

East Side Airport Metro Rail Extension Analysis

**CRT Public Meeting
27 October 2021**

Presenter: Douglas Funke

President, Citizens for Regional Transit

Discussant: Lizzie Taber

Cornell High Road Fellow



Background, Why Light Rail?



CRT Mission: Connect Buffalo-Niagara with an Integrated Transit System

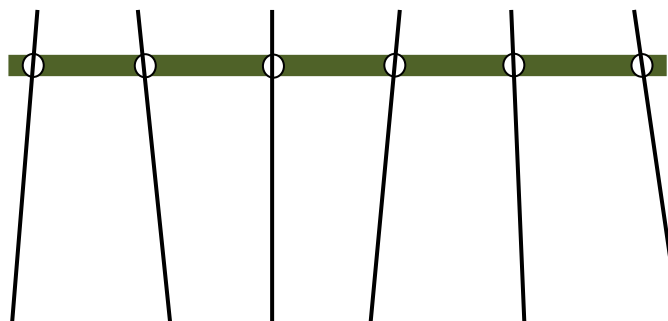


Robust Bus & Bike Networks Interconnected with **Fast** Metro Rail Spine



Light Rail Rapid Transit¹

600 – 700 passengers per 4-car train
Approx. 4,000 per hour
50 mph between stops
Dedicated ROW
5.2 million passengers / year (23%)



Bus¹

50 passengers per bus
300 per hour per route
1,800 per hour across 6 routes
35 mph between stops
Shares with traffic
17.5 million passengers / year (77%)

Note: Kensington Expressway carries over 60,000 cars per day
peak load just under 8,000 per hour²

1. NFTA. Service Guidelines & Delivery Standards. 2021 Revision

2. New York State Traffic Volume Viewer, 5/13/2021.

Proposed Eastward Extension


#2 Clinton
#4 Broadway
#6 Sycamore
#8 Main
#14 Abbott
#15 Seneca
#16 South Park
#18 Jefferson
#19 Bailey
#22 Porter-Best
#23 Filmore-Hertel
#24 Genesee
#26 Delavan
#46 Lancaster
#47 Youngs Road


EASTSIDE – AIRPORT METRO RAIL EXTENSION

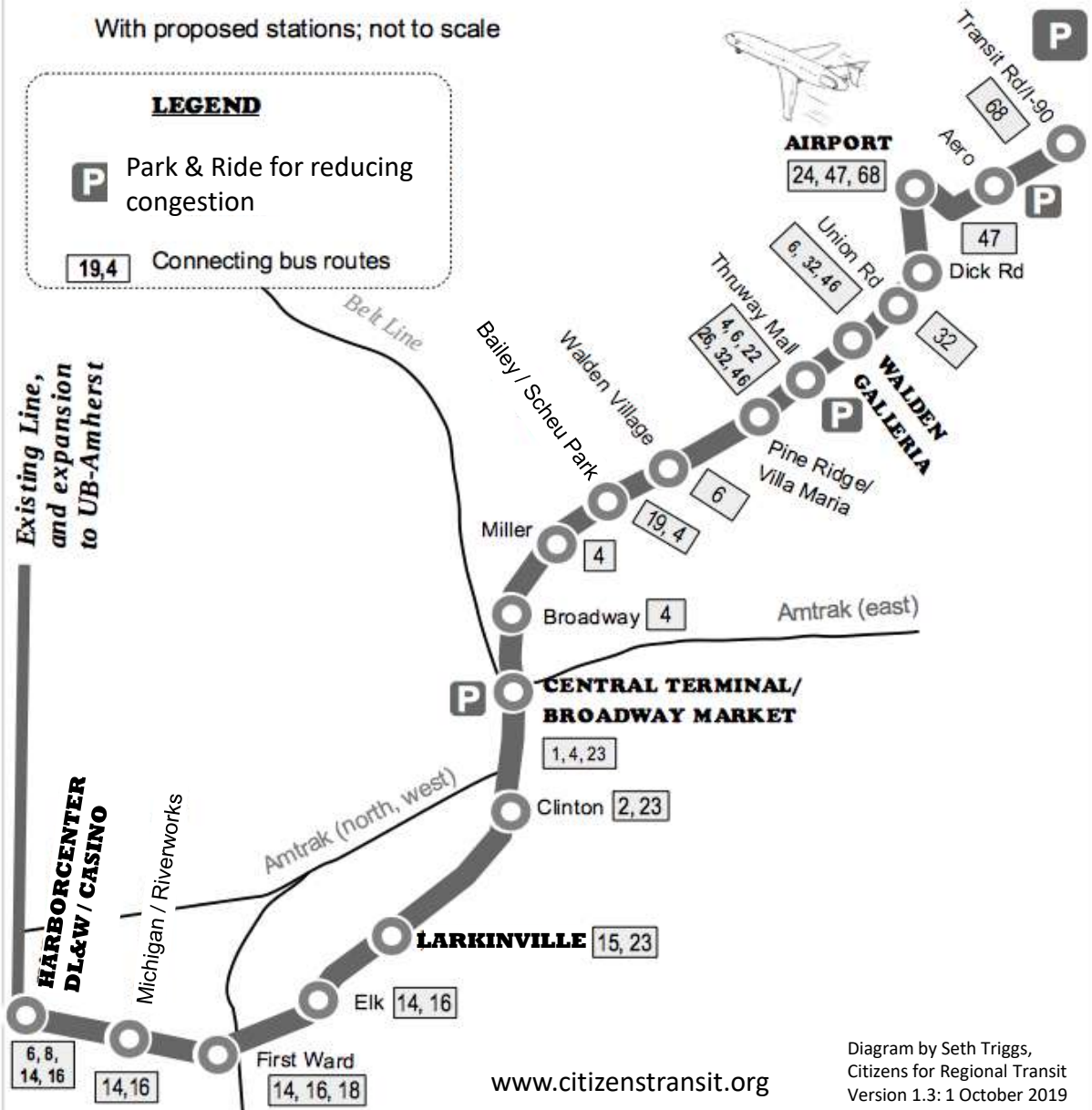
 CITIZENS for REGIONAL TRANSIT

With proposed stations; not to scale

LEGEND

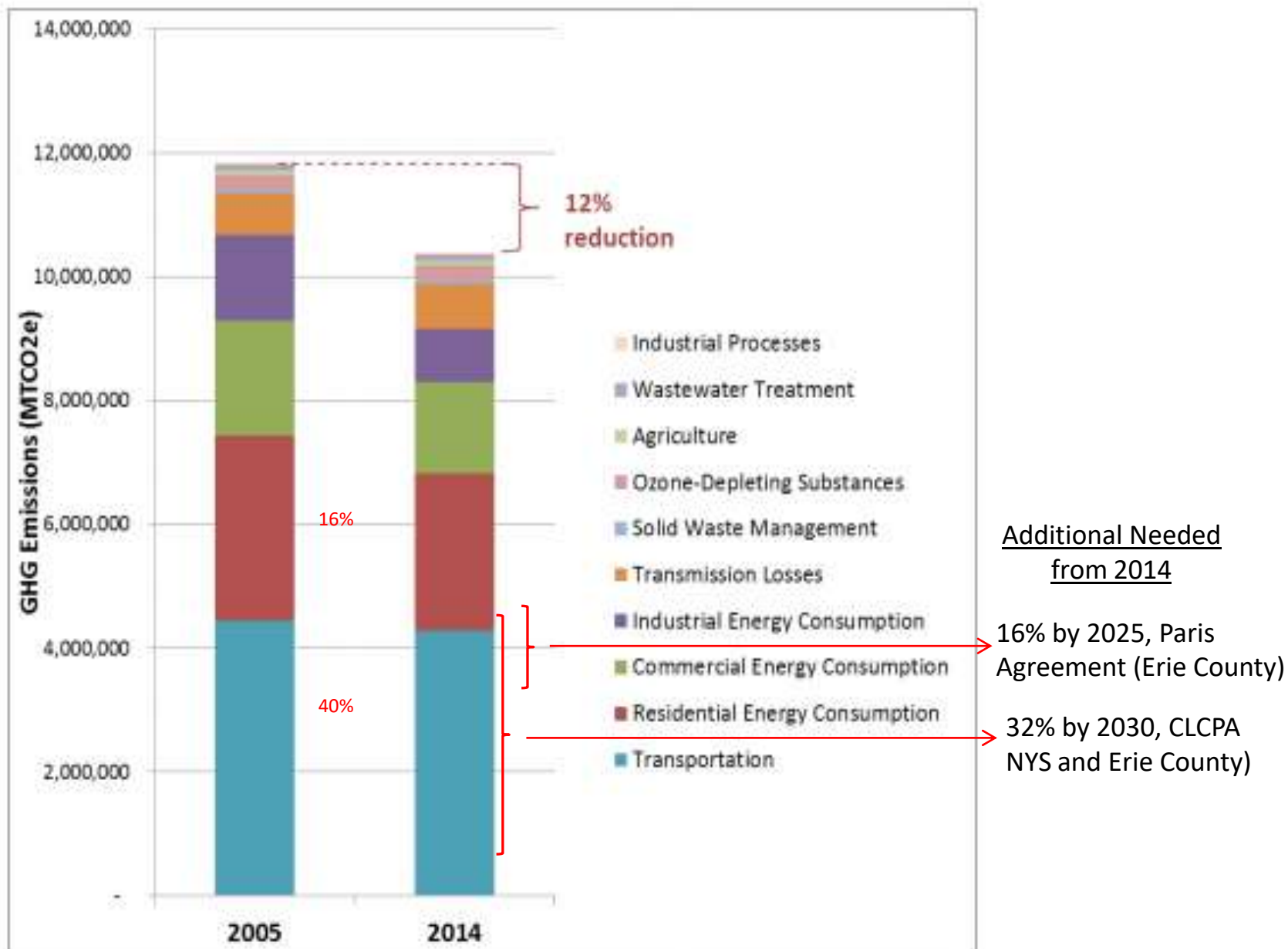
 Park & Ride for reducing congestion

 Connecting bus routes



www.citizenstransit.org

Diagram by Seth Triggs,
Citizens for Regional Transit
Version 1.3: 1 October 2019

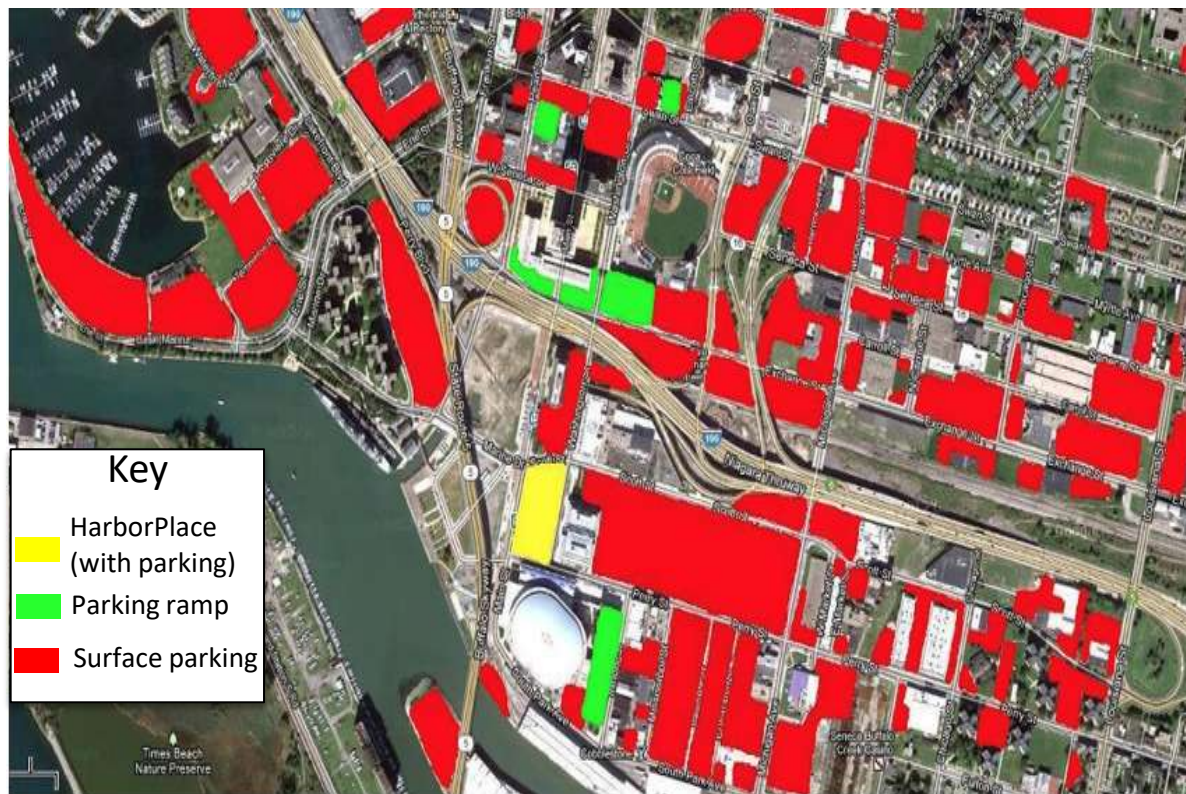


Source: Erie County Commits to Paris



CITIZENS *for* REGIONAL TRANSIT

Buffalo's Waterfront (Zoomed-Out): without transit, a congestion and parking magnet



Picture courtesy of Mark Paradowski from the Preservation-Ready Sites 7

Pictures by: Doug Funke, CRT President



CITIZENS *for* REGIONAL TRANSIT

Switching to Electric Cars Alone Won't Solve the Problem!



National Archives at College Park, Public Domain, via Wikimedia Commons



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- Every ton of cement generates 1 ton of CO₂¹
- Every ton of steel generates 1.8 ton of CO₂¹
- 50% of cars (by volume) are plastic¹
- An estimated 4 billion tires are currently in landfills and stockpiles²
- Cobalt mining for batteries uses child labor without protective equipment³
- Lithium extraction uses 500,000 gallons of water per ton⁴

1 Gates, Bill. How to Avoid a Climate Disaster. 2021

2 World Business Council for Sustainable Development, 200.8

3 Institute for Energy Research, 2020

4 Amnesty International, The Dark Side of Electric Car, Exploitive Labor Practices, 2017



The Math Is Simple

What does it take to move 700 people?

1 train (Four cars)



14 buses



Anywhere from 140 to 700 cars* (270 shown here)



**Every 10 minutes!
In each direction
of service!**

Adapted from: Transport Sydney Trains (<http://www.sydneytrains.info/about/environment/>)

* From NFTA Service Design Guide – 2021 Update



Transit is a Life-Critical Service for those who Depend on it!

... for getting to jobs, medical appointments, education, recreation...



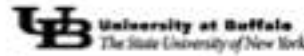
Picture by: Jim Gordon, CRT Treasurer



Picture by: Doug Funke, CRT President



Community Support for Transit Reflected in One Region Forward Outreach



School of Architecture and Planning
UB Regional Institute

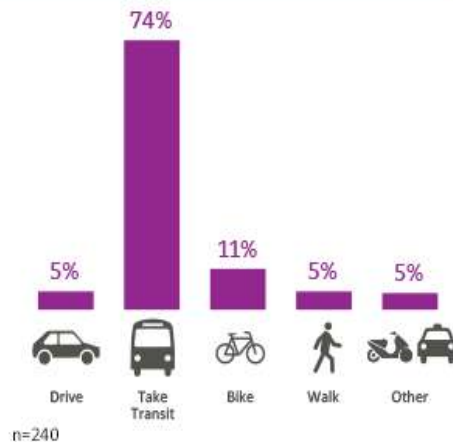


Question #3: To improve our transportation system, our top priority should be making it easier to...

- A. Drive
- B. Take Transit
- C. Bike
- D. Walk
- E. Other

A large majority of citizens (74%) responded that **making it easier to take transit** was key to improving our region's transportation system.

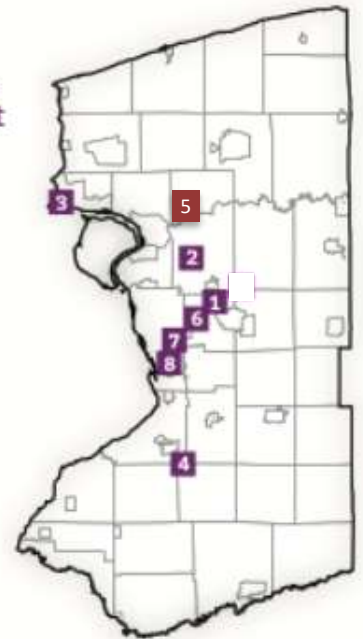
To improve our transportation system, we should make it easier to...



