



Pedestrian Accessibility on Fixed Route Service (PAFRS)

Final Summary



December 2014

EASTGATE REGIONAL COUNCIL OF GOVERNMENTS

Serving Northeast Ohio since 1973

The Eastgate Regional Council of Governments is a multipurpose Regional Council of Governments for Ashtabula, Mahoning and Trumbull Counties, as established by Section 167.01 of the Ohio Revised Code. Eastgate is the agency designated or recognized to perform the following functions:

- Serve as the Metropolitan Planning Organization (MPO) in Mahoning and Trumbull Counties, with responsibility for the comprehensive, coordinated and continuous planning for highways, public transit and other transportation modes as defined in Moving Ahead for Progress in the 21st Century (MAP-21) legislation.
- Perform continuous water quality planning functions in cooperation with Ohio and U.S. EPA.
- Provide planning to meet air quality requirements under MAP-21 and the Clean Air Act Amendments of 1990.
- Administration of the Economic Development District Program.
- Administration of the Local Development District of the Appalachian Regional Commission.
- Administration of the State Capital Improvement Program for the District 6 Public Works Integrating Committee.
- Administer the area clearinghouse function, which includes providing local government with the opportunity to review a wide variety of local or state applications for federal funds.
- Administration of the regional Rideshare Program for Ashtabula, Mahoning and Trumbull Counties.
- Conduct demographic, economic and land use research.
- At General Policy Board direction, provide planning assistance to local governments that comprise the Eastgate planning area.
- Administration of the Clean Ohio Conservation & Revitalization Funds.

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Pedestrian Accessibility on Fixed Route Service (PAFRS)



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Pedestrian Accessibility on Fixed Route Service (PAFRS) Summary

Background

A pedestrian survey of sidewalks, crosswalks and ADA ramps was conducted by Eastgate in 2011. Eastgate updated and expanded this data in December 2014 by using aerial photography, GIS and local knowledge. This data was used as the basis for an analysis of pedestrian accessibility to transit services. An interactive web map was produced which can assist our members in identifying gaps for pedestrian access within a community. Identifying gaps in a transportation network correlate with future funding grants to promote sustainable healthy communities through walkable, accessible, and bikeable communities.

Eastgate recognizes the importance of multi-model connectivity to different modes of transportation; therefore we decided to analyze pedestrian access to existing Fixed Route and Special Service Transportation (SST) transit services in Mahoning and Trumbull Counties.

The SST service is a complementary paratransit service that is available to individuals who have registered as ADA eligible and/or senior citizens 65 years and older. The SST service area is a 3/4 mile boundary around a fixed route service line. The 3/4 of a mile distance around a bus route is considered a walkable distance, so our analysis evaluated whether pedestrians (and particularly pedestrians with disabilities) can easily navigate to a particular bus route.

Web Maps

To help make this determination, Eastgate created two web maps. The first map is for public use and shows the locations of bus routes, the availability of sidewalks (whether there are sidewalks on one, two or no sides of the road), car-free paths (known as pedestrian and bike paths), ADA ramps and crosswalks. This can help the public select their bus routes and their walking travel path. This map can help local officials identify gaps and program future funding for sidewalks, ADA ramps, and striping crosswalks.

The map layers can be toggled on and off, giving users the ability to see the connectivity of only the bus routes they are interested in. Several basemaps are available and show a combination of street layers, topography and aerial photography. The aerial photography is particularly helpful in seeing exactly where sidewalks and crosswalks are located. The web map includes a sketch tool which can be used to draw a preferred walking path. The screen can also be printed as a PDF map.

The second map is for Eastgate and WRTA use and is identical to the first, with the inclusion of WRTA service boundaries and 3/4 of a mile buffers for each route. This will help in evaluating whether a SST rider lives within a walkable radius of a particular bus route.

The link to the public interactive web mapping is located on Eastgate's homepage.

Statistics

Statistics were generated on the availability of sidewalks, crosswalks and ADA ramps by bus route.

Table 1 identifies how many linear miles of roadway within 3/4 mile of each bus route have sidewalks. Table 2 identifies how many intersections within 3/4 mile of each bus route have ADA ramps or crosswalks.

Pedestrian access

Pedestrian access to fixed route was analyzed for sixteen routes and the 3/4 mile boundary for the SST service. While pedestrian have access to all sixteen routes, some areas within the 3/4 mile boundary reveal urban and suburban housing densities without sidewalks.

The PAFRS summary data can be interpreted in different ways. For the purpose of analyzing pedestrian access to transit, our focus will be concentrated on the pedestrian gaps in this transportation network. These connectivity gaps to walkable communities developed over time because of housing and development trends.

The data contained in Table 1 show routes that have no sidewalks, sidewalks on one side of the road, sidewalks on two sides of the road, and areas that contain a pedestrian and bike path.

Within the SST area as a whole, the analysis shows that 559 linear miles around transit do not have sidewalks. Sidewalks are available on 108 miles of roadway on one side of the road, and 516 miles of sidewalks are located on two sides of the road. The data analysis indicated that 1 mile of pedestrian and bike path was located on the 36-Glenwood route that travels by Millcreek MetroParks.

