

Guide to the

Advanced Manufacturing Industry

In Buffalo Niagara





Carolyn Powell

Business Development Director,
International
Invest Buffalo Niagara

1-716-541-1740
calendly.com/inbnpowell
cpowell@buffaloniagara.org



Letter from Carolyn

Nearly three years ago, New Flyer made their decision to invest in the future of Buffalo Niagara. Our organization, Invest Buffalo Niagara, supported the company with project management services and connections throughout the region. When presented with the business case for Buffalo Niagara, New Flyer knew it was the perfect choice.

Since then, New Flyer has been continually rewarded for their decision, hiring over 40 workers, transferring additional production to the Western New York site, and continuing the manufacture heavy-duty transit buses.

The business case made to New Flyer holds true today. Buffalo Niagara's rich manufacturing history, skilled labor, market access, partnership opportunities, hydropower, affordable utilities, and tax incentives combine to make a compelling case to any manufacturer looking to expand or relocate.

Invest Buffalo Niagara offers complimentary project management services. I've helped over 50 companies relocate or expand to Buffalo Niagara. Each time I leverage our team's economic development expertise with our extensive network of professionals in their respective fields across our region.

Flip through this book, use what you need, and give me a call. We are here and happy to help.

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Come grow your
business with us.

257 West Genesee Street, Suite 600, Buffalo, NY 14202

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New Flyer



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#5 Top State
for Capital Intensive New
Manufacturing Operations

#8 Top State
for Labor-Intensive New
Manufacturing Operations

KPMG and The Tax Foundation's *Location Matters:*
The State Tax Costs of Doing Business



CUMMINS

TOP MANUFACTURING COMPANIES

Buffalo Niagara boasts a dense cluster of local suppliers and support industries to our advanced manufacturing industry. The industry remains the third-largest employer sector in the Buffalo Niagara economy, representing over **1,600 companies** including these:

MOOG



PRAXAIR



COMPANY	FULL-TIME EMPLOYEES	COMPANY	FULL-TIME EMPLOYEES
MOOG INC.	2500	FORD MOTOR CO.	1100
GENERAL MOTORS POWERTRAIN- TONAWANDA ENGINE	1700	FRESENIUS KABI	950
GM COMPONENTS HOLDINGS	1400	AURUBIS BUFFALO INC.	650
SUMITOMO RUBBER USA LLC	1300	SAINT-GOBAIN CORP.	635
CUMMINS ENGINE COMPANY, INC.	1300	TESLA	600
PRAXAIR	1100	CUTCO CORP.	587
		DUPONT	500

Top Industries by Gross Regional Product (GRP)

Buffalo Niagara's balanced and diverse economy supports many growing industries in advanced manufacturing.

NAICS	DESCRIPTION	2017 JOBS	2017 GRP
3251	BASIC CHEMICAL MANUFACTURING	2,207	\$1,254,316,645
3363	MOTOR VEHICLE PARTS MANUFACTURING	5,215	\$1,051,417,567
3339	OTHER GENERAL PURPOSE MACHINERY MANUFACTURING	3,864	\$683,656,642
3261	PLASTICS PRODUCT MANUFACTURING	3,134	\$511,510,904
3327	MACHINE SHOPS; TURNED PRODUCT; AND SCREW, NUT, AND BOLT MANUFACTURING	3,476	\$415,766,667
3336	ENGINE, TURBINE, AND POWER TRANSMISSION EQUIPMENT MANUFACTURING	2,226	\$345,404,482
3279	OTHER NONMETALLIC MINERAL PRODUCT MANUFACTURING	1,237	\$320,154,671
3329	OTHER FABRICATED METAL PRODUCT MANUFACTURING	1,970	\$301,674,630
3353	ELECTRICAL EQUIPMENT MANUFACTURING	1,719	\$272,563,492
3345	NAVIGATIONAL, MEASURING, ELECTROMEDICAL, AND CONTROL INSTRUMENTS MANUFACTURING	1,747	\$269,553,976
3399	OTHER MISCELLANEOUS MANUFACTURING	2,420	\$241,322,669
3324	BOILER, TANK, AND SHIPPING CONTAINER MANUFACTURING	1,814	\$226,377,182
3241	PETROLEUM AND COAL PRODUCTS MANUFACTURING	723	\$214,391,293
3231	PRINTING AND RELATED SUPPORT ACTIVITIES	2,532	\$207,052,861
3314	NONFERROUS METAL (EXCEPT ALUMINUM) PRODUCTION AND PROCESSING	1,043	\$204,143,218
3262	RUBBER PRODUCT MANUFACTURING	1,580	\$191,993,912
3364	AEROSPACE PRODUCT AND PARTS MANUFACTURING	1,016	\$178,797,995
3344	SEMICONDUCTOR AND OTHER ELECTRONIC COMPONENT MANUFACTURING	1,252	\$173,694,520
3323	ARCHITECTURAL AND STRUCTURAL METALS MANUFACTURING	1,710	\$169,694,185
3271	CLAY PRODUCT AND REFRACTORY MANUFACTURING	1,237	\$152,973,261

