

# Improving Transit Services & Bike- Pedestrian Access in the County Route 529 Corridor

Public Open House

Monday, June 15, 2015

Middlesex County Office of Planning  
Division of Transportation



*This Study is funded by the North Jersey Transportation Planning Authority  
and managed by the Middlesex County Office of Planning.*



# Purpose and Scope of Study

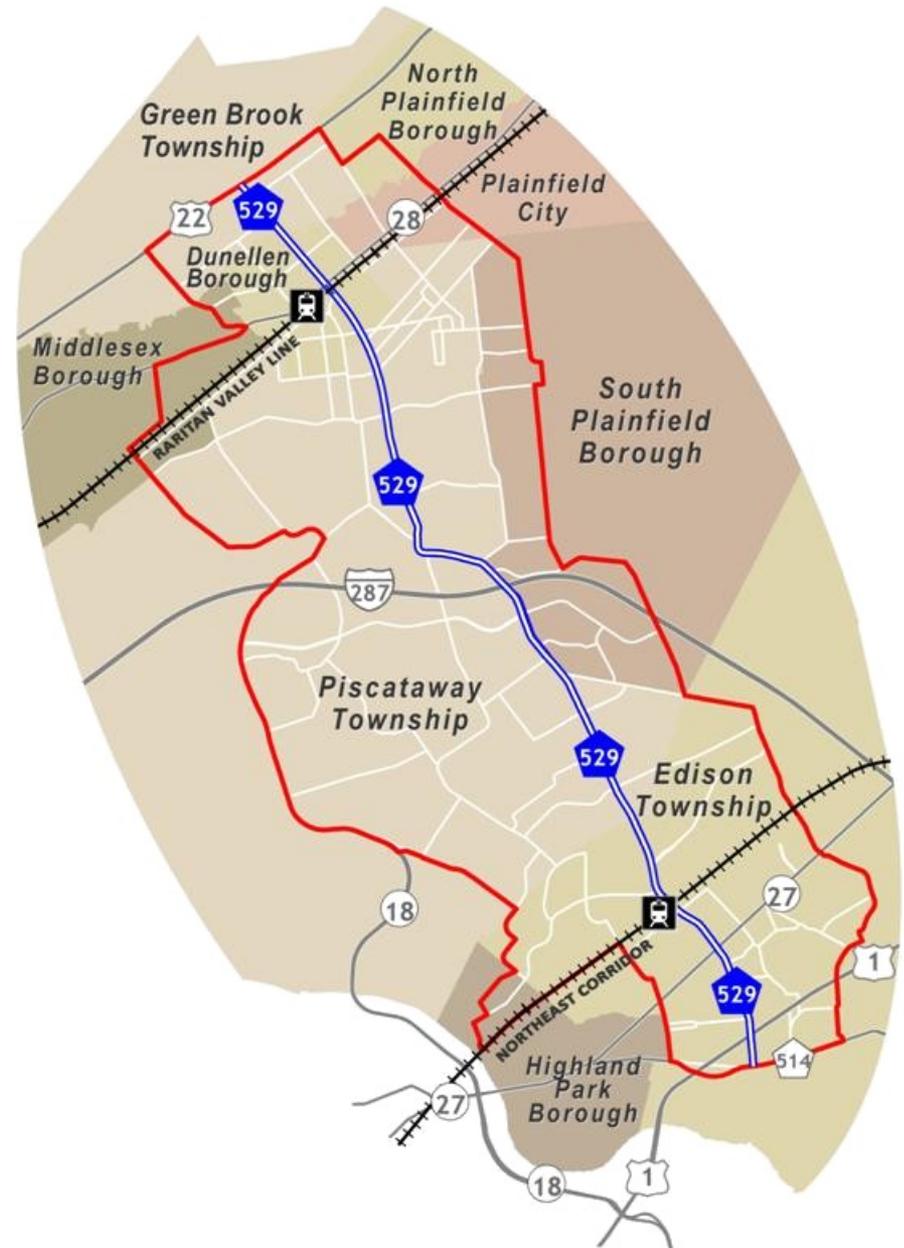
- Support Middlesex County's Complete Streets Policy.
- Improve bicycle and pedestrian accommodations and intermodal mobility along the Corridor.
- Examine existing and future growth in the corridor and the need for expanded transit services and bicycling and pedestrian improvements to serve points of attraction along the corridor and in nearby areas.
- Incorporate public feedback from steering committee meetings and two public open house meetings.

# Project Timeline

- **July 1, 2014:** Project Authorization
- **November 2014:** Kick-off Meeting with Steering Committee
- **June 2015:** 1<sup>st</sup> Public Open House Meeting
- **November 2015:** Second Steering Committee Meeting
  - Distribute preliminary draft report and solicit input
- **January 2016:** Middlesex County Transportation Coordinating Committee (TCC) Meeting
  - Distribute preliminary draft report and solicit input
- **March 2016:** 2<sup>nd</sup> Public Open House Meeting
  - Presentation of final draft report and solicit input
- **March 2016:** TCC Meeting
  - Presentation of final draft report; final comments
- **April 2016:** Third Steering Committee Meeting to Approve Final Report
- **June 30, 2016:** Project completion --“close-out” with North Jersey Transportation Planning Authority (NJTPA)

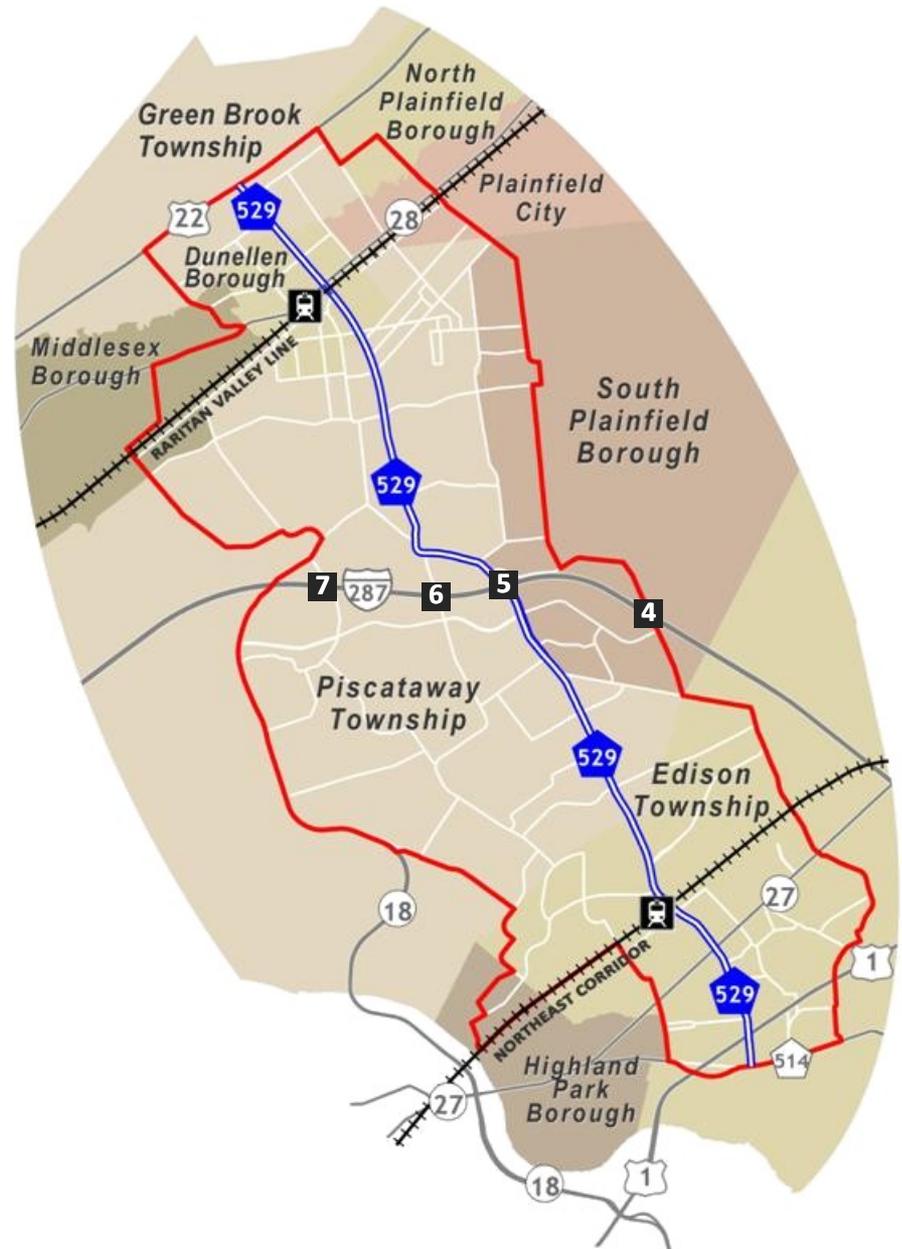
# Corridor Study Area Geographic Extent

- **Approximately 8.6 miles of County Route 529**
  - South to north, from Woodbridge Ave to US Route 22
  - Plainfield Ave, Stelton Rd, Washington Ave
- **Encompasses 9 municipalities in 3 counties (approx. 21 sq. miles):**
  - **Middlesex County**
    - Dunellen
    - Edison
    - Highland Park
    - Middlesex Borough
    - Piscataway
    - South Plainfield
  - **Somerset County**
    - Green Brook
    - North Plainfield
  - **Union County**
    - City of Plainfield



