City of Bloomington
Bicycle and Pedestrian Safety Commission

Monday, May 11, 2015
5:30 – 7:00 p.m.
Hooker Conference Room, Bloomington City Hall
**AGENDA**

I. Call to Order and Introductions

II. Approval of Minutes:
   a. April 13, 2015

II. Public Comments

III. Communications from Committee Members

IV. Reports from Staff

V. Old Business
   a. Bikeshare Statement
   b. B/P Recommendations – College Mall Rd

VI. New Business
   a. Bike Ped Accomodations on I 69

VII. Topic suggestions for future agendas

VIII. Upcoming Meetings/Events
   - Bike to Work Day, May 15

IX. Adjourn

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MINUTES
BIKE AND PEDESTRIAN SAFETY COMMISSION
**An audio recording of the meeting is available upon request**
04-11-15

**I. CALL TO ORDER AND INTRODUCTIONS –** 5:35 PM

Members present: Mitch Rice, Jim Rosenbarger, Paul Ash, Jaclyn Ray, and Mark Stosberg

Guests: Daniel McMullen, and Jim Williams

Staff: Scott Robinson – Planning & Transportation, Vince Caristo – Planning & Transportation, Andrew Cibor – Planning & Transportation

**II. APPROVAL OF MINUTES**
A motion to approve the minutes from 03-09-15 was approved by unanimous voice vote.

**III. PUBLIC COMMENT**
Mr. McMullen advocated for fees for bicycle parking, citing equal treatment under the law as a primary justification.

Mr. Williams said that a recent visit to Sanibel Island, Florida, showed him that we could learn a lot from how that city deals with congestion and multi-modal accommodation.

**IV. COMMUNICATIONS FROM COMMISSION MEMBERS**

**V. REPORTS FROM STAFF**

- **a. Staffing Update**
- **b. Traffic Commission Update**
- **c. Civil Streets**
- **d. Neighborhood Greenway**
- **e. Bikes Month**
- **f. Traffic Calming Yard Signs**

**VI. OLD BUSINESS**

**VII. NEW BUSINESS**

**a. Bloomingfoods Bike to Work Day Request**

The commission considered this request for financial support for a Bike to Work Day Event.

Mr. Ash moved to recommend fulfilling the request. Mr. Rosenbarger seconded. **Motion passed.**

**b. Local Motion Grant 2015**

Staff announced the schedule and deadlines for this year's grant program.

## VIII. TOPIC SUGGESTIONS FOR FUTURE AGENDAS

Mr. Rosenbarger would like to see a staff analysis of the College Mall Rd corridor, in the area of Covenanter Dr and 2nd St. Factors to look at include walk score, pedestrian crossing times, turning movements, speeds, crash locations, and active driveway crossings. An analysis of this data could lead to design improvements such as removing the WB turn lane, or urbanizing Covenanter Dr east of College Mall Dr.

Ms. Ray asked for an update on the bike-ped accommodations that will be constructed with on I-69.

Adjourned 7:00 PM

City of Bloomington
Bicycle and Pedestrian
Safety Commission

# Whitepaper on Bikeshare Transit

***This document is intended to help residents and public officials understand the potential costs and benefits of bikeshare transit in Bloomington, to help inform future decisions on the issue. The first section is a summary of the findings and recommendations, the second section provides a full account of the research that was conducted.***

## I. RECOMMENDATIONS

Bikeshare transit systems have grown exponentially in size and use over the past decade, buoyed by technological improvements and an overall interest in bicycling for transportation. In major cities around the world, they have consistently exceeded projections for usage and safety, and have played a significant role in normalizing bicycle transportation. Bikeshare has also demonstrated a unique ability to pique the imagination, revealing to people the exciting potential for widespread urban bicycle transportation. As such, any American city that's currently engaged in encouraging more and safer bicycling needs to consider the whether and how a bikeshare transit system might work for them.

Based on an extensive review of existing systems, the BPSC believes that a thoughtfully planned and well-funded bikeshare transit system has good potential to affect the travel choices of visiting tourists, on-campus residents at Indiana University, and residents of high-density downtown housing structures. The success of bikeshare systems seems most closely related to the density of available stations, so we expect the capital, operational, and maintenance costs for a successful system to be quite high.

The potential for a bikeshare transit system to affect the travel behavior of other residents and trip types is less clear. Our research did not reveal any examples of

widespread bikeshare transit systems in cities of similar size and density. For residents of core and outlying neighborhoods who don't currently bicycle for transportation purposes, our experience indicates that infrastructure and safety barriers are more significant than the barriers posed by costs of bicycle ownership and maintenance.

**At this time, we recommend the City play a supportive rather than a leading role in encouraging the development of bikeshare transit in the City of Bloomington and Indiana University. Any City investments into bikeshare should be carefully weighed against investments in improving and expanding our network of safe and easy to use bicycling facilities.**

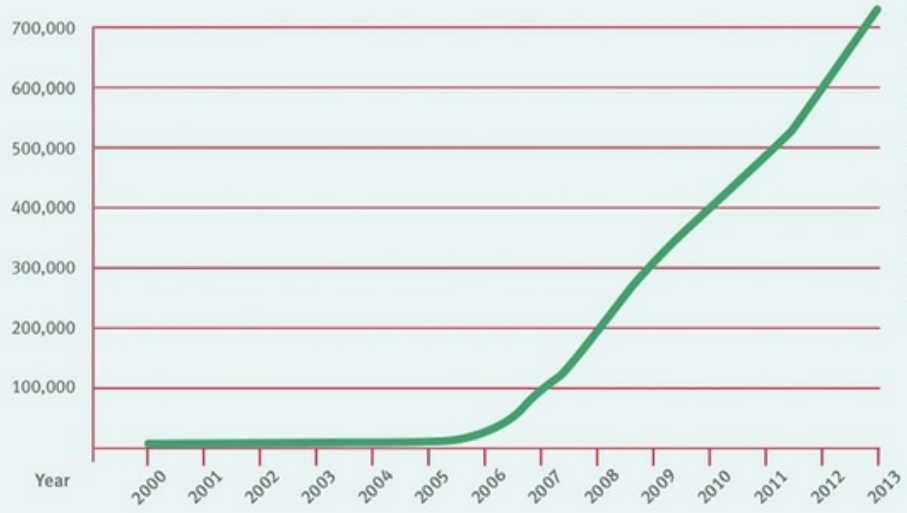
## II. RESEARCH

The following section of this whitepaper summarizes research on emerging trends and factors for success of public bike share programs. Case studies of three peer cities to Bloomington are included (Greenville, SC; Ann Arbor, MI; and Madison, WI). Bike share has experienced exponential growth in recent years. Technological developments in Information Technology continue to allow growth and advancement. Successful programs have high station density and exist in communities that are already supportive of sustainable transportation. Upfront capital costs and annual operating costs tend to be high and are not self-sustaining. Most programs have local government/agency sponsors, receive funds from advertising sales and/or government grants.

### History and Recent Growth

Since its humble beginnings in 1965, the idea of a bike sharing within a community has taken a while to catch on. The first forty years saw very little worldwide growth; the past nine years shows a dramatic difference and exponential growth as compared to the early years. See chart below (number of bikes in bike share program/worldwide):

**Fig. 1: Growth of Bike-share Worldwide (January 2000–July 2013)**




When the first bike-share opened in the 1960s, bike-share growth worldwide was relatively modest. It wasn't until after the turn of the century and the launch of Velo'v in Lyon, France, in 2005 and Vélib' in Paris in 2007 that growth in bike-share exploded.

CASA BIKE SHARE MAP BY OLIVER O'BRIEN, SYSTEM WEBSITES, PUBLICBIKE.NET

The primary benefits of a bike share program haven't changed that much since 1965: reduce congestion & increase accessibility, improving health, and improving air quality, to name a few.