WORKFORCE & TALENT OVERVIEW

Buffalo Niagara has a large and affordable labor pool for advanced manufacturing companies to leverage. A company spends about \$6,000 less on an electronic engineer in Buffalo than one in Cleveland and about \$23,000 less than one in Philadelphia.

66,000+ ADVANCED MANUFACTURING EMPLOYEES

			Median Hourly / Annual Wages			
HS DIPLOMA +	TOTAL EMPLOYED IN INDUSTRY GROUP (2017)	% OF TOTAL JOBS IN INDUSTRY GROUP (2017)	BUFFALO NIAGARA	CHICAGO, IL	CLEVELAND, OH	PHILADELPHIA, PA
ELECTRICAL, ELECTRONIC, AND ELECTROMECHANICAL ASSEMBLERS, EXCEPT COIL WINDERS, TAPERS, AND FINISHERS	1,764	3.0%	\$15.25	\$14.62	\$15.34	\$16.61
ASSEMBLERS AND FABRICATORS, ALL OTHER, INCLUDING TEAM ASSEMBLERS	5,591	9.5%	\$15.36	\$12.69	\$13.92	\$15.28
MACHINISTS	2,522	4.3%	\$20.81	\$17.66	\$19.31	\$22.86
WELDERS, CUTTERS, SOLDERERS, AND BRAZERS	1,104	1.9%	\$19.21	\$19.28	\$18.39	\$22.42
CUTTING, PUNCHING, AND PRESS MACHINE SETTERS, OPERATORS, AND TENDERS, METAL AND PLASTIC	1,010	1.7%	\$16.98	\$16.56	\$15.88	\$17.41
INDUSTRIAL MACHINERY MECHANICS	852	3%	\$25.32	\$26.15	\$24.81	\$25.65
BACHELOR'S DEGREE +						
INDUSTRIAL PRODUCTION MANAGERS	498	0.8%	\$114,019	\$95,784	\$96,844	\$111,467
GENERAL AND OPERATIONS MANAGERS	1,306	2.2%	\$90,591	\$109,616	\$96,574	\$128,897
INDUSTRIAL ENGINEERS	1,257	2.1%	\$80,672	\$78,353	\$81,036	\$93,225
MECHANICAL ENGINEERS	867	1.5%	\$79,604	\$84,905	\$77,313	\$88,545
ELECTRICAL ENGINEERS	276	0.5%	\$77,045	\$90,313	\$83,699	\$100,027
ELECTRICAL AND ELECTRONICS ENGINEERING TECHNICIANS	202	0.3%	\$48,921	\$68,390	\$60,299	\$61,568

“Manufacturing is in their family fabric. People in Buffalo grew up with their parents on the line. They want to be engineers—it’s in their fabric.”

- Ben Harp, Polymer Conversions



STRONG EDUCATION & TRAINING

Buffalo Niagara boasts 21 colleges and universities. Within 100 miles of downtown Buffalo, there are 37 colleges and universities, expanding the labor pool from which a company can hire, even greater.

Advanced Manufacturing Annual Grads by Degree

BUFFALO NIAGARA PROGRAMS	ASSOCIATES DEGREE	BACHELOR'S DEGREE	MASTER'S DEGREE	DOCTORAL DEGREE	TOTAL
ENGINEERING	112	1541	833	96	2582
ENGINEERING TECHNOLOGIES	264	460	110	0	834

World renowned engineering schools

The **State University of New York at Buffalo** (UB), **Rochester Institute of Technology** (RIT) and the **University of Rochester** (U of R) are all ranked in US News and World Reports *Top 100 Colleges and Universities*. **Alfred University's Ceramic Engineering** school is widely regarded as one of the *top in the nation* and provides students with practical experience solving real-world ceramics problems, often with industrial partners as mentors.