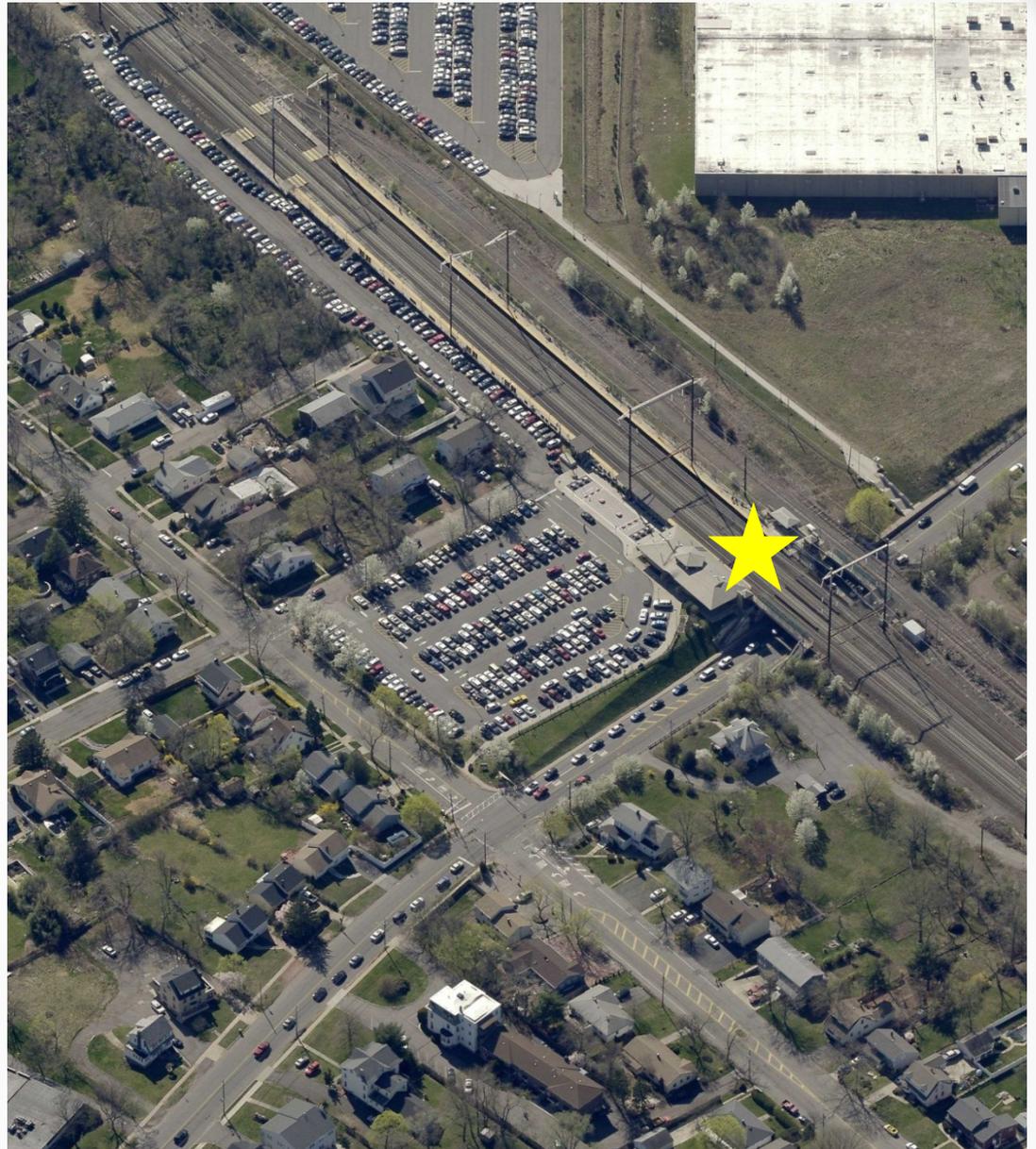
# Corridor Study Area Road Network

- Interstate Route 287
  - Four I-287 exits
    - 4-Durham Ave; 5-Stelton Rd; 6-Washington Ave; and, 7- South Randolphville Rd
- US Routes 1 and 22
  - Route 1 from Woodbridge Ave to Old Post Rd
  - Route 22 from Warrenville Rd to Rock Ave
- NJ Routes 18, 27, and 28
- County Routes
  - CR501 (New Durham Rd)
  - CR514 (Woodbridge Ave)
  - CR601 (West 7<sup>th</sup> Ave)
  - CR609 (Metlars Ln)
  - CR665 (S. Washington) + others
- Major municipal roads such as:
  - Centennial Ave (Piscataway)
  - William St (Piscataway)
  - Clinton Ave (the Plainfields)
  - Hadley Rd (South Plainfield)
  - Ethel Rd (Piscataway/Edison)
  - Old Post Rd (Edison)
  - Kilmer Rd (Edison)
  - Cedar Ln (Highland Park) + others



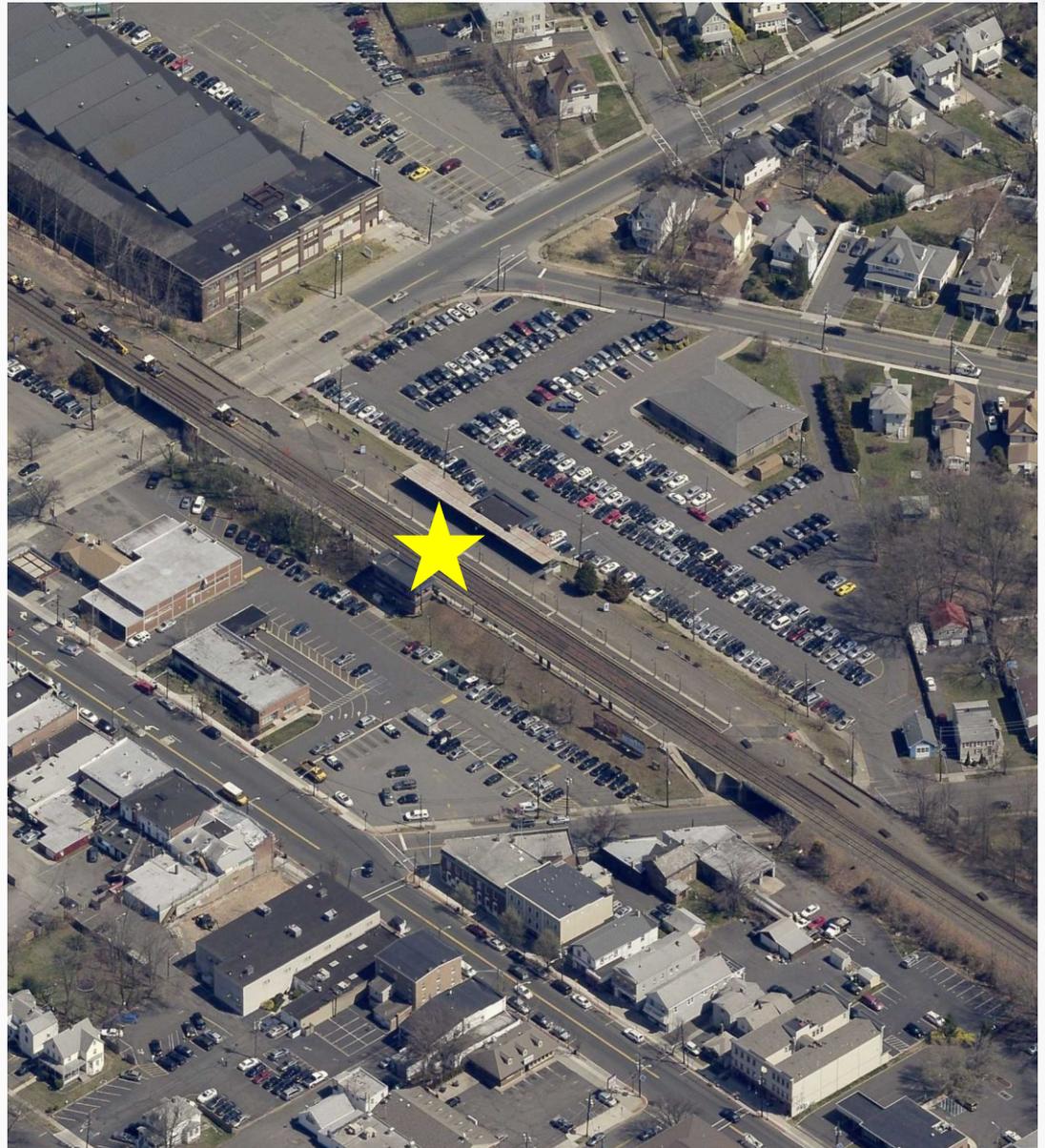
# Edison Station Northeast Corridor

- **3,161 average weekday passenger boardings** during 2014 vs. 2,757 during 2004 (15% increase)
- Service between Trenton and New York Penn Station
- **812 parking spaces** in 3 lots (\$4/day; \$55/month)
- **10 bike lockers**: all are rented with 29 people currently on the waiting list
  - \$7.50/month (6 month term)
- Bike rack capacity of approximately 32 bicycles



