

# Transportation and Traffic Safety Subcommittee

**Walking Assessment and  
Parent Travel Survey Recommendation**

**March 18, 2015**

# WHO WE ARE

One or more School Committee members, MPS Assistant Superintendent for Business, MPS Director of Transportation and one parent from each elementary school and the middle school (appointed through the respective PTO Presidents).

# OUR CHARGE

To coordinate the development of solutions to identified transportation and traffic safety issues with the Milton Police Department, the Department of Public Works, the Milton Traffic Commission and the Town Administrator.

# ISSUE: TRAFFIC CONGESTION

- Review Walking and Biking Enhancements
- Walking Assessments
- Safe Routes
- Parent Survey

# Aerial Student Residence Map - Pierce

Pierce Middle School Assessment Map



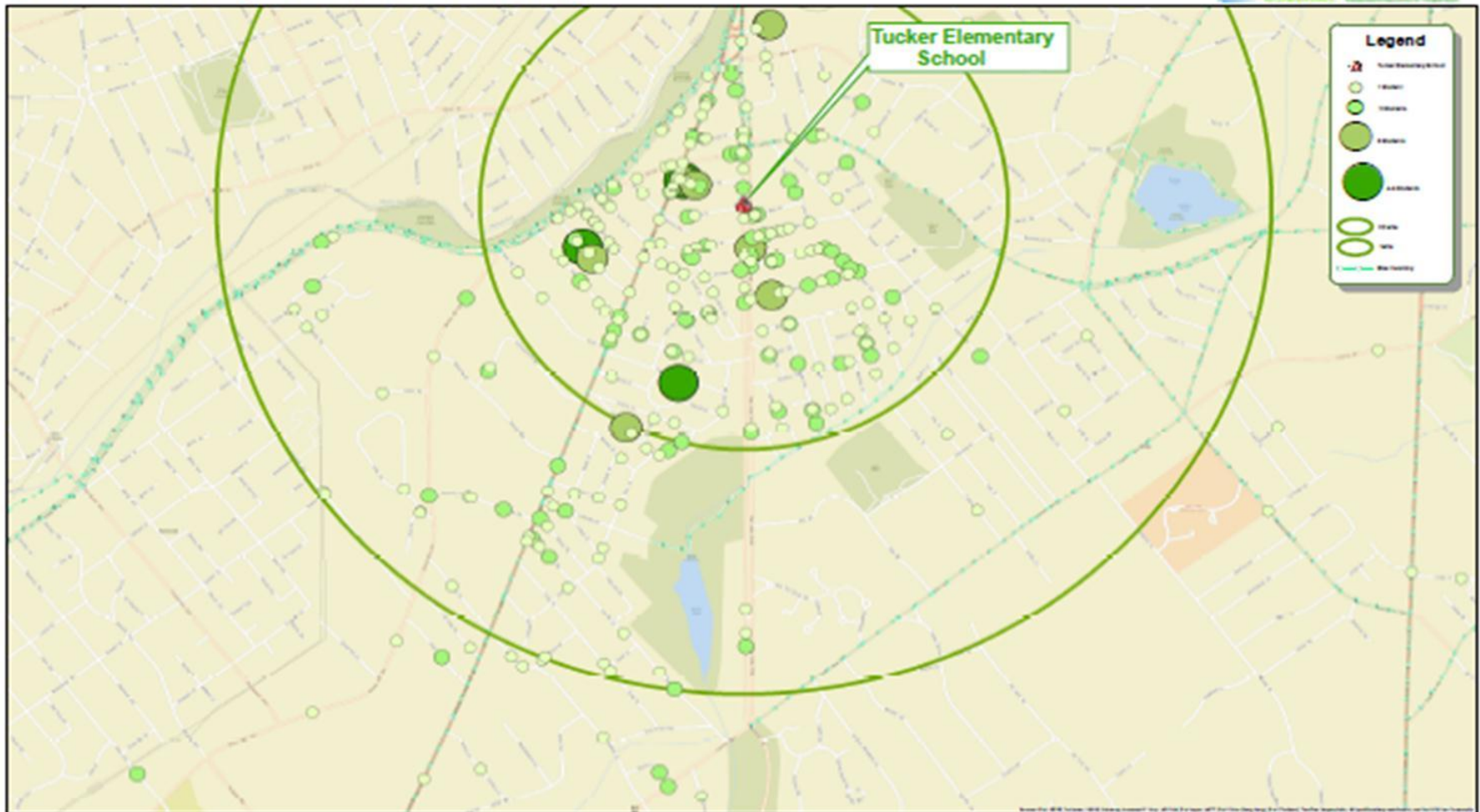
Map: 1/24/2014  
Map Date: 1/24/2014  
Map Scale: 1:25,000  
Map Projection: NAD 83 / Massachusetts State Plane (NAD 83) / Feet  
Map Author: MassDOT  
Map Contact: MassDOT  
Map Copyright: 2014



