflect the actual configuration of light industrial uses proposed at this site by the current property owner.
- Site #34: Office Park. Older versions of the Master Plan showed light industrial uses on this site.
  However, it was determined that a mix of office, retail and light industrial would be more
  compatible with future residential uses across River Road and would provide more flexibility for
  redevelopment.
- Sites #15 and 27. Multi-Family Residential. The Master Plan was updated to reflect the current plan for residential units on Site #15. Older versions of the Master Plan did not propose any







- changes to the property listed as Site #27. This has been updated to reflect opportunities stemming from the proposed residential development at Site #15.
- **Site #16: Multi-Tenant Warehouse.** The older version of the Master Plan proposed residential on this site. It has been updated to show the current use, which is a self-storage facility.
- **Sites #9 and 13. Hotel and Structured Parking.** The proposal for this site has been modified from mixed-use commercial/residential to a hotel and parking structure.

# **Traffic Analysis**

Sue described ongoing tasks conducted as part of the ongoing traffic analysis. Bergmann's traffic engineers have completed portions of the analysis, including intersection movement counts (completed on October 7, 8, and 9), collection of signal phasing data, and coordination with NYSDOT on Synchro computer models. In addition, the team has reviewed the existing Synchro model to determine the "no build" scenario, which measures existing levels of service at key intersections.

The results of the traffic analysis will be presented to the Steering Committee in January 2015.

# **Economic Analysis**

Michael N'dolo presented information on the scope of work for the market analysis, as well as preliminary findings.

**Economic Analysis Scope of Work.** The Market Analysis scope of work includes a housing analysis and needs assessment, identification of strategic sites for reuse, cost-benefit scenarios and financial proformas, development of a local incentive strategy, and specific focus on redevelopment of the Riviera Theater.

**Housing Analysis – Initial Findings**. The purpose of the housing analysis is to analyze future demand for housing and identify viable and attractive types of housing within the market over the next ten years. Michael described a few preliminary findings from his analysis:

- The city has a relatively high concentration of owner-occupied units, a relatively low vacancy rate, and rental units make up the highest proportion of vacant housing units. He noted that he expects increasing demand in the rental market, which is consistent with national trends.
- North Tonawanda has a smaller proportion of high-end rental units relative to the MSA. But newer units in North Tonawanda can command a strong price, as proven by the Remington Lofts.
- The data show that there is a need for about 646 new housing units over the next ten years. There will likely be demand for smaller units to accommodate smaller families. Overall, this will mean less demand for suburban style single family detached units. There is also expected to be an increase in demand for higher priced units, as the proportion of residents earning higher incomes (\$75k-\$200k) is projected to increase.

**Riviera Theater.** Michael described the Riviera Theater expansion, showing conceptual renderings of the proposed project. Camoin will be preparing revenue projections and pro-forma analyses based on renovation plans, which are expected to make the space more marketable and profitable. These improvements include a new black box theater space, changes to enhance the use of the main stage, and the ability to host corporate rentals. Camoin will also review capital fund raising scenarios, including naming rights, funding from foundations, as well as grants and other sources of financing.

**Next Steps.** Michael wrapped up his presentation by noting that Camoin's next step is to conduct interviews with brokers, developers, and others familiar with the residential market in North Tonawanda.

# **Marketing and Branding**

**Marketing and Branding Process.** Allie Balling described the different components of marketing and branding for the project, noting that the intent is for the brand to be carried on beyond the life of the BOA project itself and used for marketing and development of the study area in general. The marketing and branding process includes six key components:

- Creative sessions
- Name and tagline development
- Brand elements, logo, colors, and fonts
- Key messaging and copy
- Collateral materials and website development
- Community outreach

Allie explained that the purpose of the presentation was to lay the framework for marketing and branding as well as present options for a name and tagline. She described the process used to develop the concepts, which included creative sessions with committee members. She noted that the feedback received during these sessions was incorporated into the concepts. The key concepts derived from creative sessions were:

- Waterfront
- Carrousel Museum
- Lumber
- Canal/Canal Fest/Canal area
- Riviera Theater
- History
- Location/Proximity
- Friendliness/Community
- Urban

Allie added that the target audiences for this branding campaign are developers (regional, national, and local), businesses (existing and new), and tourists.

**Vision Statement.** Allie presented the vision statement developed during the Step 2 process, which created a framework for the marketing and branding efforts:

"...a vibrant mixed use district centered around the confluence of two waterfronts – the Erie Canal and the Niagara River. Residents can choose to live, work, or relax while taking advantage of abundant commercial opportunities, employment options, restaurants, and recreation assets, all of which capitalize on the natural beauty of the surrounding landscape. Visitors come not only to enjoy the waterways, but to experience the multitude of land side cultural and recreational amenities offered at this "Gateway to the Erie Canal."

# Name and Tagline Options.

Allie presented the following options for name and tagline.

# THE N.T. GATEWAY RESURGENCE

Geographically incredible. Historically unique.

THE N.T. INDUSTRIAL INDUSTRIAL HISTORICAL RESURGENCE

THE N.T.
WATERFRONT DOWNTOWN
RESURGENCE RESURGENCE

THE N.T.

# THE N.T. GATEWAY

Geographically incredible. Historically unique.

# momentum

the campaign for a lively new North Tonawanda

## downtown

entertainment, food and culture at the city center

# waterfront

sun, shore and family fun at the water's edge

# **NT RISING**

The Resurgence of Lumber City

# **NEW LUMBER CITY**

Entertainment and culture from the city center to the waterfront.

Committee members noted that the NT "Rising" might be mistaken with Buffalo Rising. Others stated they didn't think the "geographically incredible" was the right language for a tagline.

There was discussion regarding the use of "lumber city." Some felt it was important to have the historical importance of lumber reflected somehow. Others felt that the significance of lumber isn't known outside of North Tonawanda and therefore wouldn't offer value outside of the city as a branding theme.

Michael N'dolo suggested the committee think of the tagline from the perspective of a developer or others trying to sell the idea of investing in the city. He noted that the idea of a "gateway" would likely be more palatable than something referring to "lumber city."

Multiple committee members noted a preference the "Momentum" theme, adding they liked the use of the "NT" within the words momentum, downtown, and waterfront. Other committee members said they also liked the "NT Gateway" theme, asking if it would be possible to combine elements of the two themes. Allie responded it might be possible to combine them.

Sue Hopkins polled the group to confirm that there was agreement to move forward with the NT Gateway and momeNTum concepts.

A revised concept was distributed to the committee on 12/19.

# Wrap-up and Next Steps

Sue thanked everyone for participating in the meeting and reviewed next steps. Prior to the next meeting, the consulting team will be working on the following:

- Marketing & Branding Strategy
- Traffic Analysis Existing, Future No Build, River Road reduction, Master Plan build out
- Virtual BOA
- Land Use and Zoning Updates
- Generic Environmental Impact Statement
- Next Steering Committee Meeting January 2015
- Upcoming Public Meeting #1 February 2015

# City of North Tonawanda, Tonawanda Island BOA

Steering Committee Meeting #3 | JANUARY 21, 2014

### **Attendees**

# **Steering Committee Members**

Rich Andres, Niagara County Legislator, District 8
Chris Bauer, Department of State
Laura Bernsonn, Lumber City Development Corporation
Amy Fisk, Niagara County Economic Development
Joe Fonzi, LCDC Board, North Tonawanda Environmental Committee
Paul Hempel, North Tonawanda Waterfront Commission
Larry Kuebler, North Tonawanda Waterfront Commission
Zack McCabe, North Tonawanda Engineering
Dale Marshall, City Engineer
Kevin O'Connor, North Tonawanda Waterfront Commission
Greg Sutton, Department of Environmental Conservation
Mike Zimmerman, Lumber City Development Corporation

# **Consulting Team**

Kimberly Baptiste, Bergmann Associates Allie Balling, Allieway Marketing Sue Hopkins, Bergmann Associates Kelly Thompson, Bergmann Associates Kashyap Revalli, Bergmann Associates

### Welcome & Introductions

Kimberly Baptiste welcomed the group and reviewed the meeting agenda, which included the following topics:

- Marketing and Branding
- Traffic Analysis Updates
- Public Meeting #1
- SEQRA/GEIS

Kimberly noted that a key objective of the meeting was to agree on a preferred logo concept, as this will allow Allie to move forward in developing promotional materials, building the website, and establishing a Facebook page.







# Marketing and Branding

# Discussion of Logo Options

Allie Balling presented three logos and sub-brand options. Each option included a main logo accompanied by sub-brands, highlighting the different elements of the project (i.e. downtown, waterfront, residential).

Option 1: The Key











Option 2: The Seal









# Option 3: The Wave



city resurgence, from down to the water from  ${\bf T}$ 







Committee members engaged in discussion about each of the options, during which the group expressed an overall preference for Option #3, the Wave. Regarding this option, the committee offered the following comments and suggestions:

- Remove the lighthouse from the imagery;
- Modify the sub-brand elements to include images specific to each sub category;
  - Downtown Riviera Theater
  - Waterftont Lift bridge and Richardson boat
  - o Residential Remington Lofts

Allie noted that she will make these modifications and send the final product to LCDC for review before circulating to the committee.

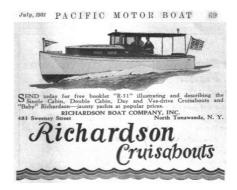




Photo of a Richardson boat (left). The cantilever bridge, also known as the "jackknife" bridge (right).

## Marketing and Branding Next Steps

Allie described the next steps in the Marketing and Branding effort, which include:

- Taking photos at key locations (now and again later in the spring in better weather);
- Working on key messages and copy (within the next two weeks);
- Launching the Facebook page (February 1);
- Developing the project website.

Allie added that LCDC will have control of the Facebook page after it is set-up. It will be a place to announce upcoming events and a wide variety of information about the project. Allie encouraged committee members to "like" the page and share it with their social networks.

# Traffic Analysis

Kelly Thompson and Kashyap Revalli, of Bergmann Associates, presented information about progress todate on the traffic analysis. The team analyzed 21 intersections within the Study Area, on River Road, Main Street, Webster Street, and Oliver Street. She described the results of her analysis in three areas:

# **Existing Conditions**

- Traffic flow is good;
- Intersections operate at acceptable levels of service;
- Wheatfield Street at River Road operates at a lower level of service during AM peak. It is recommended that the signal is re-timed to increase the maximum green for Wheatfield Street).

#### 2035 "No Build" Scenario

- Assuming none of the development in the Master Plan occurs (i.e. just background growth in traffic), the analysis showed that traffic volumes will increase 11% by 2035;
- Traffic flow is still expected to be good, with acceptable levels of service at intersections;
- This scenario assumes that River Road remains at 5 lanes.

#### 2035 "Full Build-out of the Master Plan" Scenario

The team analyzed build out of the Master Plan for all three phases, resulting in the following trip generation results (peak PM trips):

	Ove	rall	Tonawand	la Island
	Sites	Trips	Sites	Trips
Phase I	1-16	1070	3-8	425
Phase II	17-27	1515	18,25,26	1040
Phase III	28-34	1075	29	425
Total		3635		1890

Based on these trip generation results, the following conclusions were made about traffic conditions in 2035:

- At full build-out of the Master Plan, traffic is expected to increase by 90%;
- Traffic flow will break down at 6 of the 21 intersections analyzed, with failing levels of service at three intersections on River Road and three on Main Street;
- Congestion on the bridge begins before the end of Phase 1.

In order to maintain acceptable levels of service at full build out, the following mitigating improvements would need to be in place:

- Upgraded traffic signals on River Road, with pedestrian improvements;
- New left turn phases on River Road/Felton and River Road/Robinson;
- Two new left turn lanes on Wheatfield Street at River Road (Need one additional lane near beginning of Phase 2, which will require additional right-of-way);
- River Road at Thompson Street (access to Tonawanda Island). Add turn lanes and/or left turn phases on all four approaches requiring widened bridge for intersection queuing;
- Retime signals on Main Street.

## Three Lane Analysis for River Road

Kelly noted that a three lane scenario was analyzed to explore the feasibility of a landscaped median on River Road. The team analyzed the possibility of reducing the total number of lanes on River Road (from 5 to 3), concluding the following:

- River Road could operate acceptably for the next 2-3 years under a Road Diet change from 5 lanes to 3 (linear timeline of Master Plan)
- Traffic Flow with 3 lanes is expected to breakdown south of Felton Street within 2-3 years (before the end of Phase I) even with:
  - Right turn lanes (northbound) at Goundry, Robinson and Wheatfield
  - Implementing coordination of traffic signals
- North of Felton Street traffic flow begins to breakdown in 17 years (near middle of Phase 3), showing characteristics of congestion with three lanes on River Road, turn lanes and coordinated signals

Kelly then summarized her main conclusions. Based on the analysis, a landscaped median is not feasible. The median could only exist for a short period of time before it would need to be removed to allow for additional road capacity. Regarding the median, she noted there are other ways to mitigate the traffic generated by full build out of the Master Plan, such as crosswalks, landscaping, traffic calming, and speed limits. In addition, additional bridge capacity will be required (either expanding the existing bridge or providing a new bridge).

## Traffic Analysis Discussion

Joe Fonzi asked how the team analyzed travel direction existing the island. Kashyap answered that the analysis assigned trips based on origin/destination factors that were derived from census data and land uses.

Rich Andres asked if it would be possible to apply a solution similar to what was constructed on Route 5 in the Outer Harbor area. Kelly answered that the right-of-way along River Road is much more limited, making that type of improvement not feasible. Rich asked if it is possible to landscape the existing median. Kelly noted that it is possible, but that the median will need to be converted into a turning lane in the future. Even in the no-build scenario, the median would need to be removed in the long-term.

Joe asked what the projected trips were for the island. Kashyap answered that the PM peak trips are projected to be 1,890. Kimberly noted that Bergmann could share the build-out analysis with the group, as it shows detailed information about how much traffic the proposed development projects are projected to generate.

Kimberly pointed out that a key reason for doing this type of traffic analysis is to inform the planning process. Constructing these improvements is one option. Another option is to reduce the impacts of the master plan by scaling it back in places, for instance on Tonawanda Island.

# Public Meeting #1

Kimberly provided details about the first public meeting:

- Public Meeting #1
- March 2, 2015, The Riviera Theater
- 4:00-7:00 pm.

The meeting will be an open house format from 4:00-6:00, followed by a presentation and Q&A at 6:00.

# SEQRA/GEIS Overview

Kimberly provided an overview of the SEQRA/GEIS phase of the project. A completed Generic Environmental Impact Statement (GEIS) for the entire study area will help the City promote sites to developers or investors because much of the pre-development permitting work will have been completed for them—i.e. the GEIS will streamline the site-specific SEQR approval process for developers, saving them time and money.

# Next Steps

Kimberly described the next steps in the process. The team will begin work on land use/zoning updates, the Virtual BOA 3D model, and the GEIS.

Next Steering Committee meeting: March, 201 (specific date TBD)



City of North Tonawanda, Tonawanda Island BOA Steering Committee Meeting #4 | April 27, 2015

# **Attendees**

Steering Committee Members
Rich Andres, Niagara County Legislator, District 8
Chris Bauer, Department of State
Laura Bernsonn, Lumber City Development Corporation
Amy Fisk, Niagara County Economic Development
Joe Fonzi, LCDC Board, North Tonawanda Environmental Committee
Barbara Hughes, Webster's Bistro
Larry Kuebler, North Tonawanda Waterfront Commission
Dale Marshall, City Engineer
Kevin O'Connor, North Tonawanda Waterfront Commission
Mike Zimmerman, Lumber City Development Corporation

Consulting Team Kimberly Baptiste, Bergmann Associates Allie Balling, Allieway Marketing Chip Greico, Jaeckle Fleischmann & Mugel Sue Hopkins, Bergmann Associates

# Welcome & Introductions

Kimberly Baptiste welcomed the group and reviewed the meeting agenda, which included the following topics:

- Welcome
- Project Updates (Open House, Traffic, Branding)
- 3D Virtual Model
- Zoning Update Considerations and Discussion
- SEQR
- Next Steps

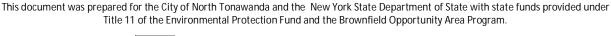
# **Project Updates**

### Open House Recap

Kimberly provided a recap of the NT Momentum Open House, held on March 2<sup>nd</sup>, 2015 at the Riviera Theatre. Over 55 attendees participated in the open house and presentation. LCDC and the consulting team received positive feedback on the project.

# Traffic Analysis

Kimberly provided an update on the Traffic Analysis, noting the following:









- The analysis indicates that a traffic circle on Tonawanda Island will not meet capacity needs when the study area reaches full build out;
- The landscaped median is possible north of Felton Street through year 18 of build out;
- The Thompson Street bridge will need widening for additional capacity. Alternatively, a second bridge could be constructed to improve traffic circulation. Kimberly's presentation included the following graphic showing a potential location for the second bridge (extending west from Wheatfield Street).



Discussion: Steering Committee members asked why a traffic circle would not have as much capacity as a signalized 4-way intersection. Kimberly responded that the traffic circle would not be able to accommodate the required stacking on the bridge, particularly for eastbound trips during peak hours.

Committee members asked why the bridge was placed at Wheatfield Street. Kimberly responded that the location was selected as a result of public input received at the Open House. The location would have to be studied further to determine whether it is feasible. Committee members commented that the location seemed logical, as it would be far enough from the exiting bridge to help alleviate traffic congestion.

The group agreed to keep the second bridge as an option to be presented as a future alternative. Kimberly added that a conceptual cost estimate would be included with the alternative.

Chris Bauer added that the NT Momentum study area has been officially designated as a BOA, which provides additional opportunities for developers to pursue brownfield tax credits through the Brownfields Cleanup Program.

### Marketing and Branding

Kimberly provided an update on the marketing and branding portion of the project, highlighting the draft marketing brochure, site profile sheets, and customized folders. These will be finalized in the coming weeks and printed for LCDC to distribute to developers, investors, and other interested parties. Kimberly

also previewed recent submissions to the photo contest, adding that photos continue to be submitted and will be available to view on the project website.

Kimberly reminded committee members to visit the project website to see updates and also to "like" the project Facebook page:

www.ntmomentum.com

Facebook.com/northtonawandamomentum

# Virtual 3D Model

Kimberly provided a preview of the virtual 3D model of the NT Momentum Study Area and played a video fly-through showing future build out. The model currently shows rough sketches and building mass/heights only, but will be filled out with more architectural detail and animated traffic circulation.

# **Zoning Updates**

Kimberly reminded the group that a subcommittee of the Steering Committee has been formed to discuss the detailed elements of the zoning code updates and help guide the update process. She noted that the purpose of the next few slides in her presentation was to give the full Steering Committee an overview of the process and needed updates, and make sure all Steering Committee members have a chance to volunteer for the Zoning Subcommittee.

Kimberly presented an overview of the zoning code update process, describing the purpose of the updates and elements of the update process.

- Purpose of the updates:
  - o Align the code with the Comprehensive Plan and the NT Momentum Master Plan;
  - o Codify historic district & guidelines;
  - o Address "other" areas of Code impacting BOA Study area
    - Regulations applicable to all
    - Administration and oversight
    - Signage.

To provide context and help the Steering Committee better understand the types of updates necessary, Kimberly provided an overview of the different kinds of zoning code regulations and standards used throughout the US, including traditional (Euclidean), form-based codes, incentive zoning, hybrid codes, design standards, and historic design guidelines. She also noted that the team will be looking into methods for requiring or incentivizing public shoreline access.

Kimberly reviewed a future proposed zoning map, which is consistent with recommendations from the NT Momentum Step 2 Nomination Report, the Local Waterfront Revitalization Plan, the North Tonawanda Comprehensive Plan, and discussions with LCDC and City staff.

- Zoning map modifications:
  - Extend Waterfront District boundaries;
  - o Create new Downtown District to encourage a walkable streetscape and a mix of uses;
  - o Convert some areas that are currently Industrial to commercial;
  - Create a Historic Preservation Overlay District.

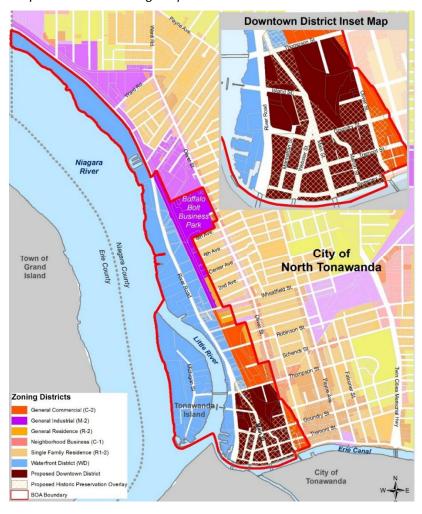
Discussion: Committee members asked how the Waterfront District would work. Kimberly noted that the district would have two types of regulations with different criteria for different types of property. Areas west of River Road and on Tonawanda Island (i.e. with water frontage) would be oriented to water-dependent uses. Areas east of River Road would be given more flexibility. Specific uses will be discussed

by the Zoning Subcommittee. Committee members asked if the updates would be considered carve outs or whether changes to existing districts would impact all similarly zoned properties outside the Study Area boundary. Kimberly clarified that changes to district boundaries would only occur within the Study Area. Text amendments to existing districts could potentially impact properties within those zones city-wide.

### Other comments:

- The WD district needs to differentiate parking lots from auto dealerships;
- Downtown needs a form-based code. Approvals and other decisions currently decided on an arbitrary basis;
- Incentive zoning is a must for Tonawanda Island where property is privately owned;
- Structural issues with the code will need to be addressed (i.e. administrative, procedural.

## Proposed Future Zoning Map



# Zoning Subcommittee

There were two volunteers for the zoning subcommittee. Bergmann will circulate materials, questions, and discussion items to subcommittee members by email. Future meetings will be held after regular Steering Committee meetings on an as-needed basis.

# SEQRA/GEIS

Chip Greico provided an overview of the GEIS process, including:

- Scoping
- Preparation of Draft GEIS/Alternatives Analysis
- Public comment period (and potential hearing)
- Preparation of Final GEIS/Preferred Alternative
- Issue Findings Statement

He discussed some of the advantages of preparing a GEIS. The primary benefit to the City and future developers is that no further SEQRA review will be required as long as potential impacts of proposed development has already been adequately considered in GEIS.

# **Next Steps**

Kimberly described the next steps in the process for Bergmann and LCDC, including the following:

- Begin Zoning Updates
- Finalize Traffic Study (PSR)
- Finalize Marketing Brochure and Site Profiles
- Finalize Housing Analysis
- Meetings
  - o Zoning Subcommittee (first meeting April 27)
  - o Planning Board (date TBD)
  - o Historic Preservation Commission (date TBD)
- Other
  - Stakeholder Interviews (May/June 2015)
  - o GEIS Public Scoping Meeting (date TBD)

Next Steering Committee meeting: June 2015 (specific date TBD)



City of North Tonawanda, Tonawanda Island BOA Steering Committee Meeting #5 | August 3, 2015

# **Attendees**

Steering Committee Members
Chris Bauer, Department of State
Laura Bernsohn, Lumber City Development Corporation
Amy Fisk, Niagara County Economic Development
Joe Fonzi, LCDC Board, North Tonawanda Environmental Committee
Kevin O'Connor, North Tonawanda Waterfront Commission
Mike Zimmerman, Lumber City Development Corporation

Consulting Team Kimberly Baptiste, Bergmann Associates Sue Hopkins, Bergmann Associates

# Welcome & Introductions

Kimberly Baptiste welcomed the group and reviewed the meeting agenda, which included the following topics:

- Project Updates
- Zoning Updates
- 3D Model
- GEIS
- Public Meeting
- Next Steps

# **Project Updates**

# Nomination Study Updates

Kimberly noted that the consulting team has updated the Nomination Study document to include more up to date demographic, housing, and economic information.

#### Photo Contest

Kimberly noted that we have received a number of submissions for the photo contest. These are posted (with credits) on the project website.

www.ntmomentum.com

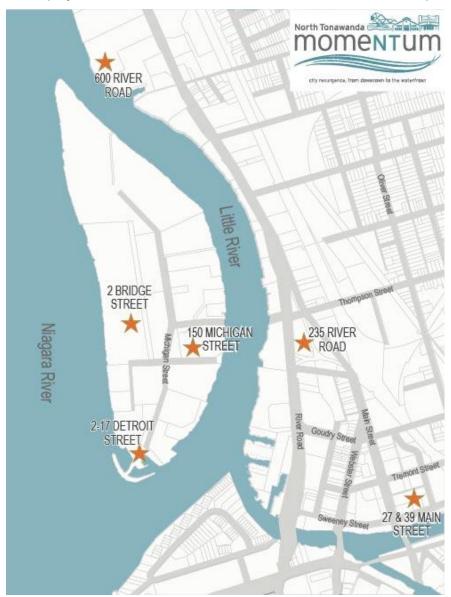






# Site Profiles

Site profiles for six strategic sites within the BOA study area have been prepared and are now available on the project website. The location of the sites is illustrated in the map below.



# **Zoning Updates**

Kimberly provided an overview of the zoning update process, including the proposed map changes and text changes. The team is currently drafting new text language and reorganizing the zoning chapter to better conform with best practices. Kimberly shared the new Table of Contents, which will be used as the basis for updates:

- 1) Article 1: General Provisions
  - a) Title
  - b) Legislative Intent
  - c) Purpose
  - d) Definitions
- 2) Article 2: Zoning Districts

- a) Zoning Map
- b) Districts
- c) Bulk and Use Tables
- 3) Article 3: Regulations Applicable to All Districts
  - a) Accessory buildings
  - b) Automobile dealers
  - c) Bed & Breakfast
  - d) etc
- 4) Article 4: Signage
  - a) Permitted signage by district
  - b) Design standards
  - c) Application procedures for sign permit
  - d) Exempt and Temporary signs
- 5) Article 5: Non-conforming Uses
  - a) General Guidelines
  - b) Non-conforming uses, structure, and parcels
- 6) Article 6: Site Plan Review
  - a) Purpose and Applicability
  - b) Planning Board Review
  - c) Site Plan Approval
- 7) Article 7: Administration and Enforcement
  - a) Building and zoning officers
  - b) Planning Board
  - c) Zoning Board of Appeals
  - d) Historic Preservation Commission
  - e) Building permits
  - f) Special Use Permits
  - g) Appeals
  - h) Violations
  - i) Fees
  - i) Amendments

Kimberly described in more detail the Downtown Mixed Use District, which will be a new district in North Tonawanda's downtown. The Downtown District will draw on principles of a form based code in that the code will focus on design and performance of a building more so than regulation of specific uses. A form based code will help limit the discretionary nature of the review and approval process by requiring that development meet certain thresholds and standards identified in the code section and accompanying development check list. In addition, the review and approval procedures will be updated to clarify the process for developers and allow for better enforcement.

Kimberly provided an overview of the types of criteria that will likely be addressed in the Downtown Mixed Use District:

- Building height
- Materials
- Signage
- Awnings
- Setbacks
- Transparency (windows)
- Entrance location
- Parking
- Outdoor Seating
- Landscaping
- Green infrastructure
- Street Trees

•

- Lighting
- Street Furniture
- Crosswalks





## Discussion

- Can the code require or enforce maintenance of landscaping? Kimberly responded that yes, the code can include provisions that require maintenance of landscaping, subject to fines or other enforcement measures.
- Would industrial uses be allowed downtown under this new code? Kimberly answered that industrial uses could potentially be allowed, but would have to meet all design and performance criteria (such as noise and traffic impacts).
- The development process needs to be more clear and less discretionary.
- Public access along the waterfront is a must.
- Committee members noted that incentive zoning provisions within the Waterfront District should be included, possibly height or density bonuses in exchange for contributions to a fund that supports public space improvements on Tonawanda Island.
- Kimberly asked what maximum building heights would be acceptable for the Waterfront District. Committee members indicated that heights up to 10 stories would be acceptable.

# 3D Virtual Model

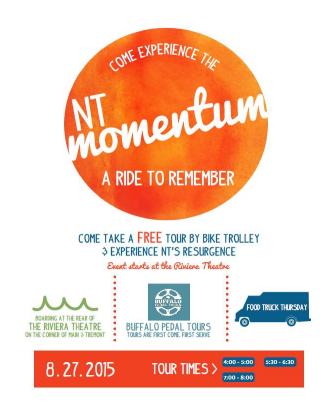
Kimberly provided a flyover demonstration of the 3D virtual model, which shows how the buildings and streetscapes will look at full build out.

# **GEIS Public Scoping Meeting**

The City will host a public scoping meeting to allow community members to review the draft GEIS Scope of Work and provide comment. The meeting will be held on September 23<sup>rd</sup> at 6:30 pm at 500 Wheatfield Street. A copy of the GEIS scope of work and meeting notice will be posted on the project website and circulated via social media/newspaper.

# Project Public Meeting - Bike Trolley Tour on Food Truck Thursday

Kimberly provided information about the upcoming public meeting (bike trolley tour of the study area) and asked Steering Committee members to attend, get the word out, and invite their friends and neighbors. The event will take place on August 27, with tours scheduled to depart at 4:00, 5:30, and 7:00.



# Next Steps

Kimberly described the next steps in the process for Bergmann and LCDC, including the following:

- Complete Zoning Update Draft
- Meetings
  - o Project Public Meeting/Bike Trolley Tour (August 27)
  - o GEIS Public Scoping Meeting (September 23)
  - Zoning Subcommittee (October Date TBD)



City of North Tonawanda, Tonawanda Island BOA

Public Meeting #1: Open House | March 2, 2015

# **Open House Summary**

On March 2, 2015, the Lumber City Development Corporation welcomed residents, business owners, investors, developers, and other stakeholders to the Riviera Theatre to showcase the North Tonawanda Momentum Project.

NT Momentum is a revitalization strategy for a 546-acre study area in North Tonawanda. As a community-driven effort managed by Lumber City, the project is focused on implementing redevelopment projects that will provide new opportunities for the community to live, work, and play.

Below is a summary of the open house.





#### **Attendees**

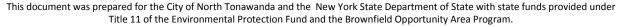
• See- attached sign-in sheet

#### **Staff and Consulting Team**

- Michael Zimmerman, Lumber City Development Corporation
- Laura Bernsohn, Lumber City Development Corporation
- Kimberly Baptiste, Bergmann Associates
- Sue Hopkins, Bergmann Associates
- Andrew Raus, Bergmann Associates
- Jamie Elmer, Bergmann Associates

#### Open House (4:00 – 6:00)

The City hosted an informational open house about the NT Momentum Project from 4:00 to 6:00 pm. Attendees were provided with background information about the project, as well as the opportunity to talk with members of the project team and view displays showing project information and graphics (attached).









#### Presentation (6:00 – 6:30)

Michael Zimmerman welcomed attendees to the open house and thanked everyone for their attendance. Kimberly Baptiste gave a presentation about the project, which included the following elements:

- Project Overview
- Project Background
- The Master Plan (overview)
- Strategic Sites
- Implementation
- Next Steps

A copy of the presentation is attached.





### Questions and Comments (6:30-7:00)

Following the presentation, Kimberly accepted questions from attendees.

- Has the City communicated with the owners of 600 River Road? Mike Zimmerman answered that yes, the City has had discussions with the owners of 600 River Road.
- Does the City currently have funding set aside for parks improvements? Mike Zimmerman
  answered that the City does not have specific funding set aside for parks identified in the NT
  Momentum Master Plan.
- What is happening with the state's Brownfield Cleanup Program? Kimberly Baptiste answered that the state's Brownfield Cleanup Program is currently being revised by the Governor and legislature. We should know the outcome within the next few months.

Participants were invited to share their ideas in response to the question "What do you think is the most important project for North Tonawanda over the next five years?" Responses are summarized below:

- Progress on Tonawanda Island
- A hotel downtown
- Modern bathrooms at Gratwick Park
- Shower facilities for boaters at Gateway
- Additional green space in and around downtown
- A bridge crossing at Wheatfield Street
- Expansion at Riviera Theatre
- Removal of the boathouses
- Redevelopment along River Road
- Lower tax rate and water costs

# Wrap-up

Kimberly encouraged everyone to stay up to date with the project by visiting the website and facebook page. She also reminded everyone about the photo contest, for which photos can be submitted on the project website: <a href="https://www.ntmomentum.com">www.ntmomentum.com</a>

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City of North Tonawanda, Tonawanda Island BOA

Public Open House | March 2, 2015

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This document was prepared for the City of North Tonawanda and the New York State Department of State with state funds provided under Title 1.1 of the Environmental Protection Fund and the Brownfield Opportunity Area Program.





**LUMBER CITY** 

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City of North Tonawanda, Tonawanda Island BOA

Public Open House | March 2, 2015

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City of North Tonawanda, Tonawanda Island BOA

Public Open House | March 2, 2015

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City of North Tonawanda, Tonawanda Island BOA

Public Open House | March 2, 2015

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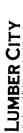


City of North Tonawanda, Tonawanda Island BOA

Public Open House | March 2, 2015

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City of North Tonawanda, Tonawanda Island BOA

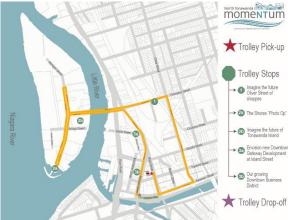
Public Meeting #2: Bike Trolley | August 27, 2015

# **Bike Trolley Summary**

On August 27, 2015, the City of North Tonawanda in conjunction with the Lumber City Development Corporation hosted a series of Bike Trolley Tours throughout North Tonawanda and Tonawanda Island. The tour made four stops at strategic redevelopment sites. The tour started at the Rivera Theatre.

Along with the trolley tours, Bergmann Associates set up a number of booths throughout the city, including one booth in Gateway Park, where a Food Truck and Artisan Fair was taking place. At this booth, a number of residents and interested participants were able to inquire about the project and trolley rides.





Below is a summary of the Trolley Tour Stops.

#### **Attendees**

See- attached sign-in sheet

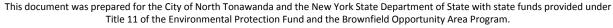
#### **Staff and Consulting Team**

- Michael Zimmerman, Lumber City Development Corporation
- Laura Bernsohn, Lumber City Development Corporation
- Kimberly Baptiste, Bergmann Associates
- Sue Hopkins, Bergmann Associates
- Ted Liddell, Bergmann Associates
- Meagan Aaron, Bergmann Associates
- Joy Kuebler, Joy Kuebler Landscape Architect

### Trolley Tours (5:00 - 8:00)

The first stop was along Oliver Street. This stop showed the trolley riders the potential this site has to become the "Oliver Street of Shoppes", a mixed-use shopping destination. Bergmann Associates discussed the site's potential for a mixed use business center across from the existing Heritage Park.

After stop 1, the trolley proceeded down Oliver Street across the Thompson Street Bridge to Tonawanda Island. Tonawanda Island is currently an industrial area. The second stop highlighted the Island's









potential to create and maintain the hospitality industry that would cater to boaters and other water-activity users. Kimberly Baptiste also highlighted the area's potential for the creation of multi-story mixed-use development that would combine office, commercial and retail usages, along the waterfront.

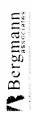
The third point of interest was addressed as the trolley moved south down Main Street. As the trolley returned to the pick-up/drop-off point, the components associated with the expansion of the Riviera Theatre was discussed along with the updates to Gratwick Riverside Marina.





### Wrap-up

Kimberly encouraged everyone to stay up to date with the project by visiting the website and facebook page. She also reminded everyone about the photo contest, for which photos can be submitted on the project website: <a href="https://www.ntmomentum.com">www.ntmomentum.com</a>



# San-in Sheet

North Tonawanda Marie Ma

		Momentum
Bike Trolley Public Meeting   August 26, 2015 Name	Affiliation	Email/Phone
1 RAE PRETERVOICE	NT Historic Preservation Com.	rprofract everyon, net
	GLANCE DESIGN	GREGPRO @ GMAIL. COM R
3 ROBERT MAJIG	,	REMATING VERICONINER
4 Mia Summerson	Niagara fazette	Ma, Summerson @ niggera-gazette. Con
	Mayor's wife	ر د
6 A T Pannos	Merror of N.T.	998 4619
7 Jennifer McFarland	Resident	imcfarland93@gmail.com
8 Soundy McFarland	Kesident	sime for land 22 @yahoo com / 909-646
	RESIDENT	¥
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11 Russ Lynn	Cource her.	ness ruggla June Com
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13 Thul O. Game	Resident	
14 Way out Jour	RESIDENT	
15 Tracie + Jeff Blackman	NON RES(CITUR)	tracie blackmar@yalorc
16		
17		
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# Appendix B

## Final GEIS Scoping Document

## FINAL SCOPING DOCUMENT

## Draft Generic Environmental Impact Statement (DGEIS)

## for the

## Adoption of the North Tonawanda, Tonawanda Island Brownfield Opportunity Area Step 3 Implementation Strategy

North Tonawanda, NY

November 2015



#### Lead Agency:

City of North Tonawanda Common Council Lumber City Development Corporation 500 Wheatfield Street North Tonawanda, NY 14120 Contact: Michael Zimmerman (716) 695-8580 x5515

#### Prepared by:

Bergmann Associates 28 East Main Street Suite 200 Rochester, NY 14614 Contact: Kimberly Baptiste, AICP (585) 232-5135

This document was prepared for the City of North Tonawanda and New York State Department of State with state funds provided by the Brownfield Opportunity Area

## **Contents**

1	INTR	ODUCTION	. 1
	1.1	Overview	1
	1.2	PROJECT DESCRIPTION AND BACKGROUND	1
	1.3	BOA PLAN/DGEIS DOCUMENT ORGANIZATION	.1
_	E813 (1		
2	ENV	RONMENTAL REVIEW PROCESS	. 3
	2.1	PURPOSE OF A GEIS	.3
	2.2	INVOLVED AGENCIES	.3
	2.3	SEQRA/GEIS REVIEW PROCEDURES	.3
		Determination of Significance	.4
		Scoping	.4
		Preparation of the GEIS	.4
		Public Review	.4
3	SCO	PE OF THE DGEIS	. 5
	3.1	COVER SHEET AND TABLE OF CONTENTS	
	3.2	EXECUTIVE SUMMARY	
	3.3	DESCRIPTION OF THE PROPOSED ACTION	
	3.4	ENVIRONMENTAL SETTING	
	3.5	POTENTIAL SIGNIFICANT ADVERSE IMPACTS	
	5.5	Land Use and Zoning	
		Open Space, Parks and Recreation, and Scenic Resources	
		Historic and Cultural Resources	
		Transportation Systems	
		Infrastructure	
		Community Facilities and Services	
		Natural Resources	
		Environmental Contamination	
		Demographic/Population and Socioeconomic Conditions	
		Housing	
	3.6	OTHER IMPACTS	
	3.0	Adverse Impacts that Cannot be Avoided	
		Irreversible and Irretrievable Commitment of Resources	
		Growth-induced Impacts to Infrastructure	
	3.7	MITIGATION MEASURES	
	3.8	ALTERNATIVES TO THE PROPOSED ACTION	
	3.9	CONSISTENCY AND COMPLIANCE WITH SEQR.	
	3.10	CONDITIONS FOR FUTURE ACTIONS	

## 1 INTRODUCTION

#### 1.1 OVERVIEW

The City of North Tonawanda (the "City") is completing a Brownfield Opportunity Area (BOA) Step 3 Implementation Plan ("BOA Plan"), also referred to as *NT Momentum* in promotional materials distributed to the community. In accordance with the State Environmental Quality Review Act (SEQRA), and its implementing regulations (6 NYCRR Part 617), the City, acting as Lead Agency in the adoption of the BOA Plan, has determined that the proposed action is a Type I action and that a Generic Environmental Impact Statement (GEIS) is needed to evaluate areas of potential impacts resulting from recommendations in the BOA Plan.

The purpose of this scoping document is to define the environmental issues that will be addressed in the DGEIS and identify potentially significant adverse impacts that may result from implementation of the BOA Plan. To that end, the City of North Tonawanda has prepared this scoping document for the combined BOA Plan and Draft Generic Environmental Impact Statement (DGEIS) in order to support the adoption and implementation of the BOA Plan.

#### 1.2 PROJECT DESCRIPTION AND BACKGROUND

In 2010, the City of North Tonawanda completed a BOA Step 2 Nomination Study and subsequently was awarded a grant from the New York Department of State (NYSDOS) for a BOA Step 3 Implementation Strategy. The BOA Plan (including the combined Step 2 and Step 3 reports) is being prepared in accordance with the guidelines established by the NYSDOS for the BOA program.

The BOA Study Area is an approximately 546-acre area located along the Niagara River and Erie Canal in the City of North Tonawanda, encompassing all of Tonawanda Island, the Little River and the majority of the City's historic downtown core.

The BOA Plan describes a revitalization strategy for designated areas adversely impacted by the actual or perceived presence of environmental contamination. The Plan recommends general land use changes within the 546-acre Study Area and includes updates to the City's zoning code to support these changes. The Plan also includes a 20-year Master Development Plan recommending development projects, capital improvements and a general phasing plan for redevelopment within the Study Area. The Plan envisions new residential and commercial development in excess of 200,000 square feet and 300 residential units, in addition to public realm and transportation infrastructure improvements.

### 1.3 BOA PLAN/DGEIS DOCUMENT ORGANIZATION

The DGEIS will be incorporated directly into the BOA Plan document, per the scope requirements set forth by the Department of State. The DGEIS will rely heavily on data and analysis compiled for the Step 2 Nomination Study, including existing conditions data (also referred to as "environmental setting") and description of the proposed recommendations and master plan for the Study Area. The final draft of the Step 2 Nomination Study can be viewed on the project website ( <a href="www.ntmomentum.com">www.ntmomentum.com</a>).

The table below illustrates where each component of the GEIS will be located within the BOA document:

BOA Plan	GEIS Content
Section 1 Description of Project and Boundary	Description of Proposed Action
Section 2 Community Participation	Scoping meeting, public hearing (conducted simultaneously with hearing for BOA plan)
Section 3 Existing Conditions (Environmental Setting)	Description of the Environmental Setting
Section 4 Implementation Strategy	Potentially Significant Adverse Impacts  Description of Mitigation Measures  Description of Alternatives to the Proposed Action
Section 5 Compliance with SEQRA	Consistency with NYS CMP Coastal Policies Consistency with Heritage Area GEIS References Conditions for Future Actions

## 2 ENVIRONMENTAL REVIEW PROCESS

#### 2.1 PURPOSE OF A GEIS

A Generic EIS is a type of EIS that is typically used to consider broad-based actions or related groups of actions that agencies may approve, fund, or directly undertake. The City of North Tonawanda has determined that a GEIS is appropriate because the BOA Plan is inherently conceptual in nature and includes a number of separate actions which, if considered singly, may have minor effects, but if considered together may have significant adverse environmental impacts. In addition, the BOA Plan would have wide application, potentially impacting future policies, and changes to land use and zoning. <sup>1</sup>

While the major components of a GEIS are similar to a site-specific EIS, there are additional factors that should be considered in a GEIS:

- Hypothetical scenarios as alternatives that could occur under the proposed generic action, including
  evaluation of all reasonable alternatives that could achieve the objectives of the project sponsor.
- Thresholds and conditions that would trigger the need for supplemental determinations of significance or site-specific EISs.
- A preliminary scope of the environmental issues which would need to be addressed in any supplemental EISs prepared after the original generic EIS.

#### 2.2 INVOLVED AGENCIES

Potentially involved agencies that will be required to approve and/or adopt the BOA Plan include:

- City of North Tonawanda Common Council
- New York State Department of State
- New York State Department of Environmental Conservation

Potential future involved agencies that may have a permit, approval and/or funding role in the implementation of the BOA Plan include the following:

- City of North Tonawanda Planning Board
- City of North Tonawanda Zoning Board of Appeals
- City of North Tonawanda Historic Preservation Commission
- Lumber City Development Corporation
- New York State Department of Transportation
- New York State Office of Parks, Recreation, Historic Preservation (SHPO)
- Niagara County Planning Board

#### 2.3 **SEQRA/GEIS** REVIEW PROCEDURES

Prior to completing the GEIS, the City must conduct a series of procedural steps in accordance with SEQRA regulations. These steps are described below.

<sup>&</sup>lt;sup>1</sup> Department of Environmental Conservation, General Concepts for an EIS

#### **Determination of Significance**

The City of North Tonawanda Common Council prepared a Long Environmental Assessment Form (LEAF), determined that the proposed adoption of the BOA Plan requires a Generic Environmental Impact Statement (GEIS), and issued a positive declaration of significance.

#### Scoping

The City is currently conducting the scoping process, which has multiple objectives. These are:

- Eliminate non-significant and non-relevant issues.
- Identify the extent and quality of information needed.
- Identify the range of reasonable alternatives to be discussed.
- Provide an initial identification of mitigation measures.
- · Provide the public with an opportunity to participate in the identification of
- impacts.

The two steps of the scoping process are described below:

- *Draft Scoping Document*. The draft scoping document described the analyses and methods that will be used to prepare the DGEIS. The scoping document was circulated to interested agencies and made available for public comment until October 27, 2015.
- *Final Scoping Document*. Following the close of the public comment period, the City prepared a final scoping document, which will be used as a framework to prepare the DGEIS.

#### **Preparation of the GEIS**

There are major steps in the process of preparing the GEIS:

- Draft Generic EIS. This document will be prepared in conformance with the final scoping document and SEQRA guidelines. When this document is accepted by the City of North Tonawanda City Council, it will be distributed to all interested agencies and made available to the public. A public hearing will be held to obtain public comments.
- Final Generic EIS. This document will incorporate feedback received on the draft EIS. Upon acceptance of the Final Generic EIS, the document will be made available to all interested parties and members of the public. Following a 10-day review period, the City will issue Findings Statements to approve or deny the adoption and implementation of the BOA Plan.

#### **Public Review**

The preparation and review of the GEIS is designed to provide opportunities for involvement by interested agencies and the general public. This scoping document will be available for public review and comment. Completion of the draft GEIS will trigger a 30-day formal public review period (from the date of the Notice of Completion). All substantive comments will become part of the record and included in the final GEIS.

## 3 SCOPE OF THE DGEIS

This scope of work defines the environmental issues that will be addressed in the DGEIS. The scope is organized according to components required by SEQRA regulations and the BOA Program, as described in the following sections.

#### 3.1 COVER SHEET AND TABLE OF CONTENTS

(Incorporated into the BOA Plan)

The title page will explain that the DGEIS is combined with the BOA Plan. In addition, the cover page will identify all required information contained in applicable State Environmental Quality Review Act (SEQRA) regulations at 6 NYCRR § 617.9(b)(3), including descriptive title of the project, location of the project, the name, address, and telephone number of the lead agency and its contact person, contact information for the preparer of the DGEIS, the date of acceptance of the DGEIS by the lead agency, and the date comments must be submitted.

#### 3.2 EXECUTIVE SUMMARY

(Incorporated into Executive Summary of the BOA Plan)

The executive summary will present a brief overview in an easily accessible format, the most pertinent information from the technical analysis.

#### 3.3 DESCRIPTION OF THE PROPOSED ACTION

(Section 1 of BOA Plan)

This section will describe the proposed action, including the following elements:

- Overview description of the BOA Master Plan and Implementation Strategy, including a detailed description of the conceptual Master Plan, potential strategic redevelopment projects, and recommended regulatory/policy changes necessary
- Required public actions and approvals.

#### 3.4 Environmental setting

(Section 3 of the BOA Plan)

This section will include a description of the environmental setting of the BOA, which will satisfy both the BOA Program and SEQRA requirements. It is noted that this section will incorporate extensive analysis completed for the Step 2 Nomination Study and will be augmented, where necessary, with new information. This section will include descriptions of the factors listed below:

- Community Setting
- Existing Land Use
- Existing Zoning Districts
- Sites of Environmental Concern
- Vacant and Underutilized Sites

- Land and Water Ownership
- Parks and Green Infrastructure
- Historic and Cultural Resources
- Transportation Systems
- Public Infrastructure
- Natural Resources
- Economic and Market Trends

#### 3.5 POTENTIAL SIGNIFICANT ADVERSE IMPACTS

(Section 4 of the BOA Plan)

This section will identify the project's potential significant impacts that will be assessed in the DGEIS and identify potential mitigation measures for significant *adverse* impacts. We expect that the DGEIS will address each of the following impact areas:

#### Land Use and Zoning

The adoption of the BOA Plan may result in new development as well as changes to the types and locations of land uses, most notably the introduction of mixed-use, residential and commercial uses. In addition the BOA Plan may result in changes to the City's existing zoning code, which may alter allowed uses and densities in certain zones located within the BOA boundary. The changes may also implement site design standards that promote smart growth and protect environmental and cultural resources.

To address the potential impacts of these changes, this section will discuss:

- The potential effect of changes to land uses and zoning envisioned in the BOA Plan.
- Consistency with the community's goals, as identified in the City's Comprehensive Plan and Local Waterfront Revitalization Strategy.

#### Open Space, Parks and Recreation, and Scenic Resources

The BOA Plan may recommend implementation measures that will increase the amount of protected open space, parks, trails, shoreline access, and scenic resources, through zoning changes, incentive zoning, and creation of overlay district. This section will address the impacts of the BOA Plan on parks and open space, including potential new parks, trails, and open space opportunities.

#### **Historic and Cultural Resources**

The DGEIS will assess the effects of the BOA Plan on known historic and archeological resources in the BOA Study Area. The BOA Plan will likely include zoning updates that would protect designated historic resources and implement design guidelines for development within designated historic districts. This section will identify impacts to historic resources and districts.

#### **Transportation Systems**

This section of the DGEIS will include an analysis of the potential impacts on the existing transportation system that may result from the implementation of the BOA Plan. This section will include, by reference, a Traffic Impact Analysis completed as part of the Step 3 BOA Implementation Strategy.

#### **Infrastructure**

The DGEIS will provide a qualitative analysis of the impacts the BOA Plan may have on public infrastructure, including water, sewer, waste water collection and treatment, and stormwater management. Given the conceptual nature of the BOA Plan, the analysis will be limited to capacity and order-of-magnitude demand estimates:

- Estimated changes in future demand based on full build-out of the BOA Plan.
- Discussion of potential changes to infrastructure to meet future demand based on implementation of the BOA Plan.

#### **Community Facilities and Services**

The DGEIS will provide a qualitative analysis of the impacts the BOA Plan may have on demand for community facilities and services:

- Estimated future demand for public services as a result of the BOA Plan.
- Assessment of service capacity and potential impacts to public services based on future service needs.

#### **Natural Resources**

Implementation of the BOA Plan may result in land use or other changes that would alter surface and/or groundwater resources, including habitat, wetlands, streams, floodplains, watersheds, and groundwater resources. Given the potential for such impacts, this section of the DGEIS will include the following discussion:

- Effects of potential changes resulting from implementation of the BOA Plan.
- Estimated effects of changes resulting from other regulations and policies implemented as part of the BOA Plan (i.e. zoning regulations).

#### **Environmental Contamination**

The DGEIS will identify potential effects resulting from the disturbance of known contaminated sites located within the BOA boundary. Available environmental assessments and ongoing remediation will be noted, if applicable.

#### <u>Demographic/Population and Socioeconomic Conditions</u>

Implementation of the BOA Plan may result in new development that may impact the City's demographic and economic landscape. To determine the potential impact of such uses, this section will discuss the following factors:

- Projected future demographic conditions resulting from implementation of the BOA Plan
- Elements of the BOA Plan that would impact the future population and characteristics of the population and local economy.

#### **Housing**

The BOA Plan may result in new development of housing units in the City of North Tonawanda, which may have impacts to the overall supply, availability, and affordability of housing. This section of the DGEIS will analyze the following factors:

- Potential changes in housing choice, availability, and affordability resulting from build out of the BOA
   Plan
- Discussion of potential impacts from changes to the condition of the City's housing stock.

#### 3.6 OTHER IMPACTS

#### Adverse Impacts that Cannot be Avoided

The DGEIS will identify any impacts that cannot be avoided or adequately mitigated.

#### Irreversible and Irretrievable Commitment of Resources

This section will discuss resources that may be irretrievably lost due to implementation of the BOA Plan. These resources may include wetlands and wildlife habitat.

#### **Growth-induced Impacts to Infrastructure**

The DGEIS will evaluate the likelihood that implementation of the BOA Plan will cause significant population or business growth in the area.

#### 3.7 MITIGATION MEASURES

(Section 4 of the BOA)

This section will identify potential measures to mitigate significant impacts associated with the BOA Plan. Mitigation measures will be considered if available, reasonable, and implementable. If development projected as a result of the BOA Plan would cause negative impacts, possible mitigation measures may be necessary to provide relief.

#### 3.8 ALTERNATIVES TO THE PROPOSED ACTION

(Section 4 of the BOA)

The DGEIS will present an evaluation of alternatives to the proposed BOA Plan. Alternatives to be considered will include the following:

- **Preferred Alternative**. The preferred alternative will be summarized and evaluated in the BOA Plan
- Alternative redevelopment scenarios. Alternative scenarios will be addressed, including scenarios that consider alternative uses of strategic sites and different scale/size of full build out.
- **No-action Alternative.** This alternative will consider a scenario in which the BOA Plan is not implemented.

#### 3.9 CONSISTENCY AND COMPLIANCE WITH SEQRA

(Section 5 of the BOA)

This section will include a description of how the requirements of SEQRA have been fulfilled, including the BOA Plan's consistency with the NYS Coastal Management Plan's Coastal Policies and any applicable Heritage Area Management Plans. This section will also include any conditions of criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQRA compliance. This may include thresholds and criteria for supplemental EISs to reflect site-specific impacts that cannot adequately be addressed in the DGEIS.

#### 3.10 CONDITIONS FOR FUTURE ACTIONS

(Section 5 of the BOA)

This section will include any conditions of criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQRA compliance. This may include thresholds and criteria for supplemental EISs to reflect site-specific impacts that cannot adequately be addressed in the final GEIS.

# Appendix C

Housing Market Analysis and Needs Assessment

# Housing Market Analysis and Needs Assessment

City of North Tonawanda Brownfield Opportunity Area

April 2015

Prepared for:

City of North Tonawanda, New York



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## **About Camoin Associates**

Camoin Associates has provided economic development consulting services to municipalities, economic development agencies, and private enterprises since 1999. We specialize in real estate market analysis to evaluate the feasibility and impacts of proposed projects. Through the services offered, Camoin Associates has had the opportunity to serve EDOs and local and state governments from Maine to Texas; corporations and organizations that include Lowe's Home Improvement, FedEx, Volvo (Nova Bus) and the New York Islanders; as well as private developers proposing projects in excess of \$600 million. Our reputation for detailed, place-specific, and accurate analysis has led to projects in twenty states and garnered attention from national media outlets including Marketplace (NPR), Forbes magazine, and The Wall Street Journal. Additionally, our marketing strategies have helped our clients gain both national and local media coverage for their projects in order to build public support and leverage additional funding. The firm currently has offices in Saratoga Springs, NY, Portland, ME, and Brattleboro, VT. To learn more about our experience and projects in all of our service lines, please visit our website at www.camoinassociates.com. You can also find us on Twitter @camoinassociate and on Facebook.

## The Project Team

Michael N'dolo Vice President, Project Principal

Dan Stevens Economic Development Analyst, Project Staff



## Contents

The Project Team	1
Executive Summary	2
Introduction	4
Data Sources	4
Geographies Studied	4
Housing Supply	5
Units by Type and Tenure	5
Housing Stock Condition	5
Occupancy and Vacancy Rates	5
Residential Values	8
Rental Market	9
Housing Demand	11
Housing Unit Demand	11
Housing Preference Demand	11
Regional Residential Market Outlook	13
Owner-Occupied Housing Units	13
Rental and Multi-Family	14
Interview Summary	16
Needs Assessment	18
Neighborhood Housing Analysis	20
Housing Program Recommendations	28
Pursue Existing Funding	28
Explore Alternative Funding Sources & Incentives	30
Small-Repair Grant and Loan Program	30
Façade Improvement Program	31
Streetscape and Public Improvement Program	32
Property Maintenance Codes & Code Enforcement	32
Education and Marketing Program	33
Review Zoning Regulations	34
Organize Neighborhood Action	34



## **Executive Summary**

As a sub consultant to Bergmann Associates, Camoin Associates was commissioned to conduct a housing analysis and needs assessment for the City of North Tonawanda Brownfield Opportunity Area (BOA). The purpose of the analysis was to identify the housing types that will be attractive over the next ten years and quantify expected demand. Additionally, this report provides recommendations for a housing program to improve the city's existing housing stock. Camoin Associates relied on a variety of data sources and on interviews with local real estate experts to complete this analysis. The key findings are detailed below.

#### **Key Findings:**

- **Population growth won't drive housing demand.** Future housing needs in the city will be driven primarily by <u>changes in housing preferences</u>, the need to replace obsolete housing, and demand for specific lifestyle preferences (downtown living and waterfront recreation) rather than population growth. The population of the city is anticipated to remain stagnant -- however, given the right housing options, a new demographic segment could be attracted to live in the city. Young professionals and wealthy empty-nesters are the two target demographics whose housing needs should be considered with respect to the lifestyle preferences, respectively.
- Relatively low vacancy rates. The city has a relatively low housing vacancy rate relative to the
  metro area and other update cities. This indicates that there is may be unmet housing demand
  in the city. "For-sale" vacancy rates are higher than "For-rent" rates indicating a stronger
  demand for rental units.
- High-end waterfront niche housing needed. There is potential demand for waterfront housing with a boating component. The waterfront area is already popular with boaters and new high end waterfront residential and marina development would be successful in attracting a wealthy and older demographic to the city. Many individuals in this demographic already have boats moored off Tonawanda Island and would likely be attracted to the convenience of easy access to recreational boating in addition to the lifestyle draw of being able to live on the river. Members of this demographic are typically empty nesters, are looking for upscale housing options and have less interest in ownership or home maintenance.
- Demand for downtown housing. There is an opportunity to attract young professionals to live in the city but the ability to do so will depend on housing availability and types within walking distance to downtown. The recent development activity in downtown and presence of entertainment and shopping options are attractive to this demographic but modern apartments are needed to accommodate this group. While rents are still generally weak, the Remington Lofts project has successfully demonstrated that high end unit development with upper-tier rents can be feasible within the city. As investment continues to be made downtown, housing demand will increase but currently potential development sites are limited. North Tonawanda may be attractive to young professionals and millennials looking for downtown style living that are priced out of the downtown Buffalo market.
- Modern rental units needed. A shift away from owner-occupied units towards rental units
  means new rental units will be needed to meet demand. It also means the potential for an
  oversupply of single-family homes and a need to convert a portion of the housing stock to multifamily units. The aging housing stock is unlikely to meet demand for housing with modern
  amenities and features currently in demand and desired by the target demographics. There is a

need to modernize or redevelop the housing stock to adequately meet future needs. Relatively inexpensive homes in the city may attract investors to rehabilitate and convert existing structures.

- Smaller units in greater demand. Changing housing preferences means that smaller units with fewer bedrooms with a high end fit and finish will be in greater demand. One and two-bedroom units are expected to be in the greatest demand. Location will ultimately be more important than square footage, especially with respect to the two target demographics.
- High value units feasible. There will be demand for a limited number of high end rental and owner-occupied units in the area surrounding and including the city. There is expected to be a significant increase in regional demand for owner-occupied units over \$500,000. Select waterfront sites may be able to capture a portion of this demand through high end condominium and marina development. Similarly, upper-tier rents should be achievable at such sites.



## Introduction

Camoin Associates was commissioned to conduct a Housing Analysis and Needs Assessment for the city of North Tonawanda Brownfield Opportunity Area (BOA). The purpose of the analysis is to identify the housing types that will be attractive over the next ten years and identify expected housing demand. Additionally, this report provides recommendations for a housing program to improve the city's existing housing stock. Camoin Associates relied on a variety of data sources and on interviews with local real estate experts to complete this analysis.

#### **Data Sources**

Much of the data in this report were purchased from ESRI Business Analyst Online (ESRI) and Economic Modeling Specialists, Inc. (EMSI). ESRI's base data is the 2000 and 2010 Census. It uses proprietary statistical models and updated data from the U.S. Census Bureau, the U.S. Postal Service, and various other sources to project current statistics and future trends. ESRI data is often used for economic development, marketing, site selection, and strategic decision making. For more information, visit <a href="https://www.esri.com">www.esri.com</a>.

EMSI data are compiled from several sources, including the U.S. Census Bureau and U.S. Departments of Health and Labor using specialized proprietary processes and models to estimate current statistics and predict future trends. Visit <a href="https://www.economicmodeling.com">www.economicmodeling.com</a> for additional information.

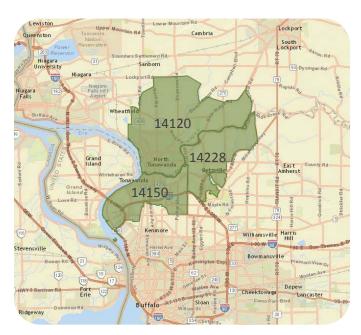
In addition to gathering statistical data, Camoin Associates spoke with local real estate developers, development officials, realtors, and other experts to gain information on the trends occurring within region.

## Geographies Studied

#### Trade Area

To study the local factors which would impact the local housing market, three zip codes were deemed the "Trade Area" (14150, 14120, and 14228). Using this Trade Area allows us to analyze the current trends within the region. The map of the Trade Area is shown to the right. The BOA is located within zip code 14120.

Camoin Associates also took a focused look at one particular neighborhood adjacent to the BOA. A map of that neighborhood can be found in the corresponding section of this report.



## Housing Supply

## Units by Type and Tenure

According to the American Community Survey, the City of North Tonawanda has approximately 14,600 housing units. The most common type of housing is 1-unit detached homes, which comprises 66% of the total housing stock. This is slightly more than the MSA region which has 59% of its housing stock in 1-unit detached homes.

Multi-family structures with large numbers of units are less common in the City of North Tonawanda, with the majority of multi-family units falling in the 2, 3, or 4 units per structure category. Only 11% of housing units are in structures with 5 or more units, which is the same ratio for the MSA region.

Office per Structure (City)				
Type of Structure	Number of	Percent of		
	Units	Total		
1-unit, detached	9,616	66%		
1 unit, attached	137	1%		
2	1,922	13%		
3 or 4	1,339	9%		
5 to 9	932	6%		
10 to 19	125	1%		
20 to 49	71	0%		
50 or more	460	3%		
Mobile home	-	0%		
Boat, RV, van, etc.	-	0%		
Total	14,602	100%		
Source: 2009 2012 A C	2			

Unite per Structure (City)

Source: 2008-2012 ACS

## Housing Stock Condition

The age of an area's housing stock is an important indicator because it can provide a high-level estimate of the quality of the housing stock. Although well-maintained older homes can contribute to the preservation of an area's local history and community character, older houses also tend to be more costly to maintain and have more structural and environmental concerns. As in many communities throughout the Northeast, substandard older housing is often occupied by those residents that are least able to afford the regular maintenance that an older home requires.

According to data collected from the 2008-2012 American

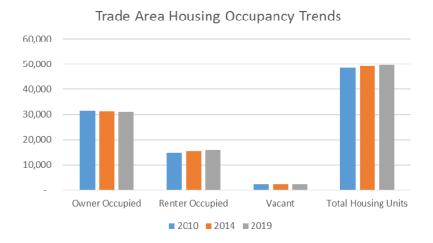
Housing Units by Year Built						
Decade	Units	%				
2010-2012	39	0.3%				
2000s	296	2%				
1990s	422	3%				
1980s	786	5%				
1970s	1,836	13%				
1960s	1,695	12%				
1950s	3,474	24%				
1940s	1,589	11%				
Prior to 1939	4,449	31%				

Source: 2008-2012 ACS

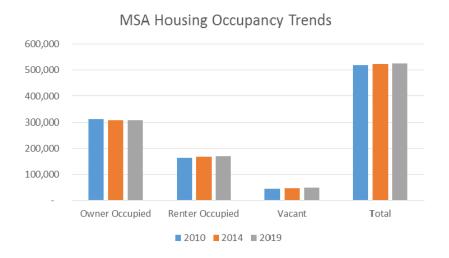
Community Survey, only 23% of the city's housing stock was built in 1970 or later. Nearly one-third of the housing stock was built prior to 1939. Only a little more than 2% of the city's housing stock was built from 2000-2012.

## Occupancy and Vacancy Rates

In 2010 there were 48,500 housing units in the Trade Area. Approximately 65% of the available housing stock in the Trade Area is owner occupied, 30% is renter occupied, and 5% is vacant. In 2010, owner-occupied units totaled 31,400 compared to 14,700 renter-occupied units, a ratio of 2-to-1. About 2,390 units are vacant representing a rate of 4.9%. As shown in the chart below, this rate is expected to remain constant through 2019. Owner-occupied units are anticipated to remain relatively stable as well. Renter-occupied units, however, are projected to increase 9.2% (1,348 units) from 2010 to 2019. Overall, the Trade Area is expected to gain 1,045 housing units between 2010 and 2019.



The data indicate that the Trade Area has a stronger housing market, compared to the MSA overall, as indicated by occupancy. The MSA is expected to add renter-occupied units at a slower rate than the Trade Area (5.1% compared to 9.2%). The vacancy rate of 8.7% is also higher in the MSA than the Trade Area and is expected to increase to 9.1% by 2019.



The table below compares the City of North Tonawanda to other regional cities and the Buffalo-Niagara MSA. The city has the lowest vacancy rate of any of the comparison geographies at 6%. Buffalo and Rochester have significantly higher rates at 16% and 12%, respectively. The MSA rate is lower than the Buffalo rate, in part, because of the high number of owner occupied units, which has to do with the suburban and rural areas that are encompassed in the MSA that typically have higher ownership levels than urban areas.

The City of North Tonawanda differs considerably from Buffalo and Rochester in the ratio of owner-occupied to renter-occupied housing units. Whereas North Tonawanda has significantly more owner-occupied units than renter-occupied, the inverse is true for Buffalo and Rochester. This means North Tonawanda has a relatively smaller portion of its housing stock as rental units.

Housing Occupancy Status: 2014								
	City of Nort	h Tonawanda	City of	Buffalo	City of R	ochester	MS	SA
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	14,861	100%	134,249	100%	98,421	100%	522,494	100%
Occupied	14,009	94%	112,333	84%	86,828	88%	475,846	91%
Owner Occupied	9,183	62%	44,111	33%	31,224	32%	307,371	59%
Renter Occupied	4,826	33%	68,222	51%	55,604	57%	168,475	32%
Vacant	852	6%	21,916	16%	11,593	12%	46,648	9%

Source: ESRI

The table below provides a detailed look at the vacancy status of units in North Tonawanda compared to the region, state, and nation. North Tonawanda has a greater percentage of vacant units available (40%) for rent than the region (34%), state (18%), and nation (28%). Despite a relatively high percentage of vacant units available for rent currently vacant, the relatively low overall vacancy rate means there is not necessarily an oversupply of rental properties. Furthermore, it should be noted that the "For Rent" vacancy rate is skewed somewhat higher than the state and nation because of the relatively low number of seasonal, recreational, and occasional use properties in the city.

2010 Residential Vacancy Status: Regional Comparison					
Classification	North Tonawanda	MSA	Upstate NY	USA	
Classification	Percent	Percent	Percent	Percent	
For Rent	40%	34%	18%	28%	
Rented-Not Occupied	2%	2%	1%	1%	
For Sale Only	11%	9%	8%	13%	
Sold - Not Occupied	5%	4%	2%	3%	
Seasonal/Recreational/Occasional Use	7%	9%	49%	31%	
For Migrant Workers	0%	0%	0%	0%	
Other Vacant	35%	43%	22%	24%	
Total Vacant	100%	100%	100%	100%	

Source: ESRI

When compared to other regional cities, North Tonawanda's "For Rent" vacancy rate is relatively similar. In the table below, the city's "For Rent" vacancy proportion of 40% is on-par with Niagara Falls (37%) and Buffalo (36%), and is lower than Rochester's (51%). In terms of "For Sale Only" units, North Tonawanda has a higher proportion compared to the other cities, indicating a slight oversupply of forsale units compared to other cities.

2010 Residential Vacancy Status: City Comparison					
Classification	North Tonawanda	Niagara Falls	Buffalo	Rochester	
Classification	Percent	Percent	Percent	Percent	
For Rent	40%	37%	36%	51%	
Rented-Not Occupied	2%	1%	1%	2%	
For Sale Only	11%	7%	5%	8%	
Sold - Not Occupied	5%	3%	2%	2%	
Seasonal/Recreational/Occasional Use	7%	2%	2%	3%	
For Migrant Workers	0%	0%	0%	0%	
Other Vacant	35%	50%	54%	34%	
Total Vacant	100%	100%	100%	100%	

Source: ESRI

<sup>&</sup>lt;sup>1</sup> State refers to the 'Upstate New York' region, which does not include the following New York counties: Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk and Westchester, reducing the impact that the NYC metro area has and allowing educated comparisons.



#### Residential Values

Taking a more focused look at the BOA Trade Area, owner-occupied units are expected to increase in value considerably in the five-year period between 2014 and 2019. The median value is anticipated to increase 20 percent by 2019. The table below shows the projected increase in values in the Trade Area.

Trade Area Owner Occupied Unit Value					
2014 2019					
Median Value	\$133,601	\$160,474			
Average Value \$155,102 \$186,35					

Source: ESRI Forecasts 2014 and 2019

Although expected to increase, the current median and average values of owner-occupied housing units in the Trade Area is lower than those in the MSA region, Upstate New York, and substantially lower than owner occupied units in the United States.

Trade Area Owner Occupied Unit Value Comparison								
	Trade	MSA	Upstate	USA				
	Area	IVIOA	NY					
Median Value	\$133,601	\$139,703	\$142,602	\$190,791				
Average Value	\$155,102	\$180,494	\$181,201	\$261,032				

Source: ESRI Forecast 2014

The following table shows the number of owner-occupied units in the BOA Trade Area by the value of the unit. Units less than \$150,000 are projected to decrease between 2014 and 2019. The number of units between \$150,000 and \$300,000, meanwhile, are expected to increase during this period with the greatest increase expected among those valued between \$150,000 and \$200,000 (3,000 units). Strong growth is also expected in the \$200,000 to \$250,000 range (1,780 units).

On the high end of the market, there is expected to be about a 400 unit increase in the \$500,000 to \$750,000 range. Units between \$750,000 and \$1 million are expected to see the greatest percent increase of 836% (326 units). This data indicates that owner-occupied units will increase in value with an especially noticeable bump in the higher end ranges.

Trade Area Change in # of Owner Occupied Units by Value								
Value of Unit	2014	2019	Pct. Change					
<\$50,000	439	282	-36%					
\$50,000-\$99,999	7,267	4,400	-39%					
\$100,000-\$149,999	11,749	8,997	-23%					
\$150,000-\$199,999	5,846	8,846	51%					
\$200,000-\$249,999	2,572	4,352	69%					
\$250,000-\$299,999	1,647	1,927	17%					
\$300,000-\$399,999	1,148	879	-23%					
\$400,000-\$499,999	239	344	44%					
\$500,000-\$749,999	167	563	237%					
\$750,000-\$999,999	39	365	836%					
\$1,000,000+	90	109	21%					

Source: ESRI

The table below shows the change in value for owner-occupied units in the MSA region. The changes in each value category are similar to the Trade Area. One noticeable difference is at the high end of the

\$500,000 to \$1 million unit range. The Trade Area is expected to have stronger growth than the MSA in this range indicating greater demand for high end units in the Trade Area relative to other areas in the region.