Where would you expand public transit to?

Destinations citizens wanted public transit expanded to

- 1 Airport
- 2 UB North Campus
- 3 Niagara Falls
- 4 Southtowns
- 5 Northtowns
- 6 Walden Galleria
- 7 Central Terminal
- 8 Larkin District



n=157



CITIZENS for REGIONAL TRANSIT

Community Leaders Who Have Joined with Us to Demand a Transit Revolution!

City of Niagara Falls
(Aug 2016)
- Mayor Paul Dyster
- NF City Council



City of Tonawanda
- Mayor Rick Davis
(Mar 2015)



Erie County
- Executive Mark Poloncarz (July 2018)



City of Buffalo
- The Buffalo Common Council
(Dec 2015)



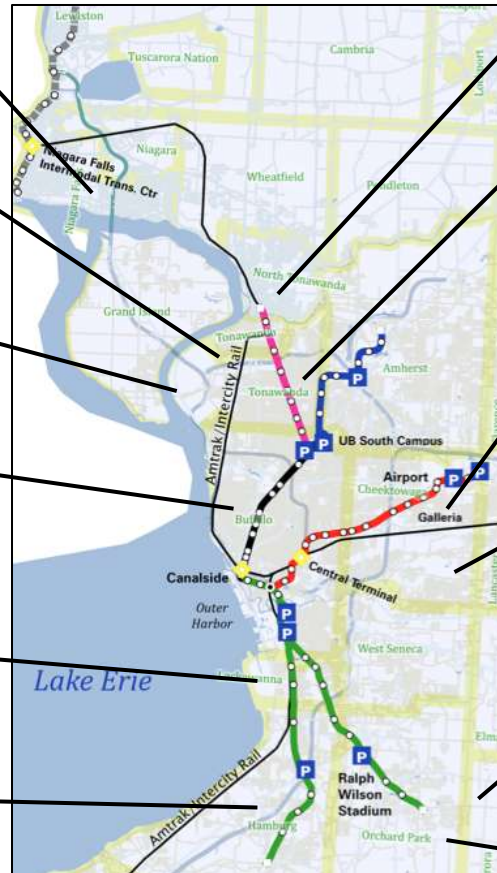
City of Lackawanna
- Lackawanna City Council (Sep 2018)



Village of Hamburg
- Mayor Tom Moses (Feb 2018)
-- Village Council (Nov 2015)



1. Extend Metro Rail along highest demand corridors
2. Provide inter-modal connectivity
3. Establish long-term sustainable transit funding



City of North Tonawanda
- Mayor Arthur Pappas
(Dec 2015)



Town of Tonawanda
- Supervisor Joseph Emminger (Feb 2019)
- Town Board (Feb 2019)



Town of Cheektowaga
- Town Council
(Oct 2015)



Town of Lancaster
- Town Council (Dec 2016)



Village of East Aurora -
Mayor Alan Kasprzak (Oct 2015)



Village of Orchard Park -
Mayor Jo Ann Litwin Clinton (Oct 2015)



CITIZENS for REGIONAL TRANSIT

Organizations In Support

Will You Join Us?

1. Amalgamated Transit Union (ATU) 1342
2. Alpha Kappa Chi
3. Buffalo-Niagara Gardening.com
4. **BBN Homes LLC**
5. **Bijou Grill**
6. **Buffalo Computer Graphics**
7. **Buffalo Development Corporation**
8. **Buffalo First, Inc.**
9. **Buffalo Transportation Pierce Arrow Museum**
10. Buffalo Urban League
11. Buffalo and Erie County Botanical Gardens
12. Buffalo Transit Central
13. Campaign for Greater Buffalo
14. Catholic Charities
15. **Carmina Wood Morris**
16. Cazenovia Community Resource Center
17. Central Terminal Restoration Corporation
18. Challenger Community News
19. **Ciminelli Real Estate Corporation**
20. Citizens 4 the Beautification of Lovejoy
21. Coalition for Economic Justice (CEJ)
22. Communications Workers of America (CWA 1133)
23. Concerned Ecumenical Ministry
24. Courtland Avenue Block Club
25. Daemon College Center for Sustainable Communications and Civic Engagement
26. **Douglas Development Corporation**
27. **Eco_Logix Studio, Architecture & Engineering, PLLC**
28. Earth Spirit Educational Services Inc.
29. **Environmental Services Group**
30. Fillmore Corridor Neighborhood Coalition
31. Fillmore Forward
32. Friends of Times Beach
33. The Fruitbelt Coalition
34. Go Buffalo Niagara
35. Geo Operative
36. Global Villages Coalition
37. GoBike Buffalo
38. Greater Eastside – Field of Dreams Block Club
39. **Hostel Buffalo-Niagara**
40. Housing Opportunities Made Equal
41. **Human First Ergonomics**
42. Interfaith Peace Network of WNY
43. iT Garden
44. Journey's End Refuge Service
45. **Kaleida Health**
46. Ken-Ton Chamber of Commerce
47. **The Knoer Group, PLLC**
48. Latin American Cultural Association
49. League of Women Voters (Buffalo Niagara)
50. Lincoln Memorial Church (UMC)
51. Masten Block Club Coalition
52. The Merry-Wood Block Club Association
53. NAACP Buffalo Branch
54. Network of Religious Communities
55. Partners for a Livable Western NY
56. Partnership for the Public Good (PPG)
57. Prisoners Are People Too
58. PUSH Buffalo (People United for Sustainable Housing)
59. Re-Energize Buffalo
60. Restore Our Community Coalition (ROCC)
61. Riverside Salem UCC / DOC
62. Roebling Avenue Block Club
63. **Sail Buffalo**
64. Sierra Club (Niagara Group)
65. South Fillmore Block Club
66. University District Community Development Association
67. University Park Historic Block Club
68. VOICE Buffalo
69. Wellness Institute of Greater Buffalo
70. Westside Stories
71. **WNY Law Center**
72. WNY Peace Center
73. **Young and Wright Architectural**
74. 21st Century Park on the Outer Harbor

Signers by Category

18 Business leaders

56 Community organizations



Business Community Support for Transit Investments

“At the end of the day, we will only succeed in creating more opportunity through connecting people with transit, through connecting people by putting the jobs where they are accessible and by not continuing to spread and sprawl them out all over”

- ESD Chairman, Howard Zemsky

“It means jobs will be created as we build our rail line to Amherst. It also means **city residents will be able to get to jobs in our largest suburb**”

- Buffalo Mayor, Byron Brown

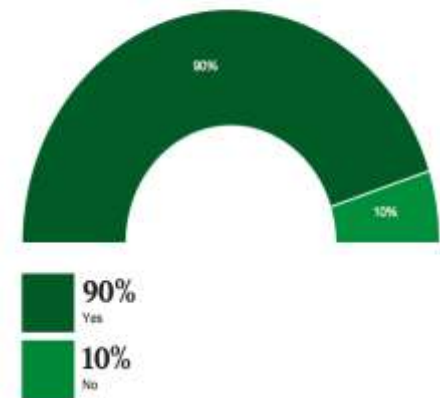
Cuomo’s support for more miles of Metro Rail is “huge”. “How many years have we seen pushback on that? We don’t see that anymore.”

The extension to Amherst will address the “transportation night mere commuters face on a daily basis.”

- Erie County Executive, Mark Poloncarz

BUSINESS PULSE

Results: Do you think it would make sense to extend Metro Rail to Buffalo Niagara International Airport?



Total number of responses: 1032

This poll is not a scientific sampling. It offers a quick view of what readers are thinking.

- Buffalo Business First Survey,
May 13, 2015



CITIZENS *for* REGIONAL TRANSIT

Road Scholar Research Summary



East Side Airport Metro Rail Extension Analysis*

Elizabeth Taber, Cornell High Road
Fellow

Elizabeth Giles and Carl Skompinski, CRT Board Members,
Project Leaders

* Sponsored by the Cornell / PPG High Road Fellowship Project



CITIZENS *for* REGIONAL TRANSIT

Thanks to Our Sponsor

**This work was supported and overseen by the
Partnership for the Public Good (PPG) in Buffalo, NY.
Especially:**

- Sarah Wooton, Community Researcher
- Kristin Ksiazek, Collaboration and Research Specialist

**The work was sponsored under the Cornell High Road
Fellowship Program**



Thanks to Stakeholder Interviewees

Name	Position
Dena Belzer	Founding President, Strategic Economics
Paul Ciminelli	President and CEO, Ciminelli Real Estate Corporation
Brian Conley	Senior Planner, University at Buffalo Reginal Institute (UBRI)
Donna Edwards	Community Activist, Filmore Forward
Fred Frank	Assistant Vice President & Lead Planner, WSP
Leslie Honore	Managing Director of Strategy and Communications, Center for Neighborhood Technology
Robert Jones	Manager of Service Planning
Darren Kempner	Manager, Grants and Government Affairs, NFTA
Dan Leonard	Project Development Manager, Wendel Companies
Hal Morse	Executive Director, Greater Buffalo Niagara Regional Transportation Council (GBNRTC)
Paul Tronolone	Vice President for Polich and Planning, Empire State Development (ESD)
Howard Zemsky	Founder and Director Emeritus, Larkin Development Corporation



East Side Airport Corridor Stations Studied

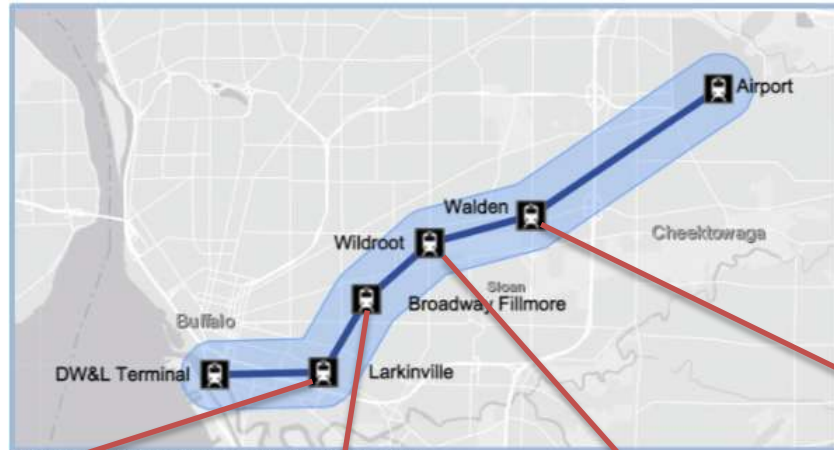


FIGURE 1: EAST SIDE AIRPORT CORRIDOR MAP



Larkinville

Smith and Exchange



Broadway Fillmore

at Central Terminal



Wildroot

Bailey and West Shore Av.
(near old Wildroot Building)



Walden

Harlem and Walden
(near Thruway Plaza)



CITIZENS *for* REGIONAL TRANSIT

Research Overview

Focus of Research

- **Quantify** economic, demographic, and social composition of corridor
- **Evaluate** economic, social, and environmental impact of LRRT along the corridor
- **Define** role of Equitable Transit-Oriented Development (eTOD)
- **Identify** factors for extending Buffalo Metro

East Side Airport Corridor



FIGURE 1: EAST SIDE AIRPORT CORRIDOR MAP



Corridor Research Overview

Focus of Research

- **Quantify** economic, demographic, and social composition
- **Evaluate** LRRT economic, social, and environmental impact
- **Define** Equitable Transit-Oriented Development (eTOD) potential
- **Identify** factors for extending Buffalo Metro

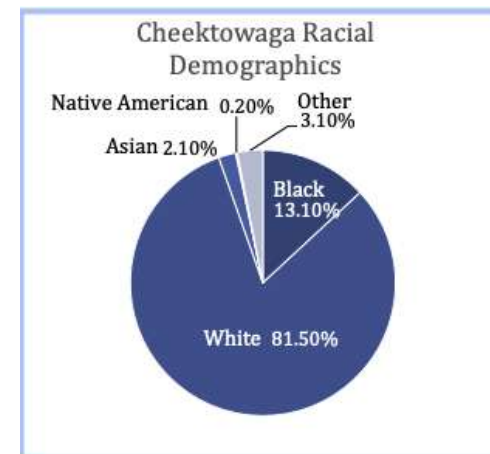
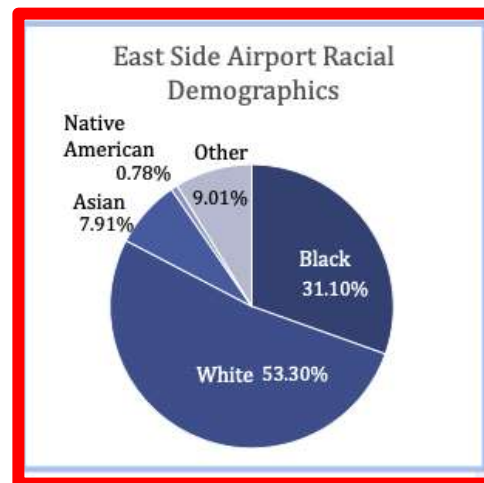
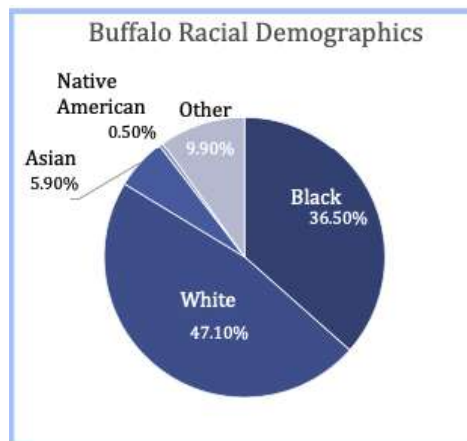
East Side Airport Corridor