## Bike Share Cities North America 2014

| | | | |
|---|---|---|---|
| Alexandria, VA | Denver, CO | NYC, NY | Tampa Bay, FL |
| Anaheim, CA | Des Moines, IA | Oklahoma CIty, OK | Toronto, Canada |
| Arlington, VA | Ft. Worth, TX | Omaha, NB | Tulsa, OK |
| Austin, TX | Golden, Canada | Orlando, FL | Washington D.C. |
| Aspen, CO | Greenville, SC | Ottawa, Canada | |
| Boston, MA | Hoboken, NJ | Phoenix, AZ | Coming Soon To: |
| Boulder, CO | Houston, TX | Pittsburgh, PA (racks) | Atlanta, GA |
| Bridgeport, CT | Indianapolis, IN | Portland, ME | Baltimore, MD |
| Brookline, MA | Kailua, Oahu, HI | Rockville, MD | Birmingham, AL |
| Broward County, FL | Kansas City, MO | San Antonio, TX | Boise, ID |
| Buffalo, NY | Long Beach, CA | San Diego, CA | Dayton, OH |
| Cambridge, MA | Long Beach, NY | San Francisco, CA | Detroit, MI |
| Chattanooga, TN | Madison, WI | Salt Lake City, UT | El Paso, TX |
| Charlotte, NC | Miami, FL | Santa Clara County, CA | Los Angeles, CA |
| Chicago, IL | Miami Beach, FL | Santa Monica, CA | Louisville, KY |
| Cincinnati, OH | Milwaukee, WI | Savannah, GA | Monterey, CA |
| Cleveland, OH | Minneapolis, MN | Seattle, WA | New Orleans, LA |
| College Park, MD | Montreal, Canada | Somerville, MA | Portland, OR |
| Columbus, OH | Nashville, TN | Spartanburg, SC | Vancouver, Canada |

| **Bike Share Companies** (not a complete list) |
|---|
| **Deco Bike –** www.decobikellc.com |
| **Nextbike –** www.nextbike.net |
| **Motivate –** www.motivateco.com |
| **Cyclehop –** www.cyclehop.com |

**Bcycle – www.bcycle.com**

## Emerging Trends

One of the primary components that have affected this surge in bike-sharing communities is technological advancements that make it easier for the public to use a bike share program and to check-out bicycles, as well as enable the program sponsors to monitor usage statistics, docking station locations, and bike locator technology.

"In the 2012 season, there were 22 IT-based bike sharing operators in the U.S. claiming approximately 884,442 users sharing 7,549 bicycles. In Canada, there were four IT-based bike sharing programs with 197,419 users sharing 6,115 bicycles. In Mexico, there were two IT-based bike sharing programs with 71,611 users sharing 3,680 bicycles." http://transweb.sjsu.edu/PDFs/research/1131-public-bikesharing-business-models-trends-impacts.pdf

Other advancements in bike share systems that have promoted growth are universal cards, modular/moveable stations, and solar cell powered stations (ITDP Bike Sharing Planner). Universal cards integrate other means of transportation within the community and act as a rechargeable smart card that the user can use on the bus, subway, or bike share. Modular/moveable stations do not require excavation to install. This reduces the cost of implementing a program. And if demand shows that a station would be better used in another location, it can be easily moved. Solar cells make these movable stations feasible. They power the stations and wireless communications. Systems in Washington D.C. and Montreal are wireless and powered by solar energy.

Crowdsourcing is becoming a common technique used to get community members involved and supportive of a bike share program. Louisville, KY used crowdsourcing via a website where users could log on and "pin" a location for a docking station. In addition to dropping the pin, they could leave comments as to why that location was ideal.

Smartphone apps are common with most new bike share programs. They allow users to check the number of bikes available, nearest stations, if space is available to return at nearest station, route maps, time tracking, etc... Some examples are spotcycle.net, and the O'Brien global bike share map.

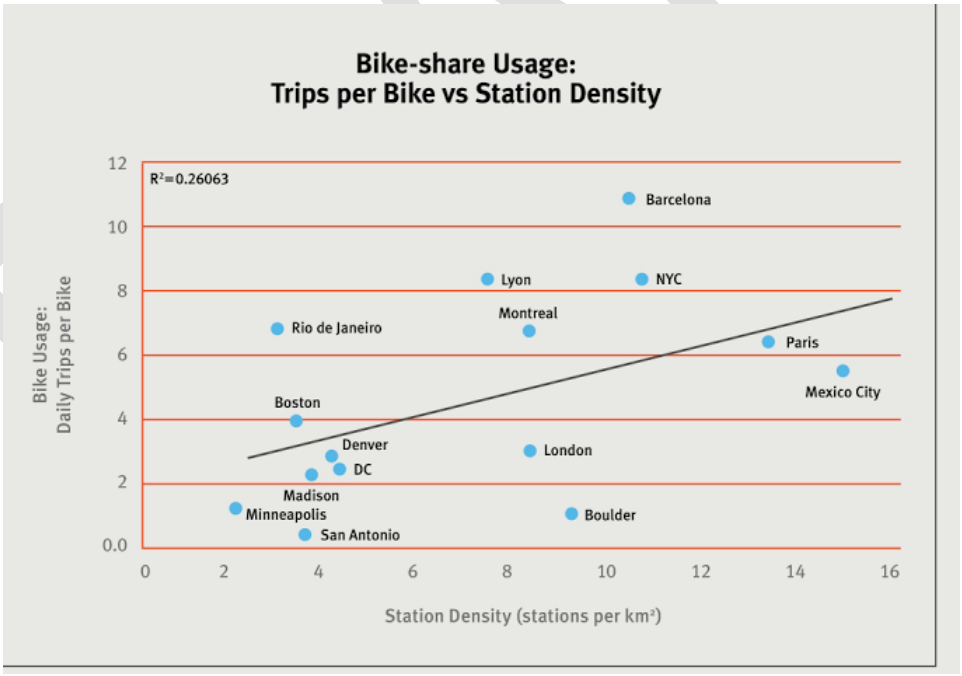
NextBike, out of Germany, is a bike share company at the forefront of the next wave of bike share technology. They provide different types of docking stations based on the demands of the community; full docking stations are no problem because each bike has a GPS-enabled smart lock that allows them to be parked at any bike rack. Their 'smart box' can create a docking area without the modular docking station and can be affixed to any signpost, tree, or post – with no intrusive installation necessary.

Bitlock is a company developing a smart Ulock with GPS and smartphone application. It allows user to share their bike within a network of friends or colleagues that they establish using the smartphone app. With the Bitlock app running in the background, the user can walk up to the bike and press the button on the lock to unlock it, or they can manually lock and unlock using the application. The smartphone application also tracks miles ridden and routes taken.

Spinlister.com is a peer to peer bike rental website where anyone can post their bike for rent; there are currently 3 bikes posted in Bloomington.

## Common Features of Successful Programs

In a recent article on USA Streetsblog (November, 2014), studies showed that one of the primary reasons bike shares fail is a lack of density in station placement. In fact, the failure of the first Washington D.C. program SmartBike is directly attributed to too few stations – "Smart Bike DC launched. It was, by most accounts, a noble failure. There were too few stations and bikes to form a meaningful and useful network" (The Best Bike Sharing Program in The United States – How D.C., of all places, made it happen. Tom Vanderbilt for www.slate.com). A successful system should average 4-6 rides per day per bike, based on the research that ITDP, the Institute for Transportation and Development Policy, put out last year. The graph below shows how some bike share programs around the world compare based on usage per day per bike.




"The point about density of stations isn't new. It was demonstrated with Paris and was confirmed with the experience in Montreal. It was the Paris experience that was said to work best; you need about 29 stations per square mile. Of course, that means you need to have dense places. Cities like NYC, Paris, or Montreal have areas where residential districts are close

to commercial districts, which is optimum, rather than having a more unbalanced set of origins and destinations (like DC)" (comment from streetsblog.com).

The problem is that most cities are adopting "bike share" to be like other cities that have it, and they don't have the density conditions or the ability to pay for enough stations to make it work in the way you expect. Bike share typically works best in communities that are already supportive of sustainable transportation. These communities already have a proclivity to walk or bike.