MSA Change in # of Owner Occupied Units by Value								
Value of Unit	2014	2019	Pct. Change					
<\$50,000	16,155	11,521	-29%					
\$50,000-\$99,999	69,108	47,166	-32%					
\$100,000-\$149,999	86,151	65,957	-23%					
\$150,000-\$199,999	48,732	68,588	41%					
\$200,000-\$249,999	28,657	44,575	56%					
\$250,000-\$299,999	18,290	20,655	13%					
\$300,000-\$399,999	21,407	14,793	-31%					
\$400,000-\$499,999	9,302	9,831	6%					
\$500,000-\$749,999	6,416	15,231	137%					
\$750,000-\$999,999	1,287	4,619	259%					
\$1,000,000+	1,838	2,810	53%					

Source: ESRI

#### Rental Market

About one-third of households in the Trade Area rent their homes. The ratio of renters-to-owners has been trending upwards and is expected to continue. In 2000 there were 46 renter-occupied units for every 100 owner-occupied units (a ratio of .46). In 2019 that figure is expected to increase to 54 renter-occupied units per 100 owner-occupied units (a ratio of .54).

Renter-Owner Ratio Trend								
2000 2010 2014 2019								
Pct. Renter-Occupied	30%	31%	33%	33%				
Pct. Owner-Occupied	65%	64%	62%	61%				
Ratio of Renters to Owners	0.46	0.50	0.53	0.54				

Source: ESRI, US Census

The table below provides a look at contract rents within the city that represent the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included. Approximately 40% of rental units in the city are in the <\$500 range, which is about the same as the MSA. About 83% of all units are under the \$700 mark, however, compared to only 72% for the MSA. Less than 1% of units (7 units) in North Tonawanda rent for more than \$1,250 compared with 3% in the MSA. The data show very little current demand for upscale rental units in North Tonawanda and the MSA overall.

Renter Occupied Housing Units by Contract Rent								
	City of North T	onawanda	Buffalo-Niagara MSA					
	Number	Percent	Number	Percent				
Less than \$100	23	0%	2,043	1%				
\$100 to \$149	13	0%	2,007	1%				
\$150 to \$199	8	0%	2,615	2%				
\$200 to \$249	153	3%	5,077	3%				
\$250 to \$299	39	1%	4,275	3%				
\$300 to \$349	366	8%	8,466	5%				
\$350 to \$399	170	4%	9,775	6%				
\$400 to \$449	346	7%	14,622	9%				
\$450 to \$499	731	16%	13,541	9%				
\$500 to \$549	459	10%	14,749	9%				
\$550 to \$599	571	12%	12,690	8%				
\$600 to \$649	567	12%	12,283	8%				
\$650 to \$699	400	9%	11,049	7%				
\$700 to \$749	238	5%	8,693	6%				
\$750 to \$799	119	3%	4,780	3%				
\$800 to \$899	147	3%	8,941	6%				
\$900 to \$999	95	2%	5,199	3%				
\$1,000 to \$1,249	43	1%	5,132	3%				
\$1,250 to \$1,499	0	0%	2,379	2%				
\$1,500 to \$1,999	7	0%	1,206	1%				
\$2,000 or more	0	0%	1,455	1%				
No cash rent	166	4%	5,670	4%				
Median Contract Rent	ledian Contract Rent \$543 \$544							

Source: 2008-2012 ACS

As shown in the table below, newer structures command a higher price point for rental units. According to the most recent data, structures built in the 2000s have units with a median rent of \$873, which is well above median rents for units in older structures. This premium shows strong demand for newly constructed rental units in the city. According to a 2012 report for Western New York, the average apartment rent in the region was \$995 per month or \$0.88 per square foot.<sup>2</sup>

Median Gross Rent by Year Structure Built:						
City of North Tor	nawanda					
Built 2000 to 2009	\$873					
Built 1990 to 1999	\$686					
Built 1980 to 1989	\$705					
Built 1970 to 1979	\$685					
Built 1960 to 1969	\$628					
Built 1950 to 1959	\$658					
Built 1940 to 1949	\$595					
Built 1939 or earlier	\$567					

Source: 2008-2012 ACS

Compared to other regional cities, the City of North Tonawanda is more expensive for owning a home with a median monthly housing cost for owners of \$1,217. The median renter cost is on par with the other regional cities falling slightly above Niagara Falls but below Buffalo and well below Rochester.

<sup>&</sup>lt;sup>2</sup> The Property Gauge, 2012.



Median Monthly Payment Comparison								
North Tonawanda Niagara Falls Buffalo Rocheste								
Monthly Renter Housing Costs	\$643	\$629	\$672	\$738				
Monthly Owner Housing Costs	\$1,217	\$997	\$1,004	\$1,039				
Renter costs represented by gross rent; owner costs represented by monthly housing costs of units with a								
mortgage								

Source: 2008-2012 ACS

## **Housing Demand**

### Housing Unit Demand

#### Population & Household Projections

The City of North Tonawanda is expected to experience a slight decrease in population from 2010 to 2019 along with a decrease in the number of households. About 920 residents (3%) and 45 households (0.3%) are expected to be lost.

Population Projection: City of North Tonawanda								
	2010	2010 2014	2014 2019		% Change	# Change	% Change	
	2010 2014 20	2019	2010-2014	2010-2014	2014-2019	2014-2019		
Population	31,568	31,044	30,645	-524	-1.66%	-399	-1.30%	
Households	14,004	14,009	13,959	5	0.04%	-50	-0.36%	

Source: ESRI

In comparison, the MSA region is expected to lose only 0.9% (10,234) of its residents and is anticipated to actually see a gain of 0.7% (3,163) households between 2010 and 2019.

Population Projection: MSA								
	2010 2014	2014	2019	# Change	% Change	# Change	% Change	
2010	2014	2019	2010-2014	2010-2014	2014-2019	2014-2019		
Population	1,135,509	1,128,815	1,125,275	-6,694	-0.59%	-3,540	-0.31%	
Households	473,720	475,846	476,883	2,126	0.45%	1,037	0.22%	

Source: ESRI

## Housing Preference Demand

The type of housing demanded depends on the demographic characteristics of the population. This section examines trends in household size, income, and age to better understand the potential demand for different types of housing products.

#### Household & Family Size

This size and nature of households are key determinants of the type of housing that is demand now and in the future. As shown in the table below, household sizes in the city are decreasing along with the size of families. Projects by ESRI show this trend is expected to continue with the average household size in the city decreasing to 2.19 by 2019.

Household and Family Size: North Tonawanda							
2000 2010 % Char							
Average household size	2.43	2.24	-8%				
Average family size	3.03	2.89	-5%				

Source: US Census

The table below provides a more detailed look at how households are changing in the city. Households consisting of a married couple with children are declining while the number of people living alone is on

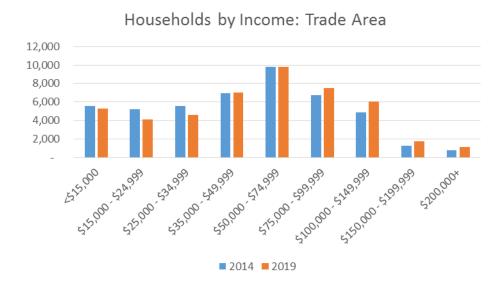
the rise. This trend means that there will be less demand for larger housing units and single-family detached units in the city. Rental units and condominiums are likely to be in much greater demand due to their attractiveness to single person households and married couples without children.

Household Type: City of North Tonawanda												
Family Households								Non	-Family	Househ	ılds	
	Total Households		Married with Married w/o Children Children			Other Family		Persons Living Alone		Oth (Room)	_	
	2000	2010	2000	2010	2000	2010	2000	2010	2000	2010	2000	2010
# Households	13,671	14,004	3,004	2,190	3,945	3,950	2,038	2,217	4,035	4,776	649	871
% of Total	98%	100%	21%	16%	28%	28%	15%	16%	29%	34%	5%	6%

Source: US Census

#### Household Income

Income is also an important determinant in the type of housing that will be in demand. The number of Trade Area households with incomes under \$35,000 are projected to decrease. Households with incomes in the \$35,000 to \$75,000 range will remain relatively constant. An increase in households with incomes between \$75,000 and \$200,000 is anticipated in the Trade Area. This shift in household income means that new high-income households will be looking for higher-end units compared to the current mix of housing on the market.



#### Age of Population

The age characteristics of the Trade Area are also projected to change in the future. In general the population is getting older. The table below shows in greater detail the expected population changes by age group. Most age groups are expected to experience a decline including the population in their 20s which is anticipated to decrease by 8% (1,441 residents).

One notable age demographic that is expected to increase is the number of residents in their 30s. The number of 30-year olds in the Trade Area is projected to increase by 13% (1,575 residents). Another significant change in age groups is seen among those residents age 60 or over. The number of residents over 60 is anticipated to increase 13% (3,559 residents) between 2014 and 2019.

## Regional Residential Market Outlook

Regional housing trends are an important consideration as they have implications on the city's market as well as for the BOA. The Western New York regional housing market has continued to show signs of improvement. As sales increase and the inventory of homes declines, new residential development in the region becomes increasingly feasible.

### Owner-Occupied Housing Units

The table below shows three-year trends for residential sales activity in Western New York.<sup>3</sup> Nearly all indicators point to a strengthening housing market. The number of sales has seen significant growth, increasing 19% between 2011 and 2013. Sales prices have also nudged upward while affordability has dipped only slightly. The biggest changes have been in the inventory of units. The number of homes for sales dropped 17% in the three years and the housing supply stood at 6 months in 2013, down from an average of 8.5 months in 2011.

Western New York Housing Market									
	2011*	2012*	2013*	% Change	% Change				
	2011	2012	2013	2012-2013	2011-2013				
New Listings	1,400	1,364	1,414	4%	1%				
Pending Sales	745	823	876	6%	18%				
Closed Sales	734	797	874	10%	19%				
Days on Market	77	74	65	-12%	-16%				
Median Sales Price	\$116,000	\$121,000	\$124,000	2%	7%				
Average Sales Price	\$143,860	\$143,847	\$147,924	3%	3%				
Pct. Of List Price Received	94.6%	95.0%	95.4%	0%	1%				
Affordabilitly Index**	222	235	220	-6%	-1%				
Homes for Sale	6,190	5,769	5,135	-11%	-17%				
Months Supply	8.5	7.3	6.0	-18%	-29%				

<sup>\*12-</sup>month average

Source: Buffalo Niagara Association of Realtors

There are strong indications that the western New York housing market continued to tighten in 2014. As shown in the table below, the latest data from the Buffalo Niagara Association of Realtors shows that between November 2013 and October 2014 the inventory of available homes for sales was less than for the same month from the year before. The average for the 12 month period was an 8% decline in the supply of inventory compared the same period a year earlier. During the same period the average number of days on the market dropped by 6%.

<sup>&</sup>lt;sup>3</sup> Residential activity for Regional Board B, comprised of single-family properties, townhomes and condominiums combined.



<sup>\*\*</sup> This index measures housing affordability for the region. An index of 120 means the median household income is 120% of w hat is necessary to qualify for the median-priced home under prevailing interest rates. A higher number means greater affordability.

Months Supply of Housing Inventory					
Month	Months Supply	Prior Year	Percent Change		
Nov-13	6.1	6.8	-10%		
Dec-13	5.4	6	-10%		
Jan-14	5.2	5.9	-12%		
Feb-14	5	5.8	-14%		
Mar-14	5.1	5.8	-12%		
Apr-14	5.5	6	-8%		
May-14	5.9	6.4	-8%		
Jun-14	6.4	6.6	-3%		
Jul-14	6.5	6.9	-6%		
Aug-14	6.6	6.7	-1%		
Sep-14	6.4	6.6	-3%		
Oct-14	6	6.4	-6%		
12-month Avg	5.8	6.3	-7.9%		

Source: Buffalo Niagara Association of Realtors

### Rental and Multi-Family

According to the U.S. Department of Housing and Urban Development, the apartment market in the Buffalo area is tight and has been getting tighter, with vacancy rates declining significantly and rents increasing between the first quarter of 2010 and 2013. The apartment vacancy rate in the Buffalo metropolitan area during the first quarter of 2013 was 2.8 percent, down from 3.4 percent from the previous year. As of 2013, the Buffalo-Niagara Falls metropolitan area rental market was considered balanced, "with conditions improving from soft during the past 3 years because of increased rental demand and little production of new units."

Market research provided through CBRE Global Research and Consulting provides further insight into multi-family development trends. CBRE's 2013 market analysis found that brand new multi-housing construction as well as adaptive reuse has been accelerating in Western New York in recent years. According to the report, Western New York is positioned as "a conservative region for real estate investment, development and lending."

Taking a closer look at the city of Buffalo specifically, multi-family property transactions have been increasing with 40% more transactions in 2013 than the average for the previous three-years (179 transactions compared to an average of 128) according to CBRE. The number of units and dollar value also increased significantly in 2013, however, the average sale price per unit decreased slightly.

However, Niagara County, excluding the City of Niagara Falls, saw a 28% *decrease* in the number of multi-family transactions in 2013 as well as an \$8,870 decrease in the average price per unit. Erie County, on the other hand, experienced a 21% increase in the number of multi-family transactions and the price per unit increased from about \$41,000 to \$48,400. The table below shows the comparison of multi-family property transactions in the region in 2013.

Multi-Family Housing Transactions (2013)						
Geography	# of Properties	# of Units	Avg. Price Per Unit			
Total Niagara County	40	631	\$31,384			
Niagara County (exc.						
Niagara Falls)	21	206	\$35,224			
City of Niagara Falls	19	425	\$29,522			
City of Buffalo	92	737	\$29,733			
Erie County	47	1,320	\$48,359			

Source: CBRE Global Research and Consulting

In the Buffalo-Niagara MSA region, 1-unit residential units continue to be built more than any other type of unit according to building permit data. About 73 percent of new housing units in 2012 were 1-unit. Units in structures with 5 or more units, however, comprised over 21% of all new housing units.

Buffalo-Niagra Falls MSA New Residential Construction						
	2007	2008	2009	2010	2011	2012
1 Unit	1,388	1,017	993	1,037	790	915
2 Units	6	56	50	28	66	60
3 and 4 Units	8	16	4	11	180	11
5 Units or more	530	455	320	422	279	266
# 5+ Unit Structures	26	21	5	11	31	22

Source: US Census Building Permits Survey

According to CBRE, Buffalo will continue to see an increase in adaptive reuse conversions and new building projects. Among these projects, it is expected that there will be a trend of mixed-use facilities that house office and/or retail space. New construction in the suburbs will be more focused on market rate as well as student and senior housing. At the time of CBRE's 2013 report, suburban building projects in the pipeline were anticipated to add 458 units to the market.

Major recent and planned residential developments in Buffalo and surrounding areas include many adaptive reuse projects. Selected major residential developments are shown in the chart below.

Major Recent and Planned Residential Developments in Region					
Property	Units	City	Studio	1 Br	2 Br
Apartments at the HUB	50	Buffalo		\$1,265 - \$1,515	\$1,615 - \$2,075
Graystone Building	42	Buffalo	\$750 - \$1,000	\$900 - \$1,420	\$1,495 - \$1,620
Remington Lofts	79	N. Tonawanda			\$1,100 - \$3,000
141 Elm St.	25	Buffalo		\$900 - \$1,600	\$1,200 - \$1,900
Chestnut Ridge*	78	Amherst	\$1,000	\$1,000	\$1,640
Grove at Buffalo State*	216	Buffalo	n/a	n/a	n/a
Millard Fillmore-Gates	300-400	Buffalo	n/a	n/a	n/a

\*Student Housing

Source: CBRE; Camoin Associates

New multi-family residential developments have generally been geared towards the high end and have been able to command rental prices well above the median. As shown above, many units in these developments rent for over \$1,500.

In North Tonawanda the Remington Lofts is of particular interest. The vacant industrial complex was converted into residential and commercial space featuring 79 luxury loft style units. The complex was located on brownfield site before being remediated as part of the project. The project is the first of its kind in North Tonawanda and has already proved very successful with high occupancy rates.

## Interview Summary

Camoin Associates conducted interviews with several local real estate developers and other professionals to better understand the market for future residential development in the City of North Tonawanda. The following provides a summary of those interviews:

- In the regional market adaptive reuse of existing buildings is the "hot product" especially in the City of Buffalo. Regional demand for housing is focused in Buffalo, but North Tonawanda may be able to get some of the spillover from that demand. Some people from Amherst and Buffalo are looking at options and finding North Tonawanda to be a good alternative, especially because of the water connection. The disadvantage is that the city is not one of two major cities in the region, although it was suggested that there is stronger demand in North Tonawanda compared to Niagara Falls.
- There is current rental market demand from young professionals, but most of these professionals work locally. The city traditionally has not attracted young professionals who work in major urban centers such as Buffalo, however, there are indications this trend is shifting. The Remington Lofts development virtually exclusively attracted residents from outside of North Tonawanda, but was an "unusual" project for the city. Current residential apartment rates downtown are still relatively low: around \$1 per square foot, with the exception of the Remington Lofts development.
- North Tonawanda can absorb a limited number of new higher-end residential units as
  interviewees generally believed there is unmet and potential future demand. The rental market
  is relatively strong in the city because people can't afford mortgages. Investors are buying up
  multi-family properties, which are in high demand. Interviewees generally believed that
  apartment development is more feasible compared to condo development, but on Tonawanda
  Island condo development may be attractive, especially combined with marina development.
  The Remington Lofts has demonstrated that there can be a market for high end residential in
  North Tonawanda. The development is fully rented out with a waiting list.
- The connection to the waterfront and "boat life" is key to residential development in the city. This is a unique amenity and boat slips are a major selling point. Boaters are attracted to this area and some are very wealthy with high end boats. Boaters are attracted from all over the world because of the proximity to Niagara Falls.
- Tonawanda Island has great potential and great challenges. Challenges include only one bridge, although it isn't believed this is very significant as it was redone recently and there has been no evidence of traffic issues. Another challenge for combination marina/residential development on the island is that the river on the western side of the island has a strong current making it difficult for boats to dock. It was also suggested that the acquisition cost would be too high relative the type of units that could be built. The island's potential is for high-end marina/residential development with boat slips catering to an older, and wealthier demographic that are attracted to the boat culture.

Downtown vitality will be a driver of demand for housing, but sites are scarce. Interviewees
believe the revitalization of downtown North Tonawanda including new restaurants,
entertainment, and the Riviera Theatre Expansion Project will help drive demand for residential
growth and has already created momentum. People have started coming from outside of the
city to the higher end restaurants. The downtown has potential to increase retail development
with smaller, unique stores, cultural offerings such as additional art galleries, and high end
stores in the future.

Downtown is relatively built out, however, limiting the options for new residential development. Outside of walking distance to downtown residential demand and development potential is much less with the exception of waterfront and boat-related development. Another particular problem that was identified is that downtown lacks enough parking and a parking garage is needed to stimulate further retail development.

- The primary target demographic groups for North Tonawanda residential development include:
  - An older, wealthier demographic attracted to new waterfront development, especially combined with marinas and boat slips. Wealthy people are already coming to the city because they keep boats at the marinas on Tonawanda Island. This demographic would be roughly in the age 55-65 bracket consisting of empty nesters between middle-aged-and senior housing-aged demographic (i.e., right before retirement). Many of the "wealthy boaters" are in Amherst and would likely move to the city if there were high quality units on the water.
  - Young professionals looking for a downtown living experience, especially those not able to afford the downtown Buffalo rents, are likely to represent another source of residential demand. The revitalization of downtown will continue to generate housing demand from this demographic although walking distance to downtown attractions will be key.
  - There is also potential to attract seasonal residents who are now living in Florida but would be attracted to the city during the summer months because of the water and boat amenity factor.

## **Needs Assessment**

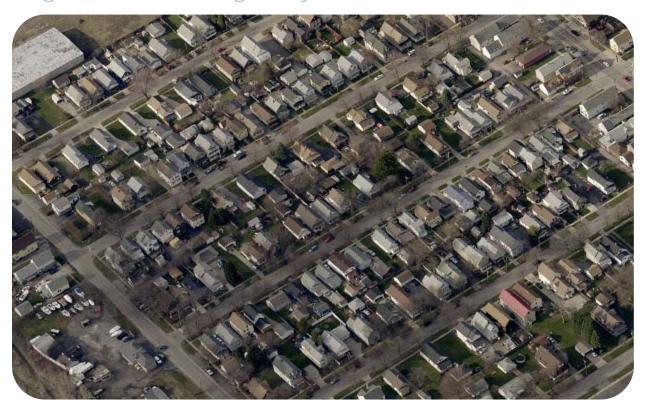
Based on the housing analysis and interviews, the following housing needs were identified for the city of North Tonawanda and the Brownfield Opportunity Area.

- Future housing demand in the city will be driven partially by the need to replace older
  obsolete housing units. The city population overall is projected to remain relatively stable in the
  near future. Over the next ten years there is anticipated demand for approximately 650 housing
  units in the city.
- There is an opportunity to meet unmet and future housing demand. Continued investment in downtown entertainment and shopping amenities and opportunities to develop waterfront and boat-related residential projects have the ability to attract new demographics and new residential growth.
- **Downtown amenities will attract young professionals.** There will be a need to produce housing types catering to this demographic. Within the larger regional context downtown living is in high demand with young professionals who want to be within walking distance of amenities such as shopping, restaurants, bars, and entertainment options. The city may be able to capture some of the demand for this type of housing by young professionals working in Buffalo who are priced out of the city's downtown rental market, which is seeing very low rental vacancy rates and high rents. Proximity to downtown is essential to attract this market and residential development not within walking distance of amenities will be less desirable.
- There is unmet demand for waterfront and boat-related residential developments in the city. The waterfront is a key amenity and residential developments offering access to marinas, boat slips, and river views would attract a wealthy, older demographic. Empty nesters at, or near retirement age (approximately 55 to 65 years old) would be attracted to live in the city given the right product type. Development on Tonawanda Island should cater to the housing needs of this demographic. The island is one of the few places in the city where condo development may be feasible.
- Renter-occupied units will comprise the majority of the housing demand. There is expected to
  be a shift in demand from owner-occupied units towards renter-occupied as demand
  preferences and demographics change. Much of the city's housing stock is aging single and twofamily homes that are owner-occupied, which will not meet future housing demand. Therefore
  there is potential to see increased vacancy rates among these owner-occupied units and a need
  to rehabilitate or redevelop existing housing.
- Smaller housing units with fewer bedrooms are likely be in greater demand. Households are getting smaller, families are having fewer children, and more people are living alone in the city. One- and two-bedroom units are likely to be in the highest demand. The primary target demographics for the city are young professionals and empty nesters, both of which have preferences for smaller units.



• There will be demand for higher end units. Household incomes in the city are expected to experience an increase over the next five years. This will drive an increase for higher end units. Residential development on the waterfront or with river views will attract high rental rates from the wealthy empty nester demographic, but will require units with high end fit and finish. The Remington Lofts project has demonstrated that high end residential development can be feasible. New residential development may not be able to command the same rents as the Remington Lofts because of the unique nature of the project and the relatively higher demand for adaptive reuse projects.

# Neighborhood Housing Analysis



As part of its housing analysis, Camoin Associates was asked to examine a largely residential neighborhood adjacent to the Brownfield Opportunity Area. The area, shown on the map to the right, is roughly bounded by Oliver Street, Downtown North Tonawanda, River Road, and Buffalo Bolt.

# Demographics

The neighborhood population is approximately 1,227 people representing 583 households. The population is expected to experience a modest decline of 3% over the next five years. The current median household income of \$36,642 is expected to climb 10% to \$40,326 in 2019. The table below summarizes the basic demographics of the neighborhood.



Demographic Summary: Neighborhood					
	2014	2019	Change	% Change	
Population	1,227	1,187	(40)	-3%	
Households	583	569	(14)	-2%	
Median Household Income	\$36,642	\$40,326	3,684	10%	

Source: ESRI



The median household income of \$36,642 is well below the city median of \$47,000. The neighborhood also lags the county and state in median income. The following table and graph show the comparison.

Median Household Income		Median Household Income	
Neighborhood	\$36,642	\$60,000	
City	\$47,245	\$00,000	
County	\$46,373	\$50,000	
State	\$56,676	£40.000	
Source: ESRI		\$40,000	
		\$30,000	
		\$20,000	
		\$10,000	
		\$0	

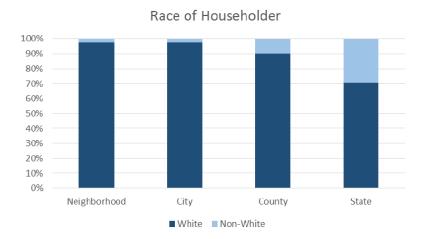
Neighborhood

City

County

State

As shown in the table below, the racial composition of the neighborhood is similar to that of the city overall.



## Housing Structure Size

The neighborhood has a significantly larger proportion of its housing units in 2-unit structures as compared to the city. Over one in four units is found in a two-unit structure (27%). By comparison, only 12% of the city's housing units are in 2-unit structures. As such, the neighborhood has fewer 1-unit homes with 50% of housing units being single family compared to 67% in the city overall.

Housing Units by Units in Structure

100%
90%
80%
70%
60%
50%
40%
30%
20%
Neighborhood
City
County
State

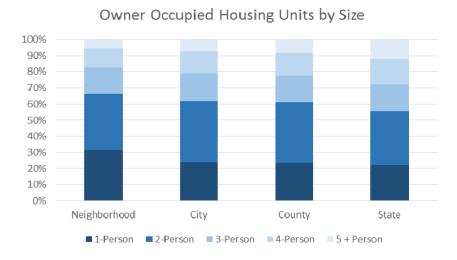
Housing Units by Units in Structure (% of Total)					
Neighborhood City County State					
1-Unit	50%	67%	73%	49%	
2-Unit	27%	12%	10%	11%	
3+ Units	23%	21%	17%	40%	

■ 1-Unit ■ 2-Unit ■ 3+ Units

Source: ESRI

# Housing Unit Size (Persons)

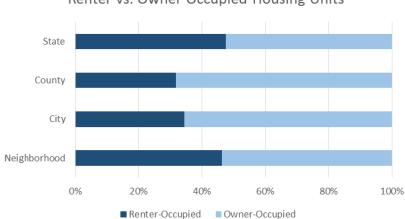
The neighborhood has a greater share of 1-person housing units compared to the city. About 32% of housing units are occupied by a household of one person compared to 24% in the city. The concentration of single person households is also greater than in the county and state.



Owner Occupied Housing Units by Size					
	Neighborhood	City	County	State	
1-Person	32%	24%	24%	22%	
2-Person	35%	38%	37%	33%	
3-Person	16%	17%	17%	17%	
4-Person	12%	13%	14%	16%	
5 + Person	6%	7%	8%	12%	

## Renter vs. Owner Occupied Units

The neighborhood has a greater concentration of renters compared to the city. Approximately 46% of occupied housing units are renter-occupied compared to 34% in the city of North Tonawanda and 32% in Niagara County.



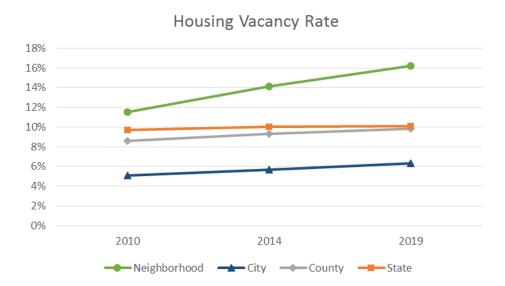
Renter vs. Owner Occupied Housing Units

## Vacancy

Approximately 14% of housing units (96 units) in the neighborhood are vacant, up from 12% in 2010. It is expected the housing vacancy rate will continue to climb to 16% by 2019 (110 units). The increased vacancy will come from a decrease in both owner and renter occupied units.

Housing Units by Occupancy Status and Tenure: Neighborhood							
Housing Unit Type	2010		20 <sup>-</sup>	2014		2019	
riousing Only Type	Number	Percent	Number	Percent	Number	Percent	
Total Housing Units	679	100%	679	100%	679	100%	
Occupied	601	89%	583	86%	569	84%	
Owner	332	49%	313	46%	305	45%	
Renter	269	40%	270	40%	264	39%	
Vacant	78	12%	96	14%	110	16%	

As shown in the following graph, vacancy rates are rising in the neighborhood at a faster pace than in the city and county.



# Housing Stock Age & Condition

The neighborhood housing stock is much older as compared to the city. About 96% of structures in the neighborhood pre-date 1940 compared to 31% of housing units in the city. The median date built for structures in the neighborhood is 1910 (age of 105 years) compared to housing units in the city, which have a median built date of 1954 (age of 61 years).

Housing Stock Age*					
Year Built	Neighbo	rhood	City		
real Built	Number	Percent	Number	Percent	
2000 to 2009	0	0%	296	2%	
1990 to 1999	2	1%	422	3%	
1980 to 1989	0	0%	786	5%	
1970 to 1979	0	0%	1,836	13%	
1960 to 1969	1	0%	1,695	12%	
1950 to 1959	6	2%	3,474	24%	
1940 to 1949	7	2%	1,589	11%	
1939 or earlier	360	96%	4,449	31%	

\*Neighborhood data shows number of individual structures; City data shows number of units Source: ESRI; Niagara County

Parcel level data publicly available on Niagara County's online mapping website provides a fiveclassification housing condition rating for each parcel from "Poor" to "Excellent." The definitions for each classification is as follows:

**Poor:** Severely dilapidated structure with no functional utility and considerable physical deterioration. This structure is uninhabitable and is often found abandoned.

**Fair:** Interior will require some maintenance. Some major repairs may be necessary but the property generally is inhabitable even though physical deterioration is evident and functional utility is reduced.

**Normal:** Most properties exhibit this condition. Normal "wear and tear" is evident with only minor signs of deterioration. Functional utility is normal, as are the living conditions present.

**Good:** This a "like new" appearance. Many new homes which have only been inhabited for a short period exhibit this condition. No repairs of any consequence exist. Recent renovation is usually the cause of this condition in older properties.

**Excellent:** Indicates the interior of the structure is new in appearance and use. New construction and renovation just completed usually are the only residence interiors in this condition. Few, if any other structures will exhibit this condition because no physical deterioration or diminished functional utility can exist.

As shown in the table below, the majority of parcels in the neighborhood fall in the "Normal" category; however, 32 properties (9%) fall in the "Fair" or "Poor" category.

Neighborhood Housing Condition				
Condition	Number of	Percent of		
Condition	Parcels	Parcels		
Poor	6	2%		
Fair	26	7%		
Normal	336	89%		
Good	8	2%		
Excellent	0	0%		

Source: Niagara County "On-the-Map" Tool (Parcel-level data)

The following tables shows the building styles in the neighborhood. "Old Style" represents the largest proportion with 59% of buildings falling in this category. Bungalow is the second most common type of building with 37% of structures of this style.

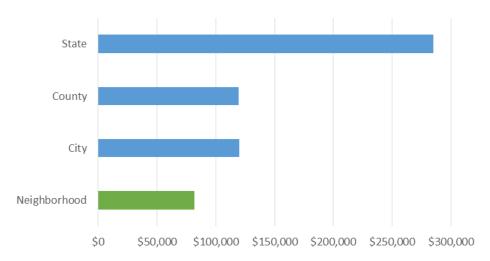
Neighborhood Building Styles					
Building Style	Number of	Percent of			
Building Style	Parcels	Parcels			
Ranch	8	2%			
Cape Cod	7	2%			
Old Style	221	59%			
Bungalow	140	37%			

Source: Niagara County "On-the-Map" Tool (Parcel-level data)

## **Housing Values**

Housing values are significantly lower in the neighborhood relative to the city, county, and state. The median value of housing units in the neighborhood is \$81,786 compared to \$120,095 in the city. The following graph and table provide a comparison of the median value of owner occupied units.



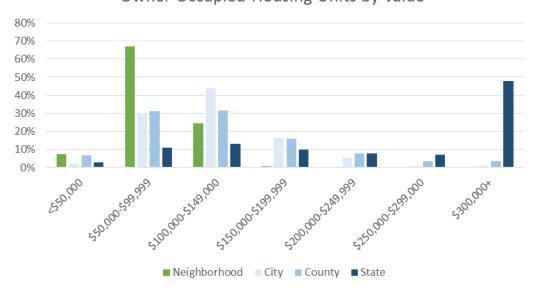


Median Value (Owner Occupied Units)				
	2014	2019		
Neighborhood	\$81,786	\$88,143		
City	\$120,095	\$141,970		
County	\$119,458	\$148,431		
State	\$285,327	\$325,238		

Source: ESRI

Nearly 75% of owner occupied housing units have a value under \$100,000. In the City of North Tonawanda only 32% of owner occupied units are under that threshold. The table below shows the distribution of owner occupied housing units by value.

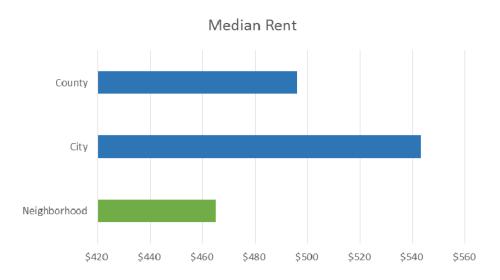
# Owner Occupied Housing Units by Value



Owner Occupied Housing Units by Value					
	Neighborhood	City	County	State	
<\$50,000	7%	2%	7%	3%	
\$50,000-\$99,999	67%	30%	31%	11%	
\$100,000-\$149,000	24%	44%	32%	13%	
\$150,000-\$199,999	1%	16%	16%	10%	
\$200,000-\$249,999	0%	5%	8%	8%	
\$250,000-\$299,000	0%	1%	4%	7%	
\$300,000+	0%	1%	4%	48%	

Source: ESRI

The neighborhood also lags the city in terms of rental rates. The median monthly rent in the neighborhood is \$465 compared to \$543 in the city.



Median Rent					
Neighborhood	City	County	State		
\$465	\$543	\$496	\$934		

Source: ACS 2008-2013

## Summary

The key findings from the neighborhood analysis are summarized below:

- Neighborhood households have incomes well below the typical city household.
- The neighborhood housing stock is old with an average age of 107 years old. The typical (median) age of housing in North Tonawanda is only 61 years old. Only two structures were built within the last 55 years. A notable 32 properties are designated with a condition below "normal."
- Home values in the neighborhood are significantly lower than the city average (32% below city average). Rents are also significantly lower in the neighborhood (14% below city average).
- The neighborhood has a higher vacancy rate than the city and is expected to increase at a faster rate than the city's rate over the next five years.
- The neighborhood has a relatively high concentration of rental units. Many of these units are found in 2-unit duplexes, of which the neighborhood has a much higher proportion compared to the city overall.

# Housing Program Recommendations

Camoin Associates, as part of the housing analysis, is providing recommendations on strategies to improve the City's existing housing stock.

As detailed in the market analysis, the housing stock in North Tonawanda is relatively old with nearly one-third of the housing stock dating to 1939 or earlier. Only slightly more than 2% of the city's housing stock was built from 2000 to 2012. This means much of the housing stock is outdated relative to what is in the highest demand today. However, owners of older units are often the ones least able to afford to rehabilitate and renovate properties up to modern standards.

An older and inferior housing stock can be a detriment to future investment in the city. This is why it is important for the City to consider new programs focused on improving its existing housing stock. To date the city's approach to improving the existing housing stock has been through the New York State HOME Program, which has been very constrained in the amount of funding available to homeowners and demand has continuously far outstripped the supply of funds. Demand for housing rehabilitation assistance is evidenced by the nearly 50-person waiting list for assistance. As of May 2014 there were no funds available to offer the residents on the waiting list.

Camoin Associates recommends that the City of North Tonawanda develop a new formal housing revitalization program to improve the condition of its housing stock. In this section, several key recommendations are made based on research into best practices and effective housing programs across the country.

# Pursue Existing Funding

The City should continue to pursue existing funding sources. Key funding sources for housing revitalization are listed below. It is also important that the City actively connect homeowners with financial resources.

#### New York State HOME Program

The City of North Tonawanda applied for a \$400,000 grant from the New York Office of Community Renewal (OCR) for HOME Investment Partnerships Program in May 2014. The two-year grant would allow 15 low to moderate-income homeowners to received money for repairs. The city's Common Council agreed to contribute \$30,000 in matching funding over two years if the loan is approved. The HOME Program provides funds to acquire, rehabilitate, or construct housing, or to provide assistance to low-income home-buyers and renters. In the past several years the funds were used by the city to improve 54 single-family homes representing over \$1 million in improvements.

### New York State Community Development Block Grant (CDBG)

Cities with populations below 50,000, such as North Tonawanda, are eligible to receive financial assistance through the program administered by the New York State Office of Community Renewal. While 70% of these funds are designated for "entitlement jurisdictions," eligible non-entitlement communities can apply for the other 30% of funds.

Housing is a specifically identified community development need that is eligible for consideration for applicants applying for Community Development Funding through the program. Fund from CDBG can be used in substantially similar ways to the HOME funds the City already uses.

### New York State Affordable Housing Corporation (AHC)

AHC administers the Affordable Home Ownership Development (AHOD) Program that provides grants to governmental, not-for-profit and charitable groups to build, acquire/rehabilitate or improve homes for low and moderate income families. Grants are offered up to \$35,000 per unit. Homes must be owner-occupied but can have up to four units. There are currently no grantees in the City of North Tonawanda. However, there are a number in Niagara County including Center City Neighborhood Development Corporation, Habitat for Humanity, Highland Community Revitalization Committee, Inc., and Niagara Falls Neighborhood Housing Services, Inc.

### New York State Housing Trust Fund Program (HTF)

The HTF Program administers the Low-Income Housing Trust Fund Program (HTF), which provides assistance for low income people. Funding can be used to rehabilitate vacant, distressed or underutilized residential property, or to convert vacant or underutilized non-residential property to residential use, if for occupancy by low-income renters or owners. Applicants must be not-for-profit corporations or charitable organizations; housing development fund companies, municipalities, counties; housing authorities; private developers (conditions apply); or partnerships. Eligible areas must be in an area that is "blighted, deteriorated or deteriorating, or has a blighting influence on the surrounding area, or is in danger of becoming a slum or blighted area because of the existence of substandard, unsanitary, deteriorating or deteriorated conditions, an aged housing stock, or vacant non-residential property or an area in which the private sector has demonstrated an inability or unwillingness to participate in the provision of affordable housing without government assistance."

### New York State Residential Emergency Services to Offer (Home) Repairs to the Elderly (RESTORE)

RESTORE program funds can be used to cover the cost of urgent repairs that will eliminate dangerous conditions in homes owned by the elderly in situations where the homeowner cannot afford to do the repair in a timely fashion. Funds must be used for one- to four-unit dwellings that are owned and occupied by eligible households. Work cannot exceed \$5,000 per building. Non-profits and municipalities are eligible program administrator applicants. The Housing Trust Fund Corporation administers the RESTORE program at the state level.

### New York State Energy Research and Development Authority (NYSERDA)

NYSERDA offers a comprehensive energy efficiency program for free energy audits plus subsidized improvements for income-eligible households. Homeowners receive a detailed list of recommended improvements that can include everything from added insulation and energy efficient lighting to a high-efficiency heating system. Discounts on energy improvements can range anywhere from 10% to 100% depending on program eligibility.

### New York State Weatherization Assistance Program

The city should educate homeowners about New York State's Weatherization Assistance Program (WAP). The program providers "conduct an assessment, or 'energy audit,' of the residence to identify specific measures to increase energy efficiency." The program is limited to households with incomes at or below 60% of state median income.

### Services may include:

- Sealing cracks and holes to reduce air infiltration
- Insulation of attics and walls
- Heating system repairs or replacement
- Hot water tank and pipe insulation
- Installation of energy-efficient lighting and refrigerators



Window and outside door repair or replacement

The city should work with Niagara Community Action Program, Inc., which is the program provider in Niagara County on ways to facilitate homeowner participation and use of the program.

# **Explore Alternative Funding Sources & Incentives**

# Revolving Loan Program

A housing rehabilitation revolving loan fund would require an up-front infusion of cash and would then be a self-sustaining loan fund program as payments made by loan recipients would be used to make additional loans. The city should explore partnerships with banks to help create the loan pool. City funds would largely help fund loan loss reserves and reduce the lender's risk.

Typically these types of programs provide zero or low interest rates to low income property owners for housing rehabilitation programs. Loans can be structured to cover a set portion of rehabilitation project along with a maximum loan amount. Pooled funds would be made available to borrowers who have difficulty obtaining traditional loans. Loan programs can also be designed to reduce a significant portion of the interest of a conventional home improvement loan.

### **Property Tax Abatements**

The city should explore tax abatements for renovation costs to provide encouragement for investments on the part of homeowners. Under these types of programs homeowners receive an abatement of a portion of real estate tax when undertaking improvements or rehabilitation of residential property. For example, one program provides a ten year benefit with the tax abatement equal to 50% of the eligible costs of the rehabilitation (when costs equal or exceed 10% of the assessed value of the property prior to the rehabilitation) for the first five years. In the following years the tax abatement is reduced by 20% annually until the property is fully assessed beginning in year 11.

### Encourage financial institutions to expand neighborhood lending

Access to private capital is critical to preserving existing housing and re-occupation of empty units. The city should seek to develop and maintain partnerships with banks and financial institutions to encourage investment.

# Small-Repair Grant and Loan Program

The city should explore developing a formalized small-repair grant and loan program. The city will need to explore how to structure its delivery of funds. For example zero percent interest loans may be one option to qualified borrowers. Other options include offering loan forgiveness or loan deferment.

In developing the program the city should consider the following:

- **Eligibility guidelines:** the city should identify those most in need by setting income restrictions or linking eligibility to the assessed value of the property. Other cities have developed eligibility restrictions linked to the age of the property or the amount of assets the household has.
- Eligible uses of funds: Eligible work should be limited to critical improvements rather than routine household maintenance. Examples of eligible work through program funding might include the following examples:
  - Correct code or structural deficiencies
  - Weatherization



- Lead paint abatement
- Roof replacement
- o Furnace replacement
- o Electrical upgrade
- Sewer/water hook-ups
- Target Good Borrowers: For home improvement loans it is important to screen potential borrowers. The city should develop a screening process to ensure borrowers will be able to repay loans. Strategies for doing this include requiring recipients to be current on property taxes, be current on the repayment of any existing mortgage on the property, be current on utility payments, and have homeowner's insurance.
- **Matching Contributions:** To maximize the impact of funds, the city should require homeowners to cover a portion of the repair costs.

# Façade Improvement Program

Façade improvement programs are incentive programs created to encourage property owners and businesses to improve the exterior appearance of their buildings. Financial incentives typically include a matching grant or loan, a tax incentive, and/or design assistance. Residential programs are typically managed by a government or non-profit housing agency or nonprofit community or neighborhood development organization. Façade programs are designed to catalyze neighborhood investment and preservation and have been shown to increase property values at and around the building where the initial investment is made.

It is recommended that the program also include storefronts as a strategy to not only revitalize commercial areas, but also to stimulate investment in nearby residential areas as the quality and appearance of neighborhood retail and commercial establishments has an impact on the desirability to live in an area.

Camoin Associates recommends the following for a new façade improvement program:

- Designate specific neighborhoods and corridors that should be prioritized based on an analysis of current conditions.
- The city should develop design guidelines so that improvements lead to a cohesive neighborhood aesthetic. Priority should be given to proposals where the improvements will restore the structure to its original character and/or where period-appropriate materials are being used.
- The city should identify specific eligible uses of funds based on an analysis of needs. The
  following uses of funds are examples of the types of eligible uses found in similar façade
  improvement programs:
  - o Architectural and related professional fees
  - o Labor, materials, fixtures, and other contract items necessary
  - Repair or alteration of exterior facades to recover and/or preserve significant historical and architectural features of the structure
  - Exterior painting
  - o Door and window replacements
  - o Installation of siding and trim treatments including awnings and flower boxes

<sup>&</sup>lt;sup>4</sup> http://plannersweb.com/2013/10/how-facade-improvement-programs/



- Plants and landscaping
- Repairing, replacing and or adding cornices, entrances, doors, windows, decorative detail, porches, etc.
- The city should provide matching grants for eligible projects. A match of at least 50% is recommended with a maximum set for each application. Some façade programs provide a "sliding scale" so that smaller projects receive a higher percentage match and large projects a smaller match. Maximum disbursements are typically limited to around \$5,000. Matching funds can also be provided through low interest loans. It is recommended that if the city pursues a loan program, loans should be provided at zero percent interest to be an attractive option for homeowners.
- The city should actively market the façade improvement program to homeowners including educational outreach to explain program guidelines.

# Streetscape and Public Improvement Program

A streetscape program improves street safety for motorists, pedestrians and bicyclists while improving the living conditions for residents along a street. Public investment in streetscapes can catalyze further private investment as it improves the desirability of properties, thereby increasing property values and attracting investment.

- The city should prioritize streets needing streetscape improvements. This should be coordinated with any transportation plans for the city and aligned with other identified needs such as bike paths, sidewalks, etc. The city should prioritize linkages between residential areas and downtown because access to downtown amenities can help support housing property values.
- The program should include strategic streetscape investments by the city and should allow property owners to make certain improvements to their adjacent sidewalk areas that meet design standards set by the city.
- Investments may include the following:
  - o Sidewalks and street furniture
  - Decorative pavers
  - Street trees
  - o Pedestrian lights
  - Design and inspection fees
  - o Rain gardens, bio-swales and other "green infrastructure"
  - Bike lanes and bicycle infrastructure
- The program should offer matching grants and require the property owner to cover the remainder of the project cost.

# Property Maintenance Codes & Code Enforcement

Adverse housing conditions in a neighborhood can often be improved through enforcement of building and property maintenance codes. Camoin Associates recommends the city consider the following:

 Conduct a review of the city's existing codes to make sure that existing codes align with identified housing issues. The city should update codes and develop new ones as necessary.

- The city should ensure that code enforcement is a priority. This includes having an adequate number of code enforcement officers and providing training to those officers. Some cities have instituted programs where all single- and multi-family housing is inspected to determine if exterior repairs are needed to the housing unit or property.
- The city may also develop a system for community members to report code violations. Volunteers would identify code violations and then pass them on to a code enforcement officer, who would then officially issue a citation. This is a good method to maximize the efficiency of the code enforcement officer's time. For example, Arvada, Colorado has instituted a "Citizen Inspector" program where residents are trained to understand city codes and report violations.
- When violations are identified, the city should provide homeowners with information about when required repairs must be made by and information about the citation process. The city should look to partner with other organizations that may be able to provide assistance in providing consultation and evaluation of needed repairs and connect homeowners with citations to these partners.
- The city should review its policies for securing abandoned or vacant buildings. Such buildings should be secured to prevent entry by animals or trespassers.
- A "broken window" policy on small violations should be instituted. Code enforcement of smaller violations can help address problem properties immediately before they become larger problems. This includes things such as: overgrown grass, junk on the lawn, traces of graffiti, and immobile vehicles. These types of things are early warning signs that a property owner may not be willing (or able) to keep up with property maintenance. It is important that these types of violations are reported in a timely fashion which may include directives to police officers to be on the look-out for code violations.
- Some cities have been more aggressive and resorted to public shaming of the worst code violators through "most wanted" lists.
- Performance measurements targets for code compliance efforts will help the city track the outcome of its investment in code enforcement.

# **Education and Marketing Program**

The city should actively educate residents about the city's housing program including funding opportunities and incentives. This can be accomplished through community based workshops, mailings, or holding classes with neighborhood residents. The city could also develop an online clearinghouse of resource material and offer home repair educational classes to help property owners maintain their buildings.

Additionally the city should take the lead in marketing the city and its neighborhoods as a strategy for attracting new residents and new investment. Relationships with the brokerage community may be beneficial in marketing efforts or the city may consider establishing a marketing center to market rental and for-sale housing and neighborhoods in the city. Marketing efforts should address particular issues and focus on specific demographics. For example, the city can highlight the transformation of its downtown and the amenities available.

The city should also review other best practices for attracting new residents to the city. This may include college loan forgiveness and down payment assistance.

# Review Zoning Regulations

The city should conduct a review of its zoning regulations to ensure that ordinances match the goals of the community. Setback regulations should allow for front and side yard additions and front porch modifications that add street appeal and value. The permitting process should be examined to ensure homeowners are not overburdened by the process. It is recommended the city have periodic discussions with developers regarding process issues.

# Organize Neighborhood Action

The city should look to leverage existing organizations and associations and facilitate grassroots revitalization efforts. One approach is simply to bring organizations together. For example, the Buffalo Neighborhood Alliance is a "self-help collaboration of 15 neighborhoods from the city" that have partnered with several organizations including Preservation Buffalo Niagara, the Preservation League of NYS, and the National Trust for Historic Preservation.

Another example program that has been effective is Rochester's Neighbors Building Neighborhoods (NBN). The program is a broad partnership among community members including private businesses, educational intuitions, foundations, faith-based organizations, and non-profits. The network has enabled resources to be pooled for things like an educational institute and a joint marketing effort. The accomplishments of the group are broad, and while many are not directly related to housing, general neighborhood revitalization can lead homeowners to reinvest in their properties and attract additional investment. Downtown investment and revitalization will also impact neighborhoods and housing as a more desirable location will attract new residents with the means to upgrade the existing housing stock.

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# Appendix D

# Market and Tourism Analysis

## **Executive Summary**

Camoin Associates was engaged to do an economic and market analysis for the proposed North Tonawanda Brownfield Opportunity Area (BOA). The following existing conditions analysis includes a general economic outlook report for the region as well as demographics, real estate, retail, office and industrial use trends. For most of the study (all reports except the General Economic Outlook), the "Trade Area" was defined as three zip codes surrounding the North Tonawanda BOA (Zip Codes: 14120, 14228, 14150), which provided a wide-range view of what is occurring in the general area. With input from the client, Camoin Associates chose to use the zip codes rather than Niagara County due to the impact of the City of Niagara Falls on the county-wide data, which might skew the information and paint an unrealistic picture of the North Tonawanda BOA. Specific trends were also identified on a more local basis.

This report includes an existing conditions analysis of the Trade Area as well as an analysis of possible redevelopment opportunities. Camoin Associates utilized data analysis, additional research and interviews with locals to determine what possibilities exist for the BOA and how they will be most successful. The intent of this market analysis report is to provide a market-based perspective on the BOA and identify opportunities that can be studied further as part of a redevelopment plan.

### General Economic Outlook

The general economic outlook for the region was analyzed using data from Niagara County and western New York to determine what factors may impact the ability of the North Tonawanda BOA to capitalize on various redevelopment scenarios. The general economic outlook compared the Trade Area to upstate New York, the State and the Nation in terms of job growth, regional industry demands and economic base. This information helped provide background information and a context for the market analysis. It was important to acknowledge that the Trade Area does not act in a bubble and is impacted by the region in which it sits.

The economic base of Niagara County is heavily weighted towards government, health care, retail trade and manufacturing, with approximately 58% of the region's jobs attributed to these four sectors. There will be no growth in the County's employment opportunities over the next five years, with total jobs declining by 200, a decrease of 0.25%. As a comparison, the Upstate region has projected growth of 4%, the State projects 6% growth and the United States projects 9% growth.

The unemployment rate in Niagara County is particularly high in 2009, and ranks 7<sup>th</sup> out of 62 counties for the high level of unemployment. The highest unemployment rate is in the *mining industry* with over 50% unemployment as a percentage of the total jobs in this category. The industry with the highest number of unemployed residents is the *manufacturing industry*, with over 2,000 residents unemployed.

The industry with the lowest unemployment rate is the *utilities industry* with only 1.37% unemployment, or 11 unemployed persons. Other industries with low unemployment rates include *health care and social assistance* (4.24%), *educational services* (3.53%) and *agriculture* (2.51%).

The *health care industries and associated fields* not only have low unemployment rates but are also expected to grow at one of the quickest rates in the next few years, adding almost 747 jobs in the next five years (6.5% increase). The *Administrative and waste services* sector is also expected to gain over 500 jobs in the next five years. The *manufacturing industry* is expected to continue to decline over the next five years, losing over 1,500 jobs or a decrease of 17%.

## **Demographics**

The existing conditions demographic report identified trends of the North Tonawanda BOA Trade Area and how the trends relate to other parts of the State and Nation. This demographic analysis helps identify unique characteristics of the area which may be important as part of the redevelopment scenario. The demographic indicators analyzed include population, household income, age distribution, racial composition, typical occupations and other features which impact the retail, employment and residential needs. The findings of this existing conditions report will help to identify a direction for the redevelopment plan which will be compatible with the current population and/or meet the needs of potential future residents.

The population of the Trade Area is decreasing slowly, approximately 0.33% annually through 2014. In comparison, the State's population is expected to decline by approximately 0.10% annually and the national population is projected to grow by .91% annually between 2009 and 2014. The median household income is expected to increase at a rate of just over 1.5% annually through 2014 or a total of 8.2% by 2014, slower than both the State and the Nation.

The age distribution in the Trade Area is relatively similar to the rest of the State. The location quotient graph for age shows that there are proportionally more people aged 70-80 years old living in the Trade Area as compared to the State average and less people aged 35-39 years old.

### Residential Analysis

The residential analysis looked at existing housing stock, current residential unit status, prices of renting and other factors which play a role in the residential market. This provided information on residential development potential in the area market and on the types of residential development needed or over-represented in the area.

There are over 45,000 housing units in the Trade Area, 64% owner-occupied, about 30% renter-occupied, the rest are vacant (6.3%). Homeownership is expected to increase slightly in the next five years. In the City of North Tonawanda, 6% of residential units are vacant, a lower percentage than exists in the City of Buffalo or the City of Niagara Falls, 21.8% and 19.9% respectively.

Most of the residential units are single family detached structures (67.3%), with the next most common being a 2 family house (10.4%). Compared to upstate New York, the Trade Area has a higher proportion of single family detached houses and a slightly lower proportion of two family houses.

The value of owner-occupied homes increased dramatically between 2000 and 2009, jumping from \$86,000 to almost \$150,000 in 2009. However, the projected increase between 2009 and 2014 is a more steady increase of \$30,000. This is a similar trend for upstate New York, the State and the Nation. The average monthly mortgage for residents who own their home is approximately \$1,051 a month. The average monthly rent in the Trade Area is \$480, which is slightly higher than the Upstate average of \$433 a month.

### Retail Market Analysis

The market analysis looked at consumer spending habits within the region, identified retail demand and household spending characteristics and highlighted business opportunities or niche markets which are not being met by the current market. The market analysis found existing underserved sectors that could be targeted for location at the site.

The market analysis shows that there is consumer spending "leaking" out of the Trade Area to other regions. This is money that is being spent by local residents on goods outside of the trade area and therefore represents "lost" business revenue and County/City sales tax and property tax revenue. The sectors with the largest retail gap include motor vehicle and parts dealers, clothing and clothing accessories stores, general merchandise stores and furniture and home furnishings stores.

By looking at how much revenue an average-sized store earns in the State by retail sector, we identified which sectors would be able to support one or more additional stores in the Trade Area based solely on the retail "leakage". The sectors identified include many of the ones experiencing leakage, including sporting goods stores, health and personal care stores, and food services and drinking places.

Consumer spending patterns in the trade area also say a lot about the current market and what potential exists for additional services and retail amenities. The consumer spending index identified that households in the Trade Area spend proportionately more of their income on health care and utilities as compared to the national average and relatively less on other goods such as apparel. As unavoidable expenses such as health care and utilities continue to go up, Trade Area residents may have less money to spend on discretionary items such as travel and entertainment. The local residents are spending close to the national average on some luxury items, such as vacation homes and food away from home.

### Office and Industrial Real Estate Analysis

An analysis of projected growth of industrial and office utilizing industries was completed to determine how that growth/decline relates to existing available space to identify possibly unmet demand.

The growth of industrial site-utilizing sectors is slow and in some cases negative. The Trade Area manufacturing industry is expected to decline by approximately 14% or 1,060 jobs in the next five years. There is expected to be a 3% increase in transportation and warehousing in the Trade Area in the coming years, creating a possible opportunity for future development. There is currently a total of 648,595 square feet of available inventory in the north Buffalo submarket. The absorption in this region is relatively strong and has been strong for three years.

There is projected to be slow growth (4%) in the office space-utilizing industries. There is 750,000 square feet of available office space in the north Buffalo submarket, ranging from Class A office space to flex space. The office space vacancy rate is approximately 10%, showing a slight increase over last year. The prices quoted for office space in this region ranges between \$10 to \$23 per square foot, depending on the type of space.

# **Tourism Analysis**

The City of North Tonawanda was also interested in understanding the existing tourism market as part of its BOA effort. As with the other market analyses, Camoin Associates utilized data analysis, interviews, and review of existing research to determine if the City has an opportunity to capitalize on the existing tourism industry occurring within the region. There has been a good amount of research done on the tourism industry in Niagara County and the ever increasing number of visitors coming to experience Niagara Falls each year. Reports estimate that approximately 6 million people visit Niagara Falls each year and this number is reported to be growing.

Unlike surrounding communities, the City of North Tonawanda does not currently have a hotel available for overnight stays and has been unable to fully realize the economic impact of tourism on their local economy. Without a hotel, they have been relying primarily, and successfully, on attracting day visitors to the canal with events, concerts and festivals. The City reports that there are between 4,000 and 8,000 visitors to the concerts, and many boats docked at City docks throughout the summer months. It has been more difficult for the City to identify ways to attract visitors during the winter months, as the waterfront is the primary attraction.

There has been some growth in tourism related industries, such as *Accommodations and Food Services*, with a 6% job increase since 2005. The largest growth in tourism related industries has come from an increase of 213 jobs in the *limited-services eating places* industry.

## Findings and Recommendations

The following recommendations were developed from interviews, data analysis and additional research and represent some possibilities for the redevelopment of the BOA.

### Retail:

- Continue to redevelop and revitalize Gateway Harbor by providing services and amenities for visitors and residents alike. Smaller stores that will fit the "downtown" character of Webster Street will be most successful.
- Limited demand or space for a large big-box store within the BOA.

### Residential:

- Large percentage of existing housing stock is single-family homes, and with new development occurring in neighboring towns and lack of space, there was found to be limited demand for additional single family homes within the BOA.
- Work to redevelop the upper floors along Webster Street into residential apartments.
- There is a high percentage of elderly residents within the BOA, consider senior housing with waterfront views, amenities and walkability.

#### Office and Commercial:

- New office space development is occurring nearby, and with the slow growth in officeutilizing jobs, there is unlikely to be demand for any new large Class A office space development within the BOA.
- Work with the entrepreneurs from the Remington Rand project to offer office space above retail stores in the Gateway Harbor district. Capitalize on the advances in technology that allow employers to locate anywhere and be in touch with their clients.

### Industrial:

- Very slow growth in industrial-space utilizing industries.
- Development of the Buffalo Bolt site should include flexible industrial space and offer incentives where possible to attract businesses to the area.
- Limited demand for additional industrial development, other than the Buffalo Bolt site, at this time.

### Tourism:

- The City of North Tonawanda is in a prime location to capitalize on tourism activities coming from Niagara Falls.
- Lack of hotel space is a major deterrent to tourism and is making it difficult for the City to realize the full economic potential of tourism.
- Building a hotel with unique amenities and offerings will be key to bringing in the economic activity associated with overnight visitors.
- Work to develop winter month activities to continue to attract visitors throughout the year.

# GENERAL ECONOMIC OUTLOOK

### Introduction

Camoin Associates was retained to compile a general economic outlook as context to understand the local markets at play in the City of North Tonawanda and more specifically within the BOA. In order to identify the larger factors impacting the local area and to properly analyze the general economic outlook Niagara County is used as the trade area to capture the major issues and opportunities for the area.

For public and private sector employment data, Camoin Associates relied on Economic Modeling Systems, Inc. (EMSI) (<a href="www.economicmodeling.com">www.economicmodeling.com</a>). EMSI combines covered employment data from the Quarterly Census of Employment and Wages (QCEW) produced by the Department of Labor with data from the Regional Economic Information System (REIS) published by the Bureau of Economic Analysis (BEA) and augmented with County Business Patterns (CBP) and Nonemployer Statistics (NES) published by the U.S. Census Bureau. Projections are based on the latest available EMSI industry data combined with past trends in each industry, industry growth rates in national projections (Bureau of Labor Statistics), and projections and data from the New York State Department of Labor.

The data includes all employment covered by unemployment insurance – only the self-employed, student workers, unpaid family workers, and some agricultural workers are excluded. Unlike the decennial Census, QCEW measures jobs by place of *work*, not place of *residence*, so it is a strong measure of economic activity taking place in a particular region.

Some of the data analyzed in this report are broken down into industry sectors, organized using the North American Industrial Classification System (NAICS). The analysis was performed primarily at the 2-digit NAICS code level, which is the highest aggregated level available. A listing of the 2-digit NAICS codes used for this analysis can be found below.

NAICS Code	Description
11	Agriculture, forestry, fishing and hunting
21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale trade
44-45	Retail trade
48-49	Transportation and warehousing
51	Information
52	Finance and insurance
53	Real estate and rental and leasing
54	Professional and technical services
55	Management of companies and enterprises
56	Administrative and waste services
61	Educational services
62	Health care and social assistance
71	Arts, entertainment, and recreation
72	Accommodation and food services
90	Government

Source: EMSI Complete Employment - Spring 2008 Release v. 2

## Unemployment

The table below shows total current jobs and unemployment numbers in Niagara County for the month of April 2009, using the two-digit federal NAICS system of classifying occupations. The unemployment rate is shown as a percentage of total jobs in that category for Niagara County, New York State, and the U.S as a whole.

Unemployment is especially high in the following industries:

- Mining
- Manufacturing
- Construction
- Administrative and waste services

Unemployment is relatively low in the following industries:

- Health care and social assistance
- Educational services
- Agriculture, forestry, fishing and hunting
- Utilities

	Niagara County Unemployment						
				% of Total Jobs			
NAICS							
Code	Description	2009 Jobs	April Unemp	Niagara County	State	National	
21	Mining	34	18	52.32%	15.82%	10.83%	
31-33	Manufacturing	9,474	2,212	23.35%	13.63%	16.74%	
23	Construction	4,137	954	23.06%	14.90%	16.49%	
56	Administrative and waste services	4,251	873	20.55%	10.33%	11.07%	
72	Accommodation and food services	5,811	1,146	19.72%	9.83%	7.82%	
51	Information	687	109	15.87%	6.28%	7.56%	
48-49	Transportation and warehousing	2,999	456	15.20%	10.48%	7.77%	
44-45	Retail trade	11,078	1,557	14.06%	8.10%	8.61%	
42	Wholesale trade	1,843	245	13.30%	7.17%	8.07%	
54	Professional and technical services	3,195	398	12.47%	5.28%	5.15%	
52	Finance and insurance	2,048	247	12.06%	4.94%	4.20%	
71	Arts, entertainment, and recreation	1,683	180	10.69%	5.47%	5.04%	
81	Other services, except public administration	4,389	315	7.17%	4.11%	4.46%	
90	Government	14,968	1,012	6.76%	3.31%	2.01%	
53	Real estate and rental and leasing	1,863	96	5.13%	2.76%	2.37%	
55	Management of companies and enterprises	994	50	5.05%	2.10%	2.86%	
62	Health care and social assistance	11,517	488	4.24%	2.65%	3.14%	
61	Educational services	2,045	72	3.53%	3.16%	3.37%	
11	Agriculture, forestry, fishing and hunting	1,372	34	2.51%	1.83%	4.50%	
22	Utilities	800	11	1.37%	0.93%	3.05%	
	Total	85,186	11,395	13.4%	6.65%	6.76%	

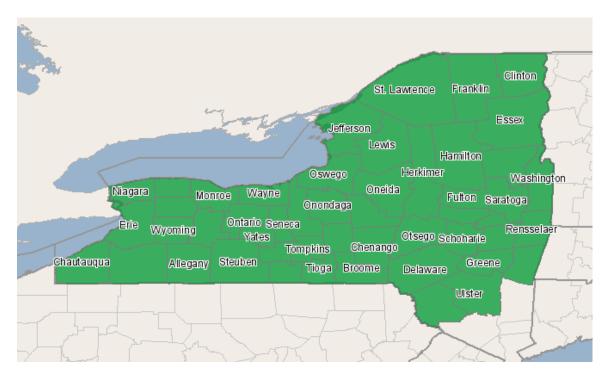
\*Note: Industries with fewer than ten unemployed workers are not shown.

Source: EMSI Complete Employment - 2nd Quarter 2009 v. 2

The 2009 Comprehensive Economic Development Strategy (CEDS) completed for Niagara County stated that Niagara County is in a tie for 7<sup>th</sup> highest unemployment rate in 2008 when compared to all other New York State counties. The decline in heavy industry, which was originally attracted to the area because of the low cost of hydro power through the Niagara Power Project, has resulted in high unemployment rates in the manufacturing sector. In addition, the CEDS reports that people leaving to find new jobs, lowers the measurable effect of the loss of jobs on the unemployment rate. In other words, the unemployment rate is measured by numbers claiming unemployment benefits. When residents lose work and are forced to move out of the region they are no longer counted as being unemployed for Niagara County. The impact of loss of job opportunities has been immense on the region, and the 13% unemployment rate is only one way to show this information.

### **Employment Growth**

The table on the following page shows the projected change in total private sector employment in the trade area, Upstate New York, New York State and the U.S. for the period 2009-2014. The 'Upstate New York' region is shown on the map below and includes all of New York State counties except: Bronx, Dutchess, Kings, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk and Westchester. The data for upstate New York is separated to reduce the impact of the New York City metro area on the resulting information. The conditions of the NYC region are drastically different than Upstate and Western NY, so excluding the NYC data creates a more realistic and useful comparison.



The following table compares employment growth in four regions: Niagara County, Upstate NY, New York State and the United States. This allows for an analysis of the current state of employment growth within Niagara County and clearly identifies any issues which may be unique to the County in terms of job opportunities and growth expectations.

Employment Growth Summary							
Description 2009 Jobs 2014 Jobs Change % Change EPW							
Niagara County Total	80,798	80,599	(199)	(0%)	\$41,459		
Upstate Total	3,323,326	3,444,094	120,768	4%	\$45,291		
New York State Total	10,197,823	10,785,479	587,656	6%	\$66,721		
National Total	164,738,962	179,686,037	14,947,075	9%	\$50,847		

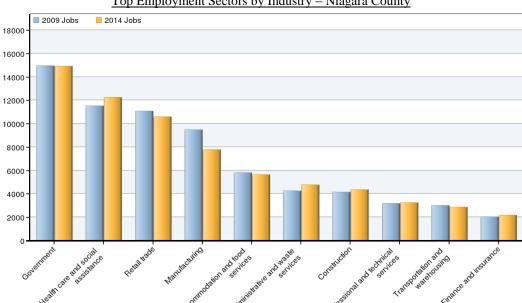
Source: EMSI Complete Employment - 2nd Quarter 2009 v. 2

Employment in Niagara County is projected to be stable over the next 5 years with approximately 80,000 total jobs, and a loss of 200 jobs. Upstate New York is growing slower than the State and the Nation as a whole, as indicated in the above graph and table. The average "earnings per worker" is significantly lower in Niagara County than the State Total, which is skewed by New York City wages, but it is also lower than the National Total.

### **Employment by Industry**

The graph and table below show projected employment changes by industry, average annual earnings per worker (EPW) and % change for each two-digit NAICS Code industry in 2009. As is common throughout New York State, *government* is the industry with the highest levels of employment, and is expected to remain stable. The *health care and social assistance industry* is expected to add about 1,000 jobs in the next five years, with many of the other industries projecting losses. The *manufacturing industry* is going to take a large hit, with a projected 17%

loss in employment. Education is expected to increase jobs, along with the Administrative and waste services industry, and Utilities.



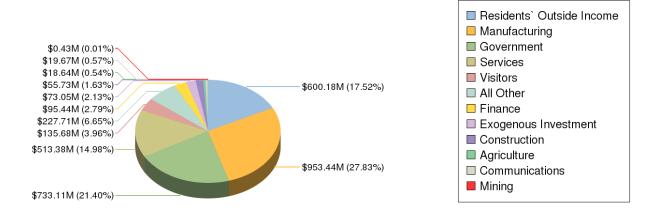
<u>Top Employment Sectors by Industry – Niagara County</u>

	Niagara County Employment Changes by Industry						
NAICS		2009	2014	%			
Code	Description	Jobs	Jobs	Change			
90	Government	14,968	14,928	-0.27%			
62	Health care and social assistance	11,517	12,264	6.49%			
44-45	Retail trade	11,078	10,583	-4.47%			
31-33	Manufacturing	9,474	7,783	-17.85%			
72	Accommodation and food services	5,811	5,636	-3.01%			
56	Administrative and waste services	4,251	4,775	12.33%			
23	Construction	4,137	4,366	5.54%			
54	Professional and technical services	3,195	3,262	2.10%			
48-49	Transportation and warehousing	2,999	2,887	-3.73%			
52	Finance and insurance	2,048	2,182	6.54%			
61	Educational services	2,045	2,301	12.52%			
53	Real estate and rental and leasing	1,863	2,062	10.68%			
42	Wholesale trade	1,843	1,895	2.82%			
71	Arts, entertainment, and recreation	1,683	1,799	6.89%			
11	Agriculture, forestry, fishing and hunting	1,372	1,311	-4.45%			
55	Management of companies and enterprises	994	992	-0.20%			
22	Utilities	800	910	13.75%			
51	Information	687	628	-8.59%			
21	Mining	34	38	11.76%			
	Total	80,798	80,599	-0.25%			

Note: Highlighted industries are experiencing positive growth Source: EMSI Complete Employment - 2nd Quarter 2009 v. 2

### **Economic Base**

Another way of portraying the regional economy is by determining what sectors and industries are responsible for bringing income to the region. Industries generally do this by exporting products and services to non-regional purchasers. This approach attempts to show which groups of industries really drive a region's economy; that is, which sectors bring the most dollars into a region, rather than circulating dollars that are already present.



Economic base sectors are groupings of broadly related industries with no claims made about their inter-dependence. In contrast, NAICS sectors are grouped by similar products and production processes and clusters assume a much tighter supply chain and/or labor market inter-dependence. Economic base sectors are created for convenience to describe a broad type of activity that brings money into a region, for example, "Manufacturing," or "Visitors." The following chart and table show how much of the region's earnings can be attributed to the activities of regional establishments in each sector. Note that the size of each of these sectors depends more on each one's export orientation than on each one's total employment.

2009 Economic Base - % of Niagara County's Earnings Attributed to Each Sector

Niagara County - Economic Base						
			Jobs	Earnings		
Sector	Jobs	Earnings(K)	%	%	EPW(K)	
Residents` Outside Income	21,129	\$600,178	25%	18%	\$28	
Manufacturing	17,977	\$953,436	21%	28%	\$53	
Government	14,733	\$733,112	17%	21%	\$50	
Services	13,934	\$513,381	16%	15%	\$37	
Visitors	5,241	\$135,678	6%	4%	\$26	
All Other	4,535	\$227,715	5%	7%	\$50	
Finance	2,841	\$95,441	3%	3%	\$34	
Exogenous Investment	1,977	\$73,052	2%	2%	\$37	
Construction	1,393	\$55,735	2%	2%	\$40	
Agriculture	847	\$18,639	1%	1%	\$22	
Communications	566	\$19,675	1%	1%	\$35	
Mining	12	\$431	0%	0%	\$35	

Source: EMSI Complete Employment - 2nd Quarter 2009 v2

Residents' outside income, manufacturing and government make up the three largest income generating sectors in the trade area. The "Residents Outside Income" sector includes various sources of income from outside the region, which residents in turn spend in the regional economy. Examples of outside income include outside earnings (e.g., income of residents who commute or telecommute to an employer outside the region), capital or property income (investment dividends, royalties, rents), and transfer payments (unemployment benefits, welfare, Social Security payments, etc.). This sector accounts for 25% of the jobs and 18% of the earnings in Niagara County. This high percentage most likely illustrates that Niagara County residents are traveling outside of the County for their work, possibly to Buffalo which is in Erie County.