FIGURE 1: EAST SIDE AIRPORT CORRIDOR MAP



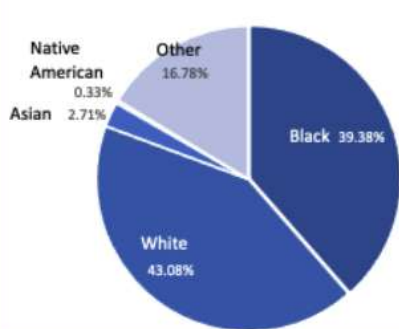
Quantify Airport Corridor Demographics



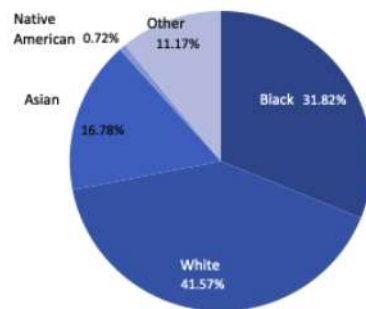
Corridor Demographics - Comparisons



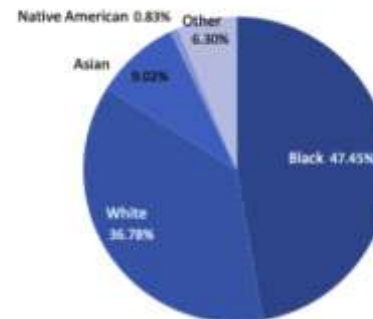
Larkinville Racial Demographics



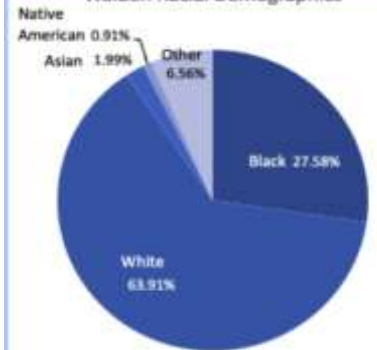
Broadway Fillmore Racial Demographics



Wildroot Racial Demographics



Walden Racial Demographics



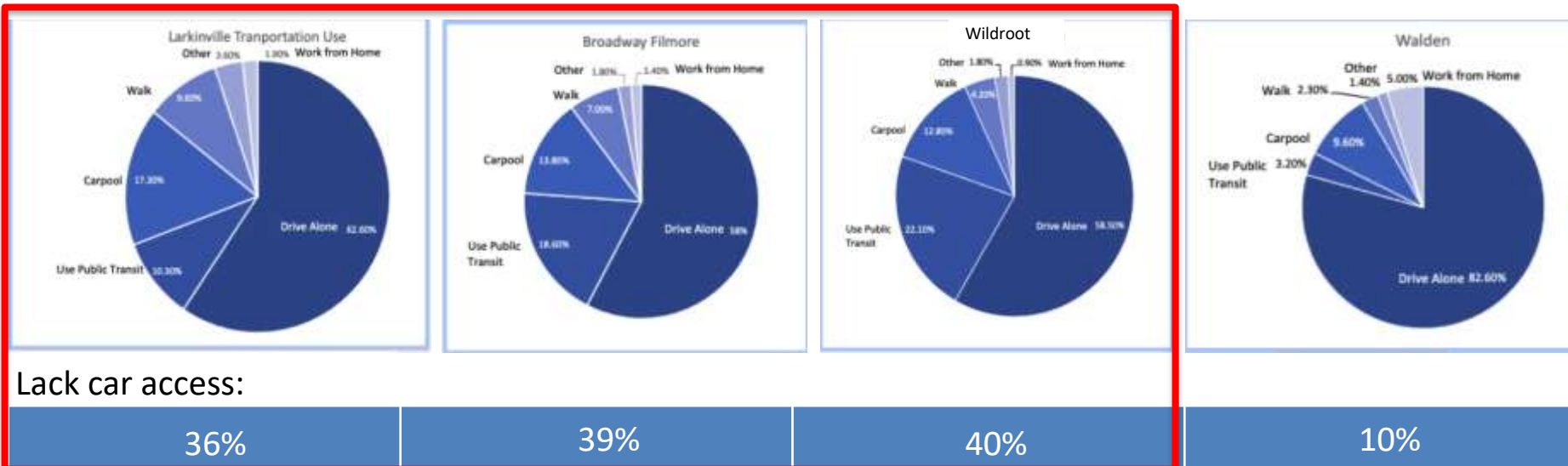
Corridor Demographics - Comparisons



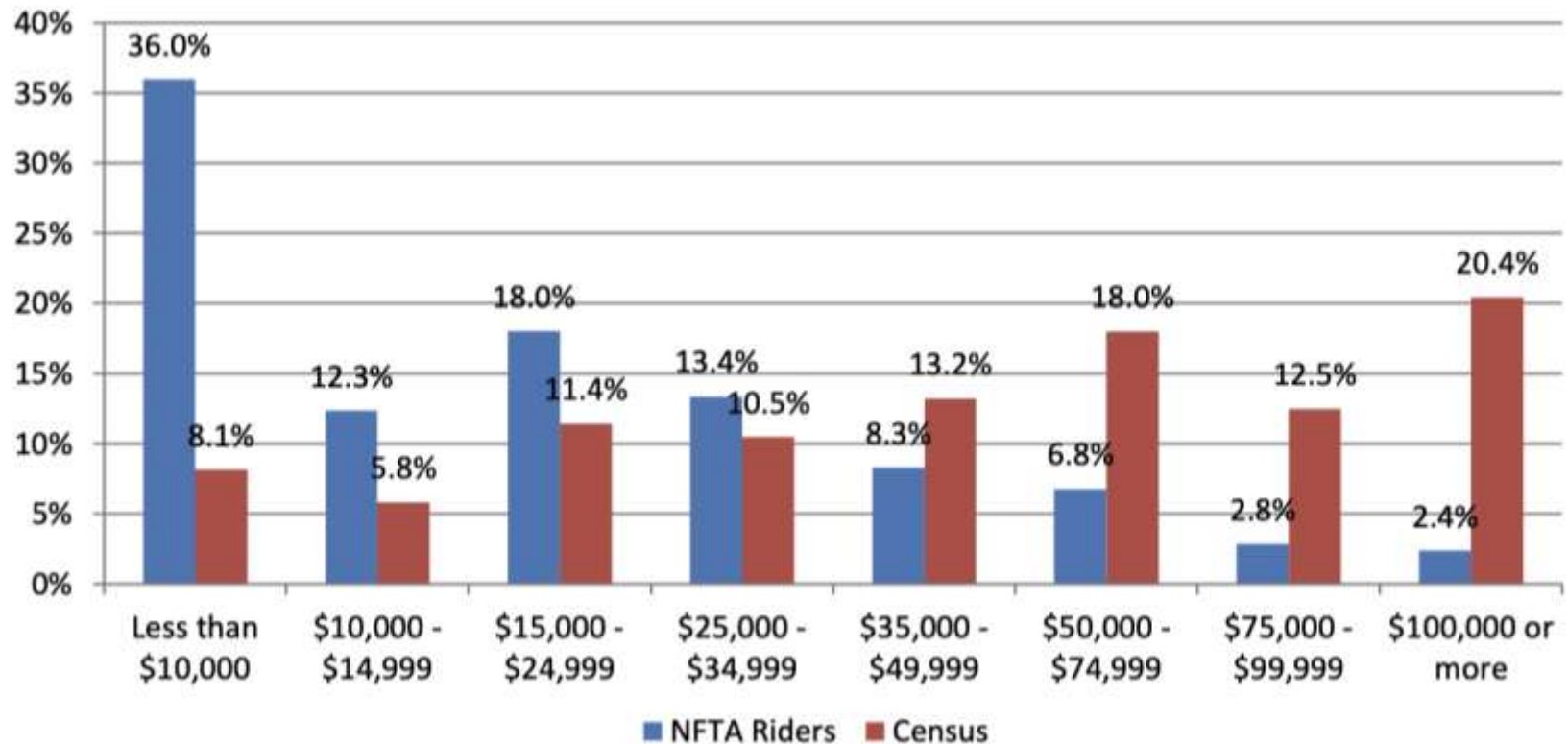
	East Side Corridor	Larkinville	Broadway Filmore	Wildroot	Walden
Poverty Rate	28.2%	38.8%	46.1%	35.6%	13.4%
Employment Rate	54.9%	49.6%	48.6%	48.3%	65.9%
Medium Household Income	\$49,101	\$40,558	\$36,669	\$41,555	\$77,953
High School Diploma	84.9%	77.2%	74.2%	79.5%	93.8%
Bachelors Degree	15%	9.6%	10.5%	10.6%	20.3%



Corridor Demographics - Comparisons

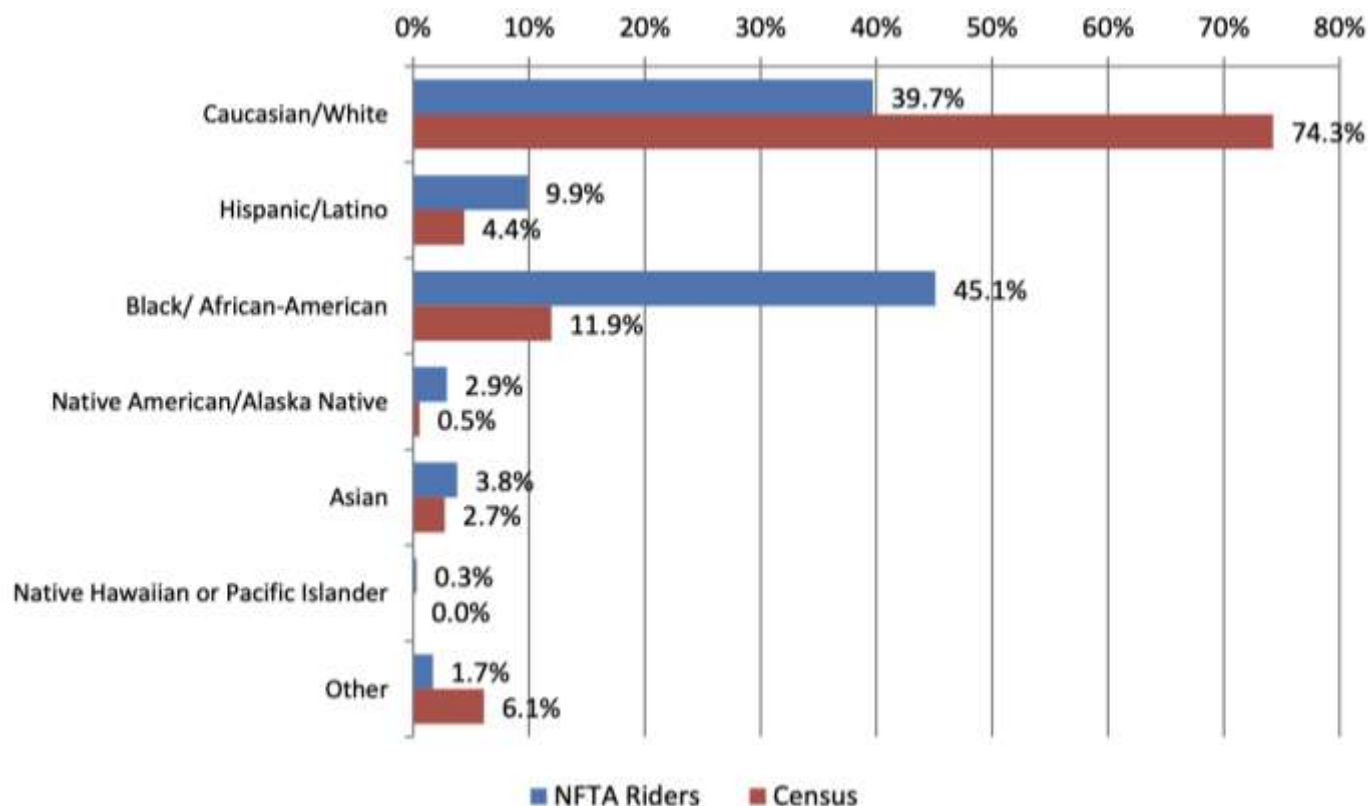


Who Is Riding Transit by Income?



Source: 2017 NFTA / Greater Buffalo-Niagara Regional Transportation Council Onboard Survey
(<https://static1.squarespace.com/static/56ccbafd3c44d8670dbd1d84/t/594c18bb15d5dbb061b1eb9f/1498159346755/NFTA+2017+Onboard+Survey+FINAL+Report.pdf>)

Who Is Riding Transit by Ethnicity?



Source: 2017 NFTA / Greater Buffalo-Niagara Regional Transportation Council Onboard Survey
(<https://static1.squarespace.com/static/56ccbbfd3c44d8670dbd1d84/t/594c18bb15d5dbb061b1eb9f/1498159346755/NFTA+2017+Onboard+Survey+FINAL+Report.pdf>)



Corridor Demographics - Comparisons



- Number of residents
- Population growth
- Major industries
- Jobs (current and delta)
- Income
- Poverty and employment rates
- Education
- Home ownership rate
- Commercial vacancy rate
- Home ownership rate
- Transportation use
- Car ownership (0, 1, or 2)
- Occupied / unoccupied residences



Corridor Research Overview

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- **Quantify** economic, demographic, and social composition
- **Evaluate** economic, social, and environmental impact of LRRT extension
- **Define** Equitable Transit-Oriented Development (eTOD) potential
- **Identify** factors for extending Buffalo Metro

East Side Airport Corridor Studied



FIGURE 1: EAST SIDE AIRPORT CORRIDOR MAP



High Development Potential (per 2010 NFTA Strategic Analysis)¹

Two alternative East Side / airport alignments recommended for further study of major transit investment.

- Airport via combination of abandoned right-of-way and /or Broadway

	Corridors	Market Intensity (per line mile)	Development Potential	Travel Patterns	Ridership (per line mile)
Recommended for Study	Amherst-Boulevard (Alt A)	7,573	Moderate	Primary Pattern	2,156
	Amherst-Millernport (Alt B)	8,477	Moderate	Primary Pattern	2,450
	Airport (study jointly with Broadway)	8,165	High	Primary Pattern	997
	Broadway (study jointly with Airport)	10,453	High	Primary Pattern	543
	Elmwood	2,771	Moderate	Primary Pattern	933
	Delaware	13,450	Moderate	Primary Pattern	597
Monitor for Future Consideration	Southtowns	2,771	Low, except adjacent to downtown	Primary Pattern (Inner)	122
	Tonawanda-Niagara (Alt A)	2,363	Low	Secondary Pattern	32
	Tonawanda (Alt B)	4,256	Low	Secondary Pattern	54
	Bailey	4,749	Low	Secondary Pattern	350
	Fillmore-Hertel	4,080	Low	Secondary Pattern	391
	Seneca	10,017	Low, except adjacent to downtown	Primary Pattern	382

1. Erie County Transit Service Restructuring and Fare Study–Strategic Assessment. Final Report. August 2010.



Return on Transit Investments Are Significant¹

For every billion dollars invested transit, 50,000 jobs are created & sustained

Every \$1 invested in public transit generates \$5 in economic returns

Transit investments generate 31% more jobs per dollar than road and bridge projects

Beyond construction and manufacturing jobs transit is integral to connecting jobseekers to potential employers

Additional economic benefits accrue from reduced congestion, pollution and making land available for development due to release of land for parking

1. Price, Rebecca. Public Transit Has an Exceptional ROI. Let's Get On Board to Speed Economic Recovery. Alliance to Save Energy.



Public Transportation Stimulates the Economy By Improving Mobility

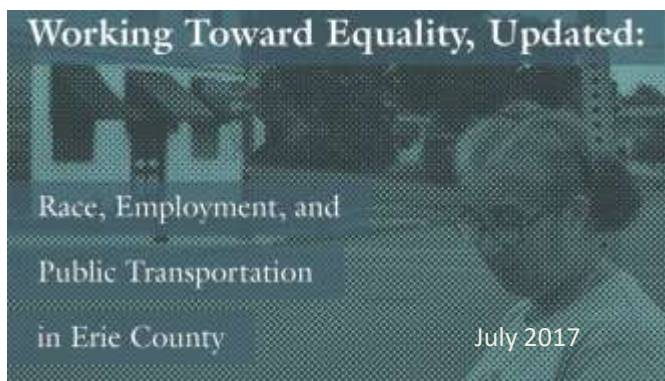
- Reduces average family's share of earnings spent for transportation from 25% to 9%
- Provides access to education for economic improvement
- Provides access to healthy food and personal services (e.g., medical)
- Commute time is one of the most significant factors in an individuals changes to escape poverty



Commutes on Transit (if not improved) Take Longer!

Weekday Travel times to Work from East and West Side of Buffalo for
Driving vs. Transit

Arrive By	Home	Employer	Drive	Public Transit	Difference	
9:00 AM	Niagara/Porter	Sumitomo	10	25	15	150%
		Airport	21	64	43	200%
		GEICO	21	77	56	250%
	Bailey/Genesee	Sumitomo	19	58	39	200%
		Airport	13	22	9	70%
		GEICO	23	52	29	120%



Why Do Commutes on Bus Take Longer?

Bus

- Frequency: 20 minutes to 45 minutes (longer on weekends)
- Average wait including transfers: 15 minutes
- Speed: 30 to 40 mph, slower in traffic

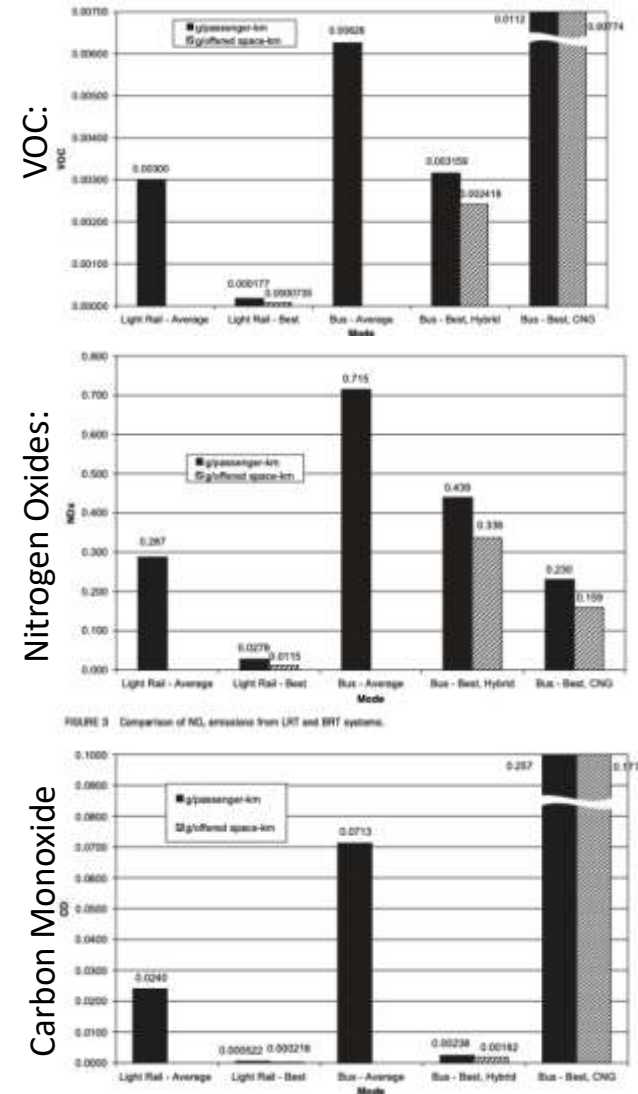
Light Rail

- Frequency: 10 minutes – business hours; 20 minutes evenings and weekends
- Average wait time during transfers: 7.5 minutes
- Speed: 50 mph between stations



Environmental Health Benefits of LRRT

- Reduced VMT and pollution from 60,000 cars every day on the Kensington will be reduced (and other urban highways)
 - Higher rates of childhood asthma measured on the East Side
- LRRT promotes walking and is associated with lower BMI, obesity and obesity-related illnesses
- LRRT would provide access to medical centers
- Reduction in greenhouse gas (GHG) production.