The second set of tables represent the number of intersections with ADA ramps (with visible truncated domes) and crosswalks on the fixed route service and the 3/4 mile boundary. Currently, there are 4503 intersections that do not have ADA ramps and crosswalks around transit. There are 307 intersections that have ramps only, and 436 intersections that have ramps and crosswalks.

Disclaimer

It is important to note that because the PAFRS analysis was conducted using 2013 aerial photography the values are estimations. Due to imagery resolution of the aerial photography, only relatively new and intact truncated domes could be seen and used to identify the ADA ramps. As a result of this, curb cuts without truncated domes were not counted as part of the analysis. When analyzing crosswalks, only crosswalks that were clearly painted were included in the calculations. In addition, highways were excluded from the analysis.

Pedestrian Accessibility to WRTA Fixed Route and Special Service Transportation (SST)

Table 1

Miles of Sidewalks within 0.75mi of WRTA Fixed Routes																
Route	31 - Elm		31 - Oak		32 - Mosier		32 - Wilson		33 - Buckeye Struthers		33 - Struthers Buckeye		33 - Fifth		34 - Steel	
	Mi	%	Mi	%	Mi	%	Mi	%	Mi	%	Mi	%	Mi	%	Mi	%
No sidewalks	30	28%	49	34%	43	36%	34	28%	60	28%	62	29%	34	31%	36	30%
Sidewalks on 1 Side	14	13%	22	15%	17	14%	18	15%	29	14%	29	14%	13	11%	15	13%
Sidewalks on 2 Sides	65	60%	75	51%	58	49%	67	57%	123	58%	123	58%	64	58%	67	57%
Car Free Paths	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	109	100%	146	100%	118	100%	119	100%	213	100%	214	100%	111	100%	118	100%

Route	35 - Cornersburg		35 - South		36 - Glenwood		36 - McGuffey		38 - Belmont		38 - Market		39 - Warren		40 - Austintown	
	Mi	%	Mi	%	Mi	%	Mi	%	Mi	%	Mi	%	Mi	%	Mi	%
No sidewalks	92	45%	63	31%	70	33%	56	44%	48	38%	44	24%	124	38%	51	35%
Sidewalks on 1 Side	19	9%	26	13%	21	10%	13	10%	14	12%	23	12%	29	9%	16	11%
Sidewalks on 2 Sides	92	45%	114	56%	119	56%	58	45%	62	50%	119	64%	173	53%	77	53%
Car Free Paths	0	0%	0	0%	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	203	100%	202	100%	211	100%	127	100%	125	100%	186	100%	326	100%	144	100%

Table 2

Number of Intersections with ADA Ramps (with Truncated Domes) and Crosswalks within 0.75mi of WRTA Fixed Routes																
Route	31 - Elm		31 - Oak		32 - Mosier		32 - Wilson		33 - Buckeye Struthers		33 - Struthers Buckeye		33 - Fifth		34 - Steel	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
No ADA Ramps/Crosswalks	407	78%	542	78%	473	79%	446	78%	792	81%	802	81%	423	78%	414	74%
Ramps Only	40	8%	80	12%	50	8%	63	11%	82	8%	82	8%	46	8%	79	14%
Ramps and Crosswalks	72	14%	72	10%	74	12%	66	11%	104	11%	104	11%	76	14%	64	11%
Total	519	100%	694	100%	597	100%	575	100%	978	100%	988	100%	545	100%	557	100%

Route	35 - Cornersburg		35 - South		36 - Glenwood		36 - McGuffey		38 - Belmont		38 - Market		39 - Warren		40 - Austintown	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
No ADA Ramps/Crosswalks	748	84%	704	78%	687	78%	511	85%	472	79%	635	76%	1410	82%	473	73%
ADA Ramps Only	82	9%	54	6%	79	9%	34	6%	49	8%	65	8%	110	6%	85	13%
ADA Ramps and Crosswalks	64	7%	143	16%	118	13%	56	9%	75	13%	132	16%	194	11%	88	14%
Total	894	100%	901	100%	884	100%	601	100%	596	100%	832	100%	1714	100%	646	100%

*These values are estimations. Due to aerial image resolution, only well painted crosswalks and relatively new truncated domes could be seen. Highways were excluded from the calculations. Values have been rounded to the nearest whole number.

FIXED ROUTE SYSTEM

FIXED BUS ROUTE

- 31-Oak
- 31-Elm (Logan)
- 32-Mosier
- 32-Wilson
- 33-Fifth
- 33-Buckeye Struthers
- 33-Struthers Buckeye
- 34-Steel
- 35-South
- 35-Cornersburg
- 36-McGuffey
- 36-Glenwood
- 37-Albert
- 38-Market
- 38-Belmont
- 39-Warren Express
- 40-Austintown
- 55-Austintown Loop

WRTA SST AREA



0 1.5 3 4.5 6 Miles

Source: Transit Development Program
May 2013