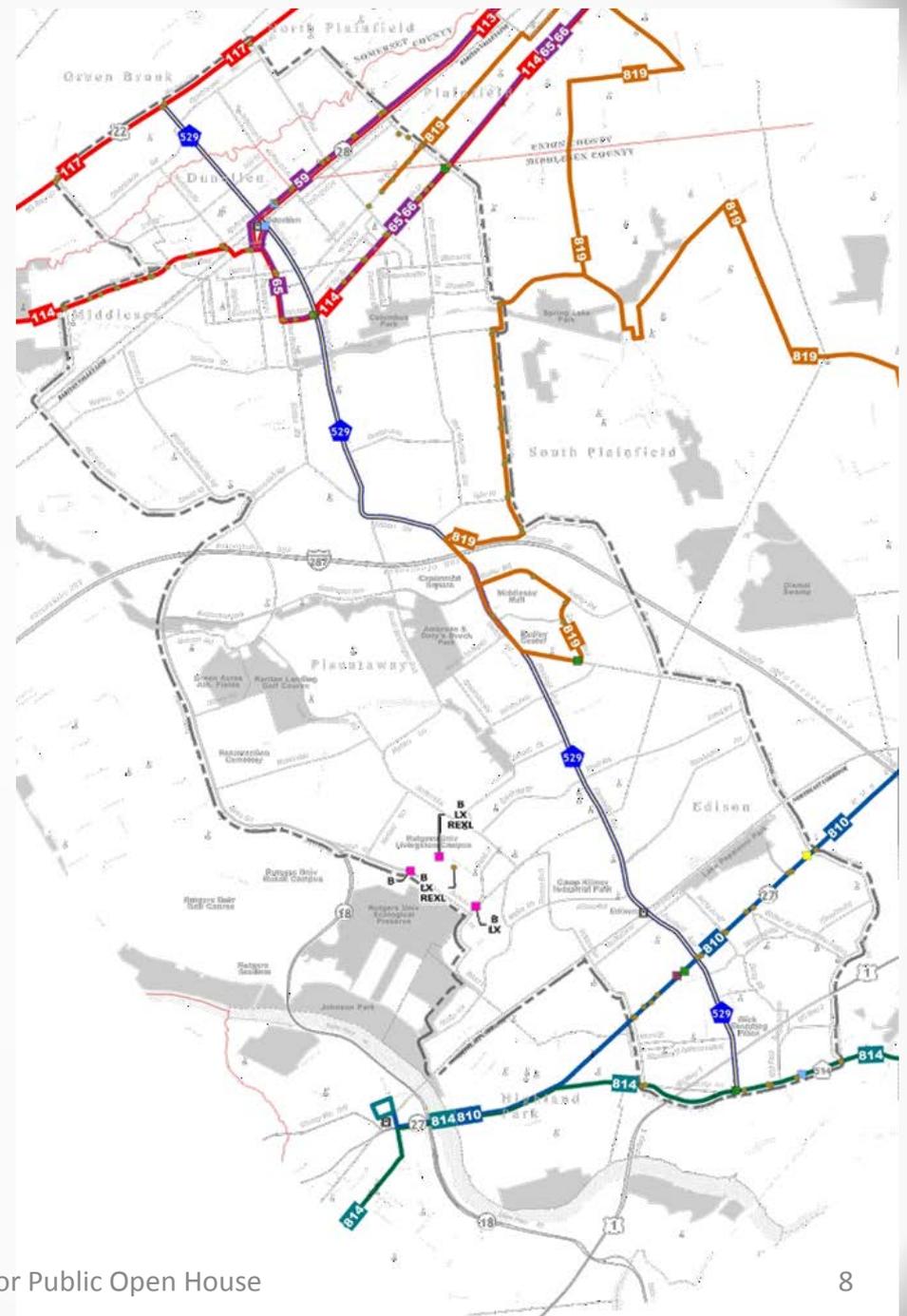
# Dunellen Station Raritan Valley Line

- **906 average weekday passenger boardings** during 2014 vs. 789 during 2004 (15% increase).
- Service between High Bridge and Newark Penn Station (midday weekdays direct to New York Penn Station)
- **382 parking spaces** in 5 lots (\$4/day ; \$40/month resident; \$50/month nonresident)
- **2 bike lockers:** both are rented with 3 people currently on the waiting list
  - \$7.50/month (6 month term)
- Bike rack capacity for **12 bicycles**



# Corridor Study Area Bus Service

- **108 bus stops in the corridor**
- **Nine NJ Transit Bus Lines**
  - 59, 65 & 66: to/from Newark
  - 113, 114 & 117: to/from Port Authority
  - 810: New Brunswick to Woodbridge Center Mall
  - 814: North Brunswick to Edison
  - 819: Hadley Center to Plainfield and Piscataway
- **Coach USA/Suburban Transit**
  - Daily Atlantic City Service
- **Rutgers Intercampus**
  - Stops in Livingston Campus
  - “B”, “LX”, “REXL”, Weekend & Summer routes



# General Demographic Summary

## County Route 529 Corridor (2000 to 2020)

Summary	Census 2000	Census 2010	2015 Forecast	2020 Forecast
Population	77,834	81,586	84,907	88,300
Households	26,375	26,944	28,026	29,116
Families	n/a	20,319	21,191	22,051
Average Household Size	n/a	2.92	2.93	2.94
Total Housing Units	27,015	28,077	29,235	30,297
Owner Occupied Housing Units	17,707	17,649	17,696	18,270
Renter Occupied Housing Units	8,667	9,295	10,330	10,846
Vacant Housing Units	641	1,133	1,209	1,181
Median Age of Population (years)	n/a	35.6	36.9	37.7
Median Household Income	n/a	n/a	\$78,977	\$86,544
Average Household Income	n/a	n/a	\$95,094	\$107,024
Per Capita Income	n/a	n/a	\$32,116	\$36,024

**Data Note:** Income is expressed in current dollars.

**Source:** U.S. Census Bureau, Census 2000 and 2010 Summary File 1. Esri converted Census 2000 data into 2010 geography. Esri forecasts for 2015 and 2020.

*\*Current median household income is \$78,977 in the area, compared to \$70,538 for all N.J. households and \$53,217 for all U.S. households. Median household income is projected to be \$86,544 in five years, compared to \$79,556 for all N.J. households and \$60,683 for all U.S. households*

# Future Trends (2015 to 2020)

## County Route 529 Corridor compared to.....

Trends: 2015 - 2020 Annual Rates	CR529 Corridor	Tri-county*	State	National
Population	0.79%	0.64%	0.39%	0.75%
Households	0.77%	0.61%	0.40%	0.77%
Families	0.80%	0.63%	0.42%	0.69%
Owner HHs	0.64%	0.55%	0.31%	0.70%
Median Household Income	1.85%	2.26%	2.44%	2.66%

Source: Esri forecasts for 2015 and 2020.

\*Middlesex, Somerset & Union counties

# Median Age

County Route 529 Corridor compared to.....

Median Age of Population (years)	Census 2010	2015 Forecast	2020 Forecast
<b><i>CR529 Corridor</i></b>	<b><i>35.6</i></b>	<b><i>36.9</i></b>	<b><i>37.7</i></b>
Middlesex County	37.1	38.1	39.0
Somerset County	40.2	41.3	42.3
Union County	37.9	38.5	39.3
Tri-County	38.0	38.9	39.7
New Jersey	38.9	39.7	40.4

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2015 and 2020.