Also of note from the ITDP Bike-share Planning Guide, 2014, many of the most successful systems share certain common features:

- A dense network of stations across the coverage area, with an average spacing of 300 meters between stations
- Comfortable, commuter-style bicycles with specially designed parts and sizes that discourage theft and resale
- A fully automated locking system that allows users to check bicycles easily in or out of bike-share stations
- A wireless tracking system, such as radio-frequency identification devices (RFIDs), that locates where a bicycle is picked up and returned and identifies the user
- Real-time monitoring of station occupancy rates through wireless communications, such as general packet radio service (GPRS)
- Real-time user information through various platforms, including the web, mobile phones and/or on-site terminals
- Pricing structures that incentivize short trips, helping to maximize the number of trips per bicycle per day

## Safety

Other good news in the bike share world is that as of Aug. 12, 2014, no fatalities had been reported 'in any U.S. public bike share program since the first one launched in Tulsa, Oklahoma, in 2007…While there is no central reporting clearinghouse for bike share fatalities, the safety record was confirmed by three alternative transportation experts: Susan Shaheen, co-director of the University of California at Berkeley's Transportation Sustainability Research Center; Russell Meddin, founder of the Bike-sharing World Map; and Paul DeMaio, founder of MetroBike, the nation's oldest bike-share consultancy.' ("After 23 million rides, no deaths in U.S. bike share programs", Barbara Goldberg, Reuters)

Very few communities across the US have ordinances regulating helmet usage for adults; many regulate child usage (http://www.helmets.org/mandator.htm). The city of Seattle, WA and many other communities in Washington State do mandate helmet usage for adults. The recently launched (October 2014) bike share program in Seattle (Pronto Cycle Share) provides clean helmets at each of its docking stations, including a bin to return the used helmet when you return the bike.

## Case Studies

## Greenville, SC - Bcycle Program

Lisa Scott Hallo – Upstate Forever | Director of Sustainable Communities Program, Greenville, SC

Greenville, SC situated in northwestern South Carolina is a town of ~63,000. There are no major universities in the city. The city sees a fair amount of tourism in the summer months and is the largest city in 'the Upstate' region. Greenville has 7.3 miles of bike lanes and 9.57 miles of greenway.

The Greenville Bcycle program launched in March, 2013. Initial install was 6 docking stations with a capacity of 9 bikes each, and a total of 28 bicycles. The program was initially funded by a Federal Transit Authority grant from the Job Access and Reverse Commute program plus a grant from the Greenville Health System. It is being maintained between Upstate Forever (a regional organization dedicated to environmental protection and practical economic development) and the Greenville Health System. Upstate Forever provides the administrative staff needed to oversee the program as well as the advertising and education programs used in marketing the bike share. Greenville Health System has committed to a $60,000/yr. donation for 5 years to cover operating costs as well as fund the installation of 1 new docking station per year and 3-5 new bikes per year.

**Installation & Maintenance**

Greenville City Government did not do a feasibility study prior to installation. The Leadership Greenville group planned the program and the docking station locations were vetted by the city. The following are some of the criteria they considered when examining a potential docking station location:

- is it a destination (attraction, business, residence)
- is there enough physical space for the station
- is the space well-lit
- is there bicycle access infrastructure already in place (ramps from sidewalk)
- whose property is it on
- are there any zoning issues to be addressed
- can it be backed up by an AC connection

The initial capital cost typically ranged from $4000 - $6000 per bicycle. The Bcycle bike share company that installed the program in Greenville recommends having twice the number of docking stations as bicycles.

Operational costs average $60,000 annually. Operational costs in the Greenville program include the following non-exhaustive list:

- administrator salary
- telecommunications

- after-hours call-service
- bike-shop contract for bike repairs
- rebalancing of bikes to stations (contracted out)

The administrator of the program spends about 13 hours/week dedicated to management of the bike share program. She works for Upstate Forever and her primary duties for the Greenville Bcycle Program are maintaining the budget, client communications, and marketing. She feels that she should be spending about 20 hours/week on the program but is limited by her other job responsibilities.

**Users & Revenue**

The Leadership Greenville team did not conduct any anticipated usage studies. Annual average use is 10 rides/day; however most of the usage occurs between April and September with the winter months seeing very little usage. Weekend use is higher than weekday use (avg 3-5/day during the week and ~30/day on the weekend).

The revenue comes mostly from visitor use with only a small percentage accruing from annual memberships. Visitor use can be defined as tourist or local day-at-a-time users. Almost 70% of users are of the visitor variety.

Operational costs are primarily covered by the grant from Greenville Health Systems. The program is not self-sustainable and must be supplemented with partner funding or grants. At the conclusion of the current 5-yr. contract with Greenville Health Systems, Upstate Forever will seek another contract with Greenville Health Systems to cover at least part of the annual operating costs. They have also begun researching other partner agencies, giving the program over to the City of Greenville or the local transportation agency, or partnering with another non-profit. The program has shown growth in its first 18 months of operation. Upstate Forever would like to grow the geographic area within Greenville that is served by Bcycle.

**Issues**

Knowing the demographics of the population to be served is critical when deciding where to install a docking station. Also, knowing the percentage of downtown residents and their demographics can help to predict the success of a program.

A problem that is still being addressed in the Greenville system is that a docking station which was placed in a low-income minority neighborhood has seen absolutely no use. After it was discovered that this particular station was not being used, Upstate Forever conducted educational programs in the neighborhood about the bicycle share program and how it could be utilized. The station has still not been used. They have learned that in this particular demographic, there is a negative image associated with riding a bicycle and how it reflects your social status. It has been decided to move the docking station to a different location.

Another item to consider is if a bicycle share program will be in competition with local bike shops that rent bicycles. A program in nearby Spartanburg, SC charges prices that are in accordance with their local bike shops so as to not undercut local business prices.

**Other Notes**

Working with Bcycle was successful. The company was professional in their interactions and very helpful through the installation process. Because of the upsurge in bicycle sharing program interest, Bcycle has gone through some growing pains which caused a few small issues but those have been resolved. Bcycle is 100% owned by Trek.

"At a recent conference for cities with bike share programs, sustainability was discussed and only the Austin, TX program is self-sustaining from membership revenue. The Boulder, CO director indicated that if they received 50% of expenditure costs from annual membership revenue they would consider the program very successful."

Typically users tend to be younger, wealthy, and white.

## Madison, WI - Bcycle Program

Claire Hurley - B-cycle | Field Operations Manager, Madison, WI

Madison, WI is a city in south-central Wisconsin with a population of 243,344 residents. Approximately 40,000 of those residents are students at the University of Wisconsin – Madison. The city has 112 miles of bike lanes.

The program in Madison was started by a bike share committee, which included city leaders, community members, and bike share advocates from sponsor agencies. They did not conduct a feasibility study. The program launched in April of 2011, with 27 docking stations and ~217 bikes. They currently have 39 stations and 315 bikes. Trek fully sponsored the implementation of the program which was a $1.3 million investment. Currently, the University of Wisconsin sponsors 4 stations which are located on campus grounds. The five new stations installed in 2014, each have individual sponsors.

The program is not self-sustaining. They offer annual, monthly-renewing, and daily user usage types but the income from all of these combined does not cover the operational costs of the program. They employ 3 full-time maintenance techs, operations and program managers, and marketing interns. They do not share their financial data, so I was unable to obtain annual operating costs. The program closes in the winter months.

Finding key people and support for the program were the main challenges in getting the program off the ground, as well as securing the necessary right-of-way permits needed to install the docking stations. They have not had any major safety and security concerns. They have only had to replace two bicycles since the program started.

## Ann Arbor, MI - Bcycle Program

Heather Croteau – Clean Energy Coalition | Project Associate, Ann Arbor, MI

Ann Arbor, MI, located in south-eastern Michigan has a population of ~114,000 and is home to the University of Michigan. Approximately 40,000 students attend the University of Michigan. There are 71 miles of bike lanes within the city limits and Washtenaw County boasts a border-to-border bike trail system.