University at Buffalo

[New York State's largest public engineering school]

- Mechanical Engineering
- Electrical and Electronics Engineering
- Industrial Engineering

University of Rochester

- Bioengineering and Biomedical Engineering
- Mechanical Engineering
- Electrical and Electronics Engineering

Alfred State University

- Ceramics Sciences and Engineering

Rochester Institute of Technology

- Mechanical Engineering
- Electrical and Electronics Engineering
- Computer Software Engineering

“ Our university system puts us at a strategic advantage over our competitors. - Steve Davis, President, Tapecon



TAPECON

Additional Training Opportunities

Alfred State University

- Computerized Design and Manufacturing

These programs, **ranked #1 and #4 in the nation respectively by US News and World Reports**, provide employers with technicians capable of functioning in and adapting to a rapidly changing environment and are supported by state-of-the-art facilities.

SUNY Erie

SUNY Erie Corporate Training can supply cost-effective, customized training solutions to increase your employees' technical skills development, resulting in a highly skilled, efficient and dedicated workforce.

Manufacturing/technical skills course offerings:

- AutoCAD
- Basic and Advanced Electricity
- Blueprint Reading
- Brazing and Soldering
- Computer Numerical Control (CNC)
- Geometric Dimensioning and Tolerancing (GD&T)
- Hydraulics
- Industrial Refrigeration
- Machine Tool Technology
- Mastercam
- Pneumatics
- Programmable Logic Controller (PLC)
- Shop Math
- Welding

Apprenticeship Programs

In Buffalo Niagara, management and labor are coming together to jointly problem-solve and ensure supply meets demand. They're keeping the region's rate of work stoppages low, strengthening job training and workforce development initiatives, and contributing to economic prosperity in the region.



POLYMER CONVERSIONS



MOOG



SEALING DEVICES

Charter School for Applied Technologies

At CSAT, every day is career day. CSAT's school-to-career component prepares all students, including those who may not be college bound, for the world of work. Career preparation activities begin in kindergarten and develop as students get older, culminating in job shadowing and internships in high school.



NEW: Northland Workforce Training Center (NWTC)

NWTC is an ambitious initiative helping to fill the advanced manufacturing labor pipeline. NWTC provides for-credit technical skills programs taught on site by SUNY Alfred State College and SUNY Erie. Along with technical skills, NWTC also has wrap-around services to equip students with the soft skills and adaptability needed for today's workplace.

- Welding Technology
- Electrical Construction and Maintenance
- Machine Tool Technology
- Energy Utility Technology
- Mechatronics
- CNC Precision Machining

*NWTC is located in Northland Central at 683 Northland Avenue, also the future home of Buffalo Manufacturing Works. Northland Central is part of the Northland Beltline development initiative.



MANUFACTURING ECOSYSTEM

Buffalo is dubbed ‘The City of Good Neighbors’—and for good reason. You don’t have to go it alone in Buffalo Niagara. We have plenty of associations ready and willing to help.

Buffalo Manufacturing Works | buffalomanufacturingworks.com

A collaboration between leading industry, research and academic partners, Buffalo Manufacturing Works helps local companies gain a sustainable, competitive advantage by developing and implementing cutting-edge manufacturing technologies, and enhancing productivity.

Buffalo Niagara Manufacturing Alliance (BNMA) | bnmalliance.com

BNMA is the largest non-profit organization representing manufacturers in the Buffalo Niagara region.



Buffalo Niagara Partnership (BNP) Manufacturing Council | thepartnership.org

The BNP Manufacturing Council is a large and influential cross-section of private sector leaders in the production and fabrication industries dedicated to promoting the growth and expansion of manufacturing throughout the region.

Center of Excellence in Materials Informatics (CMI), University at Buffalo | buffalo.edu/cmi

CMI leverages UB’s materials science, big data analytics, and advanced manufacturing expertise to drive critical R&D activities. The CMI is a network of 75 faculty members engaged in promising innovation with brand applications including new techniques for 3D printing of metals, safe and longer lasting hip implants, low-cost solar cells and much more.