The manufacturing industry has historically been a major part of the Niagara County economy and this remains true today. The pie graph shows that over 27% of the County's earnings can be attributed to this sector, the low-cost of hydro power, existing infrastructure, history and availability of fresh water make the County prime for manufacturing. It is also important to note that employees of the manufacturing industry have the highest earnings per worker.

Note that this graph and table includes ripple effects: the 17% of jobs that government supports are more than the jobs on the payroll of government entities. This is because government workers take their pay home from their work place and buy food, clothes, housing, entertainment, etc., which supports jobs in the industries that provide those goods and services. Those jobs are thus included in the government sector of the region's economic base because government is "responsible" for those jobs through its jobs multiplier.

The visitors sector attempts to quantify the jobs and earnings attributable to visitors in the region, which include both tourism-related visitors but also commuters and visitors that use the services provided in a more urban area. Niagara County also gets a good portion of jobs and earnings from Visitors. Niagara Falls, Niagara Falls Conference Center and the Seneca Niagara Casino & Hotel all attract tourists to the area, who spend money and create additional jobs and earnings for the County.

Exogenous Investments represent investments in regional businesses coming from outside the region and constitute a very small percentage of the economic base in the trade area.

# Best Industries to Meet Niagara County Requirements<sup>1</sup>

The table below shows the purchasing needs of existing regional industries at the most detailed level available (6-digit NAICS code level), along with how much of those needs are satisfied inside and outside the region. The difference between these is the "import gap." For example, all regional industries (which includes private households) need to purchase \$208 million in services supplied by 'Offices of physicians, except mental health', (the "\$ Required" column), but are currently only purchasing \$104.2 million from that regional service industry (the "\$ Satisfied in Region" column), then the 'Office of physicians, except mental health' import gap is \$104.3 million (the "Difference" column). Residents going elsewhere for services and companies

<sup>&</sup>lt;sup>1</sup> The "Best Industries to Meet Regional Requirements" analysis is based on EMSI's input-output model which uses the national input-output matrix provided by the federal Bureau of Economic Analysis. This is combined with the national Total Gross Output, the regional Total Gross Output, the land area of the subject region, regional dividends, interest, rent and transfers data and regional in/out commuter patterns in order to calculate regional requirements, imports and exports. After using matrix algebra to calculate the regional multiplier, the resulting matrix is multiplied by the sales vector and converted back to jobs or earnings. Specifically, this data comes from the U.S. Department of Commerce, Bureau of Economic Analysis, and Industry Economic Accounts: Benchmark & Annual Input-Output (I-O) Accounts.

purchasing from outside of the region can decrease the strength of the local economy. Importing goods and services means that residents' hard earned money is being spent outside of the region rather than recirculating within the local economy.

The ten regional industries with the largest import gaps are shown in the table below. These are the main industries that maybe should be developed or brought to the region to reduce the region's overall import dependence, because they represent industries that are relatively undersupplied in the region. All of the industries listed below are present in the Niagara County trade area, but there is room to expand current operations or target additional companies.

Best Industries To Meet Regional Requirements						
NAICS			\$ Satisfied in		In	
Code	Description	\$ Required(K)	Region(K)	Difference(K)	Region	
522110	Commercial banking	\$142,483	\$5,286	\$137,197	yes	
621111	Offices of physicians, except mental health	\$208,584	\$104,249	\$104,336	yes	
551114	Managing offices	\$146,949	\$44,144	\$102,804	yes	
325412	Pharmaceutical preparation manufacturing	\$79,197	\$0	\$79,197	yes	
524126	Direct property and casualty insurers	\$83,147	\$5,388	\$77,759	yes	
541110	Offices of lawyers	\$93,392	\$20,350	\$73,042	yes	
541710	Physical, engineering and biological research	\$68,820	\$1,991	\$66,829	yes	
611310	Colleges, universities, and professional schools	\$71,394	\$5,745	\$65,649	yes	

Source: EMSI Complete Employment - 2nd Quarter 2009 v. 2

Additional information regarding sales leakages and surpluses can be found in the Market Analysis section, where specific industries and sectors are identified as having potential for success in the North Tonawanda BOA Trade Area market.

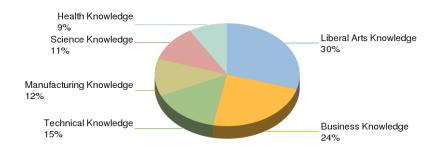
### **Education Level and Knowledge Base**

The following outlines the levels of education of the residents in Niagara County as compared to the State and Nation. Niagara County has a lower percentage of residents aged 25 and above that have some college education or postgraduate education. This could indicate that those with higher levels of education are leaving the area to get better jobs, an idea discussed in the 2009 CEDS.

Education Levels						
		State	Nation			
	Niagara County % of	% of 25+	% of 25+			
	25+ Cohort	Cohort	Cohort			
2009 Population with Some College Education	50.65%	55.58%	55.13%			
2009 Population with a Postgraduate Education	7.99%	13.38%	9.74%			

Source: EMSI Complete Employment - 2nd Quarter 2009 v2

The following pie chart provides a clear illustration of the current knowledge base in Niagara County. 30% of residents have Liberal Arts knowledge following by 24% with Business knowledge. It is important to note that only 9% of residents have Health knowledge. Health Care is a projected growth industry for the Trade Area and region, and so it may be necessary to increase training opportunities in order to capitalize on this industry growth.

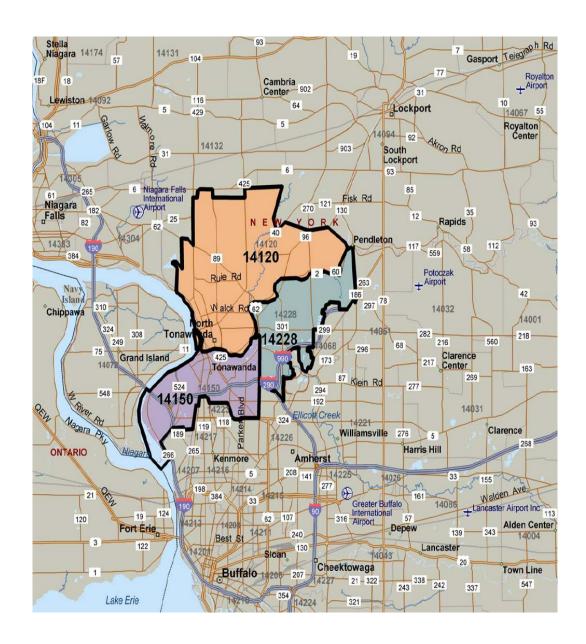




# **DEMOGRAPHIC ANALYSIS**

### Introduction

As part of the Market Trend Analysis for the Brownfield Opportunity Area (BOA) Pre-Nomination Study completed for the City of North Tonawanda, Camoin Associates analyzed regional demographic, economic and market trends and projections to illustrate how these factors may impact the local economy and redevelopment of the BOA. To study the local factors which would impact local reuse and redevelopment, three zip codes were deemed the "Trade Area" (14150, 14120, and 14228) and analyzed. Using this Trade Area allowed us to analyze the current trends within the region. Below is a map of the Trade Area, the BOA is located within zip code 14120.



The demographic data in this report were purchased from ESRI Business Analyst Online (ESRI) and Economic Modeling Specialists, Inc. (EMSI). ESRI's base data is the 2000 Census and it uses proprietary statistical models and updated data from the U.S. Census Bureau, the U.S. Postal Service and various other sources to project current statistics and future trends.

EMSI data are compiled from several sources, including the U.S. Census Bureau and U.S. Departments of Health and Labor using specialized proprietary processes and models to estimate current statistics and predict future trends.

### **Basic Demographic Existing Conditions and Trends**

The data show that total population in the Trade Area has been decreasing steadily since 2000 and will continue to decrease over the next five years at a slightly quicker pace. Other demographic indicators which are decreasing include the number of households, families and renter occupied housing units. The only indicator which is seeing an increase in the next five years is the number of owner occupied housing units.

Basic Demographic Indicators						
	2000	2009	2013	2000-2009 % Change	2009-2014 % Change	
Population	106,009	105,199	103,450	-0.76%	-1.66%	
Households	43,600	44,128	43,667	1.21%	-1.04%	
Families	28,654	28,394	27,838	-0.91%	-1.96%	
Owner Occupied Housing Units	30,379	30,039	30,961	-1.12%	3.07%	
Renter Occupied Housing Units	13,221	14,089	12,706	6.57%	-9.82%	
Median Age	39.1	41.4	41.9	_	_	

Source: ESRI Forecasts for 2009 and 2014

The Niagara County Comprehensive Economic Development Strategy (CEDS) which was completed in 2009, states that the County-wide population is also decreasing slowly. Niagara County's population has been declining for over 40 years from a peak of 242,269 in 1960. There was a slight increase noted between 2007 and 2008, but other than that the population had declined by 9.2% since 1960. The slight increase could indicate that that trend is starting to reverse.

The table below shows median household income in 2009 and 2014 for the Trade Area, Upstate NY and the United States. The Trade Area median income is growing more quickly as compared to Upstate and the rest of the United States.

Median Household Income							
2009 2014 % Change							
Study Area	\$54,353	\$58,817	8.2%				
Upstate	\$51,013	\$54,588	7.0%				
USA	\$54,719	\$56,938	4.1%				

Source: ESRI Forecasts for 2009 and 2014

The following table compares the Trade Area to upstate New York and the United States in terms of the <u>annual</u> growth rate of various demographic indicators. All indicators for the Trade Area are expected to grow at a rate below that of upstate NY and the USA, except the median household

income indicator, which shows the Trade Area's income growing almost double the percentage points of the USA.

Projected Annual Change 2009-2014				
Upstate				
	Trade Area	NY	USA	
Population	-0.33%	-0.10%	0.91%	
Households	-0.21%	0.01%	0.94%	
Families	-0.39%	-0.15%	0.74%	
Owner HHs	0.61%	0.86%	1.19%	
Median Household Income	1.59%	1.36%	0.80%	

Source: ESRI Forecasts for 2009 and 2014

#### Household Income Distribution

The table and graph below show the projected change in household income distribution in the Trade Area between 2000, 2009 and 2014. The household income distribution within the Trade Area is projected to stay relatively stable over the next five years with some slight increases in the number of households making over \$50,000 a year. This increase is likely a normal increase which happens over time, but it is important to note that the increase is less dramatic than in previous periods as a reflection of the current unique economic times (note larger changes occurring between 2000 and 2009).

Trade Area Households by Income				
	2000	2009	2014	
< \$15,000	14.4%	9.6%	9.3%	
\$15,000 - \$24,999	13.6%	9.9%	8.7%	
\$25,000 - \$34,999	13.2%	11.0%	9.1%	
\$35,000 - \$49,999	18.8%	15.1%	15.0%	
\$50,000 - \$74,999	21.0%	23.2%	24.8%	
\$75,000 - \$99,999	11.3%	17.1%	17.8%	
\$100,000 - \$149,999	6.1%	10.4%	10.8%	
\$150,000 - \$199,999	1.0%	2.5%	3.0%	
\$200,000+	0.5%	1.2%	1.5%	

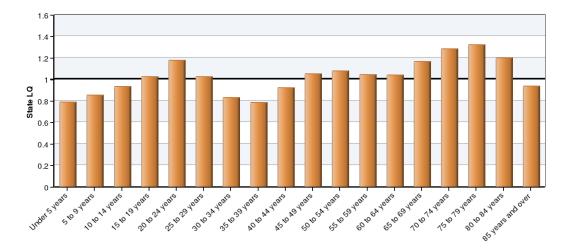
Source: ESRI Forecasts for 2009 and 2014

### **Age Distribution**

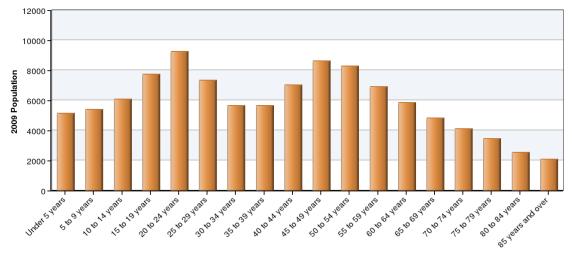
The bar graph below shows the results of a Location Quotient (LQ) analysis of age groups in the Trade Area compared to the statewide population. The LQ analysis compares the percentage of the Trade Area's population in each age group to the percentage of the statewide population in each age group. The black line represents the statewide distribution; the orange bars show how closely the percentage of each age group in the Trade Area resembles the statewide distribution. It is considered to be statistically significant if the LQ is above 1.2 or below .8.

For example, there is a significantly larger portion of the Trade Area population in age groups 70-80. Conversely, there is a significantly lower percentage of the Trade Area's population in the age

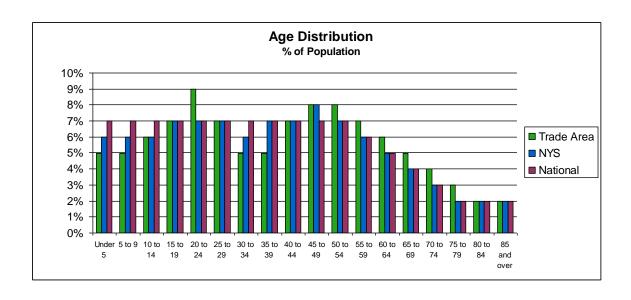
groups 30-40 years old than statewide. In general, this graph shows that the Trade Area's age distribution is similar to the State in most age groups.



The graph below shows the current age distribution in the Trade Area for 2009. The largest age groups in the following order are 20-24; 45-49; and 50-54.



The following bar graph shows the percentage of the population in the different age groups as a percentage of the whole population. The nation is relatively stable with about 7% of the population in each age group until 55 when it starts to decline, but the State and Trade Area percentages show more of a variety. The Trade Area shows a high percentage of individuals in the 20-24 age range and fewer in the 30-40 age range. The shape of this bar graph is similar to communities around the country with a spike near the age of the baby boomers (45-60) and another spike near the age of the baby boomers' children (20-30).



## **Racial Composition**

The Trade Area is primarily composed of residents who identify themselves as White alone. Following Caucasian, the next two largest racial groups include those who identify themselves as Black alone and Asian alone. Over the next five years this racial composition will remain stable, with a slight increase in those identified as two or more races and an increase in those from Hispanic origin.

Trade Area Racial Composition					
	20	09	2014		
Race and Ethnicity	Number	Percent	Number	Percent	
White Alone	97,398	92.6%	94,297	91.2%	
Black Alone	2,860	2.7%	3,424	3.3%	
American Indian Alone	382	0.4%	401	0.4%	
Asian Alone	2,865	2.7%	3,356	3.2%	
Pacific Islander Alone	26	0.0%	28	0.0%	
Some Other Race Alone	437	0.4%	497	0.5%	
Two or More Races	1,231	1.2%	1,447	1.4%	
Hispanic Origin (Any Race)	1,705	1.6%	1,935	1.9%	

Source: ESRI Forecasts for 2009 and 2014

## **Employment**

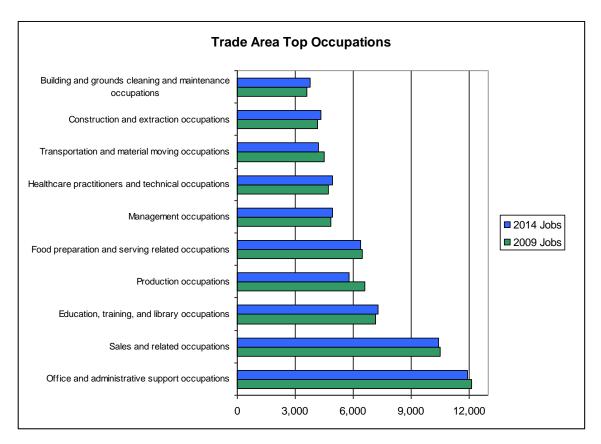
The following chart shows that the most common occupations for residents living in the City of North Tonawanda BOA Trade Area. The occupation with the most number of employees is the *Office and Administrative Support Occupations* sector. The second most common occupation is the *Sales and Related Occupation* and the third is employment in the *Education, Training and Library Occupation*.

Employment in the *Production Occupation* is expected to decline by 12% over the next 5 years, or lose 816 workers. Also expected to decline in the next few years:

Transportation and Material Moving Occupations.

The fastest growing occupations are projected to be in *Healthcare Practitioners and Technical Occupations* field. Also growing are:

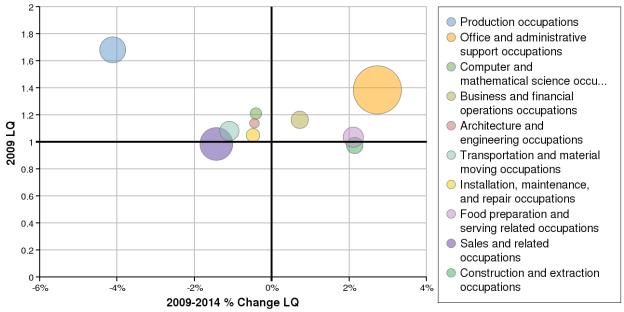
- Building and Grounds Cleaning and Maintenance Occupations
- Construction and Extraction Occupations
- Management Occupations
- Education, Training and Library Occupations.



The following graph illustrates the location quotient (LQ) of the top occupations in the Trade Area. This graph complements the bar graph above because it provides a comparison of the Trade Area occupations to the National average employment in those occupations. LQ is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the Nation. It can reveal what makes a particular region unique in comparison to the national average.

This graph is read by looking at the size and location of the various bubbles. Bubbles in the top right corner have a high LQ and that LQ is growing. For example, the Trade Area has a relatively high concentration of *Office and Administrative Support Occupation* workers and that concentration is getting stronger compared to other parts of the Nation. On the other hand, the Trade Area also has a proportionally high number of people working in *Production Occupation* 

but over the next 5 years the LQ will be decreasing substantially. The size of the bubble relates to the number of people in each occupation, therefore this graph also shows the high number of people working in *Sales and Related Occupations*. LQ's higher than 1.2 or lower than .8 are considered statistically significant, therefore other than the two previously mentioned



\*Bubble size represents 2009 jobs in each occupation.

occupations, the Trade Area is basically similar to the Nation.

## **RESIDENTIAL ANALYSIS**

#### Introduction

The residential market analysis compares existing conditions and projected trends in residential development in the Trade Area to the demographic data collected in the previous section. This information will help to identify potential development types that will serve currently unmet needs in the BOA as well as form a preliminary assessment of the feasibility and marketability of those development types.

The housing and rental data below were purchased from ESRI Business Analyst Online (ESRI). ESRI's base data is the 2000 Census and its uses proprietary statistical models and updated data from the U.S. Census Bureau, the U.S. Postal Service and various other sources to estimate current statistics and project future trends. Data retrieved from ESRI was defined by the North Tonawanda BOA Trade Area (Zip Codes: 14120, 14228, and 14150).

## **Existing Housing Stock**

The table below outlines the occupancy status of housing units in the Trade Area. The existing housing stock is expected to stay relatively stable with some slight increases in owners and decrease in renters. Approximately 65% of available housing will be occupied by the owners in 2014 and 27% occupied by renters. There is a projected increase in the number of vacant units between 2009 and 2014. In contrast to the increase in vacant units, there is projected to be an increase of around 200 new units in the next five years.

Trade Area Residential Unit Status						
	20	00	20	09	2014	
Total Housing Units	45,5	575	47,119		47,318	
Status						
	2000		2009		2014	
	Number	Percent	Number	Percent	Number	Percent
Owner Occupied	30,379	66.7%	30,039	63.8%	30,961	65.4%
Renter Occupied	13,221	29.0%	14,089	29.9%	12,706	26.9%
Vacant	1,975	4.3%	2,991	6.3%	3,651	7.7%

Source: ESRI Forecasts for 2009 and 2014

Of the residential units in the Trade Area, over 70% were built prior to 1969, with the median year the structure was built being 1957. This shows that the current housing stock is quite old and most likely in need of repair and updates. Many younger people and families are looking for homes that have some of the newer features which will make attracting them to the City of North Tonawanda and the BOA Trade Area more difficult due to the age of the current housing stock.

The table below compares other regional cities to the City of North Tonawanda to showcase similarities and differences in terms of housing. The City of North Tonawanda has a significantly higher percentage of owner occupied units as compared to the City of Buffalo and the City of Niagara Falls. Overall, the City of North Tonawanda and the BOA area is doing well in terms of maintaining a low percentage of vacant units and a pattern of strong homeownership as compared to Buffalo and Niagara Falls.

2009 Residential Unit Occupancy Status

	City of North Tonawanda		City of Buffalo		City of Niagara Falls	
	Number	Percent	Number	Percent	Number	Percent
Owner Occupied	18,519	67.9%	49,819	34.2%	12,941	46.0%
Renter Occupied	7,095	26.0%	64,102	44.0%	9,587	34.1%
Vacant	1,646	6.0%	31,825	21.8%	5,598	19.9%

Source: ESRI Forecast 2009 and 2014

The report compiled by Clough Harbor and Associates entitled *Niagara Communities Comprehensive Plan 2030*, provides a breakdown of the vacancy rates in Niagara County. The map that they prepared shows that the highest levels of vacancy rates in the City of North Tonawanda exist within the BOA area, closer to the waterfront, although these rates are not has high as in the City of Niagara Falls or some communities located along Lake Ontario.

To compare the existing housing stock in the Trade Area to that of upstate New York<sup>2</sup> and the United States, the table below breaks out the structure type of all occupied residential buildings. The Trade Area has a higher percentage of single family detached structures as compared to upstate NY and the United States. The Trade Area also has more residential structures with 5-9 units than the rest of upstate NY or the US. Additionally, there are substantially fewer mobile home units as a percentage of all units in the Trade Area as compared to Upstate and the rest of the United States.

Occupied Housing by Units in Structure						
	Trade	Area	Upstate	NY	USA	L
	Number	Percent	Number	Percent	Number	Percent
1, Detached	29,366	67.3%	1,535,856	62.9%	64,787,510	61.4%
1, Attached	1,084	2.5%	65,431	2.7%	5,907,804	5.6%
2	4,532	10.4%	272,114	11.1%	4,466,529	4.2%
3 to 4	3,257	7.5%	149,747	6.1%	4,905,354	4.7%
5 to 9	2,749	6.3%	108,412	4.4%	4,820,542	4.6%
10 to 19	1,154	2.6%	55,682	2.3%	4,116,925	3.9%
20 to 49	349	0.8%	36,201	1.5%	3,457,019	3.3%
50 or More	957	2.2%	62,576	2.6%	5,523,703	5.2%
Mobile Home	154	0.4%	155,115	6.4%	7,384,276	7.0%
Other	7	0.0%	608	0.0%	110,439	0.1%

Source: ESRI Forecast 2009 and 2014

#### **Current Residential Value**

Owner occupied units in the Trade Area have been generally increasing in value. In 2000, the median home value of owner occupied units in the Trade Area was just \$86,000 but that value increased substantially by 2009. The table below shows the projected increase in housing value by 2014. As of 2009, a majority of the houses (82%) were valued between \$100,000 and \$250,000 and this is projected to remain stable through 2014.

<sup>2</sup> The 'Upstate New York' region does not include the following New York counties: Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk or Westchester, reducing the impact that the NYC metro area has and allowing educated comparisons.

Trade Area Owner Occupied Unit Value				
2009 2014				
Median Value	\$147,171	\$177,561		
Average Value	\$158,351	\$191,743		

Source: ESRI Forecasts 2009 and 2014

The median and average value of owner occupied housing units in the Trade Area is slightly lower than those in upstate NY and substantially lower than owner occupied units in the United States.

Owner Occupied Unit Value Comparison					
Trade Area Upstate NY USA					
Median Value	\$147,171	\$148,037	\$162,279		
Average Value	\$158,351	\$174,878	\$229,998		

Source: ESRI Forecasts 2009 and 2014

Compared to other regional cities, the City of North Tonawanda and the BOA are more expensive for owning and renting, with higher median mortgage payments and rent payments. Compared to the rest of upstate NY and the US, rent and mortgage payments are lower in the Trade Area.

Median Monthly Payment Comparison					
City of North City of City of Upstate Tonawanda Buffalo Niagara Falls NY USA					
Median Monthly Mortgage Payment	\$953	\$824	\$821	\$1,013	\$1,088
Median Monthly Rent Payment	\$476	\$364	\$342	\$433	\$519

Source: ESRI Forecasts 2009 and 2014

The following table shows a breakdown of the monthly mortgage costs for owner occupied housing units. The highest percentage of homeowners pay no mortgage, signaling that many homeowners have lived in their home long enough to pay off their mortgage, or have inherited the home. After the group paying no mortgage, the second highest percentage of homeowners pays between \$1,000 and \$1,249 each month.

Monthly Mortgage Payments for Owner Occupied Housing Units in the Trade Area			
	Number	Percent	
\$200 - \$299	25	0.1%	
\$300 - \$399	125	0.5%	
\$400 - \$499	444	1.6%	
\$500 - \$599	813	3.0%	
\$600 - \$699	1,277	4.6%	
\$700 - \$799	1,820	6.6%	
\$800 - \$899	2,007	7.3%	
\$900 - \$999	2,472	9.0%	
\$1000 - \$1249	4,905	17.8%	
\$1250 - \$1499	2,186	7.9%	
\$1500 - \$1999	1,464	5.3%	

\$2000 - \$2499	307	1.1%
\$2500 - \$2999	53	0.2%
\$3000+	35	0.1%
With No Mortgage	9,581	34.8%

Source: ESRI Forecasts 2009 and 2014

Approximately 30% of the residents living within the Trade Area rent their homes, and the table below outlines the monthly rent cost. Generally, residents living in renter-occupied housing units are paying between \$350 and \$600 per month, with very few paying over \$1,500.

Monthly Rent Payments for Renter Occupied Housing Units in the Trade Area				
Trousing Cints in	Number	Percent		
< \$100	112	0.9%		
\$100 - \$149	328	2.5%		
\$150 - \$199	368	2.8%		
\$200 - \$249	360	2.7%		
\$250 - \$299	560	4.3%		
\$300 - \$349	1,018	7.7%		
\$350 - \$399	1,386	10.5%		
\$400 - \$449	1,456	11.1%		
\$450 - \$499	1,425	10.8%		
\$500 - \$549	1,356	10.3%		
\$550 - \$599	1,486	11.3%		
\$600 - \$649	1,200	9.1%		
\$650 - \$699	868	6.6%		
\$700 - \$749	490	3.7%		
\$750 - \$799	64	0.5%		
\$800 - \$899	127	1.0%		
\$900 - \$999	16	0.1%		
\$1000 - \$1249	42	0.3%		
\$1250 - \$1499	38	0.3%		
\$1500 - \$1999	54	0.4%		
\$2000 +	50	0.4%		

Source: ESRI Forecasts 2009

and 2014

## Residential Market Outlook

In addition to utilizing ESRI data, Camoin Associates also gathered information from a CB Richard Ellis report that highlights market trends for the Buffalo Multi-Housing (apartment) market<sup>3</sup>. This data included information on the Suburban market, which includes the City of North Tonawanda and the North Tonawanda BOA Trade Area.

As the country continues to rebuild after the crash of the housing market, many markets have seen a decline in real estate values, a tightening of the credit market and many more homeowners have been pressured to sell quickly. The Western NY housing market experienced significantly less sever impacts of the housing crisis than other parts of the country and housing prices have

<sup>&</sup>lt;sup>3</sup> CB Richard Ellis. Market View Buffalo Office. Annual 2008/2009

remained relatively stable. The following is information regarding multi-family transactions occurring in Niagara County in the past year.

Niagara County Sales Transactions						
Area	# of Properties	# of Units	Average Price Per Unit			
City of North Tonawanda	26	164	\$34,215			
City of Niagara Falls	26	148	\$15,803			
West Niagara County	13	176	\$35,869			
Lockport & all Others	32	293	\$26,957			

Source: CB Richard Ellis MarketView Buffalo Multi-housing Annual 2008/2009 Report

Some of the primary trends in multi-housing projects in the Buffalo area include some large scale senior housing developments, including a 164 unit facility in the Town of Tonawanda, and student housing projects including a 140 student project in Cheektowaga. Many of the student housing projects are occurring close to the many colleges and universities in the area, including Buffalo State, Canisius, Medaille and the State University at Buffalo. There are also some unique projects occurring in the City of Buffalo including the renovation of older buildings into loft like apartments and condominiums.

A unique residential project occurring in the City of North Tonawanda is the reuse of the Remington Rand building, which is being redeveloped as a mixed-use residential and commercial complex. The project will be located on the waterfront within the BOA area and within walking distance to downtown. This project will include 81 units of live-work space for rent ranging from \$1,000 - \$3,500 a month and will offer City residents amenities such as a yoga studio, restaurant and hair salon.

# **RETAIL MARKET ANALYSIS**

#### Introduction

A retail market analysis is used to examine current retail sales and demand within a particular region. The goal of this process is to identify the unique characteristics or niche markets that the area may have which can be developed or built upon. In addition to identifying niche markets for further development, the retail market analysis can pinpoint retail services which are missing from the region, resulting in residents going elsewhere to purchase goods and services. The retail market analysis also outlines consumer spending habits within the region, identifies retail demand and household characteristics. The following is an analysis of the North Tonawanda BOA Trade Area (Zip Codes: 14120, 14228, and 14150) retail market characteristics.

## Retail Leakage/Surplus Analysis

The table below shows existing retail sales ("Supply") in the trade area and retail potential ("Demand") broken down by industry. Where Demand exceeds Supply, a retail gap results, which identifies a potential opportunity for retail growth.

Industry Group	Retail Potential Retail Sales (Demand) (Supply)		Retail Gap	Number of Businesses	
Motor Vehicle & Parts Dealers (NAICS 441)	\$214,603,656	\$91,388,350	\$123,215,306	66	
Automobile Dealers (NAICS 4411)	\$183,263,942	\$74,846,849	\$108,417,093	22	
Other Motor Vehicle Dealers (NAICS 4412)	\$17,439,892	\$7,594,712	\$9,845,180	14	
Auto Parts, Accessories, and Tire Stores (NAICS 4413)	\$13,899,822	\$8,946,789	\$4,953,033	30	
Furniture & Home Furnishings Stores (NAICS 442)	\$30,827,255	\$15,230,831	\$15,596,424	30	
Furniture Stores (NAICS 4421)	\$16,990,852	\$8,484,371	\$8,506,481	10	
Home Furnishings Stores (NAICS 4422)	\$13,836,403	\$6,746,460	\$7,089,943	20	
Electronics & Appliance Stores (NAICS 443/NAICS 4431)	\$33,134,347	\$34,746,482	-\$1,612,135	52	
Bldg Materials, Garden Equip. & Supply Stores (NAICS 444)	\$38,301,717	\$51,473,869	-\$13,172,152	57	
Building Material and Supplies Dealers (NAICS 4441)	\$34,147,786	\$49,127,501	-\$14,979,715	46	
Lawn and Garden Equipment and Supplies Stores (NAICS 4442)	\$4,153,931	\$2,346,368	\$1,807,563	11	
Food & Beverage Stores (NAICS 445)	\$187,878,923	\$227,390,243	-\$39,511,320	51	
Grocery Stores (NAICS 4451)	\$167,959,830	\$215,770,976	-\$47,811,146	29	
Specialty Food Stores (NAICS 4452)	\$7,378,956	\$6,350,310	\$1,028,646	13	
Beer, Wine, and Liquor Stores (NAICS 4453)	\$12,540,137	\$5,268,957	\$7,271,180	9	
Health & Personal Care Stores (NAICS 446/NAICS 4461)	\$42,367,025	\$25,930,711	\$16,436,314	49	
Gasoline Stations (NAICS 447/NAICS 4471)	\$137,581,013	\$79,550,921	\$58,030,092	25	
Clothing and Clothing Accessories Stores (NAICS 448)	\$49,128,523	\$15,145,506	\$33,983,017	40	
Clothing Stores (NAICS 4481)	\$38,903,540	\$11,082,039	\$27,821,501	23	
Shoe Stores (NAICS 4482)	\$4,936,726	\$1,034,416	\$3,902,310	6	
Jewelry, Luggage, and Leather Goods Stores (NAICS 4483)	\$5,288,257	\$3,029,051	\$2,259,206	11	
Sporting Goods, Hobby, Book, and Music Stores (NAICS 451)	\$12,821,651	\$8,161,955	\$4,659,696	45	
Sporting Goods/Hobby/Musical Instrument Stores (NAICS 4511)	\$7,322,627	\$6,419,025	\$903,602	38	
Book, Periodical, and Music Stores (NAICS 4512)	\$5,499,024	\$1,742,930	\$3,756,094	7	
General Merchandise Stores (NAICS 452)	\$100,638,988	\$47,877,376	\$52,761,612	18	

Department Stores Excluding Leased Depts. (NAICS 4521)	\$35,168,648	\$22,594,734	\$12,573,914	6
Other General Merchandise Stores (NAICS 4529)	\$65,470,340	\$25,282,642	\$40,187,698	12
Miscellaneous Store Retailers (NAICS 453)	\$21,606,651	\$19,593,356	\$2,013,295	75
Florists (NAICS 4531)	\$2,404,976	\$5,790,300	-\$3,385,324	12
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	\$3,625,590	\$5,974,327	-\$2,348,737	25
Used Merchandise Stores (NAICS 4533)	\$677,044	\$269,241	\$407,803	8
Other Miscellaneous Store Retailers (NAICS 4539)	\$14,899,041	\$7,559,488	\$7,339,553	30
Food Services & Drinking Places (NAICS 722)	\$163,711,325	\$111,711,435	\$51,999,890	225
Full-Service Restaurants (NAICS 7221)	\$103,079,603	\$44,073,877	\$59,005,726	132
Limited-Service Eating Places (NAICS 7222)	\$41,923,142	\$53,410,886	-\$11,487,744	54
Special Food Services (NAICS 7223)	\$9,186,676	\$10,932,342	-\$1,745,666	12
Drinking Places - Alcoholic Beverages (NAICS 7224)	\$9,521,904	\$3,294,330	\$6,227,574	27

Source: ESRI

### Sales Leakage

The demand for goods and services that is not being met locally is referred to as *sales leakage*, shown in the table above as a positive retail gap. The leakage occurs because consumers make purchases at establishments located outside the defined trade area. For example, there were approximately \$15 million of retail sales in the *Clothing Store* category in the Trade Area. However, Trade Area residents spent approximately \$49 million on these types of goods. Therefore, residents spent about \$33 million outside of the Trade Area on *Clothing*, and this \$33 million is considered leakage.

Sales leakages are normally viewed as a potential opportunity for unmet demand in a Trade Area to be recaptured by new local businesses. Sectors experiencing leakage include: *Motor Vehicle & Parts Dealers, Furniture & Home Furnishings Stores, Health & Personal Care Stores, Gasoline Stations, Clothing Stores, Sporting Goods Stores* and *General Merchandise Stores*. It is important to note that just because an industry sector is exhibiting leakage within a particular trade area does not automatically indicate that it will be a good fit for that trade area, and many other factors should be examined when determining whether a retail category should locate. The retail potential for additional stores within the Trade Area is analyzed later in this report and identifies which industries have enough retail leakage to potentially support additional retail outlets.

### **Sales Surplus**

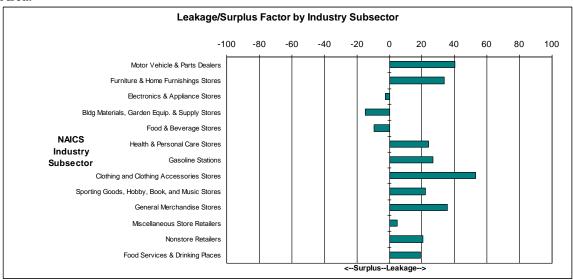
Conversely, if the supply of goods sold exceeds trade area demand, we assume that non-residents are coming into the trade area to spend money, creating a *sales surplus*. A sales surplus is shown as a negative retail gap in the table titled *Trade Area Retail Surplus and Leakage*. There are two likely reasons a sales surplus condition would exist. First, a cluster of competing businesses offering a similar good or product may be located within the trade area, creating a specialty cluster that draws in spending by households from outside the trade area. Secondly, a sales surplus may indicate a saturated retail market, where supply exceeds demand.

Industries that have a large sales surplus compared to their total sales include (a surplus factor of over -20 where -100 is total surplus):

- Office Supplies, Stationary, and Gift Stores
- Used Merchandise Stores

Sectors with leakage (positive retail gap) can be good markets to pursue in that residents are currently going outside of the Trade Area to make purchases, so a new business could capture those residents. Alternatively, an industry with a surplus could provide a niche market that the area could build on.

The chart below illustrates the leakage/surplus factor for a sampling of the industry groups. A higher (positive) leakage factor indicates higher expenditure being made outside of the Trade Area.



Source: ESRI

The high levels of sales leakage could be due to the high number of larger outlet type malls in the surrounding communities. Residents have many options available nearby, including large factory outlets in Niagara Falls, Walden Galleria Mall in Buffalo, and many larger national stores located along Niagara Falls Boulevard.

### **Retail Use Feasibility Study**

While the charts and tables in the previous section identify a number of industry sectors which are experiencing leakage, that does not mean that brand new businesses locating in the area would inherently be successful. By performing a retail use feasibility analysis, the following section identifies which of the industries with leakage have enough customers to potentially warrant opening a brand new site. This type of analysis helps to identify target businesses which will be successful. This analysis assumes 25% of residents who are currently going else where to shop will instead stay within the BOA and spend their money locally if new stores or businesses existed. This recapture rate depends largely on the current existing amenities, commuting patterns and residents' affinity towards certain stores or brands and may be higher or lower than what is assumed in this analysis. The table below identifies the industries which are experiencing sales leakage in the Trade Area.

Using ESRI data of total retail sales and the total number of businesses in each industry group, Camoin Associates was able to identify the average sales per business for each industry group in the United States. Using the Retail Gap for the industries experiencing leakage and dividing the

average sales per business in that industry, Camoin Associates was able to identify retail opportunities for the Trade Area.

# **Retail Opportunities**

## Legend

Industry Group: Organized by NAICS code. Industry Groups (3 digit NAICS codes) are subsets of Industry Subsectors (4 digit NAICS codes).

National Ave Sales: Equals average sale per store of indicated type in USA Retail Gap: Equals sales leakage in Malone Study Area for industry group.

25% Recapture Rate: Equals 25% of the Retail Gap

# of Potential Businesses: Dividend of 25% Recapture Rate divided by National Ave Sales.

Industry Group	National Average Sales	Trade Area Retail Gap	25% Recapture Rate	Retail Potential (# of establishments)
Motor Vehicle & Parts Dealers (NAICS 441)	\$2,925,386	\$123,215,306	\$30,803,827	10.53
Automobile Dealers (NAICS 4411)	\$5,312,249	\$108,417,093	\$27,104,273	5.10
Other Motor Vehicle Dealers (NAICS 4412)	\$1,227,169	\$9,845,180	\$2,461,295	2.01
Auto Parts, Accessories, and Tire Stores (NAICS 4413)	\$525,070	\$4,953,033	\$1,238,258	2.36
Furniture & Home Furnishings Stores (NAICS 442)	\$833,640	\$15,596,424	\$3,899,106	4.68
Furniture Stores (NAICS 4421)	\$1,143,612	\$8,506,481	\$2,126,620	1.86
Home Furnishings Stores (NAICS 4422)	\$595,504	\$7,089,943	\$1,772,486	2.98
Lawn and Garden Equipment and Supplies Stores (NAICS 4442)	\$280,412	\$1,807,563	\$451,891	1.61
Specialty Food Stores (NAICS 4452)	\$328,354	\$1,028,646	\$257,162	0.78
Beer, Wine, and Liquor Stores (NAICS 4453)	\$672,987	\$7,271,180	\$1,817,795	2.70
Health & Personal Care Stores (NAICS 446/NAICS 4461)	\$877,006	\$16,436,314	\$4,109,079	4.69
Gasoline Stations (NAICS 447/NAICS 4471)	\$4,032,667	\$58,030,092	\$14,507,523	3.60
Clothing and Clothing Accessories Stores (NAICS 448)	\$542,667	\$33,983,017	\$8,495,754	15.66
Clothing Stores (NAICS 4481)	\$632,946	\$27,821,501	\$6,955,375	10.99
Shoe Stores (NAICS 4482)	\$414,769	\$3,902,310	\$975,578	2.35
Jewelry, Luggage, and Leather Goods Stores (NAICS 4483)	\$333,652	\$2,259,206	\$564,802	1.69
Sporting Goods, Hobby, Book, and Music Stores (NAICS 451)	\$321,303	\$4,659,696	\$1,164,924	3.63
Sporting Goods/Hobby/Musical Instrument Stores (NAICS 4511)	\$219,322	\$903,602	\$225,901	1.03
Book, Periodical, and Music Stores (NAICS 4512)	\$681,063	\$3,756,094	\$939,024	1.38
General Merchandise Stores (NAICS 452)	\$5,038,999	\$52,761,612	\$13,190,403	2.62
Department Stores Excluding Leased Depts. (NAICS 4521)	\$6,029,915	\$12,573,914	\$3,143,479	0.52
Other General Merchandise Stores (NAICS 4529)	\$4,388,121	\$40,187,698	\$10,046,925	2.29
Miscellaneous Store Retailers (NAICS 453)	\$190,583	\$2,013,295	\$503,324	2.64
Used Merchandise Stores (NAICS 4533)	\$81,304	\$407,803	\$101,951	1.25

Other Miscellaneous Store Retailers (NAICS 4539)	\$238,067	\$7,339,553	\$1,834,888	7.71
Food Services & Drinking Places (NAICS 722)	\$665,427	\$51,999,890	\$12,999,973	19.54
Full-Service Restaurants (NAICS 7221)	\$522,129	\$59,005,726	\$14,751,432	28.25
Drinking Places - Alcoholic Beverages (NAICS 7224)	\$460,990	\$6,227,574	\$1,556,894	3.38

Source: ESRI and Camoin Associates

Most of the industries are experiencing very large retail gaps, making it possible for additional businesses to open within the Trade Area. The column titled *Retail Potential* shows the number of businesses that could open when taking into account the total sales leakage and the average sales per store in that particular industry. Capitalizing on the existing sales leakage would allow the local municipalities to recapture some of the currently leaking retail sales, creating additional sales tax revenue, jobs and investment in the community. Further investigation into the current needs of residents will be imperative to determine what, if any, of the retail sectors should be attracted to locate within the North Tonawanda BOA.

## **Consumer Spending Patterns**

To evaluate the spending patterns of residents within the Trade Area, Camoin Associates obtained the current estimates of consumer expenditures for goods and services. This particular analysis looks at the spending done by residents of the Trade Area but does not indicated where these expenditures were made, whether they were made in or out of the Trade Area. The analysis presents the purchasing power of the households within the Trade Area.

The table below shows the average annual spending per household on a particular good or service, the Trade Area total spending on that good, and the spending potential index (SPI). The SPI represents household expenditures on a product or service relative to a national average of 100. SPI's with values greater than 100 indicate that households spend relatively more on average on that particular good than the average U.S. household.

The total expenditures for households in the Trade Area are significantly less than the national average, with an SPI of 88; households are spending less than the national average on almost every consumer item with the exception of a handful of items. Categories where residents within the Trade Area are spending above the national average are mostly on items considered necessity, as opposed to a luxury. For example, residents are spending higher than average on natural gas, fuel oil, and care for the elderly and handicapped. Residents in the Trade Area are spending close to the national average on a few luxury items, such as vacation homes, food away from home, entertainment and travel.

Trade Area Sper	nding Potential Index		
	Average Spent	Total	SPI
Care for Elderly and Handicapped	\$60	\$2,634,412	118
Fuel Oil	\$119	\$5,245,522	107
Natural Gas	\$710	\$31,317,916	105
Property Taxes	\$90	\$3,991,694	98
Health Care	\$3,553	\$156,791,183	94
Education	\$1,167	\$51,494,500	93
Owned Vacation Homes	\$334	\$14,744,377	91
Food At Home	\$4,101	\$180,950,795	90

Food Arrors From Home	\$2,981	\$131,550,598	90
Food Away From Home	\$2,981	\$151,330,398	90
Personal Care Products & Services	\$641	\$28,281,473	90
Electricity	\$1,492	\$65,840,637	90
Entertainment and Recreation	\$2,892	\$127,637,398	89
Travel	\$1,634	\$72,122,520	88
Housing	\$17,815	\$786,149,602	88
Child Care	\$387	\$17,064,325	88
Transportation	\$9,029	\$398,440,724	87
Rent	\$2,659	\$117,348,501	82
Household Furnishings and Equipment	\$1,669	\$73,662,477	77
Apparel and Services	\$1,558	\$68,749,739	62
Total Expenditures	\$59,747	\$2,636,526,301	88

Data Note: The Spending Potential Index (SPI) is household-based, and represents the amount spent for a product or service relative to a national average of 100.

Source: ESRI Forecasts for 2009 and 2014, Camoin Associates

### **Retail Market Space Availability**

The following information comes from a CB Richard Ellis report on the retail market in the Buffalo area<sup>4</sup>. The North Tonawanda BOA is included in this report and is identified as part of the "Boulevard Mall" submarket.

Overall, the Western NY Retail Real Estate Market changed by less than 1% per year over the last five years. The Retail Real Estate Market has mirrored national trends including low levels of new development. The Boulevard Mall submarket has over 5 million square feet of total retail space and almost 500,000 square feet of available inventory. There has been an increase in vacancy rates in the Boulevard Mall submarket. The table below shows that although there was an increase in vacancy in the Boulevard Mall, it was very slight (0.88%).

	Retail Market Statistics							
Submarket	Total Inventory SF	Change in Supply SF			Change in Vacancy %	Net Absorption SF		
City of Buffalo	2,302,646	18,300	545,887	23.71%	-5.69%	164,572		
Boulevard Mall	5,261,069	0	498,078	9.47%	0.88%	-46,332		
Eastern Hills Mall	4,060,091	0	213,793	5.27%	0.06%	-2,190		
Galleria Mall	5,171,581	50,000	673,111	13.02%	1.40%	-27,791		
McKinley Mall	4,948,677	0	523,097	10.57%	-1.59%	78,513		
Niagara	4,128,259	0	812,869	19.69%	0.29%	-11,948		

Source: CB Richard Ellis MarketView Buffalo Retail Annual 2008/2009 Report

## **Market Segmentation Analysis**

In addition to basic demographic and retail data analysis, another useful tool in determining the characteristics of a particular trade area is market segmentation, which is defined as the

<sup>&</sup>lt;sup>4</sup> CB Richard Ellis. Market View Buffalo Retail. Annual 2008/2009

classification of consumers according to demographic, socioeconomic, housing, and lifestyle characteristics. It is based on the concept that people with similar demographic characteristics, purchasing habits, and media preferences naturally gravitate toward each other and into the communities in which they live. Using socioeconomic indicators such as income, employment, age, housing type, and other factors, ESRI Business Analyst separates a population within a defined geography into one or more predefined classifications, or segments. ESRI has 65 predefined segments, and will identify the predominate segments within a community. This is useful to gain a general feel for the spending habits, tastes, and cultural preferences of a community.

It is important to understand that the classifications and labels for defined market segments are generalizations. The descriptions of each segment are based on comparisons with the U.S. as a whole, and reflect the propensity of households within that segment to exhibit certain demographic, lifestyle, and consumer characteristics relative to the overall population. Nevertheless, market segmentation analysis can provide a useful perspective in understanding existing and potential customers residing within a defined area. A summary and brief description of the major "Community Tapestry" segments within the study area is included below.

The table below shows the five largest Tapestry segments as identified by ESRI in the Trade Area followed by a brief description of each segment.

Tapestry Segmentation					
	% of Trade Area Population	% of US Population			
Rustbelt Retirees	26.80%	2.10%			
Cozy and Comfortable	15.00%	2.80%			
Rustbelt Traditions	13.40%	2.80%			
Great Expectations	9.00%	1.70%			
Green Acres	6.90%	3.20%			

Source: ESRI

**Rustbelt Retirees (26.80%):** These neighborhoods can be found in older, industrial cities. Households are mainly occupied by married couples with no children and singles who live alone. The median age is 43.8 years. Although many residents are still working, labor force participation is below average. More than 40 percent of the households receive Social Security benefits. Most residents live in owned, single-family homes, with a median value of \$118,500. Unlike many retirees, these residents are not inclined to move. They are proud of their homes and gardens and participate in community activities. Some are members of veterans' clubs. Leisure activities include playing bingo, gambling in Atlantic City, going to the horse races, working crossword puzzles, and playing golf.

Cozy and Comfortable (15.00%): Residents of this market segment are settled, married, and still working. Many couples are still living in the pre-1970s single-family homes in which they raised their children. Households are located primarily in suburban areas of the Midwest, Northeast, and South. The median age is 41 years, and the median home value is \$164,000. Home improvement and remodeling are important to Cozy and Comfortable residents. Although some work is contracted out, homeowners take an active part in many projects, especially painting and lawn care. Television is important to this group; many households have four or more sets.

Rustbelt Traditions (13.40%): This segment describes many communities across the United States, and has the sixth largest population of all the Community Tapestry segments. It is characterized by primarily white neighborhoods with a mix of married-couple families, single-parent families and singles living alone. Most households work in a white collar job with a median income around \$50,000. Most people own their homes and have been living in the same area for a long period of time. Many watch their diet and exercise for health. Residents are careful with their money and enjoy watching television for entertainment, especially sports programs. For leisure they enjoy bowling, hunting, country music and attending ice hockey games.

**Great Expectations (9.00%):** This market segment is dominated by young singles and young married-couple families with a median age of 33.2 years. Median household income is approximately \$37,000 and net worth for this segment is low compared to U.S. values. Many of these markets are found in the Midwest and South and residents typically are just starting their career and not yet focused on retirement investing or able to travel extensively. Primary employers of this market include manufacturing, retail and the service industry. Residents in this market segment enjoy a young and active lifestyle including going out to dinner, night clubs and movies.

Green Acres (6.90%): This market is primarily comprised of married couples, with or without children. This market segment is not ethnically diverse, with 93% of the residents identifying themselves as White. More than half of the Green Acre residents over the age of 25 hold a degree or have attended college and their median household income is approximately \$64,000. The primary sources of occupation include manufacturing, construction, health care and retail trade industry sectors. Many of these neighborhoods are found in the Midwest and South, but they are located throughout the country as well. Residents in this market segment prefer to do home repairs themselves and other do-it-yourself activities.

A chart summarizing the "Community Tapestry" segments is shown below. The charts show from top to bottom.

- Tapestry Segment and classification number (this number is an ESRI reference number and is only for identification purposes),
- Life Mode Group,
- Urbanization Group,
- Family,
- Median Age,
- Occupation type,
- Schooling,
- Household Type,
- Race
- Activities commonly associates with each segment.

## 29 Rustbelt Retirees



L5 Senior Styles
U8 Suburban Periphery II
MC w/No Kids; Singles
45.2
Middle
Prof/Mgmt/Skilled/Srvc
HS Grad; Some College
Single Family
White

Play bingo Own annuities Belong to fraternal orders, unions, etc. Watch news shows on TV Own/Lease Pontiac

# 18 Cozy and Comfortable



U8 Suburban Periphery II
Married-Couple Families
42.0
Upper Middle
Prof/Mgmt
Some College
Single Family
White

L2 Upscale Avenues

Dine out often at family restaurants Have personal line of credit Shop at Kohl's Listen to sporting events on radio Own/Lease minivan

## 32 Rustbelt Traditions



US *Urban Outskirts I*Mixed
36.5
Middle
Skilled/Prof/Mgmt/Srvc
HS Grad; Some College
Single Family
White

L10 Traditional Living

Buy children's and baby products Use credit union Do painting, drawing Watch cable TV Own/Lease domestic vehicle

# 48 Great Expectations



L7 High Hopes
U5 Urban Outskirts I
Mixed
33.2
Lower Middle
Prof/Mgmt/Skilled/Srvc
HS Grad; Some College
Single Family; Multiunits
White

Do painting, drawing Have 2nd mortgage (equity loan) Listen to classical music on radio Read baby magazines Own motorcycle

# 17 Green Acres



L2 Upscale Avenues
U10 Rural I
Married-Couple Families
40.7
Upper Middle
Prof/Mgmt/Skilled
Some College
Single Family
White

Do gardening, woodworking Have home equity credit line Attend country music shows Watch auto racing on TV Drive 20,000+ miles annually

## OFFICE AND INDUSTRIAL MARKET ANALYSIS

#### Introduction

The office and industrial market analysis compares existing conditions and available space to projected trends in employment growth in the Trade Area to better understand the market and identify any possible opportunities for development. The occupation information analyzed below was purchased from Economic Modeling Systems, Inc. The geographic area for which these data were analyzed is the North Tonawanda BOA Trade Area (Zip Codes 14120, 14228, and 14150).

Camoin Associates also obtained commercial real estate market reports produced by CB Richard Ellis to better understand the current market. These reports are focused primarily on the Buffalo market, but have information that is suited to the North Tonawanda BOA project as well.

## **Regional Economic Growth**

An analysis of the growth/decline in the various industrial sectors can provide information about where there may be a market for additional industrial or office space. It also can give a good indication of whether jobs are coming to the area due to positive economic development momentum, or if the area is experiencing a decline in job opportunities.

The table on the following page shows that overall there will be an increase in the number of jobs available in the next five years. It is projected that there will be 1,105 new jobs created, or a 2% increase in job opportunities for residents of the Trade Area. The largest employer in the Trade Area is the *Administrative and Waste Services* sector, followed by *Manufacturing* and *Retail Trade*.

The industry sector experiencing the most growth in the next five years is the *Administrative and Waste Services* sector. This sector comprises establishments performing routine support activities for the day-to-day operations of other organizations. The administrative and management activities performed by establishments in this sector are typically on a contract or fee basis. Overall, the sectors which are experiencing the most growth can be defined as typical office utilizing industries. For example, there will be a strong increase in the *Finance and Insurance* sector, the *Management of Companies and Enterprises* sector, and the *Health Care and Social Assistance* sector.

A typical industrial space utilizing industry that is expected to gain jobs in the next five years includes the *Transportation and Warehousing* industry. Typical industrial space utilizing industry that is expected to experience a steep decline in the coming years is the *Manufacturing* sector with a projected 14% (1,060) of the jobs lost over the next five years. Even with this steep decline, *Manufacturing* will remain the second largest employer in the Trade Area. There will also be a loss of jobs in the following sectors:

- Professional and technical services
- Wholesale Trade
- Other services, except public administration
- Information
- Utilities

	Industry Growth Breakdown						
NAICS Code	Description	2009 Jobs	2014 Jobs	Change	% Change	Current EPW	
56	Administrative and waste services	7,883	8,779	896	11%	\$31,513	
31-33	Manufacturing	7,784	6,724	(1,060)	(14%)	\$60,546	
44-45	Retail trade	6,645	6,651	6	0%	\$20,410	
54	Professional and technical services	4,954	4,895	(59)	(1%)	\$48,819	
90	Government	4,442	4,487	45	1%	\$45,094	
62	Health care and social assistance	4,362	4,643	281	6%	\$31,893	
72	Accommodation and food services	4,008	4,180	172	4%	\$13,270	
52	Finance and insurance	3,811	4,101	290	8%	\$53,050	
23	Construction	3,417	3,641	224	7%	\$40,052	
48-49	Transportation and warehousing	2,998	3,075	77	3%	\$40,001	
42	Wholesale trade	2,820	2,759	(61)	(2%)	\$50,143	
55	Management of companies and enterprises	2,557	2,761	204	8%	\$62,354	
81	Other services, except public administration	2,402	2,400	(2)	(0%)	\$19,495	
53	Real estate and rental and leasing	1,426	1,580	154	11%	\$21,319	
51	Information	1,116	995	(121)	(11%)	\$48,648	
71	Arts, entertainment, and recreation	774	825	51	7%	\$11,065	
61	Educational services	318	340	22	7%	\$22,468	
22	Utilities	154	138	(16)	(10%)	\$86,048	
11	Agriculture, forestry, fishing and hunting	27	27	0	0%	\$19,243	
21	Mining	17	19	2	12%	\$54,396	
		61,915	63,020	1,105	2%	\$38,950	

Source: EMSI Complete Employment - 2nd Quarter 2009 v2

Also important to note is the projected decline in many of the highest paying industries. For example, there will be a decline in *Utilities* industry jobs which pays \$86,000 per worker and a decline in the *Manufacturing* industry which pays \$60,000 per worker. Some of the fastest growing industries are paying only \$21,000 or \$31,000. This type of shift in the workforce will impact the spending capability and demands of the residents. It will also shift the population make-up as residents who were making more money may need to move out of the area in order to get a new job.

## **Regional Growth in Office Utilizing Industries**

Employment projections shown in the table below show that overall there will be growth in a majority of the industries which typically utilize office space. Some of the industries will be growing quickly, including *real estate and rental and leasing* and *administrative and waste services*. Overall these sectors will grow 4% over the next five years, and add almost 2,000 jobs to the Trade Area.

	Office Space Utilizing Industry Growth						
NAICS					%		
Code	Description	2009 Jobs	2014 Jobs	Change	Change	Current EPW	
56	Administrative and waste services	7,883	8,779	896	11%	\$31,513	
54	Professional and technical services	4,954	4,895	(59)	(1%)	\$48,819	
90	Government	4,442	4,487	45	1%	\$45,094	
62	Health care and social assistance	4,362	4,643	281	6%	\$31,893	
72	Accommodation and food services	4,008	4,180	172	4%	\$13,270	
52	Finance and insurance	3,811	4,101	290	8%	\$53,050	
55	Management of companies and enterprises	2,557	2,761	204	8%	\$62,354	
81	Other services, except public administration	2,402	2,400	(2)	(0%)	\$19,495	
53	Real estate and rental and leasing	1,426	1,580	154	11%	\$21,319	
51	Information	1,116	995	(121)	(11%)	\$48,648	
		36,961	38,821	1,860	4%	\$38,950	

Source: EMSI Complete Employment - 2nd Quarter 2009 v2

For comparative purposes, the table below shows the projected Trade Area growth rate for industries that typically utilize office space alongside the projected growth rates of the same industries in Western NY<sup>5</sup> and New York State. The Trade Area growth is slower than NYS, but similar to Western NY growth projections. It is important to note that the Trade Area earnings per worker is significantly lower than Western NY and New York State (note that the NYS data includes NYC which can skew the data dramatically due to high paying professionals living in NYC).

Growth in Office Utilizing Industries- Comparison Chart							
				%			
	2009	2014	Change	Change	EPW		
					\$38,95		
Trade Area	36,961	38,821	1,860	4%	0		
					\$43,03		
Western NY	849,945	885,957	36,013	4%	5		
	7,079,00	7,569,80	490,79		\$71,64		
New York State	5	3	7	7%	8		

Source: EMSI Complete Employment - 2nd Quarter 2009 v2

### Local Space Availability- Office and Industrial

The following information comes from the CB Richard Ellis report which provides information on the regional vacancy, absorption and rent rates for the Buffalo area<sup>6</sup>. These reports include information regarding the region in which the North Tonawanda BOA is located and the Trade Area.

## Office Market

<sup>5</sup> Western New York is defined as the following counties: Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Wayne and Wyoming.

<sup>&</sup>lt;sup>6</sup> CB Richard Ellis. Market View Buffalo Industrial and Buffalo Office. Annual 2008/2009.

In 2007, there was development of over 1,100,000 square feet of new office space in Western New York and an additional 804,248 square feet in 2008. This space is being absorbed at a steady level and there continues to be strong demand. When the 2008/2009 CB Richard Ellis report was written, there was an additional 991,451 square feet of new office space under construction or planned to be available during 2009/2010. The report makes a point to note that there was over 1.4 million square feet of office space planned to be built in 2009, but only 800,000 square feet was completed. This is most likely related to the economic climate of recent years.

The CB Richard Ellis reports on the Suburban North region of the Buffalo market which includes the North Tonawanda BOA. The Suburban North market showed the strongest increase in office space availability, with an increase of 473,048 total square feet added in the past year. The City of Buffalo central business district saw an increase of 128,000 square feet and an upgrade in some Class B space. The Suburban South market saw an increase of 30,000 and the upgrade of some Class C space and the Suburban East market saw an increase of only 120,000 square feet. The table below shows the current office space market for the Suburban North region.

Office Market Statistics - Suburban North Region							
							Quoted
	Total Inventory	Change in	Available	Vacancy	Change in	Net Absorption	Lease Rate
	SF	Supply SF	Inventory SF	Rate%	Vacancy %	SF	\$
Class A	2,105,307	154,672	262,451	12.47%	3.10%	74,938	\$19-\$23
Class B	2,850,139	214,376	178,325	6.26%	-3.05%	281,235	\$15-\$18
Class C	424,498	0	N/A	N/A	N/A	N/A	N/A
Flex Office	2,704,233	104,000	309,659	11.45%	3.04%	12,941	\$10-\$14

Source: CB Richard Ellis MarketView Buffalo Office Annual 2008/2009 Report

Another important statistic is the number of square feet available in the various submarkets. The Suburban North region has over 700,000 square feet of available inventory, the third largest supply in the Buffalo region behind the City Central Business District which has over 770,000 square feet available and the Suburban East market which has over 780,000 square feet available. The highest vacancy rate is occurring in the Suburban South market (21% for Class A, 11% for Class B and 18% for Flex Office space).

The quoted lease rate for the Suburban North market is the same as the quoted lease rates for the City Central Business district, which is slightly higher than the other submarkets in the Buffalo market.

### **Industrial Market**

The Western New York market has been bucking the trend when it comes to industrial vacancy. During the past year industrial vacancy decreased from 9.7% to 9.5% which is equal to a reduction of almost 60,000 square feet of industrial space being utilized or removed from the market. While this is a positive trend, it is important to note that this vacancy rate is higher than other regional cities including Toronto and Cleveland (5.8% and 8.2% respectively).

The Suburban North market experienced an increase of 151,000 square feet of flex and manufacturing space in the last year. There is a total of almost 650,000 square feet of available industrial space, but it is important to note that there was a decrease in vacancy rate in the

manufacturing and warehousing space over the past year. The Suburban North region has had three consecutive years of high absorption rates.

Industrial Market Statistics - Suburban North Region							
			Available				
	Total	Change in	Inventory	Vacancy	Change in	Net	
	Inventory SF	Supply SF	SF	Rate%	Vacancy %	Absorption SF	
Flex	2,921,149	104,000	345,418	12.10%	4.10%	-25,238	
Manufacturing	10,382,915	51,000	125,690	1.20%	-1.50%	202,500	
Warehousing	5,298,411	0	177,487	3.3	-3.00%	159,323	

Source: CB Richard Ellis MarketView Buffalo Industrial Annual 2008/2009 Report

An important event in the past year with respect to available industrial space was the addition of 360,000 square feet of manufacturing space which was created as part of the Niagara Frontier Transportation Authority's Terminal "A" building expansion project. This additional space may impact the attractiveness of industrial space in the North Tonawanda BOA and within the Trade Area.

## TOURISM MARKET ANALYSIS

#### Introduction

As part of the its BOA effort, the City of North Tonawanda is interested in understanding the current tourism market and indentifying potential areas for growth. The following tourism market analysis will review existing tourism related businesses, the potential for growth in the tourism industry in the City and the projected growth in tourism related jobs. The analysis will include a combination of data pulled for the Trade Area (defined as Zip Codes: 14120, 14228, and 14150) and Niagara County. This information will help to identify if there is potential for tourism related development (hotel, restaurants, entertainment, etc.) to meet demand, and/or what efforts are necessary to generate additional demand.

The industry data below were purchased from EMSI. Information was also pulled from other research done on this topic, including the 2004 report *Tourism's Role in the Upstate New York Economy* written by Richard Dietz, the *Niagara Communities Comprehensive Plan 2030, Downtown Lockport Strategic Development & Marketing Plan* and interviews with local economic development professionals and residents.

### **Existing Tourism Resources**

The City of North Tonawanda has been working steadily to increase visitation to the Gateway Harbor district (Webster Street/historic downtown) and the City in general, including the BOA, in order to boost the local economy and drive more spending in the area. During the summer months there is reported to be a lot activity along the waterfront including concerts, boats docked along with canal and an increasing number of regional tourists looking to spend time in the Gateway Harbor district and enjoy their boat. For additional economic activity, and in order to increase spending at local businesses, the City would like to provide visitors with overnight options and resources for them to stay longer in the area. The effort to increase the number of days and nights spent in the City has been difficult due to the nonexistence of hotel rooms in the City. The lack of hotel rooms and tourism related services has been a disadvantage for the City of North Tonawanda and is making it virtually impossible to capture overnight spending from visitors to the Buffalo-Niagara region, one of the most heavily traveled tourist destinations in United States.

A quick internet search, similar to one a potential visitor might conduct, of hotel rooms in the City of North Tonawanda show that there are no hotels within the downtown but that there is a wide variety of options in the surrounding towns, offering various amenities and price points. Even outside of direct proximity to the Falls, surrounding towns have hotel options for visitors looking to spend time in the Buffalo-Niagara region. For example, Niagara Falls Boulevard is cluttered with hotels in the Town of Amherst (southeast of the Trade Area) and Niagara Falls (north of the Trade Area). The hotels in Amherst are close to the University at Buffalo campus, meeting the demand of parents and visitors to the campus and attracting people who are visiting the Falls but looking for a different experience than staying right in the City of Niagara Falls.

The City of North Tonawanda is doing what it can to develop opportunities and resources for visitors, including regular festivals, concerts and events throughout the summer as well as working to revitalize the Gateway Harbor district to appeal to and accommodate tourists. The revitalization of the Gateway Harbor district has been successful but full realization of the economic activity has been impossible without overnight stay options.

Although the City has been successful in generating tourism activity and regional entertainment during the summer months, it has been difficult to make it a year-round tourist destination. The seasonal nature of tourism in upstate New York is something that many communities struggle with, and it is oftentimes necessary to find alternative attractions for the winter months. The City does have attractions other than the Canal and waterfront that they can market, including the Riviera Theater which offers a wide variety of performances that appeal to families and young adults, the Herschell Carrousel Factory Museum, Carnegie Art Center, and the Ghostlight Theater. These alternative attractions do not themselves generate enough activity to warrant a new large hotel, but in combination with regional attractions they could bring more people into the area throughout the year.

### **Trends in Tourism Related Industries**

The BOA Trade Area, which includes zip codes in Erie County, has shown a slight increase in tourism related industry jobs over the past 5 years. The table below shows that there has been a 6% increase in the *Arts, entertainment, and recreation* industry since 2005, but it only makes up 1.27% of the total jobs for the Trade Area. There has also been a 3% increase in the *Accommodation and food services* industry since 2005, and it makes up 6.53% of the total jobs for the Trade Area.

	Growth in Tourism Related Industries					
NAICS		2005	2010	%	Current	% of all
Code	Description	Jobs	Jobs	Change	EPW	jobs
71	Arts, entertainment, and recreation	746	788	6%	\$11,065	1.27%
711	Performing arts and spectator sports	334	314	(6%)	\$7,985	0.51%
7111	Performing arts companies	65	76	17%	\$14,045	
712	Museums, historical sites, zoos, and parks	19	32	68%	\$9,346	0.05%
713	Amusements, gambling, and recreation	393	442	12%	\$13,350	0.71%
7132	Gambling industries	19	17	(11%)	\$18,876	
7139	Other amusement and recreation industries	374	425	14%	\$13,158	
71391	Golf courses and country clubs	46	54	17%	\$17,140	
71393	Marinas	36	36	0%	\$19,061	
71394	Fitness and recreational sports centers	169	184	9%	\$12,940	
71395	Bowling centers	59	44	(25%)	\$10,866	
71399	All other amusement and recreation industries	65	107	65%	\$10,489	
72	Accommodation and food services	3,939	4,060	3%	\$13,270	6.53%
721	Accommodation	290	286	(1%)	\$21,211	0.46%
7211	Traveler accommodation	272	269	(1%)	\$21,245	
72111	Hotels and motels, except casino hotels	254	254	0%	\$21,186	
72112	Casino hotels	18	16	(11%)	\$22,269	
7212	RV parks and recreational camps	13	14	8%	\$18,605	
722	Food services and drinking places	3,650	3,773	3%	\$12,657	6.07%
7221	Full-service restaurants	1,471	1,415	(4%)	\$14,030	
7222	Limited-service eating places	1,890	2,103	11%	\$11,507	
7223	Special food services	188	176	(6%)	\$15,743	
7224	Drinking places, alcoholic beverages	101	79	(22%)	\$10,720	

Source: EMSI, Camoin Associates Within the Arts, recreation and recreation industry, most of the jobs are in the Fitness and recreation sport center industry, which is not a typical tourism related industry.

Looking closer at the *Accommodation and food services* industry sector, it is clear that most of those jobs are made up from the *Food services and drinking places* sector, which makes up 6.07% of all jobs within the Trade Area. The *Accommodation* industry sector makes up just a very small percentage of the Trade Area's total employment.

Within the *Food services and drinking places* sector, it is the limited-service eating places that have the highest percentage of employment within that sector and that number has been growing. Limited- service eating places are defined as: establishments primarily engaged in providing food services where patrons generally order or select items and pay before eating. Most establishments do not have waiter/waitress service, but some provide limited service, such as cooking to order (i.e., per special request), bringing food to seated customers, or providing off-site delivery. These establishments are usually lower priced than full-service and attract a different type of client. The limited-service establishments will appeal to visitors coming by boat who may be looking for something quick to eat within the area and who may not want to spend much time indoors.

## **Regional Tourism Activity**

The tourism industry has slowly become a more prominent source of employment for people throughout the United States, due to the increase in tourism activity in recent history. The increases in leisure time, wages and access to affordable transportation have made the tourism industry expand to employ approximately 4% of the private sector workforce. While the tourism industry is expanding, it is important to compare it to other large national industry sectors, such as health care, which accounts for approximately 13% of employment.

For upstate New York, tourism has been identified as a possible supplement to economies that are facing a loss of employment in the manufacturing sector. The transition of employment from a manufacturing base to a tourism base can be difficult due to the seasonal nature of tourism businesses and the typically low wage jobs associated with the tourism industry. A balance of traditional economic development and the development of the tourism economy will provide the City with the best chance for a diversified economy.

The growth of employment within the New York State tourism industry has been slower than the growth of the same industry for the nation. However, the tourism industry in Niagara County has been steadily increasing at a rate faster than that of the increase in total employment. This industry base has become more important over the past decade for the County with an increase in tourism-based businesses and a decline in the manufacturing industry. Niagara Falls is one of the most well known tourist destinations in the nation, and people come from all over to visit the Falls and experience the local culture and tourist resources that exist on both the United States and Canadian sides of the Falls. There has been a recent push to develop more attractions on the US side to compete with the shopping, casinos and museums available on the Canadian side which has been acquiring more and more of the market share over the years. Niagara County has also been actively developing tourist attractions, such as the Niagara County Wine Trail, which runs by the City of North Tonawanda, the redevelopment and branding of the Erie Canal Heritage Corridor, and Old Fort Niagara.

Finally, the City of North Tonawanda is located in an advantageous spot that is central to the City of Buffalo, the SUNY Buffalo campus, Niagara Falls, and the Erie Canal. There are three city

docks located in the City of North Tonawanda making it a natural docking location for people traveling the Great Lakes, the Erie Canal or general boating on the Niagara River.

The Niagara County Comprehensive Economic Development Strategy reports that approximately 12 million people visit Niagara Falls each year (studies suggest that 6 million visit the United States side). If the City, which is only 10 miles from the Falls, is able to capture 0.5% of the US visitors they could have an additional 30,000 people coming to the City each year.

