

2007 On-Board Transit Survey

Heidi Phaneuf, Associate Planner
Genesee County Metropolitan
Planning Commission



Genesee County Metropolitan Alliance (GCMA)

- Service area all of Genesee County, including Flint, MI
- MPO and TMA
- Responsible for our own Travel Demand Model
- Genesee County Metropolitan Planning Commission (GCMPC) are staff to GCMA



Fed Aid Road Network



Genesee County Model Development Process

- In process of working on 2035 LRTP
- Hired a consultant for development of base year of model
- New model will include a full transit model, mode split, and simple truck model, time-of-day, and use data from MI Travel Counts
- Model Development Committee- meets monthly and guides model development



Need for a On-board Transit Survey

- Additional data source for transit component of the model
- Mass Transportation Authority (MTA) the main transit provider for Genesee County, wanted local data source used, not factors from another area in Michigan or national defaults. MTA became interested as part of Model Development Committee involvement.

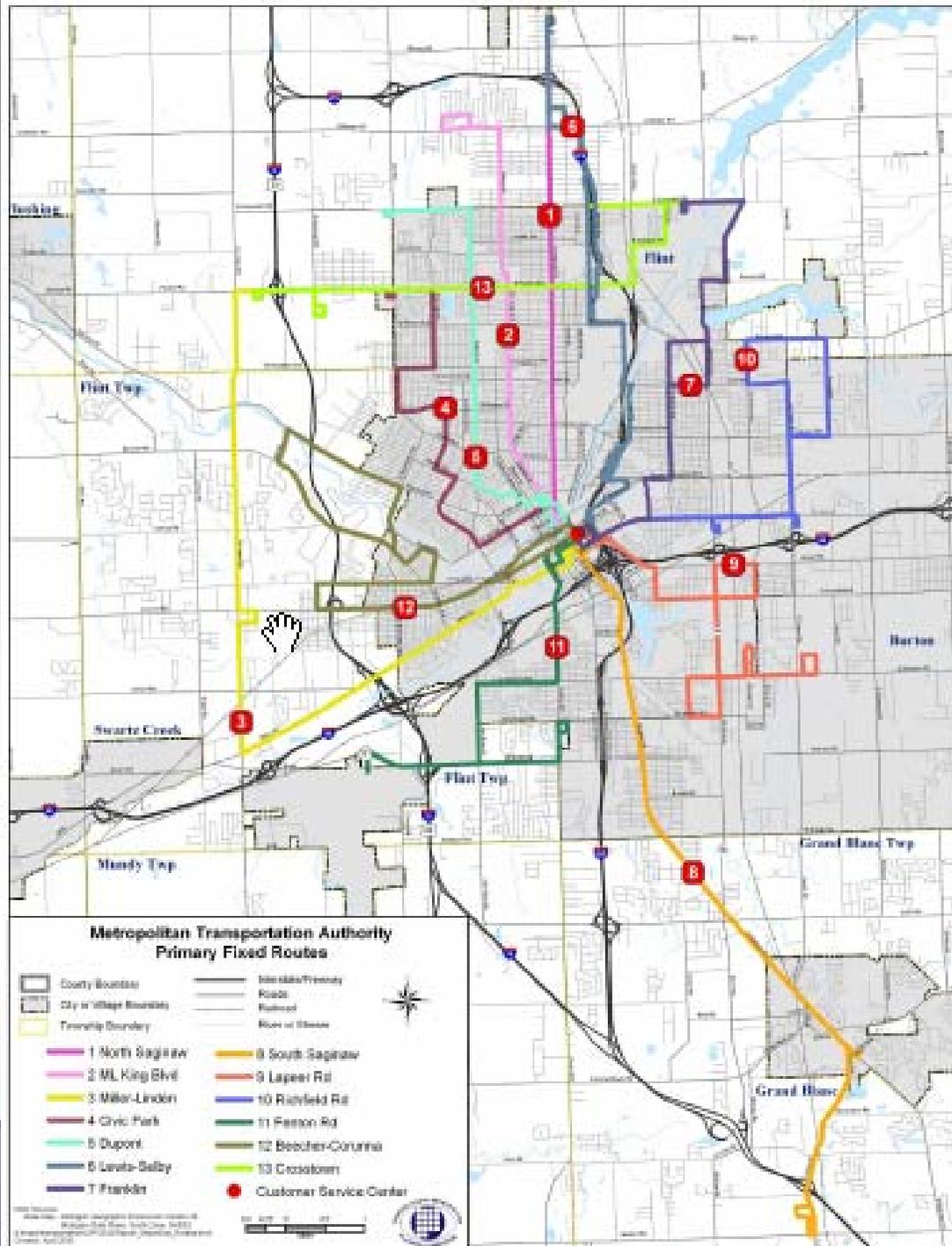


Mass Transportation Authority

- 13 fixed routes
- Provides approximately 4 million trips annually
- Downtown Flint Service Center
- Curb-to-curb service “Your Ride” for out-county area
- Regional transit routes outside of Genesee County
- Bike racks on all buses



MTA Fixed Routes



On-Board Transit Survey

- Focused on providing accurate travel data on the 13 fixed transit routes
- Data collection completed in 2-week period beginning October 29, 2007
- Stratified random sample of weekday ridership
- Survey and methodology based on similar survey by ETC Institute for Mid-America Regional Council (Kansas City, Missouri) recommended by our modeling consultant
- Easy to understand