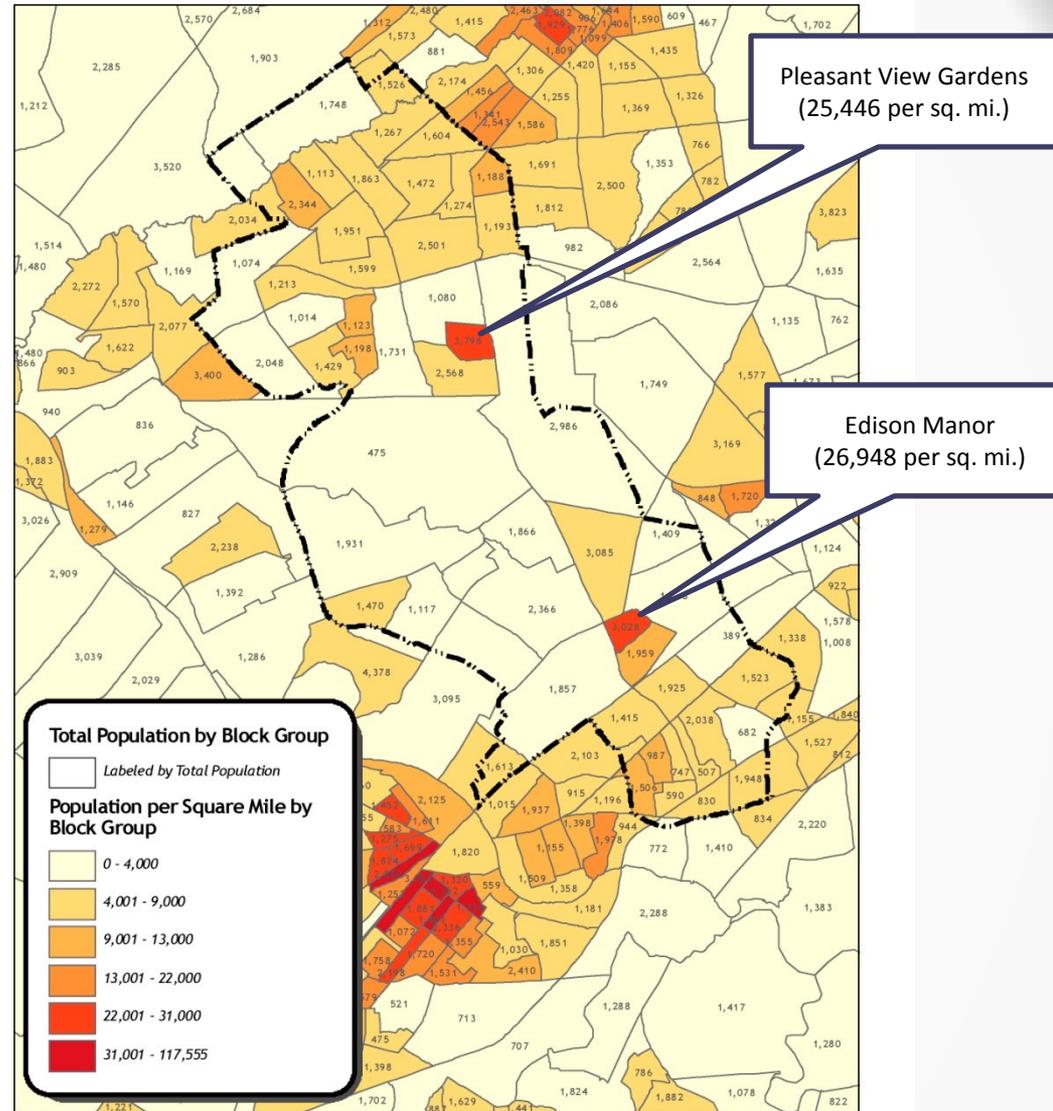
# Population Density in Corridor

- US Census American Community Survey (ACS) by Block Group data in the corridor reported a population density ranging from a low of 161 to a high of 27,000 persons per square mile (ACS 5-year, 2008-12).

## Year 2015 Comparisons

	Land Area (sq. mi.)	2015 Population	2015 Population per sq. mi.
<b>CR529 Corridor</b>	<b>20.79</b>	<b>84,907</b>	<b>4,084</b>
Middlesex County	308.97	831,395	2,691
Somerset County	301.77	334,511	1,108
Union County	102.86	549,736	5,345
Tri-county	734.39	1,715,642	2,336
New Jersey	7,354.70	8,918,440	1,213

Sources: Esri forecasts for year 2015 population. Land Area as per US Census Tiger Line files (2012).



\*Source: U.S. Census Bureau, American Community Survey (ACS), 5 year 2008-2012

2015  
 84,907  
 20.79  
 4,084

# Race and Ethnicity

## County Route 529 Corridor (2010 to 2020)

Race and Ethnicity	Census 2010		2015 Forecast		2020 Forecast	
	Number	Percent	Number	Percent	Number	Percent
White Alone	36,731	45.0%	34,624	40.8%	32,552	36.9%
Black Alone	13,519	16.6%	14,741	17.4%	15,657	17.7%
American Indian Alone	255	0.3%	271	0.3%	291	0.3%
Asian Alone	24,282	29.8%	27,329	32.2%	30,751	34.8%
Pacific Islander Alone	24	0.0%	25	0.0%	25	0.0%
Some Other Race Alone	4,181	5.1%	4,942	5.8%	5,727	6.5%
Two or More Races	2,594	3.2%	2,976	3.5%	3,297	3.7%
Hispanic Origin (Any Race)	11,638	14.3%	13,686	16.1%	15,885	18.0%

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2015 and 2020.

# “Majority-Minority” & Diversity

- The County Route 529 Corridor is comprised of a “Majority Minority” where whites make up less than 50% of the population (ahead of the long-term nationwide trend).
- Relatively high degree of diversity
- Relatively high share of Asian population

Percent of Population White Alone	Census 2010	2015 Forecast	2020 Forecast
<b>CR529 Corridor</b>	<b>45.0%</b>	<b>40.8%</b>	<b>36.9%</b>
Middlesex County	58.6%	54.6%	50.7%
Somerset County	70.1%	66.3%	62.2%
Union County	61.3%	59.1%	57.2%
Tri-county	61.7%	58.3%	55.0%
New Jersey	68.6%	66.4%	64.2%

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2015 and 2020.

Diversity Index*	2015 Forecast
<b>CR529 Corridor</b>	<b>78.1</b>
Middlesex County	75.3
Somerset County	64.4
Union County	77.0
Tri-county	74.9
New Jersey	68.1
Nation	63.0

Percent of Population Asian Alone	Census 2010	2015 Forecast	2020 Forecast
<b>CR529 Corridor</b>	<b>29.8%</b>	<b>32.2%</b>	<b>34.8%</b>
Middlesex County	21.4%	23.6%	26.1%
Somerset County	14.1%	16.4%	18.9%
Union County	4.6%	5.2%	5.7%
Tri-county	14.6%	16.3%	18.2%
New Jersey	8.3%	9.3%	10.4%

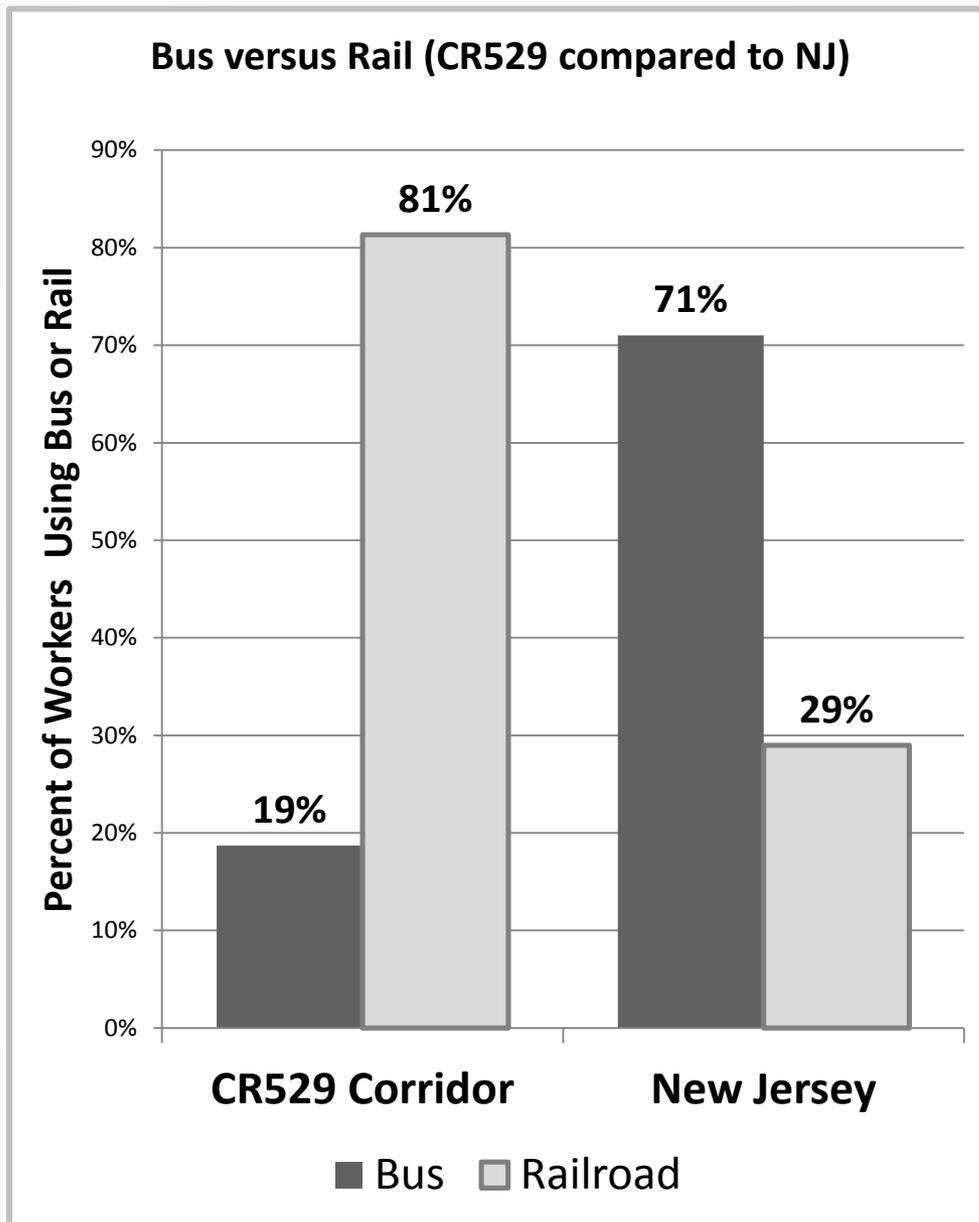
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2015 and 2020.