### **Economic Development through Tourism**

The *Niagara Communities Comprehensive Plan 2030* discusses the County's desire to increase tourism throughout the county, not just directly around the Falls. This push to connect resources will be vital to assisting the City and BOA in capturing some of the tourists. One of the goals identified in the plan was to "improve tourism and tourism-based business opportunities throughout the County". In order to accomplish this, the plan identified a recommendation to "support efforts to create physical linkages and link business information between Niagara County's communities that will help extend the stay of tourists, and thus spread economic wealth throughout the County". There is a concerted effort to increase tourism in Niagara County and the City of North Tonawanda is not able to capitalize on this effort due to its lack of hotel space.

## **Economic Impact of Tourism**

In order to demonstrate the impact of a hotel project on the Trade Area, Camoin Associates has prepared an economic impact analysis on a hypothetical 40 room hotel. The analysis assumes that the 40 room hotel is charging \$115.00 a night and has a 60% average room occupancy rate per year. The following table calculates the annual sales of the hypothetical hotel.

Hypothetical Hotel Development				
Number of Hotel Rooms	40			
Occupancy	60%			
Occupied hotel rooms	24			
Cost per night	\$115			
Annual Sales	\$1,007,400			

The economic impact of a particular project is a sum of the direct and indirect impacts. The direct impacts are those directly related to the project or site in question (additional sales at the hotel). The indirect impacts are those which occur as the dollars from direct impacts cycle through the economy. For example, the spending by the hotel company at local businesses generates new sales and need for employees. The new employees receive wages and in turn spend a portion of those dollars in the local economy for daily needs, housing and other expenses and a proportion of those dollars are again re-spent in the local economy. As those dollars continue to circulate, additional jobs and business activity are created. This effect is captured in the indirect impacts and is known as the multiplier effect.

Economic Impact of Hypothetical Hotel Development					
	Direct	Indirect	Total		
Sales	\$1,007,400	\$382,812	\$1,390,212		
Jobs	16	5	21		
Wages	\$330,345	\$148,655	\$479,000		

The economic impact of a 40 room hotel development would mean an additional \$1,390,212 sales, 21 new jobs and an additional \$479,000 in new wages for the Trade Area. In addition to the impact of the hotel itself, having visitors in the area overnight will increase spending at the local gas stations, retail stores, grocery and convenience stores, and local attractions. As this money is spent, it too will circulate throughout the economy generating additional jobs and business activity.

# **Redevelopment Recommendations and Market Outlook**

#### Introduction

As part of the market analysis process, Camoin Associates conducted phone interviews with local economic development officials, real estate agents and developers and others who have insight into the local economy and market trends. These interviews are typically the most enlightening part of the analysis, since they provide more information than can be gathered from data analysis or statistical interpretation. The interview participants were identified by the City has being knowledgeable and Camoin Associates contacted them in February of 2010. In addition to the interviews about local matters, information from the various focus groups held by Bergmann Associates was also analyzed for similar themes and information which informed the market analysis recommendations and redevelopment scenarios. The following people were interviewed:

- Tom Barrett Kissling Interests, LLC
- Chuck Bell Lumber City Development Corporation
- John Duere Positive Marketing
- Robert Kissel Uniland Development
- Greg Sehr President of Upstate Consultants, LLC
- Jim Sullivan Lumber City Development Corporation

The following is a summary of the interviews conducted, followed by the redevelopment recommendations and market analysis findings.

## **Strengths/Opportunities**

During phone interviews and additional research, it was obvious that there are multiple strengths associated with the City of North Tonawanda. These strengths should be built upon and marketed to better capture new residents, new businesses and new spending. When asked to name the "number one" strength of the City of North Tonawanda was, respondents clearly identified the City's location. The City's location in western New York and surrounded on two sides by water, the Erie Canal to the south and the Niagara River to the west, provides numerous opportunities that the City can take advantage of and build on. Many of the interviewees mentioned the beautiful views available from Tonawanda Island and the enormous potential for a different kind of development on the Island than what currently exists. Tonawanda Island was identified as a unique resource for the City and its use/reuse should be carefully reviewed to ensure long term sustainability and successful redevelopment.

The Brownfield Opportunity Area is located directly on the water and therefore could capitalize on that asset. Local economic development officials are working on branding the Webster Street district as the "Gateway Harbor" to describe the downtown's location on the water and all the amenities that accompany the waterfront. The Gateway Harbor district branding and marketing effort will help capture boaters and others who may be unaware of what the City of North Tonawanda has to offer. Local officials have been working hard on this and have begun a way-finding program that includes new signs at the waterfront listing services, businesses and restaurants available within the district.

In addition to its location on the waterfront, the City's close proximity to the Canadian market is also a strength which presents an opportunity to attract Canadians to the area for vacation or day

trips. Determining what Canadians are looking for and identifying the best way to attract them to the area will be key to capitalizing on this market. Local economic development officials have mentioned that a portion of the boaters during the summer are coming from Canada, showing a key target market for future campaigns.

Interviewees also mentioned the strength of the "downtown" feel of the City and the more historic areas. For example, the Riviera Theater and the Webster Street district have a "Main Street USA" feel that many people are looking for in older cities. While acknowledging that there is still some revitalization to occur, the fact that the City has an intact building stock of this style will better position them to promote reuse of existing structures for possible commercial and residential use. Maintenance and upkeep of these buildings will be key to the revitalization of the City of North Tonawanda and the surrounding areas. The Riviera Theater itself is a strength and the long history of putting on shows is something unique to the City. The Riviera Theater has been able to get larger acts and bigger names in recent years, helping bring regional crowds into downtown.

The City has been successful at hosting weekly concerts during the summer that bring in 4,000-8,000 visitors. The influx of activity on the nights when there are outdoor concerts has a great impact on the local merchants. The strength of these shows will help continue to bring new people to the area. The regional and local shows also will boost awareness of the recent trends of revitalization in the Webster Street area and will make everyone aware of what resources are available.

Another opportunity for the City is the exciting new development of a light industrial site into new loft style apartments known as Remington Rand. This development builds on two strengths of the community: the Webster Street downtown area and the waterfront. This construction project is likely to spawn additional development in the area and encourage others to begin similar projects. The Remington Rand project will offer a new product to residents of North Tonawanda ("live-work" lofts) and will bring "new blood" and enthusiasm for the area, accelerating the City's revitalization efforts and assisting in achieving local economic development goals. The developers and others familiar with the project have stated that they believe there is a market for this type of mixed-use, live-work space where residents can combine their office and home expenses and do their work from their loft apartment in the City.

Finally, improving the City's relationship with the neighboring Town and City of Tonawanda is an opportunity to revitalize both communities. The close proximity and shared use of the Erie Canal waterfront creates a chance to partner on projects to attract people to the area and share in the benefits. For example, partnering on events that would bring people to the waterfront could be an option, as would partnering on other water dependent to benefit both of the communities.

### Weaknesses/Threats

In contrast to the strengths identified during the interviews and research, respondents noted weaknesses that could hinder redevelopment for the City. One of the most commonly identified weaknesses was the existing building infrastructure located along the waterfront. The primary concern was that the current uses were not the "highest and best uses" possible for this prime location and that they may affect property value and diminish redevelopment potential.

A hindrance to the City of North Tonawanda's revitalization efforts includes its close proximity to other areas that have consumer amenities that many residents of the City are looking for and a lack of critical retail mass. For example, the interviewees mentioned that Niagara Falls Boulevard

and Tonawanda are both built up with more of the chain stores, which many consumers are looking for. This pulls retail sales out of the community as they flow to other, more convenient, malls. The City will struggle to overcome this weakness and will need to identify other ways to lure shoppers to the downtown.

Cities all across the state and nation are struggling with getting shoppers back to their downtown. The keys will be the marketing the types of stores available and the ease of access. Improvements can be made to the buildings and streetscape that will encourage additional improvements and bolster the attractiveness at the site. The City and economic development departments are working on bringing stores and people back to the downtown by improving the streetscape, offering façade grants and general aesthetic improvements to the downtown shopping area. These improvements will go a long way to attracting retailers and their customers.

The City of North Tonawanda is also facing a challenge similar to many upstate New York communities, namely the declining population and the recent experiences of losing major employers. The City, with its perfect location on two bodies of water, developed as a mainly industrial community with blue collar roots. As these manufacturing and industrial employers and jobs move away, the community is faced with an economically depressed environment where it is difficult to attract new businesses and/or residents. The end of the manufacturing era for the City has left an inventory of building stock which is not of the quality that many people are looking for, making it unattractive for new companies or businesses to locate in the City, when they could locate in surrounding areas at a newer facility.

The older industrial buildings from the earlier manufacturing era have also left potential environmental concerns which make redevelopment of the sites unpredictable. The Brownfield Opportunity Area program will help reduce this unpredictability and hopefully improve the likelihood of reuse and redevelopment. The blue collar past of North Tonawanda has created an image issue for the City, one that has been hard for them to dispel.

The people interviewed noted that that City and the local services do not appeal to Presidents and CEOs of companies who typically make locational decisions. Due to the advances in technology, many businesses can locate anywhere they want, making the communities that offer outdoor recreation, good schools and other amenities more likely to attract new companies. The quality of schools came up as an issue, and during the interviews, people mentioned that improving on the schools will assist in the City's goals to encourage revitalization. Finally, the high tax rate has been a barrier to development for the City of North Tonawanda.

The City of North Tonawanda has done an excellent job with programming festivals, events and other reasons for people to come to the City during the summer, but it is during the winter that the draw is just not there. This lack of activity is not only difficult for the city merchants, but it also makes it difficult to attract a hotel and other tourism services because of the seasonal nature of the events.

## **Recommendations and Market Analysis Findings**

Informed by the data collected during the previous "existing conditions" sections, market analysis experience, additional research and conversations with various economic development officials, real estate agents and others with insight into the market, Camoin Associates developed a list of potential redevelopment options for the City of North Tonawanda BOA. These options will all require additional research into the financial feasibility and community acceptance of the

individual projects, but the options listed below will meet unmet demands and appear to be realistic in the current marketplace.

### Retail:

As seen in the existing conditions report and from further conversations with local residents, there is a market for additional retail in the City of North Tonawanda. The existing conditions report showed the high level of retail sales leakage occurring in the study area, illustrating the number of residents going outside of the area to purchase goods and services. The existing conditions report showed leakage in almost every retail category, and after further conversations regarding the retail market we learned that the surrounding towns and corridors, like Niagara Falls Boulevard, have many of the larger national chains that residents are frequenting. For example the Fashion Outlet Mall and Summit Mall in Niagara Falls have a wide variety of stores, Galleria Mall in Buffalo and Route 324 in Tonawanda are also quite built up. Since these areas are not very far from the downtown or BOA, it is easy for residents to shop at these stores, making it unnecessary and unlikely that these larger stores will also locate within the BOA. Along these same lines, there is already a Super Wal-Mart planned for Niagara Falls Boulevard within City of North Tonawanda limits, so additional big box development is unlikely at this time.

The City of North Tonawanda should focus on the reuse and reinvestment of smaller boutiques to add to the character of Webster Street. The City has developed a wide variety of events to bring people to the waterfront during the summer and the Webster Street area is positioned perfectly to capitalize on these tourists. During the summer months, it was reported that boats are docked four deep along the Canal in the Gateway Harbor district. The City can help the local stores by making sure they are well advertised near the docks and along the waterfront and by marketing to boaters and tourists all that the City has to offer. The boaters are mostly regional, so if they see that Webster Street is revitalizing it is easy for them to come back time and time again throughout the seasons and years. In addition to the summer visitors, the Riviera Theater has also been bringing more and more people to the area throughout the year, giving more opportunities for the restaurants and stores to capture customers who are in the area. Stores that will appeal to visitors from out of town and are reasonably priced will be successful.

The sales leakage analysis showed that there is a large percentage of sales at full-service restaurants going out of the area. A full-service restaurant could meet the needs of local residents who are looking for a different kind of restaurant than is currently available. Something moderately priced would do well to capture families and visitors to the area.

During the interviews, it was clear that a shared vision of the Gateway Harbor area included the ability to provide an afternoon or full day of activities for regional visitors. It was a goal that visitors would see the Gateway Harbor as a destination with activities for the whole family, a diversity of offerings and smaller stores with unique items. The tourists who may know about a local restaurant that they want to go to should find that they are coming to the area for lunch, but then end up spending a longer time because of the wide variety of stores that appeal to everyone. The branding of the area and marketing campaigns will help the City get past their current image issues.

## Residential:

The completion of the Remington Rand project will be a huge boost to the local real estate market and will introduce a new type of housing unit to an area currently dominated by single family homes. The Remington Rand project will charge higher rents than is typical for the area and the revitalization efforts of the Gateway Harbor district may create demand for more moderately priced units in the downtown area.

Residential use is an allowable second floor use of the existing zoning code for the Gateway Harbor district. The renovation of vacant second floors within the downtown will help further the goals of revitalization and will help create a more active and viable community which will attract more residents and businesses.

The current number of single family homes within the City of North Tonawanda makes it unnecessary and probably unrealistic for more single family homes to be built within the BOA. In addition, there is a large population of elderly persons within the City who are currently living in their single family homes and who may decide to "downsize" in the coming years. This s demographic trend may create the demand for assisted living, senior housing, or "retirement communities". During the interviews it was determined that some high rise and low rise senior living facilities already do exist within the City and a recent 164 unit project was just built in the Town of Tonawanda, but linking the facilities to the water and views may provide an additional amenity that the other facilities are lacking. As demonstrated in the General Economic Outlook report, health care services will be a major growth industry in the coming years, and having senior care facilities and other health services will help the City to capture this growth of well paying, stable jobs.

Due to its unique location and spectacular views, Tonawanda Island was identified during the interviews as being a possible location for mid-to high-end condos. The market analysis and further discussion with locals has shown that this would need to be done in conjunction with some overall improvements to the island, shielding of the current adjacent industrial uses and a clear understanding of what the market will allow. The City of North Tonawanda currently has the highest average rents and mortgage payments of comparable western New York cities, and with the location and possible amenities offered, the condos could demand higher prices to make the project work. With the current national housing market, it would be necessary to plan this type of project out in phases and possibly even combine condos with rental properties and/or hotel rooms.

### Office and Commercial:

The existing conditions report found that there was a significant amount of slack office space available in the area. This was confirmed during the interviews, along with the fact that many companies are looking for better quality office space than is available within the BOA. However, Class A office space is already being built in surrounding communities, and the projected slow growth of office jobs in the area would make it unlikely that there will be much of a demand for additional large office space in North Tonawanda.

Although there is limited market for a brand new large office complex within the BOA, a more practical option would be working to renovate existing vacant second floor space into offices for smaller companies looking to locate in a more active downtown space. With the development of the Remington Rand live/work space nearby, there is the possibility that there will be an influx in small businesses and entrepreneurs in the area. As the economy begins to improve, it is likely many companies will be more interested in a second floor office in the Gateway Harbor district, with its lower rent demand and more vibrant atmosphere than a brand new office park.

## Industrial:

The existing conditions report shows that the industrial space-utilizing industries will be growing slowly in the coming years. While the City of North Tonawanda has seen a decline in manufacturing and industry in recent years there is still a good base of smaller manufacturing and machine shops within the City. The decline of manufacturing has left a few remnants for the City, including some environmental concerns and a few vacant buildings along the waterfront.

The City is working to clean up and remove any environmental concerns, and has been working with the Lumber City Development Corporation (LCDC) to clean up and reuse the Buffalo Bolt site in the north part of the BOA. This area will be able to be rebuilt to the specifications of companies looking to locate in the area and is served by an active railroad line. The LCDC should keep in mind that successful industrial development will likely include flex space with the ability to change with the times and ease of transportation access. The LCDC is working to attract new companies to the area, but for the time being it is unlikely there will be demand for more industrial development beyond what can be placed in the Buffalo Bolt site.

#### **Tourism:**

The City of North Tonawanda has not taken advantage of the tourism potential which exists in the Buffalo-Niagara region. With its long history of a manufacturing and industrial community, it will be necessary to diversify the economy to ensure long term sustainability and employment opportunities for residents. Since the City lacks a supply of hotel rooms, potential does lie in the development of a small hotel to begin to capitalize on tourists to the region who may be visiting Niagara Falls, the Niagara Gorge and other heritage and cultural amenities in the region. Any hotel would need to have some type of unique aspect in order to capture visitors to the City who otherwise have many other options in the region.

One way the hotel could be unique is by marketing to the existing supply of boaters coming to the area as being accessible by boat, no car required. If possible, the hotel could have its own dock and marina as well as run shuttles to the other public docks in the City or could be within walking distance of all the public docks. Marketing and advertising campaigns will be necessary to make sure that all those traveling within the region are aware of the unique facility and all the amenities available within the City of North Tonawanda.

Since the hotel demand is seasonal, it may be necessary to start out small at first to begin to build the demand for hotel space, or even combine the development with apartments and mixed-uses. By having a variety of uses, it is feasible that the project will not only attract more attention, but will also be financially successful.

If the City hopes to increase overnight stays within the City and attract boaters from a further distance, meeting the needs of boaters will be important. For example, the City may want to consider attracting a small convenience store that the boaters could use to buy supplies. The LDCD is working on building a hotel within the Gateway Harbor/Webster Street area, which could be marketed to boaters who are traveling the Erie Canal. The City could work with local retailers to offer incentives to those visiting to come to the area by offering discounted tickets to shows at the Riviera when combined with a local restaurant. The City will need to be created and build on local heritage and assets when working to build the local tourism economy.

## Appendix E

## Marketing and Branding Materials





**Brand Guide** 

## **Brand Overview**

## **Vision**

...a vibrant mixed use district centered around the confluence of two waterfronts – the Erie Canal and the Niagara River. Residents can choose to live, work, or relax while taking advantage of abundant commercial opportunities, employment options, restaurants, and recreation assets, all of which capitalize on the natural beauty of the surrounding landscape. Visitors come not only to enjoy the waterways, but to experience the multitude of land side cultural and recreational amenities offered at this "Gatewayto the Erie Canal."

## **Tone**

# Friendly Lively Passionate/Pride

## **Target Audiences**

- 1. Developers
- 2. Potential Residents
- 3. Business Community

## **Key Messages**

1. Key Message #1: Purpose

The North Tonawanda momentum project will provide new opportunities for the community to live, work and play in a City that is rich with character and culture.

2. Key Message #2: Community Impact

The North Tonawanda momentum project will ensure that the City of North Tonawanda becomes a center for commerce and a destination that residents and visitors can enjoy.

3. Key Message #3: Selling Feature

There is a growing desire to be back "downtown." The North Tonawanda momentum project provides the opportunity to be a part of an urban environment without sacrificing the beauty of scenic landscapes and natural waterways.

4. Key Message #4: Call to Action

Be a part of this City's resurgence. Learn more about the exciting opportunities available to live, work and play by the waterfront and within a revitalized city center as a result of the North Tonawanda momentum project.

## Logo Anatomy

The **NT** mome**NT**um logo features distinct characteristics that set it apart from other marks, and that coordinate with it's sister marks in order to represent all the facets of the **NT** mome**NT**um project. Each defining aspect protects the brand from confusion in the marketplace, but also imbues the icon with meaning and reflects the personality of the brand.

The overall mark is understated and simple—through colors, typefaces and artistic style of the illustrations, it presents a balance of calm and strength with activity, growth and excitement.

The hand-drawn quality of the illustrations brings a human touch and life to the NT scene. The illustrations also represent specific buildings—and of course, the waterway—within the NT area, an homage to the proud history of the city that we intend to build on.



The large wave icon places emphasis on North Tonawanda's very important waterfront, while also serving as an underline to the word "momentum."

The typography throughout the mark is bold, confident, and easy to read. Each tagline emphasizes the goal of the respective focus area—for the overarching NT momentum campaign, the tagline reads, "city resurgence, from downtown to the waterfront." Note that the "NT" in "downtown" and "waterfront" are both capitalized to match the callout in the main logo word "momentum."

The small capitalization and color highlight of "NT" within the word "momentum" emphasizes the relationship to North Tonawanda—or as those in our community call it (lovingly), "NT."

## Logo Family

The NT momeNTum project is an overarching campaign for the redevelopment of the city of North Tonawanda, with three key intiatives or areas of focus: waterfront, downtown, and residential. Each of these focus areas has it's own logo and tagline that can be used when speaking to that specific intiative only. These logos are provided in the same color variations and file types as the overarching logo, and the same guidelines as indicated on page 4 should be followed. All of the following logos are also provided without taglines.

## Place Logo with Tagline



## Project Logo with Tagline



city resurgence, from downtown to the waterfront

## Downtown Logo with Tagline



## Waterfront Logo with Tagline



## Residential Logo with Tagline



## Logo Usage

Consistent and appropriate logo usage is key in building and maintaining the brand. Here are some general usage guidelines to follow:



Always use one of the provided logo files—do not alter or adjust any part of the logo.



Always include the tagline below the logo as provided in one of the "with tagline" logo files; proportions should not be changed, other fonts should not be introduced, etc.



Give the logo ample white space on all edges, free of other art and typography.















Do not stretch or distort the logo. Do not turn the logo on an angle. Do not place color logos on color backgrounds. Do not pair the logo with other phrases, or introduce other typefaces. Do not alter the icon in any way.

## Color Logos

There are a variety of logo formats and color schemes provided for use in various space alotments and for various production requirements. Each logo is provided in a full range of color settings (4c, PMS, etc—see page 7 for details), with and without the tagline. Below are all of the logo lockups provided:

## Project/Place Logo without tagline



## Place Logo with Tagline



## Project Logo with Tagline



## Downtown Logo with Tagline



# downtown

## Waterfront Logo with Tagline





## Downtown Logo without Tagline Wat

## Waterfront Logo without Tagline

## Residential Logo with Tagline





Residential Logo without Tagline

## **Black Logos**

Black or white logos may be required for greyscale printing like newspaper ads, sponsorship ads, black and white forms, etc. The black version of the logo should be used whenever the logo cannot be printed in color, and should be used on a white background whenever possible.

## Project/Place Logo without tagline



## Place Logo with Tagline



## Project Logo with Tagline



## Downtown Logo with Tagline





## Waterfront Logo with Tagline





## Downtown Logo without Tagline

Waterfront Logo without Tagline

## Residential Logo with Tagline





Residential Logo without Tagline

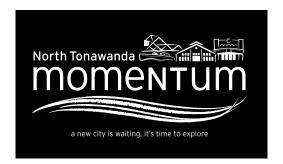
## White Logos

The white version of the logo should be used on bright or dark color backgrounds.

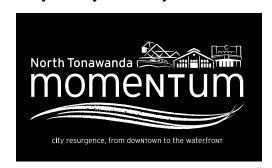
## Project/Place Logo without tagline



Place Logo with Tagline



Project Logo with Tagline



Downtown Logo with Tagline



Downtown Logo without Tagline

Waterfront Logo with Tagline





Waterfront Logo without Tagline

## Residential Logo with Tagline





Residential Logo without Tagline

## Colors

Color is an important part of a brand identity. The **NT** mome**NT**um brand colors should match from one piece to the next; maintaining consistent colors by utilizing the following color values will help in building and maintaining a strong and recognizable brand over time.

### **CMYK** values

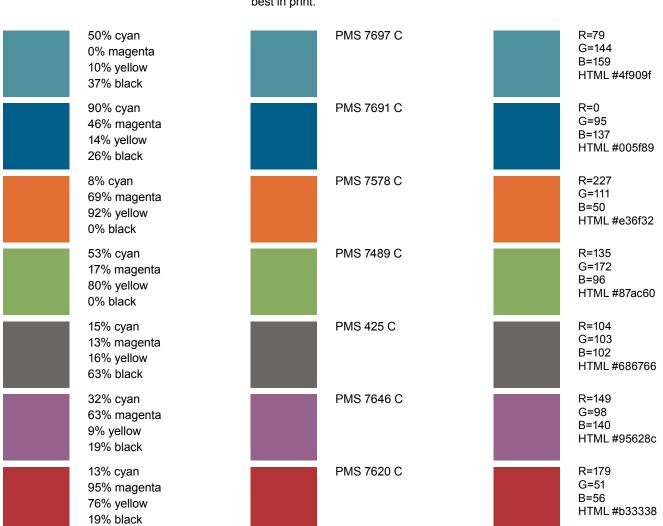
These are the most commonly used color settings, primarily for print purposes.
They may also be referred to as "4-color," or "4c."

#### PMS values

Spot colors, or PMS colors, are used in some types of printing. You should only use this color version when requested by a vendor. Though the color may appear slightly different on screen, it will match best in print.

#### **RGB or HTML**

Logos for use on screen are a different color platform; files labeled simply "color" are meant specifically for online use, tv, etc.



## Logo File Types

Each of the logo formats shown on the previous pages are also provided in a variety of file types, such as .JPG, .EPS, .PDF and .PNG. Each is intended for a different application, and though you may not use them all very often, you may have requests from vendors or publications for these file types.

#### .JPG

## usage: word docs, online, small printing

Files provided in this format may be placed in Word documents, online/on-screen applications and may be used for small-scale printing. They have a white background (which is why logo formats with white type are not offered as JPGs), and they do not retain any editing capabilities.

### .PNG

### usage: online only

Similar to JPGs, PNGs are made for online/on-screen applications and do not retain editing capabilities. Unlike JPGs, they have a transparent background, which makes them an option even for "reverse" or "white" logo versions.

#### .EPS

## usage: professional, printing at any size

Also known as "vector" files, EPS files retain all editing capabilities, have no background color, and are completely scalable—which means they can be printed very small or very large with no impact on the quality of the artwork. For this reason, this is often the best logo format to share with partners who request your logo.

In order to open or view this file type, you must have certain applications on your computer. If a partner requests an EPS and you cannot open the file, simply reference the PDF or JPG version of that logo to preview what you are sending.

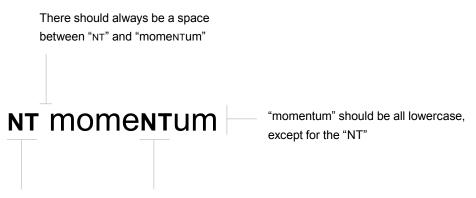
#### .PDF

### usage: any

PDFs are the most widely accepted file format, easily emailed and viewed on almost all computers—PC, Mac, old and new. PDFs also retain color space and vector qualities, so they can be used in most applications without impacting the quality of the logo art.

## Written Guidelines

When "NT momentum" is written in text, outside the use of the logo, it should be typeset as follows, whenever possible:



The standalone "NT" and the "NT" in the middle of the word "momentum" should both be capitalized, and changed to small caps—so they will be the same height as the lowercase letters in "momentum"—and made one weight heavier than the rest of the text.

## **Typefaces**

The following typefaces are used in the NT momeNTUM logo lockup and collateral materials and should be used in other materials for continuity. Both of these typefaces also come in several weights or faces that may be useful.

## Display fonts:

## Interstate Regular Interstate Light

Interstate Light and Regular must be purchased for \$40 each at http://www.fonts.com/search/all-fonts?searchtext=interstate+light&SearchIn=all-fonts

## Text weight fonts:

Arial Bold
Arial Bold Italic
Arial Regular
Arial Italic

Arial Narrow Bold

Arial Narrow Bold Italic

Arial Narrow Regular

Arial Narrow Italic

These can also be used for display fonts if you do not have access to Interstate.

## Photography

The following royalty-free images have been purchased for use in **NT** mome**NT**um brand materials. All of the stock photographs selected are in keeping with the brand personality—they reflect the experiences people can have in North Tonawanda as the momentum project continues, and the area is further developed. They capture energy, art, culture, entertainment, food and history—the good life, and all the NT stands for.

Thrse first 4 images are the primary images to be used for each of thes main momentum areas of focus. On subsequent pages, you can see allof the stock photos purchased and available for each focus area.

## waterfront



### downtown



plan renderings



residential



## Photography: Waterfront





















## Photography: Residential







## Photography: Downtown

## hotel













## dining











mixed use







## Photography: Renderings









## **Mandatories**

## Legal Statement

The following statement must be included on any and all North Tonawanda momentum collateral:

This document was prepared for the City of North Tonawanda and the New York State Department of State with state funds provided under Title 11 of the Environmental Protection Fund and the Brownfield Opportunity Area Program.

## **Approval**

Any collateral—print, digital or otherwise—utilizing North Tonawanda momentum brand elements must be submitted for official approval to:

Michael Zimmerman
Executive Director, Lumber City Development
716.695.8580 x5515
mzimmerman@lumbercitydc.com



This document was prepared for the City of North Tonawanda and the New York State Department of State with state funds provided under Title 11 of the Environmental Protection Fund and the Brownfield Opportunity Area Program.



city resurgence, from downtown to the waterfront

## **SITE #8**

## Retail/Restaurant Mixed Use and Little River Promenade

150 Michigan Street



## SITE DESCRIPTION

This publicly-owned 4.2-acre site is made up of two partially vacant parcels on Tonawanda Island at the west end of the Thompson Street Bridge. The site contains an existing structure that is used by the Fire Department for training purposes. A Phase I Environmental Site Assessment was completed and is available for review.

#### SITE ACCESS

The site is within convenient walking distance of Downtown North Tonawanda. Vehicle access is available from Taylor Drive and Bridge Street.

### **EXISTING USE**

Fire Training Facility

## AT A GLANCE

#### **TAX PARCEL ID**

184.08-1-8 184.08-1-9

## SITE SIZE

180,338 sf 4.2 acres

### OWNERSHIP

Public

#### **CURRENT ZONING**

Waterfront District (WD). Upcoming updates to the WD zoning district will incorporate performance standards to encourage flexibility in site design in exchange for public amenities.

### **EXISITNG INFRASTRUCTURE**

Water: North Tonawanda Water District Sewer: North Tonawanda Sewer District

**Electric:** National Grid **Telecom:** Verizon

### SITE MAP ON BACK...

**DISTANCE TO INTERCHANGE (I-290)** 2.8 miles

DISTANCE TO CANADIAN BORDER (LEWISTON/QUEENSTON BRIDGE) 14.4 miles

DISTANCE TO NIAGARA FALLS INTERNATIONAL AIRPORT 7 miles

DISTANCE TO BUFFALO NIAGARA INTERNATIONAL AIRPORT 12.8 miles



explore the momentum of life, work and play at the water's edge

## SITE #8

## Retail/Restaurant Mixed Use and Little River Promenade

150 Michigan Street









## SITE ADVANTAGES

- · Publicly-owned land
- Available for redevelopment
- Convenient site access
- Prime location on Tonawanda Island
- Frontage along the Little River
- Featured as a strategic site in the NT Momentum Revitalization Master Plan
- Incentives available



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city resurgence, from downtown to the waterfront

# SITE #13 Downtown Hotel

27 & 39 Main Street



#### SITE DESCRIPTION

This privately-owned site is located in the heart of downtown North Tonawanda, near restaurants and shopping, and just steps from the Canal waterfront. The site currently holds a warehouse building and is available.

#### SITE ACCESS

Vehicle access is provided from Sweeney Street, Main Street, Tremont Street, and Duluth Alley.

### **EXISTING USE**

Parking lot, warehouse.

## AT A GLANCE

## **TAX PARCEL ID**

185.09-1-17 185.09-1-16

### SITE SIZE

68,204 sf 1.6 acres

## **OWNERSHIP**

Private

## **CURRENT ZONING**

"Light Manufacturing" M-1 (This site is being considered for rezone to Downtown Mixed Use. The purpose of the zone is to provide clarity about development requirements and allow flexibility, while encouraging mixed uses, pedestrian friendly site design, and architectural compatibility).

### **EXISITNG INFRASTRUCTURE**

Water: North Tonawanda Water District Sewer: North Tonawanda Sewer District

**Electric:** National Grid **Telecom:** Verizon

## SITE MAP ON BACK...

**DISTANCE TO INTERCHANGE (I-290)** 2.5 miles

DISTANCE TO CANADIAN BORDER (LEWISTON/QUEENSTON BRIDGE) 14.7 miles

DISTANCE TO NIAGARA FALLS INTERNATIONAL AIRPORT

DISTANCE TO BUFFALO NIAGARA
INTERNATIONAL AIRPORT
12 miles



## **SITE #13**

## **Downtown Hotel**

27 & 39 Main Street

enjoy the momentum of entertainment, food and culture at the city center









## **SITE ADVANTAGES**

- Prime downtown location near restaurants & shopping,
- Canal waterfront
- Available for redevelopment
- Featured as a strategic site in the NT Momentum Revitalization Master Plan
- Incentives Available



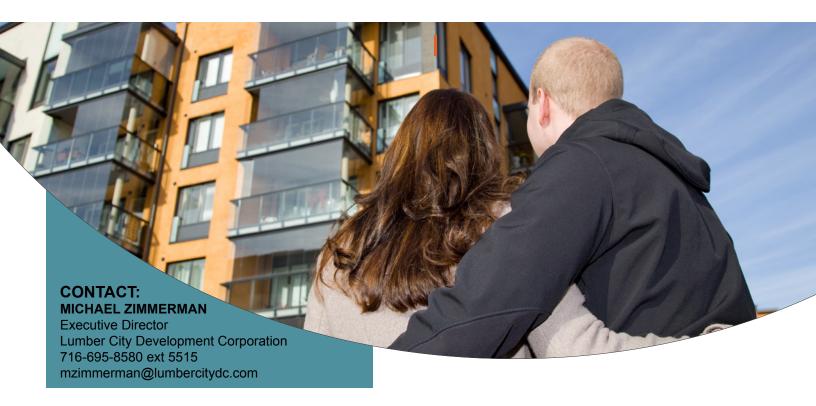




city resurgence, from downtown to the waterfront

# SITE #15 Multi-family Residential

600 River Road



### SITE DESCRIPTION

This partially vacant site is the former home of Niagara Iron Works. The property is located along the Niagara River, between Downtown and Gratwick Park. The site offers frontage on River Road and the Niagara River.

### SITE ACCESS

Access is available directly from River Road.

#### **EXISTING USE**

Minor improvements.

## AT A GLANCE

## TAX PARCEL ID

## **SITE SIZE** 262,231 sf 6.02 acres

## **OWNERSHIP** Private

### **CURRENT ZONING**

Waterfront District (WD). Upcoming updates to the WD zoning district will incorporate performance standards to encourage flexibility in site design in exchange for public amenities.

#### **EXISITNG INFRASTRUCTURE**

Water: North Tonawanda Water District Sewer: North Tonawanda Sewer District

**Electric:** National Grid **Telecom:** Verizon

## SITE MAP ON BACK...

**DISTANCE TO INTERCHANGE (I-290)** 3.5 miles

DISTANCE TO CANADIAN BORDER (LEWISTON/QUEENSTON BRIDGE) 13.6 miles

DISTANCE TO NIAGARA FALLS INTERNATIONAL AIRPORT 6 miles

DISTANCE TO BUFFALO NIAGARA INTERNATIONAL AIRPORT 13.2 miles



feel at-home in a community growing with momentum

## **SITE #15**

## Multi-family Residential

600 River Road





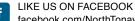




## **SITE ADVANTAGES**

- · Waterfront property with frontage along the Niagara
- Large 6-acre vacant site
- Adjacent parcels offer potential opportunity to expand the site
- · Undergoing environmental remediation
- Featured as a strategic site in the NT Momentum Revitalization Mater Plan
- NYS BCP Brownfield Tax Credits with Designated BOA Enhancement
- · Incentives available





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NTMOMENTUM.com



city resurgence, from downtown to the waterfront

# SITE #21 Mixed Use Redevelopment

235 River Road



#### SITE DESCRIPTION

This site is conveniently located between River Road and Main Street, with excellent access and close proximity to Tonawanda Island and Downtown North Tonawanda.

### SITE ACCESS

The site has access on River Road and Main Street.

### **EXISTING USE**

Equipment and materials storage.

## AT A GLANCE

## TAX PARCEL ID

185.05-1-73 185.05-1-75

185.05-1-81.11 185.05-1-77.1

### SITE SIZE

142,441 sf 3.27 acres

## **OWNERSHIP**

Private

### **CURRENT ZONING**

M-1 Light Manufacturing (This site is being considered for rezone to Downtown Mixed Use. The purpose of the zone is to provide clarity about development requirements and allow flexibility, while encouraging mixed uses, pedestrian friendly site design, and architectural compatibility).

### **EXISITNG INFRASTRUCTURE**

Water: North Tonawanda Water District Sewer: North Tonawanda Sewer District

**Electric:** National Grid **Telecom:** Verizon

### SITE MAP ON BACK...

**DISTANCE TO INTERCHANGE (I-290)** 3 miles

DISTANCE TO CANADIAN BORDER (LEWISTON/QUEENSTON BRIDGE) 14 miles

DISTANCE TO NIAGARA FALLS
INTERNATIONAL AIRPORT
6.7 miles

DISTANCE TO BUFFALO NIAGARA INTERNATIONAL AIRPORT

12.6 miles



## **SITE #21**

## Mixed Use Redevelopment

235 River Road

enjoy the momentum of entertainment, food and culture at the city center









## SITE ADVANTAGES

- · Ideal location for redevelopment
- · Direct access to River Road and Main Street.
- Across the street from Smith Boys Marina
- Featured as a strategic site in the NT Momentum Revitalization Master Plan
- Gateway to downtown and Tonawanda Island





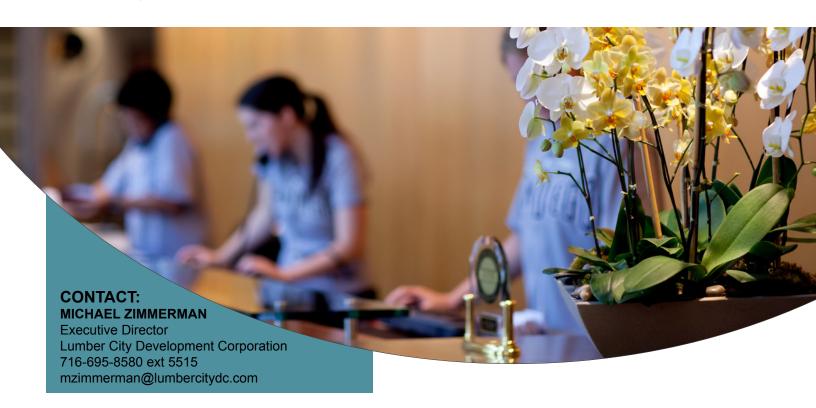


city resurgence, from downtown to the waterfront

## **SITE #25**

## Hotel and Restaurant

2 Bridge Street



#### SITE DESCRIPTION

This partially vacant site is located on Tonawanda Island, just across the Thompson Street Bridge and within walking distance to Downtown North Tonawanda. The site offers extensive frontage along the Niagara River and is currently for sale.

### SITE ACCESS

The site can be accessed from Bridge Street on Tonawanda Island.

## **EXISTING USE**

Vacant

## AT A GLANCE

## TAX PARCEL ID

184.08-1-1

184.08-1-21

184.08-1-20

184.08-1-2

#### SITE SIZE

953,964 sf

21.9 acres

### **OWNERSHIP**

Private

### **CURRENT ZONING**

Waterfront District (WD). Upcoming updates to the WD zoning district will incorporate performance standards to encourage flexibility in site design in exchange for public amenities.

### **EXISITNG INFRASTRUCTURE**

Water: North Tonawanda Water District Sewer: North Tonawanda Sewer District

**Electric:** National Grid **Telecom:** Verizon

## SITE MAP ON BACK...

DISTANCE TO INTERCHANGE (I-290)

2.8 miles

DISTANCE TO CANADIAN BORDER (LEWISTON/QUEENSTON BRIDGE) 14.5 miles

DISTANCE TO NIAGARA FALLS
INTERNATIONAL AIRPORT
7 miles

DISTANCE TO BUFFALO NIAGARA INTERNATIONAL AIRPORT

12.8 miles



explore the momentum of life, work and play at the water's edge

## **SITE #25**

## Hotel and Restaurant

2 Bridge Street









## SITE ADVANTAGES

- Prime waterfront property on Tonawanda Island
- Extensive frontage along the Niagara River
- Large 22-acre site
- Featured as a strategic site in the NT Momentum Revitalization Master Plan
- Incentives available







city resurgence, from downtown to the waterfront

## **SITE #26**

## Residential or Hospitality

2-17 Detroit Street



#### SITE DESCRIPTION

This site is home to a marina facility and a restaurant. It is located on Tonawanda Island, just across the Thompson Street Bridge and within walking distance to Downtown North Tonawanda. This site offers dock facilities, river access, and extensive frontage along the Niagara River. This site is currently available.

### SITE ACCESS

The site can be accessed from Bridge Street on Tonawanda Island.

### **EXISTING USE**

Warehouse, yard storage, restaurant and marina.

## AT A GLANCE

## TAX PARCEL ID

184.08-1-15 184.08-1-13.1

### SITE SIZE

258,311 sf 5.93 acres

### **OWNERSHIP**

Private

#### **CURRENT ZONING**

Waterfront District (WD). Upcoming updates to the WD zoning district will incorporate performance standards to encourage flexibility in site design in exchange for public amenities.

### **EXISITNG INFRASTRUCTURE**

Water: North Tonawanda Water District Sewer: North Tonawanda Sewer District

**Electric:** National Grid **Telecom:** Verizon

### SITE MAP ON BACK...

**DISTANCE TO INTERCHANGE (I-290)** 2.8 miles

DISTANCE TO CANADIAN BORDER (LEWISTON/QUEENSTON BRIDGE) 14.5 miles

DISTANCE TO NIAGARA FALLS INTERNATIONAL AIRPORT 7 miles

DISTANCE TO BUFFALO NIAGARA INTERNATIONAL AIRPORT 12.8 miles



explore the momentum of life, work and play at the water's edge

## **SITE #26**

## Residential or Hospitality

2-17 Detroit Street









## **SITE ADVANTAGES**

- · Prime waterfront property on Tonawanda Island
- Extensive frontage along the Niagara River
- Featured as a strategic site in the NT Momentum Revitalization Master Plan
- · Incentives available



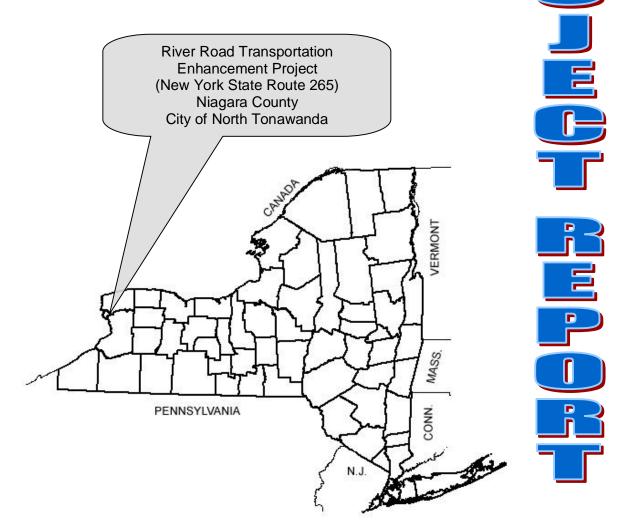
## Appendix F

# River Road Project Scoping Report and Traffic Capacity Analysis

# TRANSPORTATION

### PROJECT SCOPING REPORT

**July 2015** 



U.S. Department of Transportation Federal Highway Administration



### **PROJECT APPROVAL SHEET**

(Pursuant to SAFETEA-LU Matrix)

A. IPP Approval:	The project is ready to be added to the Regional Capital Program and project scoping can begin.				
	The IPP was approved by				
	Regional Director				
<b>B.</b> Recommendation for Scope Approval	The project cost and schedule are consistent with the Regional Capital Program.				
	Regional Planning & Program Manager				
	Regional Design Engineer				
C. Scope Approval:	The project cost and schedule are consistent with the Regional Capital Program.				
	Regional Director				

### **TABLE OF CONTENTS**

### **COVER**

PROJECT APPROVAL SHEET	
PROJECT SCOPE	1
1.1. Introduction	1
1.2. Purpose and Need	1
1.2.1. Where is the Project Located?	1
1.2.2. Why is the Project Needed?	1
1.2.3. What are the Objectives/Purposes of the Project?	2
1.3. What Alternative(s) Are Being Considered?	2
1.4 How will the Alternatives Affect the Environment?	3
1.5. What Are The Costs & Schedules?	
1.6. Which Alternative is Preferred?	∠
1.7. What are the Opportunities for Public Involvement?	4

### **LIST OF ATTACHMENTS**

- 1. Maps
- Traffic Capacity Analysis
   Traffic Accident Analysis
   Critical Design Elements
   Environmental Checklist

### PROJECT SCOPE

### 1.1. Introduction

This report was prepared in accordance with the NYSDOT Project Development Manual, 6 NYCRR (New York Codes, Rules and Regulations) Part 617, and 23 CFR (Code of Federal Regulations) 771. Transportation needs have been identified (section 1.2), objectives established (1.2.3) to address the needs, and cost-effective alternatives developed (1.3). The intent of this report is for submission to acquire funding through the Transportation Improvement Program (TIP).

### 1.2. Purpose and Need

### 1.2.1. Where is the Project Located?

(1) Route number: NYS 265(2) Route name: River Road

(3) City: North Tonawanda

(4) County: Niagara(5) Length: 3.0 Miles

(6) From: RM 265 5402 1000 (Erie Canal)

To: RM 265 5402 1030 (1,800 feet northwest of Witmer Road)

(7) River Road is a five lane urban principal arterial with left turn lanes at the eight signalized intersections located within the City of North Tonawanda. See the Transportation System map in Attachment 1, Map 13 from the City of North Tonawanda Brownfield Opportunity Area (BOA) Nomination Study February 2013. Travel lanes are 11-13 feet wide and the center left turn lane varies from 10 feet to 12 feet wide. The roadway is located along the east and north sides of the Niagara River with an alignment that contains several horizontal curves of various curvatures and lengths. The road is curbed with no parking and a posted speed limit of 40 miles per hour (mph) south of Felton Street. North of Felton Street the road is posted at 45 mph with shoulders that vary in width from 6 feet to 8 feet. North of Witmer Road the shoulders vary to a greater degree with a narrower west shoulder and a wider east shoulder.

### 1.2.2. Why is the Project Needed?

River Road is a critical transportation link for development within the North Tonawanda Brownfield Opportunity Area. The North Tonawanda BOA has recently received official designation status from the Governor, which gives the entire study area priority status for grants and additional Brownfield Cleanup Program tax credit incentives. It is considered a fast-track for redevelopment that attracts public and private resources. The Master Plan created through the BOA is the product of a decade of planning, market analysis, and investment by the State, City, and private sector. The North Tonawanda Island BOA is now in the third and final stage of the BOA program, which is the Step 3 Implementation Strategy. Leading up to this step in the program, there has been over \$41 million in public and private investment in the BOA, including major investments in infrastructure, streetscapes, parks, redevelopment of the Remington Rand building into luxury lofts, and the upcoming Riviera Theatre Expansion.

The River Road Transportation Enhancement Project is needed to help spur new development and alleviate full build BOA Master Plan traffic congestion in the anticipated completion year of 2035 based on the capacity analysis in Attachment 2. Results of the analysis show that five lanes are needed on River Road south of Felton Street and mitigation is needed to alleviate unacceptable delays expected at three intersections along River Road: at Wheatfield Street, Thompson Street and at Goundry Street.

Additional traffic capacity is needed to access Tonawanda Island due to the level of development there as shown on the Master Plan maps in Attachment 1. The two options for improved access to the island are:

Widen the Existing Bridge or Construct a Second Bridge. Attachment 1 contains maps depicting the full build Master Plan under the two access options. A single lane roundabout is recommended on the island in lieu of a signal at the first intersection from the existing bridge under the Construct a Second Bridge option because of the reduced volume of traffic expected to travel over the existing bridge with a second bridge in place.

River Road pedestrian crossings are in current need of improvements at the eight signalized intersections in the City of North Tonawanda including pedestrian signals with actuation, crosswalks, sidewalk connections, lighting and signal timing. The sidewalk system also lacks continuity in areas as shown on the Pedestrian Circulation map in Attachment 1. There is a need for traffic calming along River Road and safe, accessible connections to the waterfront from residential areas east of River Road. The Pedestrian Circulation map in Attachment 1 also shows the six at grade rail crossings that need improvement to provide continuity and safety for pedestrians and bicyclists. Improvement of pedestrian and bicycle connections are a vital component to the success of the BOA Master Plan. Increased pedestrian and bicycle traffic is expected to help spur development of the BOA sites.

Attachment 3 - Traffic Accident Analysis shows that the intersection accident rates on River Road are higher than statewide averages.

### 1.2.3. What are the Objectives/Purposes of the Project?

- (1) Address geometric deficiencies to improve traffic flow and facilitate traffic operations for a design period of 20 years including impacts of the BOA master plan build-out.
- (2) Improve signalized intersections and rail crossings for bikes and pedestrians to make stronger connections between residential neighborhoods, the waterfront and the multi-use path.
- (3) Provide streetscape enhancements including improved sidewalks, landscaping, trees, well-marked crosswalks and pedestrian traffic signals to enhance pedestrian experience and safety along River Road.

### 1.3. What Alternative(s) Are Being Considered?

The results of the full build BOA traffic capacity analysis in Attachment 2 show that five lanes are needed on River Road south of Felton Street. Geometric improvements are also recommended at one or two intersections depending on the future access to Tonawanda Island. Geometric improvements are recommended at both the Wheatfield Street and Thompson Street intersections on River Road if the existing bridge to Tonawanda Island is widened. Geometric improvements are recommended at the Wheatfield Street intersection and not the Thompson Street intersection if a second bridge to Tonawanda Island is constructed at Wheatfield Street. The analysis also shows that north of Felton Street a road diet is feasible on River Road, modifying the roadway from five lanes to three lanes. The three lane alternative was proposed for analysis in an effort to calm traffic and help improve pedestrian access, specifically to areas along the Niagara River. The following alternatives are being considered:

Alternative 1 – No Action

<u>Alternative 2</u> – Three Lanes with a Raised Median North of Felton Street and Five Lanes South of Felton Street with Geometric Improvements based on one of two options for access to Tonawanda Island:

<u>Alternative 2A</u> – Three Lanes with a Raised Median North of Felton Street and Five Lanes with Geometric Improvements at Two Intersections based on Traffic Impacts of Widening the Existing Bridge to Tonawanda Island

<u>Alternative 2B</u> – Three Lanes with a Raised Median North of Felton Street and Five Lanes with Geometric Improvements at One Intersection based on Traffic Impacts of Constructing a Second Bridge to Tonawanda Island

Alternative 2 includes streetscape enhancements including improved sidewalks, landscaping, trees, well-marked crosswalks and pedestrian traffic signals to enhance pedestrian experience and safety. The signalized intersections and rail crossings will also be enhanced to make stronger connections for bikes and pedestrians between residential neighborhoods, the waterfront and the multi-use path along River Road.

Refer to Attachment 4 for the design criteria and Attachment 5 for the environmental checklist. No nonstandard features are anticipated.

### 1.4 How will the Alternatives Affect the Environment?

Exhibit 1.4-A Environmental Summary				
NEPA Classification C	Class II	BY	To Be Determined	
SEQR Type:	Гуре І	BY	To Be Determined	

Anticipated Permits/Certifications/Coordination:

#### NYSDEC:

- State Pollutant Discharge Elimination System (SPDES) General Permit
- Water Quality Certification (Sec 401) of the FWPCA

### **USACOE**

 U.S. Army Corps of Engineers, Section 404 Nationwide Permit #14- Linear Transportation Projects

### **NYSDOS:**

- Coastal Zone Consistency Certification Statement
- Coastal Zone Local Waterfront Revitalization Certification

### Coordination

- Coordination with Federal Highway Administration
- Coordination with New York State Historic Preservation Officer (SHPO)
- Coordination with the US Fish and Wildlife Service
- Coordination with the New York Natural Heritage Program

### Certifications

NYSDOL: Asbestos Variances

#### Others

Historic or Archaeological Impacts on Federal 106

### 1.5. What Are The Costs & Schedules?

Planning level cost estimates are provided in Exhibit 1.5 below, based on Generic Costs and Schedules, New York State Department of Transportation Region 5.

Exhibit 1.5 Project Costs				
Work Description	Estimated Cost (millions)			
	Alternative 1	Alternative 2A *	Alternative 2B **	
Reconstruction North of Felton Street – Three Lanes with Median	\$ 0.0M	\$ 8.2M	\$ 8.2M	
Mill and 1 Course Overlay – South of Felton Street	\$ 0.0M	\$ 1.2M	\$ 1.2M	
Intersection Improvements – Pedestrian Accommodations	\$ 0.0M	\$ 1.2M	\$ 1.2M	
Intersection Improvements – Geometric Deficiencies	\$ 0.0M	\$ 2.4M	\$ 2.4M	
Rail Crossing Improvements incl. Pedestrian Accommodations	\$ 0.0M	\$ 1.8M	\$ 1.8M	
Streetscape and Landscaping Improvements	\$ 0.0M	\$ 1.8M	\$ 1.8M	
Multi-Use Path Improvements – South of Felton Street	\$ 0.0M	\$ 0.5M	\$ 0.5M	
Construction Total	\$ 0.0M	\$17.1M	\$17.1M	
Right of Way Acquisition ***	\$ 0.0M	\$ 0.5M	\$ 0.5M	
Engineering	\$ 0.0M	\$ 3.4M	\$ 3.4M	
Construction Inspection and Engineering Support	\$ 0.0M	\$ 2.2M	\$ 2.2M	
TOTAL	\$ 0.0M	\$23.2M	\$23.2M	

<sup>\*</sup> Widening Bridge to Tonawanda Island not included

### 1.6. Which Alternative is Preferred?

The alternative that best meets the project objectives is Alternative 2.

### 1.7. What are the Opportunities for Public Involvement?

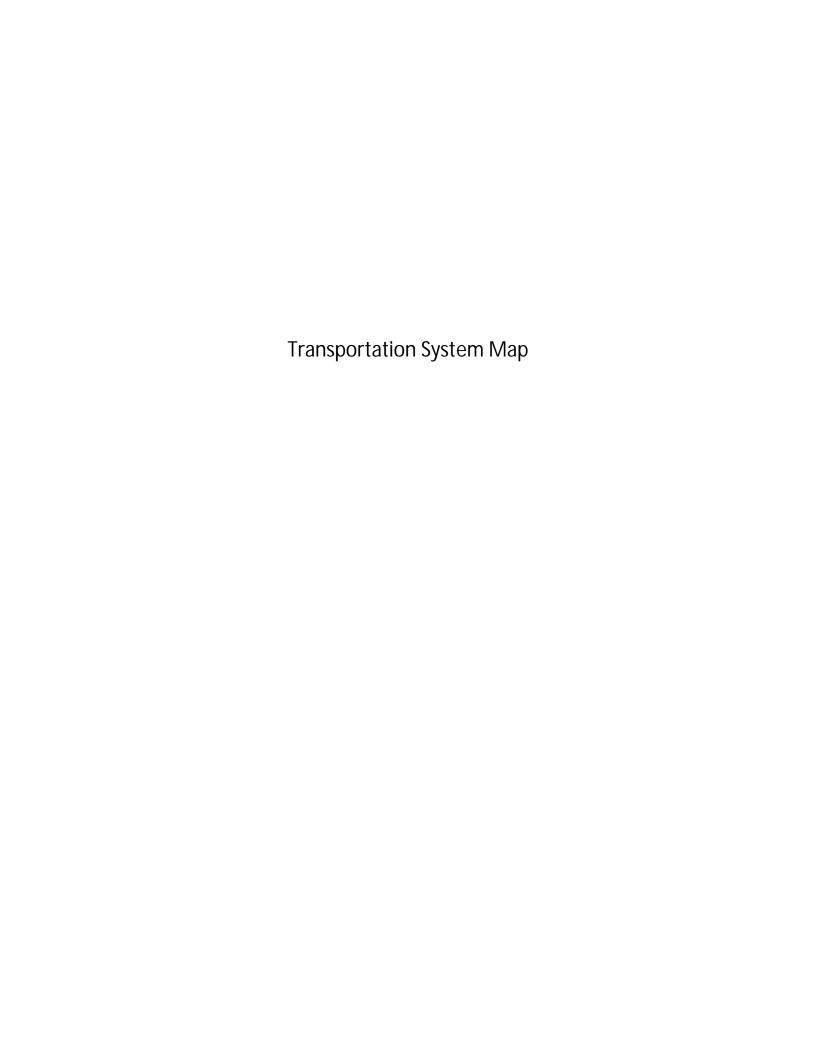
A highly involved public involvement process is envisioned for the River Road Transportation Enhancement Project. The coordination process is expected to include the interactive meetings provided in Exhibit 1.7 below. The public involvement process has been ongoing, as the BOA Step 2 Nomination Study and Step 3 Implementation Study have included extensive coordination with the community, local officials, businesses, etc.

Exhibit 1.7 Public Involvement Plan		
Activity		
Stake Holder Meeting		
Focus Group Meeting		
Meeting with City Representatives		
Public Informational Meeting		

<sup>\*\*</sup> Construction of a second bridge to Tonawanda Island not included

<sup>\*\*\*</sup> Right of Way costs to be refined during preliminary engineering

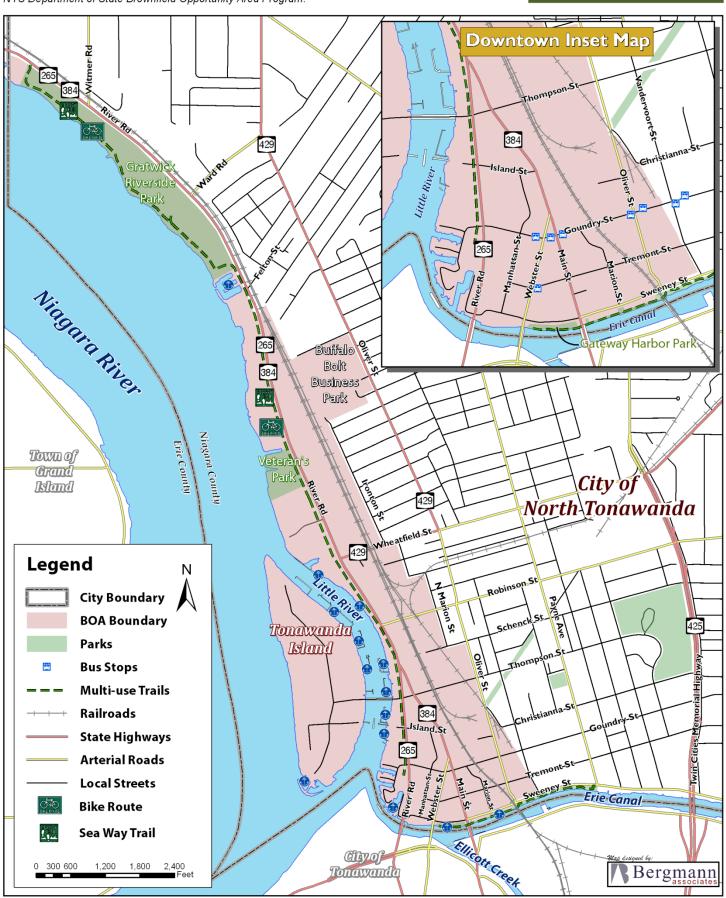
## Attachment 1 Maps



## **North Tonawanda Brownfield Opportunity Area Nomination Study**

MAP 13
Transportation System

This effort was made possible with the guidance and financial assistance provided by the NYS Department of State Brownfield Opportunity Area Program.

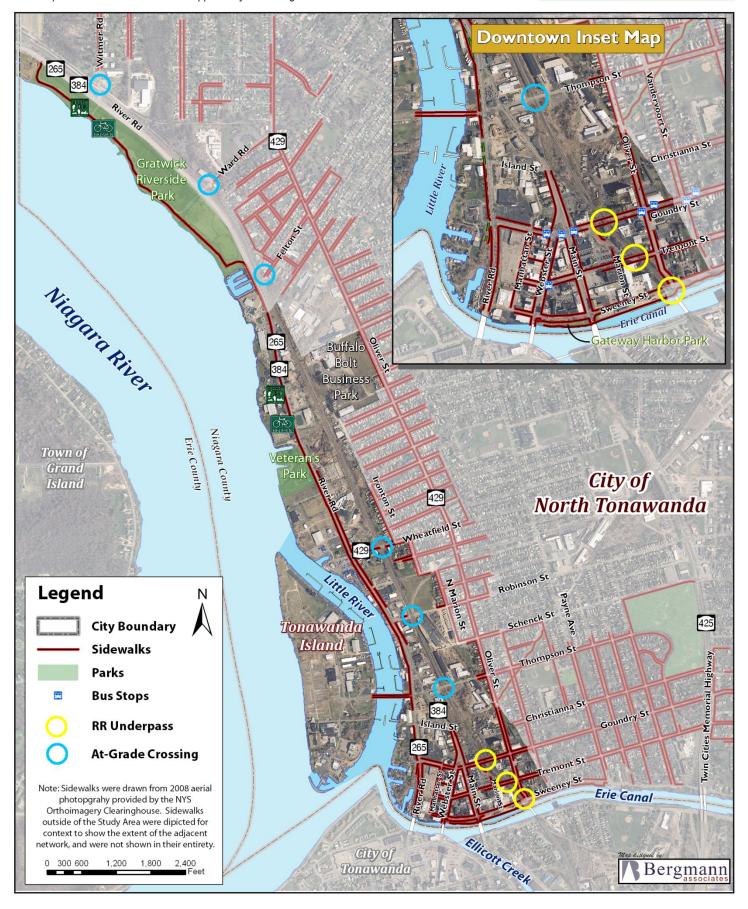




## North Tonawanda Brownfield Opportunity Area Nomination Study

This effort was made possible with the guidance and financial assistance provided by the NYS Department of State Brownfield Opportunity Area Program.

MAP 10
Pedestrian Circulation





# momentum master plan 2015-2035

# Phase 1 (2015-2025)

- 1. Gratwick Riverside Park and Marina Improvements
- 2. Buffalo Bolt Business Park Redevelopment
- 3. North Island Residential and Park Development
- 4. Thompson Street Bridge Rehabilitation
- 5. Taylor Drive and Island Boulevard Construction
- 6. Tonawanda Island Promenade
- 7. Office Mixed-Use
- 8. Retail/Restaurant Mixed-Use and Little River Promenade
- 9. Downtown Structured Parking
- 10. Oliver Street Enhancements
- 11. New Pocket Park
- 12. Gateway Memorial Park
- 13. Hotel
- 14. Main Street Pedestrian Enhancements
- 15. Multi-Family Residential
- 16. Multi-Tenant Warehouse Facility

## Phase 2 (2025-2030)

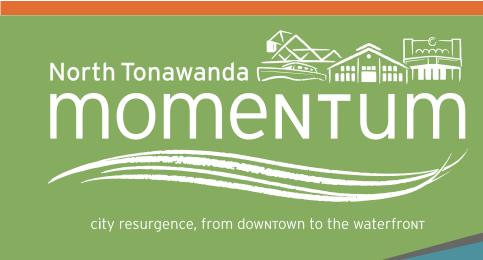
- 17. Gratwick Riverside Park Redevelopment Phase 2
- 18. Tonawanda Island Internal Roads, Central Park, Mixed Use
- 19. River Road Reconstruction
- 20. Industrial Infill, Redevelopment, Access Management
- 21. Mixed-Use Redevelopment
- 22. Interpretive Rail Park and Museum
- 23. Thompson Street Improvements
- 24. Weatherbest Slip Redevelopment
- 25. Phase One Hotel and Restaurant
- 26. Residential
- 27. Multi-Family Residential

# Phase 3 (2030 and Beyond)

- 28. Gratwick Riverside Park Redevelopment Phase 3
- 29. Mixed-Use with Structured Parking
- 30. Townhomes and Oliver Street of Shoppes
- 31. Enhanced Oliver Street Gateway
- 32. Mixed-Use Housing and Municipal Parking lot
- 33. Manhattan Street Mixed-Use and Parking Structure
- 34. Office Park



The Master Plan represents the culmination of a multi-year planning process led by the Lumber City Development Corporation, with input provided by a project steering committee and members of the community.







# momentum master plan 2015-2035

# Phase 1 (2015-2025)

- 1. Gratwick Riverside Park and Marina Improvements
- 2. Buffalo Bolt Business Park Redevelopment
- 3. North Island Residential and Park Development
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## Phase 2 (2025-2030)

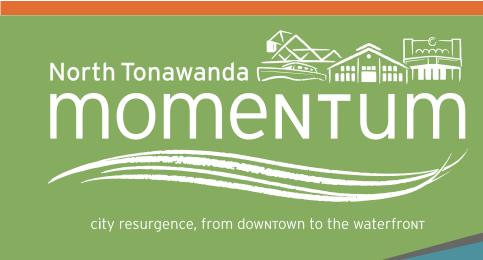
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The Master Plan represents the culmination of a multi-year planning process led by the Lumber City Development Corporation, with input provided by a project steering committee and members of the community.





## Attachment 2 Traffic Capacity Analysis

### Introduction

The purpose of the traffic analysis is to determine the impacts of development planned for the Brownfield Opportunity Area (BOA) in the City of North Tonawanda and determine if a road diet is feasible on River Road, modifying the roadway from five lanes to three lanes. The three lane alternative was proposed in an effort to reduce speeds and help improve pedestrian access, specifically to areas along the Niagara River including parkland. The level of BOA development is expected to have an impact on the following corridors:

- River Road from Goundry Street to Witmer Road
- Main Street from River Road to Sweeney Street
- Webster Street from Goundry Street to Sweeney Street
- Oliver Street from Felton Street to Tremont Street

The following systematic procedure was used:

- 1. Conduct site visits to obtain roadway geometrics and observe traffic operations.
- 2. Perform manual turning movement counts at intersections. The counts were conducted on Tuesday, Wednesday and Thursday October 7, 8 and 9, 2014 from 7:00 to 9:00 AM and from 4:00 to 6:00 PM.
- 3. Determine the existing weekday AM and PM peak hour turning movements at the intersections.
- 4. Define the trips generated by the proposed developments.
- 5. Distribute the new trips through the study area.
- 6. Estimate projected 2035 traffic at the intersections.
- 7. Evaluate traffic operations at the subject intersections under:
  - Existing (2014) conditions
  - Future (2035) No-Build conditions
  - Future (2035) Build conditions (with development traffic)
  - Future (2035) Build conditions with 3 lanes on River Road.

The traffic analyses and evaluations have been performed using standard traffic engineering methodologies in accordance with the 9<sup>th</sup> edition ITE Trip Generation Manual. Data used in the traffic analysis has been collected from field investigations, field visits, intersection traffic counts, BOA build-out concept plans, and the New York State Department of Transportation (NYSDOT).

### **Methodology of Analysis**

Level of Service (LOS) analysis is a means of determining the ability of an intersection to accommodate traffic volumes. The analysis is based on intersection street geometrics, traffic controls and traffic maneuvers. The analysis produces an indication of the Level of Service at which an intersection is functioning or is expected to function for future conditions.

The Level of Service procedures are provided in the Highway Capacity Manual (HCM) published by the Transportation Research Board, 2010. Version 8 of Synchro was utilized to determine the LOS for the subject intersections using the HCM 2010 methodology. Synchro implements the methods of the HCM for signalized and unsignalized intersection analyses.

Level of Service is defined by letter characters that range from A to F, with A representing the best traffic operating conditions that have little or no delay and F characterizing the worst conditions that have significant delay. LOS A through D are usually considered acceptable and LOS E is usually considered representative of conditions where improvements are needed. LOS F operating conditions are typically unacceptable, and improvements are needed in the form of traffic control, geometric changes or a combination of both.

Levels of service for intersections are identified by the average control delay experienced by vehicles in seconds/vehicle. LOS for signalized intersections is determined for each traffic movement and the total intersection. Full definitions of levels of service for signalized intersections are included in Appendix A. Table 1 shows the range of delay defining LOS for signalized intersections.

Table 1. Level of Service Ranges for Signalized Intersections

LOS	CONTROL DELAY PER VEHICLE (sec)
Α	Less than or equal to 10.0
В	Greater than 10.0 to no more than 20.0
С	Greater than 20.0 to no more than 35.0
D	Greater than 35.0 to no more than 55.0
E	Greater than 55.0 to no more than 80.0
F	Greater than 80.0

The software program Synchro, developed by Trafficware, was used to analyze traffic under existing traffic signal operating conditions and to evaluate alternatives including the three lane alternative for River Road and also to determine anticipated future mitigation measures required to alleviate traffic congestion under the full build-out condition.

Synchro is a software program utilized in the traffic engineering discipline. It is recommended by the NYSDOT, and considered an industry-approved method to assess existing traffic signal operations, determine the optimum signal operations for individual intersections and determine the optimum coordination system for a series of signals along a corridor. Synchro also offers measures of effectiveness such as fuel consumption and emissions data that is indicative of measures of vehicle delay and idling, useful for determining effectiveness of coordination.

The program utilizes the existing geometrics, hourly volumes by vehicle type (auto, buses, and heavy trucks), signal phasing, timings and offsets between intersections to establish the best scenario of coordination to minimize vehicle stops and delays and therefore, vehicle fuel consumption. The process of optimizing signal operations utilizes a vehicle simulation technique whereby each vehicle is accounted for as it progresses along the street corridor. Vehicle travel times and stops are recorded and summarized to determine the stops and delay. Various scenarios of signal phasing and timing at each signalized intersection is evaluated. Through the series of options of phasing and timing in concert with the offset of signal timing between each signal, the optimum signal operation is determined to best serve the road users as they progress

along the corridor. Information on the existing interim traffic signal timing, phasing, and coordination was obtained from the NYSDOT and from field observations.

A major improvement for capacity would include optimization of the traffic signal timings along the River Road corridor to provide road user benefits of fewer stops, reduced travel time, reduced fuel usage and less vehicle emissions. Other system improvements include replacing signal controllers, installing vehicle detection and upgrading pedestrian facilities. These improvements are recommended for inclusion in the Reconstruction of River Road to mitigate expected congestion under the Full Build-out condition.

### **Existing (2014) Traffic Operations**

Manual intersection turn counts were conducted at the twenty-one (21) intersections listed below during the first full week in October 2014, recording the number of vehicles making turning maneuvers from each intersection approach and were performed during peak weekday time periods. The turning movement counts were collected in 15-minute increments to determine peaking characteristics within the peak hours to be included in the analysis. The counts were comprehensive, including pedestrians and classifying vehicles into passenger cars, heavy trucks and buses.

### Intersections:

River Road at	Main Street at	Webster Street at	Oliver Street at
<ul> <li>Witmer Road</li> <li>Ward Road</li> <li>Felton Street</li> <li>Wheatfield Street</li> <li>Robinson Street</li> <li>Main Street</li> <li>Thompson Street</li> <li>Goundry Street</li> </ul>	<ul><li>Thompson Street</li><li>Goundry Street</li><li>Tremont Street</li><li>Sweeney Street</li></ul>	<ul><li>Goundry Street</li><li>Tremont Street</li><li>Sweeney Street</li></ul>	<ul> <li>Felton Street</li> <li>9<sup>th</sup> Street</li> <li>Wheatfield Street</li> <li>Thompson Street</li> <li>Goundry Street</li> <li>Tremont Street</li> </ul>

The existing traffic operations during the peak hours at the subject intersections range from LOS A to D for all traffic movements according to Synchro except the Wheatfield Street approach to River Road during the weekday morning peak hour which is indicative of LOS F. Overall intersection level of service results are provided in Table 2 and detailed LOS results for each intersection lane are contained in Appendix A.