Survey Method

- Cooperation with MTA bus drivers
- Two surveyors on each bus administering the survey
- Short survey, 2-page
- Legal size paper- easier to mark answers on a moving bus
- 635 surveys needed, 775 usable surveys completed



Sampling Plan and Survey Targets for 13 Fixed Routes

Route #, Name and % of Average Weekday Ridership	Goal for Stratified Sample	Target for Completed Surveys	# of Completed Surveys	# of Useable Surveys
1-North Saginaw-11%	70	80	80	79
2-M. L. King-11%	70	80	84	83
3-Miller-Linden-9%	60	70	68	68
4-Civic Park-9%	60	70	70	69
5-Dupont-9%	60	70	70	69
6-Lewis-Selby-3%	20	30	34	34
7-Franklin-9%	60	70	70	70
8-South Saginaw-5%	35	45	46	45
9-Lapeer-9%	60	70	67	67
10-Richfield-6%	40	50	53	53
11-Fenton-5%	35	45	49	45
12-Beecher-Corunna-8%	50	60	64	66
13-Crosstown North-3%	20	30	30	27
TOTALS-	635	770	785	775



2007 On-Board Ridership Survey

ROUTE # _____

SURVEY # _____

Please take a few moments to complete this important survey. When you're finished, please return your completed survey and pencil to the person who gave it to you or place it in the return box by the door of the bus. **All information will be kept strictly confidential.** Questions: Call 810-694-7848.

PART I: WHERE ARE YOU COMING FROM NOW?

1. What type of place are you COMING FROM RIGHT NOW? (Check one)

Work Shopping Medical K-12 School College/University
 Home Social/Personal Other _____

2. What is the **NAME** of the place you are coming from in Question 1? _____
(Example: your home, name of your employer, M_{CC}, UM-F, etc.)

3. What is the **ADDRESS** of the place you are coming from in Question 1? (be specific and complete)

Street Address (example: 1203 S. Saginaw)

&
Nearest Intersecting Streets (example: S. Saginaw & Bristol)

City

County

Zip Code



4. How did you get from the place listed in Question 1 to the first bus you used for this trip?
(Check one)

Bicycled Dropped off by somebody Drove my car and parked
 Walked (how many blocks did you walk?) _____

5. Where did you GET ON the bus you are riding now?

_____ & _____
Nearest Intersecting Streets (example: S. Saginaw & Bristol) City

Name of the nearest business or employer to the location where you got on this bus

6. Is the bus you are currently riding the **FIRST** bus you used for **THIS TRIP**?

Yes, this is the first bus I used since leaving the place listed in Question 1.
 No, I transferred from another bus

6A. If you transferred from another bus, what was the Route # or Name of that bus?

Enter the Route # or Route Name



Part II: WHERE ARE YOU GOING NOW?

7. What type of place are you GOING TO RIGHT NOW? (check one)

Work Shopping Medical K-12 School College/University
 Home Personal Other _____

8. What is the NAME of the place you are going to in Question 7? _____
(Example: your home, name of your employer, MCC, UM-Flint, etc.)

9. What is the ADDRESS of the place you are going to in Question 7? (be specific and complete)

Street Address (example: 1203 S, Saginaw)

& _____
Nearest Intersecting Streets (example: S. Saginaw & Atherton)

City County Zip Code

***PLEASE ANSWER
THE QUESTIONS ON
THE OTHER SIDE***



10. Where will you GET OFF the bus you are riding now?

_____ & _____
Nearest Intersecting Streets (example: M. L. King & Welch)

City

County

Zip Code

11. How will you GET TO the place listed in Question 7 from the LAST BUS you are using for this trip?
(Check one)

Will bike Will be picked up by someone Will drive my car Will walk _____ blocks
(Enter #)

12. Is the bus you are currently riding the LAST bus you will use for THIS TRIP?

Yes, this is the last bus I will use before arriving at the place listed in Question 7

No, I will transfer to another bus

12A. If you will transfer to another bus, what is the Route # or Name of that bus?

Enter the Route # or Name



Part III: PLEASE TELL US ABOUT YOURSELF

13. How many working vehicles (cars, trucks, motorcycles, etc.) are available in the household where you live or stay in the Flint area?

none one two three or more

14. If Question 13 is more than "none", Could you have used one of these vehicles to make THIS TRIP instead of riding the bus?

Yes No

15. How did you pay your fare for this trip?

Paid Cash Used a Pass Other _____
(Describe)

16. Including you, how many people live in the household where you live or stay in the Flint area?

One Two Three Four or more

17. Your Gender: Male Female

18. Your Age: _____ Years



19. Your Home Street Address: _____

20. Your Home City and Zip Code: City: _____ Zip Code _____

21. Your Annual Household Income (this will remain confidential, but is very important for the transit planning model):

below \$5,000 between \$5,001-\$9,999 between \$10,000-19,999
 between \$20,000-\$29,999 between \$30,000-\$39,000 between \$40,000-\$49,999
 between \$50,000-\$59,000 between \$60,000-\$74,999 \$75,000 or more

OPTIONAL CONTACT INFORMATION: If you would like to be in a drawing for one of ten 10-Punch Passes, please provide the following information:

Your Name: _____

Address: _____ Home Phone: (____) _____

THANK YOU FOR YOUR COOPERATION



Table 1. Demographic Characteristics of Fixed-Route Ridership

Demographic Characteristics	No.	%
Household Size		
One	134	17.29
Two	151	19.48
Three	134	17.29
Four or more	274	35.35
No Response	82	10.58
Gender		
Male	278	35.87
Female	426	54.96
No Response	71	9.16
Age of Ridership		
Mean	35.36 years	
No Response	99	
Annual Household Income		
Below \$5,000/year	230	29.67
\$5,001-\$9,999/year	119	15.35
\$10,000-\$19,999/year	123	15.87
\$20,000-\$29,000/year	47	6.06
\$30,000-\$39,999/year	20	2.58
\$40,000-\$49,000/year	11	1.41
\$50,000-\$59,999/year	2	0.25
\$60,000-\$74,999/year	4	0.51
\$75,000 or more/year	4	0.51
No Response	215	27.74

Travel Characteristics

- Trip origin
- Trip destination
- Mode of travel from origin to bus and bus to destination
- Boarding and deboarding locations
- Bus transfers
- Availability of other modes of travel
- Payment method



Origin and Destination Trip Purpose

- Home based trip origin 49.93%
- Home based trip destination 35.35%
- Work based trip origin 14.58%
- Work based trip destination 14.96%



Table 2. Type of Place of Trip Origin and Trip Destination

A. Type of Place of Trip Origin	N	%
Work	113	14.58
Shopping	54	6.96
Medical	32	4.12
K-12 School	23	2.16
College/University	35	4.51
Home	387	49.93
Social/Personal	44	5.67
Other	87	11.22

B. Type of Place of Trip Destination	N	%
Work	116	14.96
Shopping	71	9.16
Medical	47	6.06
K-12 School	25	3.22
College/University	42	5.41
Home	274	35.35
Social/Personal	88	11.35
Other	112	14.45

Distance Traveled to Transit

- 61.15% traveled one block or less from trip origin to bus stop
- 62.81% traveled one block or less from bus stop to destination
- 1.9 blocks was the mean distance traveled to transit for origins and destinations



Bus Transfers

- Nearly two-thirds (65.29%) of fixed route passengers do not need to transfer buses to get to their destination



Table 3. Mode of Transport To a Bus for Trip Origin and From a Bus for Trip Destination

A. Mode of Transport to Bus from Trip Origin		N	%
Bicycle		12	1.54
Dropped off by someone		69	8.90
Drove own car and parked		3	0.38
Walked		664	85.67
No Response		27	3.48
B. Number of Blocks Walked			
Less than one		263	33.93
One		211	27.22
Two		129	16.64
Mean	+		1.9
C. Mode of Transport from Bus to Trip Destination		N	%
Will bike		19	2.45
Will be picked up		44	5.67
Will drive my car		4	0.51
Will walk		651	84.00
No Response		57	7.35
D. Number of Blocks Walked			
Less than one		196	30.10
One		213	32.71
Two		95	14.59
Mean			1.9

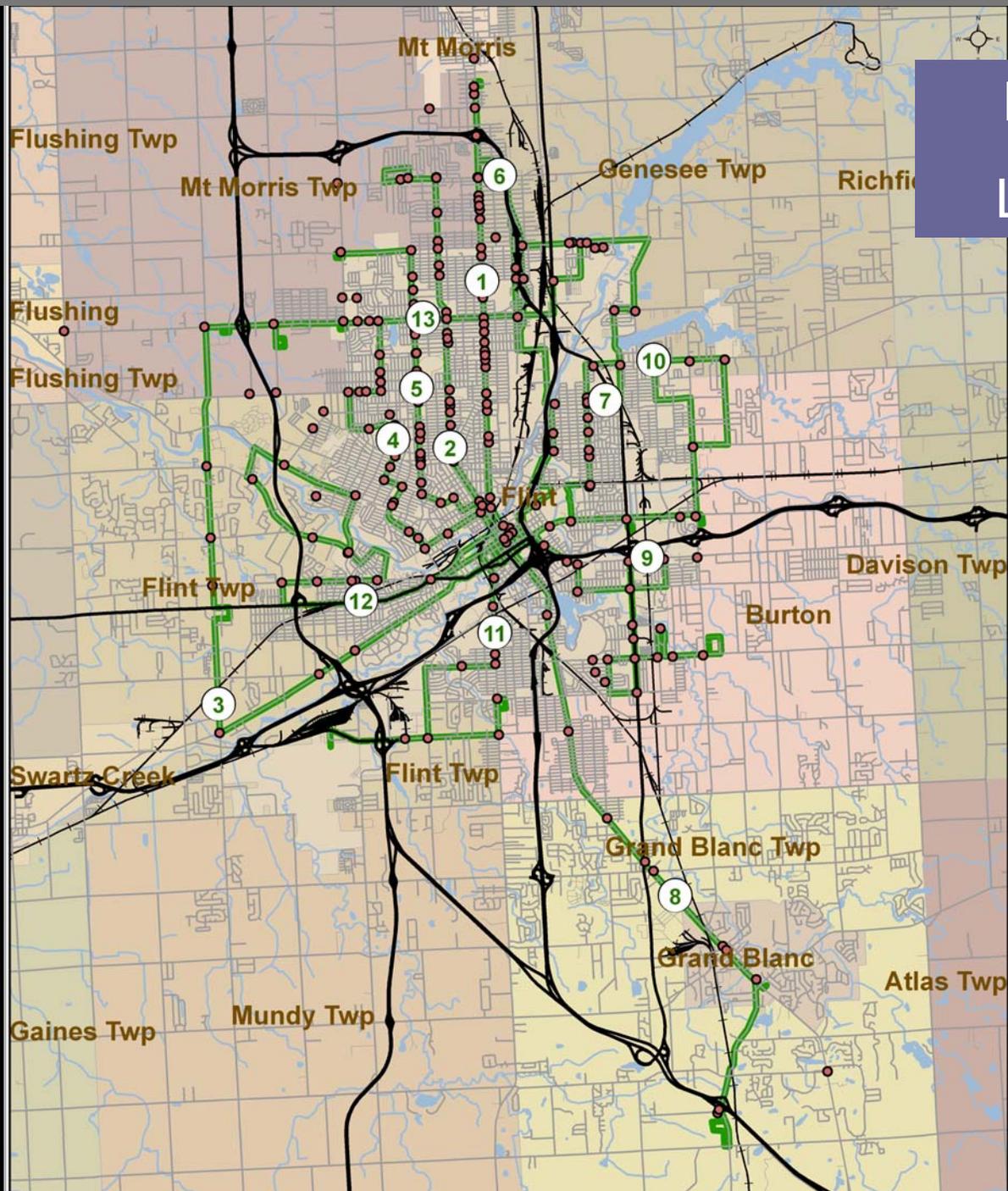
Table 5. Reliance on Fixed-Route Bus Service