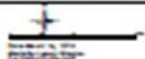


# Aerial Student Residence Map - Tucker

Tucker Elementary School Assessment Map

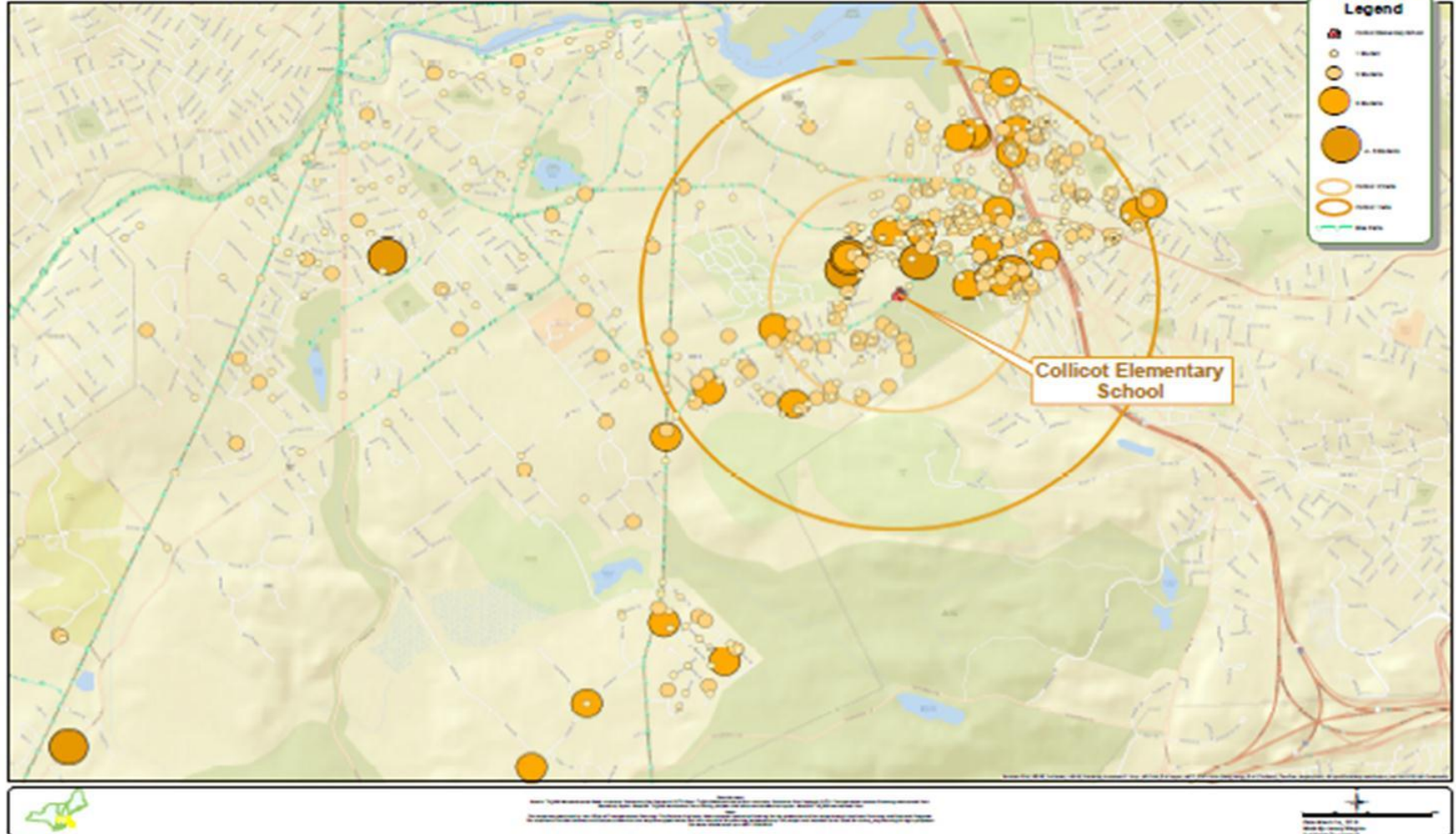


Map data © OpenStreetMap contributors, Imagery © Mapbox, © 2018



# Aerial Student Residence Map - Collicot

Collicot Elementary School Assessment Map









# WHAT WE'LL GET



MASafeRoutesSurvey.org  
Survey Report  
Greenfield - Federal Street School  
January 30, 2015

## Introduction

This report will help your school plan safe transportation options for all students. It contains the results of a survey conducted at Greenfield - Federal Street School from June 2012 to June 2013. Participating parents provided information about how students travel to school and their approximate home location. If your school is interested in

- reducing traffic congestion,
- encouraging walking and biking,
- increasing safety, or
- tracking progress towards community goals,

then this information can help you identify the right strategies and best opportunities for new projects and investments.

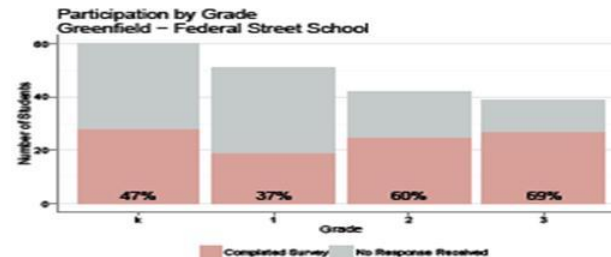
## How to Read This Report

This report measures distance to school in terms of walksheds and bikesheds. A *walkshed* includes all the homes within a certain distance to school, based on mapped sidewalks, pedestrian paths, and low