The Clean Energy Coalition partnered with the City of Ann Arbor, the University of Michigan, and the City of Ann Arbor Transportation Department to implement the bike share program. The program began in the fall of 2014 with 6 docking stations and 45 bicycles. The system was open for two months before it closed for the winter season. When it reopens in the Spring 2015, it will expand to 14 stations and 125 bicycles. The initial start-up cost was $500,000 for the docking stations and all the back-end IT; the cost for 125 bicycles was an additional $100,000. In the first two months of operation, 690 trips were taken by 293 users.

The University of Michigan has signed a contract to provide $200,000/yr. for the first 3 years of the program to pay for operational costs. Maintenance will be done by techs that travel to the docking stations. Redistribution is done by a box truck that was purchased specifically for this purpose. A discount is offered to students of the University of Michigan. The normal annual fee for membership is $65, students pay $45.

The biggest challenge they faced in the implementation process was securing the right-of-way permits for the docking stations and rental kiosks.

### Sources


- www.bikeshare.org
- www.nextbike.net
- www.spinlister.com
- www.bitlock.co
- www.decobikellc.com
- www.cyclehop.com
- www.bcycle.com
- www.citibikenyc.com
- http://bikes.oobrien.com/global.php - Global Bike Share Map with active usage data
- www.spotcycle.net
- www.motivateco.com
- http://en.wikipedia.org/wiki/Bicycle_sharing_system
- http://transweb.sjsu.edu/PDFs/research/1131-public-bikesharing-business-models-trends-impacts.pdf
- The Bike-share Planning Guide, ITDP 2014
- http://www.cityofmadison.com/bikeMadison/

- http://en.wikipedia.org/wiki/Madison,_Wisconsin
- http://en.wikipedia.org/wiki/Ann_Arbor,_Michigan
- http://en.wikipedia.org/wiki/Greenville,_South_Carolina
- Madison Bcycle 2014 Annual Report
- www.arborbike.com
- https://greenville.bcycle.com/home.aspx
- https://madison.bcycle.com/
- http://www.helmets.org/mandator.htm
- http://usa.streetsblog.org/2014/11/24/why-arent-american-bike-share-systems-living-up-to-their-potential/
- http://www.slate.com/articles/life/doers/2013/01/capital_bikeshare_how_paul_demaio_gabe_klein_adrian_fenty_and_other_dc_leaders.html

# City of Bloomington

Engineering Department
401 N. Morton St., Suite 130
*Bloomington, IN 47404*

Signalized Intersection Counts

File Name : S. College Mall Rd. and E. Covenanter Dr. 4-6 PM
Site Code : 00000000
Start Date : 8/21/2013
Page No : 1