Source: Esri forecasts.

\*The "Diversity Index" measures the probability that two people from the same area will be from different race/ethnic groups

# Public Transportation to Work

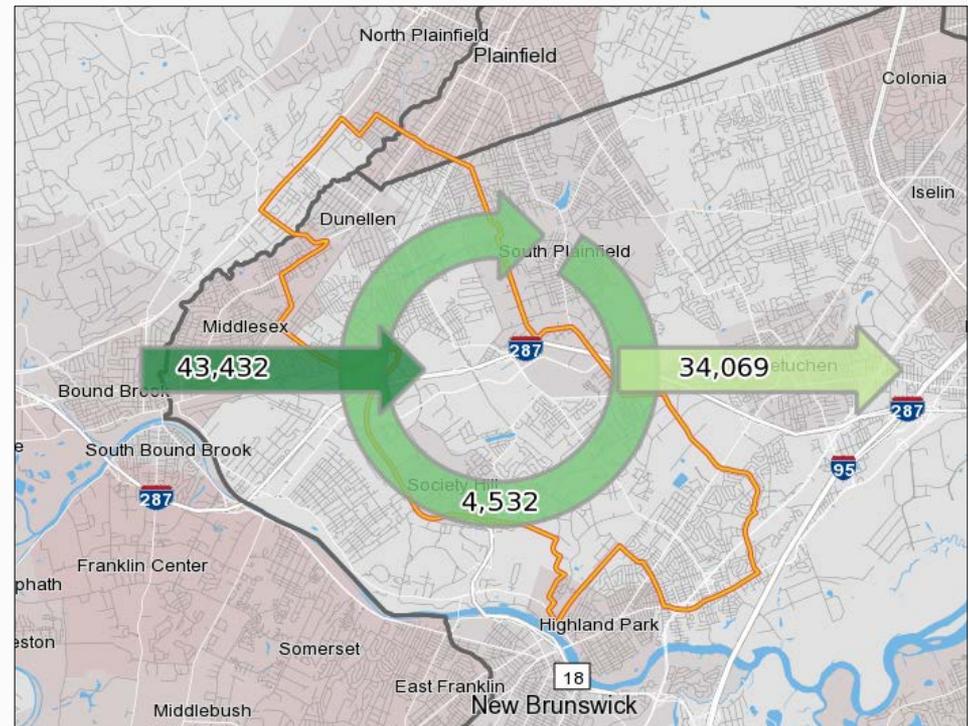
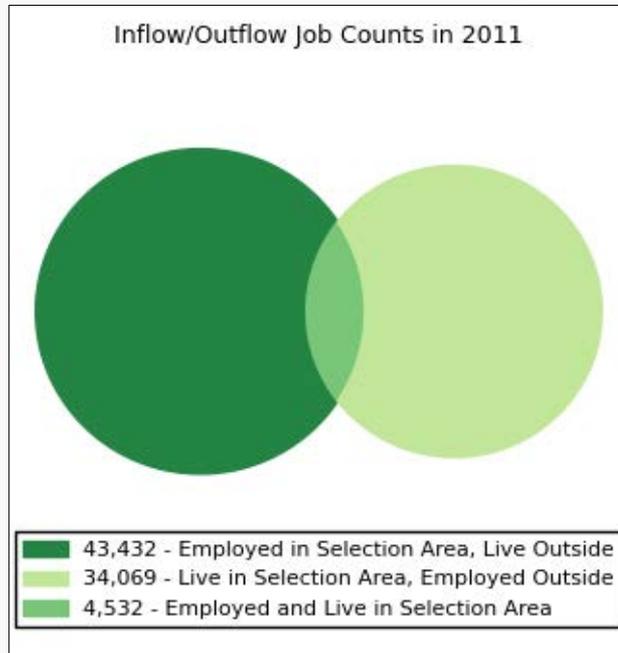
- During 2008-2012, approximately **9.0%** of the workers who lived in the **CR529 Corridor** used public transportation to travel to work (3,716 out of 41,316 workers) .\*
- The same figure for NJ was 10.7%



\*Source: U.S. Census Bureau, American Community Survey (ACS), 5 year 2008-2012

# Inflow/Outflow Job Counts (2011)

47,964 total primary jobs; end of 2<sup>nd</sup> quarter 2011



\*Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

# Origins & Destinations (2011)

End of 2<sup>nd</sup> quarter 2011

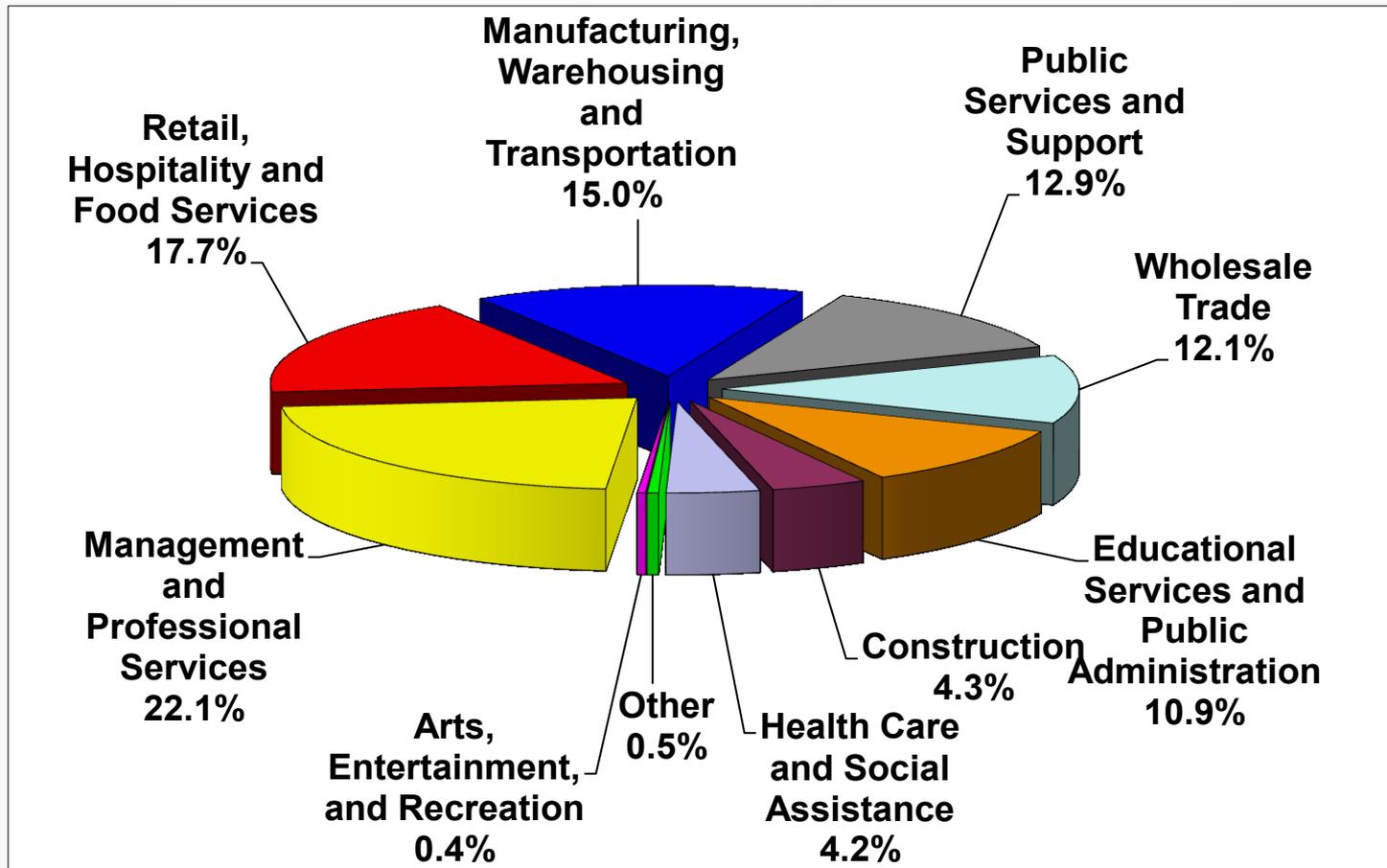
<b>Top 3 Homeplace Origins</b>	<b>Number of Primary Jobs</b>
Edison	4,304
Piscataway	2,955
Woodbridge	1,694
South Plainfield	1,241
Plainfield	1,141