Table 2. Levels of Service for Existing Roadway System

Intersection	2014 E	existing
	Peak Hour	
	AM	PM
River Road at Witmer Road	В	В
River Road at Ward Road	В	В
River Road at Felton Street	Α	Α
River Road at Wheatfield Street	С	В
River Road at Robinson Street	Α	Α
River Road at Main Street	Α	Α
River Road at Thompson Street	Α	Α
River Road at Goundry Street	Α	Α
Main Street at Thompson Street	В	В
Main Street at Goundry Street	Α	Α
Main Street at Tremont Street	Α	Α
Main Street at Sweeney Street	Α	Α
Webster Street at Goundry Street	Α	Α
Webster Street at Tremont Street	Α	В
Webster Street at Sweeney Street	Α	Α
Oliver Street at Felton Street	В	В
Oliver Street at 9 <sup>th</sup> Street	Α	Α
Oliver Street at Wheatfield Street	В	В
Oliver Street at Thompson Street	Α	В
Oliver Street at Goundry Street	В	Α
Oliver Street at Tremont Street	В	В

= One or more lanes operate at LOS F at the intersection

### Future (2035) Traffic Operations

The future traffic analysis includes the full build-out scenario referred to as "Full Build" and the baseline scenario of "No Build" which includes none of the BOA development. To project the 2035 No Build peak hour traffic volumes (background traffic), the existing peak hour volumes were increased by 0.5% per year (compounded annually) to account for normal traffic growth and any development outside the area of study, based on a review of the historic traffic volume trends.

The traffic volumes for the Full Build condition were determined by adding the No Build traffic to the traffic expected from build-out of all the BOA sites. This was accomplished by analyzing the full build-out plan to estimate the trip generation for each BOA site and assigning the trips to the roadway system based on existing and expected travel patterns both inside and outside the study area. Then the trips for each site were superimposed on top of the background traffic. The 9th edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual (latest edition - 2012) was used to determine the trip estimate for the BOA sites.

The level of service was determined for the No Build, Full Build and Full Build with mitigation conditions. A summary of results for each is provided below. Overall intersection service levels are show in Tables 3 and 4 for existing roadway system conditions (without implementation of a three lane "road diet" on River Road) and detailed LOS results for each intersection lane are contained in Appendix A.

### No Build

The projected 2035 No Build traffic operations during the peak hours at the subject intersections range from LOS A to D for all traffic movements according to Synchro except the Wheatfield Street approach to River Road during the weekday morning peak hour which is indicative of LOS F. The LOS are very similar to existing conditions and represent conditions expected in 2035 with no build-out of the BOA included. Overall intersection level of service results are provided in Table 3. Table 3 also includes the projected Full Build LOS (with no signal timing adjustments or other traffic mitigation – see Table 4 for Full Build with mitigation LOS) to allow comparison to the No Build condition. The next section describes Full Build and Full Build with mitigation conditions.

Table 3. Levels of Service for Existing Roadway System with Five Lanes on River Road

Intersection	2014 Existing		2035 No Build		2035 Full Build	
	Peak Hour		Peak Hour		Peak Hour	
	AM	PM	AM	PM	AM	PM
River Road at Witmer Road	В	В	В	В	В	В
River Road at Ward Road	В	В	В	В	В	С
River Road at Felton Street	Α	Α	Α	Α	В	В
River Road at Wheatfield Street	С	В	С	В	D	F
River Road at Robinson Street	Α	Α	Α	Α	В	С
River Road at Main Street	Α	Α	Α	Α	Α	В
River Road at Thompson Street	Α	Α	Α	Α	F	F
River Road at Goundry Street	Α	Α	Α	Α	С	D
Main Street at Thompson Street	В	В	В	В	В	С
Main Street at Goundry Street	Α	Α	Α	Α	Α	В
Main Street at Tremont Street	Α	Α	Α	Α	Α	F
Main Street at Sweeney Street	Α	Α	Α	В	Α	С
Webster Street at Goundry Street	Α	Α	Α	Α	Α	Α
Webster Street at Tremont Street	Α	В	Α	В	Α	В
Webster Street at Sweeney Street	Α	Α	Α	Α	Α	Α
Oliver Street at Felton Street	В	В	В	В	В	В
Oliver Street at 9 <sup>th</sup> Street	Α	Α	Α	Α	Α	Α
Oliver Street at Wheatfield Street	В	В	В	В	В	В
Oliver Street at Thompson Street	Α	В	Α	В	В	В
Oliver Street at Goundry Street	В	Α	В	В	Α	В
Oliver Street at Tremont Street	В	В	В	В	В	Α

<sup>=</sup> One or more lanes operate, or are expected to operate at LOS F at the intersection

### Full Build

The projected 2035 Full Build traffic operations during the peak hours range from LOS A to F. The existing roadway system with no mitigating measures implemented and five lanes on River Road is expected to exhibit service levels of E and F for three intersections on River Road and three intersections on Main Street as shown under the PM peak hour in Table 3.

The build out of the Master Plan for all three phases, is expected to result in the following peak hour trip generation (PM peak):

	Overall		Tonawanda Island		
	Sites	Trips	Sites	Trips	
Phase I	1-16	1070	3-8	425	
Phase II	17-27	1515	18,25,26	1040	
Phase III	28-34	1075	29	425	
Total		3635		1890	

Based on these trip generation results, the following conclusions were made about traffic conditions in 2035:

- Traffic is expected to increase by 90% on River Road from existing condition to full buildout of the Master Plan in 2035;
- Traffic flow will break down at 6 of the 21 intersections analyzed, with failing levels of service at three intersections on River Road and three on Main Street:
- Congestion on the bridge to Tonawanda Island is expected to begin before the end of Phase 1.

### Full Build with Mitigation

The Full Build with Mitigation alternative roadway system consists of the full build out plan for the BOA with mitigation measures as described below to provide reasonable improvements that are expected to accommodate the traffic generated as part of this plan. The projected 2035 Full Build with Mitigation peak hour traffic operations range from LOS A to D as shown in Table 4, except for three locations (at two intersections) on River Road where operations are near thresholds that indicate congestion. The detailed LOS results are contained in Appendix A.

The build-out plan is an estimate. Therefore planning for the next 20 years is not exact, down to the car, however it is a good planning level estimate following industry standards. As the analysis of the trip generation and trip distribution is somewhat conservative and the results indicate some minor congestion, the mitigation measures for Full Build are a good approximation of what will be required for construction improvements based on a roadway system service life of 20 years which is the typical design for roadways.

Table 4. Full Build Levels of Service with Five Lanes on River Road

Intersection	2035 Full Build		2035 Full Build With Mitigation	
	Peak	Hour	Peak	Hour
	AM	PM	AM	PM
River Road at Witmer Road	В	В	В	В
River Road at Ward Road	В	С	В	В
River Road at Felton Street	В	В	В	С
River Road at Wheatfield Street	D	F	В	С
River Road at Robinson Street	В	С	В	С
River Road at Main Street	Α	В	Α	В
River Road at Thompson Street	F	F	С	С
River Road at Goundry Street	C	D	Α	Α
Main Street at Thompson Street	В	С	В	С
Main Street at Goundry Street	Α	В	Α	В
Main Street at Tremont Street	Α	F	Α	Α
Main Street at Sweeney Street	Α	С	В	В
Webster Street at Goundry Street	Α	Α	Α	Α
Webster Street at Tremont Street	Α	В	Α	Α
Webster Street at Sweeney Street	Α	Α	Α	Α
Oliver Street at Felton Street	В	В	В	В
Oliver Street at 9 <sup>th</sup> Street	Α	Α	В	В
Oliver Street at Wheatfield Street	В	В	В	В
Oliver Street at Thompson Street	В	В	В	В
Oliver Street at Goundry Street	Α	В	В	В
Oliver Street at Tremont Street	В	Α	В	Α

= One or more lanes operate, or are expected to operate at LOS F at intersection

Under the Full Build with Mitigation condition all intersections and turning movements were improved to LOS D or better except for the following:

- River Road northbound approach to Wheatfield Street during the PM peak
- River Road southbound approach to Wheatfield Street during the PM peak
- River Road and Robinson Street left/through and through/right during the PM peak
- Thompson Street eastbound left/left to River Road in the AM peak

It should be noted that while these results are based on the HCM 2010 methodology, Synchro 8 methodology results indicate slightly better operations with LOS D or better for all lanes at the following intersections: River Road at Wheatfield Street and River Road at Robinson Street.

Mitigation measures included in the Full Build analysis and recommended to achieve the service levels of LOS C or better for overall intersection service levels (shown in Table 4) are:

- Upgrade the traffic signals along River Road to provide actuation on intersecting streets and left turn lanes and coordinate/synchronize the signals at a cycle length of 100 seconds providing adequate pedestrian crossing times and pushbutton actuation for pedestrian signal phases.
- Optimize the signal timings at all the River Road intersections.
- Add exclusive left turn signal phases for southbound vehicles on River Road for two intersections: at Felton Street and at Robinson Street. Retain the southbound left turn phase on River Road at Wheatfield Street.
- Add two left turn lanes on the Wheatfield Street approach to River Road requiring land donation from the planned development on the northeast corner of the intersection included in the BOA build-out plan.
- Construct the following improvements at the intersection of River Road and Thompson Street:
  - Add one right turn lane on the southbound River Road approach.
  - Add one lane on the westbound Thompson Street approach to provide one left turn lane, one through and one right turn lane.
  - o Add exclusive left turn signal phases for both River Road approaches and the eastbound approach from the island.
  - Widen the existing Tonawanda Island Bridge from two lanes to four. This is required to provide one lane to the island and three lanes approaching the intersection of Thompson Street and River Road (with two left turn lanes and one shared through/right lane approaching the intersection). An alternative to widening the existing bridge that could be considered for mitigating congestion at this intersection is construction of a second bridge to the island.
- Add one right turn lane on the northbound Main Street approach to Sweeney Street and retime the traffic signal.
- Retime the traffic signals at the intersections of River Road with Goundry Street and Main Street with Tremont Street.
- In addition, all the traffic signal timings were retimed, if required, to include adequately timed pedestrian crossing phases including any widening due to mitigation measures listed above.

### Three Lane River Road Alternative

A three lane scenario for River Road was analyzed to explore the feasibility of installing a landscaped median. The level of service determined for the 3 lane alternative indicates extensive congestion for the 2035 Full Build condition as shown in Table 5 and therefore is not a feasible alternative. Poor LOS is expected even with optimization and coordination of the traffic signals along River Road. Overall intersection level of service results are provided in Table 5 and detailed LOS results for each intersection lane are contained in Appendix B.

Analyzing the possibility of reducing the total number of lanes on River Road from 5 to 3 revealed the following:

• River Road could operate acceptably for the next 2-3 years under a Road Diet change from 5 lanes to 3 (assuming a linear timeline of Master Plan build-out).

- Traffic Flow with 3 lanes is expected to breakdown south of Felton Street within 2-3 years (before the end of Phase I) even with:
  - o Right turn lanes (northbound) at Goundry, Robinson and Wheatfield
  - o Coordinated and optimized traffic signals.
- North of Felton Street traffic flow begins to breakdown in 17 years (near middle of Phase 3), showing characteristics of congestion with three lanes on River Road, turn lanes and coordinated signals.

Table 5. Levels of Service with Three Lanes on River Road

Intersection	2014 Existing		2035 No Build		2035 Full Build	
	Peak Hour		Peak Hour		Peak Hour	
	AM	PM	AM	PM	AM	PM
River Road at Witmer Road	В	В	В	В	С	В
River Road at Ward Road	В	В	В	В	D	D
River Road at Felton Street	В	Α	В	В	D	F
River Road at Wheatfield Street	С	C	D	Е	F	F
River Road at Robinson Street	В	В	D	F	F	F
River Road at Main Street	Α	C	В	D	D	F
River Road at Thompson Street	В	В	С	Α	F	F
River Road at Goundry Street	Α	Α	Α	D	Е	F

= One or more lanes operate, or are expected to operate at LOS F at the intersection

Based on the analysis, a three lane roadway with landscaped median is not feasible for River Road. The median could only exist for a short period of time before it would need to be removed to allow for additional road capacity.

### Five Lane River Road Alternative with a Second Bridge to Tonawanda Island

A five lane scenario for River Road with a second bridge to Tonawanda Island at Wheatfield Street was analyzed to explore the impacts on River Road. A second bridge to the island would provide an alternative means of access in the event of an emergency. The level of service determined for this alternative indicates similar levels of mitigation required to limit congestion for the 2035 Full Build condition as shown in Table 6. Acceptable LOS is expected with optimization and coordination of the traffic signals along River Road and improvements to the River Road / Wheatfield Street intersection. Overall intersection level of service results are provided in Table 6 and detailed LOS results for each intersection lane are contained in Appendix A.

The Full Build with Second Bridge and Mitigation alternative consists of the full build out plan for the BOA with mitigation measures as described below to provide reasonable improvements that are expected to accommodate the traffic generated as part of this plan. The projected 2035 Full Build with Second Bridge and Mitigation peak hour traffic operations range from LOS A to D. The Second Bridge Alternative provides added improvement over the Widen Bridge Alternative, as it is expected to provide LOS D or better for the following that are LOS E or F under the Widen Bridge Alternative:

River Road northbound approach to Wheatfield Street during the PM peak

- River Road southbound approach to Wheatfield Street during the PM peak
- River Road and Robinson Street left/through and through/right during the PM peak
- Thompson Street eastbound left/left to River Road in the AM peak

Table 6. Levels of Service with Five Lanes on River Road and a Second Bridge to Tonawanda Island

Intersection	2035 No Build		2035 Full Build with Mitigation, Widen Bridge		2035 Full Build with Mitigation, Second Bridge	
	Peak Hour		Peak Hour		Peak Hour	
	AM	PM	AM	PM	AM	PM
River Road at Witmer Road	В	В	В	В	В	В
River Road at Ward Road	В	В	В	В	В	В
River Road at Felton Street	Α	Α	В	С	В	С
River Road at Wheatfield Street	С	В	В	С	С	С
River Road at Robinson Street	Α	Α	В	С	В	В
River Road at Main Street	Α	Α	Α	В	Α	Α
River Road at Thompson Street	Α	Α	С	С	В	С
River Road at Goundry Street	Α	Α	Α	Α	Α	Α

= One or more lanes operate, or are expected to operate at LOS F at the intersection

Constructing a second bridge to Tonawanda Island at Wheatfield Street would provide slightly better traffic operation service levels than widening the Thompson Street Bridge based on the LOS analysis (results shown in Table 6 above), with approximately the same level of mitigation as follows:

- Upgrade the traffic signals along River Road to provide actuation on intersecting streets and left turn lanes and coordinate/synchronize the signals at a cycle length of 100 seconds providing adequate pedestrian crossing times and pushbutton actuation for pedestrian signal phases.
- Optimize the signal timings at all the River Road intersections.
- Add exclusive left turn signal phases for southbound vehicles on River Road for two intersections: at Felton Street and at Robinson Street. Retain the southbound left turn phase on River Road at Wheatfield Street.
- Construct the following improvements at the intersection of River Road and Wheatfield Street:
  - Add one right turn lane on the northbound River Road approach.
  - Add two lanes on the westbound Wheatfield Street approach to provide one left turn lane, one through and one right turn lane, requiring land donation from the planned development on the northeast corner of the intersection included in the BOA build-out plan.
  - Construct the new west leg of the intersection with one westbound lane toward the island and two eastbound lanes consisting of one left turn lane and one shared through/right lane approaching River Road.
  - o Add exclusive left turn signal phases for both Wheatfield Street approaches.
  - Construct the second two lane bridge to Tonawanda Island.

- Add exclusive left turn signal phases for both northbound and southbound vehicles on River Road at the Thompson Street intersection.
- Add one right turn lane on the northbound Main Street approach to Sweeney Street and retime the traffic signal.
- Retime the traffic signals at the intersections of River Road with Goundry Street and Main Street with Tremont Street.
- In addition, all the traffic signal timings were retimed, if required, to include adequately timed pedestrian crossing phases including any widening due to mitigation measures listed above.

## **Appendix A**

## **Level of Service Analysis Results**

- 2014 Existing
- 2035 No Build
- 2035 Full Build
- 2035 Full Build with Mitigation
  - Widen Existing Bridge
  - Construct Second Bridge

# DEFINITION OF LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during ideal conditions: in the absence of traffic control, in the absence of geometric delay, in the absence of any incidents and when there are no other vehicles on the road. Only the portion of total delay attributed to the control facility is quantified. This delay is called *control delay*. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle, typically for a 15-minute analysis period. The criteria are given in the following table. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question.

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (sec)
А	Less than or equal to 10.0
В	Greater than 10.0 to no more than 20.0
С	Greater than 20.0 to no more than 35.0
D	Greater than 35.0 to no more than 55.0
E	Greater than 55.0 to no more than 80.0
F	Greater than 80.0

<u>Level Of Service A</u> describes operations with very low control delay, up to 10 seconds per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

<u>Level Of Service B</u> describes operations with control delay greater than 10 and up to 20 seconds per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

<u>Level Of Service C</u> describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result form fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.



**Level Of Service D** describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result form some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

<u>Level Of Service E</u> describes operations with control delay greater than 55 and up to 80 seconds per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

<u>Level Of Service F</u> describes operations with control delay in excess of 80 seconds per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.



## **Level of Service Analysis Results**

- 2014 Existing
- 2035 No Build
- 2035 Full Build



Intersection	Approach			2014 E	xistin	g		2035 N	lo Bui	ild		203	5 Build	
				eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour
			LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh	LOS	Control Delay (sec/veh)
River Rd at	Eastbound	L	В	12.2	В	18.7	В	12.8	С	21.5	В	15.7	D	42.4
Witmer Rd	Eastbound	Т	В	10.4	В	10.8	В	10.7	В	11.1	В	12.5	В	13.1
	Eastbound	TR	В	10.3	В	10.7	В	10.6	В	11.1	В	12.4	В	13.0
Signalized	Eastbound	Approach	В	10.5	В	11.7	В	10.8	В	12.4	В	12.6	В	15.5
	Westbound		В	11.4	В	12.0	В	11.8	В	12.6	В	14.7	В	15.5
	Westbound	T	В	10.5	В	12.6	В	10.8	В	13.3	В	12.3	В	18.8
	Westbound	TR	В	10.5	В	12.6	В	10.8	В	13.3	В	12.3	В	19.2
	W estbound  Northbound	Approach LTR	ВВ	10.5 19.2	B B	12.6 19.2	B B	10.8 19.2	B B	13.3 19.2	B B	12.3 19.2	B	19.0 19.2
	Northbound	Approach	В	19.2	В	19.2	В	19.2	В	19.2	В	19.2	В	19.2
	Southbound	LTR	С	23.6	С	21.0	С	24.4	С	21.3	С	27.3	С	23.0
	Southbound	Approach	С	23.6	С	21.0	С	24.4	С	21.3	С	27.3	С	23.0
	Overall		В	13.1	В	12.9	В	13.5	В	13.6	В	15.2	В	18.0
River Rd at	Eastbound	LTR	В	16.1	В	16.1	В	16.1	В	16.2	В	15.0	В	16.3
Ward Rd	Eastbound	Approach	В	16.1	В	16.1	В	16.1	В	16.2	В	15.2	В	16.3
	Westbound	LTR	С	21.2	В	18.1	С	22.1	В	18.5	С	24.5	С	20.7
Signalized	Westbound	Approach	С	21.2	В	18.1	С	22.1	В	18.5	С	24.5	С	20.7
	Northbound	L	В	11.0	В	10.8	В	11.6	В	11.3	В	16.2	В	15.8
	Northbound	Т	Α	9.7	В	13.0	В	10.1	В	14.2	В	19.8	С	30.1
	Northbound	TR	Α	9.8	В	13.0	В	10.1	В	14.3	В	14.9	D	37.7
	Northbound	Approach	Α	9.7	В	13.0	В	10.1	В	14.3	В	14.9	С	33.7
	Southbound	L	В	11.1	В	17.6	В	11.8	С	20.3	В	18.5	D	42.7
	Southbound	T	Α	9.9	Α	9.3	В	10.4	Α	9.6	В	16.2	В	11.6
	Southbound	TR	Α	9.9	Α	9.3	В	10.3	Α	9.6	В	16.2	В	11.6
	Southbound	Approach	Α	9.9	Α	9.8	В	10.4	В	10.3	В	16.0	В	13.0
	Overall		В	12.1	В	12.3	В	12.6	В	13.3	В	17.2	С	25.3
River Rd at	Westbound	LT TR	D	35.7	D	35.0	D	36.0	D	35.3	D	36.8	D	37.1
Felton St	Westbound	Approach	D	35.7	D	35.0	D	36.0	D	35.3	D	36.8	D	37.1
0'	Northbound	T	A	3.7	A	4.4	A	4.2	A	5.1	Α	6.6	В	13.7
Signalized	Northbound	TR	A	3.7	A	4.4	A	4.1 4.2	A	5.1 5.1	A	6.6	B	15.2 14.5
	Northbound Southbound	Approach	A A	4.3	A	6.8	A A	5.0	A	8.8	A B	11.4	E	60.8
	Southbound	TT	A	4.3	A	3.0	A	4.7	A	3.3	A	7.8	A	6.8
	Southbound	Approach	A	4.1	A	3.3	A	4.7	A	3.8	A	8.1	В	11.8
	Overall	трргосоп	Α	7.7	A	6.0	Α	8.2	A	6.6	В	10.7	В	15.4
River Rd at	Westbound	LTR	F	83.1	D	45.3	F	117.2	D	49.3	F	256.3	F	127.6
Wheatfield St	Westbound	Approach	F	83.1	D	45.3	F	117.2	D	49.3	F	256.3	F	127.6
	Northbound	T	В	11.1	В	12.6	В	11.5	В	15.4	В	16.0	F	96.8
Signalized	Northbound	TR	В	11.1	В	12.7	В	11.6	В	15.9	В	16.2	F	127.3
	Northbound	Approach	В	11.1	В	12.7	В	11.6	В	15.7	В	16.1	F	112.4
	Southbound	T	Α	7.4	Α	8.8	Α	7.6	В	12.2	В	11.1	С	32.1
	Southbound	TR	Α	8.1	Α	4.3	Α	8.6	Α	5.0	В	11.7	Α	9.6
	Southbound	Approach	Α	8.1	Α	4.8	Α	8.6	Α	5.8	В	11.6	В	12.0
	Overall		С	23.5	В	13.5	С	30.4	В	16.0	D	53.9	F	80.4
River Rd at	Eastbound	LTR	Α	0.0	С	32.3	A	0.0	С	31.8	Α	0.0	С	29.9
Robinson St	Eastbound	Approach	A	0.0	С	32.3	A	0.0	С	31.8	A	0.0	С	29.9
Cian alie s d	Westbound	LTR	D	38.9	D	38.9	D	38.9	D	39.0	D	40.2	D	41.5
Signalized	Westbound	Approach	D	38.9	D	38.9	D ^	38.9	D	39.0	D	40.2	D	41.5
	Northbound Northbound	TR	A A	3.5 3.4	A	6.0	A A	4.0 3.9	A	7.3 7.4	A A	7.4 7.4	C	24.9 28.0
	Northbound	Approach	A	3.4	A	6.0	A	3.9	A	7.4	A	7.4	С	26.5
	Southbound	ТРРГОАСП	A	4.1	В	10.8	A	4.9	В	15.5	В	12.1	F	150.8
	Southbound	T	A	5.1	A	3.9	A	6.1	A	4.5	В	13.9	A	9.0
	Southbound	TR	A	5.0	A	3.9	A	6.1	A	4.5	В	13.6	A	9.0
	Southbound	Approach	Α	5.0	A	4.5	Α	6.0	Α	5.4	В	13.7	В	17.7
	Overall		Α	7.3	Α	7.9	Α	8.1	Α	9.0	В	13.6	С	24.1
										0.0				

Intersection	Approach		2014 E	xistin	g		2035 N	lo Bu	ild		2035	Build	
			/eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour
		LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh	LOS	Control Delay (sec/veh)
River Rd at	Westbound R R	D	37.4	D	36.3	D	37.2	D	36.6	D	41.1	D	46.6
Main St	Westbound Approach	D	37.4	D	36.3	D	37.2	D	36.6	D	41.1	D	46.6
	Northbound T T	Α	4.1	Α	6.2	Α	4.4	Α	7.3	Α	5.8	В	13.7
Signalized	Northbound Approach		4.1	Α	6.2	Α	4.4	Α	7.3	Α	5.8	В	13.7
	Southbound L	Α	0.4	Α	1.3	Α	0.4	Α	1.6	Α	1.8	С	32.4
Synchro results	Southbound TT	A	0.3	A	0.1	A	0.4	A	0.2	Α	0.7	A	0.3
	Southbound Approach		0.3	A	0.3	A	0.4	A	0.4	A	0.8	A	6.1
D: D : .	Overall	A	3.2	A	7.1	A	3.3	A	7.7	A	5.1	В	14.3
River Rd at	Eastbound LTR	С	29.7	С	30.4	С	29.6	С	30.7	F	665.1	F	1721.7
Thompson St	Eastbound Approach Westbound LT	C	29.7	C	30.4	С	29.6 29.5	С	30.7	-	665.1	С	1721.7 28.9
Cignolized			29.7		28.9	С		С	28.9	С	28.7	_	
Signalized	Westbound R Westbound Approach	C	30.5 30.2	C	29.7 29.4	C	30.3 30.0	C	29.8 29.5	C	24.0	C	24.3 28.2
	Westbound Approach	A	5.4	A	4.2	A	6.7	A	29.5 4.6	F	770.2	F	130.3
	Northbound T	A	2.5	A	4.7	A	2.8	A	5.2	А	8.9	В	130.3
	Northbound TR	A	2.5	A	4.7	A	2.8	A	5.2	A	8.8	В	13.3
	Northbound Approach	_	2.7	A	4.7	A	3.0	A	5.2	F	231.5	С	30.7
	Southbound L	Α	3.1	Α	6.3	Α	3.4	Α	7.4	В	11.6	С	20.8
	Southbound T	Α	4.2	Α	3.8	Α	4.9	Α	4.0	С	24.8	В	14.3
	Southbound TR	Α	4.2	Α	3.7	Α	4.9	Α	4.0	С	33.3	В	14.7
	Southbound Approach	Α	4.2	Α	3.9	Α	4.8	Α	4.2	С	28.4	В	14.7
	Overall	Α	4.6	Α	6.2	Α	5.2	Α	6.6	F	179.7	F	473.8
River Rd at	Eastbound LT	С	31.5	С	27.9	С	31.9	С	27.0	D	45.1	С	25.2
Goundry St	Eastbound R	С	29.1	С	27.7	С	28.7	С	26.5	С	20.1	С	20.2
	Eastbound Approach	С	29.5	С	27.8	С	29.4	С	26.8	С	25.7	С	22.6
Signalized	Westbound LT	С	33.0	С	33.7	С	33.8	С	34.9	F	299.1	F	601.3
	Westbound R	С	29.2	С	28.2	С	28.8	С	26.9	С	20.1	С	20.4
	Westbound Approach	С	32.4	С	31.2	С	32.9	С	31.3	F	281.0	F	525.0
	Northbound LT	Α	1.8	Α	3.8	Α	2.0	Α	5.3	В	13.8	С	26.5
	Northbound TR	Α	1.8	Α	4.0	Α	2.1	Α	5.6	В	14.2	С	30.6
	Northbound Approach	-	1.8	Α	3.9	Α	2.0	Α	5.4	В	14.0	С	28.5
	Southbound L	Α	1.8	Α	4.9	Α	2.1	Α	7.4	В	17.8	D	44.4
	Southbound T	A	2.5	Α	3.0	Α	3.0	Α	4.1	В	19.0	В	16.4
	Southbound TR	A	2.5	A	3.0	A	3.0	A	4.0	В	19.0	В	16.3
	Southbound Approach		2.5 3.2	A	3.1 4.5	A	3.0 3.6	A	4.2 5.8	В	18.9 29.6	В	17.0
Main Ct at	Overall  Eastbound LT	A C		A C		A C	22.7	A		C		D C	55.0
Main St at Thompson St	Eastbound LT Eastbound R	С	22.6 23.9	С	22.4 23.8	С	24.3	С	22.6 24.2	D	24.1 35.3	F	25.0 81.6
	Eastbound Approach	-	23.4	С	23.3	С	23.7	С	23.6	С	31.9	E	66.4
	Westbound LTR	С	23.1	С	23.7	С	23.3	С	24.0	С	29.4	С	32.8
Signalized	Westbound Approach	-	23.1	С	23.7	С	23.3	С	24.0	С	29.4	С	32.8
	Northbound LTR	Α	5.2	Α	6.1	Α	5.3	Α	6.4	Α	9.4	В	18.3
	Northbound Approach	Α	5.2	Α	6.1	Α	5.3	Α	6.4	Α	9.4	В	18.3
	Southbound LTR	Α	4.7	Α	5.0	Α	4.8	Α	5.1	Α	5.6	Α	6.0
	Southbound Approach	Α	4.7	Α	5.0	А	4.8	Α	5.1	Α	5.6	Α	6.0
	Overall	В	12.4	В	10.4	В	12.6	В	10.7	В	16.8	С	29.5
Webster St at	Eastbound LTR	В	11.8	В	12.1	В	11.9	В	12.2	В	13.3	В	14.0
Goundry St	Eastbound Approach	В	11.8	В	12.1	В	11.9	В	12.2	В	13.3	В	14.0
	Westbound LTR	Α	0.0	Α	0.0	Α	0.0	Α	0.0	Α	0.0	Α	0.0
Signalized	Westbound Approach		0.0	Α	0.0	Α	0.0	Α	0.0	Α	0.0	Α	0.0
	Northbound LTR	В	12.0	В	13.2	В	12.1	В	13.4	Α	3.4	Α	4.2
	Northbound Approach		12.0	В	13.2	В	12.1	В	13.4	Α	3.4	Α	4.2
	Southbound LTR	В	11.6	В	11.8	В	11.6	В	11.9	В	12.7	В	14.6
	Southbound Approach		11.6	В	11.8	В	11.6	В	11.9	В	12.7	В	14.6
	Overall	Α	6.1	Α	9.0	Α	6.1	Α	9.2	Α	7.2	Α	8.7

Intersection	Approach		2014 E	xistin	g		2035 N	lo Bui	ild		2035	5 Build	
			/eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		/eekday Peak Hour	W PM F	eekday Peak Hour
		LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh	LOS	Control Delay (sec/veh)
Webster St at	Eastbound LTR	В	12.1	В	12.4	В	12.2	В	12.4	В	12.4	В	12.6
Tremont St	Eastbound Approac		12.1	В	12.4	В	12.2	В	12.4	В	12.4	В	12.6
	Westbound LTR	A	0.0	Α	0.0	Α	0.0	Α	0.0	Α	0.0	Α	0.0
Signalized	Westbound Approac		0.0	A	0.0	A	0.0	A	0.0	Α	0.0	A	0.0
	Northbound LT	В	11.2	В	11.6	В	11.2	В	18.2	В	18.2	В	19.1
	Northbound R	В	11.6	В	13.4	В	11.7	С	21.4	В	18.4	С	21.8
	Northbound Approac		11.4	В	12.8	В	11.5	С	20.3	В	18.3	С	20.6
	Southbound LTR	В	11.6	В	11.6	В	11.7	В	11.7	A	2.7	A	2.9
	Southbound Approac		11.6 8.6	В	11.6	В	11.7 8.7	B B	11.7 14.7	A	2.7 9.7	A B	2.9 12.4
Wahatar Ct at	Overall  Westbound LTR	A		В	10.3	A				A			
Webster St at Sweeney St		C n C	28.5 28.5	C	29.1 29.1	С	28.7 28.7	С	29.3 29.3	C	29.0 29.0	C	29.5 29.5
Sweeney St	Westbound Approac  Northbound LTR	A	2.3	A	29.1	A	2.4	A	29.3	A	29.0		29.5
Signalized	Northbound Approac		2.3	A	2.6	A	2.4	A	2.7	A	2.6	A	2.9
Signalized	Southbound LTR	A	2.3	A	0.1	A	0.1	A	0.1	A	0.2	A	0.3
	Southbound Approac		2.3	A	0.1	A	0.1	A	0.1	A	0.2	A	0.3
	Overall	A	2.6	A	2.4	A	1.9	A	2.5	A	2.1	A	2.5
Main St at	Eastbound LTR	В	11.8	A	3.3	В	11.9	Α	3.4	В	12.4	Α	3.6
Goundry St	Eastbound Approac		11.8	A	3.3	В	11.9	A	3.4	В	12.4	Α	3.6
	Westbound LTR	A	0.0	Α	0.0	A	0.0	Α	0.0	A	0.0	Α	0.0
Signalized	Westbound Approac		0.0	Α	0.0	Α	0.0	Α	0.0	Α	0.0	Α	0.0
Orginalized	Northbound LT	A	3.3	Α	3.9	Α	3.4	Α	4.1	Α	5.3	Α	8.4
	Northbound R	A	2.9	Α	3.1	Α	2.9	Α	3.1	Α	3.0	Α	3.1
	Northbound Approac		3.2	Α	3.8	Α	3.3	Α	4.0	Α	5.1	Α	8.0
	Southbound LTR	В	13.2	В	14.4	В	13.5	В	14.8	В	17.6	С	32.5
	Southbound Approac	n B	13.2	В	14.4	В	13.5	В	14.8	В	17.6	С	32.5
	Overall	Α	6.4	Α	6.1	Α	6.6	Α	6.3	Α	8.9	В	15.3
Main St at	Eastbound LTR	В	12.2	Α	3.6	В	12.4	Α	3.7	В	12.6	Α	3.8
Tremont St	Eastbound Approac	n B	12.2	Α	3.6	В	12.4	Α	3.7	В	12.6	Α	3.8
	Westbound LT	В	11.8	В	12.0	В	11.9	В	12.0	В	12.3	В	13.5
	Westbound R	В	11.5	В	11.5	В	11.5	В	11.5	В	11.5	В	11.5
Signalized	Westbound Approac	n B	11.8	В	11.9	В	11.8	В	12.0	В	12.2	В	13.4
	Northbound LT	Α	3.4	Α	4.1	Α	3.5	Α	4.4	Α	5.7	F	162.5
	Northbound R	Α	2.9	Α	3.0	Α	2.9	Α	3.0	Α	3.3	Α	3.2
	Northbound Approac	n A	3.4	Α	4.1	Α	3.4	Α	4.3	Α	5.4	F	145.0
	Southbound LT	Α	3.4	Α	3.8	Α	3.5	Α	3.9	Α	5.2	F	109.7
	Southbound R	Α	2.9	Α	2.9	Α	2.9	Α	2.9	Α	2.9	Α	2.9
	Southbound Approac	n A	3.4	Α	3.7	Α	3.5	Α	3.9	Α	5.2	F	108.0
	Overall	Α	5.8	Α	4.5	Α	5.9	Α	4.6	Α	6.5	F	101.6
Main St at	Eastbound LTR	В	14.6	В	14.6	В	14.7	В	14.7	В	14.7	В	14.7
Sweeney St	Eastbound Approac		14.6	В	14.6	В	14.7	В	14.7	В	14.7	В	14.7
	Westbound LTR	A	0.0	Α	0.0	A	0.0	A	0.0	A	0.0	Α	0.0
Signalized	Westbound Approac		0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
	Northbound LTR	В	11.2	В	16.6	В	11.6	В	18.6	В	14.8	С	30.8
	Northbound Approac		11.2	В	16.6	В	11.6	В	18.6	В	14.8	С	30.8
	Southbound L	A	0.7	A	5.5	A	0.9	A	7.9	A	4.9	F	198.3
<u> </u>	Southbound Approach	A	0.5	A	0.7	A	0.6	A	0.8	A	1.3	A	2.5
<u> </u>	Southbound Approac		0.5	A	1.3	A	0.6	A	1.8	A	2.0	D	54.3
	Overall	Α	4.4	Α	9.5	А	4.6	В	10.7	Α	6.3	С	32.8

Intersection	Approach			2014 E	xistin	g		2035 N	lo Bui	ild		2035	5 Build	
				eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		/eekday Peak Hour		eekday Peak Hour		eekday Peak Hour
			LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh	LOS	Control Delay (sec/veh)
Oliver St at	Eastbound LTR	₹	В	14.1	В	16.5	В	14.3	В	17.4	В	16.7	С	23.7
Felton St		roach	В	14.1	В	16.5	В	14.3	В	17.4	В	16.7	С	23.7
	Northbound LTR		В	12.6	Α	9.5	В	13.8	В	10.3	В	19.3	С	22.5
Signalized		roach	В	12.6	Α	9.5	В	13.8	В	10.3	В	19.3	С	22.5
	Southbound LTR		В	11.2	Α	9.2	В	11.6	Α	9.5	В	13.9	В	11.4
		roach	В	11.2	A	9.2	В	11.6	A	9.5	В	13.9	В	11.4
01: 011	Overall	,	В	12.3	В	11.4	В	13.0	В	12.1	В	16.4	В	19.5
Oliver St at  9th Ave	Eastbound LTR		Α	0.0	B B	16.0	A	0.0	B B	16.1 16.1	A	0.0	B B	16.1
9 <sup></sup> Ave	Eastbound App Westbound LTR	roach	A C	0.0 21.5	В	16.0 19.5	A C	22.1	С	20.1	A C	24.4	С	16.1 21.8
Signalized		roach	С	21.5	В	19.5	С	22.1	С	20.1	С	24.4	С	21.8
Signalized	Northbound LTR		A	4.4	A	5.5	A	4.5	A	5.7	A	6.1	A	7.4
		roach	A	4.4	A	5.5	A	4.5	A	5.7	A	6.1	A	7.4
	Southbound LT	noach	A	4.5	A	5.4	A	4.6	A	5.6	A	5.0	A	7.5
	Southbound R		Α	3.6	Α	4.0	Α	3.6	A	4.0	Α	3.6	A	4.0
		roach	Α	4.5	Α	5.4	Α	4.6	Α	5.6	Α	5.0	Α	7.4
	Overall		Α	7.5	Α	7.8	Α	7.7	Α	8.2	Α	8.6	Α	9.4
Oliver St at	Eastbound LTR	₹	В	11.2	В	13.2	В	11.5	В	13.9	В	15.2	С	23.0
Wheatfield St	Eastbound App	roach	В	11.2	В	13.2	В	11.5	В	13.9	В	15.2	С	23.0
	Westbound LTR	₹	В	13.0	В	12.4	В	13.5	В	12.9	В	15.8	В	16.0
Signalized	Westbound App	roach	В	13.0	В	12.4	В	13.5	В	12.9	В	15.8	В	16.0
	Northbound LT		В	10.2	В	11.4	В	10.4	В	11.9	В	12.3	В	17.0
	Northbound App	roach	В	10.2	В	11.4	В	10.4	В	11.9	В	12.3	В	17.0
	Southbound LT		В	10.8	В	10.5	В	11.0	В	10.8	В	11.7	В	12.9
	Southbound R		В	10.2	Α	9.2	В	10.3	Α	9.2	В	11.0	В	11.0
		roach	В	10.6	В	10.2	В	10.8	В	10.5	В	11.5	В	12.4
	Overall		В	11.6	В	11.8	В	11.9	В	12.3	В	13.9	В	17.1
Oliver St at	Eastbound LTR		В	18.9	В	16.9	В	19.0	В	17.1	С	21.3	С	23.1
Thompson St		roach	В	18.9	В	16.9	В	19.0	В	17.1	С	21.3	С	23.1
Cignolized	Westbound LTR Westbound App	-	B B	19.3 19.3	B B	16.6 16.6	B B	19.4 19.4	B B	16.8 16.8	B B	19.9 19.9	B B	17.2 17.2
Signalized	Northbound LTR	roach	A	4.0	В	11.0	А	4.1	В	11.4	В	11.8	В	14.2
		roach	A	4.0	В	11.0	A	4.1	В	11.4	В	11.8	В	14.2
	Southbound LTR		A	4.3	A	5.7	A	4.4	A	5.9	A	5.0	A	7.7
		roach	Α	4.3	Α	5.7	Α	4.4	Α	5.9	Α	5.0	Α	7.7
	Overall		Α	6.9	В	10.2	Α	7.0	В	10.5	В	11.0	В	13.6
Oliver St at	Eastbound LTR	}	В	12.7	В	11.0	В	12.8	В	11.2	В	13.8	В	12.5
Goundry St		roach	В	12.7	В	11.0	В	12.8	В	11.2	В	13.8	В	12.5
	Westbound LTR		В	12.7	В	10.6	В	12.8	В	10.7	В	13.5	В	11.2
Signalized	Westbound App	roach	В	12.7	В	10.6	В	12.8	В	10.7	В	13.5	В	11.2
	Northbound LTR	₹	Α	8.2	Α	2.9	Α	8.2	Α	2.9	Α	1.7	Α	3.8
	Northbound App	roach	Α	8.2	Α	2.9	Α	8.2	Α	2.9	Α	1.7	Α	3.8
	Southbound LTR	₹	Α	8.8	В	10.2	Α	9.0	В	15.8	Α	2.0	С	21.3
	Southbound App	roach	Α	8.8	В	10.2	Α	9.0	В	15.8	Α	2.0	С	21.3
	Overall		В	10.3	Α	8.5	В	10.4	В	10.5	Α	5.8	В	13.6
Oliver St at	Eastbound LTR		В	18.6	В	11.2	В	18.8	В	11.4	С	20.0	В	12.0
Tremont St		roach	В	18.6	В	11.2	В	18.8	В	11.4	С	20.0	В	12.0
Q. I. I	Westbound LTR		В	19.1	В	10.6	В	19.3	В	10.7	С	21.5	В	11.3
Signalized		roach	В	19.1	В	10.6	В	19.3	В	10.7	C	21.5	В	11.3
	Northbound LTR		A	4.1	A	8.8	A	4.2	A	8.9	A	4.3	A	9.1
		roach	Α	4.1	A	8.8	A	4.2	A	8.9	A	4.3	A	9.1
	Southbound App		Α	4.3	A	9.6	A	4.4	A	9.8	A	4.9	A	7.1
		roach	A	4.3	A	9.6	A	4.4	A	9.8	A	4.9	A	7.1
	Overall		В	10.8	В	10.3	В	10.9	В	10.5	В	11.2	Α	9.5

## **Level of Service Analysis Results**

- 2035 Full Build with Mitigation
  - Widen Existing Bridge
  - Construct Second Bridge



Intersection	Approach	and	5 Build wi Widen Ex o Tonawa	cisting	Bridge	an	5 Build w d Constru ge to Ton	uct a	
			/eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour
		LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)
River Rd at	Eastbound L	В	15.0	С	33.3	В	15.0	С	33.3
Witmer Rd	Eastbound T Eastbound TR	ВВ	11.9 11.8	B B	10.7 10.6	B B	11.9 11.8		10.7 10.6
Signalized	Eastbound TR  Eastbound Approach		12.0	В	12.6	В	12.0		12.6
	Westbound L	В	14.1	В	12.9	В	14.1	В	12.9
	Westbound T	В	11.7	В	14.5	В	11.7	В	14.5
	Westbound TR	В	11.7	В	14.8	В	11.7	В	14.8
	Westbound Approach Northbound LTR	n B C	11.7 21.0	В	14.6 27.1	B C	11.7 21.0		14.6 27.1
	Northbound Approach		21.0	С	27.1	С	21.0		27.1
	Southbound LTR	С	30.1	С	32.6	С	30.1	С	32.6
	Southbound Approach	n C	30.1	С	32.6	С	30.1	С	32.6
D: -:	Overall	В	15.2	В	15.4	В	15.2	В	15.4
River Rd at Ward Rd	Eastbound LTR Eastbound Approach	B n B	18.2 18.2	C	28.1 28.1	B B	18.2 18.2		28.1 28.1
TTAIU INU	Eastbound Approach Westbound LTR	C	28.8	D	38.5	С	28.8	D	38.5
Signalized	Westbound Approach		28.8	D	38.5	С	28.8	D	38.5
	Northbound L	С	21.0	В	12.4	С	21.0	В	12.4
	Northbound T	В	15.3	В	15.9	В	15.3	В	15.9
	Northbound Approach	В	15.3	В	17.5	В	15.3	1	17.5
	Northbound Approach Southbound L	n B B	15.4 19.6	B D	16.6 35.2	B B	15.4 19.6		16.6 35.2
	Southbound T	В	16.4	A	8.9	В	16.4	A	8.9
	Southbound TR	В	16.3	В	8.9	В	16.3	В	8.9
	Southbound Approach		16.4	В	10.0	В	16.4	В	10.0
D: D.	Overall	В	18.2	В	16.4	В	18.2	В	16.4
River Rd at Felton St	Westbound LT TR Westbound Approach	D n D	42.6 42.6	D D	44.4 44.4	D D	42.6 42.6	1	44.4 44.4
Tellon St	Northbound T	В	12.1	С	28.1	В	12.1		28.1
Signalized	Northbound TR	В	12.1	С	33.3	В	12.1	С	33.3
	Northbound Approach		12.1	С	30.8	В	12.1	С	30.8
	Southbound L	Α	7.8	С	25.7	Α	7.8	1	25.7
	Southbound T T  Southbound Approach	A n A	8.2 8.1	A	7.1 8.9	A	8.2 8.1	1	7.1 8.9
	Overall	В	13.3	C	23.7	В	13.3		23.7
River Rd at	Westbound L L	D	38.4	D	39.3	-	-	-	-
Wheatfield St	R	С	34.9	D	39.3	-	-	-	-
	Westbound Approach		37.7	D	39.3	-	-	-	-
Signalized	Northbound T	В	11.9	С	29.2	-	-	-	-
-	Northbound TR  Northbound Approach	B n B	12.0 12.0	F D	42.5 36.0	-	-	-	-
	Southbound T	A	8.0	E	78.6	-	-	-	-
	Southbound TR	А	7.9	Α	4.7	-	-	-	-
	Southbound Approach	-	7.9	В	12.6	-	-	-	-
Diver Dd -1	Overall	В	14.2	С	28.5	-	-		-
River Rd at Wheatfield St	Eastbound L Eastbound TR	+ -	-	-	-	C D	30.0 36.4		38.5 39.7
	Eastbound Approach		-	-	-	С	32.0	D	38.9
Signalized	Westbound L	-	-	-	-	D	45.3	D	39.8
	Westbound T	-	-	-	-	С	31.8	D	35.5
_	Westbound R	-	-	-	-	С	33.8	D	40.5
	Westbound Approach	) -   -	-	-	-	D D	41.6 45.9		39.5 24.6
	Northbound T T	+-	-	-	-	В	18.0	С	32.7
	Northbound R	-	-	-	-	В	16.4	В	18.7
	Northbound Approach	ı -	-	-	-	В	19.1	Struct a consward war	29.9
	Southbound L	-	-	-	-	В	12.8		38.7
	Southbound T	-	-	-	-	С	23.4		15.1
	Southbound TR Southbound Approach	-   -	-	-	-	C	24.7 23.4		15.2 17.7
	Overall	-	-	-	-	С	25.7		27.9
	2.2.6	J	[		<u> </u>				

River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized	Eastbound Eastbound Westbound Westbound Northbound Northbound Southbound Southbound Southbound Overall Westbound Northbound Southbound Southbound Overall Eastbound Southbound Westbound Westbound Southbound Northbound Northbound Northbound Westbound Overall Eastbound Westbound Northbound	LTR Approach LT TR Approach L T TR Approach L T TR Approach L T TR Approach L T T TR Approach L T T T T T T T T T T T T T T T T T T T		Control Delay (sec/veh)  0.0 0.0 39.6 39.6 1.8 1.8 1.8 5.9 14.7 14.5 14.2 12.0 29.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2		Control Delay (sec/veh)  31.1  31.1  45.4  45.4  45.4  34.1  43.9  39.1  38.1  9.1  10.9  28.8  38.1  10.2  10.2  32.6  0.3  6.1  11.7  20.5  26.7  23.9  35.8		Control Delay (sec/veh)  0.0  0.0  39.6  39.6  1.3  1.3  1.3  5.8  11.0  10.8  10.6  10.1  30.7  7.7  7.7  1.1  0.4  0.5  4.9  44.6  39.3  40.3	C C D A A A A A A A A A A A A A A A A A	Control Delay (sec/veh)  31.2  31.2  45.3  45.3  7.7  8.9  8.3  7.1  7.6  7.6  7.5  10.9  38.9  4.4  4.4  27.5  0.2  6.3  9.9  31.1  46.3  43.8
River Rd at Main St Signalized  River Rd at Thompson St Signalized  River Rd at Thompson St Signalized  River Rd at Signalized  River Rd at Thompson St Signalized  Main St at	Eastbound Westbound Northbound Northbound Southbound Southbound Southbound Overall Westbound Northbound Southbound Overall Westbound Southbound Southbound Westbound Southbound Westbound Southbound Southbound Southbound Southbound Southbound Westbound Westbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	Approach LTR Approach LT TR Approach L T TR Approach L T TR Approach L T T Approach L L L L(L) TR Approach L T C T C T C C C C C C C C C C C C C C	A A A A A A A A A C C D C D C D	Delay (sec/veh)  0.0 0.0 39.6 39.6 1.8 1.8 1.8 5.9 14.7 14.5 14.2 12.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	C C D D D F F D D A A B C D D B B C A A B C C C C D	Delay (sec/veh)  31.1 31.1 45.4 45.4 34.1 43.9 39.1 38.1 9.1 10.9 28.8 38.1 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	A A A A A A A A A D D D D D	Delay (sec/veh)  0.0  0.0  39.6  39.6  1.3  1.3  1.3  5.8  11.0  10.8  10.6  10.1  30.7  7.7  7.7  1.1  0.4  0.5  4.9  44.6  39.3  40.3	C C D D A A A A A A A A A A A A A A A A	Delay (sec/veh)  31.2  31.2  45.3  45.3  7.7  8.9  8.3  7.1  7.6  7.6  7.5  10.9  38.9  4.4  4.4  27.5  0.2  6.3  9.9  31.1  46.3
River Rd at Main St Signalized  River Rd at Thompson St Signalized  River Rd at Thompson St Signalized  River Rd at Signalized  River Rd at Signalized  Main St at	Eastbound Westbound Northbound Northbound Southbound Southbound Southbound Overall Westbound Northbound Southbound Overall Westbound Southbound Southbound Westbound Southbound Westbound Southbound Southbound Southbound Southbound Southbound Westbound Westbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	Approach LTR Approach LT TR Approach L T TR Approach L T TR Approach L T T Approach L L L L(L) TR Approach L T C T C T C C C C C C C C C C C C C C	A D D A A A A A A A A C C D C D C D C D	0.0 39.6 39.6 1.8 1.8 1.8 5.9 14.7 14.5 14.2 12.0 29.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	C D D F F D A A B C D B B C C C C D	31.1 45.4 45.4 34.1 43.9 39.1 38.1 9.1 10.9 28.8 38.1 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	A D D A A A B B B C C C A A A A A D D D D D	0.0 39.6 39.6 1.3 1.3 1.3 5.8 11.0 10.8 10.6 10.1 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	C D D A A A A A A A A A A A A A A A A A	31.2 45.3 45.3 7.7 8.9 8.3 7.1 7.6 7.5 10.9 38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Main St Signalized Synchro results River Rd at Thompson St Signalized  River Rd at Goundry St Signalized  Main St at	Westbound Westbound Northbound Northbound Southbound Southbound Southbound Overall Westbound Northbound Overthbound Southbound Westbound Southbound Westbound Southbound Southbound Westbound Southbound Southbound Southbound Southbound Westbound Westbound Westbound Westbound Westbound Westbound Westbound	LTR Approach LT TR Approach L T TR Approach  R R Approach T T Approach L L L (L) TR Approach L T (TR) R Approach L	D D A A A A A A A A C C D C C D C D	39.6 39.6 1.8 1.8 1.8 1.8 5.9 14.7 14.5 14.2 12.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	D D F F D A A B C D B B C C C C D	45.4 45.4 34.1 43.9 39.1 38.1 9.1 10.9 28.8 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	D D A A A A A A A A A D D D D	39.6 39.6 1.3 1.3 1.3 1.3 5.8 11.0 10.8 10.6 10.1 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	D D A A A B D D A A A A A A A A A A A A	45.3 45.3 7.7 8.9 8.3 7.1 7.6 7.6 7.5 10.9 38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
Signalized  River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized  Main St at	Westbound Northbound Northbound Southbound Southbound Southbound Southbound Westbound Northbound Northbound Southbound Westbound Southbound Southbound Westbound Southbound Southbound Southbound Southbound Westbound Westbound Westbound Westbound Westbound Westbound Westbound Westbound	Approach LT TR Approach L T TR Approach R Approach T T Approach L L L (L) TR Approach L T (TR) R Approach L	D A A A B B B C C A A A A A C D C D C D	39.6 1.8 1.8 1.8 5.9 14.7 14.5 14.2 12.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	D F F D D A A B C D B B C A A B C C D D	45.4 34.1 43.9 39.1 38.1 9.1 10.9 28.8 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	D A A A A A A A A D D D	39.6 1.3 1.3 1.3 1.3 5.8 11.0 10.8 10.6 10.1 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	D A A A A A A A A A A A A A A A A A A A	45.3 7.7 8.9 8.3 7.1 7.6 7.6 7.5 10.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized	Northbound Northbound Southbound Southbound Southbound Southbound Overall Westbound Northbound Southbound Westbound Southbound Vorthbound Southbound Southbound Southbound Southbound Westbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	LT TR Approach L T TR Approach R R Approach T T Approach L T T Approach L T (TR) R Approach L T (TR) R Approach L	A A A A A A C C D C C D C C D	1.8 1.8 1.8 1.8 5.9 14.7 14.5 14.2 12.0 29.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	F F D D A A B C D B B C A A B C C C D	34.1 43.9 39.1 38.1 9.1 10.9 28.8 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	A A A B B B C C C A A A A A D D D D	1.3 1.3 1.3 5.8 11.0 10.8 10.6 10.1 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	A A A A B D D A A C A A A C D D D	7.7 8.9 8.3 7.1 7.6 7.5 10.9 38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized  Main St at	Northbound Northbound Southbound Southbound Southbound Overall Westbound Northbound Southbound Overall Southbound Southbound Southbound Southbound Southbound Southbound Westbound Uverall Eastbound Westbound Westbound Westbound Westbound Westbound Northbound	TR Approach L T TR Approach R R Approach T T Approach L T T Approach L T T Approach L T (TR) R Approach L T (TR) R Approach L	A A A A A A C C D C C D C C D	1.8 1.8 5.9 14.7 14.5 14.2 12.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	F D D A A B C D B B C A A B C C C C D	43.9 39.1 38.1 9.1 10.9 28.8 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	A A B B B C C A A A A A D D D D	1.3 1.3 5.8 11.0 10.8 10.6 10.1 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	A A A A B D D A A C A A C D D D	8.9 8.3 7.1 7.6 7.6 7.5 10.9 38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized	Northbound Southbound Southbound Southbound Overall Westbound Northbound Northbound Southbound Southbound Southbound Southbound Southbound Southbound Westbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	Approach L T TR Approach R R Approach T T Approach L T T Approach L T T Approach L T (TR) R Approach L T (TR) R Approach L	A A B B B C C C A A A A C D C D C D	1.8 5.9 14.7 14.5 14.2 12.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	D D A A B C D D A A B C C C C C D	39.1 38.1 9.1 9.1 10.9 28.8 38.1 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	A A B B B C C A A A A D D D	1.3 5.8 11.0 10.8 10.6 10.1 30.7 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	A A A B D D A A C A A C D D D	8.3 7.1 7.6 7.6 7.5 10.9 38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized	Southbound Southbound Southbound Overall Westbound Northbound Southbound Southbound Southbound Southbound Southbound Westbound Westbound Uverall Eastbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	L T TR Approach R R Approach T T Approach L T T Approach L L(L) TR Approach L T (TR) R Approach L	A B B C C C A A A A C D C D C D	5.9 14.7 14.5 14.2 12.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	D A A B C C A A B C C C C D	38.1 9.1 9.1 10.9 28.8 38.1 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	B B B C C A A A A A D D D	5.8 11.0 10.8 10.6 10.1 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	A A A B D D A A C A A A D D D D D D D D D D D D	7.1 7.6 7.6 7.5 10.9 38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized	Southbound Southbound Southbound Overall Westbound Northbound Northbound Southbound Southbound Southbound Coverall Eastbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	T TR Approach R R Approach T T Approach L T T Approach L T T Approach L T (TR) R Approach L	B B C C A A A A C C D C D C D	14.7 14.5 14.2 12.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	A A B C D D B B C A A B C C C D	9.1 9.1 10.9 28.8 38.1 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	B B C C A A A A D D D	11.0 10.8 10.6 10.1 30.7 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	A A B D A A C A A C D D D	7.6 7.6 7.5 10.9 38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized	Southbound Southbound Overall Westbound Westbound Northbound Southbound Southbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	TR Approach R R Approach T T Approach L T T Approach L L(L) TR Approach L T (TR) R Approach L	B B C C A A A A C C D C D C D	14.5 14.2 12.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	A B C D D B B C A A B C C C D	9.1 10.9 28.8 38.1 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	B B C C A A A A D D D	10.8 10.6 10.1 30.7 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	A A B D D A A C A A C D D D	7.6 7.5 10.9 38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized	Southbound Overall Westbound Northbound Northbound Southbound Southbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	Approach  R R Approach T T Approach L T T Approach L L(L) TR Approach L T (TR) R Approach L	B B C C A A A A C C D C D C D	14.2 12.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	B C D A A B C C C C D	10.9 28.8 38.1 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	B C C A A A A D D D	10.6 10.1 30.7 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	A B D A A C A A C D D D	7.5 10.9 38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized	Overall Westbound Westbound Northbound Southbound Southbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	R R Approach T T Approach L T T Approach L L(L) TR Approach L T (TR) R Approach	B C C A A A A C C D C D C D	12.0 29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	C D D B B C A A C C C D	28.8 38.1 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	B C C A A A A A D D D D	10.1 30.7 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	B D A A C A A D D D D D D D D D D D D	10.9 38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Main St  Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized	Westbound Westbound Northbound Southbound Southbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	Approach T T Approach L T T Approach L L(L) TR Approach L T (TR) R Approach L	C C A A A A A C C D C C D	29.0 29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	D B B C A A C C C D	38.1 38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	C C A A A A A D D D	30.7 30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	D A A C A A C D D D	38.9 38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
Main St Signalized Synchro results River Rd at Thompson St Signalized  River Rd at Goundry St Signalized  Main St at	Westbound Northbound Southbound Southbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Westbound Northbound	Approach T T Approach L T T Approach L L(L) TR Approach L T (TR) R Approach L	C A A A A A C C D C C D C D	29.0 2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	D B B C A A C C C D	38.1 10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	A A A A D D D	30.7 7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	A A A A D D	38.9 4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized  Main St at	Northbound Northbound Southbound Southbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Northbound	T T Approach L T T Approach L L (L) TR Approach L T (TR) R Approach L	A A A A A C C D C C D C D	2.2 0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	B B C A A C C C D	10.2 10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	A A A A D D D	7.7 7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	A A C A A D D	4.4 4.4 27.5 0.2 6.3 9.9 31.1 46.3
Signalized  Synchro results  River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized  Main St at	Northbound Southbound Southbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Northbound	Approach L T T Approach L L (L) TR Approach L T (TR) R Approach L	A A A A C C D C D C	0.5 0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	B C A A B C C C D	10.2 32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	A A A A D D D D	7.7 1.1 0.4 0.5 4.9 44.6 39.3 40.3	A C A A C D D	4.4 27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized  Main St at	Southbound Southbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Northbound	L T T Approach L L (L) TR Approach L T (TR) R Approach L	A A A C C D C D C	0.6 2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	C A A B C C C D	32.6 0.3 6.1 11.7 20.5 26.7 23.9 35.8	A A A D D D	1.1 0.4 0.5 4.9 44.6 39.3 40.3	C A A A C D D	27.5 0.2 6.3 9.9 31.1 46.3
River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized  Main St at	Southbound Southbound Overall Eastbound Westbound Westbound Westbound Westbound Northbound	T T Approach L L (L) TR Approach L T (TR) R Approach L	A A A C C D C D C	2.2 2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	A A B C C D	0.3 6.1 11.7 20.5 26.7 23.9 35.8	A A D D D	0.4 0.5 4.9 44.6 39.3 40.3	A A A C D D	0.2 6.3 9.9 31.1 46.3
River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized  Main St at	Southbound Overall Eastbound Westbound Westbound Westbound Westbound Westbound Northbound	Approach  L L (L)  TR  Approach L  T (TR)  R  Approach L	A A E C D C D C	2.2 3.1 67.5 25.9 45.5 30.9 38.7 31.2	A B C C D	6.1 11.7 20.5 26.7 23.9 35.8	A A D D D	0.5 4.9 44.6 39.3 40.3	A A C D D	6.3 9.9 31.1 46.3
River Rd at Thompson St  Signalized  River Rd at Goundry St  Signalized  Main St at	Overall  Eastbound  Eastbound  Westbound  Westbound  Westbound  Northbound	L L (L) TR Approach L T (TR) R Approach L	A E C D C D C	3.1 67.5 25.9 45.5 30.9 38.7 31.2	B C C C	11.7 20.5 26.7 23.9 35.8	A D D D	Peak Hour   PM   Control Delay (sec/veh)   COS	A C D	9.9 31.1 46.3
River Rd at Signalized  River Rd at Goundry St  Signalized  Main St at	Eastbound Westbound Westbound Westbound Westbound Westbound Northbound	TR Approach L T (TR) R Approach L	E C D C D	67.5 25.9 45.5 30.9 38.7 31.2	C C C	20.5 26.7 23.9 35.8	D D	44.6 39.3 40.3	C D	31.1 46.3
River Rd at Goundry St Signalized  Main St at	Eastbound Westbound Westbound Westbound Westbound Northbound	TR Approach L T (TR) R Approach L	C D C D	25.9 45.5 30.9 38.7 31.2	C C D	26.7 23.9 35.8	D D	39.3 40.3	D D	46.3
River Rd at  Goundry St  Signalized  Main St at	Westbound Westbound Westbound Westbound	Approach L T (TR) R Approach L	D C C D	45.5 30.9 38.7 31.2	C D	23.9	D	40.3	D	
River Rd at Goundry St Signalized  Main St at	Westbound Westbound Westbound Westbound	L T (TR) R Approach L	C D C	30.9 38.7 31.2	D	35.8				43.8
River Rd at  Goundry St  Signalized  Main St at	Westbound Westbound Westbound Northbound	T (TR) R Approach L	D C D	38.7 31.2			1)	1111		
River Rd at Goundry St  Signalized  Main St at	Westbound Westbound Northbound	R Approach L	C D	31.2	(:					46.7
River Rd at Goundry St Signalized  Main St at	Westbound Northbound	Approach L	D			31.5	D	37.6	С	22.7
River Rd at  Goundry St  Signalized  Main St at	Northbound	L			С	26.8	-		-	-
River Rd at Goundry St  Signalized  Main St at		T	D	37.6	С	31.1	D			24.0
River Rd at Goundry St  Signalized  Main St at	Northbound	I	l	47.1	D	48.6	A			19.1
River Rd at Goundry St  Signalized  Main St at		<b>TD</b>	A	2.7	D	37.5	A			14.0
River Rd at Goundry St  Signalized  Main St at	Northbound	TR	A	2.6	D	37.0	A			13.8
River Rd at  Goundry St  Signalized  Main St at	Northbound	Approach	В	15.7	С	39.0	A			14.6
River Rd at Goundry St  Signalized  Main St at	Southbound	L	В	14.1	В	23.4	Α			20.3
River Rd at Goundry St  Signalized  Main St at	Southbound	T	С	20.0	С	18.6	A			22.0
River Rd at  Goundry St  Signalized  Main St at	Southbound	TR	В	11.9	С	26.6	Α			21.8
River Rd at  Goundry St  Signalized  Main St at	Southbound	Approach	В	17.9	С	21.2	A			21.8
Goundry St  Signalized  Main St at	Overall		С	23.6	С	28.9	В			23.4
Signalized  Main St at	Eastbound	LT	С	32.6	С	30.4	С			30.4
Main St at	Eastbound	R	С	32.8	С	30.5	С			30.5
Main St at	Eastbound	Approach	С	32.7	С	30.5	С			30.5
Main St at	Westbound	LT	D	37.4	D	37.7	D			37.7
Main St at	Westbound	R	D	37.4	D	37.7	D			37.7
Main St at	Westbound	Approach	D	37.4	D	37.7	D			37.7
Main St at	Northbound	LT TD	A	4.0	В	10.5	A			10.5
Main St at	Northbound	TR	A	4.2	В	11.4	A			11.4
Main St at	Northbound	Approach	A	4.1	В	10.9	Α			10.9
Main St at	Southbound Southbound	T T	A A	0.5	A	6.8	Α			7.1
Main St at	Southbound	TR	A	0.1	A	0.4	A A			0.7
Main St at	Southbound	Approach	A	0.1	A	0.4	A			0.8
Main St at	Overall	Approacti	A	3.4	A	8.7	A			8.8
	Eastbound	LT	C	20.3	C	21.1	C			21.1
	Eastbound	R	С	26.4	D	39.3	C			39.3
•	Eastbound	Approach	С	24.6	С	34.4	C			34.4
	Westbound	LTR	С	24.0	С	25.2	С			25.2
	Westbound	Approach	С	24.0	С	25.2	С			25.2
	Northbound	LTR	В	13.2	С	31.0	В			31.0
	Northbound	Approach	В	13.2	С	31.0	В			31.0
	Southbound	LTR	A	7.5	A	8.0	A			8.0
		Approach	A	7.5	A	8.0	A			8.0
	Southbound	T-12. 3000	В	16.3	C	27.1	В			27.1
		LTR	В	13.3	В	14.0	В			14.0
	Overall	Approach	В	13.3	В	14.0	В			14.0
•	Overall Eastbound	LTR	A	0.0	A	0.0	A			0.0
	Overall  Eastbound  Eastbound		Α	0.0	Α	0.0	A			0.0
	Overall  Eastbound  Eastbound  Westbound	Approach	A	3.4	A	4.2	A			4.2
	Overall  Eastbound  Eastbound  Westbound  Westbound	Approach LTR	`		A	4.2	A			4.2
	Overall  Eastbound  Eastbound  Westbound  Westbound  Northbound	LTR	А	:3	- ' '		В			14.6
	Overall  Eastbound  Eastbound  Westbound  Westbound  Northbound	LTR Approach	A B	3.4 12.7	В	14 6	. –			14.6
	Overall  Eastbound  Eastbound  Westbound  Westbound  Northbound	LTR	A B B	3.4 12.7 12.7	B B	14.6 14.6	В	127	'	14 N

Intersection	Approach		and	5 Build wi Widen Ex 5 Tonawa	cisting	Bridge	an	5 Build w d Constru ge to Ton	uct a	_
				eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour
			LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)
Webster St at	Eastbound	LTR	В	12.4	В	12.6	В	12.4	В	12.6
Tremont St	Eastbound	Approach	В	12.4	В	12.6	В	12.4	В	12.6
	Westbound	LTR	Α	0.0	Α	0.0	Α	0.0	Α	0.0
Signalized	Westbound	Approach	Α	0.0	Α	0.0	Α	0.0	Α	0.0
	Northbound	LT	Α	2.5	Α	5.7	Α	2.5	Α	5.7
	Northbound	R	Α	2.6	Α	6.8	Α	2.6	Α	6.8
	Northbound	Approach	Α	2.6	Α	6.3	Α	2.6	Α	6.3
	Southbound	LTR	Α	2.7	Α	2.9	Α	2.7	Α	2.9
	Southbound	Approach	Α	2.7	Α	2.9	Α	2.7	Α	2.9
	Overall		Α	2.9	Α	5.0	Α	2.9	Α	5.0
Webster St at	Westbound	LTR	В	16.6	В	18.1	В	16.6	В	18.1
Sweeney St	Westbound	Approach	В	16.6	В	18.1	В	16.6	В	18.1
	Northbound	LTR	Α	8.8	Α	8.7	Α	8.8	Α	8.7
Signalized	Northbound	Approach	Α	8.8	Α	8.7	Α	8.8	Α	8.7
	Southbound	LTR	Α	0.3	Α	0.5	Α	0.3	Α	0.5
	Southbound	Approach	Α	0.3	Α	0.5	Α	0.3	Α	0.5
	Overall		Α	5.7	Α	5.8	Α	5.7	Α	5.8
Main St at	Eastbound	LTR	В	11.8	Α	2.9	В	11.8	Α	2.9
Goundry St	Eastbound	Approach	В	11.8	Α	2.9	В	11.8	Α	2.9
	Westbound	LTR	Α	0.0	Α	0.0	Α	0.0	Α	0.0
Signalized	Westbound	Approach	Α	0.0	Α	0.0	Α	0.0	Α	0.0
	Northbound	LT	Α	6.3	В	10.3	Α	6.3	В	10.3
	Northbound	R	Α	3.7	Α	3.8	Α	3.7	Α	3.8
	Northbound	Approach	Α	6.1	Α	9.8	Α	6.1	Α	9.8
	Southbound	LTR	В	18.6	D	36.6	В	18.6	D	36.6
	Southbound	Approach	В	18.6	D	36.6	В	18.6	D	36.6
	Overall		Α	9.6	В	17.4	Α	9.6	В	17.4
Main St at	Eastbound	LTR	В	16.7	В	10.3	В	16.7	В	10.3
Tremont St	Eastbound	Approach	В	16.7	В	10.3	В	16.7	В	10.3
	Westbound	LT	В	16.3	В	18.8	В	16.3	В	18.8
	Westbound	R	В	15.2	В	15.8	В	15.2	В	15.8
Signalized	Westbound	Approach	В	16.2	В	18.7	В	16.2	В	18.7
	Northbound	LT	Α	1.5	В	14.3	Α	1.5	В	14.3
	Northbound	R	Α	0.3	Α	8.4	Α	0.3	Α	8.4
	Northbound	Approach	Α	1.3	В	13.7	Α	1.3	В	13.7
	Southbound	LT	Α	1.3	Α	2.2	Α	1.3	Α	2.2
	Southbound	R	Α	0.0	Α	0.0	Α	0.0	Α	0.0
	Southbound	Approach	Α	1.3	Α	2.1	Α	1.3	Α	2.1
	Overall		Α	3.9	Α	9.7	Α	3.9	Α	9.7
Main St at	Eastbound	LTR	Α	8.9	В	17.1	Α	8.9	В	17.1
Sweeney St	Eastbound	Approach	Α	8.9	В	17.1	Α	8.9	В	17.1
	Westbound	LTR	Α	0.0	Α	0.0	Α	0.0	Α	0.0
Signalized	Westbound	Approach	Α	0.0	Α	0.0	Α	0.0	Α	0.0
	Northbound	LT	С	28.3	В	18.4	С	28.3	В	18.4
		R	С	28.3	В	15.3	С	28.3	В	15.3
	Northbound	Approach	С	28.3	В	17.4	С	28.3	В	17.4
	Southbound	L	С	26.2	D	38.8	С	26.2	D	38.8
	Southbound	TR	В	10.6	В	18.0	В	10.6	В	18.0
	Southbound	Approach	В	13.8	С	23.5	В	13.8	С	23.5
	Overall		В	14.8	В	16.1	В	14.8	В	16.1