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East Side Airport Corridor Studied



FIGURE 1: EAST SIDE AIRPORT CORRIDOR MAP



What Is Transit-Oriented Development (TOD)¹

An approach to development that focuses land uses around a transit station or within a transit corridor. Typically, it is characterized by:

- **A mix of uses**
- **Moderate to high density**
- **Pedestrian orientation/connectivity**
- **Transportation choices**
- **Reduced parking**
- **High quality design**
- **Reverses disinvestment**

TOD occurs within ¼ mile, or a 5–7 minute walk of a transit station.

1. GBNRTC and WSP. Comprehensive Transit-Oriented Development Plan. Executive Summary. August 2018.



What is Equitable Transit-Oriented Development (eTOD)?

An approach to development that focuses land uses around a transit station or within a transit corridor

That avoids gentrification

- *Incorporates Affordable Housing*
- Promotes Historic Preservation
- Stimulates Local Businesses
- Provides Rapid Regional Connectivity to:
 - Jobs, Healthcare, Education and other Amenities
- Multimodal Access
- Reduces Parking Demand



Picture Credit: Tony Webster, Minneapolis Green Line. May, 2017. WikiMedia.



eTOD Historical Context

- Minority-majority communities have struggled under years of targeted disinvestment
- This has created an accumulated wealth and opportunity deficit
- Poor transportation options exacerbate the problem
- Active steps are needed to overcome accumulated disadvantage



Some eTOD Principles

- A major component for achieving economic and racial justice and success is *equitable access to fast efficient public transportation*
- Provide transportation services to communities with greatest need rather than prioritizing immediate return on investment



eTOD Transportation Accessibility Analysis

Goal #1 Increase Access to Mobility	Goal #2 Reduce Air Pollution	Goal #3 Enhance Economic Opportunity
1. Affordability	6. Clean Air and Positive Health Benefits	9. Connectivity to Places of Employment, Education, Services, & Recreation
2. Accessibility	7. Reduction in Greenhouse Gases	10. Fair Labor Practices
3. Efficiency	8. Reduction in Vehicle Miles Traveled	11. Transportation-Related Employment Opportunities
4. Reliability		12. Inclusive Local Business & Economic Activity
5. Safety		

FIGURE 19: ETOD CRITERIA, GREENLINING INSTITUTE



Commute Time

- Commute time is one of the most significant factors in an individuals changes to escape poverty
- Average commute time for East Side residents is ???.



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East Side Airport Corridor Studied



FIGURE 1: EAST SIDE AIRPORT CORRIDOR MAP



The East Side Has Room To Grow



Credit: Map and pictures from Google Maps



CITIZENS *for* REGIONAL TRANSIT

East Side Avenues Investing in Key Corridors

- East Side Avenues (ESA) Project Making Key Investments in the East Side
 - Walkable neighborhoods
 - Enhanced bus service
 - Mutual business investments pledged
- All ESA Corridors Will Intersect with LRRT Providing Mutual Synergistic Benefits



Image from East Side Avenues
2019-2020 Annual Report



East Side Rebounding Will be Enhanced By LRRT / eTOD



Credit: Map and pictures from Google Maps



Image from The Forge on Broadway Website.

Cost of the East Side – Airport Extension

East Side – Airport Extension Costs:

Mode	Cost per Mile	Distance (miles)	Total Cost	% Federal Share	\$ Federal Share	\$ Local Share
LRRT (high Estimate)	\$100M	13	\$1.3B	50%	\$650M	\$650M
LRRT (low Estimate)	\$70M	13	0.91B	50%	\$455M	\$455M

Example Comparable Highway Costs*:

Buffalo Expressway	\$177M	13	\$2.3B	80%	\$1.84B	\$460M
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* Highway Construction costs can range from \$200M/mile to under \$50M/mile: <https://www.strongtowns.org/journal/2020/1/27/how-much-does-a-mile-of-road-actually-cost>



Conclusions

- Buffalo needs LRRT, not just buses
- The East Side extension is a critical piece for making the system complete
- The East Side has significant emptiness, an opportunity for development
- The East Side is already coming back to life (East Side Avenues Project, mixed use developments and affordable housing)
- LRRT will provide significant TOD benefits to facilitate rebirth
- LRRT will provide significant eTOD benefits to facilitate economic justice to an area that has long been neglected
- The same-old, same-old is no longer acceptable.
 - We need to integrate and connect our region with high-capacity, high-speed transit
 - The old model of waiting until development occurs to invest in transit overlooks the importance of transit for driving that development
- The environment can't wait any longer either



Thank you



FOCUS OF RESEARCH

- Can Extending Buffalo Metro to the East Side Be a Catalyst for eTOD?
- How Do the East Side Demographics Define eTOD Potential?
- **Factors to Consider for Extending Buffalo Metro**



EASTSIDE – AIRPORT METRO RAIL EXTENSION



With proposed stations; not to scale

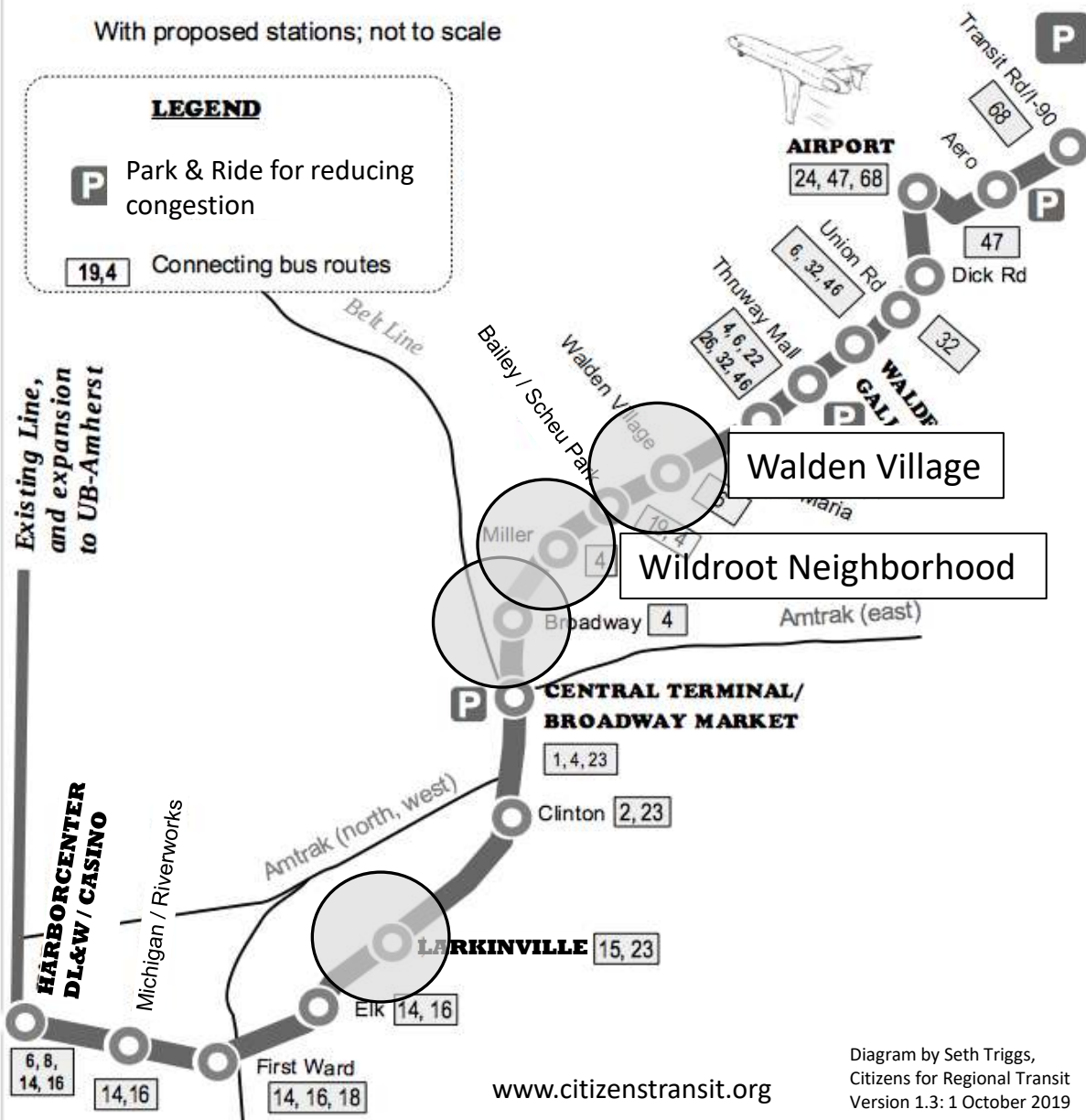
LEGEND



Park & Ride for reducing congestion



Connecting bus routes



Data from 2020 Census

Walden Village

Population: 7,022 (-2.5%)

Poverty Rate: 13%

High School Degree: 93%

College Educated: 20%

Wildroot Neighborhood

Population: 10,081 (-9.5%)

Poverty Rate: 35.6%

High School Degree: 93%

College Educated: 20%

Diagram by Seth Triggs,
Citizens for Regional Transit
Version 1.3: 1 October 2019

www.citizenstransit.org

Some Important Statistics

	Buffalo	East Side
Population density	6,436 per mile ²	5,182 per mile ²
Car access	28%	14%
Poverty rate		
High school graduation rate		-7%
College graduation rate		-48%
Income spent for transportation*		12%

* The average American family spends from 9 to 25% of income on transportation. The lowest fifth income families spend 40% on transportation due to the cost of car ownership



Transit Can Stimulate Equitable Development

Important element for success of
East Side Avenues Initiative

Promote building of affordable
housing

Provide rapid transportation connections to
amenities throughout the region
(employment, education, healthcare,
shopping, recreation)



Image from The Forge on Broadway Website.



Image from East Side Avenues
2019-2020 Annual Report



Commute Time Comparisons

Areas of High Levels of Poverty



Major Employment Areas



Minor Employment Areas



Weekday Travel times to Work from East and West Side of Buffalo for Driving vs. Transit

Arrive By	Home	Employer	Drive	Public Transit	Difference
9:00 AM	Niagara/Porter	Sumitomo	10	25	15
		Airport	21	64	43
		GEICO	21	77	56
	Bailey/Genesee	Sumitomo	19	58	39
		Airport	13	22	9
		GEICO	23	52	29

150%
200%
250%

200%
70%
120%

Source: Partnership for the Public Good. Working Toward Equity, Updated: Race, Employment, and Public Transportation in Erie County. July 2017
https://ppgbuffalo.org/files/documents/working_toward_equalityfinal.pdf .



CITIZENS *for* REGIONAL TRANSIT

FOCUS OF RESEARCH

- Can Extending Buffalo Metro to the East Side Be a Catalyst for eTOD?
- **How Do the East Side Demographics Define eTOD Potential?**
- Factors to Consider for Extending Buffalo Metro



Let's Connect our Region with Transit



Image courtesy for Dan Leonard, Economic Development Director at the Buffalo Niagara Partnership

Toronto – Hamilton - Buffalo-Niagara

Population = 8 million, GDP = \$400 billion

Canada's impact on WNY Economy = \$900 million

Gallagher, Loomis and Balsom. Planning must begin for opening U.S.-Canada border. Another Voice. The Buffalo News. 11 May 2021.

http://buffalonews.ny.newsmemory.com/?token=0f9f109813370f27f2442c5ed61b1487_609bdbbc_bae19f8&selDate=20210512&utm_source=emailMarketing&utm_medium=email&utm_campaign=email+stats



CITIZENS for REGIONAL TRANSIT

Amherst Extension Beginning Engineering Design

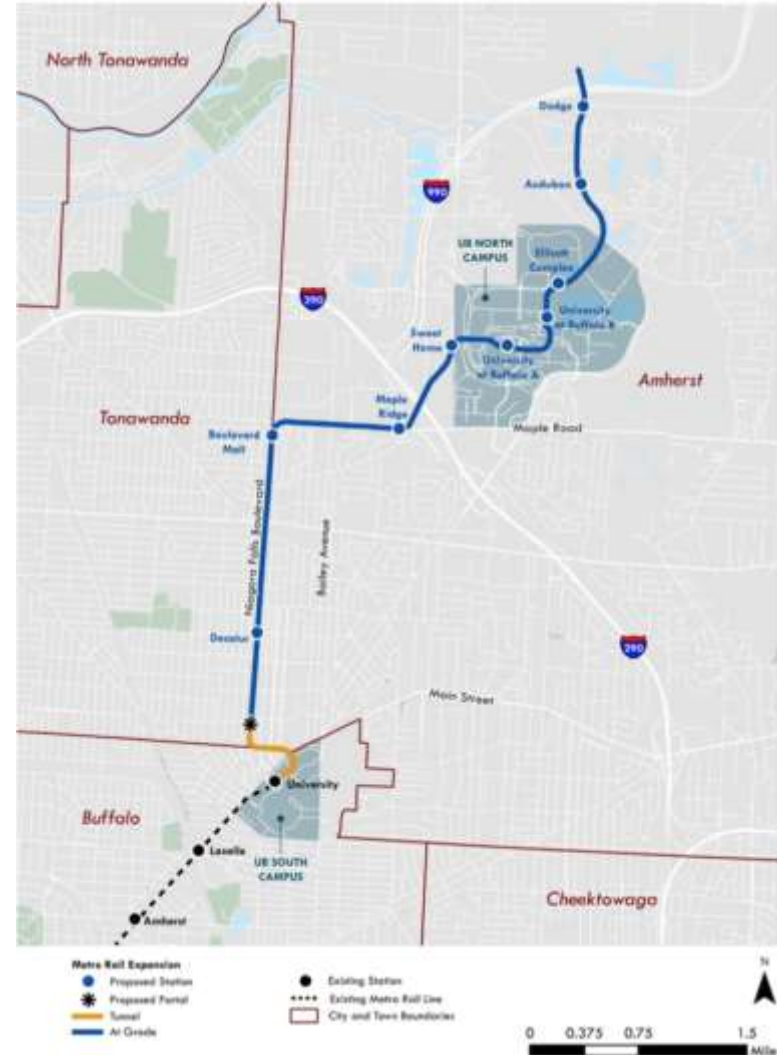


Image Source: NFTA Rail Expansion Draft EIS. December 2019



CITIZENS *for* REGIONAL TRANSIT

DL&W Extension Under Construction!