A. Number of Working Vehicles in Household	N	%
None	501	64.64
One	152	19.61
Two	42	5.41
Three or more	19	2.45
No Response	61	7.87
B. Availability for Current Trip	N	%
Yes	81	38.02
No	132	61.97

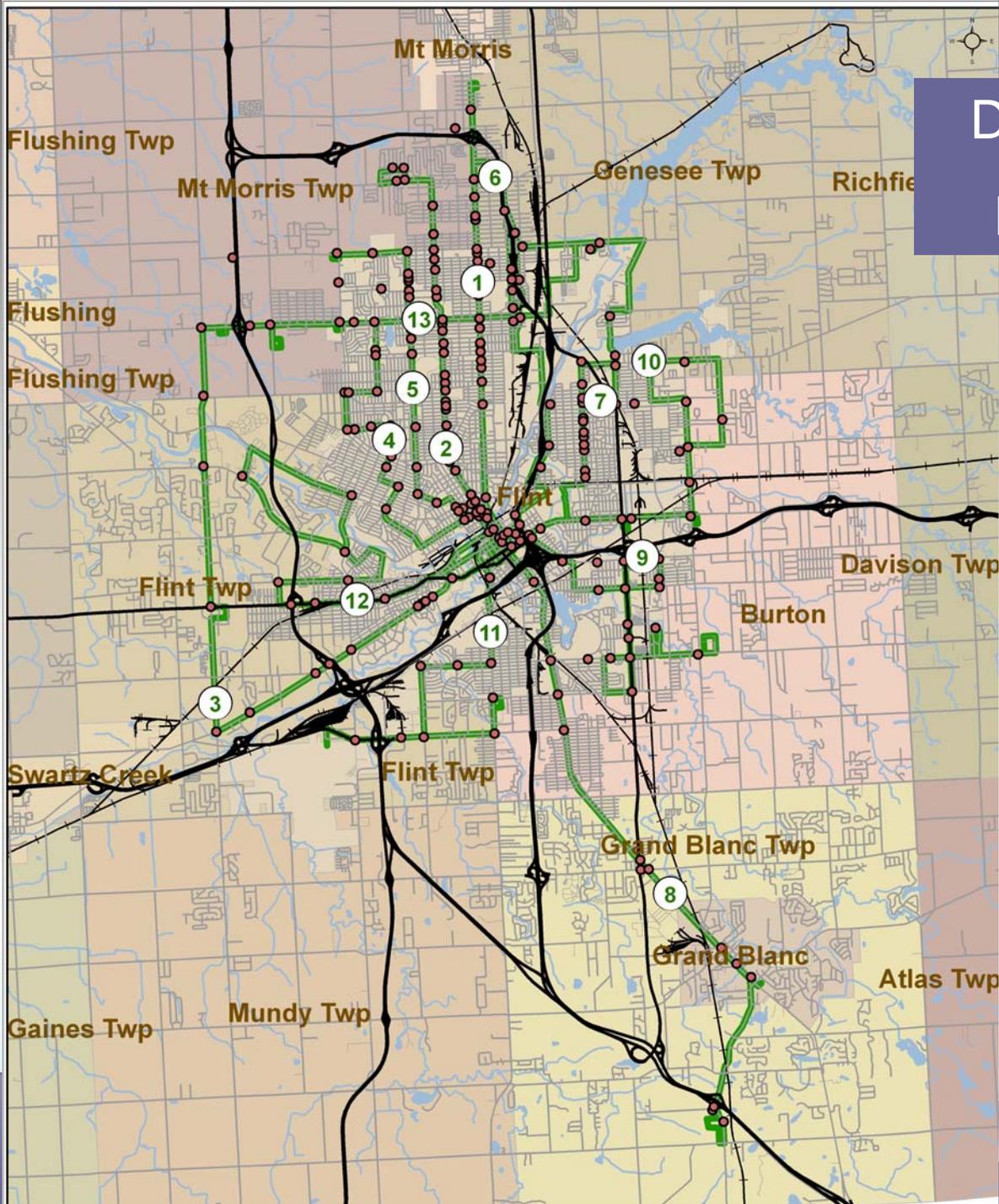
Table 6. Method of Payment for Trip

Method of Payment	N	%
Cash	402	51.87
Pass	299	38.58
Other	11	1.41
No Response	63	8.12