International Trade Gateway Organization (ITGO) | itgobuffaloniagara.com

ITGO’s mission is to build upon the capacity of existing organizations and leverage the advantages of our region – an extensive transportation system, experienced logistics and trade networks, positioning as part of the third largest and fastest growing metropolitan region in North America, and our history and reputation since the nineteenth century – as a center for trade and commerce.

Insyte Consulting | insyte-consulting.com

Insyte Consulting helps WNY manufacturing and technology companies thrive by creating and leading customized improvement projects using proven management tools and methods.

Manufacturers Associate of the Southern Tier (MAST) | s446204282.initial-website.com

MAST is committed to ensuring the best possible business environment for manufacturing to prosper, focused on Allegany, Cattaraugus and Chautauqua Counties.

The Center for Industrial Effectiveness, University at Buffalo (TCIE) | buffalo.edu/tcie

The TCIE connects businesses and organizations with assets of the University at Buffalo School of Engineering and Applied Sciences to improve operations. They develop excellence in people, processes and technology. They connect you with incentives. And, they help you collaborate with UB centers, programs, or other collegiate institutions throughout the country.

World Trade Center Buffalo Niagara (WTCBN) | wtcbn.com

WTCBN is a not-for-profit organization with one mission – to help companies find success beyond their domestic markets.

TAXES & INCENTIVES

Top Tax Advantages in New York State:

**0% STATE
CORPORATE
INCOME TAX**

FOR MANUFACTURING COMPANIES

**0% INVENTORY
TAX**

**0% SALES TAX ON
ALL MACHINERY
& EQUIPMENT**

UTILIZED IN MANUFACTURING PROCESSES

5% FULLY REFUNDABLE TAX CREDIT

FOR COMPANIES NEW TO NYS ON ANY CAPITAL SPENDING UP TO \$350 MILLION FOR THE FIRST FIVE YEARS OF OPERATIONS IN THE STATE (SPENDING OVER \$350 MILLION REFUNDABLE TAX CREDIT IS 4%)

Tax Incentive Program Highlights

Excelsior Jobs Program

Excelsior provides allocations of fully refundable tax credits to manufacturing companies that create at least 5 jobs. With NYS corporate income tax rate at **0% for manufacturers**, Excelsior credits are effectively cash grants in the form of tax refunds. Excelsior credits are available to new and existing NYS companies. Allocations are based on job creation, wages/salaries, capital investments and investments in research & development.

Brownfield Tax Credits

Certain sites that have been remediated under the NYS Brownfield Cleanup Program (BCP) are eligible for highly lucrative, fully refundable tax credits that can be realized by companies making investments on the sites. Credits can be up to 22% of tangible property investments (including building and construction).

Property Tax and Other Abatements through Local Industrial Development Agencies (IDAs)

Local IDAs have the ability to offer tax incentive programs that provide a major savings on the following; 1) real estate property taxes - savings through a PILOT (payment in lieu of taxes) provides savings on County, Municipal and School taxes based upon the value added by new construction or major renovation, 2) sales tax savings on the purchase of non-production equipment and construction materials, and 3) a mortgage recording tax exemption.

Training Incentives

Tax Credits may be awarded for costs associated with an eligible training program for current and new employees, or for internship programs for current students, recent graduates and recent members of the armed forces.

- **Employee Training Incentive Program** – a credit of 50% of eligible training costs, up to \$10,000 per employee receiving eligible training.
- **Internship Program** – a credit of 50% of the stipend paid to an intern up to \$3,000 per intern.

The On the Job Training Programs in New York State can reduce the cost of training a new employee by up to 80%. This program also offers a free recruiting service for filling vacancies within the company.

POWER & UTILITIES

Industrial infrastructure is in Buffalo Niagara's DNA, as our reputation as a **manufacturing powerhouse dates back to the 1800s**. The region boasts some of the most well-developed electric, natural gas, water, and wastewater utility infrastructure. We also enjoy some of the most competitive industrial electricity rates in the US. Taken together, you've got the foundation on which manufacturing success is built.

Infrastructure is, of course, site-specific. The experienced team at Invest Buffalo Niagara is ready to help identify industrial buildings and sites in our region that have the utility capacities your manufacturing operation needs.