Intersection	Approach	and	35 Build w I Widen Ex to Tonawa	cisting	Bridge	an	5 Build w d Constru ge to Ton	uct a	_
			Weekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour
		LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)
Oliver St at	Eastbound LTR	В	16.7	С	23.9	В	16.7	С	23.9
Felton St		oach B	16.7	С	23.9	В	16.7	С	23.9
Q: II I	Northbound LTR	B	19.4	С	22.6	В	19.4	С	22.6
Signalized		roach B	19.4	С	22.6	В	19.4	С	22.6
	Southbound LTR Southbound Appr	roach B	13.9 13.9	В	11.4 11.4	B B	13.9 13.9	B B	11.4 11.4
	Overall	В	16.4	В	19.6	В	16.4	В	19.6
Oliver St at	Eastbound LTR	A	0.0	В	13.7	A	0.0	В	13.7
9 <sup>th</sup> Ave		roach A	0.0	В	13.7	A	0.0	В	13.7
	Westbound LTR	В	17.0	В	17.7	В	17.0	В	17.7
Signalized		oach B	17.0	В	17.7	В	17.0	В	17.7
-	Northbound LTR	В	10.3	Α	9.8	В	10.3	Α	9.8
	Northbound Appr	oach B	10.3	Α	9.8	В	10.3	Α	9.8
	Southbound LT	Α	8.4	Α	9.9	Α	8.4	Α	9.9
	Southbound R	Α	6.2	Α	5.3	Α	6.2	Α	5.3
		oach A	8.4	Α	9.9	Α	8.4	Α	9.9
	Overall	В	10.6	В	10.9	В	10.6	В	10.9
Oliver St at	Eastbound LTR	В	15.2	С	23.0	В	15.2	С	26.1
Wheatfield St		roach B	15.2	С	23.0	В	15.2	С	26.1
Signalized	Westbound LTR	B B	15.8	В	16.0	В	15.8	В	16.1
Signalized	Westbound Appr  Northbound LT	roach B	15.8 12.3	B B	16.0 17.0	B B	15.8 12.3	B B	16.1 17.0
		roach B	12.3	В	17.0	В	12.3	В	17.0
	Southbound LT	B	11.7	В	12.9	В	11.7	В	12.9
	Southbound R	В	11.0	В	10.9	В	11.0	В	10.9
		roach B	11.5	В	12.3	В	11.5	В	12.3
	Overall	В	13.9	В	17.1	В	13.9	В	17.9
Oliver St at	Eastbound LTR	В	11.6	В	11.9	В	11.6	В	11.9
Thompson St	Eastbound Appr	roach B	11.6	В	11.9	В	11.6	В	11.9
	Westbound LTR	В	11.1	Α	9.9	В	11.1	Α	9.9
Signalized	Westbound Appr	oach B	11.1	Α	9.9	В	11.1	Α	9.9
	Northbound LTR	В	18.6	С	22.1	В	18.6	С	22.1
		oach B	18.6	С	22.1	В	18.6	С	22.1
	Southbound LTR	В	12.0	В	17.1	В	12.0	В	17.1
		roach B	12.0	В	17.1	В	12.0	В	17.1
Oliver St at	Overall LTP	В	14.5	В	17.3	В	14.5	В	17.3
Oliver St at  Goundry St	Eastbound LTR Eastbound Appr	oach B	11.6 11.6	B B	10.9 10.9	B B	11.6 11.6	B B	10.9 10.9
	Westbound LTR	B B	11.3	A	9.7	В	11.3	А	9.7
Signalized		oach B	11.3	A	9.7	В	11.3	A	9.7
9.10.1200	Northbound LTR	A	3.9	A	5.7	A	3.9	A	5.7
		roach A	3.9	Α	5.7	Α	3.9	Α	5.7
	Southbound LTR	В	19.1	С	23.8	В	19.1	С	23.8
	Southbound Appr	roach B	19.1	С	23.8	В	19.1	С	23.8
	Overall	В	11.8	В	14.6	В	11.8	В	14.6
Oliver St at	Eastbound LTR	В	10.7	В	11.2	В	10.7	В	11.2
Tremont St		oach B	10.7	В	11.2	В	10.7	В	11.2
<u> </u>	Westbound LTR	В	11.1	В	10.5	В	11.1	В	10.5
Signalized		roach B	11.1	В	10.5	В	11.1	В	10.5
	Northbound LTR	A	10.0	A	9.8	A	10.0	A	9.8
		roach A	10.0	A	9.8	A	10.0	A	9.8
	Southbound LTR	B B	11.2	A	8.2	В	11.2	A	8.2
		roach B	11.2	A	8.2	В	11.2	A	8.2
	Overall	В	10.8	Α	9.6	В	10.8	Α	9.6

## **Appendix B**

# River Road Level of Service Results – Three Lane Alternative

- 2014 Existing Traffic
- 2035 No Build Traffic
- 2035 Full Build Traffic



Intersection	Approach		20	)14 3 Lar	ne Ex	isting	2	035 3 Laı	ne No	Build		2035 3 L	ane B	uild
				eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour
			LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh	LOS	Control Delay (sec/veh)
River Rd at	Eastbound	L	В	15.5	С	28.4	В	15.7	С	23.5	С	20.7	Е	56.1
Witmer Rd	Eastbound	TR	В	13.3	В	14.8	В	12.6	Α	11.0	В	19.2	В	13.3
	Eastbound	Approach	В	13.4	В	16.3	В	12.8	В	9.3	В	19.3	В	16.9
Signalized	Westbound	L	В	16.0	В	18.1	В	16.4	В	12.5	С	26.9	В	19.5
	Westbound	T	В	12.5	В	17.3	В	11.6	В	11.3	В	14.3	С	20.3
	Westbound	TR	Α	8.9	Α	9.7	Α	7.6	Α	5.5	Α	8.3	Α	6.1
	Westbound	Approach	В	12.0	В	16.0	В	11.1	В	10.3	В	13.4	В	17.5
	Northbound	LTR	В	19.2	В	19.2	С	26.1	С	32.5	С	25.8	С	32.5
	Northbound	Approach	В	19.2	В	19.2	С	26.1	С	32.5	С	25.8	С	32.5
	Southbound	LTR	С	23.7	С	21.0	D -	37.1	D	37.1	D -	43.5	D	42.6
	Southbound	Approach	С	23.7	С	21.0	D	37.1	D	37.1	D	43.5	D	42.6
D: D.I. (	Overall		В	15.0	В	16.5	В	17.1	В	12.8	С	21.5	В	19.5
River Rd at	Eastbound	LTR	В	16.1	В	16.1	С	23.6	С	32.6	С	22.4	С	32.5
Ward Rd	Eastbound	Approach	В	16.1	В	16.1	С	23.6	С	32.6	С	22.4	С	32.5
0: 1: 1	Westbound	LTR	С	21.2	В	18.1	D	37.0	D	39.8	D	41.3	D	54.4
Signalized	Westbound	Approach	С	21.2	В	18.1	D	37.0	D	39.8	D	41.3	D	54.4
	Northbound	L	В	17.8	В	16.4	С	24.9	В	13.2	E	55.2	C F	27.4
	Northbound Northbound	T TR	B A	11.7 8.2	C	20.9 9.4	В	13.3 8.7	В	14.5 6.2	C B	21.9	-	57.3 7.3
			В	11.1	A B	18.4	A B	12.5	A B	12.7	С	20.4	A D	46.0
	Northbound Southbound	Approach L	В	14.0	С	28.0	В	17.8	С	27.8	С	31.5	F	89.6
	Southbound	TR	В	15.1	В	13.9	В	18.3	A	9.7	F	77.4	В	17.2
	Southbound		В	15.1	В	14.8	В	18.3	В	10.9	E	76.4	С	20.3
	Overall	Approach	В	14.8	В	17.1	В	19.8	В	10.9	D	49.1	D	37.8
Divor Dd ot		LT TR	D	35.7	D	35.1	D	50.5	D	46.9	E	62.4	E	63.2
River Rd at Felton St	W estbound Westbound	Approach	D	35.7	D	35.1	D	50.5	D	46.9	E	62.4	E	63.2
i eiton ot	Northbound	Т	A	4.8	A	8.2	A	9.2	С	26.4	В	19.6	F	253.2
Signalized	Northbound	TR	A	2.9	A	2.7	A	5.6	A	6.4	A	7.9	В	10.7
Olgitalized	Northbound	Approach	A	4.6	A	7.4	A	8.9	C	23.6	В	18.6	F	220.1
	Southbound	L	A	5.9	В	14.1	A	5.5	С	20.3	В	15.1	С	28.1
	Southbound	T	Α	7.9	A	4.7	Α	9.4	A	5.0	F	61.3	С	22.3
	Southbound	Approach	Α	7.8	A	5.6	Α	9.2	Α	6.5	E	57.6	С	22.9
	Overall	, .pp. 0 do	В	10.0	Α	8.6	В	14.0	В	18.9	D	44.8	F	133.2
River Rd at	Westbound	LTR	D	53.7	D	45.5	F	90.0	E	62.0	F	157.3	F	202.6
Wheatfield St	Westbound	Approach	D	53.7	D	45.5	F	90.0	E	62.0	F	157.3	F	202.6
	Northbound	T	В	14.1	С	31.5	С	20.9	F	136.7	D	52.2	F	339.3
Signalized	Northbound	TR	В	10.0	Α	8.0	В	13.1	В	11.6	В	15.2	В	14.3
	Northbound	Approach	В	13.3	С	26.9	В	19.4	F	112.4	D	44.2	F	277.5
*Existing AM	Southbound	T (L)	Α	9.0	С	22.9	В	12.5	С	26.4	С	24.7	D	43.0
includes signal	Southbound	TR (T)	В	19.3	Α	6.4	F	58.9	Α	9.7	F	195.8	С	30.2
retiming	Southbound	Approach	В	18.8	Α	8.3	Е	56.6	В	11.6	F	186.6	С	31.5
	Overall		С	23.9	С	22.9	D	51.9	Е	75.4	F	133.2	F	186.0
River Rd at	Eastbound	LTR	Α	0.0	С	32.3	Α	0.0	С	33.0	Α	0.0	С	31.6
Robinson St	Eastbound	Approach	Α	0.0	С	32.3	Α	0.0	С	33.0	Α	0.0	С	31.6
	Westbound	LTR	D	38.9	D	38.9	D	41.4	D	42.7	D	45.5	D	47.3
Signalized	Westbound	Approach	D	38.9	D	38.9	D	41.4	D	42.7	D	45.5	D	47.3
	Northbound	LT	Α	4.4	С	21.2	В	17.7	F	179.4	С	24.9	F	447.2
	Northbound	TR	Α	2.7	Α	3.1	Α	9.8	Α	0.0	Α	7.5	Α	5.0
	Northbound	Approach	Α	4.3	В	20.0	В	17.1	F	167.2	С	23.6	F	414.0
	Southbound	L.	Α	5.7	D	46.3	Α	8.4	С	25.0	С	22.2	С	25.8
	Southbound	TR	В	16.7	Α	6.5	F	75.6	В	10.3	F	237.8	F	91.3
	Southbound	Approach	В	16.2	Α	9.8	Е	72.9	В	11.5	F	230.0	F	87.3
	Overall		В	14.7	В	17.8	D	54.8	F	103.1	F	147.6	F	265.1

Intersection	Approach		<b>2014 3 La</b> i	ne Ex	isting	2	035 3 Lar	ne No	Build		2035 3 L	ane B	uild
		А	Weekday M Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour		eekday Peak Hour
		LC	Control S Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)
River Rd at	Westbound R R		40.6	D	51.6	D	40.9	F	108.4	Е	62.9	F	331.0
Main St	Westbound Appr	oach D	40.6	D	51.6	D	40.9	F	108.4	Е	62.9	F	331.0
	Northbound T T	Δ	6.1	D	37.3	Α	6.4	Е	66.9	В	12.4	F	195.5
Signalized	Northbound Appr	oach A	6.1	D	37.3	Α	6.4	Е	66.9	В	12.4	F	195.5
	Southbound L	Δ	0.4	Α	7.7	Α	0.1	В	19.0	Α	2.5	С	28.4
Synchro results	Southbound TT	Д	2.5	Α	0.7	С	21.1	Α	0.7	Е	59.6	Α	2.4
	Southbound Appr	oach A	2.5	Α	1.6	С	20.4	Α	3.3	D	54.0	Α	7.1
	Overall	Α	5.3	С	25.0	В	18.0	D	46.7	D	43.2	F	132.2
River Rd at	Eastbound LTR	C	29.7	С	30.4	D	37.3	D	45.3	F	2211.9	F	9980.7
Thompson St	Eastbound Appr	oach C	29.7	С	30.4	D	37.3	D	45.3	F	2211.9	F	9980.7
	Westbound LT	C	29.7	С	28.9	D	37.2	D	41.9	D	45.5	F	220.0
Signalized	Westbound R	C	30.5	С	29.7	D	38.2	D	43.2	С	33.6	D	42.7
	Westbound Appr	oach C	30.2	С	29.4	D	37.9	D	42.8	D	44.3	F	193.8
	Northbound L	C	22.9	Α	7.4	D	44.1	Α	0.0	F	1193.5	Α	0.7
	Northbound TR	Δ	3.2	В	12.5	Α	0.7	Α	6.4	Α	0.9	Α	1.0
	Northbound Appr	oach A	4.2	В	12.4	Α	3.0	Α	6.3	F	349.8	Α	1.0
	Southbound L	Δ	4.0	В	19.5	Α	0.1	Α	0.6	Α	0.0	Α	0.3
	Southbound TR	Е	15.9	Α	5.9	F	37.3	Α	1.7	F	237.5	В	13.0
	Southbound Appr	oach E		Α	6.6	D	35.3	Α	1.7	F	227.8	В	12.7
	Overall	Е		В	11.5	С	27.2	Α	7.3	F	566.9	F	2664.7
River Rd at	Eastbound LT	C	31.5	С	27.9	D	43.3	С	34.2	D	50.1	С	34.0
Goundry St	Eastbound R	C		С	27.7	D	36.4	С	31.6	С	31.4	С	31.5
,	Eastbound Appr	oach C	29.5	С	27.8	D	37.8	С	32.9	D	35.5	С	32.7
Signalized	Westbound LT	C		С	33.7	D	48.3	С	53.0	F	374.2	F	721.8
	Westbound R	C		С	28.2	D	36.5	С	31.9	С	31.4	С	31.8
		oach C	32.4	С	31.2	D	46.3	D	43.5	F	351.9	F	631.2
	Northbound LT (I			Α	6.0	D	43.8	Α	5.2	D	50.7	Α	5.3
	Northbound TR (			Α	9.5	A	3.3	F	61.6	В	11.3	F	114.2
	(R)	- / - Δ		Α	2.0	Α	1.8	Α	4.9	Α	5.4	A	5.5
	Northbound Appr			Α	9.3	A	3.4	E	59.6	В	10.6	F	103.5
	Southbound L	Δ		В	13.4	A	0.4	D	49.1	A	4.8	D	37.2
	Southbound TR	Α		A	4.9	F	10.3	A	3.0	F	89.1	A	4.9
	Southbound Appr			A	5.2	В	10.2	A	4.6	F.	88.2	A	5.6
	Overall	Oach P		A	8.5	A	9.4	D	37.4	E	72.3	F	97.4

# Attachment 3 Traffic Accident Analysis

## **Accident History and Analysis**

The Niagara County Sheriff provided a four year accident history for the segment of River Road between Witmer Road and Goundry Street for 2011 through 2014. The accident information included reportable and non-reportable accidents and New York State Department of Motor Vehicles (NYSDMV) Police Accident Reports (MV104-A) were provided for 69 of the 165 accidents which occurred during the 4 year period. Examination of the accident reports provided the basis for an assessment of cause and effect.

A total of 165 accidents occurred within the project limits during the 4 year study period based on the report of incidents provided by the Niagara County Sheriff. The number of accidents occurring throughout the project corridor and their severity by year is summarized in Table 1. As shown, 56% (92 of 165) of the accidents occurring within the project area resulted in at least one personal injury. The remaining 44% were either PDO or non-reportable, as there were no reported fatal accidents.

Table 1. River Road Corridor Accidents by Year and Severity

Year		Severity		Total
i eai	Fatal	Injury	PDO/non-reportable	lotai
2011	0	22	12	34
2012	0	22	16	38
2013	0	16	21	37
2014	0	32	24	56
Total	0	92	73	165

Collision diagrams were constructed for each intersection and segment of the corridor to assist in studying accident patterns, probable causes and identifying clusters of collisions along the River Road corridor. The collision diagrams are contained in Appendix A. Accident summary tables are also provided in Appendix A, describing each accident and providing the date, time, number of vehicles and the following environmental factors: light conditions, roadway character, roadway surface condition, weather and apparent contribution factors.

The New York State Department of Transportation (NYSDOT) maintains a database of average accident rates for different types of roadway segments and intersections. Accident rates for linear sections are expressed in terms of the number of accidents per million vehicle miles of travel (acc/mvm). Rates for intersections are expressed in terms of the number of accidents per million entering vehicles (acc/mev). Average accident rates for similar facilities statewide were compared to those calculated for road segment and intersection locations throughout the project limits to assess the actual safety performance of the River Road corridor versus reasonable expectation. A description of the comparisons follows.

### **River Road Segments:**

Accident summary information and rates for segments of the River Road corridor within the project limits for the four year period 2011-2014 are presented in Table 2.

Table 2. River Road Segments Accident Summary

River Road		Ave	-	ccident   /mvm)	Rate	N	umber	of Acc	idents	i
Location	# of Lanes	Total	Wet	Fixed Object - Utility Pole	Injury	Total	2011	2012	2013	2014
Witmer to Ward (segment: without junctures)	4	0.31	0.00	0.10	0.21	3	1	1	1	0
Ward to Felton (segment: without junctures)	4	1.68	0.00	0.24	0.72	14	3	4	0	7
Felton to Wheatfield (segment: without junctures)	4	1.02	0.09	0.35	0.44	23	6	5	7	5
Wheatfield to Robinson (segment: with junctures)	4	0.85	0.00	0.00	0.73	7	2	1	2	2
Robinson to Main (segment: without junctures)	4	0.53	0.00	0.00	0.53	2	2	0	0	0
Main to Thompson (segment: without junctures)	4	0.00	0.00	0.00	0.00	0	0	0	0	0
Thompson to Goundry (segment: with junctures)	4	2.41	0.00	0.34	1.72	14	3	2	4	5
Total						63	17	13	14	19
Statewide Averages-without Junctures	4	3.20	0.65	0.20	-					
Statewide Averages-with Junctures	4	5.08	1.01	0.41	-					

= Accident rate above statewide average

= Accident rate 2.5 or > times statewide average

#### River Road: Witmer Road to Ward Road

A total of 3 accidents occurred within the segment of River Road between Witmer Road and Ward Road during the four year period 2011-2014. The average total accident rate for the four year period is 0.31 acc/mvm. This rate is under the statewide average accident rate of 3.20 acc/mvm. Two accidents involved personal injury and 1 accident involved only property damage during the four year period. This resulted in an average injury accident rate of 0.21 acc/mvm.

#### River Road: Ward Road to Felton Street

The average total accident rate for the four year period 2011-2014 for River Road between Ward Road and Felton Street is 1.68 acc/mvm with a total of 14 accidents. This rate is under the statewide average accident rate of 3.20 acc/mvm. Five of the 14 accidents (36%) occurred in January. 6 of the 14 (43%) accidents resulted in personal injury. The fixed object accident rate was 0.24 which is above the statewide average of 0.20 by 1.20 times.

#### River Road: Felton Street to Wheatfield Street

The street segment between Felton Street and Wheatfield Street experienced 23 accidents during four year period 2011 - 2014. The average total accident rate for the four year period is 1.02 acc/mvm. This resulted in a total accident rate less than the statewide average of 3.20 acc/mvm for similar facilities. Of the 23 accidents, 10 resulted in personal injury while the other 13 accidents involved property damage only. There were 8 fixed object accidents and 11 unknown accidents. This is reason to believe most of the accidents are fixed object in this segment. The pavement condition was dry for 6 and not dry for 6 accidents. It was not stated for the other 11 accidents. The fixed object accident rate was 0.35 which is above the statewide average of 0.20 by 1.75 times.

#### River Road: Wheatfield Street to Robinson Street

A total of 7 collisions occurred within the segment of River Road between Wheatfield Street and Robinson Street. The average total accident rate for the four year period 2011 - 2014 is 0.85 acc/mvm. This rate is less than the statewide average accident rate of 5.08 acc/mvm for similar facilities. Six out of the 7 accidents (86%) were injury accidents. Also 6 out of 7 were an unknown cause. 4 of the 7 (57%) occurred during the time period of 9:00 AM to 2:59 PM.

#### River Road: Robinson Street to Main Street

A total of 2 collisions occurred within the segment of River Road between Robinson Street and Main Street. The average total accident rate for the four year period 2011 - 2014 is 0.53 acc/mvm. This rate is less than the statewide average accident rate of 3.20 acc/mvm for similar facilities. Both accidents involved injuries.

#### **River Road: Main Street to Thompson Street**

No collisions occurred within the segment of River Road between Main Street and Thompson Street. The statewide average accident rate is 3.20 acc/mvm for similar facilities. The segment is not long which seems to be resulting in zero accidents.

#### **River Road: Thompson Street to Goundry Street**

A total of 14 collisions occurred within the segment of Thompson Street and Goundry Street. The average total accident rate for the four year period 2011 - 2014 is 2.41 acc/mvm. This rate is less than the statewide average accident rate of 5.08 acc/mvm for similar facilities. 10 of the 14 accidents involved personal injury and the other 24 accidents involved property damage only. This resulted in an average injury accident rate of 1.72 acc/mvm.

#### **River Road Intersections:**

Accident summary information and rates of the River Road intersections within the project limits are presented in Table 3.

Table 3. River Road Intersections Accident Summary

	Intersection		Ave	rage Ac (acc/		Rate		N	umber	of Ac	cident	s	
Primary Road	Intersecting Road	# of Legs	Total	Wet	Left Turn	Rear End	Right Angle	Injury	Total	2011	2012	2013	2014
River Road	Witmer Road	4	0.93	0.08	0.17	0.13	0.00	0.55	22	5	7	4	6
River Road	Ward Road	4	0.44	0.00	0.00	0.12	0.00	0.16	11	0	4	2	5
River Road	Felton Street	3	0.62	0.04	0.08	0.12	0.04	0.35	16	2	4	5	5
River Road	Wheatfield Street	3	0.86	0.09	0.12	0.09	0.12	0.52	28	6	4	7	11
River Road	Robinson Street	4	0.26	0.00	0.03	0.03	0.00	0.17	9	3	1	3	2
River Road	Main Street	3	0.06	0.00	0.00	0.03	0.00	0.03	2	0	1	0	1
River Road	Thompson Street	4	0.13	0.00	0.00	0.00	0.00	0.10	4	0	2	0	2
River Road Goundry Street 4		0.35	0.03	0.07	0.03	0.03	0.10	10	1	2	2	5	
							102	17	25	23	37		
3 Leg Signal 1-4 Lanes			0.27	0.05	0.02	0.10	0.03	-					
	4 Leg Signal 1-4 Lanes				0.05	0.17	0.06	-					

= Accident rate above statewide average

= Accident rate 2.5 or > times statewide average

#### **River Road at Witmer Road**

The intersection of River Road with Witmer Road is a four legged intersection with both streets two-way roadways. River Road is a five lane road and Witmer is a two lane road. A total of 22 accidents occurred at the intersection of River Road and Witmer Road. This resulted in a total accident rate of 0.93 acc/mev, which is 2.1 times greater than the statewide average of 0.45 acc/mev for similar intersections. 13 accidents resulted in a personal injury and 9 accidents involved property damage only, creating an injury accident rate of 0.55 acc/mev. Out of the 8 accidents of which the type was known 4 were left turns.

#### **River Road at Ward Road**

A total of 11 accidents occurred at the intersection of River Road and Ward Road during the four year study period. This is a 4-legged intersection with two-way travel on both streets. River Road is a five lane road and Ward Road is a two lane road. This resulted in a total accident rate of 0.44 acc/mev, which is less than the statewide average of 0.45 for similar intersections. Four accidents resulted in a personal injury and 7 accidents involved property damage only, resulting in an injury accident rate of 0.16 acc/mev. 3 out of the 4 known accidents types were rear ends. Similarly 3 out of the 4 known causes were driver inattention.

#### **River Road at Felton Street**

A total of 16 accidents occurred at the intersection of River Road and Felton Street during the four year study period. This is a 3-legged intersection with two-way travel on both streets. River Road is a five lane road and Felton Street is a two lane road. This resulted in a total accident rate of 0.62 acc/mev, which is 2.3 times greater than the statewide average of 0.27 for similar intersections. 9 accidents resulted in a personal injury and 7 accidents involved property damage only, resulting in an injury accident rate of 0.35 acc/mev.

#### **River Road at Wheatfield Street**

The intersection of River Road and Wheatfield Street is a 3-legged intersection with two-way travel on both streets. River Road is a five lane road and Wheatfield Street is a two lane road. A total of 28 accidents occurred at the intersection of River Road and Wheatfield Street during the four year study period. This resulted in a total accident rate of 0.86 acc/mev, which is 3.2 times greater than the statewide average of 0.27 for similar intersections. 17 accidents resulted in a personal injury and 11 accidents involved property damage only, resulting in an injury accident rate of 0.52 acc/mev. There was 12 accidents of which the type was known. The distribution of these accident types are as follows: 4 were left turns, 4 were right angles, 3 were rear end, and 1 was fixed object.

#### River Road at Robinson Street

A total of 9 accidents occurred at the intersection of River Road and Robinson Street during the four year study period. This is a 3-legged intersection with two-way travel on both streets. River Road is a five lane road and Robinson Street is a two lane road. This resulted in a total accident rate of 0.26 acc/mev, which is less than the statewide average of 0.45 for similar intersections. 6 accidents resulted in a personal injury and 6 accidents involved property damage only, resulting in an injury accident rate of 0.17 acc/mev.

#### **River Road at Main Street**

A total of 2 accidents occurred at the intersection of River Road and Main Street during the four year study period. This is a 3-legged intersection with two-way travel on both streets. This resulted in a total accident rate of 0.06 acc/mev, which is less than the statewide average of 0.27 for similar intersections.

#### River Road at Thompson Street

A total of 4 accidents occurred at the intersection of River Road and Thompson Street during the four year study period. This is a 4-legged intersection with two-way travel on both streets. River Road is a five lane road and Thompson Street is a two lane road. This resulted in a total accident rate of 0.13 acc/mev, which is equal to the statewide average of 0.45 for similar intersections. 3 accidents resulted in a personal injury and 1 accident involved property damage only, creating an injury accident rate of 0.10 acc/mev.

#### **River Road at Goundry Street**

A total of 10 accidents occurred at the intersection of River Road and Goundry Street during the four year study period. This is a 4-legged intersection with two-way travel on both roadways. This resulted in a total accident rate of 0.37 acc/mev or less than the statewide average of 0.45 for similar intersections. Of the 10 accidents, 3 accidents resulted in a personal injury and 7 accidents involved property damage only, resulting in an injury rate of 0.10 acc/mev. The accident types were varying and there were 4 unknown accident types, although left turn accidents exceeded the statewide average rate of 0.05. The left turn accident rate was 0.07.

### **Overall Summary**

The overall and individual type segment accident rates all fell under the statewide average rates, except for the fixed object rate between Ward Street and Wheatfield Street (includes two segments). The overall intersection accident rates for three (3) of the eight (8) intersections were above the statewide rates. Left turn accidents in particular were much higher (>2.5 times) than the statewide average at these intersections. Accident rates were highest at the Witmer Road, Felton Street and Wheatfield Street intersections.

No significant accident patterns or clusters are apparent from studying the accident summary tables and collision diagrams in Appendix A, however no accident reports were available for 58% of the accidents

occurring within the study area. Reconstruction improvements to River Road between Witmer Road and Goundry Street including new pavement, drainage upgrades, lighting improvements, new pavement markings including crosswalks and lane lines, upgraded traffic signals with coordination and pedestrian signals are expected to help improve safety by reducing accident rates. Mitigating accident rates will be important along this corridor with the upcoming significant increase to traffic volumes due to planned BOA build-out of the Master Plan.

Tables 4, 5 and 6 contain the overall study area summaries of collision type. Table 4 includes both intersections and roadway segments, Table 5 is a summary for intersections only and Table 6 is a summary of roadway segments only. Overall, the types of collisions varied somewhat evenly with a range of percentages from 0.6% to 10.3% in Table 4, yet this is skewed by the high percentage of accidents that are of unknown type. Rear end, fixed object, left turn and right angle accidents occurred most frequently, based on the known types, ranging from 17 rear end accidents to 11 right angle accidents.

Table 4. Summary of Collision Type – Intersections and Roadway Segments

Type of Collision	Number	Percentage
Right Angle	11	6.7
Right Turn	1	0.6
Left Turn	14	8.5
Side Swipe	8	4.8
Head On	1	0.6
Rear End	17	10.3
Fixed Object	15	9.1
Pedestrian or Bike	2	1.2
Unknown	96	58.2
TOTAL	165	100

Tables 5 and 6 split the overall accidents into segment accidents and intersection accidents, respectively. This reveals that 15 of the 17 rear end accidents occurred at intersections and 13 of the 14 left turn accidents occurred at intersections. Rear end accidents are typical of signalized intersections. Based on the known accident types at intersections, rear ends and left turns accounted for 28 of 41 accidents or 68%. Right angle type accidents were split nearly evenly between segments and intersections.

Table 5. Summary of Collision Type – Intersections Only

Type of Collision	Number	Percentage
Right Angle	6	5.9
Right Turn	1	1.0
Left Turn	13	12.7
Side Swipe	3	2.9
Head On	0	0.0
Rear End	15	14.7
Fixed Object	2	2.0
Pedestrian or Bike	1	1.0
Unknown	61	59.8
TOTAL	102	100

The fixed object accidents mainly occurred within roadway segments as shown in Table 6. Based on the known segment accidents, 46% (13 of 28) of the accidents were fixed object. Of these 13 fixed object accidents 8 occurred between Felton Street and Wheatfield Street. Four (4) of these eight (8) involved southbound vehicles striking the fence along the roadside between 300 feet and 1300 feet south of Felton Street. The other four (4) of the eight (8) involved northbound vehicles and the location of the accidents were spread out throughout the segment. Of the 8 fixed object accidents between Felton Street and Wheatfield Street, four (4) of these occurred during wet/slushy roadway conditions.

Table 6. Summary of Collision Type – Roadway Segments Only

Type of Collision	Number	Percentage
Right Angle	5	7.9
Right Turn	0	0.0
Left Turn	1	1.6
Side Swipe	5	7.9
Head On	1	1.6
Rear End	2	3.2
Fixed Object	13	20.6
Pedestrian or Bike	1	1.6
Unknown	35	55.6
TOTAL	63	100

# **Appendix A**

## **Traffic Accident History**

- Accidents Summary Table
- Collision Diagrams



Route No. or Street Name: At Intersection With: Number of Months: River Road Witmer Road to Goundry Street

48

Accident #	Date	Time	# Veh.	Severity	Light Conditions	Environmenta Rdwy Character	Rdwy Surf Cond.	Weather	App.Contr Factors	Description
1	Wednesday, August 13, 2014	20:39	2	Injury	Dark-Road Lighted	Straight and Level	Dry	Clear	Driver Inattention/ Distraction	Vehicle 2 stopped at a red light and was struck by Vehicle 1
2	Friday, October 21, 2011	21:34		PDO or Non- Reportable						No Accident Report Available
3	Friday, November 23, 2012	1:14		PDO or Non- Reportable						No Accident Report Available
4	Saturday, July 13, 2013	22:59		PDO or Non- Reportable						No Accident Report Available
5	Monday, January 06, 2014	17:47		PDO or Non- Reportable						No Accident Report Available
6	Monday, January 27, 2014	9:44		PDO or Non- Reportable						No Accident Report Available
7	Monday, August 26, 2013	21:15		Injury						No Accident Report Available
8	Wednesday, August 07, 2013	13:23		Injury						No Accident Report Available
9	Sunday, August 17, 2014	16:20		Injury						No Accident Report Available
10	Wednesday, February 05, 2014	23:14		Injury						No Accident Report Available
11	Saturday, July 02, 2011	22:42		Injury						No Accident Report Available
12	Wednesday, March 02, 2011	17:28		Injury						No Accident Report Available
13	Wednesday, October 10, 2012	19:20		Injury						No Accident Report Available
14	Saturday, July 21, 2012	3:52		Injury						No Accident Report Available
15	Thursday, May 03, 2012	18:32		Injury						No Accident Report Available

Route No. or Street Name: At Intersection With: Number of Months: River Road Witmer Road to Goundry Street

Accident	Date	Time	# Veh.	Severity	Light	Environmenta Rdwy	l Factors Rdwy	Weather	App.Contr	Description
#	Date	Time	ven.	Seventy	Conditions	Character	Surf Cond.	weather	Factors	Description
16	Monday, June 03, 2013	22:40	2	PDO or Non- Reportable	Dark-Road Lighted	Straight and Level	Dry	Cloudy		Vehicle 1 Northbound struck Vehicle 2 Southbound making a left onto Witmer
17	Wednesday, July 20, 2011	11:51	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Clear		Vehicle 1 Northbound struck Vehicle 2 Southbound making a left onto Witmer
18	Monday, August 06, 2012	15:20	2	Injury	Daylight	Straight and Level	Dry	Clear		Vehicle 2 turned left in front of Vehicle 1 and was struck
19	Wednesday, September 19, 2012	16:53	2	Injury	Daylight	Straight and Level	Dry	Clear	Failure to Yield Right-of- Way	Vehicle 1 Northbound struck Vehicle 2 which was turning left from Southbound
20	Sunday, July 15, 2012	1:20	1	PDO or Non- Reportable	Dark-Road Lighted	Straight and Level	Dry	Clear	Alcohol Involvement	Vehicle 1 trying to turn right onto Witmer was going to fast and struck a shed opposite the road
21	Friday, November 28, 2014	22:05	2	PDO or Non- Reportable	Dark-Road Lighted	Straight and Level	Wet	Cloudy	Following Too Closely	Vehicle 1 Northbound rearended Vehicle 2 stopped at the red light
22	Thursday, June 23, 2011	15:20	2	Injury	Daylight	Straight and Level	Wet	Cloudy	Driver Inattention/ Distraction	Vehicle 1 Northbound struck Vehicle 2 stopped at red light
23	Thursday, May 10, 2012	22:42	1	Injury	Dark-Road Lighted	Straight and Level	Dry	Cloudy	Passenger Distraction	Vehicle 1 exitied Southbound roadway and struck utility pole
24	Sunday, August 18, 2013	17:01	2	PDO or Non- Reportable	Daylight	Curve and Level	Dry	Clear	Driver Inattention/ Distraction	Vehicle 2 on grass Southbound struck by Vehicle 1
25	Friday, February 04, 2011	8:14	2	Injury	Daylight	Straight and Level	Snow/Ice	Clear	Pavement Slippery	Vehicle 1 Southbound lost control and spun into Northbound lane striking Vehicle 2
26	Wednesday, September 19, 2012	0:23	2	PDO or Non- Reportable	Dark-Road Lighted	Straight and Level	Dry	Cloudy	Driver Inattention/ Distraction	Vehicle 1 struck Vehicle 2 stopped at red light
27	Sunday, February 17, 2013	20:48		PDO or Non- Reportable						No Accident Report Available
28	Sunday, December 23, 2012	10:54		Injury						No Accident Report Available
29	Thursday, February 27, 2014	14:07		Injury						No Accident Report Available
30	Tuesday, January 14, 2014	17:26		Injury						No Accident Report Available

Route No. or Street Name: At Intersection With: Number of Months:

River Road Witmer Road to Goundry Street

Accident #	Date	Time	# Veh.	Severity	Light Conditions	Environmenta Rdwy Character	Rdwy Surf Cond.	Weather	App.Contr Factors	Description
31	Monday, January 27, 2014	8:42		PDO or Non- Reportable		S. I.a. auto.	Can Cond.		· dottoro	No Accident Report Available
32	Monday, January 27, 2014	10:30		PDO or Non- Reportable						No Accident Report Available
33	Monday, January 27, 2014	10:30		PDO or Non- Reportable						No Accident Report Available
34	Monday, December 24, 2012	15:54	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Clear	Driver Inattention/ Distraction	Vehicle 1 waiting at light Northbound proceeded forward through a green but emergency vehicle was passing through and was struck by Vehicle 1
35	Sunday, January 27, 2013	23:00	2	PDO or Non- Reportable	Dark-Road Lighted	Straight and Grade	Dry	Cloudy	Driver Inattention/ Distraction	Vehicle 1 Northbound struck Vehicle 2 stopped at red light
36	Thursday, June 07, 2012	12:36	2	Injury	Daylight	Straight and Level	Dry	Clear	Driver Inattention/ DistractionAlc ohol Involvement	Vehicle 1 brakes failed and struck Vehicle 2 from behind
37	Monday, January 02, 2012	16:15	2	Injury	Daylight	Straight and Level	Snow/Ice	Cloudy	Unsafe Speed	Vehicle 1 Northbound travelling at high speed lost control and went into Southbound lane getting struck by Vehicle 2
38	Wednesday, March 05, 2014	20:09	2	PDO or Non- Reportable	Dark-Road Lighted	Straight and Level	Dry	Clear	Alcohol Involvement	Vehicle 1 struck patrol car Vehicle 2 while its lights were activated
39	Tuesday, July 19, 2011	22:01	1	Injury	Dark-Road Lighted	Straight and Level	Dry	Clear	Obstruction/ Debris	Vehicle 1 Southbound struck a matress that was in roadway
40	Monday, May 30, 2011	14:52	2	Injury	Daylight	Straight and Level	Dry	Clear	Failure to Yield Right-of- Way	Vehicle 1 Northbound turning left into driveway struck a Southbound Vehicle 2
41	Tuesday, February 18, 2014	13:38	2	PDO or Non- Reportable	Daylight	Straight and Level	Snow/Ice	Snow	Alcohol Involvement	Vehicle 1 Northbound spun out into Southbound lane and struck Vehicle 2 head on
42	Saturday, January 04, 2014	10:09		PDO or Non- Reportable						No Accident Report Available
43	Saturday, January 04, 2014	11:34		PDO or Non- Reportable						No Accident Report Available
44	Monday, August 25, 2014	18:40		PDO or Non- Reportable						No Accident Report Available
45	Sunday, May 06, 2012	14:17		PDO or Non- Reportable						No Accident Report Available

Route No. or Street Name: At Intersection With: Number of Months:

River Road Witmer Road to Goundry Street

Accident #	Date	Time	# Veh.	Severity	Light Conditions	Environmenta Rdwy Character	Rdwy Surf Cond.	Weather	App.Contr Factors	Description
46	Wednesday, December 19, 2012	12:38		PDO or Non- Reportable	Conditions	Character	Suir Cond.		raciois	No Accident Report Available
47	Thursday, September 06, 2012	19:32		Injury						No Accident Report Available
48	Sunday, August 03, 2014	8:18		Injury						No Accident Report Available
49	Monday, January 27, 2014	17:51		Injury						No Accident Report Available
50	Tuesday, January 11, 2011	20:18	1	PDO or Non- Reportable	Dark-Road Lighted	Straight and Level	Snow/Ice	Snow	Pavement Slippery	Vehicle 1 Northbound struck National Grid pole
51	Friday, April 19, 2013	13:16		PDO or Non- Reportable						No Accident Report Available
52	Sunday, February 23, 2014	13:06		PDO or Non- Reportable						No Accident Report Available
53	Thursday, January 24, 2013	9:58		PDO or Non- Reportable						No Accident Report Available
54	Sunday, October 21, 2012	8:28		PDO or Non- Reportable						No Accident Report Available
55	Friday, September 28, 2012	14:57		Injury						No Accident Report Available
56	Friday, January 04, 2013	18:08		Injury						No Accident Report Available
57	Sunday, February 23, 2014	16:24		Injury						No Accident Report Available
58	Friday, January 17, 2014	17:47		Injury						No Accident Report Available
59	Friday, February 04, 2011	8:02		Injury						No Accident Report Available
60	Tuesday, December 30, 2014	9:46	3	Injury	Daylight	Straight and Level	Snow/Ice	Snow	Unsafe Lane Changing	Vehicle 1 Southbound spun out in front of a Southbound Vehicle 2 pushing Vehicle 2 into Northbound lanes striking Vehicle 3

Route No. or Street Name: At Intersection With: Number of Months: River Road Witmer Road to Goundry Street

Accident #	Date	Time	# Veh.	Severity	Light Conditions	Environmenta Rdwy Character	Rdwy Surf Cond.	Weather	App.Contr Factors	Description
61	Monday, November 18, 2013	16:56	2	Injury	Dark-Road Lighted	Straight and Level	Dry	Cloudy	Failure to Yield Right-of- Way	Vehicle 1 Southbound making left onto Felton struck by Vehicle 2 heading Northbound
62	Wednesday, March 30, 2011	15:07	2	Injury	Daylight	Straight and Level	Dry	Clear		Vehicle 1 Northbound struck Vehicle 2 which was atttemping a left turn from Southbound
63	Saturday, February 16, 2013	3:53	2	PDO or Non- Reportable	Dark-Road Unlighted	Straight and Level	Dry	Cloudy	Alcohol Involvement	Vehicle 1 stuck on train tracks was struck by amtrack
64	Sunday, December 21, 2014	18:25	2	Injury	Dark-Road Lighted	Straight and Level	Dry	Cloudy	Following Too Closely	Vehicle 2 stopped at red light and was struck in rear by Vehicle 1
65	Friday, September 21, 2012	17:18	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Clear	Illness	Vehicle 2 waiting at red light struck by Vehicle 1 Northbound
66	Tuesday, October 30, 2012	17:55	4	PDO or Non- Reportable	Dusk	Straight and Level	Wet	Rain	Pavement Slippery	Vehicle 1 struck Vehicle 2 Northbound stopped for railroad which then pushed Vehicle 2 into Vehicle 3 and Vehicle 3 into Vehicle 4
67	Friday, June 15, 2012	21:24	2	PDO or Non- Reportable	Dark-Road Lighted	Straight and Level	Dry	Clear	Alcohol Involvement	Vehicle 1 struck a parked Vehicle 2
68	Thursday, January 19, 2012	20:43	1	PDO or Non- Reportable	Dark-Road Lighted	Straight and Level	Slush	Cloudy	Unsafe Speed	Vehicle 1 struck utility pole
69	Tuesday, December 24, 2013	8:04	1	PDO or Non- Reportable	Dawn	Curve and Level	Snow/Ice	Cloudy	Driver Inattention/ Distraction	Vehicle 1 Southbound went off road into fence
70	Friday, May 30, 2014	14:15	1	Injury	Daylight	Curve and Level	Dry	Clear	Driver Inattention/ Distraction	Vehicle 1 Northbound exited road and struck two metal poles
71	Wednesday, March 12, 2014	9:27	1	PDO or Non- Reportable	Daylight	Straight and Level	Wet	Snow	Pavement Slippery	Vehicle 1 Northbound slid off road striking a fence
72	Thursday, April 11, 2013	5:54	2	PDO or Non- Reportable	Dark-Road Lighted	Straight and Level	Wet	Cloudy	Passing or Lane usage Improper	Vehicle 2 Southbound sideswiped while being passed by Vehicle 1
73	Sunday, September 11, 2011	17:21		PDO or Non- Reportable						No Accident Report Available
74	Saturday, May 28, 2011	16:53		Injury						No Accident Report Available
75	Friday, April 12, 2013	23:38		Injury						No Accident Report Available

Route No. or Street Name: At Intersection With: Number of Months:

River Road Witmer Road to Goundry Street 48

Accident	Date	Time	# Veh.	Severity	Light	Environmenta	Rdwy	Weather	App.Contr	Description
# 76	Wednesday, February 05, 2014	8:13		Injury	Conditions	Character	Surf Cond.		Factors	No Accident Report Available
77	Tuesday, December 10, 2013	19:43	1	Injury	Dark-Road Lighted	Curve and Level	Snow/Ice	Snow	Pavement Slippery	Vehicle 1 Northbound struck utility pole
78	Friday, August 03, 2012	21:41	1	PDO or Non- Reportable	Dark-Road Lighted	Curve and Level	Dry	Clear	Fell Asleep	Vehicle 1 Northbound struck fire hydrant
79	Tuesday, June 14, 2011	15:25	2	Injury	Daylight	Straight and Level	Dry	Cloudy	Driver Inattention/ Distraction	Vehicle 2 Southbound turning right into Fisherman's Park struck from behind by Vehicle 1
80	Tuesday, December 06, 2011	9:51		PDO or Non- Reportable						No Accident Report Available
81	Saturday, August 06, 2011	9:53		Injury						No Accident Report Available
82	Thursday, August 14, 2014	16:38		PDO or Non- Reportable						No Accident Report Available
83	Saturday, October 05, 2013	19:22		PDO or Non- Reportable						No Accident Report Available
84	Sunday, December 15, 2013	17:54		PDO or Non- Reportable						No Accident Report Available
85	Monday, December 16, 2013	9:41		PDO or Non- Reportable						No Accident Report Available
86	Sunday, August 12, 2012	17:32		PDO or Non- Reportable						No Accident Report Available
87	Friday, February 21, 2014	22:26	2	Injury	Dark-Road Lighted	Straight and Level	Snow/Ice	Clear	Pavement Slippery	Vehicle 1 Southbound lost control and went into Northbound lane striking Vehicle 2
88	Saturday, July 21, 2012	2:50	1	Injury	Dark-Road Lighted	Curve and Level	Dry	Clear	Alcohol Involvement	Vehicle 1 Northbound struck a telephone pole
89	Monday, July 18, 2011	2:12	1	Injury	Dark-Road Lighted	Straight and Level	Dry	Clear	Steering Failure	Vehicle 1 Northbound went off road while changing lanes striking a telephone pole
90	Saturday, November 15, 2014	15:27	2	Injury	Daylight	Straight and Level	Dry	Cloudy	Driver Inattention/ Distraction	Vehicle 2 Southbound slowing to prepare to turn struck in rear by Vehicle 1

Route No. or Street Name: At Intersection With: Number of Months: River Road Witmer Road to Goundry Street

Accident #	Date	Time	# Veh.	Severity	Light Conditions	Environmenta Rdwy Character	Rdwy Surf Cond.	Weather	App.Contr Factors	Description
91	Monday, December 10, 2012	16:29		Injury						No Accident Report Available
92	Saturday, July 14, 2012	23:06		Injury						No Accident Report Available
93	Saturday, February 18, 2012	7:04		Injury						No Accident Report Available
94	Friday, January 13, 2012	6:50		Injury						No Accident Report Available
95	Monday, August 29, 2011	21:21		Injury						No Accident Report Available
96	Monday, April 18, 2011	16:41		Injury						No Accident Report Available
97	Saturday, August 10, 2013	10:36		Injury						No Accident Report Available
98	Tuesday, April 30, 2013	7:43		Injury						No Accident Report Available
99	Tuesday, July 22, 2014	15:54		Injury						No Accident Report Available
100	Sunday, February 23, 2014	14:13		Injury						No Accident Report Available
101	Friday, February 07, 2014	15:45		Injury						No Accident Report Available
102	Tuesday, January 28, 2014	7:55		Injury						No Accident Report Available
103	Friday, October 07, 2011	20:48		PDO or Non- Reportable						No Accident Report Available
104	Saturday, March 02, 2013	21:44		PDO or Non- Reportable						No Accident Report Available
105	Tuesday, September 02, 2014	20:22		PDO or Non- Reportable						No Accident Report Available
106	Wednesday, October 29, 2014	14:49		Injury						No Accident Report Available

Route No. or Street Name: At Intersection With: Number of Months:

River Road Witmer Road to Goundry Street

	_		#			Environmenta				
Accident #	Date	Time	Veh.	Severity	Light Conditions	Rdwy Character	Rdwy Surf Cond.	Weather	App.Contr Factors	Description
107	Sunday, August 11, 2013	18:11	2	Injury	Daylight	Straight and Level	Dry	Clear		Vehicle 1 Southbound making left turn struck Vehicle 2
108	Monday, February 10, 2014	10:58	2	PDO or Non- Reportable	Daylight	Straight and Level	Wet	Cloudy	Failure to Yield Right-of- Way	Vehicle 2 Northbound struck by Vehicle 1 which was attempting a left turn from Southbound
109	Saturday, January 15, 2011	0:07	2	PDO or Non- Reportable	Dark-Road Lighted	Straight and Grade	Wet	Snow	Driver Inattention/ Distraction	Vehicle 1 Southbound turned left and struck a Northbound Vehicle 2
110	Saturday, June 14, 2014	10:18	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Cloudy	Traffic Control Disregarded	Vehicle 2 Eastbound making a left turn struck by Vehicle 1 Northbound
111	Saturday, March 02, 2013	21:45	2	Injury	Dark-Road Lighted	Straight and Level	Dry	Cloudy	Traffic Control Disregarded	Vehicle 1 Northbound ran red light and struck Vehicle 2 in middle of intersection
112	Sunday, June 30, 2013	13:32	3	Injury	Daylight	Straight and Level	Dry	Clear		Vehicle 1 Southbound making left struck by Vehicle 2. Vehicle 1 then redirected to strike Vehicle 3 facing Westbound at light
113	Friday, January 24, 2014	8:53	2	PDO or Non- Reportable	Daylight	Straight and Level	Snow/Ice	Snow	Driver Inattention/ Distraction	Vehicle 1 Northbound struck by Vehicle 2 which was attemping a left from Southbound
114	Tuesday, April 30, 2013	7:22	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Clear	Driver Inattention/ Distraction	Vehicle 1 and Vehicle 2 collide in the middle of the intersection
115	Tuesday, February 08, 2011	8:25	2	PDO or Non- Reportable	Daylight	Straight and Level	Snow/Ice	Snow	Following Too Closely	Vehicle 2 stopped to check railroad tracks and struck by Vehicle 1 from behind
116	Thursday, August 04, 2011	13:24	1	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Clear	Traffic Control Device Improper/Non- Working	Vehicle 1 was going through railroad tracks when gate dropped on his vehicle
117	Tuesday, July 08, 2014	16:13	4	PDO or Non- Reportable	Daylight	Curve and Level	Wet	Rain	Driver Inattention/ Distraction	Vehicle 1 Northbound in heavy traffic struck Vehicle 2 which caused a chain reaction striking Vehicle 3 and Vehicle 4
118	Thursday, August 15, 2013	10:53	2	Injury	Daylight	Straight and Level	Dry	Clear	Cell Phone (hand-held)	Vehicle 1 merged in front of Vehicle 2 causing sideswipe
119	Thursday, August 15, 2013	10:53		Injury						No Accident Report Available
120	Sunday, November 20, 2011	2:40		PDO or Non- Reportable						No Accident Report Available
121	Friday, October 07, 2011	4:40		Injury						No Accident Report Available

Route No. or Street Name: At Intersection With: Number of Months:

River Road Witmer Road to Goundry Street

			#		Environmental Factors					
Accident #	Date	Time	Veh.	Severity	Light Conditions	Rdwy Character	Rdwy Surf Cond.	Weather	App.Contr Factors	Description
122	Wednesday, June 27, 2012	14:20		Injury						No Accident Report Available
123	Monday, April 28, 2014	14:00		Injury						No Accident Report Available
124	Thursday, March 13, 2014	6:57		Injury						No Accident Report Available
125	Friday, October 28, 2011	18:45		Injury						No Accident Report Available
126	Tuesday, October 04, 2011	7:49		Injury						No Accident Report Available
127	Sunday, January 29, 2012	11:30		Injury						No Accident Report Available
128	Wednesday, February 27, 2013	22:37		Injury						No Accident Report Available
129	Sunday, July 20, 2014	22:49		Injury						No Accident Report Available
130	Thursday, February 27, 2014	14:43		Injury						No Accident Report Available
131	Monday, July 18, 2011	7:24	3	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Cloudy	Fell Asleep	Vehicle 1 Southbound dozed off and crossed into Northbound lanes sideswiping Vehicle 2 then veered back into Southbound lanes sideswiping Vehicle 3
132	Wednesday, June 05, 2013	13:56	1	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Cloudy	View Obstructed/ Limited	Vehicle 1 Westbound making right on red struck bicyclist who failed to use bike lane and was acting as a pedestriar
133	Thursday, February 14, 2013	8:32	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Cloudy	Backing Unsafely	Vehicle 1 Westbound struck Vehicle 2 while backing up at light to let a large truck pass
134	Tuesday, April 12, 2011	16:52	2	Injury	Daylight	Straight and Level	Dry	Clear	Failure to Yield Right-of Way	Vehicle 1 made a left turn out of a driveway heading Southbound and struck a Northbound Vehicle 2
135	Sunday, September 25, 2011	19:44	1	Injury	Dark-Road Lighted	Straight and Level	Dry	Clear	Unsafe Lane Changing	Vehicle 1 Northbound struck bicyclists coming into oncoming traffic
136	Tuesday, February 11, 2014	11:08		Injury						No Accident Report Available

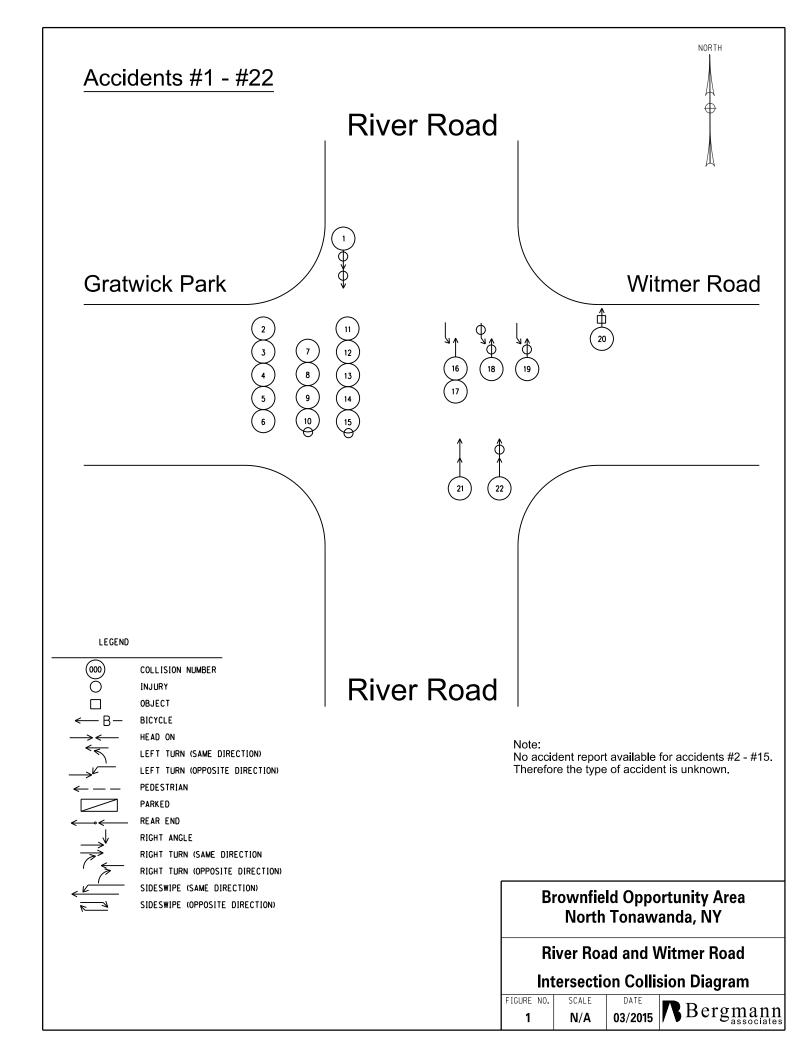
Route No. or Street Name: At Intersection With: Number of Months:

River Road Witmer Road to Goundry Street

Accident #	Date	Time	# Veh.	Severity	Light Conditions	Environmenta Rdwy Character	Rdwy Surf Cond.	Weather	App.Contr Factors	Description
137	Tuesday, January 03, 2012	10:48	2	PDO or Non- Reportable	Daylight	Straight and Level	Snow/Ice	Snow	Pavement Slippery	Vehicle 1 struck Vehicle 2 which was coming to a stop at red light
138	Thursday, February 23, 2012	16:17		Injury						No Accident Report Available
139	Saturday, November 08, 2014	15:22		Injury						No Accident Report Available
140	Friday, January 17, 2014	14:56		Injury						No Accident Report Available
141	Wednesday, July 04, 2012	22:44		PDO or Non- Reportable						No Accident Report Available
142	Thursday, September 22, 2011	22:31	1	Injury	Dark-Road Lighted	Straight and Level	Dry	Clear	Driver Inattention/ Distraction	Vehicle 1 Southbound struck telephone pole
143	Thursday, August 02, 2012	3:56	1	PDO or Non- Reportable	- Dark-Road Lighted	Straight and Level	Dry	Clear	Alcohol Involvement	Vehicle 1 Northbound blew a tire and struck a power pole after veering off road toppling multiple poles
144	Wednesday, August 03, 2011	16:09		Injury						No Accident Report Available
145	Tuesday, May 10, 2011	13:59		Injury						No Accident Report Available
146	Thursday, August 02, 2012	7:23		Injury						No Accident Report Available
147	Monday, May 27, 2013	13:42		Injury						No Accident Report Available
148	Monday, May 20, 2013	15:48		Injury						No Accident Report Available
149	Thursday, January 02, 2014	14:38		Injury						No Accident Report Available
150	Monday, May 27, 2013	14:03	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Clear	Driver Inattention/ Distraction	Vehicle 1 struck Vehicle 2 slowing down to turn into driveway
151	Monday, August 11, 2014	8:24	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Clear	View Obstructed/ Limited	Vehicle 1 Westbound on Island St inched out into traffic in attempt to turn and was struck by Vehicle 2 Northbound

Route No. or Street Name: At Intersection With: Number of Months: River Road Witmer Road to Goundry Street

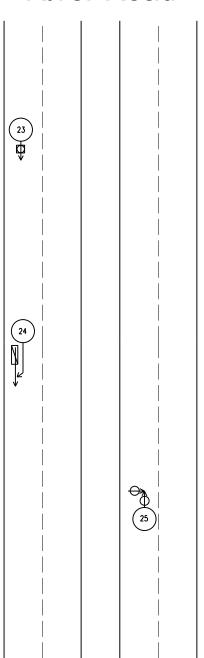
Accident #	Date	Time	# Veh.	Severity	Light Conditions	Environmenta Rdwy Character	Rdwy Surf Cond.	Weather	App.Contr Factors	Description
152	Thursday, May 16, 2013	20:22		PDO or Non- Reportable						No Accident Report Available
153	Friday, October 17, 2014	14:53		Injury						No Accident Report Available
154	Tuesday, September 23, 2014	15:45		Injury						No Accident Report Available
155	Wednesday, September 03, 2014	7:47		Injury						No Accident Report Available
156	Thursday, June 05, 2014	21:00	2	PDO or Non- Reportable	Dusk	Straight and Level	Dry	Cloudy	Driver Inattention/ Distraction	Vehicle 1 Southbound struck the rear of Vehicle 2
157	Tuesday, December 17, 2013	6:52	3	PDO or Non- Reportable	Dark-Road Lighted	Straight and Level	Snow/Ice	Snow	Driver Inattention/ Distraction	Vehicle 1 sideswiped both Vehicle 2 and Vehicle 3 stopped at light
158	Tuesday, December 17, 2013	6:58		PDO or Non- Reportable						No Accident Report Available
159	Monday, October 15, 2012	6:54		Injury						No Accident Report Available
160	Monday, May 14, 2012	18:53		Injury						No Accident Report Available
161	Monday, August 25, 2014	12:01		Injury						No Accident Report Available
162	Friday, December 23, 2011	10:23	3	PDO or Non- Reportable	Daylight	Straight and Level	Wet	Snow	Driver Inattention/ Distraction	Vehicle 1 pulled out Eastbound against Red light and struck Vehicle 2 Northbound then continued on to strike Vehicle 3 facing Westbound
163	Wednesday, March 05, 2014	17:24	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Clear	Glare	Vehicle 1 Eastbound made left in front of Vehicle 2 and was struck by Vehicle 2
164	Wednesday, April 02, 2014	13:24	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Clear	Failure to Yield Right-of- Way	Vehicle 1 Southbound turned left in front of Vehicle 2 Northbound and was struck by Vehicle 2
165	Tuesday, November 18, 2014	9:00	2	PDO or Non- Reportable	Daylight	Straight and Level	Dry	Clear		Vehicle 1 Westbound making a right turn onto River struck a Northbound Vehicle 2



## Accidents #23 - #25



## River Road



LEGEND

(00)COLLISION NUMBER INJURY OBJECT BICYCLE HEAD ON LEFT TURN (SAME DIRECTION) LEFT TURN (OPPOSITE DIRECTION) **PEDESTRIAN** PARKED REAR END RIGHT ANGLE RIGHT TURN (SAME DIRECTION RIGHT TURN (OPPOSITE DIRECTION) SIDESWIPE (SAME DIRECTION) SIDESWIPE (OPPOSITE DIRECTION)

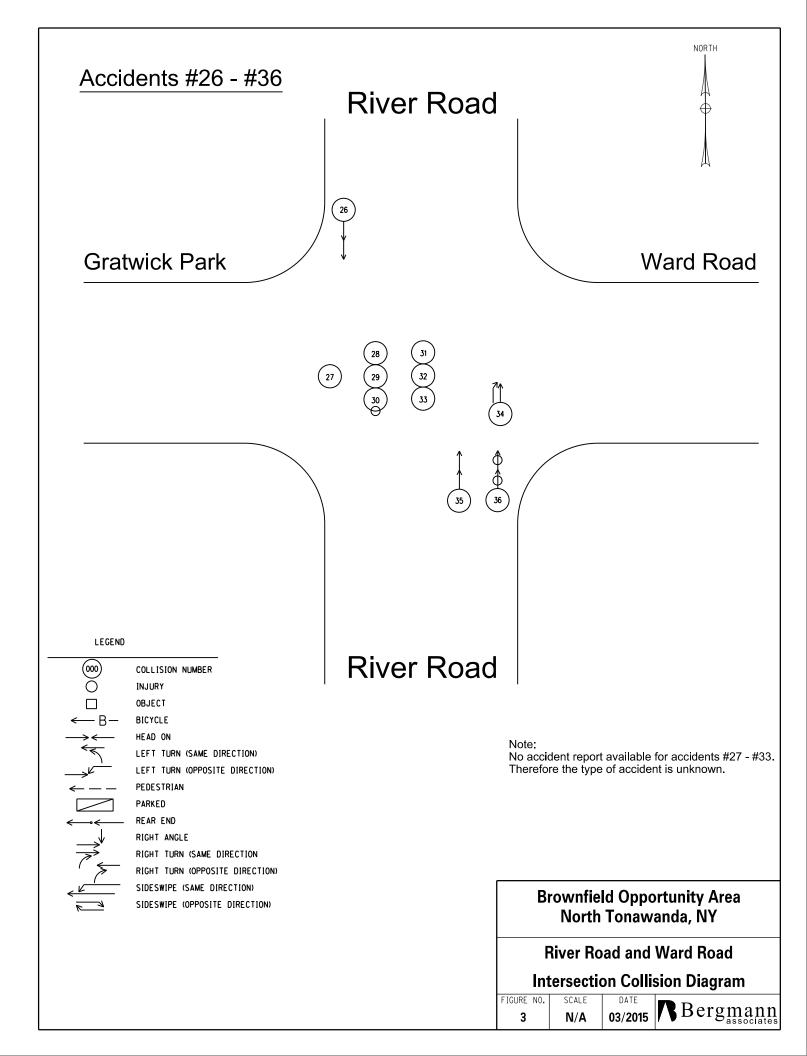
Brownfield Opportunity Area North Tonawanda, NY

Witmer Road to Ward Road Segment Collision Diagram

FIGURE NO. SCALE

2 N/A

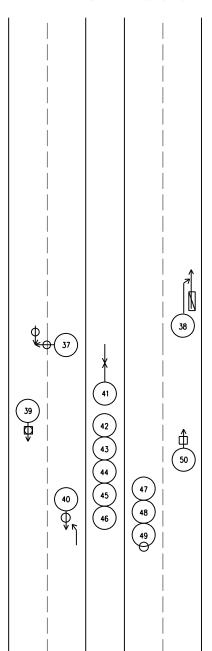
O3/2015 Rergmann



## Accidents #37 - #50



## River Road



Note:

No accident report available for accidents #42 - #49. Therefore the type of accident is unknown.

LEGEND

COLLISION NUMBER

INJURY

OBJECT

B BICYCLE

HEAD ON

LEFT TURN (SAME DIRECTION)

LEFT TURN (OPPOSITE DIRECTION)

PEDESTRIAN

PARKED

REAR END

RIGHT ANGLE

RIGHT TURN (SAME DIRECTION)

SIDESWIPE (SAME DIRECTION)

SIDESWIPE (OPPOSITE DIRECTION)

Brownfield Opportunity Area North Tonawanda, NY

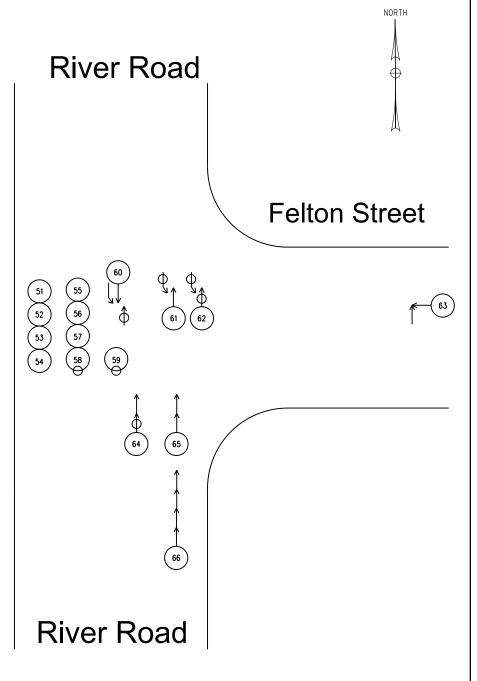
Ward Road to Felton Street Segment Collision Diagram

FIGURE NO. 4

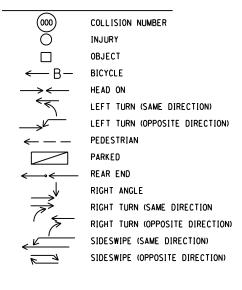
SCALE DATE **N/A 03/2015** 

R Bergmann

### Accidents #51 - #66



LEGEND



Note:

No accident report available for accidents #51 - #59. Therefore the type of accident is unknown.

Brownfield Opportunity Area North Tonawanda, NY

River Road and Felton Street Intersection Collision Diagram

FIGURE NO. SCALE DATE

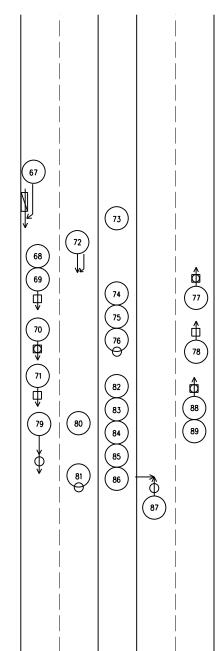
5 N/A 03/2015 Bergmann

Bergmann

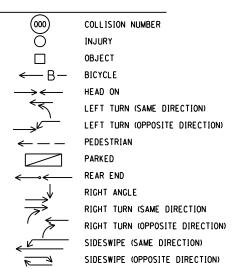
### Accidents #67 - #89

## River Road





LEGEND



Note:

No accident report available for accidents #73 - #76 and #80 - #86. Therefore the type of accident is unknown.

Brownfield Opportunity Area North Tonawanda, NY

Felton Street to Wheatfield Street Segment Collision Diagram

FIGURE NO. SCALE DATE

6 N/A 03/2015 Bergmann associates

# NORTH Accidents #90 - #117 River Road Wheatfield Street LEGEND River Road COLLISION NUMBER INJURY OBJECT BICYCLE HEAD ON LEFT TURN (SAME DIRECTION) No accident report available for accidents #91 - #106. Therefore the type of accident is unknown. LEFT TURN (OPPOSITE DIRECTION) **PEDESTRIAN** PARKED REAR END RIGHT ANGLE RIGHT TURN (SAME DIRECTION RIGHT TURN (OPPOSITE DIRECTION) SIDESWIPE (SAME DIRECTION) **Brownfield Opportunity Area** SIDESWIPE (OPPOSITE DIRECTION) North Tonawanda, NY **River Road and Wheatfield Street Intersection Collision Diagram**

FIGURE NO.

7

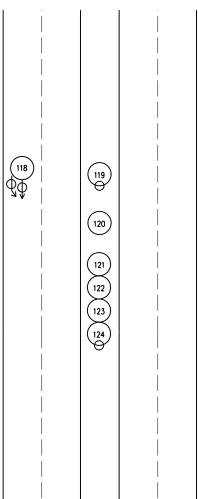
SCALE **N/A** 

03/2015

### Accidents #118 - #124



### River Road



No accident report available for accidents #119 - #124. Therefore the type of accident is unknown.