volume roadways. We define walksheds for 0.5, 1.0, and 1.5 mile walking distances to school. A *bikeshed* of 2.0 miles also includes multi-use paths and on-road cycle facilities, where mapped. For a map of the walksheds and bikesheds, see the last page of the report. Where "walkshed" is used alone, it always includes the bikeshed of the same distance.

## Survey Statistics

- Survey Dates: 2014-11-07 to 2013-06-01
- Responses Received: 99
- School-wide Participation Rate: 52%

The figure below shows the survey participation rate for each grade. Total enrollment is based on the 2013-2014 school year, per Department of Elementary and Secondary Education. Survey responses from each grade were used to estimate the distance and travel choice for the entire grade. The higher the participation rate, the more reliable the survey results are.

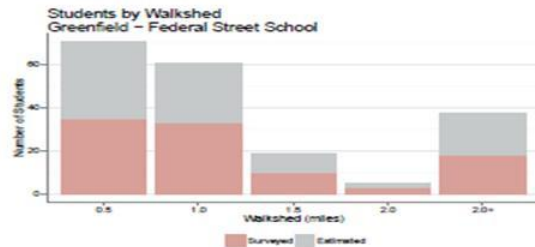


# WHAT WE'LL GET

## Student Proximity

- Average Distance to School: 1.4 miles
- Within 1.0 Mile Walkshed: 68%
- Within 2.0 Mile Bikeshed: 80%

The chart and table below show the number of students surveyed and the total estimated students by walkshed. Student totals by walkshed are estimated assuming that the proportion of surveyed students within each walkshed and grade is proportional to the enrolled students within each walkshed and grade.