Groups Printed- Cars - Trucks and Buses - Bicycles

| | S. College Mall Rd. From North | | | | | E. Covenanter Dr. From East | | | | | S. College Mall Rd. From South | | | | | E. Covenanter Dr. From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:05 PM | 1 | 42 | 26 | 3 | 72 | 11 | 5 | 10 | 0 | 26 | 4 | 45 | 6 | 0 | 55 | 1 | 6 | 2 | 2 | 11 | 164 |
| 04:10 PM | 1 | 67 | 27 | 0 | 95 | 17 | 4 | 11 | 0 | 32 | 5 | 49 | 0 | 1 | 55 | 4 | 4 | 4 | 0 | 12 | 194 |
| 04:15 PM | 1 | 46 | 18 | 0 | 65 | 6 | 2 | 10 | 0 | 18 | 0 | 47 | 2 | 1 | 50 | 1 | 3 | 3 | 1 | 8 | 141 |
| 04:20 PM | 2 | 51 | 21 | 1 | 75 | 14 | 1 | 4 | 0 | 19 | 4 | 45 | 0 | 0 | 49 | 1 | 3 | 2 | 2 | 8 | 151 |
| 04:25 PM | 2 | 52 | 25 | 0 | 79 | 13 | 1 | 5 | 0 | 19 | 6 | 29 | 3 | 0 | 38 | 2 | 3 | 2 | 0 | 7 | 143 |
| 04:30 PM | 6 | 48 | 25 | 0 | 79 | 18 | 0 | 4 | 0 | 22 | 3 | 46 | 3 | 0 | 52 | 2 | 4 | 1 | 1 | 8 | 161 |
| 04:35 PM | 0 | 67 | 24 | 1 | 92 | 7 | 3 | 5 | 2 | 17 | 4 | 36 | 1 | 0 | 41 | 2 | 3 | 3 | 0 | 8 | 158 |
| 04:40 PM | 2 | 59 | 21 | 0 | 82 | 16 | 8 | 5 | 0 | 29 | 3 | 45 | 1 | 0 | 49 | 0 | 8 | 4 | 1 | 13 | 173 |
| 04:45 PM | 1 | 47 | 12 | 0 | 60 | 11 | 3 | 5 | 0 | 19 | 3 | 45 | 1 | 0 | 49 | 0 | 2 | 0 | 0 | 2 | 130 |
| 04:50 PM | 3 | 53 | 21 | 0 | 77 | 13 | 2 | 7 | 0 | 22 | 5 | 58 | 1 | 0 | 64 | 0 | 6 | 4 | 0 | 10 | 173 |
| 04:55 PM | 0 | 63 | 31 | 0 | 94 | 12 | 1 | 5 | 0 | 18 | 3 | 67 | 2 | 0 | 72 | 2 | 3 | 1 | 0 | 6 | 190 |
| Total | 19 | 595 | 251 | 5 | 870 | 138 | 30 | 71 | 2 | 241 | 40 | 512 | 20 | 2 | 574 | 15 | 45 | 26 | 7 | 93 | 1778 |
| 05:00 PM | 3 | 61 | 18 | 1 | 83 | 13 | 8 | 8 | 0 | 29 | 4 | 51 | 3 | 1 | 59 | 3 | 5 | 0 | 0 | 8 | 179 |
| 05:05 PM | 2 | 68 | 21 | 1 | 92 | 13 | 9 | 22 | 3 | 47 | 4 | 62 | 2 | 0 | 68 | 1 | 4 | 2 | 0 | 7 | 214 |
| 05:10 PM | 5 | 87 | 22 | 0 | 114 | 11 | 3 | 14 | 0 | 28 | 1 | 65 | 0 | 0 | 66 | 1 | 8 | 3 | 0 | 12 | 220 |
| 05:15 PM | 1 | 86 | 21 | 1 | 109 | 26 | 4 | 11 | 0 | 41 | 7 | 39 | 1 | 0 | 47 | 4 | 7 | 0 | 1 | 12 | 209 |
| 05:20 PM | 5 | 72 | 22 | 1 | 100 | 13 | 5 | 8 | 0 | 26 | 4 | 51 | 1 | 0 | 56 | 3 | 5 | 3 | 1 | 12 | 194 |
| 05:25 PM | 1 | 77 | 27 | 0 | 105 | 13 | 4 | 9 | 0 | 26 | 9 | 51 | 1 | 0 | 61 | 0 | 7 | 4 | 0 | 11 | 203 |
| 05:30 PM | 2 | 72 | 27 | 0 | 101 | 12 | 3 | 20 | 0 | 35 | 7 | 45 | 0 | 0 | 52 | 2 | 4 | 2 | 0 | 8 | 196 |
| 05:35 PM | 4 | 56 | 26 | 0 | 86 | 14 | 5 | 10 | 0 | 29 | 8 | 39 | 3 | 1 | 51 | 1 | 7 | 1 | 0 | 9 | 175 |
| 05:40 PM | 3 | 56 | 31 | 1 | 91 | 12 | 1 | 10 | 1 | 24 | 4 | 42 | 0 | 1 | 47 | 2 | 2 | 1 | 1 | 6 | 168 |
| 05:45 PM | 1 | 54 | 28 | 0 | 83 | 19 | 2 | 8 | 0 | 29 | 1 | 48 | 1 | 0 | 50 | 2 | 11 | 0 | 0 | 13 | 175 |
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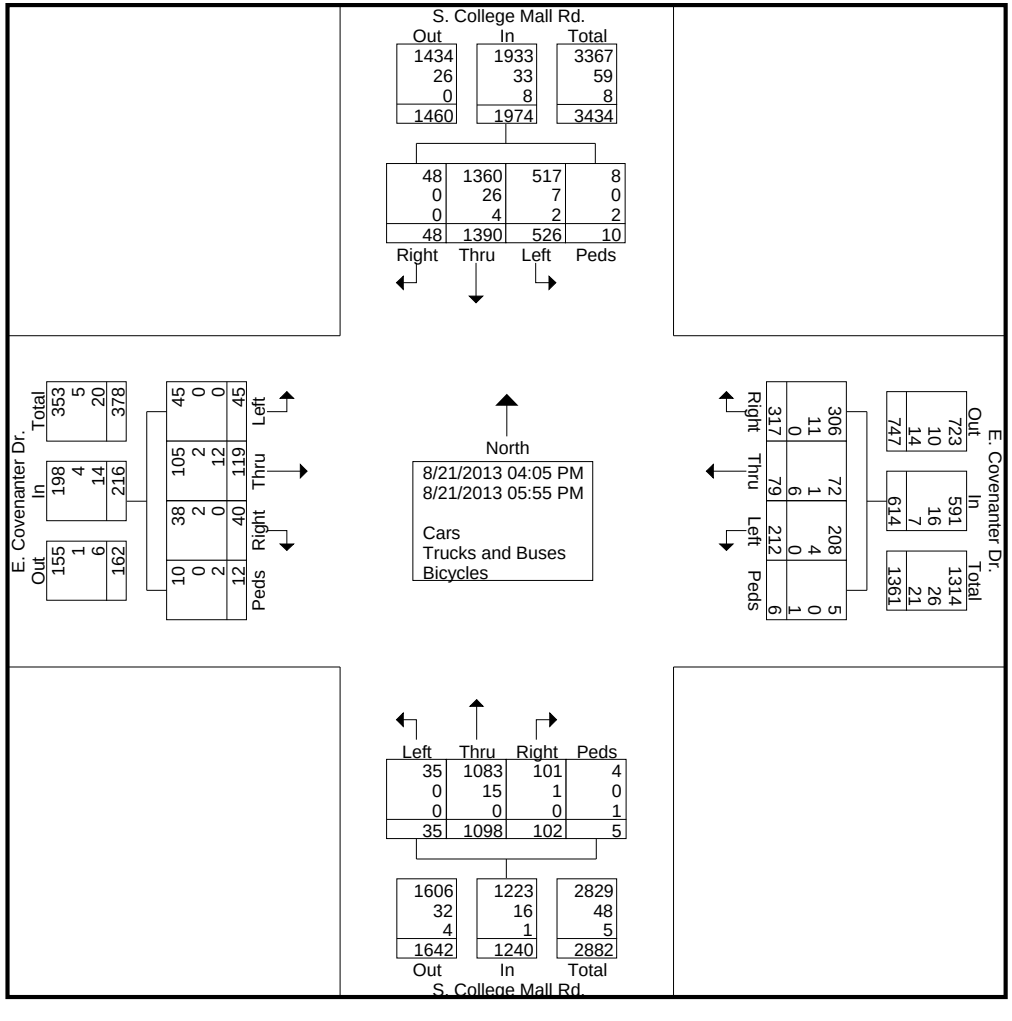
| 05:55 PM | 1 | 56 | 17 | 0 | 74 | 18 | 3 | 13 | 0 | 34 | 6 | 46 | 1 | 0 | 53 | 3 | 3 | 1 | 1 | 8 | 169 |
| Total | 29 | 795 | 275 | 5 | 1104 | 179 | 49 | 141 | 4 | 373 | 62 | 586 | 15 | 3 | 666 | 25 | 74 | 19 | 5 | 123 | 2266 |
| Grand Total | 48 | 1390 | 526 | 10 | 1974 | 317 | 79 | 212 | 6 | 614 | 102 | 1098 | 35 | 5 | 1240 | 40 | 119 | 45 | 12 | 216 | 4044 |
| Apprch % | 2.4 | 70.4 | 26.6 | 0.5 | | 51.6 | 12.9 | 34.5 | 1 | | 8.2 | 88.5 | 2.8 | 0.4 | | 18.5 | 55.1 | 20.8 | 5.6 | | |
| Total % | 1.2 | 34.4 | 13 | 0.2 | 48.8 | 7.8 | 2 | 5.2 | 0.1 | 15.2 | 2.5 | 27.2 | 0.9 | 0.1 | 30.7 | 1 | 2.9 | 1.1 | 0.3 | 5.3 | |
| Cars | 48 | 1360 | 517 | 8 | 1933 | 306 | 72 | 208 | 5 | 591 | 101 | 1083 | 35 | 4 | 1223 | 38 | 105 | 45 | 10 | 198 | 3945 |
| % Cars | 100 | 97.8 | 98.3 | 80 | 97.9 | 96.5 | 91.1 | 98.1 | 83.3 | 96.3 | 99 | 98.6 | 100 | 80 | 98.6 | 95 | 88.2 | 100 | 83.3 | 91.7 | 97.6 |
| Trucks and Buses | 0 | 26 | 7 | 0 | 33 | 11 | 1 | 4 | 0 | 16 | 1 | 15 | 0 | 0 | 16 | 2 | 2 | 0 | 0 | 4 | 69 |
| % Trucks and Buses | 0 | 1.9 | 1.3 | 0 | 1.7 | 3.5 | 1.3 | 1.9 | 0 | 2.6 | 1 | 1.4 | 0 | 0 | 1.3 | 5 | 1.7 | 0 | 0 | 1.9 | 1.7 |
| Bicycles | 0 | 4 | 2 | 2 | 8 | 0 | 6 | 0 | 1 | 7 | 0 | 0 | 0 | 1 | 1 | 0 | 12 | 0 | 2 | 14 | 30 |
| % Bicycles | 0 | 0.3 | 0.4 | 20 | 0.4 | 0 | 7.6 | 0 | 16.7 | 1.1 | 0 | 0 | 0 | 20 | 0.1 | 0 | 10.1 | 0 | 16.7 | 6.5 | 0.7 |

# City of Bloomington

Engineering Department
401 N. Morton St., Suite 130
*Bloomington, IN 47404*

Signalized Intersection Counts

File Name : S. College Mall Rd. and E. Covenanter Dr. 4-6 PM
Site Code : 00000000
Start Date : 8/21/2013
Page No : 2