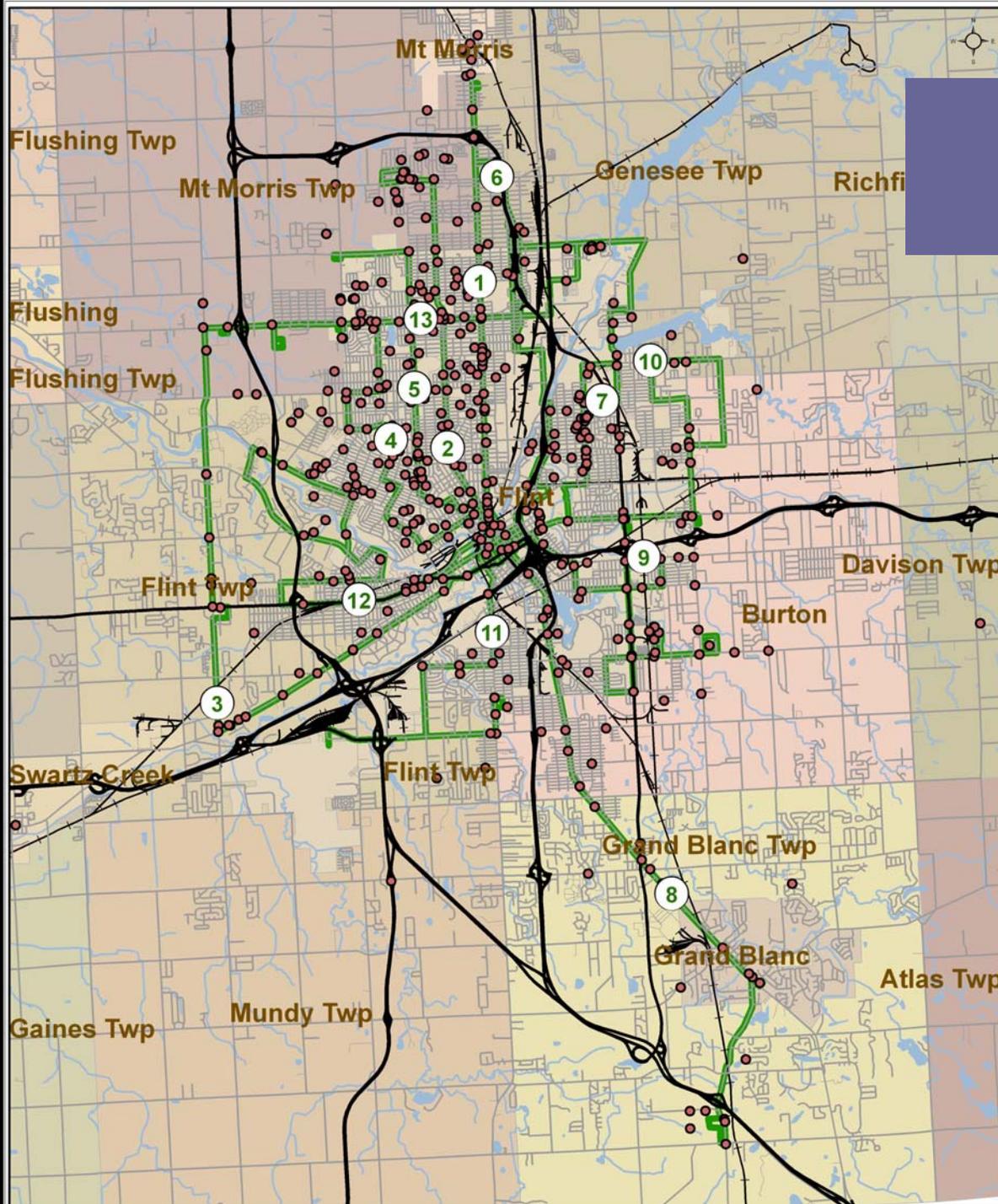
Boarding Locations



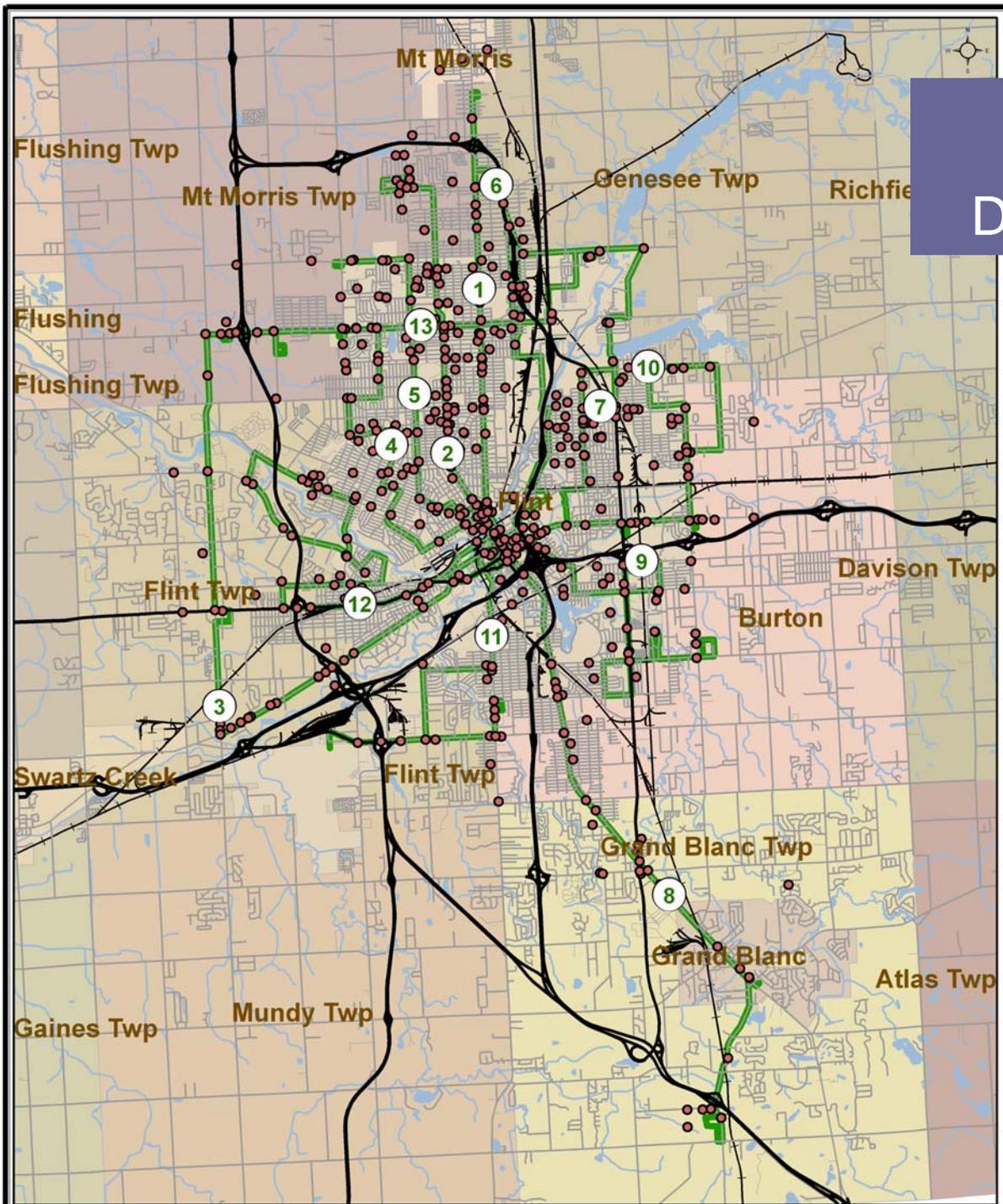
Deboarding Locations



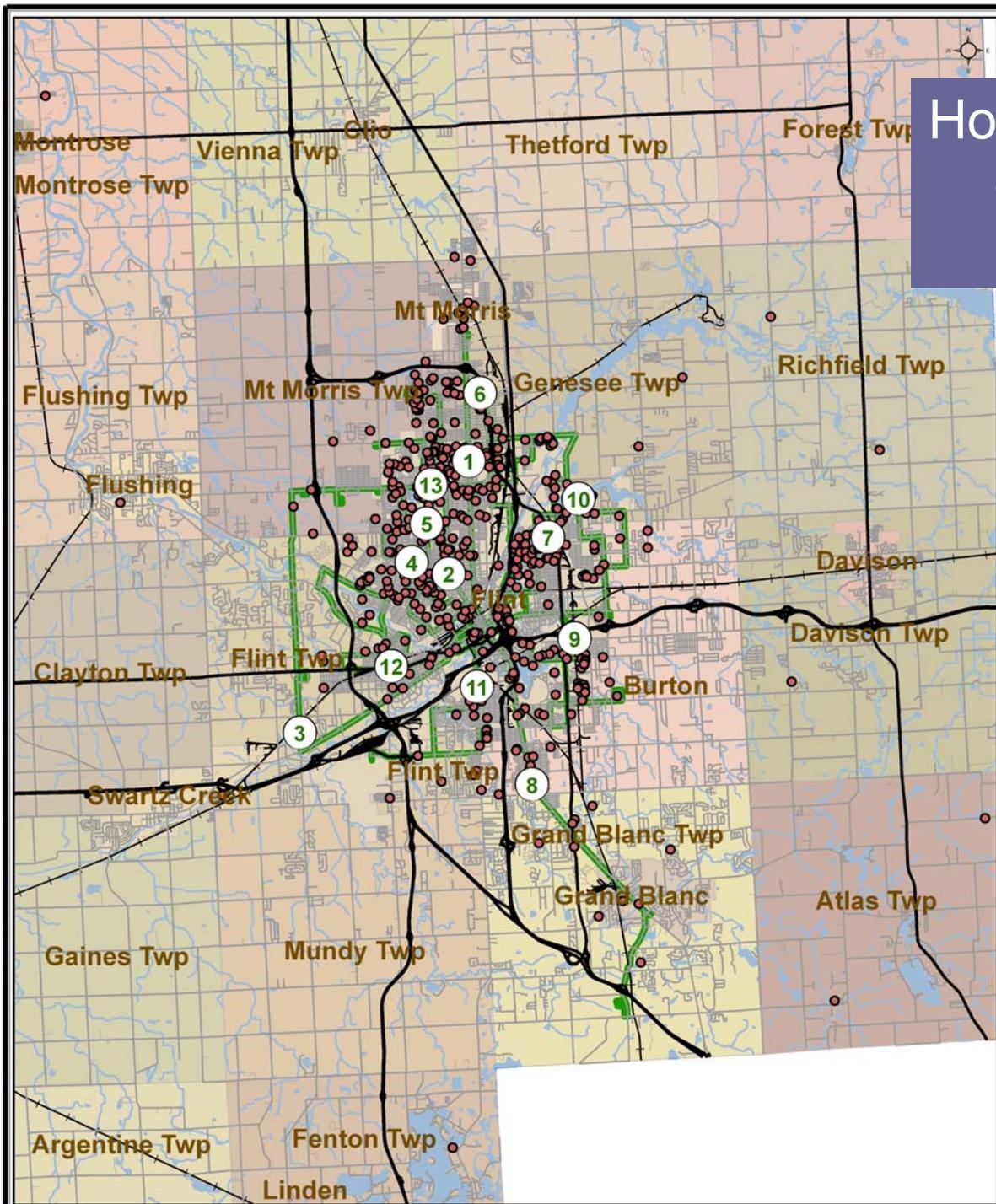
Trip
Origin



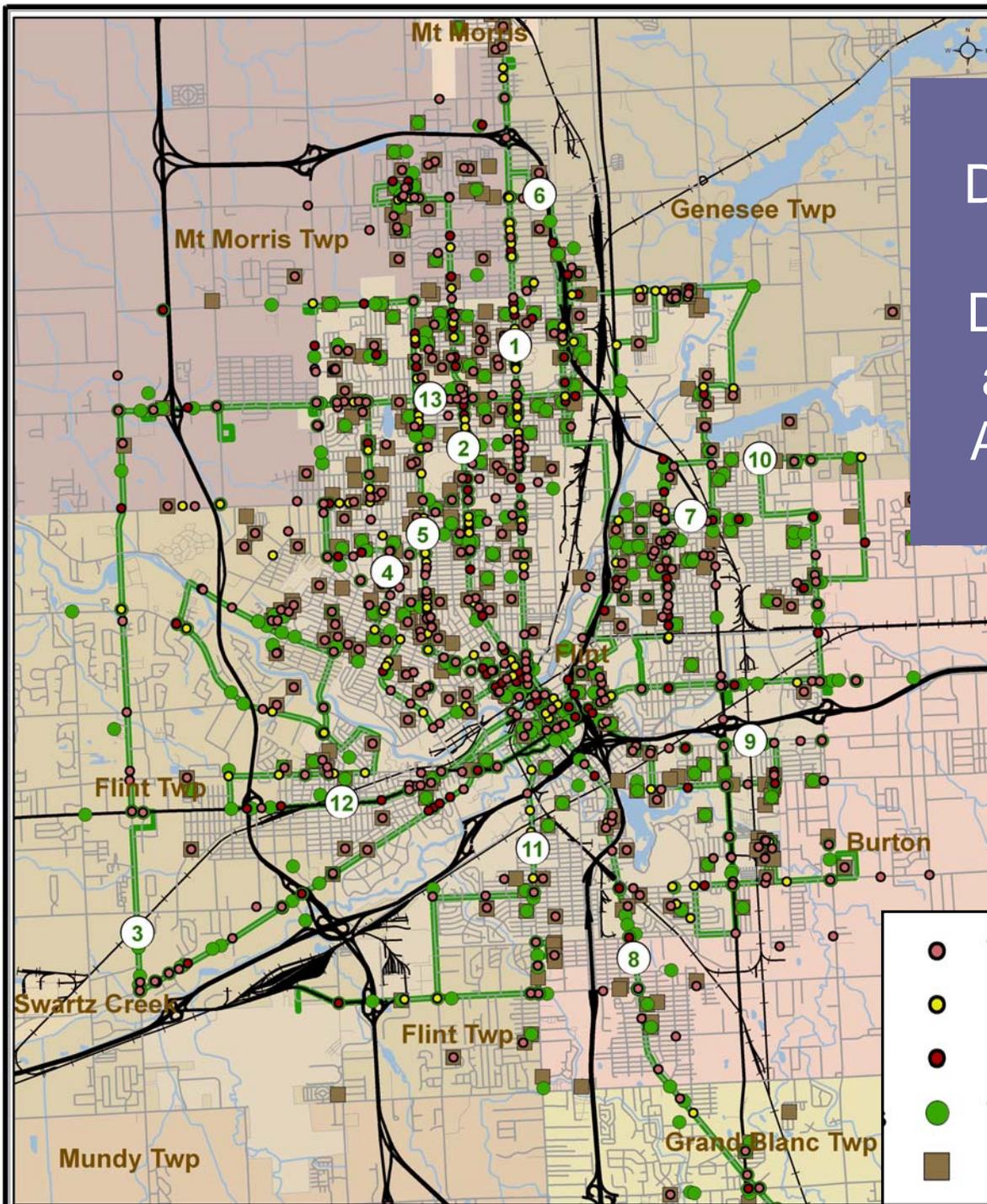
Trip Destination