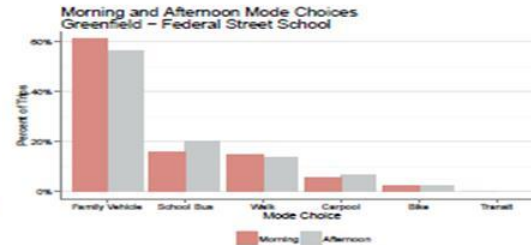


Students	0.5	1.0	1.5	2.0	2.0+
Estimated	70	61	19	5	38
Surveyed	35	33	10	3	18
Percent	37%	32%	10%	3%	20%

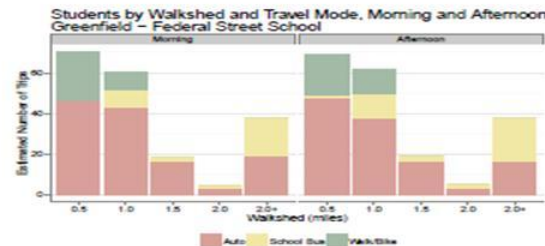
## Student Travel Choices

- Walk\Bike Trips Within One Mile: 25%
- Walk\Bike Trips Overall: 17%
- Family Vehicle\Carpool Trips Overall: 65%
- School Bus Trips Beyond One Mile: 39%

The chart below shows what percent of trips are made by each travel mode in the morning and afternoon.



Walk share is 17.1% in the morning and 16.4% in the afternoon.



Travel Mode	Morning					Afternoon				
	0.5	1.0	1.5	2.0	2.0+	0.5	1.0	1.5	2.0	2.0+
Auto	46	43	17	3	19	48	38	17	3	16
School Bus	0	9	2	1	18	1	12	2	2	21
Walk	24	9	0	0	0	20	12	0	0	0

# WHAT WE'LL GET

## Greenhouse Gas Emissions (GHG)

- Per-student GHGs within 1 mile: 1432 kg
- Per-student GHGs beyond 1 mile: 2006 kg

Transportation generates more than one-third of the total greenhouse gas (GHG) emissions produced in Massachusetts. Increasing the number of trips made by walking or biking is a critical step toward achieving state goals for GHG reduction. The following table shows the estimated annual GHG emissions (in kilograms of CO<sub>2</sub>) for students being driven to school, by walkshed. (It does not include emissions from school buses.) For comparison, the average Massachusetts household drives about 19,000 miles per year, generating approximately 8,000 kg of GHG emissions.

Buffer	Total (kg)	Per Student	Percent
0.5	51610	1147	15%
1.0	77227	1716	23%
1.5	69450	2043	21%
2.0	13797	600	4%
2.0+	121365	2697	36%

## How Your School Compares

The table below compares your school's actual walk/bike share to an expected value reflecting average walking and biking rates across Massachusetts. The expected value accounts for student grade levels and

proximity to school, and is based on more than 6,000 surveys collected statewide since 2011.

Actual and Expected Walk/Bike Share	0.5	1.0	1.5	2.0	2.0+
Actual	32%	17%	0%	0%	0%
Expected	58%	28%	4%	4%	2%