Rendering of DL&W Station

Image Source: NYS Buffalo Billion Website. <https://buffalobillion.ny.gov/dlw-station>



Image Source: NFTA



Image Source: NFTA

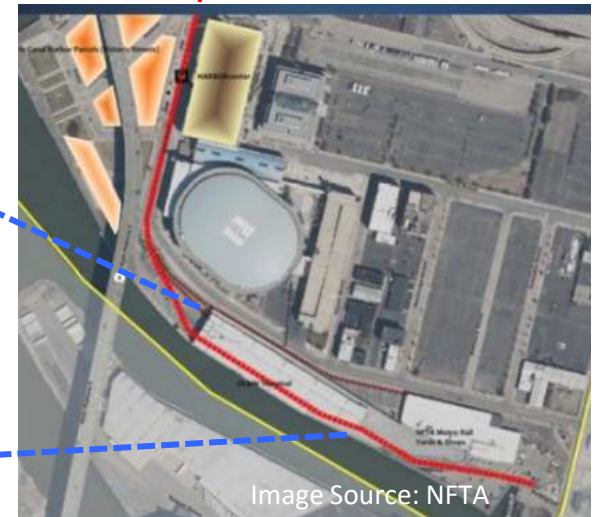


Image Source: NFTA



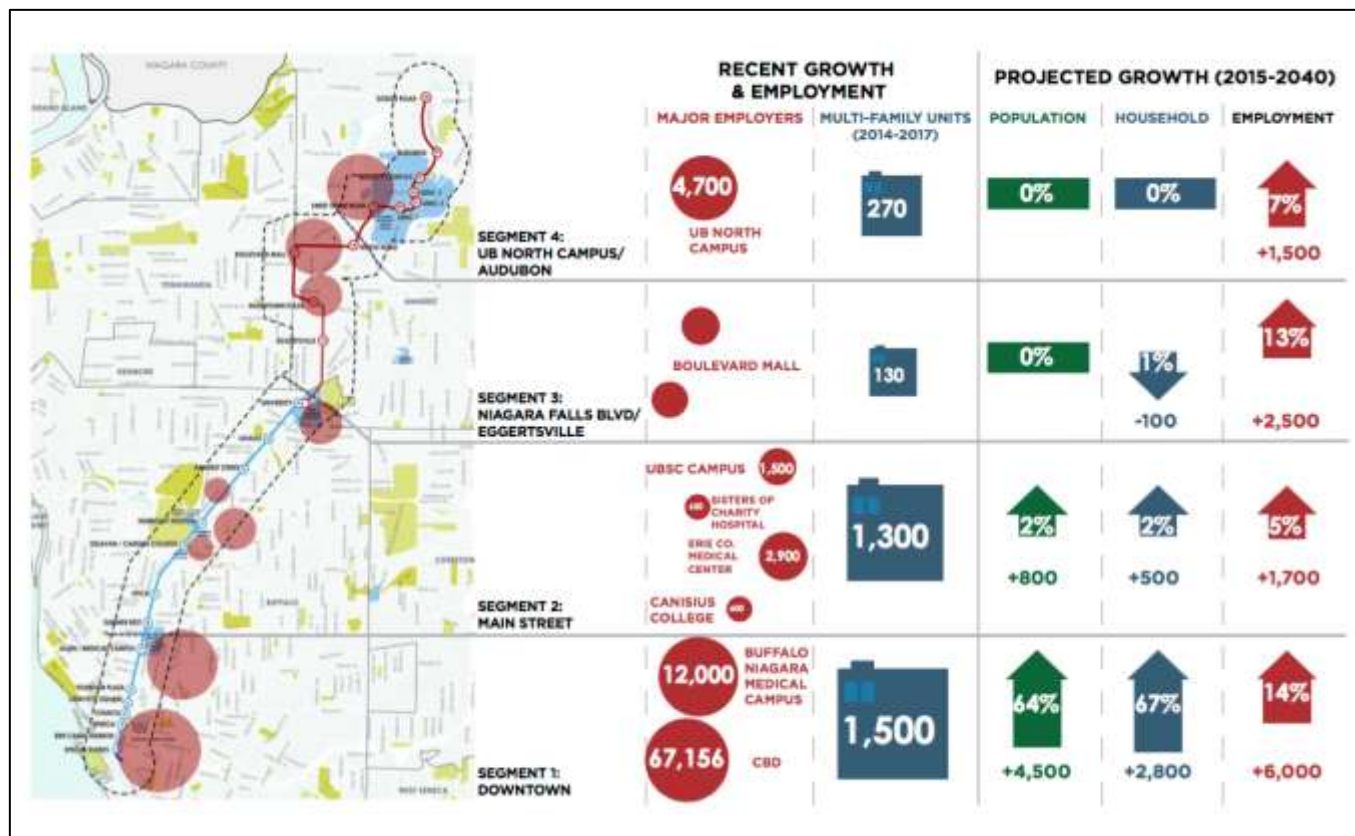
CITIZENS *for* REGIONAL TRANSIT

The Amherst Extension Needs to Be Part of a Comprehensive Plan

					Phase I		Phase II		Phase III							Phase IV									
Task		V-RM Cost ¹³ (\$M)	Funding ² Organization	Funding ² Status	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035		
Amherst Extension (6 miles)																									
1	Alternatives Analysis ¹	1.5	NYS DOT	Complete																					
2	Environmental Review (EIS) and Preliminary Design ¹	5	NYS DOT	Available																					
3	30% Engineering Design ¹	6	NYS DOT	Allocated																					
4	Engineering of Final Design (9.5% of construction) ²	95	NYS DOT	Needed																					
5	Construction ^{3,4}	1,000	Fed/NYS DOT	Needed																					
	Contingency (15%) ⁵	150																							
	Metro Rail Expansion Opens (M-3 Milestone)		N/A	N/A																					
	Subtotal	1,258																							
DL&W																									
6	DL&W Terminal (design) ¹	5	ESD/NFTA	Available																					
7	DL&W Terminal (Construction Begins) ¹	5	ESD/NFTA	Available																					
8	DL&W Terminal (Construction Continues) ¹	30	ESD/NFTA	Announced																					
	DL&W Terminal Station Opens to the Public (M)																								
	Subtotal	40																							
Eastside (Airport) (13 miles)																									
9	Southern (Eastern Light Rail) Extension Study Initiated ⁶	0.5	NYS DOT	Needed																					
10	Environmental Review (EIS) and Preliminary Design	5	NYS DOT	Needed																					
11	25% (30% Design) (3.5% of construction) ⁷	34	NYS DOT	Needed																					
12	Engineering of Final Design (9.5% of construction) ²	93	NYS DOT	Needed																					
13	Construction (includes Stations, Controls, Vehicles, and Soft Costs) ^{4,8,9,10,11,12}	975	Fed/NYS DOT	Needed																					
	Contingency (30%) ⁵	293																							
	Metro Rail Expansion Opens (M-3 Milestone)		N/A	N/A																					
	Subtotal	1,400																							
Southtowns (Hamburg: 1.3 miles; Orchard Park: 1.2 miles)																									
14	Environmental Review and Preliminary Design	10	NYS DOT	Needed																					
15	25% (30% Design) (3.5% of construction) ⁶	66	NYS DOT	Needed																					
16	Engineering of Final Design (9.5% of construction) ²	178	NYS DOT	Needed																					
17	Construction (Orchard Park) ^{4,8,9,10,11,12}	900	Fed/NYS DOT	Needed																					
18	Construction (Hamburg) ^{4,8,9,10,11,12}	975	Fed/NYS DOT	Needed																					
	Contingency (30%) ⁵	563																							
	Metro Rail Expansion Opens (M-3 Milestone)		N/A	N/A																					
	Subtotal	2,691																							



GBNRTC /NFTA Transit-Oriented Development (TOD) Projections¹



Comprehensive Transit-Oriented Development Plan. Final Report. August 2018

1. GBNRTC and WSP. Comprehensive Transit-Oriented Development Plan. Executive Summary. August 2018.



Businesses Looking for Cities that Are Well Connected by Transit!¹

TALKING TECH 

BUZZ VIDEO PODCASTS NEWSLETTER

Amazon gets 238 proposals for its second headquarters

Amazon HQ2 Core Preference:

“Access to mass transit – direct access to rail, train, subway/metro, bus routes”

1. Mike Snider. USA Today. Published 11:34 a.m. ET Oct 23, 2017. Updated 5:45 p.m. Oct 23, 2017.



CITIZENS *for* REGIONAL TRANSIT

Cities Across the US Are Building and Expanding Their Metro Rail Systems to the Airport^{1,2}

Atlanta, GA
Baltimore-Washington, MD
Boston, MA
Chicago, IL (O'Hare)
Cleveland, OH
Dallas/Ft. Worth, TX
Denver, CO
Miami, FL
Minneapolis-St. Paul, MN
Newark, NJ

New York City, NY (Kennedy)
Oakland, CA
Phoenix, AZ
Portland, OR
Salt Lake City, UT
San Francisco, CA
Seattle-Tacoma, WA
St. Louis, MO
Washington, DC (Reagan)
Washington, DC (Dulles)
(under construction)

1. More US airports add rail service to downtown. USA Today. Updated 6/5/09.
http://usatoday30.usatoday.com/money/industries/travel/2009-05-25-rail-lines-airport-city-center_N.htm.
2. Cheapest De\$tinations Blog. <https://www.cheapestdestinationsblog.com/2017/11/13/which-u-s-airports-have-a-train-to-the-city-center/>



Transit Can Stimulate Equitable Development

Important element for success of
East Side Avenues Initiative

Promote building of affordable
housing

Provide rapid transportation connections to
amenities throughout the region
(employment, education, healthcare,
shopping, recreation)



Image from The Forge on Broadway Website.

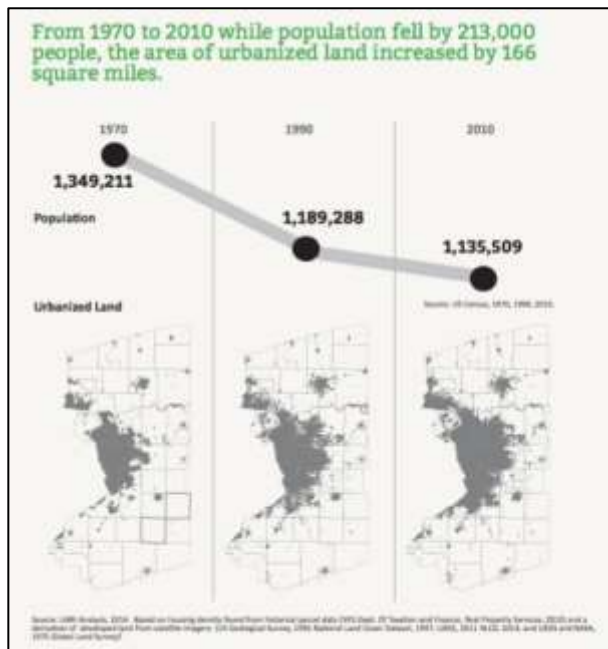


Image from East Side Avenues
2019-2020 Annual Report



Transit Service Is Hampered by Sprawl

Park & Rides Can Help



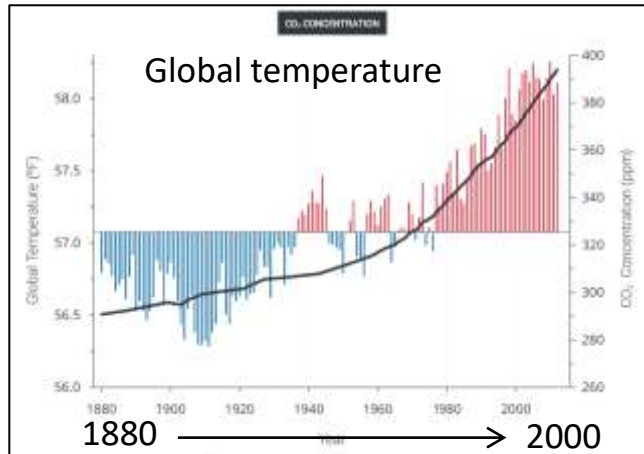
Graphic Source: One Region Forward. A New Way to Plan for Buffalo-Niagara. February 2015. Final Plan.



Park & Rides collect commuters from a wide radius, sparing city neighborhoods pollution and parking woes



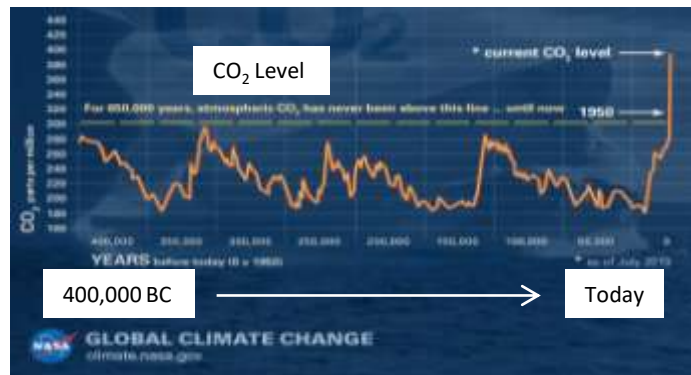
Greenhouse Gas Emissions Are the Problem



Source: National Climate Change Assessment Report. 2014.



Union of Concerned Scientists,
Numerous publications, 2018



Source: Climate.NASA.gov/evidence



Intergovernmental Panel on Climate Change
(IPCC), United Nations, October 2018



CITIZENS for REGIONAL TRANSIT

Erie County Commits to US Paris Climate Agreement Targets

Reduce GHG emissions county-wide by 26-28% below 2005 levels by 2025

100% renewable energy for County operations by 2030

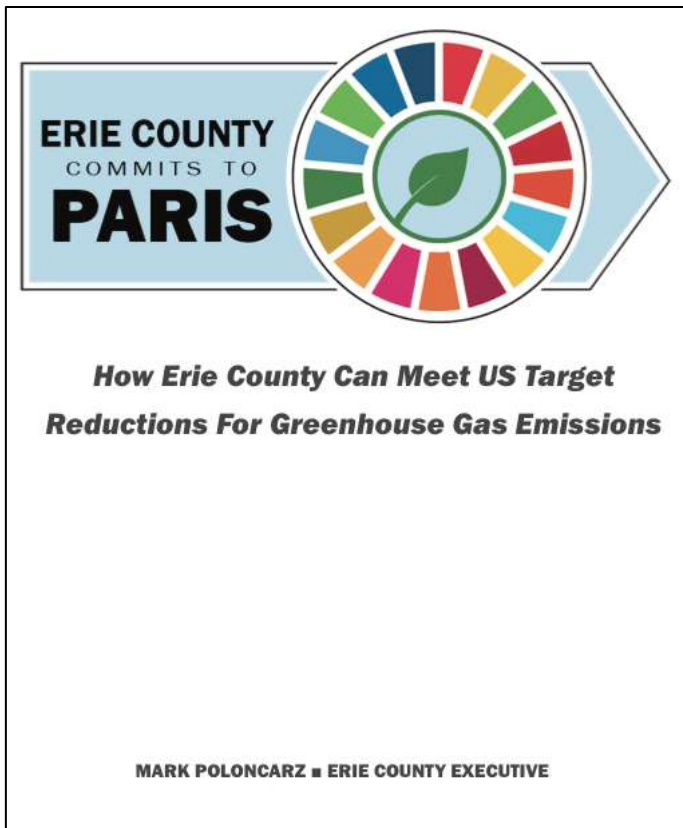
Actions:

Establish County Green House Gas (GHG) Inventory, update yearly

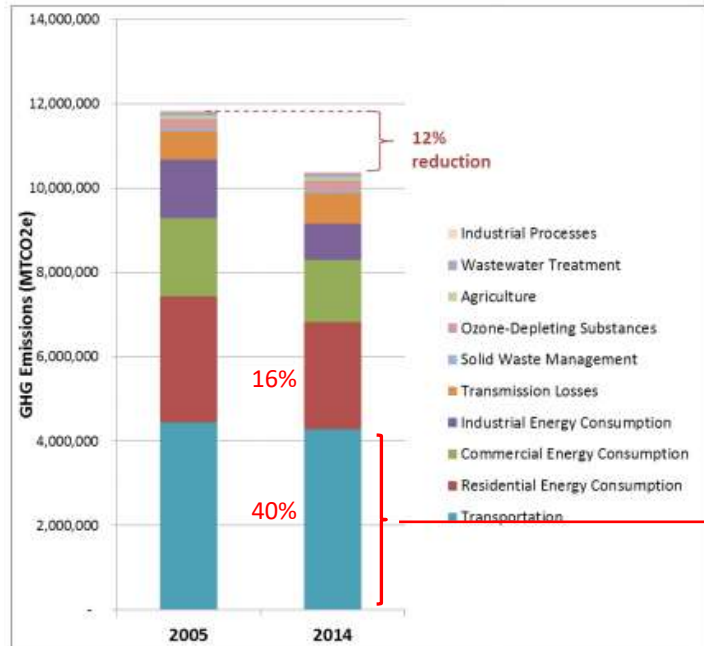
Establish County “Green Team” and “Energy Committee”