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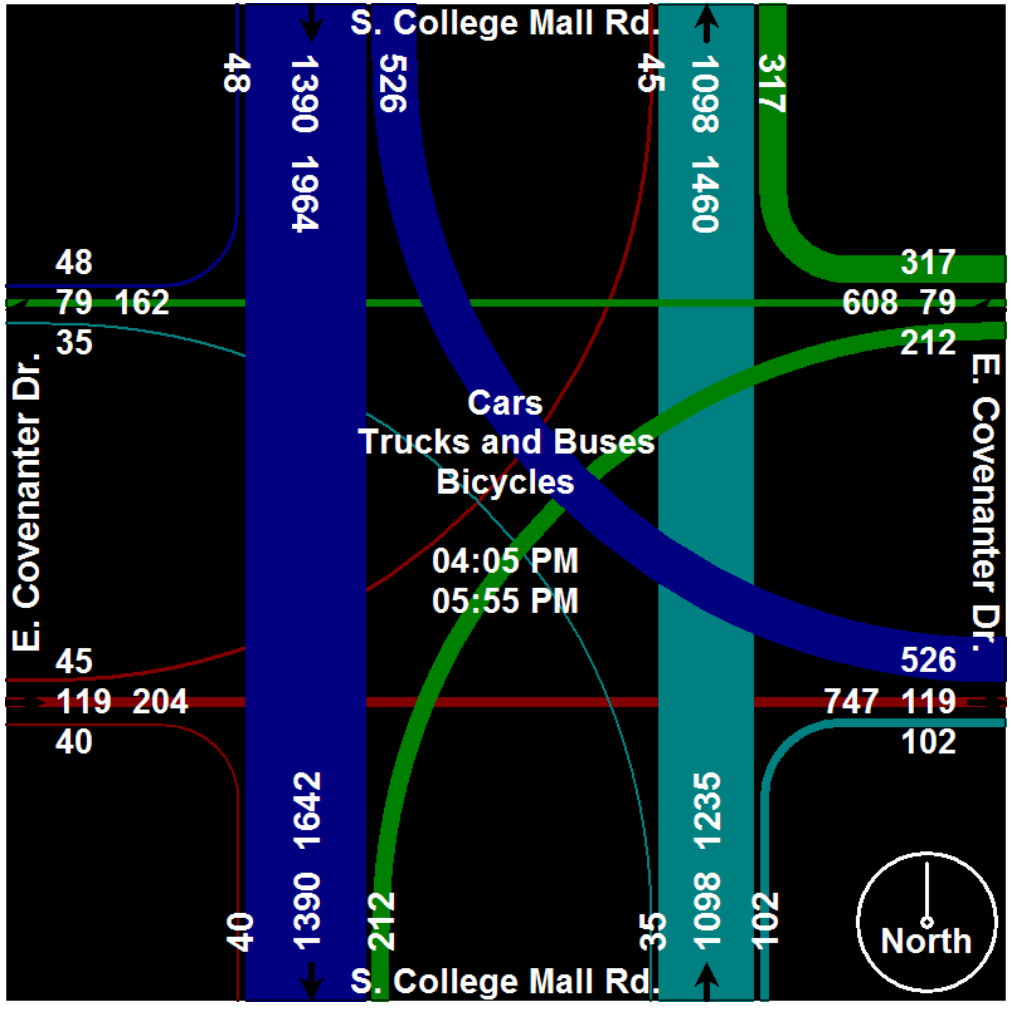

# City of Bloomington

Engineering Department
401 N. Morton St., Suite 130
*Bloomington, IN 47404*

Signalized Intersection Counts

File Name : S. College Mall Rd. and E. 2nd St. 7-9 AM
Site Code : 00000000
Start Date : 8/27/2013
Page No : 1

Groups Printed- Cars - Trucks and Buses - Bicycles

| | S. College Mall Rd. From North | | | | | College Mall Entrance From East | | | | | S. College Mall Rd. From South | | | | | E. 2nd St. From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 0 | 5 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 5 | 0 | 44 | 0 | 1 | 1 | 0 | 2 | 52 |
| 07:05 AM | 1 | 7 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 7 | 0 | 48 | 1 | 0 | 0 | 0 | 1 | 57 |
| 07:10 AM | 2 | 6 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 4 | 0 | 47 | 2 | 2 | 0 | 0 | 4 | 60 |
| 07:15 AM | 1 | 9 | 1 | 3 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 8 | 0 | 53 | 2 | 1 | 0 | 0 | 3 | 70 |
| 07:20 AM | 1 | 8 | 1 | 0 | 10 | 1 | 0 | 0 | 0 | 1 | 0 | 40 | 4 | 0 | 44 | 4 | 2 | 4 | 0 | 10 | 65 |
| 07:25 AM | 3 | 29 | 2 | 1 | 35 | 0 | 1 | 0 | 0 | 1 | 0 | 44 | 21 | 0 | 65 | 3 | 1 | 0 | 1 | 5 | 106 |
| 07:30 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 49 | 17 | 0 | 67 | 3 | 0 | 0 | 0 | 3 | 77 |
| 07:35 AM | 0 | 17 | 1 | 1 | 19 | 0 | 0 | 0 | 1 | 1 | 0 | 59 | 16 | 0 | 75 | 6 | 0 | 1 | 0 | 7 | 102 |
| 07:40 AM | 4 | 25 | 1 | 0 | 30 | 0 | 0 | 0 | 1 | 1 | 0 | 58 | 22 | 0 | 80 | 4 | 2 | 1 | 0 | 7 | 118 |
| 07:45 AM | 1 | 38 | 1 | 1 | 41 | 0 | 0 | 0 | 0 | 0 | 1 | 45 | 30 | 0 | 76 | 9 | 3 | 2 | 1 | 15 | 132 |
| 07:50 AM | 2 | 40 | 3 | 2 | 47 | 0 | 0 | 0 | 2 | 2 | 1 | 54 | 19 | 0 | 74 | 12 | 1 | 5 | 0 | 18 | 141 |
| 07:55 AM | 1 | 29 | 3 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 20 | 0 | 62 | 7 | 4 | 2 | 0 | 13 | 108 |
| Total | 16 | 220 | 15 | 8 | 259 | 1 | 1 | 0 | 4 | 6 | 3 | 559 | 173 | 0 | 735 | 53 | 17 | 16 | 2 | 88 | 1088 |
| 08:00 AM | 8 | 22 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 17 | 0 | 63 | 6 | 2 | 4 | 0 | 12 | 105 |
| 08:05 AM | 1 | 24 | 4 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 16 | 0 | 71 | 6 | 1 | 4 | 1 | 12 | 112 |
| 08:10 AM | 2 | 31 | 2 | 0 | 35 | 1 | 2 | 0 | 0 | 3 | 1 | 46 | 37 | 0 | 84 | 5 | 1 | 5 | 0 | 11 | 133 |
| 08:15 AM | 2 | 32 | 2 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 44 | 0 | 94 | 13 | 1 | 3 | 0 | 17 | 147 |
| 08:20 AM | 3 | 28 | 2 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 1 | 43 | 28 | 1 | 73 | 14 | 1 | 4 | 1 | 20 | 126 |
| 08:25 AM | 3 | 17 | 0 | 0 | 20 | 2 | 1 | 0 | 0 | 3 | 0 | 35 | 31 | 0 | 66 | 25 | 6 | 6 | 1 | 38 | 127 |
| 08:30 AM | 3 | 26 | 3 | 2 | 34 | 1 | 0 | 0 | 0 | 1 | 0 | 46 | 17 | 0 | 63 | 15 | 4 | 7 | 0 | 26 | 124 |
| 08:35 AM | 3 | 19 | 5 | 1 | 28 | 0 | 0 | 1 | 2 | 3 | 0 | 48 | 14 | 0 | 62 | 14 | 2 | 4 | 0 | 20 | 113 |
| 08:40 AM | 5 | 29 | 0 | 1 | 35 | 1 | 0 | 0 | 0 | 1 | 0 | 29 | 9 | 0 | 38 | 11 | 1 | 5 | 0 | 17 | 91 |
| 08:45 AM | 3 | 37 | 4 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 56 | 11 | 0 | 67 | 6 | 2 | 2 | 0 | 10 | 121 |
| 08:50 AM | 3 | 27 | 1 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 1 | 43 | 19 | 0 | 63 | 4 | 1 | 7 | 1 | 13 | 107 |
| 08:55 AM | 0 | 34 | 1 | 2 | 37 | 0 | 1 | 1 | 0 | 2 | 0 | 51 | 15 | 0 | 66 | 4 | 3 | 4 | 0 | 11 | 116 |
| Total | 36 | 326 | 24 | 6 | 392 | 5 | 4 | 2 | 2 | 13 | 3 | 548 | 258 | 1 | 810 | 123 | 25 | 55 | 4 | 207 | 1422 |
| Grand Total | 52 | 546 | 39 | 14 | 651 | 6 | 5 | 2 | 6 | 19 | 6 | 1107 | 431 | 1 | 1545 | 176 | 42 | 71 | 6 | 295 | 2510 |
| Apprch % | 8 | 83.9 | 6 | 2.2 | | 31.6 | 26.3 | 10.5 | 31.6 | | 0.4 | 71.7 | 27.9 | 0.1 | | 59.7 | 14.2 | 24.1 | 2 | | |
| Total % | 2.1 | 21.8 | 1.6 | 0.6 | 25.9 | 0.2 | 0.2 | 0.1 | 0.2 | 0.8 | 0.2 | 44.1 | 17.2 | 0 | 61.6 | 7 | 1.7 | 2.8 | 0.2 | 11.8 | |
| Cars | 50 | 508 | 37 | 14 | 609 | 6 | 4 | 2 | 6 | 18 | 6 | 1068 | 418 | 0 | 1492 | 160 | 41 | 66 | 5 | 272 | 2391 |
| % Cars | 96.2 | 93 | 94.9 | 100 | 93.5 | 100 | 80 | 100 | 100 | 94.7 | 100 | 96.5 | 97 | 0 | 96.6 | 90.9 | 97.6 | 93 | 83.3 | 92.2 | 95.3 |
| Trucks and Buses | 2 | 37 | 2 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 12 | 0 | 47 | 15 | 0 | 5 | 0 | 20 | 108 |
| % Trucks and Buses | 3.8 | 6.8 | 5.1 | 0 | 6.3 | 0 | 0 | 0 | 0 | 0 | 0 | 3.2 | 2.8 | 0 | 3 | 8.5 | 0 | 7 | 0 | 6.8 | 4.3 |
| Bicycles | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 1 | 1 | 6 | 1 | 1 | 0 | 1 | 3 | 11 |
| % Bicycles | 0 | 0.2 | 0 | 0 | 0.2 | 0 | 20 | 0 | 0 | 5.3 | 0 | 0.4 | 0.2 | 100 | 0.4 | 0.6 | 2.4 | 0 | 16.7 | 1 | 0.4 |