<b>Top 3 Workplace Destinations</b>	<b>Number of Primary Jobs</b>
Edison	3,636
Piscataway	2,553
Manhattan	2,175
South Plainfield	1,683
New Brunswick	1,476

**\*Source:** U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

# Jobs in the CR529 Corridor by Industry

47,964 total primary jobs; end of 2<sup>nd</sup> quarter 2011



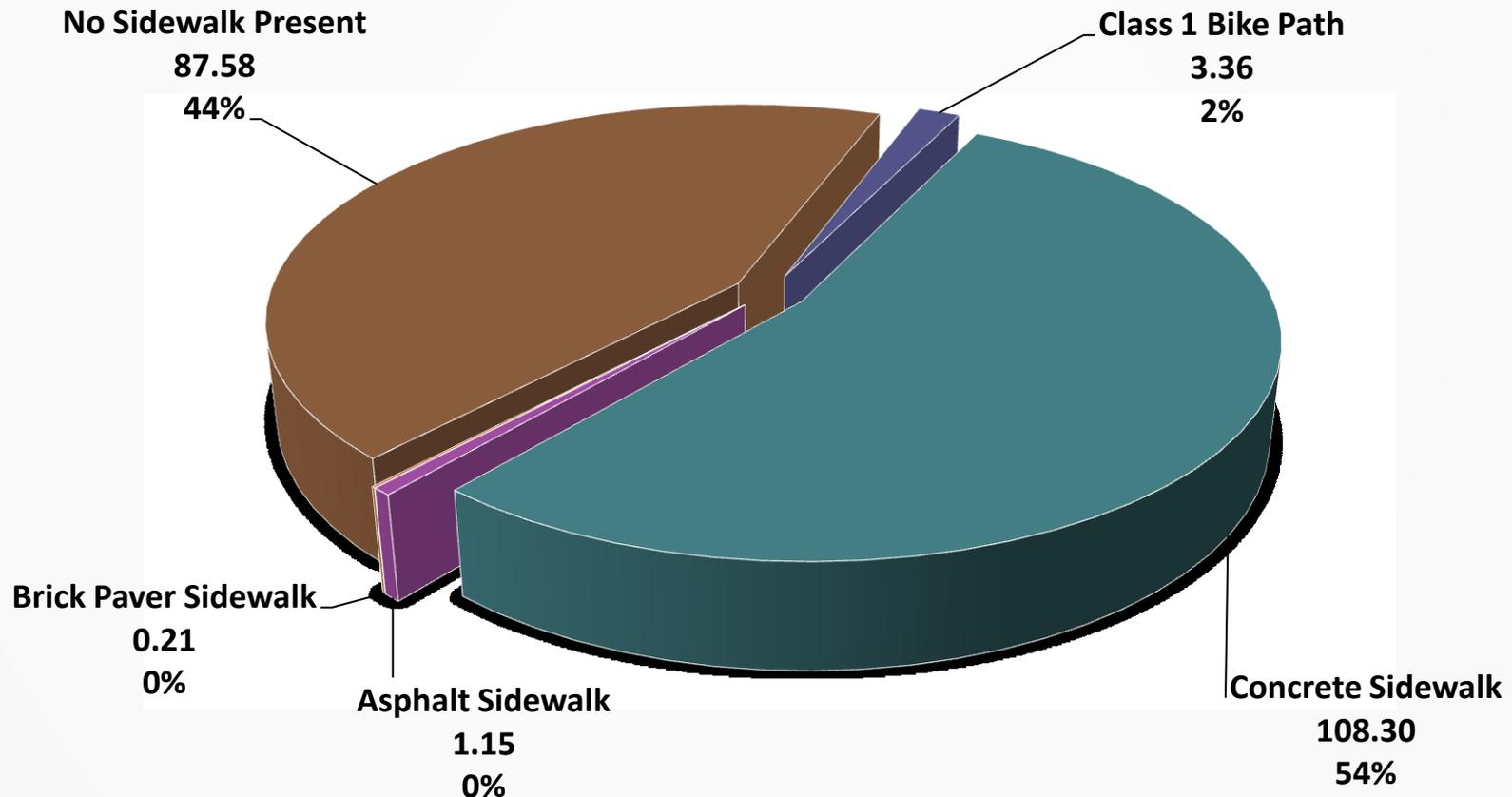
\*Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

# Sidewalk/Shoulders Inventory

- Windshield survey of **201 “directional” miles** of major roads within the corridor.
- Sidewalks
  - Identified sidewalk material, approximated width (by range) and presence of “Class 1” bike path
  - Identified worn paths on segments with no sidewalk
- Shoulders
  - Approximated width (by range) and presence of dedicated bike lane (“Class 2” bike lane).
  - Also identified segments with no shoulder present but were marked as “Class 3” bike routes (i.e. sharrows).

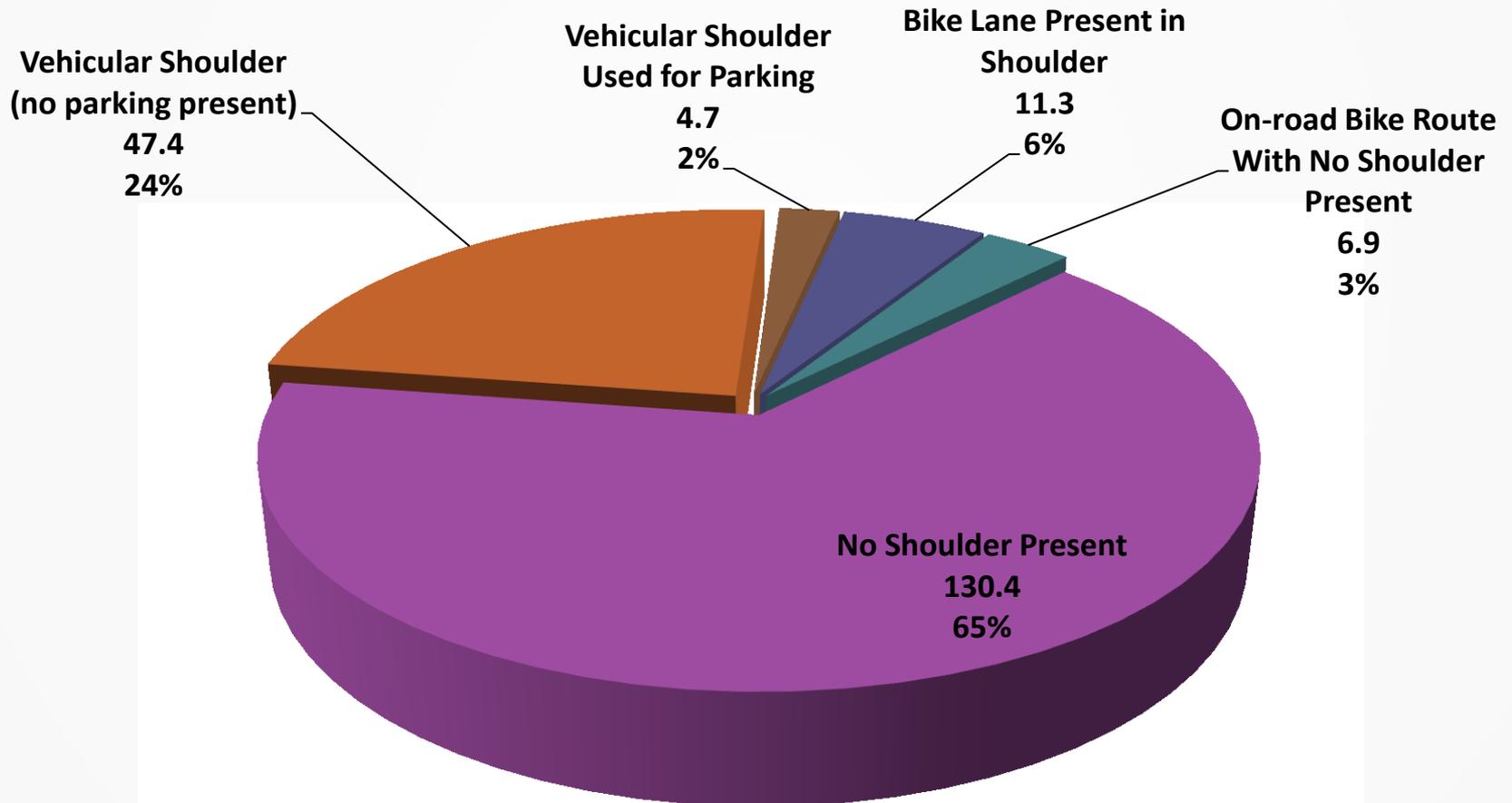
# Summary of Sidewalk Inventory

## Directional Road Centerline Miles



# Summary of Shoulders Inventory

## Directional Road Centerline Miles



# Inventory of Pedestrian Facilities at Signalized Intersections

- Photo-Inventory and data collection at **112 locations**
- On each leg at every location we inventoried presence and/or absence of:
  - Crosswalks
  - Depressed curbing/ramps at corners
  - Pedestrian Signal Heads
    - count-down timers
  - General Comments