LEGEND



COLLISION NUMBER

INJURY

OBJECT

BICYCLE

HEAD ON

LEFT TURN (SAME DIRECTION)

LEFT TURN (OPPOSITE DIRECTION)

**PEDESTRIAN** 

PARKED

REAR END

RIGHT ANGLE

RIGHT TURN (SAME DIRECTION RIGHT TURN (OPPOSITE DIRECTION)

SIDESWIPE (SAME DIRECTION)

SIDESWIPE (OPPOSITE DIRECTION)

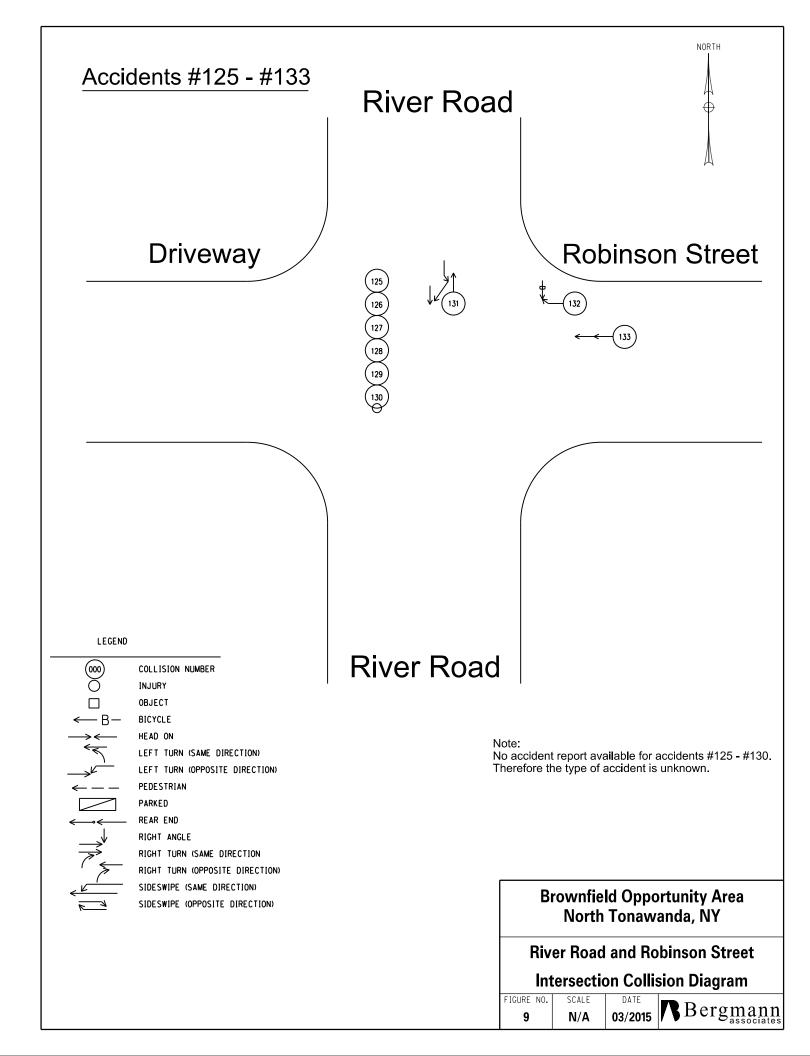
**Brownfield Opportunity Area** North Tonawanda, NY

**Wheatfield Street to Robinson Street Segment Collision Diagram** 

FIGURE NO. SCALE N/A

DATE 03/2015





### Accidents #134 - #135

### River Road



LEGEND

COLLISION NUMBER

INJURY

OBJECT

B BICYCLE

HEAD ON

LEFT TURN (SAME DIRECTION)

LEFT TURN (OPPOSITE DIRECTION)

PEDESTRIAN

PARKED

REAR END

RIGHT ANGLE

RIGHT TURN (SAME DIRECTION
RIGHT TURN (OPPOSITE DIRECTION)
SIDESWIPE (SAME DIRECTION)
SIDESWIPE (OPPOSITE DIRECTION)

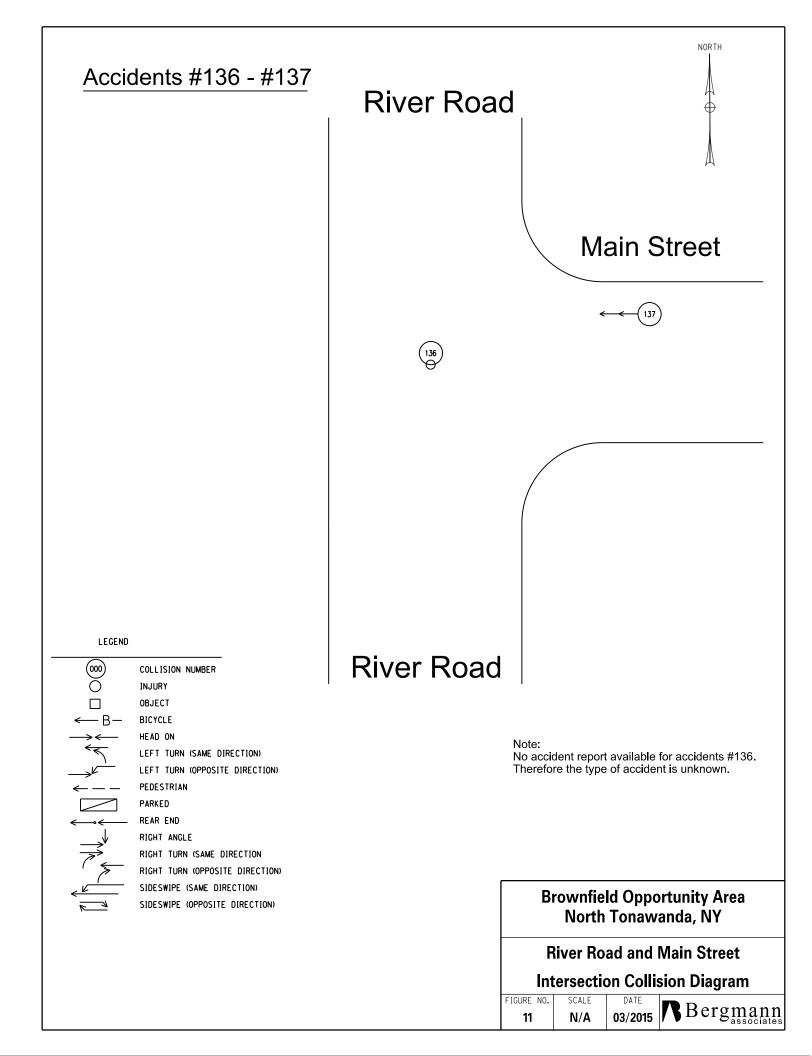
Brownfield Opportunity Area North Tonawanda, NY

Robinson Street to Main Street
Segment Collision Diagram

FIGURE NO. SCALE DATE

10 N/A 03/2015





### No Accidents



# River Road

LEGEND

COLLISION NUMBER





OBJECT





HEAD ON



LEFT TURN (OPPOSITE DIRECTION)

**PEDESTRIAN** 



REAR END

RIGHT ANGLE

RIGHT TURN (SAME DIRECTION

RIGHT TURN (OPPOSITE DIRECTION)

SIDESWIPE (SAME DIRECTION)

SIDESWIPE (OPPOSITE DIRECTION)

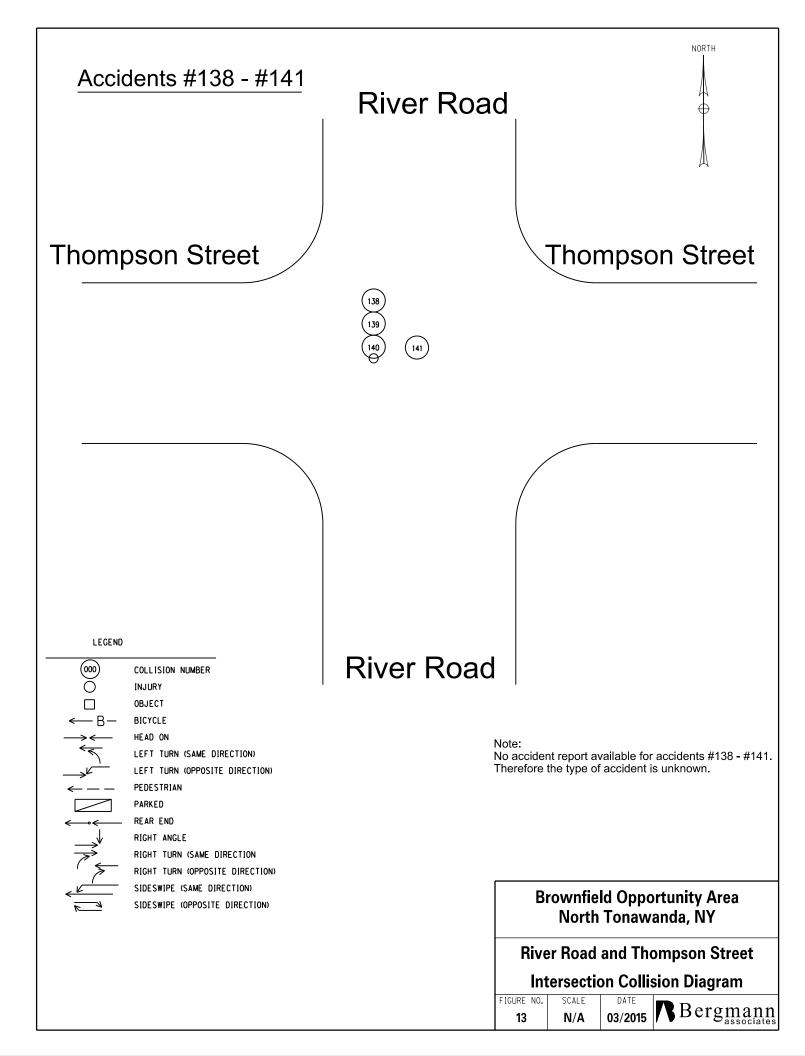
**Brownfield Opportunity Area** North Tonawanda, NY

**Main Street to Thompson Street Segment Collision Diagram** 

SCALE FIGURE NO.

12 N/A

Bergmann 03/2015



### Accidents #142 - #155

(152)





LEGEND

(00)COLLISION NUMBER INJURY OBJECT **BICYCLE** LEFT TURN (SAME DIRECTION) LEFT TURN (OPPOSITE DIRECTION) **PEDESTRIAN** PARKED REAR END

RIGHT ANGLE

RIGHT TURN (SAME DIRECTION RIGHT TURN (OPPOSITE DIRECTION) SIDESWIPE (SAME DIRECTION) SIDESWIPE (OPPOSITE DIRECTION)

Note:

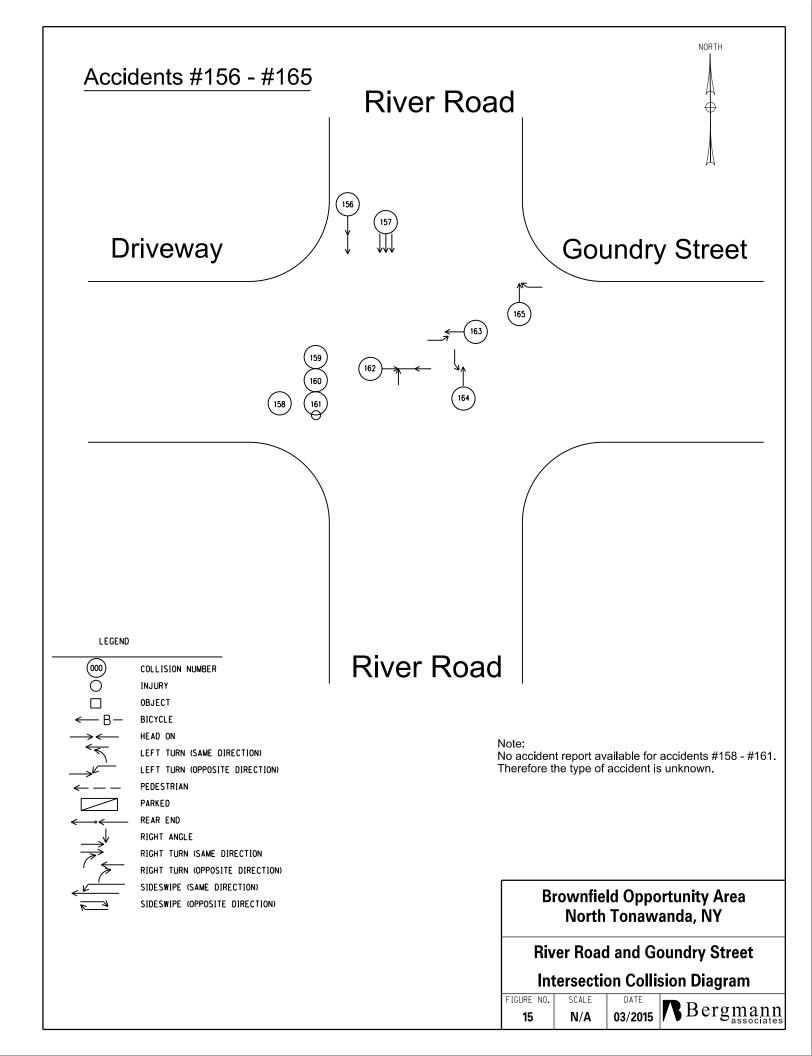
No accident report available for accidents #144 - #149 and #152 - #155. Therefore the type of accident is unknown.

**Brownfield Opportunity Area** North Tonawanda, NY

**Thompson Street to Goundry Street Segment Collision Diagram** 

FIGURE NO. SCALE N/A 03/2015 14

Bergmann



# Attachment 4 Critical Design Elements

Component:	Design Criteria for	Design Criteria for Route 265, River Road, North of Felton Street					
PIN:		NHS (Y/N):	YES				
Route No. &	NYS Route 265	Functional Class:	Urban Principal Arterial				
Name:	River Road		Other				
Project Type:	Reconstruction	Design Class:	Urban Arterial				
% Trucks:	6%	Terrain:	Level				
ADT:	16,000	Truck Access/Qualifying	Access Highway				
		Hw.					

	Element	Standard Criteria	Existing Conditions	Proposed Condition
1	Design Speed	Min: 40 mph Max: 60 mph	50 mph	50 mph
2	Lane Width	Min: 12 ft	11-12 ft	12 ft
3	Shoulder Width	6 ft	6-8 ft	6-8 ft
4	Bridge Roadway Width	Min: 12 ft	NA	NA
5	Maximum Grade	6%	TBD	TBD
6	Horizontal Curvature	Min: 926 ft	TBD	TBD
7	Superelevation Rate	Max: 4%	TBD	TBD
8	Stopping Sight Dist.	425 ft	TBD	TBD
9	Horizontal Clearance (rural arterial section)	Min: 10 ft (from edge of travel lane)	TBD	TBD
10	Vertical Clearance	NA	NA	NA
11	Pavement Cross Slope	Travel Lanes: Min=1.5% max=2% Parking Lanes: Min=1.5% max=5%	TBD	TBD
12	Rollover	Between Travel Lanes=4% max At edge of traveled way=8% max	TBD	TBD
13	Structural Capacity	NA	NA	NA
14	Level of Service	Min=D Desirable=C	D	D
15	Control of Access	Free Access Control	Free	Free
L	CONTROL OF MODESS	Tice Access Control	Access Control	Access Control
16	Pedestrian Accomm.	As per Chapter 18 of HDM	Shoulder both sides, Pathway through Gratwick Park	Shoulder both sides, Pathway through Gratwick Park
17	Median Width	Min=4 ft (only if divided)	NA	4 ft for Alt 3

NA= Not Applicable

TBD= To Be Determined

Component:	Design Criteria for	Design Criteria for Route 265, River Road, South of Felton Street					
PIN:		NHS (Y/N):	YES				
Route No. &	NYS Route 265	Functional Class:	Urban Principal Arterial				
Name:	River Road		Other				
Project Type:	Reconstruction	Design Class:	Urban Arterial				
% Trucks:	6%	Terrain:	Level				
ADT:	22,000	Truck Access/Qualifying	Access Highway				
		Hw.					

	Element	Standard Criteria	Existing Conditions	Proposed Condition
1	Design Speed	Min: 40 mph Max: 60 mph	45 mph	45 mph
2	Lane Width	Min: 11 ft	11-12 ft	11-12 ft
3	Shoulder Width	6 ft	none	none
4	Bridge Roadway Width	Min: 11 ft	NA	NA
5	Maximum Grade	6%	TBD	TBD
6	Horizontal Curvature	Min: 711	TBD	TBD
7	Superelevation Rate	Max: 4%	TBD	TBD
8	Stopping Sight Dist.	360 ft	TBD	TBD
9	Horizontal Clearance	Min: 1.5 ft (from face of curb)  Min Int: 3 ft	TBD	TBD
10	Vertical Clearance	NA	NA	NA
11	Pavement Cross Slope	Travel Lanes: Min=1.5% max=2% Parking Lanes: Min=1.5% max=5%	TBD	TBD
12	Rollover	Between Travel Lanes=4% max At edge of traveled way=8% max	TBD	TBD
13	Structural Capacity	NA	NA	NA
14	Level of Service	Min=D Desirable=C	D	D
15	Control of Access	Free Access Control	Free Access Control	Free Access Control
16	Pedestrian Accomm.	As per Chapter 18 of HDM	Multi-use path west: entire length Intermittent Sidewalk east :Main to between Felton and Wheatfield	Multi-use path west: entire length Intermittent Sidewalk east :Main to between Felton and Wheatfield
17	Median Width	Min=4 ft (only if divided)	NA	NA

NA= Not Applicable

TBD= To Be Determined

# Attachment 5 Environmental Checklist

Social, Economic and Environn	es Checkl	ist			
PIN:	TYPE FUNDING:				
DESCRIPTION: River Road Transportation		E: June 10, 2015			
Enhancement Project (New York State Route 265)	SION DAT				
TOWN: City of North Tonawanda COUNTY: Niagara		CLASS: I			
			NCE OR		D 1001150
SOCIAL, ECONOMIC AND ENVIRONMENTAL CONSIDERATIONS			NEEDED?	IMPACT	OR ISSUE?
CONSIDERATIONS		YES	NO	YES	NO
Social					
Land Use					$\boxtimes$
Neighborhoods and Community Cohesion			$\boxtimes$		
General Social Groups		$\boxtimes$			
School Districts, Recreation Areas and Places of Wors	ship		$\boxtimes$		
Economic					
Regional and Local Economies					$\boxtimes$
Business Districts		$\boxtimes$			
Specific Business Impacts					
Environmental					
Wetlands		$\boxtimes$			
Surface Waterbodies and Watercourses		$\boxtimes$			
Wild, Scenic, and Recreational Rivers			$\boxtimes$		
Navigable Waters			$\boxtimes$		
Floodplains		$\boxtimes$			
Coastal Resources		$\boxtimes$			
Aquifers, Wells, and Reservoirs					
Stormwater Management		$\boxtimes$			
General Ecology and Wildlife Resources		$\boxtimes$			
Critical Environmental Areas			$\boxtimes$		
Historic and Cultural Resources		$\boxtimes$			
Parks and Recreational Resources		$\boxtimes$			
Visual Resources					
Farmlands					
Air Quality Analysis		$\boxtimes$			
Energy Analysis		$\boxtimes$			
Noise Analysis			$\boxtimes$		
Asbestos		$\boxtimes$			
Contaminated and Hazardous Materials		$\boxtimes$			
Construction Effects		$\boxtimes$			
Indirect (Secondary) Effects		$\boxtimes$			
Cumulative Effects		$\boxtimes$			

#### **ANTICIPATED PERMITS**

USACE, Section 404 Permit

NYSDEC, Section 401 Water Quality Certification

NYSDEC, State Pollutant Discharge Elimination System (SPDES) General Permit

Coastal Zone Consistency Certification Statement

# Appendix G

# Waterfront District Zoning Revisions

#### § 103-13.2. WD Waterfront District.

#### A. Purpose and Intent.

(1) The purpose of the Waterfront District (WD) is to capitalize on the City of North Tonawanda's waterfront by encouraging a mix of residential, commercial, and public uses that promote access to the Niagara and Little Rivers.

#### B. Permitted Uses.

- (1) Apartment Building
- (2) Apartment Complex
- (3) Bar
- (4) Bed-and-Breakfast
- (5) Brewery
- (6) Building, Mixed-Use
- (7) Club, Private
- (8) Cultural Use Facility/ Museum
- (9) Daycare Center/Daycare Facility
- (10) Distillery
- (11) Dry Storage, Boats
- (12) Dry-Cleaning Outlet (when a part of a Building, Mixed- Use property)
- (13) Dwelling, Multifamily
- (14) Dwelling, Townhouse
- (15) Farmers Market
- (16) Health Club (when a part of a Building, Mixed- Use property)
- (17) Hotel/Motel
- (18) Inn
- (19) Laundry, Self-Serve (when a part of a Building, Mixed- Use property)
- (20) Marina
- (21) Microbrewery
- (22) Nightclub
- (23) Office (when a part of a Building, Mixed- Use property)
- (24) Parking Facility (when part of a larger development program)
- (25) Parks
- (26) Performing Art Venue
- (27) Place of Worship
- (28) Private Boathouse
- (29) Public/Semipublic Use
- (30) Restaurant
- (31) Retail, Goods and Services
- (32) Studio, Art
- (33) Wine Tasting Shop
- (34) Winery
- (35) Yacht Club

#### C. Accessory Uses.

- (1) Boat Sales, Rentals, Service and Storage
- (2) Home Occupation
- (3) Swimming Pool, Private

#### D. Special Permitted Uses.

The following uses require a special use permit from the Planning Commission.

- (1) Conference/Convention Center
- (2) Equipment Sales, repair or rentals (only if water dependent)
- (3) Healthcare Facility, Outpatient
- (4) Recreation, Indoor Commercial
- (5) Restaurant, Fast Food
- (6) Retail, Convenience
- (7) Retail, Shopping Center

#### E. Prohibited Uses.

Uses that are not expressly permitted in this section are prohibited.

#### F. Incentive Zoning.

#### (1) Purpose:

- (a) It is the purpose of this law to empower the City of North Tonawanda to grant incentives or bonuses to advance the City's specific physical, cultural and social policies in accordance with the City of North Tonawanda Comprehensive Plan and in coordination with other community planning mechanisms and/or land use techniques.
- (b) Incentive zoning is restricted to added benefits. Incentives shall be granted only when the community benefit or amenities offered would not otherwise be required or likely to result from the applicable planning process before the Planning Commission. Such benefits shall be in addition to any items that are or would be required under other provisions of this Chapter or state law, including any mitigation measures required pursuant to the State Environmental Quality Review Act (SEQRA).

#### (2) Jurisdiction:

(a) This law shall apply to the entire Waterfront District in the City of North Tonawanda. The City of North Tonawanda Common Council is empowered to provide for a system of zoning incentives, or bonuses, as the Common Council deems necessary, appropriate and consistent with the purposes and conditions set forth in this Chapter.

- (3) Incentives Permitted:
  - (a) The following incentives may be granted by the Common Council, with recommendations from the Planning Commission, on an application for incentive zoning for a specific site:
    - [1] Increase in density
    - [2] Increase in lot coverage
    - [3] Increase in building height
    - [4] Changes in setback requirements
    - [5] Any other changes in the Zoning Ordinance of the City of North Tonawanda if approved by the Common Council
- (4) Amenities for which incentives may be offered:
  - (a) The following amenities may be offered on or off the site of the subject application:
    - [1] Preservation and/or permanent protection of:
      - [a] Open Space
      - [b] Environmentally sensitive vegetation
      - [c] Critical wildlife habitat
      - [d] Scenic views/viewsheds
      - [e] Cultural or historic facilities
    - [2] Waterfront easements for public access
    - [3] Road and highway improvements in excess of those required to mitigate proposed impacts
    - [4] Any combination of above listed amenities and/or cash in lieu of any amenity(s) for specific purposes identified
    - [5] Provide for public trails, trail linkages or walkway networks
    - [6] Other facilities or benefits to the residents of the community determined by the Planning Commission, and/or the Common Council
- (5) Procedure for Approval and Application Requirements:
  - (a) Please refer to Section 103-26 for application requirements and process.
- (6) Incentive Zoning Requirements:
  - (a) The following information shall be included in applications for incentives in exchange for amenities:
    - [1] Written description of the proposed amenity
    - [2] The cash or economic value of the proposed amenity
    - [3] A narrative which:
      - [a] Describes the benefits to be provided to the community by the proposed amenity.

- [b] Gives preliminary indication or demonstration that there is adequate sewer, water, transportation, waste disposal and fire protection facilities in the zoning district in which the proposal is located to handle the additional demands the incentive and amenity, if it is an on—site amenity, may be place on these facilities beyond the demand that would be placed on them as if the district were developed to its fullest potential.
- [c] Explains how the amenity helps implement the physical, social or cultural policies of the Comprehensive Plan and any other adopted studies or plans as supplemented by the local laws and ordinances adopted by the Common Council.
- [4] Written description of the requested incentive and justification, and project viability.
- [5] Sets of maps containing both the requested incentive layout and a layout conforming to current requirements.
- [6] Documentation in compliance with the State Environmental Quality Review Act.
- [7] Completion of architectural review assessment to determine if proposed incentive and or amenities detailed in the application are in harmony with the City of North Tonawanda.
- [8] Letter waiving any timeline requirements for decisions by the Planning Commission.
- (7) The Code Enforcement Officer shall meet with the applicant prior to their application submittal and review the submission for completeness. The Code Enforcement Officer shall write their comments and submit them along with the application to the Planning Commission as part of the Site Plan Review process (Refer to Section 103-26).
- (8) The Planning Commission shall hold a scheduled work session or public meeting in conformance with its adopted meeting schedule and submissions deadlines and shall hear testimony on the proposed application. Following said meeting, the Planning Commission shall prepare comments pertaining to the submission application and forward them to the applicant and the Common Council.
- (9) The Common Council shall determine, based upon input from the Code Enforcement Officer, Planning Commission and other information/input it deems necessary, if the application warrants further consideration under this Chapter. The determination shall be disclosed in a findings report or similar document, a copy of which shall be made available to the applicant and the Code Enforcement Officer. If further consideration is appropriate, the applicant shall be directed to continue with the pending Site Plan/Subdivision/Special Use Permit application per the requested incentive.
- (10) Once the application has been determined to be complete, a public hearing will be scheduled before the Common Council. The City Clerk shall give notice of the hearing in the official newspaper of the City at least ten (10) days prior to the date of the hearing.

- (11) The applications shall be referred to other agencies for input as appropriate, including but not limited to any applicable County, State or Federal agencies.
- (12) All applicable requirements of the SEQRA shall be complied with as part of the review and hearing process, in addition to other information that may be required as part of an environmental assessment of the proposal. The assessment shall include verification that the zoning district in which the proposal is to be located has adequate sewer, water, transportation, waste disposal and fire disposal and fire protection facilities to:
  - (a) First, serve the remaining vacant land in the district as though it were developed to its fullest potential under the districts regulation in effect at the time of the amenity/incentive proposal.
  - (b) Then to serve the on-site amenity and incentive, given the development scenario in Subsection §103-13.2.F.4 above.
- (13) In order to approve an amenity/incentive proposal, the Code Enforcement Officer shall determine that the requirements of SEQRA have been met and the proposed amenity provides sufficient public benefit to allow for the requested incentive. The Common Council is authorized to act on an application for approval, once approved; the Common Council will create a written order of actions to be completed by the applicate regarding additional construction documents, site plans, and the amenities to be provided to the community of the City of North Tonawanda.

#### (14) Cash Payment in Lieu of Amenity:

(a) If the Common Council finds that the community benefit is not suitable on site or cannot be reasonably provided, the Common Council may consider a cash payment in lieu of the provision of the amenity. These funds shall be placed in a trust fund to be used by the Common Council exclusively for amenities specified in these provisions. For one-time payments, cash payments shall be made prior to the issuance of a building permit or prior to final signatures on approved plans, whichever comments first. The Common Council will set the requirements for any long-term or incremental payments.

#### (15) Severability:

(a) The provisions of this Chapter are severable. If any section, subdivision or provision of this local law shall be adjudged invalid, such invalidity shall apply only to the section, subdivision or provision adjudged invalid, and the rest of this local law shall remain valid and effective.

#### G. Signs.

- (1) Exterior signs are subject to the following standards:
  - (a) Sign information shall pertain only to the existing permitted use on the premises.
  - (b) One sign advertising the sale or rental of property is not to exceed 24 square feet in face area. Said advertising sign shall be located on the property advertised for sale or rent and shall be removed within 10 days following the sale or occupancy of the rental property. The advertising sign may be affixed to a building or freestanding.
  - (c) No sign shall be equipped or displayed with any moving parts, nor shall any sign contain any moving, flashing or intermittent illumination.
  - (d) No sign shall project above the roofline.
  - (e) The total square footage of all signs on any premises shall not exceed 1.5 square feet per linear foot of building facade on the street which provides the principal access for the use.
  - (f) All signs shall be legible and graphically simple. No more than three colors shall be used.
- H. Off-Street Parking Requirements.
  - (1) See §103-14 of this chapter.
- I. Supplementary Regulations.

Uses are subject to the requirements specified elsewhere in these regulations including, but not limited to, Supplemental Regulations in accordance with Section 103-15.

#### J. Bulk and Use Table.

	Min. Lot	Min. Lot Min. Lot		Min. Setback (feet)		Min. Setback (feet)			Max. Allowable Impervious	Max. Building
Uses	Size (square feet)	Width (feet)	Front Street	Front Waterfront	Side	Rear on Street or adjacent Property	Rear Waterfront	Surface Coverage (%)	Height Range (feet)	
Permitted Uses										
Apartment Building	8,000	50	15	30	10	20	30	80	45	
Apartment Complex	20,000	75	15	30	10	20	30	80	45	
Bar	6,000	50	15	25	10	20	25	80	35	
Bed-and-Breakfast	8,000	50	15	25	10	20	25	80	35	
Brewery	20,000	50	15	25	10	20	25	80	35	
Building, Mixed-use	8,000	50	15	25	10	20	25	80	45	
Club, Private	8,000	50	15	25	10	20	25	80	35	
Cultural Use Facility/Museum	N/A	N/A	N/A	25	N/A	20	25	N/A	N/A	
Daycare Center/Daycare Facility	6,000	60	15	25	15	20	25	80	35	
Distillery	20,000	100	15	25	15	20	25	80	35	
Dry Storage, Boats	10,000	100	20	25	15	20	25	80	35	
Dry-cleaning Outlet	10,000	50	20	25	10	20	25	80	35	
Dwelling, Multifamily	8,000	50	20	40	10	20	40	80	35	
Dwelling, Townhouse	5,000	40	10	25	5	20	25	80	35	
Farmers Market	5,000	50	15	30	10	20	30	80	20	
Health Club	15,000	100	15	30	15	20	30	80	35	
Hotel/Motel	30,000	150	20	35	20	20	35	80	55	

				Min. Setback (feet)					
Uses	Min. Lot Size (square feet)	Min. Lot Width (feet)	Front Street	Front Waterfront	Side	Rear Street	Rear Waterfront	Allowable Impervious Surface Coverage (%)	Max. Building Height Range (feet)
Inn	10,000	50	15	25	10	20	40	80	45
Laundry, Self-serve	8,000	50	10	25	10	20	20	80	35
Marina	15,000	100	20	25	10	20	10	80	60
Microbrewery	20,000	50	10	25	10	20	35	80	35
Night Club	15,000	100	15	25	10	20	40	80	55
Office	8,000	50	10	25	10	20	10	80	35
Parking Facility	20,000	150	15	25	10	20	35	80	55
Private Boathouse	2,000	20	15	N/A	5	N/A	10	80	15
Parks	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Performing Arts Venue	20,000	150	15	25	20	20	20	80	35
Place of Worship	15,000	50	15	25	15	20	20	80	35
Public/Semipublic use	8,000	50	15	25	10	10	20	80	35
Restaurant	8,000	50	10	25	10	10	20	80	35
Retail, Goods and Services	8,000	50	10	25	10	5	10	80	35
Studio, Art	5,000	50	10	25	10	5	10	80	35
Wine Tasting Shop	5,000	50	10	25	10	10	20	80	35
Winery	40,000	50	10	25	10	20	10	80	45
Yacht Club	20,000	100	20	25	10	20	10	80	55
Accessory Uses									
Boat Sales, Rental, Service and Storage	N/A	N/A	20	25	10	5	5	80	35*/60**
Home Occupation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Swimming Pool, Private (must be in the rear of the building)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

<sup>\*</sup> for main building only.

\*\*for boat storage only.

	Min. Lot Min. Lot		IVIII. ESC		Min. Setback (feet)				Max. Building
Uses	Size (square feet)	Width (feet)	Front Street	Front Waterfront	Side	Rear on Street or adjacent Property	Rear Waterfront	Impervious Surface Coverage (%)	Height Range (feet)
Special Permitted Uses									
Conference/Convention Center	20,000	100	20	35	15	20	40	80	35
Equipment Sales, Repair or Rentals	40,000	100	20	40	25	20	20	80	25
Healthcare Facility, Outpatient	15,000	100	15	30	15	20	40	80	25-45
Recreation, Indoor Commercial	10,000	50	20	30	15	20	40	80	35
Restaurant, Fast Food	5,000	50	15	30	15	20	40	80	35
Retail, Convenience	5,000	50	15	30	10	20	40	80	35
Retail, Shopping Center	40,000	60	25	75	10	30	40	80	35

# Appendix H

# Downtown Mixed-Use Form Based Code



enjoy the momentum of entertainment, food and culture at the city center







# **Acknowledgments**

This project was made possible with the participation and contribution of ideas and information from numerous individuals.

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This document was prepared for the City of North Tonawanda and New York State Department of State with funds provided by the Brownfield Opportunity Area Program.

This document draws from a variety of sources and best practices, including the Form-Based Codes Institute, the Chicago Metropolitan Agency for Planning Step-by-Step Guide for Communities and a multitude of existing form-based codes in communities across the US.

# **DRAFT**



# **Contents**

A.	Introd	luction	1								
В.	Subareas Established										
C.	Use Re	egulations	2								
D.	Defini	itions	2								
E.	Regul	lations Applicable to All	6								
	1.	Site Requirements	7								
	2.	Building Placement	8								
	3.	Building Height	9								
	4.	Facade Requirements	9								
	5.	Setback Encroachments	10								
	6.	Vehicle Parking Regulations	13								
	7.	Bicycle Parking Regulations	15								
	8.	Screening	16								
	9.	Site Landscaping	17								
	10.	Lighting Regulations	18								
	11.	Sign Regulations Applicable to All Sites	19								
	12.	General Provisions for Individual Signs	21								
F.	Regul	lations Pertaining to Subareas	27								
	1.	D-1 Traditional Downtown Subarea	29								
	2.	D-2 High Density Downtown Subarea									
	3.	OS- Oliver Street of Shoppes	41								
	4.	RR - River Road	47								
G.	Nuisa	nces	52								
Н.	Nonce	onformities	53								
I.	Admir	nistration	54								

# **DRAFT**



### **Building on Momentum**

This code represents the culmination of many years of planning, community engagement, and visioning. Through the years, the community has expressed a clear desire for NT's downtown to be a vibrant, attractive, and welcoming place that is home to a diversity of activities, including dining, entertainment, employment, cultural activities, housing, and recreational opportunities.







Many of the community's goals for downtown are manifested in previously completed plans, including the City of North Tonawanda 2009 Comprehensive Plan, Local Waterfront Revitalization Plan, and Brownfield Opportunity Area Nomination Study.

The following key goals emerged from these plans as they relate to the City's downtown core:

- Encourage public interaction
- Preserve the historic character
- Encourage attractive and welcoming mixed-use development
- Develop a sense of place
- · Maintain and enhance the walkable environment
- Support small businesses

This code was developed as a means of implementing the community's goals.



# Why a Form-Based Code?

Form-based codes foster predictable built results and a high quality public realm by using physical form (rather than separation of uses) as the organizing principle for regulating development.

Form-based codes are an alternative to conventional zoning and are adopted as city regulations, not guidelines. A form-based code uses the desired physical form instead of land use as the organizing principle for the overall code.

The terms used to define zones and the building and site standards tie back to the intended physical form, which may include a mix of uses and building types that create a vibrant walkable downtown core.



Example of a pedestrian friendly downtown streetscape



# **NT's Downtown Design Traditions**

Design traditions are a useful way to understand the basic character and framework of downtown North Tonawanda. The downtown core provides examples of quintessential "Main Street" features, including buildings close to the street, active storefronts, on-street parking, sidewalks, street lights, and crosswalks. Other areas in the Downtown Mixed-Use District contain more contemporary suburban-style development and manufacturing uses.

The variety in type and scale of North Tonawanda's development pattern can be traced back to its origins as a regional hub for lumber, manufacturing, and shipping. Early industry took advantage of the City's proximity to the Erie Canal and the Niagara River. As industry modernized and shifted away from lumber products, development patterns transitioned towards larger sites constructed near major highways and rail corridors.

These features serve as inspiration for new, compatible infill and are considered in the overall objectives for redevelopment downtown.

Design objectives include:

- Facades built to the sidewalk
- Active ground floors and utilized upper levels
- Windows allowing interior visibility
- Pedestrian-oriented features, such as sidewalks, crosswalks, and mid-block connections
- Street trees, planter boxes, and benches
- Attractive signage

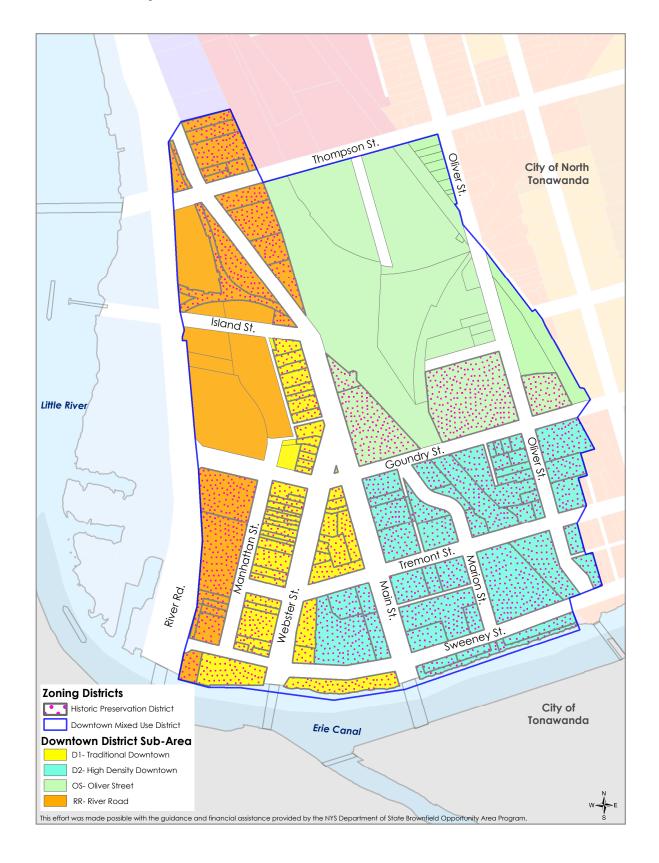


Historical photo of Webster Street



# **Downtown Mixed-Use District**

# Subareas Map



# §103-17 DD, Downtown Mixed-Use District

### A. INTRODUCTION

This Section provides regulatory standards governing land use and building form within the Downtown Mixed-Use District. The form-based code is a reflection of the community's vision for downtown North Tonawanda and implements the intent of the Comprehensive Plan, Local Waterfront Revitalization Plan, and NT Momentum Revitalization Strategy Master Plan. The formbased code is intended for adoption as part of the North Tonawanda Zoning Ordinance, Upon adoption, it will supersede and replace existing Zoning provisions regarding zoning districts, allowable land uses, permit requirements, and site development standards. The Downtown Mixed-Use District encompasses all of downtown North Tonawanda and includes the entirety of the downtown Historic Overlay District.

### 1. Purpose and Intent

The purpose of the Downtown Mixed-Use District is to create a vibrant downtown with a variety of building types that offer retail, service, employment, hospitality, entertainment, and civic functions, as well as a variety of housing choices. This district aims to reinforce the historic character and walkability of downtown.

### 2. Applicability

Compliance is intended to occur over time as redevelopment and new development occur. This Section recognizes lawful nonconforming status of uses and structures and normal maintenance is encouraged. This Section also recognizes that some sites may be difficult to develop in compliance with the provisions herein and provides for variance procedures within certain parameters.

The provisions in this Section shall apply to all development or redevelopment of property within the Downtown Mixed-Use District as outlined in the Applicability Matrix.

### A. Exemptions

Regular maintenance and repair of materials, parking resurfacing and similar maintenance is exempt from compliance with this Section.

A building expansion that is solely designed and constructed to provide accessibility for the disabled, provide for screened service areas or relocate or screen visible exterior mechanical equipment so long as such equipment is no longer visible, is also exempt from compliance with this Section.

	Applicable Subsection										
Action	С	D.1	D.2	D.3	D.4	D.5	D.6 & D.7	D.8	D.9	D.10 & D.11	Н
	Uses	Sites	Placement	Height	Facades	Encroachments	Parking	Landscaping & Screening	Lighting	Signs	Site Plan Review
New Development	x	x	x	×	x	x	x	x	x	x	x
Expansion of building up to 50% of gross building square footage*					x	x			x	x	x
Expansion of building over 50% of gross building square footage	х	x	x	x	х	x	х	x	x	x	x
Exterior remodel (change or addition of façade materials) of existing non-residential or multi-family building between 20% and 50% of the façade**					x	x			x	x	x
Exterior remodel (change or addition of façade materials) of existing non-residential or multi-family building of more than 50% of the façade**	x				x	x	x	x	x	x	x
Expansion or replacement of existing surface parking lot of more than 10 new spaces							x				x
Installation of parking lot lighting									x		
Installation of a new sign										×	x
Modifications to an existing sign										x	х

<sup>\*</sup> For building expansions, regulations are applicable to newly expanded portion of the building only and do not require retrofitting existing elements to comply with this Section.

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### 3. Conflicting Provisions

In the event that this Section conflicts with any other City Code provision (except for the Historic Overlay District), the provision of this Section shall supersede. In the event that any provision of this Section conflicts with the provisions of the Historic Overlay District, the Historic Overlay District shall supersede.

### **B. SUBAREAS ESTABLISHED**

Downtown North Tonawanda is hereby divided into Subareas shown on the map entitled "Downtown Mixed-Use District Subareas Map" which is hereby made part of this ordinance.

### C. USE REGULATIONS

With the exception of the prohibited uses listed in this Subsection, all uses listed as permitted uses within the City of North Tonawanda Code Chapter 103 are permitted within the Downtown Mixed-Use District, subject to the regulations of this Section.

The following uses are prohibited in the Downtown Mixed-Use District:

- Adult uses
- Automotive graveyard
- Campground
- Cemetery
- Contractor's yard
- Commercial surface parking lots as the primary use on any property (unless publicly owned)
- Drive-through establishments
- Dwelling, single-family
- Golf courses
- Industry, heavy
- Junkyard
- Motor vehicle sales, repair, or service station (allowed in OS and RR Subareas)
- Off-premise, free standing signs
- Scrap metal processing
- Self-storage

### D. DEFINITIONS

Definitions, as they relate to the Downtown District will be included in this section.

### **ALLEY**

A narrow service street or passage less than twentytwo (22) feet between properties or buildings.

### **ALTERATION**

Any change, rearrangement or addition to or relocation of a building or structure; any modification in construction or equipment.

### **AWNING**

An ornamental roof-like protective cover over a door, entrance, window or sidewalk dining area that projects from the face of a structure and is constructed of durable materials, including but not limited to fabrics and/or plastics.

### **BALCONY**

An exterior platform that projects from or into the façade of a building and is surrounded by a railing, handrail, or parapet.

### BILLBOARDS (SIGN ADVERTISING)

A permanent sign or structure which directs attention to an idea, product, business activity, service, or entertainment which is primarily conducted, sold, or offered elsewhere than upon the premises on which such sign is located, or to which it is affixed.

### **BUILDING**

A combination of any materials, whether portable or fixed, having a roof, to form a structure affording shelter for persons, animals or property. The word "building" shall be construed, when used herein, as though followed by the words "or part or parts thereof," unless the context clearly requires a different meaning.

### BUILDING FAÇADE, PRIMARY

Any building frontage: (a) facing public streets and/ or any drive, parking lot, public or semi-public space, with or without a primary building entry; (b) greater than three feet from any adjacent structure in side yards; or (c) within fifty (50) feet of any rear property boundary.

### BUILDING FAÇADE, SECONDARY

All other building frontages not defined as a primary building facade.

### **BUILDING FRONTAGE**

That portion of the building perimeter facing a street or designated parking areas; in the case of two such perimeters, it may be either frontage at the option of the owner.

### **BUILDING HEIGHT**

The vertical distance measured from the average elevation of the proposed finished grade at the front of the building to the highest point of the roof for flat roofs, to the deck line of mansard (a roof with a double pitch on all sides) roofs and to the mean height between eaves and ridge for babble, hip and gambrel roofs.

### **BUILDING PERMIT**

That permit issued by the Code Enforcement Officer stating that the purpose for which a building or land is to be used is in conformity with the uses permitted and all other requirements under this chapter for the district in which it is located, and stating that all construction, relocation or extension of buildings are in compliance with the provisions of this Chapter, New York State Uniform Fire Prevention and Building Code, State Energy Conservation Construction Code and other applicable regulations.

### **COVERAGE**

The percentage of the lot covered by the aggregate area of all buildings or structures on the lot.

### **DECK**

An open-air structure providing outdoor living or circulation space. Decks may be at grade or above grade, freestanding, partially connected to an existing structure or constructed on top of an existing structure, pursuant to the New York State Building Code and the New York State Residential Code. Decks are considered a structure and shall conform to required lot setback and coverage requirements.

### **DENSITY**

The required land area for each dwelling unit within a given parcel of land, such as a minimum number of square feet of land area required for each dwelling unit.

### **DIRECTIONAL SIGN**

Refer to SIGN, DIRECTIONAL.

### DRIVES AND CIRCULATION ROUTES

The following set of terms refer to vehicular circulation routes designed and/or constructed for the safe, convenient and efficient access within and/or between private development tracts and between said development tracts and two-lane or divided highways.

### ACCESS DRIVE

The primary route of internal circulation within a parking facility providing direct building, loading and drop-off access, emergency access, access to Drive Aisles and connectivity with adjacent Service Drives. Access Drives do not provide direct connections to divide or two (2) lane highways, are a component of internal site circulation owned and maintained by private interests and are not a public right-of-way.

### **ACCESS LANE**

A permanent and continuous access route between Access Drives on adjoining properties, either planned or constructed, to facilitate shared or common access to a Service Drive. Access lanes are a component of internal site circulation owned and maintained by private interests and are not a public right-of-way.

### **DRIVE AISLE**

The primary access route connecting Access Drives and individual parking spaces. Access lanes are a component of internal site circulation owned and maintained by private interests and are not a public right-of-way.

### SERVICE DRIVE

A primary form of ingress and/or egress to a two (2) lane or divided highway providing access to greater than three (3) non-residential lots in a coordinated, well-planned manner. Service Drives are public or private roads that meet City of North Tonawanda's design and construction standards for roads within a defined right-of-way.

### **DRIVEWAY**

A private street, drive or roadway giving access from a public way, road or highway to abutting lots.

### DRIVEWAY, SHARED

An area or areas on one (1) or more properties providing access from a public or private street where the usage of said access route is provided to three (3) or fewer lots through an easement agreement. Shared or common driveway access for greater than three (3) residential lots is defined as a road.

### **EAVE**

The extension of the roof beyond the structural building wall.

### **FENCE**

A structure bounding an area of land designed to either limit access to the area or to screen such area from view, or both. The term "fence" shall include tennis court and swimming pool enclosures, backstops, and similar structures.

### **FRONTAGE**

That side of the lot abutting the street. A corner lot shall be considered to have two (2) such "frontages." A through lot has three (3) frontages.

### **GABLE**

A roof section with a single break at the center of the roof structure which creates a triangular portion of wall below the sloping roof.

### **GAMBREL ROOF**

A usually symmetrical two-sided roof with two slopes on either side, with the upper slope positioned at a shallow angle, and the lower slope having the steeper pitch.

### GROSS FLOOR AREA (GFA)

The gross size of the total floor area of the outside dimensions of a building. These dimensions shall include the length, width and number of stories of the facility.

### HIP ROOF

A roof where all sides slope downwards to the walls, usually with a fairly gentle slope.

### LANDSCAPED AREA

The area required or permitted to be devoted to landscaping and environmental improvement, which may include existing and new vegetation.

### LIGHT POLLUTION

Presence of excessive illumination in locations where it is not desired; excess or obtrusive light.

### LOT DEPTH

The mean horizontal distance between the front and rear lot lines.

### LOTLINES

The property lines bounding the lot.

### LOT LINE, FRONT

The property line separating a plot or parcel of property from a public street or highway. If a lot adjoins two or more streets or highways, it shall be deemed to have a front lot line respectively on each. On waterfront lots which border water on one or more lot lines, the lot line on the road front is considered the principal front lot line.

### LOT LINE, REAR

That lot line which is opposite and most distant from the front lot line.

### LOT LINE, SIDE

A lot line not a front lot line or a rear lot line.

### MANSARD ROOF

A roof with a double pitch on all four sides, the lower slope having the steeper pitch.

### **OPEN SPACE**

Any site with no structures located on it.

### PARKING AREA or PARKING LOT

Any place, lot, parcel or yard used in whole or in part for storing or parking four (4) or more motor vehicles under the provision of this ordinance.

### PARKING SPACE

An area intended for use as an accessory off-street parking facility not less than ten (10) feet in width or less than twenty (20) feet in length, having a clear height of not less than seven feet.

### **PARAPET**

The extension of a building facade above the line of the structural roof.

PEDESTRIAN CONNECTION or ACCOMMODATION An improved pathway at least five (5) feet in width devoid of obstructions or hazards and intended for use by pedestrians to commute between destinations, including but not limited to buildings, structures, parks and open spaces, parking areas, the sidewalk system or other walkways.

### **PROJECTION**

A vertical or horizontal break in a building façade which moves the wall surface outward.

### PUBLIC REALM

All areas legally open to public use, such as public streets, sidewalks, roadways, highways, parkways, alleys and parks, as well as the interior and areas surrounding public buildings.

### PUBLIC RIGHT-OF-WAY

The land opened, reserved, or dedicated for a street, sewer, water, walk, drainage course, or other public purposes.

### SETBACK LINE

The horizontal distance from any building or from a specified building to the nearest point in an indicated lot line or street line, measured at right angles to the street line, not including the following: a) cornices or open entrance hoods anchored to the building without posts, which do not project more than three (3) feet from the building wall; b) retaining walls and

fences; c) open entrance steps; d) open terraces not more than two (2) feet in height above the finished grade and which do not project more than six (6) feet from the building wall. Setback requirements, as listed in the Bulk and Use Tables, apply to the location of buildings, but not driveways, parking areas, or other landscaping treatments.

### SETBACK, FRONT

The least required horizontal distance between the front lot line, or in instances where sidewalks are present or required from the interior sidewalk edge, and the principal building measured at the shortest point. On waterfront lots which border water on one or more lot lines, the lot line on the road front is considered the principal front lot line.

### SETBACK, REAR YARD

The horizontal distance between the rear lot line and the principal building measured at the closest point.

### SETBACK, SIDE YARD

The horizontal distance between the side lot line and the principal building measured at the closest point.

### SIDEWALK, DINING

Any outdoor café, eating area or food service accessory to a restaurant.

### SIGN

Any advertisement, announcement, direction or communication produced in whole or in part by the construction, erection, affixing or placing of a structure on any land or on any other structure or produced by painting on or posting or placing any printed, lettered, pictured, figured or colored material on any structure or surface, but not including signs placed or erected by the City of North Tonawanda, Niagara County, the State of New York or the United States of America for public purposes.

### SIGN AREA or SIGN SURFACE AREA

The entire area within a single continuous perimeter enclosing the extreme limits of lettering, representations, emblems or other figures, together with any material or color forming an integral part of the display or used to differentiate the sign from the background against which it is placed, including structural members bearing no sign copy.

### SIGN PERMIT

A permit issued pursuant to Chapter 77 (Sign Permits).

### SIGN, AWNING

A sign on which graphics or symbols are painted, sewn, or otherwise attached to the awning material as an integrated part of the awning itself.

### SIGN, DIRECTIONAL

Any sign limited to directional messages, principally for pedestrian or vehicular traffic, such as "one-way," "entrance" and "exit."

### SIGN, ELECTRONIC MESSAGE

Any sign, or portion of a sign, that uses changing lights to form a sign message or messages where the sequence of messages and the rate of change is electronically programmed and can be modified by electronic processes.

### SIGN, FREESTANDING

A sign supported by one (1) or more upright poles, columns or braces placed in or on the ground and not attached to any building or structure.

### SIGN, ILLUMINATED (DIRECTLY)

A sign designed to give forth artificial light directly from a source of light within such a sign.

### SIGN, ILLUMINATED (INDIRECTLY)

A sign illuminated with a light so shielded that no direct rays therefrom are visible elsewhere on the lot where said illumination occurs.

### **STRUCTURE**

Anything built for the support, shelter or enclosure of persons, animals, goods or property of any kind, together with anything constructed or erected with a fixed location on or in the ground, exclusive of vegetation, boundary walls, fences, mailboxes, lampposts, bird houses, or similar construction. The term includes but is not limited to structures temporarily or permanently located, such as decks, patios, satellite dishes, communications systems, pools, ponds, etc.

### TRANSPARENCY

Transparency is the minimum percent of windows and doors that must cover a building façade. Opaque windows do not count as part of building transparency.

### ZONING DISTRICT

The classification of lands as established in this Chapter and by the Official Zoning Map incorporated by reference herein.

### **ZONING MAP**

The official map entitled "City of North Tonawanda Zoning District Map" established pursuant to §103-3 of this Chapter.

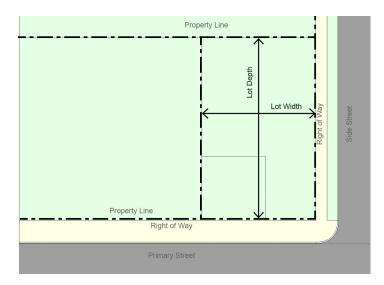


# E. REGULATIONS APPLICABLE TO ALL

The following standards apply to all sites and buildings in all Subareas unless expressly stated otherwise.



# 1. Site Requirements

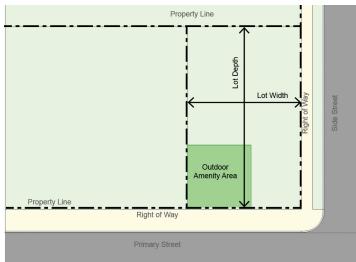


### A. Lot Width

Lot width is the distance between the two side lot lines measured at the primary street property line along a straight line (or along the chord of the property line on a curvilinear lot).

### **B.** Lot Depth

Lot Depth is the distance between the front and rear property lines measured along a line midway between the side property lines.



### **C. Outdoor Amenity Space**

Where required, as noted within each Subarea, outdoor amenity space must be provided on the site and must be available as unenclosed, improved active or passive space for use by the occupants of the development. It may be provided in one contiguous open area or multiple areas on the site.

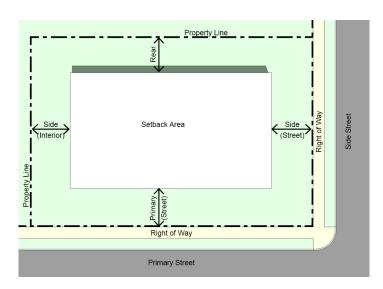
# i. Size and Type Each must be at least 100 square feet in size and may include:

- · Playgrounds or athletic court
- · Splash pad
- Trail, path (minimum 5 feet wide)
- Garden, sitting area
- Rooftop deck
- Pavilion, gazebo
- Outdoor dining

### ii. Other Requirements

- Outdoor amenity space can include bike racks, kiosks, benches, sculptures, and fountains.
- Outdoor amenity space cannot be used for parking except for emergency access
- Amenity space must be designed to be permanent.

# 2. Building Placement



### A. Building Setbacks

Building setbacks apply to all structures. There are four types of setbacks:

- Primary Street
- Side Street
- Side Interior
- Rear
- i. Measurement of setbacks Primary and side street setbacks are measured from the property line. Side, rear, and interior setbacks are measured from the property line (or edge of right-of-way where there is an alley).
- ii. Primary and side street designation Where only one street abuts a lot, that street is considered the primary street. A lot with multiple frontages must have at least one primary street, as designated by the Code Enforcement Officer, based on the following criteria:
  - The street(s) with the highest classification
  - The established orientation of the block
  - The street(s) abutting the longest face of the block
  - The streets(s) parallel to an alley within a block
  - The street that the lot takes its address from



### **B. Build-to Zone**

One of the most important defining elements of the downtown public realm is the street wall. The street wall is made up of building facades that are placed within the build-to zone to create a continuous building fabric. The build-to zone is the area between the minimum and maximum front setbacks. Portions of a building must be placed within this zone along a prescribed percentage of the lot width.

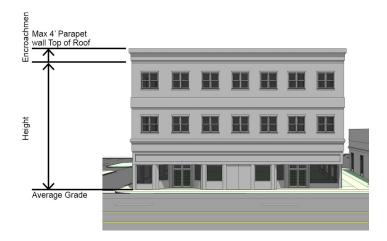
To determine compliance with the build-to zone requirements, the total width of the building portion located within the build-to zone is divided by the width of the lot.

Build-to zone standards are prescribed in subsection *E Regulations Pertaining to Subareas*.



# 3. Building Height

# **4. Facade Requirements**





### A. Measurement

Building height is regulated in feet and is measured from the average grade of the frontage facing a Primary Street to the mean height level between the eaves and ridge of a gable, hip, mansard, or gambrel roof or to the highest point of roof surface of a flat roof, not including allowed encroachments.

### **B.** Height Encroachments

All buildings must be constructed within the maximum building height, with the exception of height encroachments allowed within each Subarea. Allowed encroachments are specified in sub-section *E Regulations Pertaining to Subareas*.

### A. Transparency

Transparency is the minimum percent of street-facing facade that must be comprised of transparent windows. The ground story is measured between 2 and 12 feet above the sidewalk. This requirement applies to Primary and Side streets only. Opaque elements of a window (such as panes, frosted or tinted areas, and opaque portions of window signs) cannot be used to meet the transparency requirement.

### **B.** Building Materials

Permitted building materials are prescribed within each Subarea, as specified in subsection E Regulations Pertaining to Subareas.

### **C. Pedestrian Access**

All buildings must provide a street-facing entrance operable to residents or customers at all times. There must be a connection between all main building entrances and the closest sidewalk (or street if there is no sidewalk).

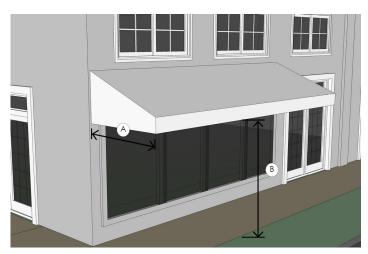


### **5. Setback Encroachments**

All buildings and structures must be located behind the required setback except for the encroachments allowed below.

### A. Awnings





### Description

An ornamental roof-like protective cover over a door, entrance, window or outdoor service area that projects from the face of a structure and is constructed of durable materials.

### General Provisions

Awnings shall be continuous above openings below. Breaks in awnings shall coincide with breaks in facade openings below.

Canvas and fabric awnings must be made of durable fabric and must be in a fixed position.

High-gloss or plasticized fabrics are prohibited.

Bright colors that are incompatible with building materials are prohibited.

Internally illuminated or backlit awnings are prohibited.

Awnings must be self-supporting. No support poles may encroach onto the right-of-way.

### Standards

A	Depth (max)	1	5'

7'

Clear height above sidewalk (min)

### Indemnity

All applicants must provide an indemnity agreement, in a form acceptable to the City, holding harmless and indemnifying the City, its officers and employees, from and against any and all claims and liability resulting from encroachment into the public right of way. Applicants must also provide proof of insurance acceptable to the City and naming the City as an additional insured on a primary, non-contributory basis.



### **B. Sidewalk Dining**





### Description

Sidewalk dining is a designated area of a public sidewalk where patrons may sit at tables while consuming food and beverages purchased from the associated eating establishment.

### Standards

(A) Seats (max)

4 per 10 linear feet of restaurant frontage

### General Provisions

The sidewalk dining area must be located adjacent to the property of a lawfully operating eating establishment and shall be under the control of the restaurant.

At least 5 feet of unobstructed corridor space must be maintained past the sidewalk dining area for sidewalk pedestrian traffic in order to ensure a clear pedestrian passageway along the sidewalk.

At least 44 inches of unobstructed space must be maintained between any restaurant doorway and the sidewalk.

Food preparation is not allowed in the sidewalk dining area.

Loudspeakers are prohibited in the outdoor dining area. Amplified sounds from inside the restaurant must not be audible in any dining area on the public right-of-way.

### Railings, fences, and planters

Freestanding planters, fences, or railings may be installed for purposes of compliance with the NYS Liquor Authority and must be:

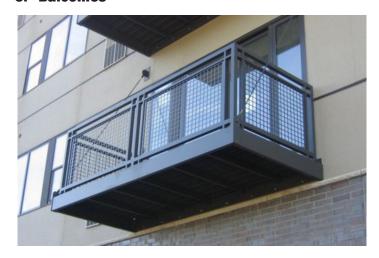
- Self-supporting
- No taller than 30 inches
- Easy to remove from the sidewalk

If the applicant holds a State Liquor Authority license to serve alcohol in the restaurant premises, the applicant must provide waiter service.

### Indemnity

All applicants must provide an indemnity agreement, in a form acceptable to the City, holding harmless and indemnifying the City, its officers and employees from and against any and all claims and liability resulting from encroachment into the public right of way. Applicants must also provide proof of insurance acceptable to the City and naming the City as an additional insured on a primary, non-contributory basis.

### C. Balconies





### Description

A balcony is an exterior platform that projects from or into the façade of a building and is surrounded by a railing, handrail, or parapet. Balconies must be self supported to the structure. No posts are allowed.

### Standards

A	Projecting depth (max)	6'
B	Clear height above sidewalk (min)	9'

### General Provisions

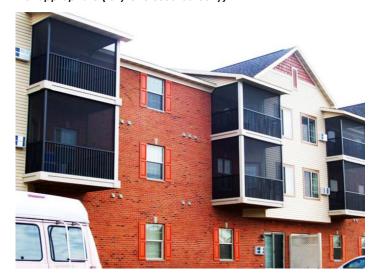
Balconies may not be fully enclosed.

Balconies must match the architectural design of the building, using similar details and materials.

### Indemnity

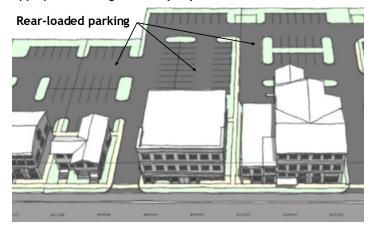
All applicants must provide an indemnity agreement, in a form acceptable to the City, holding harmless and indemnifying the City, its officers and employees from and against any and all claims and liability resulting from encroachment into the public right of way. Applicants must also provide proof of insurance acceptable to the City and naming the City as an additional insured on a primary, non-contributory basis.

### Not appropriate (fully enclosed balcony)



# **6. Vehicle Parking Regulations**

Appropriate Parking Location (rear)



Not Appropriate Parking Location (front)



### A. Minimum Spaces Required

There is no minimum parking space requirement within the D-1 and D-2 Subareas.

Minimum spaces required within the OS and RR Subareas are prescribed per Article 103-14 (Off-Street Parking & Loading).

### **B. Reduction of Minimum Spaces Required**

Applicants may seek administrative approval from the Code Enforcement Officer for a reduction in the minimum number of parking spaces required within the OS and RR Subareas. Minimum parking requirements may be reduced by up to 30 percent, subject to the following criteria:

- The parking needs of the use will be adequately provided through on-street parking or existing off-premise parking with available capacity; or
- Parking needs will be accommodated through shared parking. See requirements for Shared Parking in Subsection J, below.

Applicants may seek administrative approval from the Code Enforcement Officer for a reduction greater than 30 percent of minimum parking requirements, subject to the following criteria:

- Up to an additional 10 percent reduction for the provision of cross-access (where such cross-access did not exist) that is in conjunction with shared parking arrangement satisfying the requirements of Subsection J, below;
- For residential uses, up to an additional 5 percent for the provision of secure, indoor

long-term bicycle parking spaces at a ratio of one space per 4 dwelling units;

 Up to an additional 5 percent for the provision of Outdoor Amenity Space exceeding the minimum requirements by at least 10 percent.

The maximum reduction allowed through any combination of criteria in this Subsection is 50% of the minimum parking requirements established in Article 103-14. Any reduction beyond the maximum reduction authorized herein shall be considered an area variance and may only be granted by the Zoning Board of Appeals pursuant to Article 103-18.

### C. Location of Parking

Except where noted in this Subsection, off-street vehicle parking is not permitted between a building facade and a Primary Street. Existing parking areas located between the building facade and a Primary Street may not be expanded.

### D. Parking Lot Design

The design of stall size and drive aisle dimensions shall be constructed according to the standards of Article 103-14 (Off-Street Parking & Loading).

### E. Interior landscaping

Parking lots must meet the requirements of Article 103-26 (Landscaping).

### F. Perimeter Landscaping

All surface parking lots with frontage on a Primary or Side Street must be screened according to the requirements set forth in subsection *E Regulations Pertaining to Subareas*.

Appropriate Interior Landscaping



Not appropriate



### **G.** Lighting

Pedestrian routes must provide pedestrianscaled lighting.

### **H. Cross-Access and Connectivity**

Cross-access is encouraged between abutting parking areas.

Property owners who establish cross-access must record an easement allowing crossaccess to and from properties served by the access easement and record a joint maintenance agreement defining the maintenance responsibilities of each owner.

Cross-access may be used to justify a reduction in the required minimum parking when proposed as part of a Joint Parking Agreement, as provided in Subsection J, above.

### I. Loading Areas

Loading areas must be located on the lot occupied by the use served and must be accessible from a public street or alley.

Loading areas may not be placed between the building and any Primary Street.

Appropriate Pedestrian Route



Not appropriat



### J. Shared Parking

Applicants are encouraged to investigate common or shared parking opportunities between adjacent uses and businesses.

Where shared parking is used to meet the requirements for a reduction in the total number of required parking spaces, the applicant must provide the City with a Joint Parking Agreement. Shared parking must be within 600 feet of the pedestrian entrances of all establishments involved in the Joint Parking Agreement.

### K. Internal pedestrian routes

Internal pedestrian routes must be provided between different areas within the site, such as parking areas, bicycle parking, common outdoor areas, and any pedestrian routes.

Pedestrian routes must be hard surfaced at least 4 feet in width. Where the route crosses driveways, parking and loading areas, the route must be clearly identifiable through the use of elevation changes, paving materials or other methods.

# 7. Bicycle Parking Regulations

### Appropriate Bicycle Rack



### A. Number of Spaces

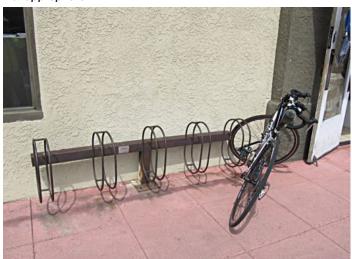
The number of required short-term bicycle spaces is as follows:

- Multi-family dwellings and Apartments: 1 bicycle space for every 5 dwelling units.
- Public Parking Lots: 4 bicycle spaces per every 20 vehicle parking spaces.
- Office, Retail and Restaurant: 1 bicycle space for every 1,500 square feet of building gross floor area.
- Existing public bicycle racks within 50 feet of the main entrance of the subject building may be used to fulfill minimum requirements.

### **B.** Location

- Bicycle parking must be located outside the building and at the same grade as the sidewalk.
- For buildings with one main entrance, bicycle parking must be located within 50 feet of the main entrance to the building, as measured along the most direct pedestrian access route.
- For buildings with more than one main entrance, bicycle parking must be located along all facades with a main entrance and within 50 feet, as measured along the most direct pedestrian access route.

### Not appropriate



### C. Bicycle Racks

Standards for short-term bicycle parking are as follows:

- The bicycle frame and one wheel can be locked to the rack with a U-shaped lock even if both wheels are on the bicycle.
- An area of 2 feet by 6 feet must be provided for each bicycle space. The bicycle should not be able to be pushed over or fall in a manner that will damage it.
- The rack must be in full view in a well-lit area and securely anchored.
- Bicycle racks may not obstruct pedestrian traffic.



Appropriate Bicycle Rack



# 8. Screening

### **Appropriate Screening**



### **Not Appropriate**



### A. Screening

i. Service Areas

Trash collection, recycling, compaction, and other similar service areas must be located to the side or rear of buildings and must be screened from view from adjacent properties and from a public right-of-way (not including alleys).

Service areas that are not integrated into a building must be screened on at least three sides by a wall at least six feet hight and on the 4th side by a solid gate at least six feet high.

- ii. Roof Mounted Equipment Roof mounted equipment must be screened from ground level view from adjacent property and adjacent public rights-of-way.
- iii. Wall Mounted Equipment Wall mounted equipment at grade level must be screened by landscaping or an opaque screen and is not allowed on any surface that directly faces a Primary or Side Street.
- iv. Ground Mounted Equipment
  Ground mounted equipment must be
  screened from view by landscaping or a
  fence or wall that is equal to or greater
  than the height of the equipment.

### **B. Fences and Walls**

i. Height
 Fences and walls required pursuant to this
 Subsection may be no higher than 8 feet.

- ii. Materials
  - Walls and fences must be constructed of high quality materials, such as decorative blocks, brick, stone, splitfaced block, or other materials consistent with the associated building.
  - Exposed standard concrete walls are prohibited.
  - Barbed wire, concertina, and chain-link fences are prohibited.



# 9. Site Landscaping

### Appropriate Landscaping



### **Appropriate Landscaping**



### **A. General Requirements**

Applications required to meet the landscaping standards in this Section (see Applicability Matrix) must provide landscaping within portions of property that are not developed with structures, rights of way, or parking areas. (note: parking lot landscaping requirements are in Subsection E-6.)

### **B.** Planting and Maintenance Standards

The planting and maintenance of landscaping in the Downtown Mixed-use District must meet the requirements of Code Article 103-26 (Landscaping).



# 10. Lighting Regulations

### **Appropriate Lighting**









### **Not Appropriate Lighting**









### A. Lighting

### i. Prohibited Sources/fixtures

- Cobra-head style fixtures having dished or drop lenses or refractors.
- Temporary search lights and other high intensity, narrow beam lights.
- Amber hue lighting, such as high pressure sodium fixtures and equivalent performance are not permitted.

### ii. Building Lighting

- Building mounted lighting must be complementary to the architectural style of the building and surroundings.
- Building lighting may not be installed at a height exceeding 15 feet above grade.
- Building light fixtures must be fully shielded.

### iii. Site Lighting

- Site lighting fixtures must be complementary to the architectural style of the building and surroundings.
- Site lighting fixtures must be fully shielded. Light trespass into adjacent noncommercial areas shall not exceed 0.1 foot candles in intensity.
- Fixtures within pedestrian areas, along sidewalks and walkways may be no higher than 8 feet.
- Fixtures within parking lots may be no higher than 20 feet.



# 11. Sign Regulations Applicable to All Sites

### A. Applicability

With the exception of temporary and incidental signs allowed in Chapter 77, signs not identified in this Subsection shall not be permitted in the Downtown Mixed-Use District.

### **B.** Permit Required

All applicants proposing to install, reconstruct, or alter a sign within the Downtown Mixed-Use District must obtain a permit according to the procedures set forth in Chapter 77.

- Alteration means any change in the configuration, orientation, illumination, or purpose of the sign.
- Reconstruction means the removal and replacement of more than 51 percent of the existing surface area or structural elements of a sign.

### C. Placement of Signs

All signs must be located on the same lot as the business to which it relates and be clearly incidental, customary, and commonly associated with the operation of the business. Signs may not be placed on accessory structures.

### D. Sign Height

No portion of a sign may be located at height of more than 20 feet above grade.

### **E. Roof Encroachment**

Signs may not project above the roof of any building and are in no case permitted as building height encroachments.

### F. Signs on the Right-of-Way

Signs may not encroach onto any streets or alleys. Awning, Projecting, and Sidewalk signs may encroach over the public sidewalk and must be located at a minimum of 18 inches inside the curb line or edge of pavement, whichever is greater.

### G. Maximum Sign Area per Building

Each establishment may be permitted a maximum square footage of sign area based on the Subarea in which it is located. The maximum sign area may be split between sign types as identified within the regulations pertaining to each Subarea.

### **H. Sign Illumination**

Signs may be illuminated where allowed in sub-section *E Regulations Pertaining to Subareas*. The following requirements apply to all illuminated signs in the Downtown Mixed-Use District.

# i. External illumination

External illumination of signs may not shine directly into the public right-of-way or adjacent properties. Fixtures must be shielded and directed to minimize light pollution.

### ii. Internal illumination

Channel letters may be internally lit or back-lit. Exposed neon may be used for lettering and for accent only.

iii. Prohibited sign illumination Blinking, flashing, chasing, and bare-bulb sources of sign illumination are prohibited Light emitting diode (LED) illumination is prohibited.

### I. Electronic Message Displays

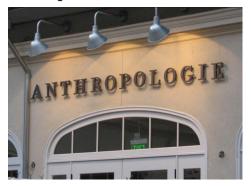
Electronic message displays are prohibited. This includes all types of electronic message display, include static display, moving or traveling text, scrolling, video, or any animated content. This provision does not prohibit LED bulbs within non electronic message displays.

### J. Sign Materials

- All signs must be of professional quality and constructed of durable, weather resistant materials.
- All wood signage components must be sealed and protected from the elements.
   Unpainted or unfinished treated and untreated lumber is not permitted.
- Signage materials must be of complementary color, character, type, and quality to those found on the related principal structure.

### **Appropriate Sign Lighting**

External light source



Backlit sign



**Exposed neon lettering** 



Internal light source



### K. Multi-tenant signs

A Multi-tenant sign plan must be submitted to the Code Enforcement Officer for all sites occupied by more than one tenant. The plan must indicate consistency with sign size and material requirements in this Section. The Code Enforcement Officer may approve changes to multi-tenant signs that conform to these requirements.

### L. Temporary, Incidental and Directional Signs

Temporary, incidental, and directional signs are regulated by Chapter 77. Temporary signs in the Downtown Mixed-Use District may cover up to 20% of the window area and may include event posters, flyers, real estate listings, and window paintings, provided they remain up for no more than seven days.

### M. Indemnity Agreement

All applicants proposing signs that encroach into the public right-of-way must provide an indemnity agreement, in a form acceptable to the City, holding harmless and indemnifying the City, its officers and employees from and against any and all claims and liability resulting from encroachment into the public right of way. Applicants must also provide proof of insurance acceptable to the City and naming the City as an additional insured on a primary, non-contributory basis.