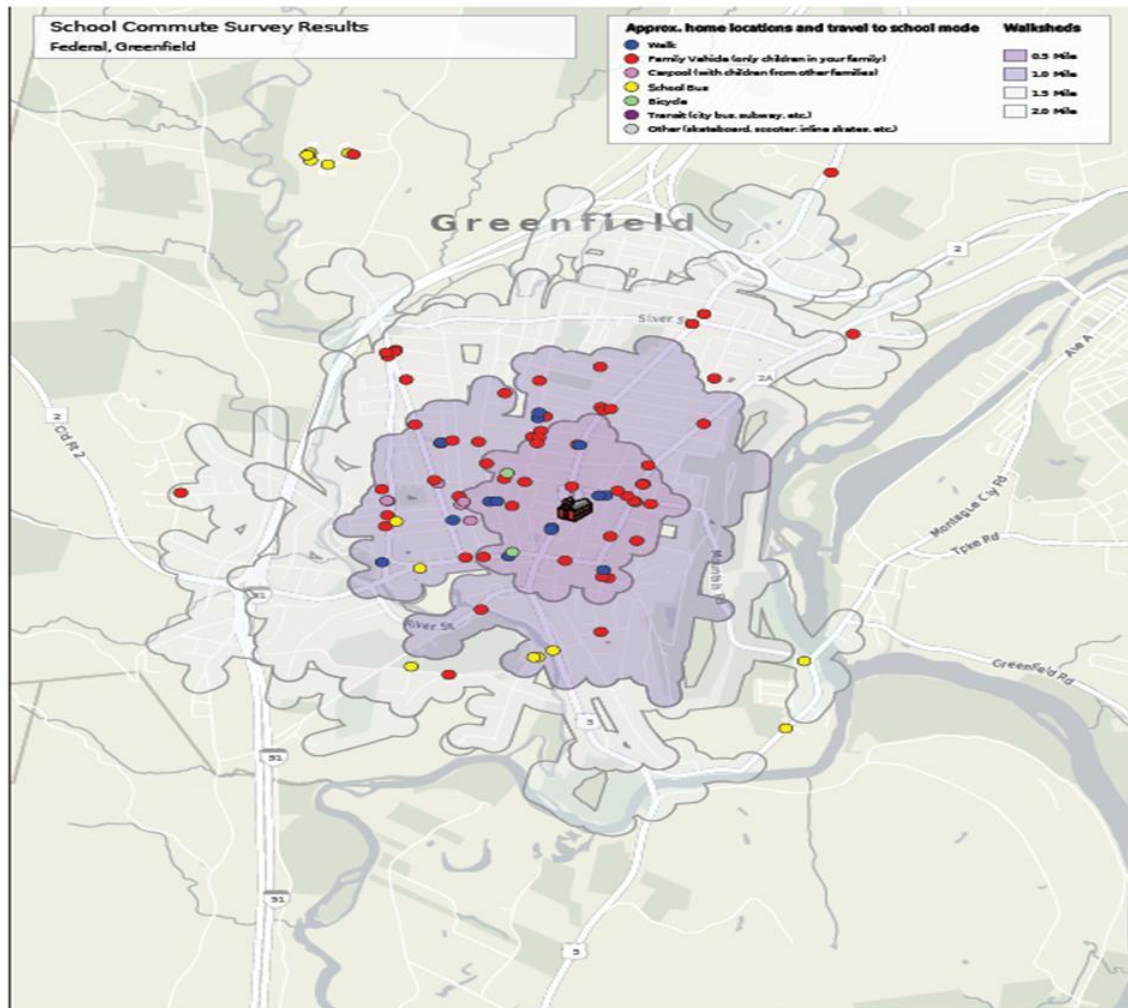
## Benefits of Walking and Biking

Shifting some school commutes from auto to walking or biking can create real benefits for your community. This section estimates the traffic, physical activity, and GHG benefits that might result from increasing walking and biking. It can help you make the case for investing in Safe Routes to School programs and to track your progress over time.

If your school achieved the "expected" values described above based on grade specific averages for each walkshed, it would:

- Reduce number of daily car trips to and from school by 54.
- Provide an additional 22 minutes of physical activity for each newly participating student.
- Reduce annual auto-generated GHG emissions from between 3,488 kg to 6,096 kg, or 1% to 1.8%.

# WHAT WE'LL GET



# Recommendation

The committee has voted to recommend that the Superintendent and Director of Transportation coordinate with the Principals of the 4 elementary schools and the middle school to participate in the DOT Safe Routes to Schools parent travel survey by sending an email to all parents with a hyperlink to the survey and via hard copy in student backpacks. The committee recommends that the Notice go out the week of March 30th. The survey would open on April 3rd and would close on April 17th. The committee also recommends that the survey be conducted in the fall and the spring.