Establish green energy purchase programs

Incentivize use of public transportation



Opportunities for Reducing Energy Consumption: Transportation Sector



Source: Erie County Commits to Paris



CITIZENS *for* REGIONAL TRANSIT

NYS Climate Leadership and Community Protection Act (CLCPA)

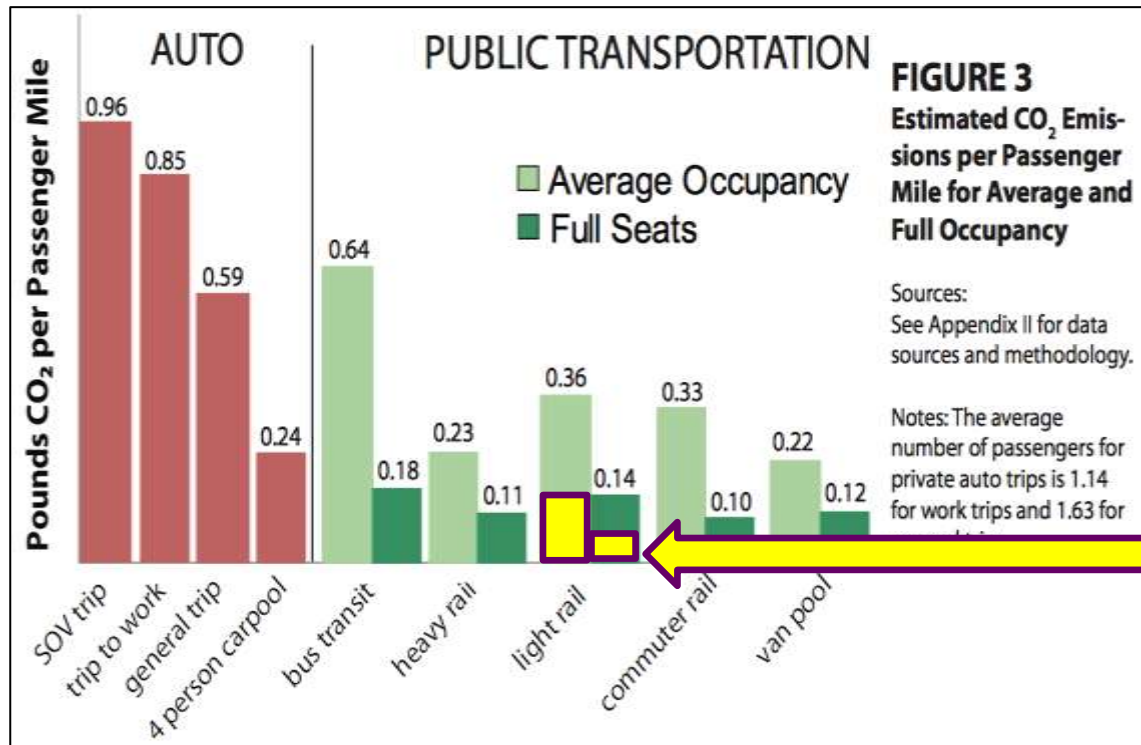
- Overview
 - **35-40% of benefits to historically disadvantaged communities**
 - Accelerates development of wind and solar energy
 - Facilitates growth of energy storage technology
- NYS Electricity from renewables
 - 70% by 2030
 - 100% by 2040
 - Specific targets for offshore wind, solar and energy storage specified.
- **Puts NYS on path to net zero emissions overall**
 - **40% GHG emissions by 2030**
 - **85% GHG emissions by 2050**
 - **This means reductions in the transportation sector!**
- Offsets
 - only where technologically impossible to reduce emissions by other means
 - must be verifiable and permanent



Pictures by: Doug Funke, CRT President

Transit Can Reduce CO₂ Emissions

We Can Do Even Better in Buffalo!



**Buffalo's Metro Rail
Uses 60% hydro power
from Niagara Falls**

**So with average occupancy
CO₂ / passenger mile =
0.144 pounds**

**And with full seats
CO₂ / passenger mile =
0.056 pounds**

Table from Federal Transit Administration (FTA). US Department of Transportation. 2010



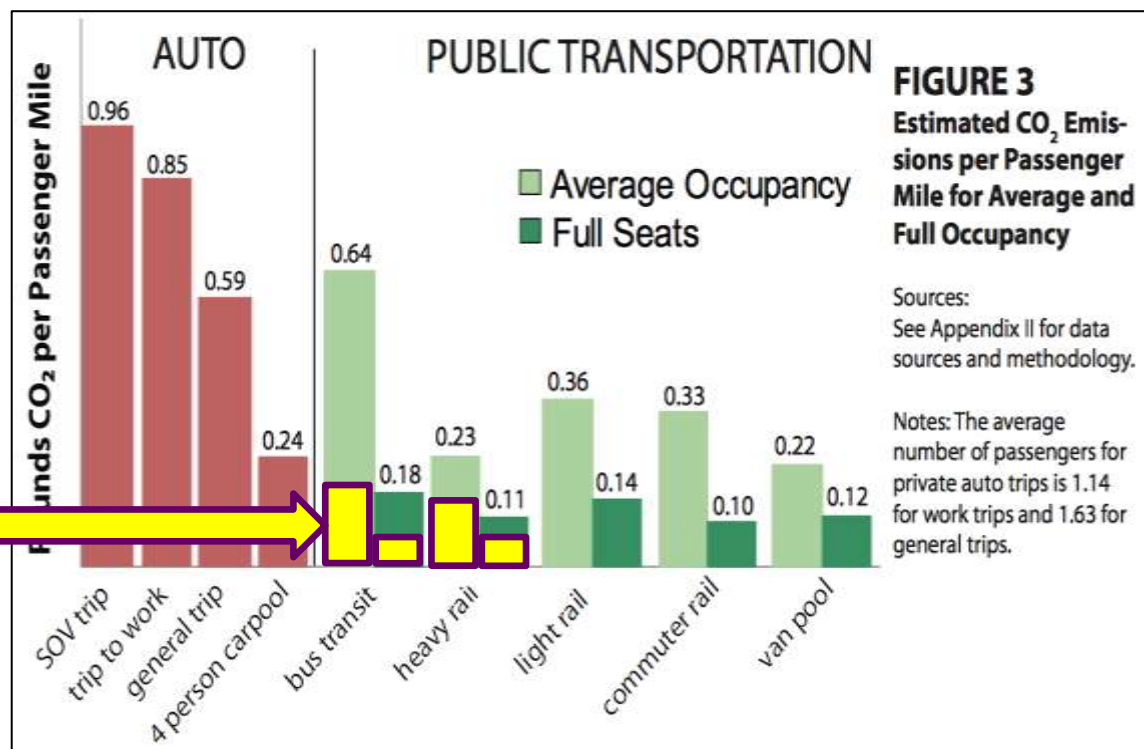
CITIZENS for REGIONAL TRANSIT

NFTA Is Moving to Electric Buses!

Buffalo's electric buses
will reduce CO₂ by 84%

So with average occupancy
CO₂ / passenger mile =
0.102 pounds

And with full seats
CO₂ / passenger mile =
0.083 pounds



Source: Aber, Judah, Columbia University. Electric Bus Analysis for New York City Transit. May 2016.

Table from Federal Transit Administration (FTA). US Department of Transportation. 2010



CITIZENS for REGIONAL TRANSIT

The Effect of Choosing Between Driving or Taking Transit

Choose Transit

Adds negligible CO₂

0
Bus or train

But avoids CO₂ from auto



Pictures by: Doug Funke, CRT President

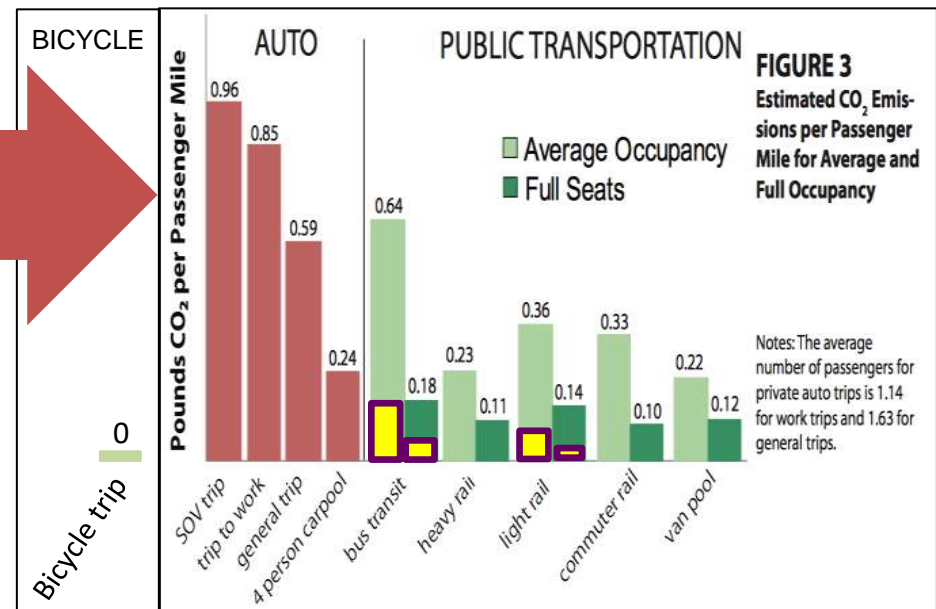


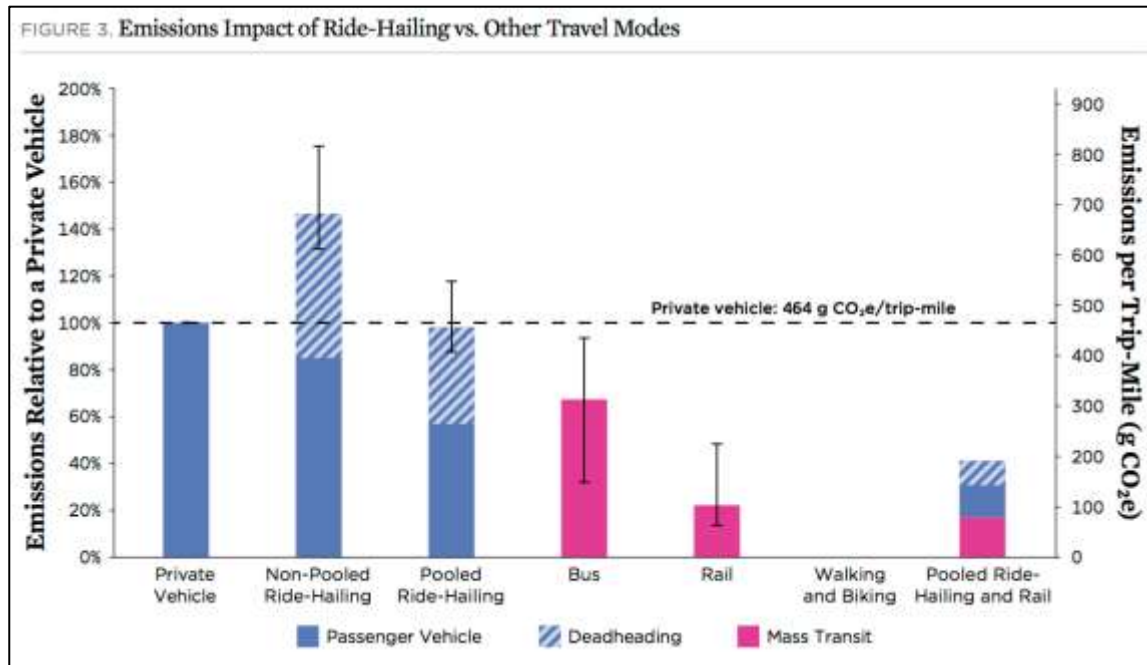
Table from Federal Transit Administration (FTA). US Department of Transportation. 2010



CITIZENS for REGIONAL TRANSIT

What If We Abandoned Transit in Favor of Ride Hailing?

Ride hailing can pollute more than driving yourself, works well with rail but increases VMT



Source: Ride-Hailing's Climate Risks. Steering a Growing Industry toward a Clean Transportation Future. Union of Concerned Scientists.

<https://www.ucsusa.org/sites/default/files/2020-02/Ride-Hailing%27s-Climate-Risks.pdf>



CITIZENS *for* REGIONAL TRANSIT

Commute Time Comparisons

Areas of High Levels of Poverty



Major Employment Areas



Minor Employment Areas



Weekday Travel times to Work from East and West Side of Buffalo for Driving vs. Transit

Arrive By	Home	Employer	Drive	Public Transit	Difference
9:00 AM	Niagara/Porter	Sumitomo	10	25	15
		Airport	21	64	43
		GEICO	21	77	56
	Bailey/Genesee	Sumitomo	19	58	39
		Airport	13	22	9
		GEICO	23	52	29

150%
200%
250%

200%
70%
120%

Source: Partnership for the Public Good. Working Toward Equity, Updated: Race, Employment, and Public Transportation in Erie County. July 2017
https://ppgbuffalo.org/files/documents/working_toward_equalityfinal.pdf .



CITIZENS *for* REGIONAL TRANSIT

The Biggest Injustice

States and local governments
are forced to pay a

30% penalty

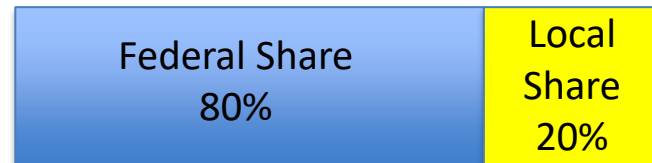
if they choose transit projects
over road and high highway projects



The Biggest Inequity

Lower Federal Share for Transit Projects

Road / Highway Projects



Transit Projects

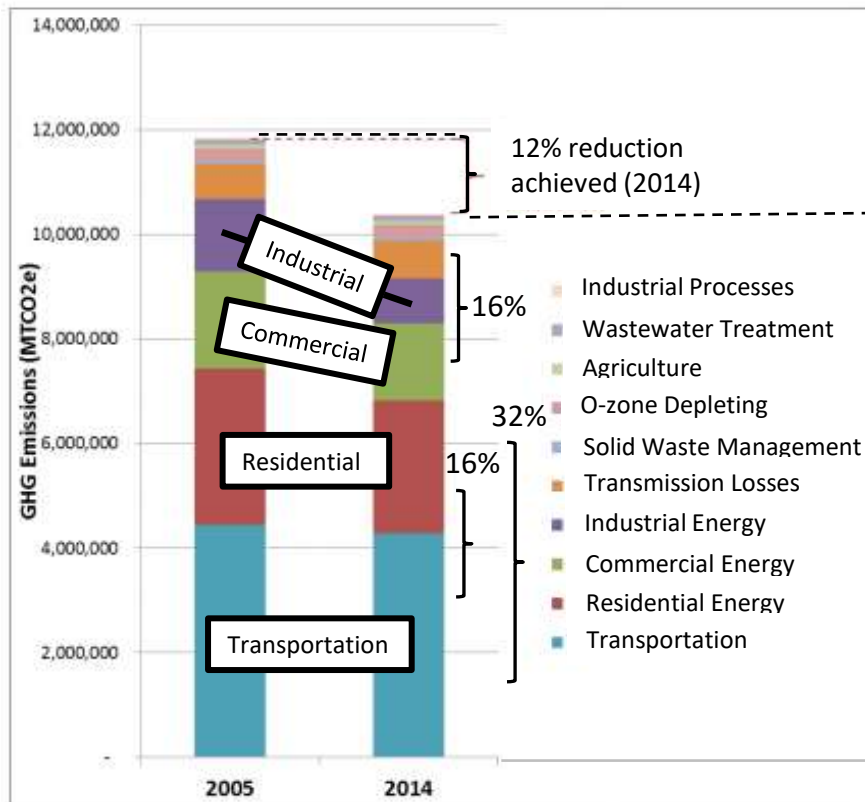


Federal share for transit is less than 50%
To be equitable, Transit funding must be shared
the same as road and highway funding