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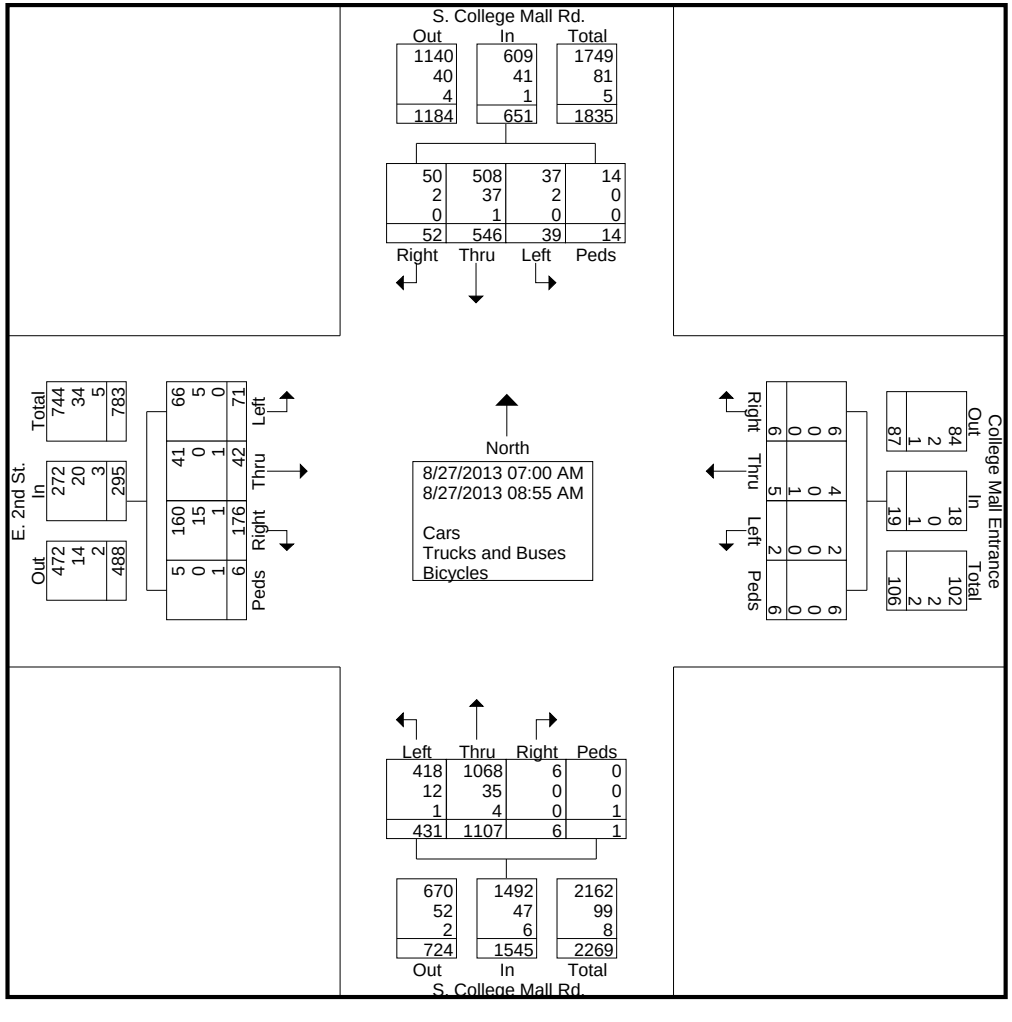
Start Date : 8/27/2013
Page No : 2



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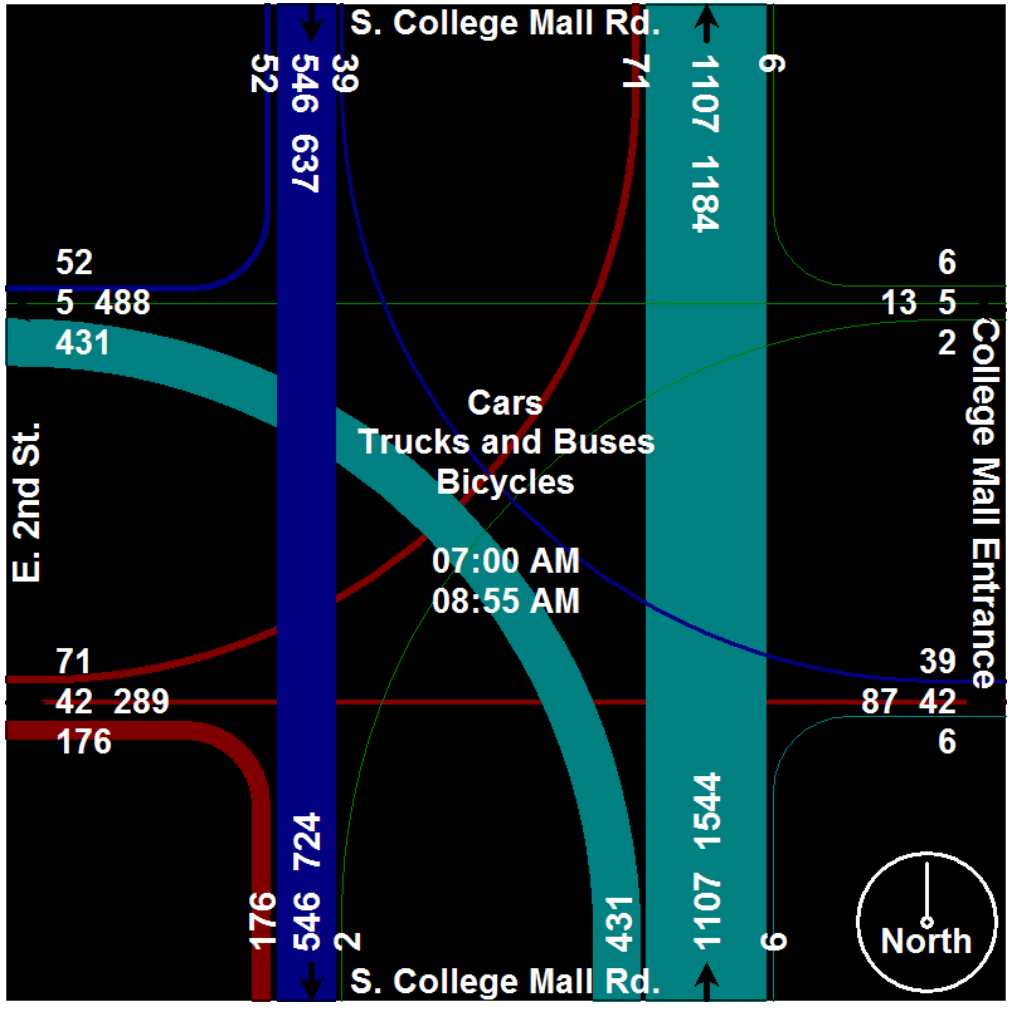