To make Buffalo Niagara even more cost competitive, the following energy and utility programs are available as well:

Low-Cost Hydropower

Low-cost hydropower has been reserved by New York State law for companies planning to build or expand in the Buffalo Niagara region. The program offers renewable hydroelectric power at an extremely affordable cost. Allocations depend on project size and scope, in particular, new job creation. This program is administered by the New York Power Authority (NYPA) and is allocated through a competitive application process. An eligible project must be physically located in the State of New York and within a 30-mile radius of the NYPA Niagara Power Project in Lewiston.

Eligibility Criteria

- Hydropower is allocated based on job creation, new electrical demand, proximity to power project, and project time frame
- Generating new electrical demand (minimum of 100kW)
- Planning expansion or relocation within a 30-mile radius of the Niagara Power Project in the U.S.
- Completing proposed project within three years (proposed project should start construction within one year of approval)
- Willing to commit to create and maintain jobs, and use the power for the proposed project

Reduced Rates for Excelsior Companies (Electric and Natural Gas)

National Grid and NYSEG (electric) and National Fuel (natural gas) provide reduced utility rates for economic development projects accepted into the Excelsior Jobs Program. Existing customers must increase demand, while new customers must add new load. Qualified projects are eligible for discounted rates for up to a ten-year period.

Utility Infrastructure Programs

Electric and natural gas utilities in Buffalo Niagara provide targeted programs for companies that look to expand their business into the region. Programs can alleviate costs associated with energy efficiency upgrades, infrastructure improvements, capital investments, and brownfield redevelopment, and other development costs.

Municipal Power Districts

Certain municipalities in the Buffalo Niagara region own and operate their own public utility power generation infrastructure, offering lower power rates to its commercial & industrial power users. Municipal utilities set their own rates and each have a set amount of power available.



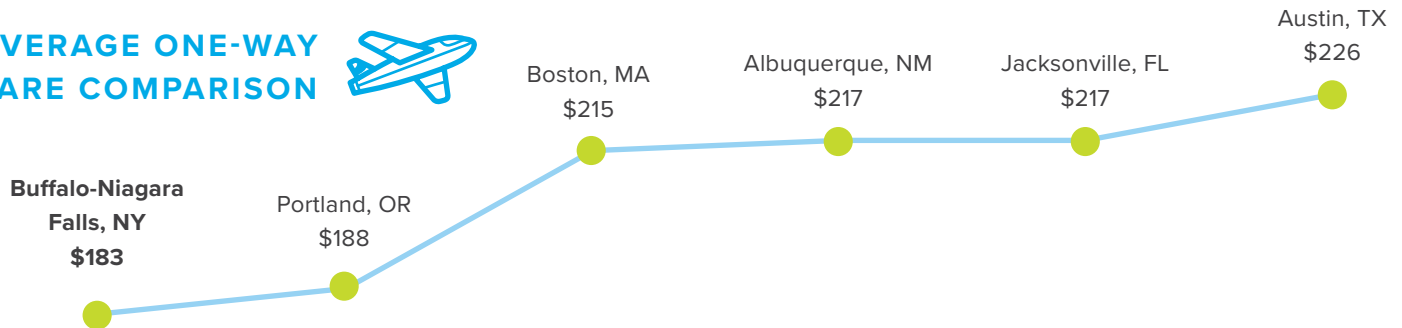
STRATEGIC LOCATION



Easily Accessible

100 daily flights with non-stop service to 22 cities and 26 airports. Since 2004, planes have been grounded at Buffalo Niagara international airport due to snow an average of only 4.25 hours/year.

AVERAGE ONE-WAY FARE COMPARISON



Seven International Ports of Entry

Facilitating \$78 billion in annual trade between Canada and the U.S.



HIGHWAY ● Auto/Truck (4)

The region's 3,675-mile network of major interstates, state routes and local arterial roads is a critical factor in enabling effective connections for the region's economy. Approximately 75% of the region's freight travels by truck. Due to the heavy reliance on truck transportation, the highway system is paramount in the efficient movement of freight.



RAIL ● Rail (2)

The region is served by four Class I railroads (CSX Transportation, Norfolk Southern, Canadian Pacific Railway, and Canadian National Railway), one Class II (or Regional) railroad, and three Class III (or Short Line) railroads. Considered one of the largest railheads in the U.S., the area features over 1,000 miles of track.