# Inventory of Missing Marked Crosswalks

Number of Missing Crosswalks	Count of Intersection	Percent Total
No crosswalks missing	68	61%
1 missing crosswalk	16	14%
2 missing crosswalks	14	13%
3 missing crosswalks	9	8%
4 missing crosswalks	5	4%
<b>Grand Total</b>	<b>112</b>	<b>100%</b>

# Bus Stop Inventory

- Assembled a directory/database of bus stops within the corridor (108 bus stops)
  - Identified bus line and destination head signs for each bus stop
  - Stop type (near side, far side) and street direction
  - Presence and type of shelter

# Bus Stops By Presence of Shelter

- 95 out of 108 bus stops do NOT have a shelter
- 13 out of 108 stops do have a bus shelter

Bus Shelter Type	Number of Stops	Percent of Stops
Standard 5' x 10'	5	5%
Advertising shelter	3	3%
5' x 14' full sides, front wind	1	1%
Privately built shelter	3	3%
Municipal built shelter	1	1%
No shelter	95	88%
<b>Grand Total</b>	<b>108</b>	<b>100%</b>

Stelton Rd at Hadley Ctr Dr



Clinton Ave at W 7<sup>th</sup> Street  
(Standard 5' x 10' shelter)

# Open House Discussion

- Four Discussion Tables for providing specific feedback with study team staff and/or steering committee members.
- Table Topics
  - Rail Transit (service and facilities)
  - Bus Transit (service and facilities)
  - Bicycle Facilities
  - Pedestrian Facilities

# What is most important to you?

- We are also interested in your priorities.
- Kindly use 8 sticker dots and assign them to the 12 categories weighted by your level of importance.
  - All 8 stickers may be in one category or you may distribute four stickers to two categories, or 1 sticker in eight categories (any combination is acceptable)
  - *Better bus service/access; bus stop amenities; better train service/access; train station amenities; bike paths, bike lanes, bike signage, more sidewalks, better sidewalks, better crosswalks, new pedestrian signals, improvements to existing pedestrian signalization.*

# THANK YOU FOR YOUR PARTICIPATION!

- CR529 Corridor Study web site for additional information and downloadable documents
  - <http://goo.gl/wkbx9w>
- Additional comments by 7/31/2015
  - Email: [planning@co.middlesex.nj.us](mailto:planning@co.middlesex.nj.us)
  - Phone: (732) 745-3835
  - Middlesex County Office of Planning  
Division of Transportation  
40 Livingston Avenue – Third Floor  
New Brunswick, NJ 08901

# Photographic Slide Show

- Photographs of bicycle, pedestrian and transit facilities.



## **Woodbridge Ave at Gurley Rd/Trenton Ave, Edison**

Diagonal striped crosswalk with countdown time pedestrian signal heads



## **Metlars Ln at South Randolphville Rd**

Striped crosswalk, pedestrian buttons, pedestrian signal heads



## **Washington Ave (CR529) and West 7th St**

Marked crosswalk; no ramp on far side of crossing



## Plainfield Ave at Kilmer Rd (Edison)

No marked crosswalk or pedestrian signal heads or ramps (very close to Edison Station)



## West 7th St at Rock Ave

No marked crosswalk or ramps or pedestrian signal head (pedestrian button present)



## **Mountain Ave and William St**

Marked crosswalk and pedestrian signal head (offset to the right)



## **Stelton Rd at Centennial Ave**

Faded crosswalk, pedestrian signal heads without countdown timers



## Woodbridge Ave at Old Post Rd

No ramp present in the foreground (near side; sewer inlet)



## Route 27 and Colton Rd (Edison)

Pedestrian signal head with countdown timer and marked crosswalk



## **Route 27 and Stony Rd (crossing Stony Rd)**

Marked crosswalk, countdown timers



## **Route 27 and Stony Rd (crossing Route 27)**

Marked crosswalk, countdown timers



## **Route 28 and South Lincoln Ave (Middlesex Borough)**

Marked crosswalk, no countdown timer



## **Old Post Rd approaching Edison High School**

Marked bike route (shared road)



## Boulevard of the Eagles

Striped bike lane along Edison High School



## Boulevard of the Eagles bike lane

Courtesy Google Street View; October 2012 <http://goo.gl/YvWgiW>



## **West 5<sup>th</sup> St at Walnut St (Piscataway)**

Marked bike route (shared roadway)



## **Main Street Dunellen**

Cyclist on Route 28



**Plainfield Ave just south of Route 27**



## **Old New Brunswick Road at South Randolphville Rd**

Worn pedestrian path



## Edison Station



## Edison Station



## **Edison Station**

Sidewalk from Kilmer Rd parking lot



## Edison Station

Walkway down to Plainfield Ave from Kilmer Ave parking lot



## Edison Station

10 bike lockers; 5 on front 5 at rear (100% rented)



## Edison Station

Bicycle racks



## Edison Station

Bicycle racks



## Edison Station

Standing taxi cue (Friday, October 10 at 12:39 PM)



## Dunellen Station



## Dunellen Station

Bicycle parking; inbound side of the station (to Newark)



## Dunellen Station

2 bike lockers and bike racks; outbound side of the station (from Newark)



## **Bus Stop with Shelter**

Vail at CR529 (Washington Ave)



**Clinton Ave at West 7<sup>th</sup> St**



## **West 7<sup>th</sup> St at Clinton Ave**

Bus stop with no shelter



## Clinton Ave at Hamilton Blvd

Bus stop with no shelter



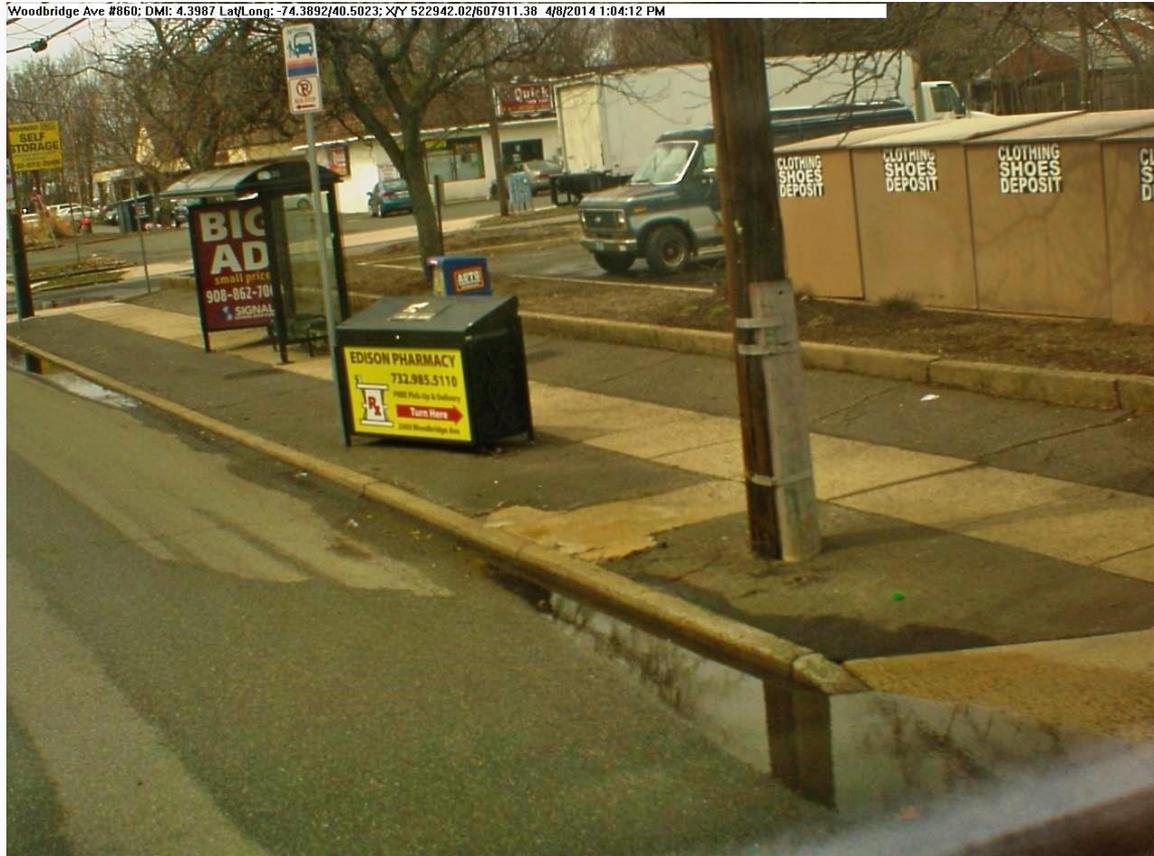
## **Stelton Rd at Hadley Center Dr**

Bus stop with no shelter; worn pedestrian path (no sidewalk)