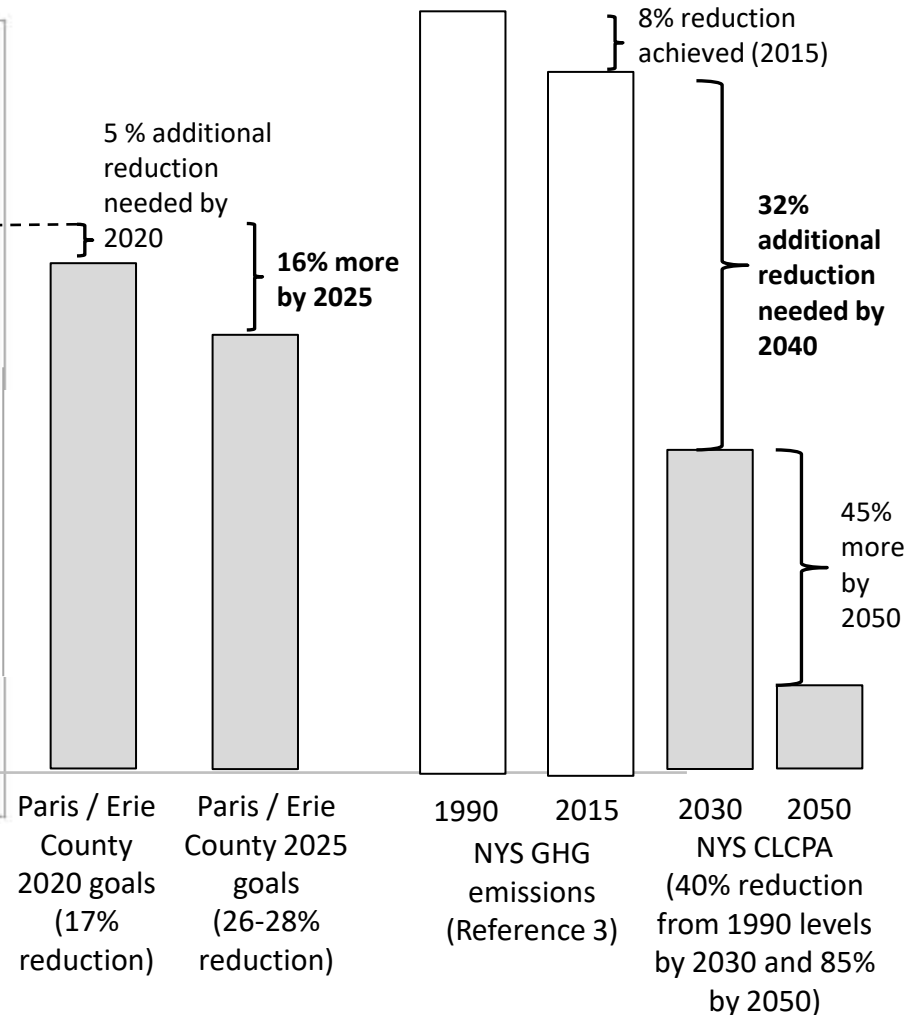


Erie County Commits to Paris

NYS CLCPA Commitments



Erie County GHG emissions by sector
Source: Erie County Commits to Paris



Switching to Electric Cars Alone Won't Solve the Problem!



National Archives at College Park, Public Domain, via
Wikimedia Commons

Solution Must:

- Reduce VMT by providing attractive high capacity transit

- Every ton of cement generates 1 ton of CO₂*
- Every ton of steel generates 1.8 ton of CO₂*
- 50% of cars (by volume) are plastic*
- An estimated 4 billion tires are currently in landfills and stockpiles**

* Gates, Bill. How to Avoid a Climate Disaster. 2021

** World Business Council for Sustainable Development, 200.8

Proposed TCI Funding Allocation

Priorities:

- **Statewide**: Provide ongoing transit operations and maintenance funding to make transit as effective and attractive as driving
- **Buffalo-Niagara-specific examples**: 10-minute headways on bus routes, support local share for extending, then maintaining, Buffalo's Metro Rail (light rail)



Lithium-ion Batteries

Cars, buses and electronics



[This Photo](#) by Unknown Author is licensed under [CC BY-SA-NC](#)

Lithium extraction uses about 500,000 gallons of water per metric ton*

Cobalt is extracted from the ground by hand using child labor without protective equipment*

Not a single car manufacturer identifies or addresses human rights risks and abuses **

* Institute for Energy Research, November, 2020

** [Amnesty International, The Dark Side of Electric Cars: Exploitative Labor Practices, 2017](#)



Mobility Justice

Making sure transportation systems and policies satisfy the needs of the economically most vulnerable

In Buffalo-Niagara:

30% of Buffalo households don't own cars; rely on public transportation for access to jobs, medical appointments, education, shopping, recreation, etc.

Transit is plagued by poor and infrequent service due to

- Years of disinvestment

- Inadequate operational funding

Poor service makes transit the mode of last resort

Recent NYS transit funding improvements are a good start; more is needed



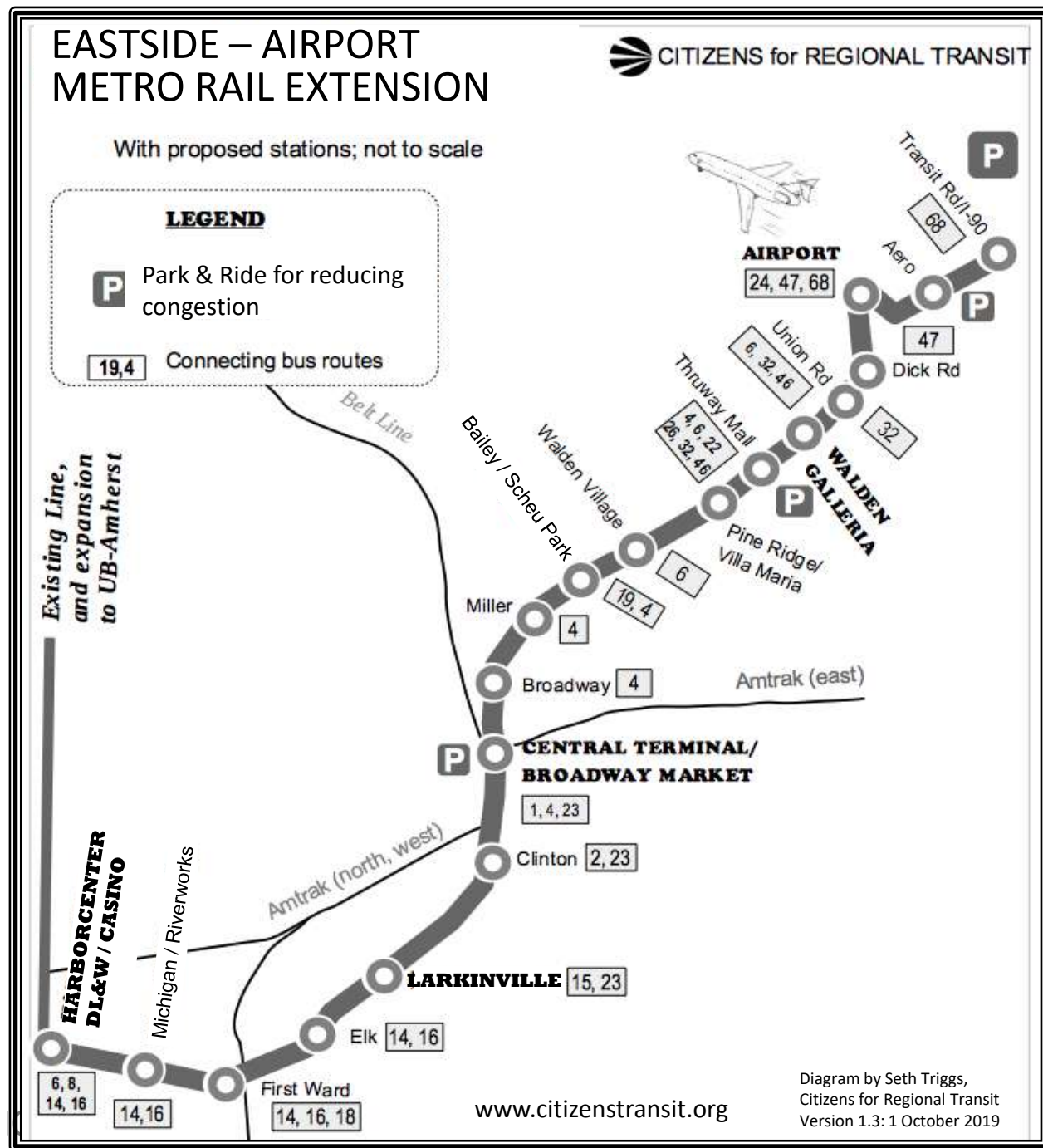
Pictures by: Doug Funke, CRT President



CITIZENS *for* REGIONAL TRANSIT

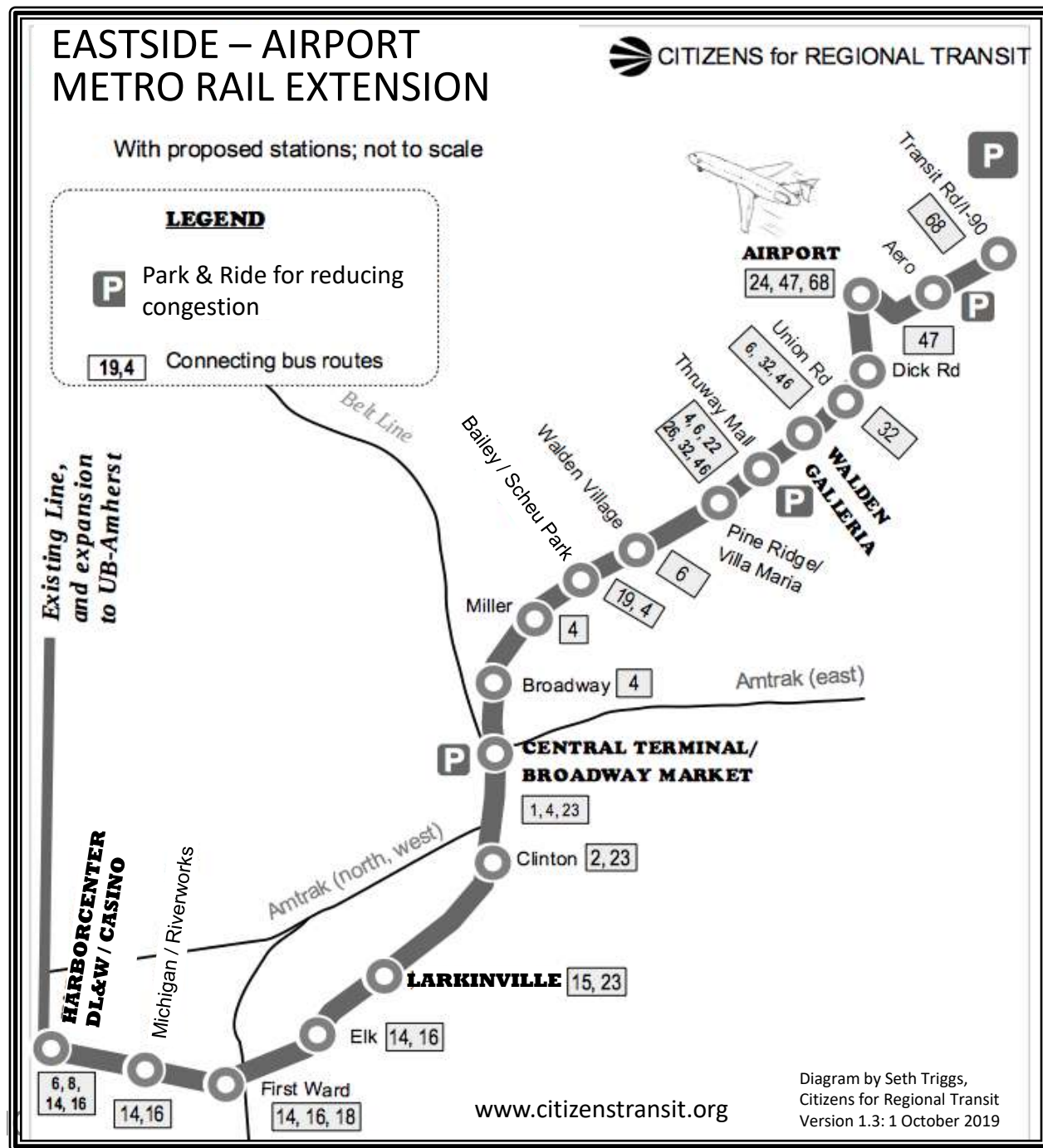
Proposed Eastward Extension

(on existing,
publicly-owned
rights-of-way)



Proposed Eastward Extension

(on existing,
publicly-owned
rights-of-way)



Community Support for Transit Reflected in One Region Forward Outreach

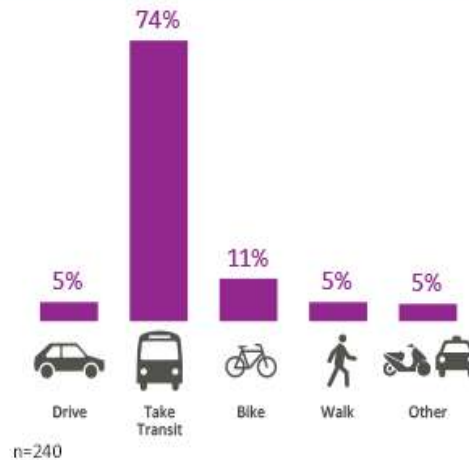


Question #3: To improve our transportation system, our top priority should be making it easier to...

- A. Drive
- B. Take Transit
- C. Bike
- D. Walk
- E. Other

A large majority of citizens (74%) responded that **making it easier to take transit** was key to improving our region's transportation system.

To improve our transportation system, we should make it easier to...



How should we move forward?

- “106 out of 115 (92%) maps said increase ways to get around without a car is a guiding principle”
- “On average participants added 59 miles of metro rail

How do our choices play out?

- “A larger percentage of jobs and homes would be served by transit”
- “We would depend less on cars for our daily trips, conserve more energy, and emit less carbon”

What could we do differently?

- “Connect land use to transportation, especially public transit”
- “The region should make transit funding and system improvement a top priority for advocacy and action”

90% of Ballot Initiatives Successful in 2020

2020 Snapshot	
53	Public Transit Measures on the Ballot
47	Wins for Transit (90.38%)
5	Losses for Transit
\$1,884,911,547	Revenue Total
\$926,265,547	Known Transit Revenue
Revenue Types	
36	Property Tax
11	Sales Tax
4	Bond
1	Payroll Tax

APTA Center for Transportation Excellence.
<https://cfte.org/initiatives/campaigns/?campaignyear=2020&startdate=1577858400&enddate=1609480800>

- Sonoma, CA
- Fairfax County, VA
- Bellingham, WA
- St. Louis, Ithica, and Pine River Township, MI
- Austin, TX
- Newton County, GA
- Seattle, WA
- Portland, OR
- Bend, OR
- Wheeling and Bethlehem, WV
- Denver, CO
- San Antonio, TX
- Missoula, MT
- Durand, MI
- Shiawassee Township, MI
- San Francisco, Santa Clara and San Mateo, CA
- Monroe, MI
- Gwinnett County, GA
- Kalkaska County, MI
- Midland County, MI
- Escanaba, MI
- Genesee County, MI
- Friendship County, MI
- Clinton County, MI
- Arenac County, MI
- Oremaw County, MI
- Ludington and Scottville, MI
- Iosco County, MI
- Narquette County, MI
- Wexford County, MI
- Spring Lake Township, MI
- Statewide, Maine
- Parkersburg, WV
- Vienna, WV
- Huntington, WV
- Monongalia County, WV
- Fort Gratiot, MI
- Fort Huron, MI
- Lucas County, OH
- Belmont and Jefferson Counties, OH
- Hamilton County, OH
- Anchorage, AK
- Benzie County, MI
- Clare County, MI
- New Haven Township, MI
- Lansing, MI
- Kalamazoo County, MI
- Van Buren County, MI
- Saginaw Township, MI
- Manistee County, MI
- Marin and Sonoma Counties, CA
- Contra Costa County, GA
- Redlands, CA

Why We Should Invest in Transit Now!

**Federal
Support for
Infrastructure
Investment
(finally!)**

**Need to
Address
Equity
Disparities**

**The
Climate
Crisis**

**Economic
Growth**



What is Equitable Transit-Oriented Development (eTOD)

An approach to development that focuses land uses around a transit station or within a transit corridor

That avoids gentrification

- Supports Mixed Use Development
- *Incorporates Affordable Housing*
- Promotes Historic Preservation
- Stimulates Local Businesses
- Pedestrian Orientation/Walkability
- Rapid Regional Connectivity to Jobs, Healthcare, Education and other Amenities
- Multimodal Access
- Reduces Parking Demand
- *Reverses disinvestment*



Picture Credit: Tony Webster, Minneapolis Green Line. May, 2017. WikiMedia.

eTOD Historical Context

- Minority-majority communities have struggled under years of targeted disinvestment
- This has created an accumulated wealth and opportunity deficit
- Poor transportation options exacerbate the problem
- Active steps are needed to overcome accumulated disadvantage



Electric Cars to the Rescue?