### N. Removal of Signs

All signs must be in compliance with the City Code Sign Permits Chapter 77. Any sign, existing on or after the effective date of this Section, which no longer advertises an existing business conducted or product sold on the premises upon which the sign is located, shall be removed within 30 days of the discontinuance of the business.



# 12. General Provisions for Individual Signs

### A. Awning Sign





### Description

A sign on which graphics or symbols are painted, sewn, or otherwise attached to the awning material as an integrated part of the awning itself.

### General Provisions

Awning signs may not extend outside the awning.

Signs are allowed on ground floor awnings only.

### Measurement

- (a) Sign Area (as % of total awning area)
- (B) Letter height

Dimensional requirements prescribed within each Subarea

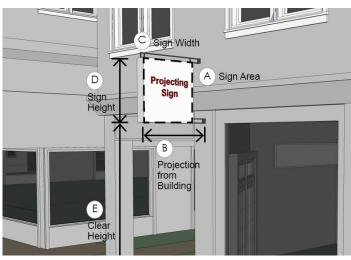
For purposes of calculating the allowed sign area, the total square footage of the awning face includes both the slope and the face of the awning.

### Illumination

Awning signs may be externally illuminated only.

### **B.** Projecting Sign





### Description

A sign attached to the building facade at a 90 degree angle, extending more than 12 inches from the wall. It may hang from a bracket and it may be two or three-dimensional.

### General Provisions

No portion of a projecting sign may be higher than the top of the building.

No portion of a projecting sign may be located higher than the second floor of the building.

Any part of a sign extending over pedestrian areas must have a minimum height clearance of 10 feet.

### Measurement

- (A) Sign Area
- (B) Projection from building
- © Depth
- (D) Height
- $_{(E)}$  Clear height above sidewalk

Dimensional requirements prescribed within each Subarea

### Illumination

Projecting signs may be internally or externally illuminated.

### C. Wall Sign





### Description

A sign placed against a building and attached to the exterior wall, attached so that the display surface is parallel with the plane of the wall.

### General Provisions

No portion of a wall sign may project above the roof line or above the parapet wall of a building with a flat roof.

A wall sign may not cover windows or architectural details.

### Measurement

- (A) Sign Area
- $_{(B)}$  Projection from building

Dimensional requirements prescribed within each Subarea

### Illumination

Wall signs may be internally or externally illuminated.

### D. Window Sign





### Description

A sign affixed to the inside of a window or door, or a sign placed inside a building within 12 inches from the window or door that is visible and legible through such window or door.

### General Provisions

Non-temporary signs adhered to windows or doors must be made of transparent materials, including but not limited to transparent plastic with lettering painted or attached to them.

Allowed on upper story windows for commercial uses.

### Measurement

Area of windows and doors that may be covered by signs.

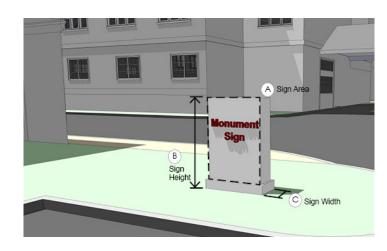
Dimensional requirements prescribed within each Subarea

### Illumination

Window signs may be internally illuminated only.

### E. Monument Sign (Single and Multi-tenant)





### Description

A sign attached to the ground along its entire length upon a continuous pedestal.

### Measurement

- (A) Sign Area
- B Height
- © Width

Dimensional requirements prescribed within each Subarea

### General Provisions

One monument sign allowed for each frontage along a Primary or Secondary Street.

Must be set back at least 5 feet from the front property line and in no case may interfere with safe vehicle and pedestrian traffic.

Must be no closer than 100 feet from any other monument sign located on the same frontage.

Monument signs must be constructed of materials and colors that are consistent with the building that is being advertised. The base of the sign must run the entire horizontal length of the sign and shall contain no sign copy.

A monument sign may be used as a multi-tenant directory sign indicating the name of the occupants of a building or multiple buildings. Each business may have no more than one sign within the multi-tenant monument sign.

### Illumination

Monument signs may be externally illuminated only.

### Multi-tenant Monument Sign



### F. Sidewalk Sign





### Description

A movable sign not attached to the ground or building.

### Measurement

- (A) Sign Area
- B Height
- © Width

Dimensional requirements prescribed within each Subarea

### General Provisions

Each ground floor tenant may have one sidewalk sign.

A sidewalk sign must be located at least 25 feet from any other sidewalk sign.

Sidewalk signs must be placed indoors at the close of each business day.

Sidewalks cannot obstruct vehicular or pedestrian traffic and must comply with ADA clearance and accessibility requirements.

### Illumination

Sidewalk signs may not be illuminated.



# F. REGULATIONS PERTAINING TO SUBAREAS

The following regulations shall apply to property within each corresponding Subarea.

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### 1. D-1 Traditional Downtown Subarea







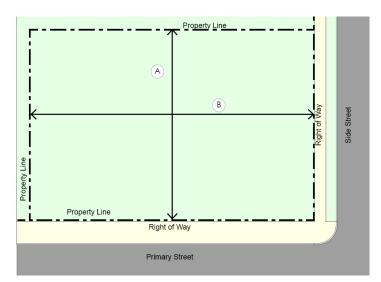
The D-1 Subarea is intended to accommodate a mix of compatible uses in a variety of building types that do not exceed 4 stories. Special focus is placed on preserving and enhancing the historic character, vibrancy, and walkable nature of the area in and around Webster Street and Sweeney Street.

### **Guiding Principles:**

- Maintain and improve the "main street" atmosphere along Webster, Main and Sweeney Streets.
- Encourage a mix of uses that promote activity.
- Provide pedestrian and bicycle amenities.
- Building facades should be built to the street to create vertical definition and narrower streetscape proportions.
- Building ground floors should be active and transparent.
- Vehicle parking is located behind the building or provided on-street (angled or parallel).



# Site Requirements



# **Building Placement**



Lot Dimensions	
A Lot Depth	no min/180' max
(B) Lot Width	no min/200' max

Building Setbacks (min/max)						
A	Primary Street	0'/5'				
	Side Street	0'/5'				
(C)	Side Interior	0'/none				
D	Rear	0'/none				

Required Outdoor Amenity Area	
Not required in the D-1 Subarea	

Required Facade within Build-to Zone	
Primary Street	75%
Side Street	50%

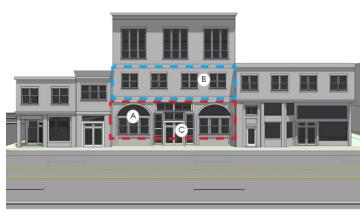
Landscaping & Sci	reer	ning
Site Landscaping	•	Not required on Primary and Side Street. Required within rear and interior setbacks greater than 5 feet
Screening	•	Required for service areas & ground mounted equipment



### Building Height

### Facade Requirements





# Building Height Primary Structure A Max 45' B Min 25'

Trar	Transparency along Primary and Side Streets (min)				
A	Ground Story	75%			
B	Upper Story	60%			

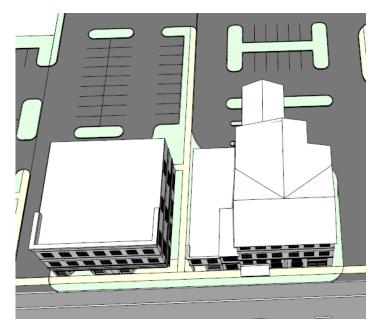
Permitted Height Encroachments (max)	
Chimney, flue, vent stack	5'
Elevator/stairway access to roof	12'
Parapet Wall	4'
Mechanical Equipment	6'
Skylights/solar panels	9'

Allowable Building Materials
Brick and tile masonry
Cementitious siding
Glass curtain wall
Native stone
Wood clapboard or shingles

Ped	destrian Access		
©	Entrance facing primary street	Required	

## D-1 Subarea Standards DRAFT

#### Parking



#### Parking Lot Screening



Number of Spaces Required (min	)
Vehicle Parking	none
Bicycle Parking	Per Subsection E-7

Parking Lot Perimeter Screening Area	
Side Street	n/a
Rear	3' min

Parking Lot Location	
Primary Street	Not allowed between street and building facade
Side Street	Not allowed between street and building facade

## Requirements for Parking Lot Screening Area Continuous row of shrubs at least 36 inches in height Breaks for pedestrian access and driveways are permitted \*A decorative fence of at least 36 inches in height and no higher than 4 feet, may be used to fulfill

Parking Setbacks (distance from lot line)	
Primary Street Setback	n/a
Side Street Setback	n/a
Rear Setback	5' min
Alley	0'/ min



#### Signs Standards

Total Sign Area Permitted (max per building)	
Facade facing a Primary Street	40 sf
Facade facing Side Street	40 sf

Signs Permitted (up to 3 types per building)		
Awning Sign	1 per facade	
Monument Sign	Not permitted	
Projecting Sign	1 per facade	
Sidewalk Sign	1 per establishment	
Wall Sign	1 per facade	
Window Sign	1 per facade	
Signs not expressly permitted in this Section are prohibited.		

Awning Sign	
Sign Area (max)	25% of awning area
Maximum Lettering Size (max)	16" high

Sidewalk Sign (max)	
Sign Area	6 sf
Height	3'
Width	2'

Monument Sign	
Not permitted	

Wall Sign (max)	
Sign Area	1 sf per foot of building length
Projection from building	12 inches

Projecting Sign	
Projection from building (max)	3.5'
Depth (max)	6"
Height (max)	6'
Clear height above sidewalk (min)	10'

Window Sign (max)	
Area of a window that may be covered by signs.	20% of the window area in which the sign is placed

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## DRAFT

#### 2. D-2 High Density Downtown Subarea







D2- High Density Downtown

Historic Preservation District

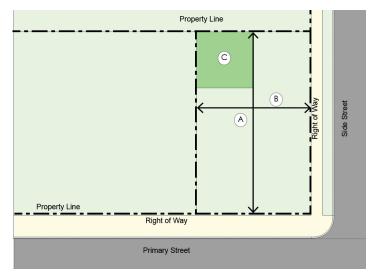
The D-2 Subarea is intended to provide a variety of urban housing choices with medium-to-large footprints that reinforce the neighborhood's historic and walkable nature. This Subarea is intended to accommodate buildings up to 6 stories.

#### **Guiding Principles:**

- Provide a mixed-use environment, focusing on residential uses supported by ground floor neighborhood businesses, restaurants, and retail.
- Building facades should be built to the street to create vertical definition and narrower streetscape proportions.
- Building ground floors are active and transparent.
- Vehicle parking is located behind the building or provided on-street (angled or parallel).
- New development and modification to existing structures is compatible with the existing historic character of the District.

## DRAFT

#### Site Requirements



#### **Building Placement**



Lot Dimensions	
A Lot Depth	no min/200' max
B Lot Width	no min/200' max

Building Setbacks (min/max)		
A	Primary Street	0'/10'
B	Side Street	0'/10'
©	Side Interior	5'/15'
D	Rear	none

Required Outdoor Amenity	Area (min)
© Lots over 5,000 sf	10%
	(15% for buildings that
	include residential uses)

Required Facade within Build-to Zone (min)	
Primary Street	75%
Side Street	50%

Site Landscaping & Screening		
Site Landscaping	Not required on Primary and Side Street. Required on Rear and interior setbacks greater than 5 feet.	
Screening Required	For service areas & ground mounted equipment.	

#### Building Height

#### Facade Requirements





Build	ding Height	
A	Max	70'
(B)	Min	25'

Transparency along Primary and Side Streets (	(min)
Ground Story Facade	70%
B Upper Story Street Facing Facade	50%

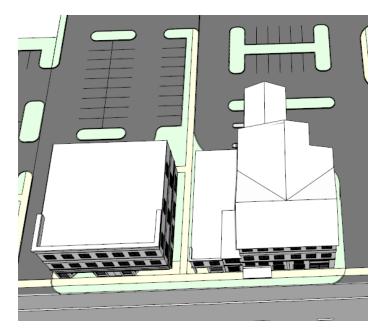
Permitted Height Encroachments (max)	
Chimney, flue, vent stack	5'
Elevator/stairway access to roof	12'
Parapet Wall	4'
Mechanical Equipment	6'
Skylights/solar panels	9'

Allowable Building Materials
Brick and tile masonry
Cementitious siding
Glass curtain wall
Native stone
Wood clapboard or shingles

Ped	destrian Access		
©	Entrance facing primary street	Required	

## DRAFT

#### Parking



#### Parking Lot Screening



## Number of Spaces Required (min) Vehicle Parking none Bicycle Parking Per Subsection E-7

Parking Lot Perimeter Screening Area	
Side Street	n/a
Rear	3' min

Parking Lot Location	
Primary Street	Not allowed between street and building facade
Side Street	Not allowed between street and building facade

# Parking Setbacks (distance from lot line) Primary Street Setback n/a Side Street Setback n/a Rear Setback 5' min

0' min

#### Requirements for Parking Lot Screening Area

Continuous row of shrubs at least 36 inches in height

Breaks for pedestrian access and driveways are permitted

\*A decorative fence of at least 36 inches in height and no higher than 4 feet, may be used to fulfill these screening requirements. The fence must meet the requirements of Subsection E-8.

Alley

#### Signs Standards

Total Sign Area Permitted (max per building)	
Facade facing a Primary Street	75 sf
Facade facing Side Street	40 sf

Signs Permitted (up to 3 types per building)		
Awning Sign	1 per facade	
Monument Sign	Not permitted	
Projecting Sign	1 per facade	
Sidewalk Sign	1 per establishment	
Wall Sign	1 per facade	
Window Sign	1 per facade	

Awning Sign	
Sign Area (max)	20% of awning area
Maximum Lettering Size (max)	16" high

Sidewalk Sign (max)	
Sign Area	6 sf
Height	3'
Width	2'

Monument Sign	
Not permitted	

Wall Sign (max)	
Sign Area	1 sf per foot of building length
Projection from building	12 inches

Projecting Sign	
Sign Area	15 sf max
Projection from building	3.5' max
Depth	6 inches max
Clear height above sidewalk	10 ' min

Window Sign (max)	
Area of a window that may be covered by signs.	20% of the window area in which the sign is placed

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## DRAFT

#### 3. OS- Oliver Street of Shoppes







#### OS – Oliver Street of Shoppes

This Subarea is intended to accommodate large scale redevelopment of entire blocks. Special focus is on creating cohesive and pedestrian friendly development, with attention given to compatibility with neighboring residential areas and adjacent zoning districts.

#### Guiding Principles:

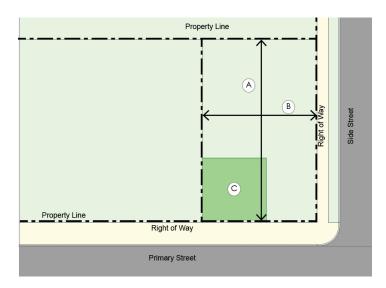
- Allow redevelopment of entire blocks.
- Encourage provision of open space.
- Buildings heights of 2-5 stories.
- Allow mixed-use.
- Allow residential uses on ground floor.

OS- Oliver Street

Historic Preservation District

## DRAFT

#### Site Requirements



#### **Building Placement**



Lot Dimensions	
A Lot Depth	no min/ 200' max
B Lot Width	no min/ 200' max

Building Setbacks (min/max)	
A Primary Street	0'/10'
B Side Street	0'/15'
© Side Interior	5'/15'
© Rear	none

Required Outdoor Amenity	/ Area
Lots less than 5,000 sf	not required
© Lots over 5,000 sf	10% or 15% for buildings that contain residential use

Required Facade within Build-to Zone	
Primary Street	75%
Side Street	50%

Site Landscaping & Screening	
Site Landscaping	Required within setbacks
Screening Required	For service areas & ground mounted equipment

#### Building Height & Facade Requirements



Build	ding Height	
A	Max	60'
В	Min	25'

Permitted Height Encroachments (max)	
Chimney, flue, vent stack	5'
Elevator/stairway access to roof	12'
Parapet Wall	4'
Mechanical Equipment	6'
Skylights/solar panels	9'

Transparency (min)		
©	Ground Story Street Facing Facade	60%
(D)	Upper Story Street Facing Facade	50%
E	Townhomes (ground story only)	20%

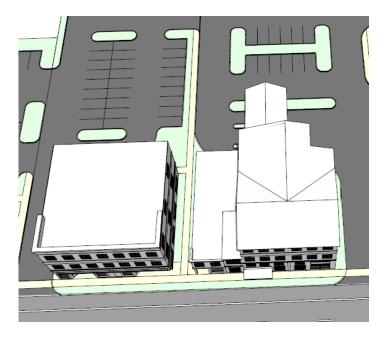
	Pedestrian Access	
5'	Entrance facing primary street	
12'	311001	
4'	Allowable Building Materials	
6'	Brick and tile masonry	
9'	Cementitious siding	
	Glass curtain wall	

street
Allowable Building Materials
Brick and tile masonry
Cementitious siding
Glass curtain wall
Native stone
Wood clapboard or shingles

Required

## DRAFT

#### Parking



#### Parking Lot Screening



Number of Spaces Required (min)	
Vehicle Parking	Per Article 103-14
Bicycle Parking	Per Subsection E-7

Parking Lot Perimeter Screening Area	
Side Street	n/a
Rear	5' min

Parking Lot Location	
Primary Street	Not allowed between street and building facade
Side Street	Not allowed between street and building facade

Parking Setbacks (distance from lot line)	
Primary Street Setback	n/a
Side Street Setback	n/a
Rear Setback	5' min
Alley	0' min

#### Requirements for Parking Lot Screening Area

Continuous row of shrubs at least 36 inches in height\*

Breaks for pedestrian access and driveways are permitted

\*A decorative fence of at least 36 inches in height and no higher than 4 feet, may be used to fulfill these screening requirements. The fence must meet the requirements of Subsection E-8.

#### Signs Standards

Total Sign Area Permitted (max per building)	
Facade facing a Primary Street	80 sf
Facade facing Side Street	60 sf

Signs Permitted (up to 3 types per building)		
Awning Sign	1 per tenant	
Monument Sign	1 per street frontage	
Projecting Sign	1 per tenant	
Sidewalk Sign	1 per tenant	
Wall Sign	1 per facade	
Window Sign	1 per facade	

Awning Sign (max)	
Sign Area	50% of awning area
Maximum Lettering Size	16" high

Sidewalk Sign (max)	
Sign Area	6 sf
Height	3'
Width	2'

Monument Sign (max)	
Sign Area	30 sf
Height	6'
Number of faces	2
Monuments signs for multi-tenant buildings	25 sf per face for 5 businesses, with 3 sf for each additional business. Total sf not to exceed 50 sf.

Wall Sign (max)	
Sign Area	1 sf per foot of building length
Projection from building (max)	12 inches

Willdow sign	
Area of a window that may be	20% of the window
covered by signs.	area in which the
	sign is placed

Projecting Sign	
Sign Area	15 sf max
Projection from building	3.5' max
Depth	6 inches max
Clear height above sidewalk	10' min

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#### 4. RR - River Road









RR - River Road

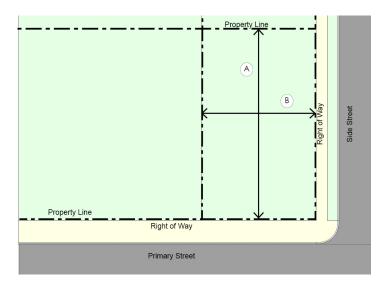
The intent of this Subarea is to accommodate large-scale redevelopment of entire blocks. Special focus is on developing an orderly transition from the D-1 district as well as creating an attractive and welcoming environment along River Road that is inviting to pedestrians from Tonawanda Island and offers connections to the D-1 district.

#### **Guiding Principles:**

- Allow redevelopment of entire blocks
- Accommodate mixed-use buildings with office and retail uses
- Focus is on transitioning the River Road corridor into an attractive, human-scale environment that is friendly to drivers, pedestrians, and bicycles.
- Vehicle parking is located at the rear of buildings, below grade, or within the interior portion of a site that contains a group of buildings
- Buildings are 2-4 stories in height



#### Site Requirements



#### **Building Placement**



Lot	Dimensions	
A	Lot Depth	no min/200' max
B	Lot Width	no min/200' max

Required Outdoor Amenity Area	
Lots less than 5,000 sf	not required
Lots over 5,000 sf	not required

Landscaping & Screening	
Site Landscaping	Required within setbacks
Screening Required	For service areas & ground mounted equipment

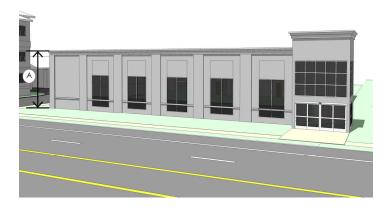
Building Setbacks (min/max)		
A	Primary Street (not on River Road)	0'/5'
В	Side Street	5'/20'
©	Side Interior	5'/none
(D)	Rear	5'/none
E	Primary Street - River Road	5'/20'

Required Facade within Build-to Zone		
Primary Street (not River Road )	50%	
Primary Street (River Road)	30%	
Side Street	30%	

#### Building Height

#### Facade Requirements

Pedestrian Access





Build	ding Height	
	Max (not pictured)	50'
A	Min	25'

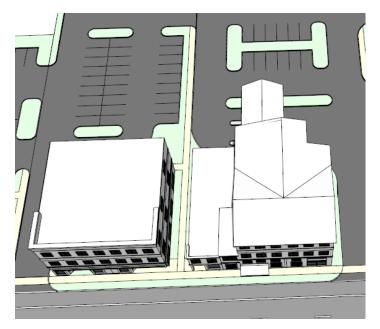
Transparency along Primary and Side Streets (min)		
A	Ground floor facade facing River Road	25%
	Ground story facade facing all other Primary Streets	50%
	Upper Story facades facing any street	15%

Permitted Height Encroachments (max)	
Chimney, flue, vent stack	5'
Elevator/stairway access to roof	12'
Parapet Wall	4'
Mechanical Equipment	6'
Skylights/solar panels	9'

(B)	Entrance facing primary street or side street	Required
Allov	wable Building Materials	
Brick	and tile masonry	
Cementitious siding		
Glass curtain wall		
Native stone (or synthetic equivalent)		
Stucco (cementitious finish)		
Woo	od clapboard or shingles	



#### Parking Spaces and Location



#### Parking Lot Screening



Number of Spaces Required (min)		
Vehicle Parking	Per Article 103-14	
Bicycle Parking	Per Subsection E-7	

Parking Lot Perimeter Screening Area	
Side Street	5' min
Rear	10' min

Parking Lot Location	
Primary Streets (other than River Road)	Not allowed between street and building facade.
Side Street	Allowed between street and building facade.
River Road	Not allowed between street and building facade.

Parking Setbacks (distance from lot line)	
Primary Street Setback	n/a
Side Street Setback	n/a
Rear Setback	10' min
Alley	5 ' min

#### Requirements for Parking Lot Screening Area

Continuous row of shrubs at least 36 inches in height\*

Breaks for pedestrian access and driveways are permitted

\*A decorative fence of at least 36 inches in height and no higher than 4 feet, may be used to fulfill these screening requirements. The fence must meet the requirements of Subsection E-8.



#### Signs Standards

Total Sign Area Permitted (max per building)	
Facade facing a Primary Street	130 sf
Facade facing Side Street	65 sf

Signs Permitted (up to 3 types per building)		
Awning Sign	1 per awning	
Monument Sign	1 per street frontage (maximum of one on each frontage)	
Projecting Sign	1 per ground floor tenant/ business	
Sidewalk Sign	1 per ground floor tenant/ business	
Wall Sign	1 per tenant/business per facade	
Window Sign	1 per business	

Awning Sign (max)	
Sign Area	30% of awning area
Maximum Lettering Size	16" high

Sidewalk Sign (max)	
Sign Area	6 sf
Height	3'
Width	2'

Monument Sign	
Sign Area (max)	64 sf
Height (max)	10'
Number of faces (max)	2
Monuments signs for multi-tenant buildings	25 sf per face for 5 businesses, with 3 sf for each additional business. Total sf not to exceed 70 sf

Wall Sign (max)	
Sign Area	1 sf per foot of building length
Projection from building	12 inches

Projecting Sign	
Sign Area	15 sf max
Projection from building	3.5' max
Depth	6 inches max
Clear height above sidewalk	10 ' min

Window Sign (max)	
Area of a window that may be covered by signs.	20% of the window area in which the sign is placed

### DRAFT

#### G. NUISANCES

#### 1. Performance Standards

The purpose and intent of the following performance standards regulations is to provide not-to-exceed threshold values as a means of protecting the safety and welfare of the residents, visitors and surrounding uses. The performance standards regulations are provided in recognition that certain uses may jeopardize the health and well-being of residents or visitors based on their impacts to the surrounding environment.

#### A. Applicability

All uses subject to the requirements of this Section may be established and maintained if their operation is approved by the Code Enforcement Officer as being in conformance with the standards and regulations limiting dangerous and objectionable elements, such as dust, smoke, odor, fumes, noise or vibration.

#### **B.** Performance standards procedures

The Code Enforcement Officer, as part of the pre-application conference, shall tentatively identify whether a proposed development will be required to certify compliance with any of the performance standards listed in this Section. Certification may require a signed written statement or presentation of construction detail and a description of the specifications for the mechanisms and techniques to be used in restricting the emissions of any dangerous and objectionable elements.

The applicant must submit plans and an affidavit acknowledging its obligation to conform to the standards at all times. The Code Enforcement Officer may require the applicant to show that the construction detail and a description of the specifications for the mechanisms and techniques is in compliance with the standards set forth below.

#### i. Vibration:

No vibration shall be produced which is transmitted through the ground and is discernible without the aid of instruments at or beyond the lot lines, nor shall any vibrations produced exceed 0.002g peak at up to a frequency of 50 cycles per second, measured at or beyond the lot lines using either seismic or electronic vibration measuring equipment.

Vibrations occurring at higher than a

frequency of 50 cycles per second or periodic vibrations shall not induce accelerations exceeding 0.001g single impulse periodic vibrations occurring at an average interval greater than five minutes shall not induce accelerations exceeding 0.01g.

#### ii. Noise

In the Downtown Mixed-Use District, it shall be unlawful to operate or allow the operation of any sound amplification equipment so as to create sounds that are plainly audible from the boundary line of the nearest residentially occupied property.

For multifamily dwellings, including apartments, condominiums, or other residential arrangements existing on a single parcel or where boundary lines can not readily be determined, it shall be unlawful to operate or allow the operation of any sound amplification equipment so as to create sounds that are plainly audible from any point within the interior of another residential unit in the same complex or within the boundary line of the nearest residentially occupied property. For purposes of this Section, "sound amplification equipment" means a radio, tape player, compact disc player, digital audio player, television, electronic audio equipment, musical instrument, sound amplifier, or other mechanical or electronic sound-making device that produces, reproduces or amplifies sound. This Subsection shall not apply to a special event, mass gathering or other permitted activity by the City.

Any commercial establishment such as a restaurant, or night club with an outdoor balcony or patio must apply for a permit prior to engaging in any outdoor entertainment that produces any noise as defined in this section.

Further, the provisions of this Section shall not apply to entertainment facilities constructed to provide outdoor entertainment owned by City. For the purpose of this Subsection, "plainly audible" means any sound which clearly can be heard by unimpaired auditory senses.

#### iii. Smoke

The emission of smoke or any other discharge into the atmosphere during

normal operations shall not exceed visible gray smoke of a shade equal to or darker than No. 2 on the standard Ringelmann Chart. (The Ringelmann Chart is a graphic published by the United States Bureau of Mines, which shows graduated shades of gray for use in estimating the light-obscuring capacity of smoke). These provisions applicable to visible gray smoke shall also apply to visible smoke of a different color but with an apparent equivalent capacity.

#### iv.Odor

No emission shall be permitted of odorous gases or other odorous matter in such quantities as to be readily detectable when diluted in the ration of one volume of odorous emission to four volumes of clean air. Any process which may involve the creation or emission of any odors shall be provided with a secondary safeguard system so that control will be maintained if the primary safeguard system should fail. There is hereby established, as a guide in determining such quantities of offensive orders, in Table III, order Thresholds, in Chapter 5 of the Air Pollution Abatement Manual, Copyright 1959, by the Manufacturing Chemical Association, Inc., Washington, D.C., as said manual and/or table is subsequently amended.

v. Fly, ash, dust, fumes, vapors, gases and other forms of air pollution.

No emission shall be permitted which can cause any damage to health animals, vegetation or other forms of property or which may cause any excessive soiling at any point beyond the boundaries of the maximum allowable concentration set forth in §12-29 of the Board of Standards and Appeals of the New York State Department of Labor, effective October 1, 1956, and any subsequent standards.

#### H. NONCONFORMITIES

The purpose of this Subsection is to establish regulations and limitation on the continued existence of uses established prior to the effective date of this Code that do not conform to the provisions of this Code. This Section will also provide for the gradual replacement of nonconforming uses with uses that conform to the provisions of this Code. Nonconformities may

continue, but the provisions of this Section are designed to limit investment in nonconformities and to bring about their eventual elimination, where appropriate, in order to preserve the integrity of the regulations established in this Code.

#### 1. Nonconforming Uses

#### A. Authority to Continue

The lawful use of any building or land existing prior to the effective date of this Code or its predecessor may be continued even if such use does not conform to the provisions of this Code.

Any violation of this Code prior to the effective date of this Code will continue to be deemed a violation and no use in violation prior to the effective date this Code may be continued if it does not conform to the provisions of this Code.

#### **B.** Replacement, Repair and Maintenance

No alteration or repair of a nonconforming use shall exceed 50% of the value of the property in a ten year period.

Replacement shall comply with the design and materials standards of this Code to the maximum extent practicable as determined by the Code Enforcement Officer.

#### C. Extensions/Expansions

A nonconforming use cannot be extended expanded, enlarged or increased in size, footprint or coverage.

No nonconforming use may be extended to displace a conforming use.

#### D. Change in Use

A nonconforming use may not be changed to another nonconforming use. A nonconforming use that is changed to a conforming use may not revert back to any nonconforming use. Any nonconforming use may be changed to a conforming use.

#### E. Discontinuance

When a building or land containing a nonconforming use ceases to be used for the nonconforming use for a period exceeding 90 consecutive days, the use may not be reestablished or resumed.

#### F. Unsafe Structures

Any structure with a nonconforming use or portion of that structure determined

### DRAFT

to be unsafe by the Code Enforcement Officer may be restored to a safe condition, unless otherwise determined by the Code Enforcement Officer.

#### 2. Amortization of nonconformities

The following nonconforming uses are subject to the following conditions and must be converted to conforming uses within 5 years of adoption of code.

- Junk Yards
- Auto Service Stations
- Scrap Metal storage or processing
- Billboards
- Outdoor Storage of Equipment

Nonconforming uses that become a public nuisance through either the decline in appearance, increase in noise, smoke or vibration are subject to the amortization provisions above.

#### 3. Nonconforming Signs

#### A. General Provisions

- Nonconforming signs must be property maintained, but may not be changed to another nonconforming sign, either due to a change in text, cosmetically, or structurally.
- Nonconforming signs may not be structurally or electrically expanded or altered unless such alteration brings the sign into conformance with the provisions of this Section.
- Nonconforming signs may not be relocated to another site on the same property.
- Nonconforming signs may not be reestablished after discontinuance for 90 consecutive days.

#### **B.** Compliance

- Nonconforming signs must be removed or brought into compliance with the requirements of this Section under the following circumstances:
  - Change of use classification
  - Change of occupancy
  - Replacement or repair of any portion of the sign in excess of 50% of the

replacement value.

• Removal or replacement of the entire sign structure.

#### C. Amortization of Nonconforming Signs

Nonconforming signs shall be removed or converted to a permitted sign within one year of official notification of a nonconforming status by the Code Enforcement Officer.

Such notice must be recorded with the City Clerk and mailed to the property owner. If the property owner fails to alter or remove the structure to comply with the regulations set forth in this Section within 10 days following the final date of the amortization period, such sign may be removed or altered by the City at the expense of the owner or sign permittee.

#### I. ADMINISTRATION

#### 1. Development Review Process

#### **A. Application Requirements**

Applications must include all information noted in Chapter 103 of the City Code.

#### **B. Preapplication Conference**

Prior to completion of a development application, the applicant is encouraged to schedule a preapplication conference with the Code Enforcement Officer to discuss application procedures, standards, and regulations of this Section.

A request for a preapplication conference by a potential applicant must be accompanied by preliminary project plans in hard copy format at 8.5 x 11 or 11 x 17. The request must also include a cover letter describing the project, including the parcel number (s) and address of the proposed site, the square footage, height and character of the proposed development.

#### **C.** Application Requirements

Applications must be submitted to the Code Enforcement Officer on the forms required in Chapter 103. Before review of any application, all associated fees must be paid in full.

#### **D. Completeness Review**

The Code Enforcement Officer will review the submitted materials for completeness and, within 10 days, either accept the application as complete or request further information from the applicant.

#### **E.** Administrative Review

Upon acceptance of a complete application, the Code Enforcement Officer will, within 30 days, review the application for consistency with the requirements of this Section and forward the application to the appropriate City Departments for review and recommendation.

Upon receipt of department comments, the Code Enforcement Officer must make an initial determination of compliance with the requirements of this Section and any applicable requirements of the City's Zoning Code, and prepare a written staff report.

#### F. Administrative Approval

Applications that comply with all standards of this Section may be processed and approved by the Code Enforcement Officer or designee.

#### **G. Site Plan Review**

Applications that do not comply with the standards of this Section must complete Site Plan Review, pursuant to the requirements of Chapter 103 of the Code and to the provisions of Subsections G(i) - (iii), below.

i. Planning Board Approval Pursuant to the requirements of Site Plan Review, the Planning Board may approve applications that do not comply with the standards of the Downtown Mixed-Use District, subject to the criteria in Subsection G(ii).

The Planning Board may conduct a public hearing to make a determination to approve, approve subject to conditions, or disapprove the application. The public hearing shall be held in accordance with the provisions of this Code and the General City Law.

- ii. Planning Board Approval Criteria The criteria herein must be used by the Planning Board in reviewing applications subject to Site Plan review, including all buildings, structures, signs, and other site features:
  - The purpose, intent, and Guiding Principles of the Downtown Mixed-Use District are met.
  - The proposal is compatible with the surrounding properties.
  - The proposal minimizes impacts of noise,

light, debris, and other undesirable effects upon abutting properties and the District or Subarea as a whole.

- Loading and refuse areas are adequately screened such that they are not visible from adjacent rights-of-way and abutting properties.
- Ingress, egress, internal circulation, off-street parking, loading/service areas are designed to promote safety, convenience, and provide a high quality pedestrian environment.
- Signage is designed to provide compatibility with building form, shape and color.

#### iii. Exceptions

This Section does not authorize the Planning Board to approve the following in the Downtown Mixed-Use District:

- Electronic message boards
- A use prohibited by this Section

#### **H. Variances & Special Use Permits**

Applications that do not meet the requirements of Subsections F and G herein must obtain a variance pursuant to the City Code and the General City Law. Approval of development applications is conditioned upon approval of such variance or special use permit.

#### I. Historic Preservation Commission

Proposals within the boundaries of the Historic Overlay District shall be reviewed by the Historic Preservation Review Commission, in conformance with Chapter 51C (Historic Preservation).

#### J. Interpretations

The Code Enforcement Officer may provide interpretations of the standards set forth in this Section.



enjoy the momentum of entertainment, food and culture at the city center



## Appendix I

## Riviera Theatre Financial Proforma



New York Office:

120 West Avenue, Suite #303 Saratoga Springs, NY 12866 Phone: 518.899.2608

Fax: 512.777.5045

To: Riviera Theatre From: Dan Stevens Date: March 17, 2015

**MEMORANDUM** 

Re: Riviera Theatre – Financial Pro Forma

Other Offices:

Scarborough, ME Brattleboro, VT

As part of its work on the City of North Tonawanda Step 3 BOA, Camoin Associates has prepared a pro forma cash flow statement for the Riviera Theatre expansion project. The purpose of this analysis was to determine the funding "gap" of the project, namely how much additional capital funding the Theatre will need to seek in grants or from other sources to make the project feasible.

#### **RESULTS SUMMARY**

Our analysis shows that if the Riviera Theatre received the maximum loan possible of about \$4 million (based on projected new net operating cash flows), the additional funding needed to complete the project could be achieved through local grants and fundraising as detailed in the table below. Based on these assumptions, the maximum loan amount would exceed the amount needed by about \$155,000. Therefore in the "maximum loan" scenario the Theatre would receive a loan of about \$3.875 million rather than \$4.03 million.

Sources of Funding						
Total Construction Cost	\$5,600,000					
Financing Amount (Max)	\$4,030,000					
Naming Rights: Main Stage	\$150,000					
Naming Rights: Black Box	\$75,000					
Other Private Donations	\$1,000,000					
Capital Fundraising Campaign	\$200,000					
Other Local Grant Contribution	\$300,000					
Funding Gap (Surplus)	(\$155,000)					

We also analyzed two alternative scenarios in which the Theatre would receive a smaller financed (loan) amount and would need to secure additional funding through other sources.

Memorandum March 17, 2015 Riviera Theatre Riviera Theatre-Financial Pro Forma Page 2 of 15



#### **ASSUMPTIONS**

Assumptions that went into this analysis were based on input from the Riviera Theatre and from research conducted by Camoin Associates. Assumptions are explained in further detail later in this document. Assumptions crucial to the financial analysis are below:

- **Construction Costs** Based on our review of the costs of similar project costs, we believe the cost of the expansion and renovation project will be \$350/sf.
- **Fundraising Assumptions** Based on assumptions provided to Camoin, the analysis assumes that \$1.725 million can be raised through local grants, donations, and fundraising.
- Changes in Revenues and Expenses Operating revenues and expenses will both increase as a
  result of the project but operating revenues will increase more than expenses due to economies
  of scale and the ability of the Theatre to book more revenue per show post renovations.
- Bank Financing For the purposes of this analysis we assume the Theatre will acquire a bank financed loan for the maximum amount possible given the projected new operating cash flows. We also examine alternative scenarios where the Theatre would finance a smaller portion of the project compared to the maximum.

#### **CONSTRUCTION COSTS**

Camoin Associates researched the construction costs of other types of projects to estimate a total project cost per square foot (including hard and soft costs). The table below shows the results of that research. Based on those values, we estimate that that the construction cost for the project will be about \$350/SF. This corresponds roughly with the cost projections the Theatre received previously from the design team that provided the concept for the renovation/construction project.

Construction Cost Case Studies						
Total Cost/Sq.						
Ft.	Project	Description				
\$226	Strand Theater, Pontiac, MI	Feasibility study to renovate Strand Theatre.				
		New 250-seat theatre, rehearsal room, dressing rooms, a green room,				
\$310	Queensbury Theatre, Houston	office and conference space and a black box theater				
	Brentwood Academy Fine Arts	Chorus room, black box theater, classrooms, office space, and band				
\$269	Center	room				
	Sampson Theater, Honesdale,	Renovation of historic theater for theater use and community cultural				
\$362	PA	and conference center				
\$347	24 Performing Arts Centers	Survey of Performing Arts Centers in Higher Education				
	Performing Arts Center, South					
\$420	Dakota State University	New 850-seat theatre and support space				
\$379	Riviera Theatre	Previous Construction Estimate				
\$330	Average					
\$355	Median					

Based on this SF cost, we estimate the entire project will cost approximately \$5.6 million. This represents a slight reduction in the previous estimate of \$6.06 million.

Estimated Construction Costs					
Square Feet	16,000				
Avg. Price per Sq. Ft.	\$350				
Estimated Construction Cost \$5,600,000					



#### **OPERATING REVENUES AND EXPENSES**

Post-construction operating revenues and expenses were estimated. We looked at each budget line to determine how that dollar value is likely to change. Each budget line was assigned a metric or an assumption about how that amount would likely change (or not). These metrics are described below:

- Metric 1: Line items assigned this metric are not expected to change as a result of the project
- **Metric 2:** These revenue line items are expected to change. The percentage change is assumed to be equal to the percent increase in event revenue.
- **Metric 3:** These expense line items are expected to increase by the same percent increase in the number events (assuming one black box event is equivalent to 1/3 main stage event).
- Metric 4: Line items assigned this metric were each calculated separately as follows:

<u>Event Revenue</u>: The following tables show how event revenues were calculated and what assumptions were made. For the Main Stage it was estimated that the average revenue per event would increase 10% after the project.

Black Box Total Annual	\$179,280
Main Stage Total Annual	\$1,508,540
Facility Rental Total Annual	\$40,000
Black Box: Co-Productions/Professional Co-Pr	oductions
Annual Number	96
Revenue per Blackbox Co-Production	\$1,680
Annual Revenue from Black Box Co-Productions	\$161,280
Black Box: Riviera Special Events	
Annual Number (8-10)	9
Revenue per Blackbox Special Event	\$2,000
Annual Revenue from Special Events	\$18,000
Main Stage Assumptions	
Average Revenue per event (existing)	\$6,857
Average Revenue per event (post-construction)	\$7,543
Existing number of annual events	175
Expected number annual events post-constrution	200
Annual Revenue from all events	\$1,508,540

Summary of Event Revenues

<u>Rental Income</u>: The following table breaks down the estimated new rental income from the new facility rental space based on assumptions made by Camoin.

Corporate Rentals					
New facility rental space (SF)	1,600				
New Rentals	50				
Average Rental Rate	\$800				
Annual Revenue from Corporate Rentals	\$40,000				

<u>Concession Income</u>: Concession income is assumed to increase by the same rate as the change in event revenue plus an additional increase factor of 50% because of the improvement to existing facilities.



<u>Concession Expenses:</u> Concession expenses are assumed to increase by the same rate as concession income.

**Operating Revenues and Expenses** 

		2042		2040*	A
Revenue		2013		2016*	Assumption
Box office revenue (Main Stage)		\$1,186,885		\$1,508,540	4
Box office revenue (Black Box)		\$1,100,003		\$179,280	4
Concession income		\$89,053		\$179,260	4
Membership fees		\$5,233			2
Fundraising (gross)		\$18,524		\$7,442 \$26,342	2
Rental income		\$29,153		\$69,153	4
Contribution from foundations and individuals				\$414,752	2
Other income		\$291,656 \$1,849		\$2,629	2
Other income		φ1,0 <del>4</del> 9		\$2,029	2
Total	\$	1,622,353	\$	2,379,303	<u>-</u> -
Expenses					
Salaries and wages	\$	270,045	\$	358,003	3
Payroll taxes	\$	21,563	\$	28,586	3
Employee benefits	\$	22,427	\$	29,732	3
Advertising and marketing	\$	140,802	\$	186,663	3
Advisoring and marketing	Ψ	110,002	Ψ	100,000	o e
Concession stand purchases	\$	16,640	\$	31,983	4
Dues and fees	\$	2,895	\$	2,895	1
Insurance	\$	8,707	\$	8,707	1
Interest	\$	3,471	\$	3,471	1
Miscellaneous	\$	7,651	\$	10,143	3
Office expense	\$	15,062	\$	15,062	1
Performance expenses	\$	884,847	\$	1,173,054	•
Postage	\$	2,629	\$	2,629	1
Printing	\$	1,898	\$	1,898	1
Printing Professional fees	\$	15,854	\$	15,854	1
Repairs and maintenance	\$	7,733	\$	10,252	3
Service Charges	\$	7,733 75,907	\$	75,907	1
Service Charges	Ψ	73,907	Ψ	73,907	
Telephone	\$	7,197	\$	7,197	1
Travel	\$	1,609	\$	1,609	1
Utilities	\$	33,404	\$	44,284	3
Vehicle Expenses	\$	5,929	\$	5,929	1
Total	•	4 540 070	•	0.040.050	=
Total	\$	1,546,270	\$	2,013,858	_
Net	\$	76,083	\$	365,445	

<sup>\*</sup>Or first year of operations after project completion

Memorandum March 17, 2015 Riviera Theatre

Riviera Theatre- Financial Pro Forma

Page 5 of 15



#### PROFORMA ASSUMPTIONS

		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Annual Inflation rate	3%	1.00	1.03	1.06	1.09	1.12	1.15	1.18	1.21	1.24	1.27	1.30	1.33
Revenue													
Add: Income													
Total Annual													
Black Box Gross Income	\$179,280												
Main Stage Gross Income	\$1,508,540												
acility Rental Gross Income	\$40,000												
Other Income	\$651,483												
Total Annual Gross Income	\$2,379,303												
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Unadjusted	Gross Income	\$1,622,353	\$2,379,303	\$2,379,303	\$2,379,303	\$2,379,303	\$2,379,303	\$2,379,303	\$2,379,303	\$2,379,303	\$2,379,303	\$2,379,303	\$2,379,303
Adjusted	Gross Income	\$1,622,353	\$2,450,682	\$2,522,061	\$2,593,441	\$2,664,820	\$2,736,199	\$2,807,578	\$2,878,957	\$2,950,336	\$3,021,715	\$3,093,094	\$3,164,473
Expenses													
Subtract: Expenses													
Total Annual													
Operating Expenses \$	2,013,858												
Debt Service \$	305,045												
Total Annual Expenses	\$2,013,858												
,,													
	_	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
	Gross Expenses	\$1,546,270	\$2,013,858	\$2,013,858	\$2,013,858	\$2,013,858	\$2,013,858	\$2,013,858	\$2,013,858	\$2,013,858	\$2,013,858	\$2,013,858	\$2,013,858
•	Gross Expenses	\$1,546,270	\$2,074,274	\$2,134,690	\$2,195,105	\$2,255,521	\$2,315,937	\$2,376,353	\$2,436,768	\$2,497,184	\$2,557,600	\$2,618,016	\$2,678,431
Net Revenue													
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Unadius	ted Net Income	76,083	365,445	365,445	365,445	365,445	365,445	365,445	365,445	365,445	365,445	365,445	365,445
	ted Net Income	76,083	376,408	387,372	398,335	409,298	420,262	431,225	442,188	453,152	464,115	475,079	486,042
Site Improvement Costs Total	\$5,600,000												
Iotai	\$5,600,000												
Debt Service		<b>#F 000 000</b>											
Site Improvement Costs	4:	\$5,600,000											
Amount Financed for Construc	tion	\$3,875,000											
Construction Financing Rate		4.50%											
Construction Period Interest		\$174,375											
Concudent and interest		ψ,σ.σ											
Operation Period (Year 1+)													
Loan Origination Fee %		1.50%											
Loan Origination Fee		\$58,125											
Total Financial Costs		\$232,500											
% Equity of Financial Costs		40%											
Amount of Equity for Financial C	osts	\$93,000.00											
Interest Rate		4.5%											
Term		20											
Principal (Permanent Financing I	Draw)	\$3,968,000											
Debt Service													
	Total	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
	Financing Year		1	2	3	4	5	6	7	8	9	10	1:
	Debt Service		\$305,045	\$305,045	\$305,045	\$305,045	\$305,045	\$305,045	\$305,045	\$305,045	\$305,045	\$305,045	\$305,045
	Interest		(\$178,560)	(\$172,868)	(\$166,920)	(\$160,705)	(\$154,209)	(\$147,422)	(\$140,329)	(\$132,917)	(\$125,171)	(\$117,076)	(\$108,618
	Principal		(\$126,485)	(\$132,176)	(\$138,124)	(\$144,340)	(\$150,835)	(\$157,623)	(\$164,716)	(\$172,128)	(\$179,874)	(\$187,968)	(\$196,427)
Year End Rem	naining Principal	\$3,968,000	\$3,841,515	\$3,709,339	\$3,571,215	\$3,426,875	\$3,276,040	\$3,118,417	\$2,953,701	\$2,781,573	\$2,601,700	\$2,413,731	\$2,217,305

#### **PROFORMA**

		Year 0		Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Year 7		Year 8		Year 9		Year 10		Year 11
Revenue																								
Gross Income	\$	1,622,353	\$	2,450,682	\$	2,522,061	\$	2,593,441	\$	2,664,820	\$	2,736,199	\$	2,807,578	\$	2,878,957	\$	2,950,336	\$	3,021,715	\$	3,093,094	\$	3,164,473
Less:																								
Effective Gross Income	\$	1,622,353	\$	2,450,682	\$	2,522,061	\$	2,593,441	\$	2,664,820	\$	2,736,199	\$	2,807,578	\$	2,878,957	\$	2,950,336	\$	3,021,715	\$	3,093,094	\$	3,164,473
Emanas																								
Expenses Total Expenses	\$	1,546,270	\$	2,074,274	\$	2,134,690	\$	2,195,105	\$	2,255,521	\$	2,315,937	\$	2,376,353	\$	2,436,768	\$	2,497,184	\$	2,557,600	\$	2,618,016	\$	2,678,431
Net Operating Income	\$	76,083	ć	376,408	ċ	387,372	ċ	398,335	¢	409,298	ċ	420,262	ċ	431,225	ċ	442,188	ċ	453,152	ċ	464,115	ċ	475,079	ċ	486,042
Net Operating income	٠	70,063	Ą	370,408	Ą	367,372	Ą	330,333	Ą	403,236	Ą	420,202	Ą	431,223	Ą	442,100	Ą	433,132	Ą	404,113	Ą	473,073	Ą	480,042
Adjusted based on Debt	\$	6,045,031																						
Service Coverage = max	•	4 000 004																						
	\$	4,030,021																						
Max Loan less "surplus"	\$	0.075.000																						
from fundraising	Ф	3,875,000																						
Add: Inflow																								
Loan Proceeds	\$	3,875,000																						
Temporary Loan/Bridge Financing	\$	-	\$	-																				
Donations/Naming			\$	1,725,000																				
Other Source (e.g., ESDC Grant)			\$	-																				
Total Inflows	\$	3,875,000	\$	1,725,000	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Less: Capital Outlays																								
Construction & Site Prep	\$	5,600,000																						
Loan Origination 1 co	\$	58,125																						
Construction Period Interest	\$	174,375																						
Bridge Financing Fees & Interest	\$	-																						
Total Capital Outlays	\$	5,832,500	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
<b>Debt Service</b>			\$	305,045	\$	305,045	\$	305,045	\$	305,045	\$	305,045	\$	305,045	\$	305,045	\$	305,045	\$	305,045	\$	305,045	\$	305,045
Cash Flow	\$	(1,881,417)	\$	1,796,364	\$	82,327	\$	93,291	\$	104,254	\$	115,217	\$	126,181	\$	137,144	\$	148,107	\$	159,071	\$	170,034	\$	180,997
Debt Service Coverage (1.25 min)				1.23		1.27		1.31		1.34		1.38		1.41		1.45		1.49		1.52		1.56		1.59

#### **RESULTS**

The maximum bank loan was calculated based on the debt service coverage ratio (DSCR), which a measure of the resources available to pay debt service (calculated as the ratio of net operating income to debt service payments). Typically, banks like to see a ratio of at least 1.25. In this case we assume that a DSCR of 1.25 would need to be reached by at least the third year of operations after construction. This means that the maximum loan that the Theatre could realistically acquire from a bank is about \$4 million.

To determine the size of the grant that the Theatre will need to seek (or additional funding), assumptions provided by the Theatre regarding fundraising, local grants, and other private donations were considered. These assumptions are shown in the table below.

If these assumptions hold, then the maximum loan amount available for the expansion project would actually be about \$155,000 more than needed to cover the anticipated project costs.

Sources of Fund	ing
Total Construction Cost	\$5,600,000
Financing Amount (Max)	\$4,030,000
Naming Rights: Main Stage	\$150,000
Naming Rights: Black Box	\$75,000
Other Private Donations	\$1,000,000
Capital Fundraising Campaign	\$200,000
Other Local Grant Contribution	\$300,000
Funding Gap (Surplus)	(\$155,000)

#### **SCENARIO ANALYSIS**

Recognizing that the "maximum loan" scenario may not be the ideal funding solution from the Theatre's perspective, we also considered two scenarios in which the Theatre receives a loan of either \$1 million (Scenario A) or \$2 million (Scenario B). The tables below show the new "Funding Gap" under each assumption. The Theatre would need to secure an additional \$2.9 million or \$1.9 million in funding, respectively, under these assumptions.

Sources of Funding: Scenario A										
Total Construction Cost	\$5,600,000									
Naming Rights: Main Stage	\$150,000									
Naming Rights: Black Box	\$75,000									
Other Private Donations	\$1,000,000									
Capital Fundraising Campaign	\$200,000									
Other Local Grant Contribution	\$300,000									
Scenario A Financing Amount	\$1,000,000									
Funding Gap	\$2,875,000									

Sources of Funding: So	cenario B
Total Construction Cost	\$5,600,000
Naming Rights: Main Stage	\$150,000
Naming Rights: Black Box	\$75,000
Other Private Donations	\$1,000,000
Capital Fundraising Campaign	\$200,000
Other Local Grant Contribution	\$300,000
Scenario B Financing Amount	\$2,000,000
Funding Gap	\$1,875,000

The pro-formas for each scenario are shown on the next two pages. In either scenario the debt service coverage ratio is well above what a bank would require for financing. The annual cash flow (after debt service) is significantly higher in these scenarios relative to the "maximum loan" option.

#### **SCENARIO A**

	Year 0		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Revenue													
Gross Income	\$ 1,622,353 \$	;	2,450,682	\$ 2,522,061	\$ 2,593,441	\$ 2,664,820	\$ 2,736,199	\$ 2,807,578	\$ 2,878,957	\$ 2,950,336	\$ 3,021,715	\$ 3,093,094	\$ 3,164,473
Less:													
Effective Gross Income	\$ 1,622,353 \$	5	2,450,682	\$ 2,522,061	\$ 2,593,441	\$ 2,664,820	\$ 2,736,199	\$ 2,807,578	\$ 2,878,957	\$ 2,950,336	\$ 3,021,715	\$ 3,093,094	\$ 3,164,473
Expenses													
Total Expenses	\$ 1,546,270 \$	;	2,074,274	\$ 2,134,690	\$ 2,195,105	\$ 2,255,521	\$ 2,315,937	\$ 2,376,353	\$ 2,436,768	\$ 2,497,184	\$ 2,557,600	\$ 2,618,016	\$ 2,678,431
Net Operating Income	\$ 76,083 \$		376,408	\$ 387,372	\$ 398,335	\$ 409,298	\$ 420,262	\$ 431,225	\$ 442,188	\$ 453,152	\$ 464,115	\$ 475,079	\$ 486,042
Add: Inflow													
Loan Proceeds	\$ 1,000,000												
Temporary Loan/Bridge Financing	\$ 2,875,000 \$	;	(2,875,000)										
Fundraising Assumption	\$	;	1,725,000										
Other Source (e.g., ESDC Grant)	\$	;	2,875,000										
Total Inflows	\$ 3,875,000 \$	;	1,725,000	\$ -									
Less: Capital Outlays													
Construction & Site Prep	\$ 5,600,000												
Loan Origination Fee	\$ 30,000												
Construction Period Interest	\$ 90,000												
Bridge Financing Fees & Interest	\$ 172,500												
Total Capital Outlays	\$ 5,720,000 \$	;	-	\$ -									
Debt Service	\$		78,721	\$ 78,721									
Cash Flow	\$ (1,768,917) \$		2,022,687	\$ 308,651	\$ 319,614	\$ 330,577	\$ 341,541	\$ 352,504	\$ 363,467	\$ 374,431	\$ 385,394	\$ 396,357	\$ 407,321
Debt Service Coverage (1.25 min)			4.78	4.92	5.06	5.20	5.34	5.48	5.62	5.76	5.90	6.03	6.17

Memorandum March 17, 2015 Riviera Theatre Riviera Theatre- Financial Pro Forma Page 1 of 15



#### **SCENARIO B**

		Year 0		Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Year 7		Year 8		Year 9		Year 10		Year 11
Revenue																								_
Gross Income	\$	1,622,353	\$	2,450,682	\$	2,522,061	\$	2,593,441	\$	2,664,820	\$	2,736,199	\$	2,807,578	\$	2,878,957	\$	2,950,336	\$	3,021,715	\$	3,093,094	\$	3,164,473
Less:																								
Effective Gross Income	\$	1,622,353	\$	2,450,682	\$	2,522,061	\$	2,593,441	\$	2,664,820	\$	2,736,199	\$	2,807,578	\$	2,878,957	\$	2,950,336	\$	3,021,715	\$	3,093,094	\$	3,164,473
Expenses																								
Total Expenses	\$	1,546,270	\$	2,074,274	\$	2,134,690	\$	2,195,105	\$	2,255,521	\$	2,315,937	\$	2,376,353	\$	2,436,768	\$	2,497,184	\$	2,557,600	\$	2,618,016	\$	2,678,431
Net Operating Income	\$	76,083	\$	376,408	\$	387,372	\$	398,335	\$	409,298	\$	420,262	\$	431,225	\$	442,188	\$	453,152	\$	464,115	\$	475,079	\$	486,042
Add: Inflow																								
Loan Proceeds	\$	2,000,000																						
Temporary Loan/Bridge Financing	\$	1,875,000		(1,875,000)																				
Fundraising Assumption			\$	1,725,000																				
Other Source (e.g., ESDC Grant)	•	0.075.000	\$	1,875,000	•		_		_		_		_		_		\$		_		_			
Total Inflows	\$	3,875,000	Ъ	1,725,000	<b>Þ</b>	-	\$	-	\$	-	\$	-	\$	-	\$	-	Ъ	-	\$	-	\$	-	\$	-
Less: Capital Outlays																								
Construction & Site Prep	\$	5,600,000																						
Loan Origination Fee	\$	30,000																						
Construction Period Interest	\$	90,000																						
Bridge Financing Fees & Interest	\$	112,500																					_	
Total Capital Outlays	\$	5,720,000	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
Debt Service			\$	157,442	\$	157,442	\$	157,442	\$	157,442	\$	157,442	\$	157,442	\$	157,442	\$	157,442	\$	157,442	\$	157,442	\$	157,442
Cash Flow	\$	(1,768,917)	\$	1,943,966	\$	229,929	\$	240,893	\$	251,856	\$	262,819	\$	273,783	\$	284,746	\$	295,709	\$	306,673	\$	317,636	\$	328,600
Debt Service Coverage (1.25 min)				2.39		2.46		2.53		2.60		2.67		2.74		2.81		2.88		2.95		3.02		3.09

#### Appendix A: Naming Rights

The following chart shows the price of naming rights for several theaters and performing arts spaces. It should be noted that many of these prices are asking prices, and do not necessarily represent the "market" price of naming rights. It should also be noted that the time frame for which the naming rights would be in effect has a significant impact on the value of the rights.

Fundraising through Naming Rights: Case Studies										
Venue	Price	Details								
710 Main Theatre, Buffalo	\$500,000	10 years (asking)								
Burnsville Performing Arts Center	\$100,000	10 years (sold)								
	\$25,000	Stage (asking)								
ShenanArts nTelos Theatre (community theater)	\$15,000	Lobby (asking)								
Shehanaris medic (community theater)	\$10,000	Box Office (asking)								
	\$5,000	Restrooms (asking)								
Maryland Ensemble Theatre: Stage2	\$25,000	Stage2 (asking)								
Carlton Hall (Green Thumb Theatre Company), Vancouver	\$100,000	main hall (asking) studio production hall (asking)								
Don't on the Don't		outdoor courtyard (asking)								
Bard on the Beach		5 years, Main Stage (sold)								
Coronada High School Performing Arts Center	\$200 to \$1,500									
Mitchell School District Fine Arts Center		Permanent, Black Box Theater (asking) Permanent, Fine Arts Auditorium (asking)								
		25 years, Theater (asking)								
The Herma De Chase Chara Herra Form detion	\$200,000	25, years, Black Box (asking)								
The Havre De Grace Opera House Foundation	\$100,000	25 years, Gallery (asking)								
	\$1,000	25 years, Seats (asking)								
Lehigh Valley Charter High School for the Arts	\$50,000	Black Box (asking)								
College of the Desert	\$100,000	Black Box (asking)								



#### Appendix B: Economic Impact Analysis

#### Introduction

The Riviera Theatre Expansion Project ("The Project") will allow the venue to host additional performances and events throughout the year. This new activity will attract additional visitors who will spend money at not only the Theatre itself but also at surrounding businesses as part of their trip. An economic impact is generated as the Theatre spends more money to operate the facility after the expansion, including the addition of more staff. The City will also have a one-time economic impact from the construction of the Project. Camoin Associates has calculated the economic impact that the new visitor spending outside and inside the Theatre and new construction spending will have on the City of North Tonawanda in terms of jobs, wages, and sales (economic output).

#### Methodology

Camoin Associates used the EMSI economic impact model to calculate the economic impact of the Project on the City of North Tonawanda. The EMSI model allows the analyst to break down the spending by NAICS code to get an accurate account of how one dollar spent in a specific industry sector multiplies throughout the local economy (in this case, the City of North Tonawanda).

Only "net new" economic activity as a result of the project is considered. This is the impact that would not occur in the city but for the Project.

#### Construction

As previously discussed, Project construction is estimated to cost \$5.6 million. We assume that 25% of construction is sourced locally from within the City of North Tonawanda (labor and materials) and therefore we consider 25% of the total construction cost in the analysis (\$1.4 million).

This construction spending will have a one-time economic impact to the City of North Tonawanda. As shown in the table below, this impact will total 9 jobs, \$594,000 in earnings, and \$1.5 million in sales.

Or	One-Time Economic Impact: Construction									
		Direct		Indirect		Total				
Jobs		8		1		9				
Earnings	\$	571,345	\$	22,854	\$	594,199				
Sales	\$	1,400,000	\$	62,201	\$	1,462,201				

Source: EMSI Model; Camoin Associates.

#### **Off-Site Visitor Spending**

#### **Visitors**

To determine the number of new visitors, Camoin Associates first estimated the number of existing visitors based on ticket sales and box office revenue. In 2013 (the latest year for which ticket data was available) the Theatre sold a total of 36,770 tickets. We assume one visitor per ticket. There are also visitors to the Theatre that do not purchase tickets that attend non-ticketed events such as movie showings, dance recitals, etc.

In 2013, revenue from non-ticketed events equaled approximately 7% of ticketed-event revenue. However, we would expect the number of "non-ticket" visitors to be higher than that because of much lower per-person entrance fees (compared to the average \$30 ticket in 2013). For the purposes of this analysis, we assume that non-ticket visitors equal 25% of ticketed-visitors. As shown in the table below, we estimate the Theatre had approximately 45,963 visitors (patrons) in 2013.

Memorandum March 17, 2015 Riviera Theatre Riviera Theatre- Financial Pro Forma Page 2 of 15



Estimated Number of Theatre Visitors (2013)									
Number of Tickets Sold	36,770								
Visitors to Ticketed Events	36,770								
Visitors to Non-Ticket Events	9,193								
Total Existing Annual Visitors	45,963								

Source: Riviera Theatre; Camoin Associates.

To estimate the number of new annual visitors to the Theatre as a result of the Project, Camoin Associates considered the expected increase in the number of events following the methodology discussed in the previous financial analysis section. Based on that analysis it was determined that activity and attendance at the Theatre will increase by about 33% after the completion of the Project. As shown in the table below, that will result in approximately 15,000 new annual visitors.

Estimated Number of New Theatre Visitors (2013)									
Total Existing Annual Visitors	45,963								
Expected Increase	33%								
New Annual Visitors	14,971								

Note: Based on 2013 Ticket Sales and Box Office Revenue

Source: Camoin Associates.

To calculate the economic impact, only Theatre patrons from outside of North Tonawanda are considered. (That is because existing residents are presumed to spend their money in the City on food and entertainment options whether or not the Theatre expands.) We assume a significant number of visitors come from outside of the City to attend events because of the regional draw of the Theatre. For this analysis we assume that 75% of visitors come from outside of the City. As shown in the chart below, this means that approximately 11,200 visitors are non-local and therefore their spending in the City while visiting the Riviera Theatre is "net new" to the economy and would not exist *but for* the Riviera Theatre Expansion Project.

Net New Visitors						
New Annual Visitors	14,971					
Pct. Non-Local	75%					
New Non-Local Visitors	11,228					

Source: Camoin Associates

#### **Visitor Spending**

Camoin Associates estimated the average per-person per-event spending that will occur at businesses in the City of North Tonawanda. Spending information came from a recent comprehensive statistical report that examined the economic impact of nonprofit arts and culture organizations and their audiences. The report surveyed 151,800 audiences to determine a typical spending profile of attendees, beyond the cost of admission. It found that, on average, event-related expenditures totaled \$24.60 perperson per-event.<sup>1</sup>

However, not all event-related expenditures are relevant to this analysis. Camoin Associates adjusted that spending profile based on what type of spending is likely to occur in the City (e.g., spending on childcare by non-city residents takes place outside of the City). Spending was also adjusted to account for spending that will take place at the Theatre itself (e.g., concessions). After adjusting for inflation, the

<sup>&</sup>lt;sup>1</sup> Americans for the Arts, 2010. Arts & Economic Prosperity IV: The Economic Impact of Nonprofit Arts and Culture Organizations and Their Audiences.



following spending profile was developed for Riviera Theatre visitors that considers only money spent outside of the Theatre but in the City of North Tonawanda ("Off-Site Visitor Spending").

Off-Site Visitor Spending Profile				
	Spending Per		New Annual	
	Person Per Event		Spending	
Meals	\$	10.99	\$	123,362
Refreshments and/or snacks	\$	1.64	\$	18,407
Gifts/Souvenirs	\$	2.97	\$	33,400
Ground Transportation	\$	2.88	\$	32,303
Clothing & Accessories	\$	0.36	\$	3,992
Other/Miscellaneous	\$	0.48	\$	5,424
Total (per Person, per Event)	\$	19.32	\$	216,888

Source: Camoin Associates; Americans for the Arts Report

Multiplying the per-person per-event off-site visitor spending profile by the 11,200 new non-local visitors it is estimated that the Project will lead to \$216,888 in new spending annually in North Tonawanda.

#### **Economic Impact – Off-Site Visitor Spending**

Based on the new spending figure, Camoin Associates estimates that new visitors to the City as a result of the Riviera Theatre expansion will have an annual economic impact of 5 jobs, \$109,000 in earnings, and \$269,000 in sales. (Please see end of appendix for an explanation of indirect jobs, earnings and sales)

Economic Impact: Off-Site Visitor Spending						
		Direct		Indirect		Total
Jobs		4		1		5
Earnings	\$	88,383	\$	20,328	\$	108,711
Sales	\$	216,888	\$	52,419	\$	269,307

Source: EMSI Model; Camoin Associates.

#### **Operations**

Camoin Associates also considered the new annual economic impact of operating the Theatre as a result of the Project. In the previous pro-forma analysis it was estimated that operating expenditures would increase by approximately 30% or \$468,000. Expenses rather than revenues were considered in the analysis because they more accurately represent the spending by the Theatre and therefore the economic impact of operations.

Similar to the visitor spending analysis, we assume that 75% of new operating expenses are net new to the city. That is, 25% of resident visitor spending would have occurred elsewhere in the City generating an economic impact. Therefore, because operating expenditures are tied to attendance, we do not consider the expenditures associated with resident visitors. The following table shows the annual economic impact of \$350,691 in new operating outlays by the Theatre. The new annual impact from operations as a result of the Project is 9 jobs, \$139,000 in earnings, and \$384,000 in sales.

Memorandum March 17, 2015 Riviera Theatre Riviera Theatre- Financial Pro Forma Page 4 of 15



Economic Impact: Operations						
		Direct	Indirect		Total	
Jobs		8		1		9
Earnings	\$	124,111	\$	14,893	\$	139,004
Sales	\$	350,691	\$	33,111	\$	383,802

Source: EMSI Model; Camoin Associates.

#### **Total Economic Impact**

The <u>annual</u> economic impact to the City of North Tonawanda from the Riviera Theatre expansion project is 14 jobs, \$248,000 in earnings, and \$653,000 in new sales. Additionally, at noted above, there will be a <u>one-time</u> economic impact from construction of 9 jobs, \$594,000 in earnings, and \$1.5 million in sales.

Economic Impact: Off-Site Visitor Spending						
	Direct	Indirect	Total			
Jobs	4	1	5			
Earnings	\$88,383	\$20,328	\$108,711			
Sales	\$216,888	\$52,419	\$269,307			
Economic Impact: Operations						
	Direct	Indirect	Total			
Jobs	8	1	9			
Earnings	\$124,111	\$14,893	\$139,004			
Sales	\$350,691	\$33,111	\$383,802			
Combined Annual Economic Impact						
	Direct	Indirect	Total			
Jobs	12	2	14			
Earnings	\$212,494	\$35,221	\$247,715			
Sales	\$567,580	\$85,530	\$653,110			

Source: EMSI Model; Camoin Associates.

#### Appendix: What is an Economic Impact Analysis?

The purpose of conducting an economic impact study is to ascertain the total cumulative changes in employment, earnings and output in a given economy due to some initial "change in final demand". To understand the meaning of "change in final demand", consider the installation of a new widget manufacturer in Anytown, USA. The widget manufacturer sells \$1 million worth of its widgets per year exclusively to consumers in Canada. Therefore, the annual change in final demand in the United States is \$1 million because dollars are flowing in from outside the United States and are therefore "new" dollars in the economy.

This change in final demand translates into the first round of buying and selling that occurs in an economy. For example, the widget manufacturer must buy its inputs of production (electricity, steel, etc.), must lease or purchase property and pay its workers. This first round is commonly referred to as the "Direct Effects" of the change in final demand and is the basis of additional rounds of buying and selling described below.

To continue this example, the widget manufacturer's vendors (the supplier of electricity and the supplier of steel) will enjoy additional output (i.e. sales) that will sustain their businesses and cause them to make additional purchases in the economy. The steel producer will need more pig iron and the electric

Memorandum March 17, 2015 Riviera Theatre Riviera Theatre- Financial Pro Forma Page 5 of 15



company will purchase additional power from generation entities. In this second round, some of those additional purchases will be made in the US economy and some will "leak out". What remains will cause a third round (with leakage) and a fourth (and so on) in ever-diminishing rounds of spending. These sets of industry-to-industry purchases are referred to as the "Indirect Effects" of the change in final demand.

Finally, the widget manufacturer has employees who will naturally spend their wages. As with the Indirect Effects, the wages spent will either be for local goods and services or will "leak out" of the economy. The purchases of local goods and services will then stimulate other local economic activity; such effects are referred to as the "Induced Effects" of the change in final demand.

Therefore, the total economic impact resulting from the new widget manufacturer is the initial \$1 million of new money (i.e. Direct Effects) flowing in the US economy, plus the Indirect Effects and the Induced Effects. The ratio between Direct Effects and Total Effects (the sum of Indirect and Induced Effects) is called the "multiplier effect" and is often reported as a dollar-of-impact per dollar-of-change. Therefore, a multiplier of 2.4 means that for every dollar (\$1) of change in final demand, an additional \$1.40 of indirect and induced economic activity occurs for a total of \$2.40.

Key information for the reader to retain is that this type of analysis requires rigorous and careful consideration of the geography selected (i.e. how the "local economy" is defined) and the implications of the geography on the computation of the change in final demand. If this analysis wanted to consider the impact of the widget manufacturer on the entire North American continent, it would have to conclude that the change in final demand is zero and therefore the economic impact is zero. This is because the \$1 million of widgets being purchased by Canadians is not causing total North American demand to increase by \$1 million. Presumably, those Canadian purchasers will have \$1 million less to spend on other items and the effects of additional widget production will be cancelled out by a commensurate reduction in the purchases of other goods and services.

Changes in final demand, and therefore Direct Effects, can occur in a number of circumstances. The above example is easiest to understand: the effect of a manufacturer producing locally but selling globally. If, however, 100% of domestic demand for a good is being met by foreign suppliers (say, DVD players being imported into the US from Korea and Japan), locating a manufacturer of DVD players in the US will cause a change in final demand because all of those dollars currently leaving the US economy will instead remain. A situation can be envisioned whereby a producer is serving both local and foreign demand, and an impact analysis would have to be careful in calculating how many "new" dollars the producer would be causing to occur domestically.