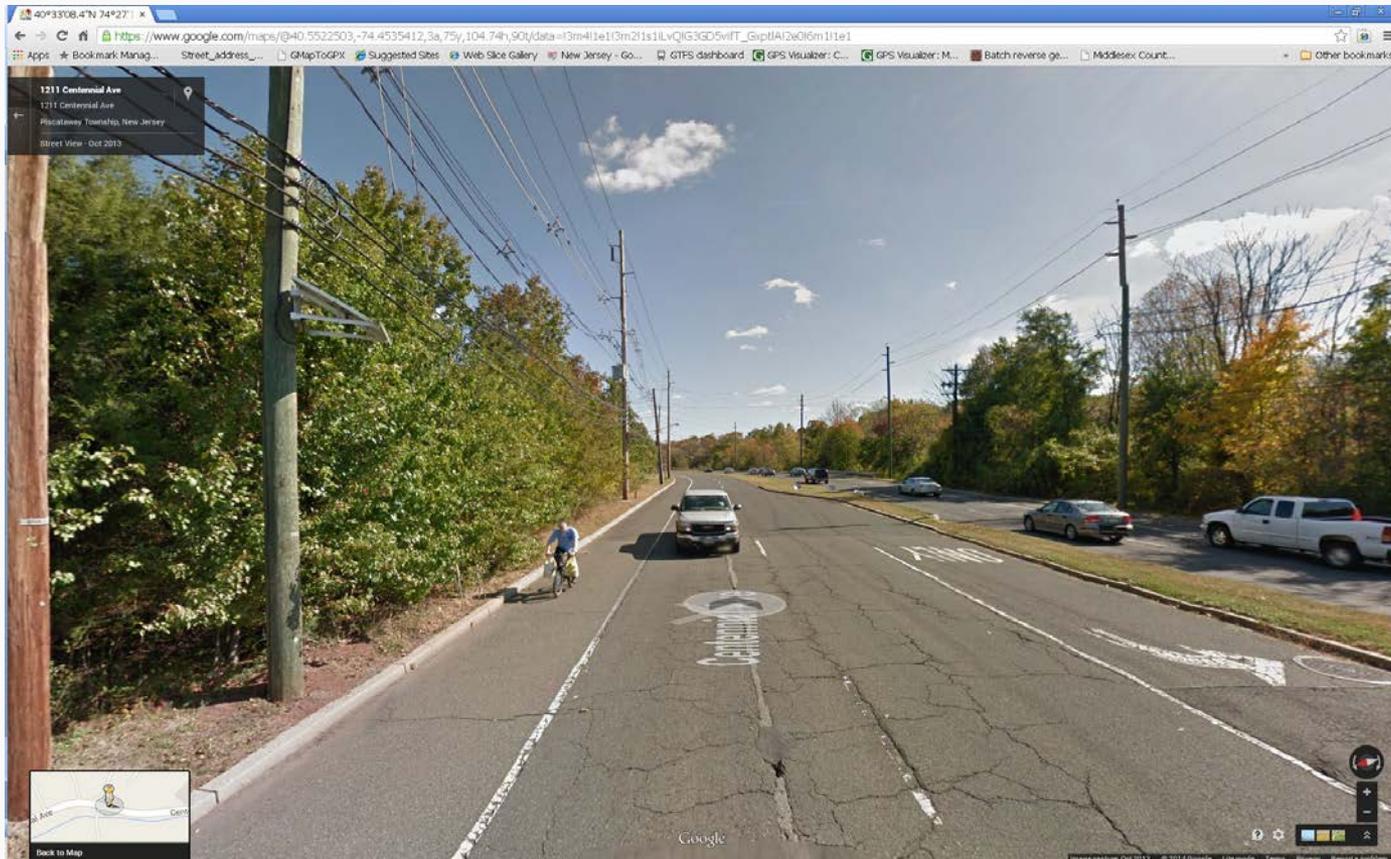
## **Stelton Rd at Hadley Center Dr**

Bus stop with no shelter; worn pedestrian path (no sidewalk)



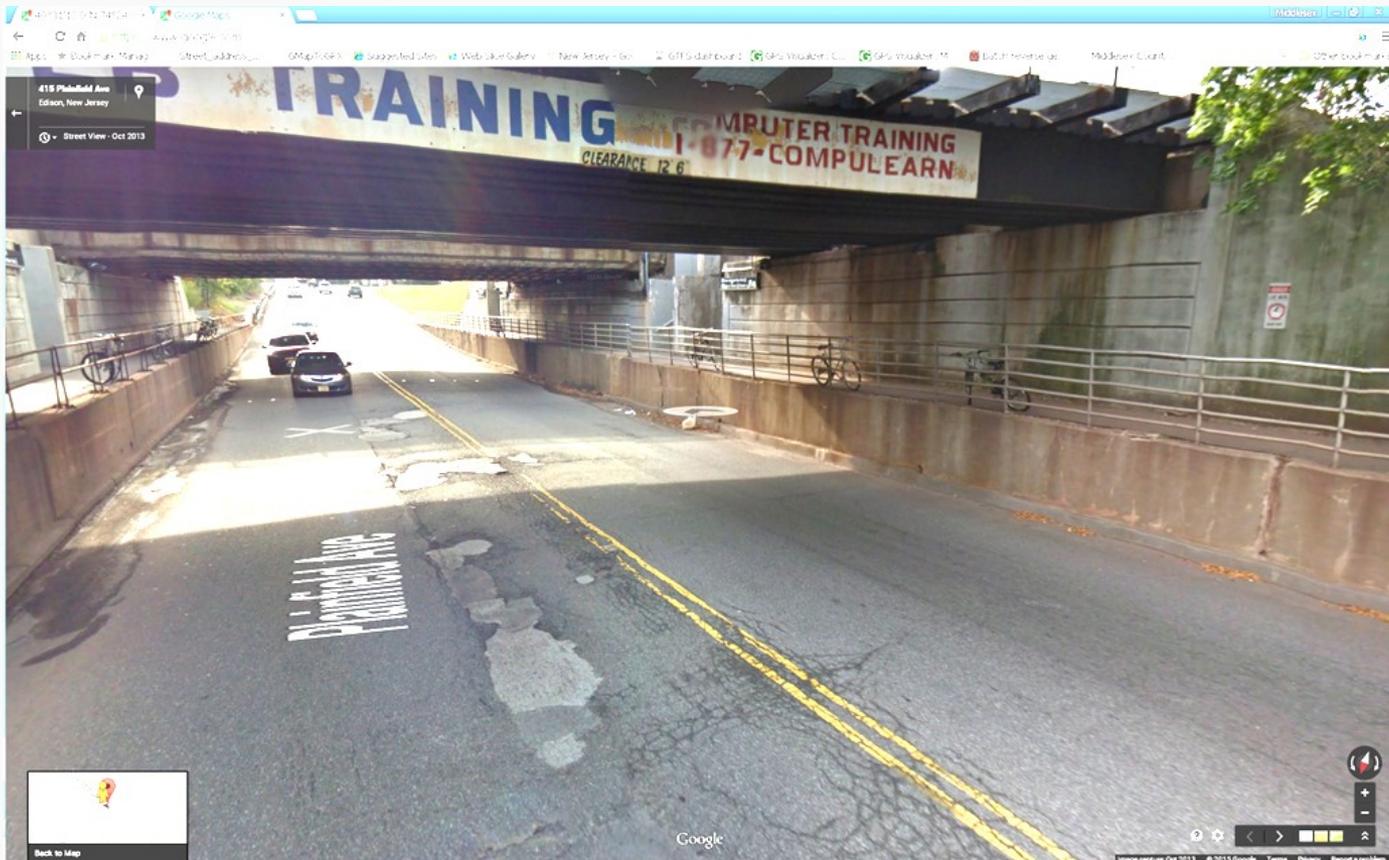
## Woodbridge Ave at Rutland St

Bus stop with advertising shelter



## Cycling in the shoulder on Centennial Ave

Google Street View; October 2013; <http://goo.gl/CH8hAA>



## Plainfield Ave underpass at Edison Rail Station

Informal bicycle parking (chained to pedestrian guard rails)

Courtesy Google Street View; October 2013; <https://goo.gl/maps/jMD26>



## Stelton Rd at School St

Bike lanes on both sides of Stelton Rd (with a cyclist traveling northbound)

Courtesy Google Street View; September 2013; <http://goo.gl/maps/HHcKI>



## Plainfield Ave just north of Edison Station

No sidewalk; pedestrian walking in roadway

Courtesy Google Street View; October 2013; <http://goo.gl/0xPamO>

# THANK YOU FOR YOUR PARTICIPATION!

- CR529 Corridor Study web site for additional information and downloadable documents
  - <http://goo.gl/wkbx9w>
- Additional comments by 7/31/2015
  - Email: [planning@co.middlesex.nj.us](mailto:planning@co.middlesex.nj.us)
  - Phone: (732) 745-3835
  - Middlesex County Office of Planning  
Division of Transportation  
40 Livingston Avenue – Third Floor  
New Brunswick, NJ 08901