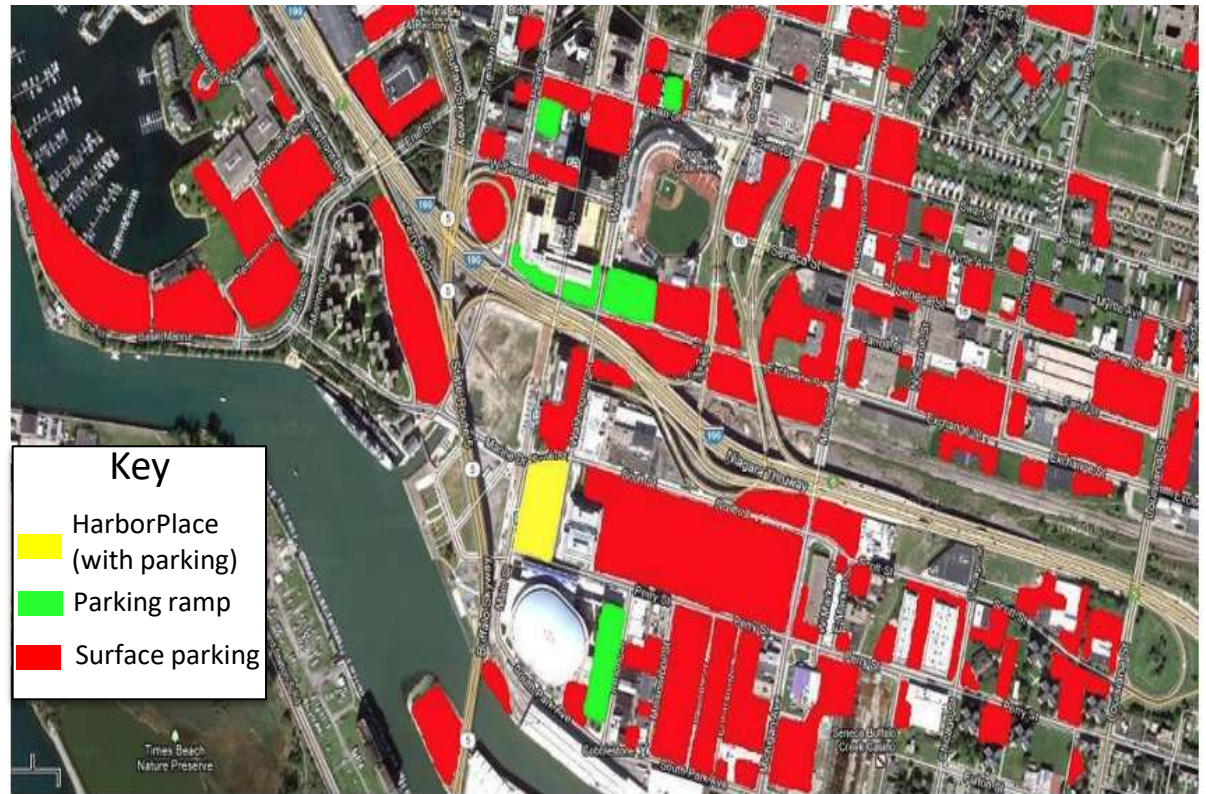
What if we all drove electric cars?
Won't that solve the problem?



Image source: NYSERTA. Charge NY. <https://www.nyserda.ny.gov/All-Programs/Programs/ChargeNY>



Not Exactly...



Courtesy of Mark Paradowski from the Preservation-Ready Sites

88

Pictures by: Doug Funke, CRT President



CITIZENS *for* REGIONAL TRANSIT

FOCUS OF RESEARCH

- **Can Extending Buffalo Metro to the East Side Be a Catalyst for eTOD?**
- How Do the East Side Demographics Define eTOD Potential?
- Factors to Consider for Extending Buffalo Metro



Quantify Airport Corridor Demographics

Region	Average Travel Time	Percent of Population with no vehicle available	Percent of population with one car available	Percent with two or more cars available
Buffalo City	21.0 minutes	11.79%	35.2%	53.01%
Cheektowaga	19.2 minutes	3.17%	27.8%	69.1%
East Side Airport Corridor	20.5 minutes	26.7%	41.4%	31.8%

FIGURE 13: TRANSPORTATION USE, CENSUS BUSINESS BUILDER

Region	Percent of workforce who drive alone to work	Percent of workforce who carpool	Percent of workforce who use public transportation	Percent of workforce who walk to work	Percent of workforce that works from home	Percent of workforce who use other means to commute
Buffalo City	65.7%	10.5%	11.3%	5.7%	2.3%	2.7%
Cheektowaga	88.3%	6.4%	1.4%	1.2%	0.8%	1.8%
Eastside Airport Corridor	73.1%	10.8%	10.6%	4.6%	1.8%	2.0%

FIGURE 12: TRANSPORTATION ACCESSIBILITY, CENSUS BUSINESS BUILDER



FIGURE 1: EAST SIDE AIRPORT CORRIDOR MAP

Region	Poverty Rate	Employment Rate	Median Household Income	Percent of Population with a Bachelor's Degree or Higher	Percent of Population with a Highschool Degree
Buffalo	30.1%	55.6%	\$37,354	27.6%	84.6%
Cheektowaga	10.7%	62.9%	\$54,002	23.6%	93.2%
East Side Airport Corridor	28.2%	54.9%	\$51,588	15%	84.9%

FIGURE 15: SOCIAL STATISTICS



Corridor Demographics – In the Corridor



	Larkinville	Broadway Filmore	Wildroot Station	Walden Station
Expenditures	\$32,100	\$29,780	\$34,465	\$49,426
Transportation Expenditures	\$3,888	\$3,557	\$4,173	\$6,104
Gasoline Expenditures	\$931.96	\$931.96	\$1,099	\$1,575
Vehicle Maintenance	\$465.37	\$465.37	\$542	\$789

Recommended for Study by 2010 NFTA Strategic Analysis¹

“... at least three NFTA pairs (five corridors) scored well in all categories and are good candidates for further study for major transit investment.”

- Amherst via either Boulevard or Millersport
- Airport via combination of abandoned right-of-way and /or Broadway
- Delaware or Elmwood (due to proximity)

	Corridors	Market Intensity (per line mile)	Development Potential	Travel Patterns	Ridership (per line mile)
Recommended for Study	Amherst-Boulevard (Alt A)	7,573	Moderate	Primary Pattern	2,156
	Amherst-Millersport (Alt B)	8,477	Moderate	Primary Pattern	2,450
	Airport (study jointly with Broadway)	8,165	High	Primary Pattern	997
	Broadway (study jointly with Airport)	10,453	High	Primary Pattern	543
	Elmwood	2,771	Moderate	Primary Pattern	933
	Delaware	13,450	Moderate	Primary Pattern	597
Monitor for Future Consideration	Southtowns	2,771	Low, except adjacent to downtown	Primary Pattern (Inner)	122
	Tonawanda-Niagara (Alt A)	2,363	Low	Secondary Pattern	32
	Tonawanda (Alt B)	4,256	Low	Secondary Pattern	54
	Bailey	4,749	Low	Secondary Pattern	350
	Fillmore-Hertel	4,080	Low	Secondary Pattern	391
	Seneca	10,017	Low, except adjacent to downtown	Primary Pattern	382

1. Erie County Transit Service Restructuring and Fare Study–Strategic Assessment. Final Report. August 2010.



Mode	Cost per Mile	Distance (miles)	Total Cost	% Federal Share	\$ Federal Share	\$ Local Share
LRRT (high Estimate)	\$100M	13	\$1.3B	50%	\$650M	\$650M
LRRT (low Estimate)	\$70M	13	0.91B	50%	\$455M	\$455M

Mode	Cost per Mile	Distance (miles)	Total Cost	% Federal Share	\$ Federal Share	\$ Local Share
Expressway (high est.)	\$200M	13	\$2.6B	80%	\$2.08B	\$520M
Buffalo Expressway	\$177M	13	\$2.3B	80%	\$1.84B	\$460M
Expressway (low est.)	\$50M	13	\$650M	80%	\$520M	\$114M



Accessibility

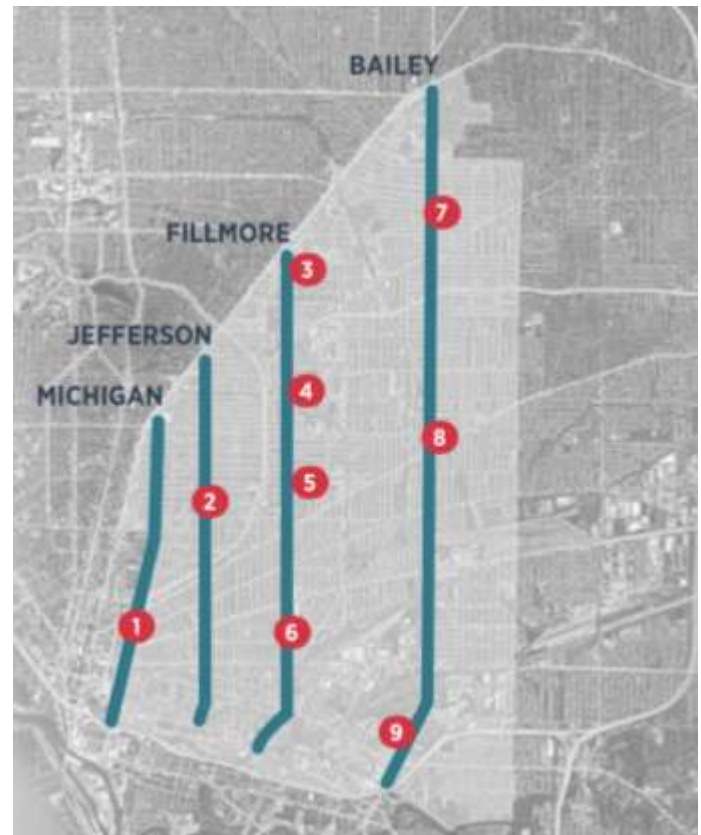
	Bus	Light Rail
Disabled Accommodations	Wheelchair ramps, 1 or 2 tie downs, slows loading, service animals permitted	Wheelchairs roll-onto cars, 2 wheelchair securements per car, service animals permitted



East Side: Past and Future

- East Side Avenues Project
- Bailey Avenue BRT
- Mixed use developments
- ...

East Side Avenues Initiative



East Side: Past and Future

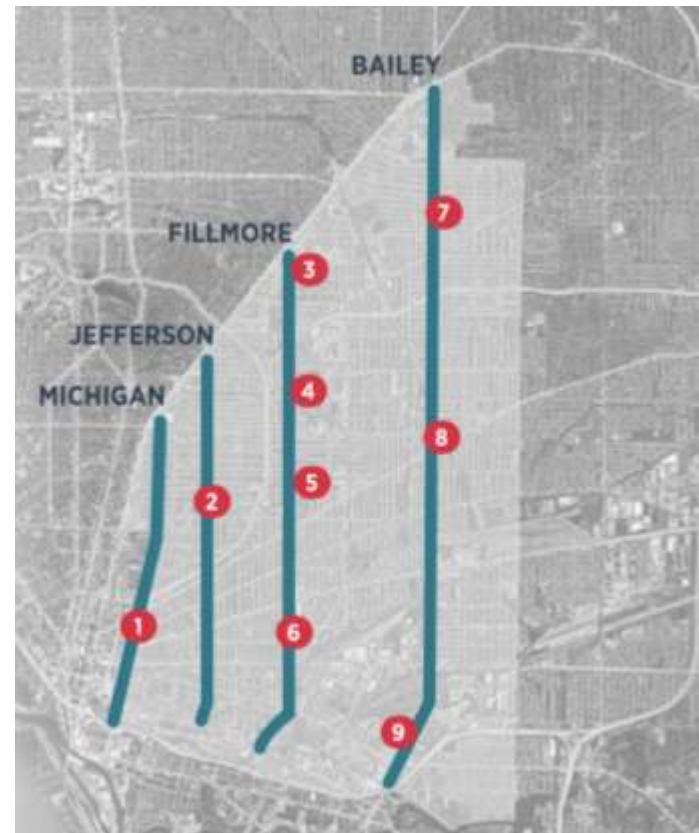
FORTY-FIVE LARGEST U.S. CITIES RANKED ACCORDING TO THE DENSITY OF THEIR URBANIZED AREAS

SOURCE: Table 22, U.S. Census of Population: 1960; Volume 1, Characteristics of the Population; Part 1, United States Summary; U.S. Gov't. Printing Office, Washington, D.C., 1964

Rank	Urbanized Area	Population	Area (Sq. Miles)	Density per Sq. Mile
1.	New York-Northeastern New Jersey	14,114,927	1891.5	7462
2.	Buffalo, N.Y.	1,064,370	165.2	6441
3.	Baltimore, Md.	1,418,948	220.3	6441
4.	Chicago-Northwestern Indiana	3,959,213	609.8	6209
5.	Philadelphia-New Jersey	3,625,229	596.7	6092
6.	Washington-Md.-Va.	1,838,423	346.7	5308
7.	San Francisco-Oakland, Calif.	1,667,693	323.2	5160
8.	San Antonio, Tex.	1,537,709	311.9	4934
9.	San Jose, Calif.	803,624	166.6	4824
10.	Los Angeles-Long Beach, Calif.	4,488,791	1370.0	4736
11.	Boston, Mass.	2,413,236	515.8	4679
12.	Baltimore-Farmington, Va.	507,825	108.8	4670
13.	Miami, Fla.	852,725	183.1	4657
14.	Louisville, Ky.-Ind.	906,859	135.6	4474
15.	Indianapolis, Ind.	639,340	144.9	4412
16.	Rochester, N.Y.	493,402	113.3	4355
17.	Albany-Schenectady-Troy, N.Y.	485,447	106.4	4281
18.	Columbus, Ohio	616,743	144.8	4259
19.	San Francisco-Oakland, Calif.	2,430,683	571.5	4253
20.	Cincinnati, Ohio-Ky.	963,589	242.3	4101
21.	Dayton, Ohio	581,664	124.5	4029
22.	Seattle, Wash.	664,159	238.3	3626
23.	Providence-Pawtucket-R.I.-Mass.	659,542	188.0	3508
24.	Memphis, Tenn.	544,505	155.7	3497
25.	Pittsburgh, Pa.	1,604,400	525.0	3437
26.	Portland, Ore.-Wash.	661,686	192.4	3387
27.	Sacramento, Calif.	461,920	134.0	3373
28.	San Antonio, Texas	941,966	192.4	3337
29.	Birmingham, Ala.	821,330	156.8	3325
30.	Kansas City, Mo.-Kans.	921,121	282.4	3262
31.	Toledo, Ohio	438,263	134.9	3249
32.	Alton, Ohio	458,253	141.3	3243
33.	New Orleans, La.	846,237	286.6	3172
34.	Atlanta, Ga.	788,125	246.8	3125
35.	Cleveland, Ohio	1,784,991	566.7	3042
36.	San Diego, Calif.	836,175	275.7	3033
37.	Milwaukee, Wis.	1,149,927	382.0	2934
38.	San Jose, Calif.	603,605	223.1	2702
39.	Houston, Texas	1,188,678	436.5	2647
40.	Phoenix, Ariz.	563,043	248.4	2222
41.	Minneapolis-St. Paul, Minn.	1,377,142	657.3	2095
42.	Springfield-Charleston-Holyoke, Mass.-Conn.	449,777	236.8	1883
43.	Fort Worth, Texas	502,682	272.6	1844
44.	Dallas, Texas	902,346	647.0	1441
45.	Oklahoma City, Okla.	429,188	305.2	1114

Buffalo

East Side Avenues Initiative



CITIZENS for REGIONAL TRANSIT

Quantify Airport Corridor Demographics



	Buffalo	Airport Corridor	Cheektowaga
Poverty Rate	30.1%	28.2%	10.7%
Employment Rate	55.6%	54.9%	62.9%
High School Diploma	84.6%	84.9%	93.2%
Bachelors Degree	27.6%	15.0%	23.6%