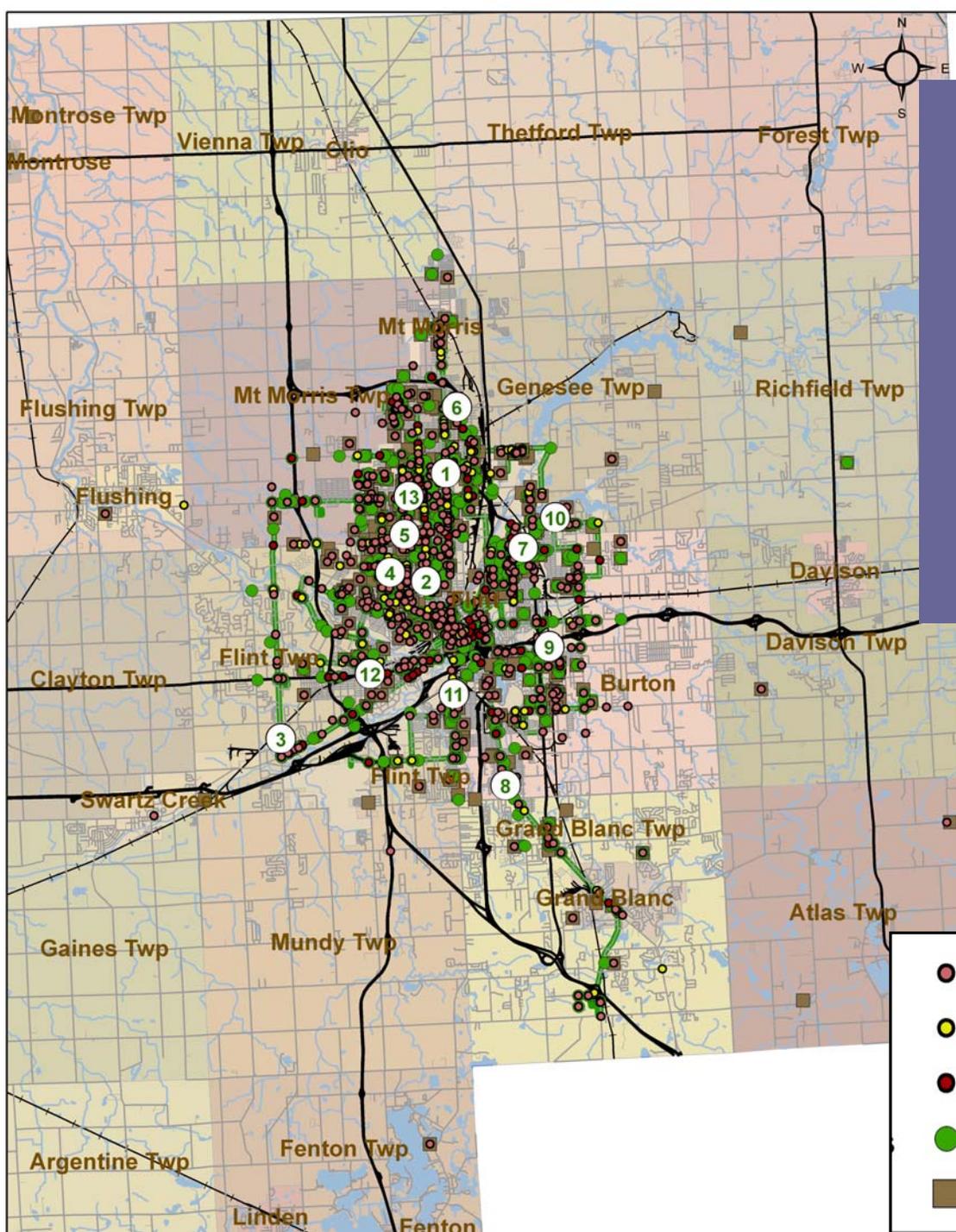
Home Address of Transit Riders



Origin,
Destination,
Boarding,
Deboarding
and Home
Addresses-
Flint



- Trip Origin
- Start of Transit Trip
- End of Transit Trip
- Trip Destination
- Home Address of Ridership



Origin,
 Destination,
 Boarding,
 Deboarding
 and Home
 Addresses-
 Genesee
 County

- Trip Origin
- Start of Transit Trip
- End of Transit Trip
- Trip Destination
- Home Address of Ridership

On-Board Transit Survey

- **Survey and Report Completed by:**

Dr. Peter R Gluck

Public Research Associates

Grand Blanc, MI

(810) 694-7848

prgluck@umflint.edu

- **Geocoding and GIS Mapping by:**

Sara McDonnell, Project Coordinator

Center for Applied Environmental Research

University of Michigan Flint

(810) 767-7272

smcdonne@umflint.edu