PORT ● Water (1)

The Port of Buffalo, the first major U.S. Port of Call encountered when entering the Great Lakes, consists of 28 terminals, including the three terminals of the Gateway Trade Center–Metroport, a third-party-operated terminal. Two hundred acres located on or near deep water and one set aside for bulk cargo storage. The Port features a 230-ton American crawler crane and a heavy-duty front-end loader.

International Airports

Intermodal Yards



ROADWAY CONGESTION AND DELAY COMPARISON

METRO AREA	ANNUAL HOURS OF DELAY	% LANE MILES CONGESTED
Buffalo-Niagara Falls, NY	40	21%
Charlotte-Gastonia-Concord, NC-SC	43	24%
Detroit-Warren-Livonia, MI	52	24%
Minneapolis-St. Paul-Bloomington, MN-WI	47	28%
Austin-Round Rock, TX	52	28%
Phoenix-Mesa-Scottsdale, AZ	51	31%
Portland-Vancouver-Beaverton, OR-WA	52	33%

2014 Source: Texas Transportation Institute

AVERAGE COMMUTE TIME:

21.6 MINUTES



4.4 minutes faster than the national average

Source: U.S. Census Bureau, 2015

REAL ESTATE OPTIONS

Shovel-Ready

Bethlehem Redevelopment Site

148 total Light-industrial commercial acres (NYSDEC Certificate of Completion for 88 acres). 6.5 miles from downtown Buffalo, 105 miles to Toronto, and 187 miles to Cleveland. New York Power Authority Hydropower Zone with possible additional tax credits available. Rail service, deep water Great Lakes Port, and minutes to Canada bridges.

STAMP

Western New York Science and Technology Advanced Manufacturing Park (STAMP) is a 1250 acres high-tech manufacturing mega site. Located midway between Buffalo and Rochester accessing a 2.3million population. Low-cost hydropower and 10 year NYS tax free incentives.



Existing Buildings

100 Center Drive (Orchard Park)

- industrial property for lease
- 154,000 SF manufacturing/distribution facility on 16.5 acres
- 9 dock doors and 1 grade level door
- less than 15 miles from downtown Buffalo



5555 Porter Avenue (Niagara Falls)

- warehousing, distribution, light manufacturing, flex office
- 116,163 SF former big box store on 9.14 acres
- 18' clear at front sloping to 16' clear at rear 40' x 60' column spacing 2 dock doors, 1 grade door
- minutes from Canadian border



Northland Central at 683 Northland (Buffalo)

- light industrial
- first floor 5,866 SF or 6,159 SF available; first floor 7,579 SF, 9,505 SF or 32,818 SF coming available. Office space also available.
- high bay space (40')
- access to equipment, technical assistance, & workforce training



BUSINESS EXPANSION CHECKLIST

When starting to consider your business expansion, here's a helpful checklist of key items to consider in the site selection process:

- Have a **solid business plan** defining your goals and needs.
- Secure the necessary **financing**.
- Identify possible **geographic locations** for your business.
- **Connect with experts**, like Invest Buffalo Niagara, in your region that can help facilitate your project.
 - Develop and share a **Request for Information (RFI)** to quickly gather the information and data most important to your decision-making process. You'll want to make sure that the location you choose has the right business resources available now and in the future. These considerations may include:
 - Regional demographic information
 - Real estate options
 - Workforce availability
 - Labor costs
 - Operational costs
 - Any other data that is important to your company's success
 - **Evaluate** RFI responses. Conduct **site visits** in the "short list" of regions you would like to visit. Initiate **incentives negotiation** with each region/state still under consideration.
 - **Choose a location** you – and your employees – will want to call home.
 - Engage in lease or **purchase negotiations** with land/building owner.
 - Ribbon cutting and get to know your new community!

TIPS:

#1

Important to properly sequence real estate, with incentives, public relations, etc.

#2

When preparing an RFI, it is important to provide project parameters (e.g. projected job creation; capital investment; type of operation; estimated decision-making timeline).

#3

It is the responsibility of each EDO to completely and accurately respond to your RFI in a timely manner.

#4

Avoid location biases based on preconceived notions – let the data speak for itself.

“ After considering many alternatives, we concluded that an expansion to Buffalo Niagara was the wisest choice. We very much appreciate the guidance provided by the Invest Buffalo Niagara team and their partner agencies. ”

- Bruce Whitehouse, President & Owner, AMDOR



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business with us.

257 West Genesee Street, Suite 600, Buffalo, NY 14202

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