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File Name : S. College Mall Rd. and E. 2nd St. 4-6 PM
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Groups Printed- Cars - Trucks and Buses - Bicycles

| | S. College Mall Rd. From North | | | | | College Mall Entrance From East | | | | | S. College Mall Rd. From South | | | | | E. 2nd St. From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:15 PM | 7 | 44 | 3 | 0 | 54 | 5 | 3 | 4 | 1 | 13 | 7 | 47 | 18 | 0 | 72 | 19 | 8 | 2 | 3 | 32 | 171 |
| 04:20 PM | 2 | 60 | 7 | 0 | 69 | 12 | 6 | 2 | 2 | 22 | 4 | 49 | 9 | 1 | 63 | 28 | 7 | 8 | 1 | 44 | 198 |
| 04:25 PM | 3 | 61 | 5 | 2 | 71 | 8 | 4 | 3 | 0 | 15 | 1 | 36 | 12 | 0 | 49 | 32 | 10 | 7 | 2 | 51 | 186 |
| 04:30 PM | 1 | 49 | 8 | 0 | 58 | 6 | 6 | 4 | 0 | 16 | 6 | 37 | 17 | 0 | 60 | 17 | 10 | 5 | 0 | 32 | 166 |
| 04:35 PM | 3 | 60 | 6 | 1 | 70 | 4 | 2 | 4 | 1 | 11 | 2 | 41 | 17 | 2 | 62 | 23 | 11 | 5 | 0 | 39 | 182 |
| 04:40 PM | 4 | 54 | 5 | 3 | 66 | 5 | 3 | 5 | 2 | 15 | 8 | 50 | 15 | 0 | 73 | 18 | 4 | 2 | 0 | 24 | 178 |
| 04:45 PM | 3 | 54 | 8 | 1 | 66 | 5 | 8 | 4 | 0 | 17 | 5 | 66 | 21 | 0 | 92 | 24 | 4 | 8 | 0 | 36 | 211 |
| 04:50 PM | 3 | 64 | 7 | 4 | 78 | 8 | 3 | 3 | 0 | 14 | 3 | 42 | 11 | 0 | 56 | 19 | 5 | 6 | 1 | 31 | 179 |
| 04:55 PM | 1 | 69 | 8 | 0 | 78 | 7 | 4 | 6 | 0 | 17 | 4 | 52 | 15 | 1 | 72 | 19 | 5 | 5 | 0 | 29 | 196 |
| Total | 27 | 515 | 57 | 11 | 610 | 60 | 39 | 35 | 6 | 140 | 40 | 420 | 135 | 4 | 599 | 199 | 64 | 48 | 7 | 318 | 1667 |
| 05:00 PM | 5 | 62 | 3 | 5 | 75 | 7 | 2 | 2 | 0 | 11 | 1 | 52 | 14 | 0 | 67 | 23 | 4 | 5 | 1 | 33 | 186 |
| 05:05 PM | 2 | 52 | 2 | 0 | 56 | 7 | 5 | 1 | 0 | 13 | 5 | 63 | 20 | 0 | 88 | 21 | 9 | 4 | 1 | 35 | 192 |
| 05:10 PM | 5 | 63 | 6 | 3 | 77 | 6 | 4 | 4 | 1 | 15 | 3 | 56 | 17 | 1 | 77 | 30 | 4 | 6 | 1 | 41 | 210 |
| 05:15 PM | 4 | 70 | 6 | 2 | 82 | 4 | 6 | 3 | 0 | 13 | 6 | 51 | 21 | 1 | 79 | 33 | 9 | 9 | 1 | 52 | 226 |
| 05:20 PM | 3 | 84 | 8 | 0 | 95 | 7 | 2 | 4 | 1 | 14 | 6 | 53 | 19 | 0 | 78 | 25 | 11 | 10 | 0 | 46 | 233 |
| 05:25 PM | 6 | 70 | 6 | 0 | 82 | 4 | 3 | 2 | 0 | 9 | 5 | 62 | 14 | 1 | 82 | 19 | 12 | 5 | 0 | 36 | 209 |
| 05:30 PM | 9 | 73 | 12 | 3 | 97 | 8 | 3 | 4 | 0 | 15 | 6 | 38 | 11 | 0 | 55 | 25 | 6 | 6 | 0 | 37 | 204 |
| 05:35 PM | 2 | 57 | 5 | 4 | 68 | 9 | 3 | 0 | 1 | 13 | 5 | 55 | 21 | 0 | 81 | 37 | 6 | 8 | 3 | 54 | 216 |
| 05:40 PM | 2 | 60 | 7 | 2 | 71 | 5 | 9 | 8 | 1 | 23 | 5 | 51 | 25 | 2 | 83 | 27 | 9 | 5 | 1 | 42 | 219 |
| 05:45 PM | 3 | 66 | 8 | 0 | 77 | 8 | 1 | 4 | 0 | 13 | 4 | 39 | 14 | 0 | 57 | 26 | 8 | 5 | 0 | 39 | 186 |
| 05:50 PM | 6 | 74 | 9 | 1 | 90 | 2 | 4 | 6 | 0 | 12 | 3 | 37 | 14 | 0 | 54 | 23 | 6 | 10 | 1 | 40 | 196 |
| 05:55 PM | 3 | 67 | 8 | 0 | 78 | 5 | 2 | 2 | 1 | 10 | 3 | 49 | 14 | 0 | 66 | 21 | 8 | 9 | 0 | 38 | 192 |
| Total | 50 | 798 | 80 | 20 | 948 | 72 | 44 | 40 | 5 | 161 | 52 | 606 | 204 | 5 | 867 | 310 | 92 | 82 | 9 | 493 | 2469 |
| Grand Total | 77 | 1313 | 137 | 31 | 1558 | 132 | 83 | 75 | 11 | 301 | 92 | 1026 | 339 | 9 | 1466 | 509 | 156 | 130 | 16 | 811 | 4136 |
| Apprch % | 4.9 | 84.3 | 8.8 | 2 | | 43.9 | 27.6 | 24.9 | 3.7 | | 6.3 | 70 | 23.1 | 0.6 | | 62.8 | 19.2 | 16 | 2 | | |
| Total % | 1.9 | 31.7 | 3.3 | 0.7 | 37.7 | 3.2 | 2 | 1.8 | 0.3 | 7.3 | 2.2 | 24.8 | 8.2 | 0.2 | 35.4 | 12.3 | 3.8 | 3.1 | 0.4 | 19.6 | |
| Cars | 76 | 1284 | 137 | 31 | 1528 | 131 | 83 | 75 | 11 | 300 | 92 | 1002 | 336 | 9 | 1439 | 508 | 156 | 130 | 16 | 810 | 4077 |
| % Cars | 98.7 | 97.8 | 100 | 100 | 98.1 | 99.2 | 100 | 100 | 100 | 99.7 | 100 | 97.7 | 99.1 | 100 | 98.2 | 99.8 | 100 | 100 | 100 | 99.9 | 98.6 |
| Trucks and Buses | 1 | 25 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 2 | 0 | 24 | 1 | 0 | 0 | 0 | 1 | 51 |
| % Trucks and Buses | 1.3 | 1.9 | 0 | 0 | 1.7 | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0.6 | 0 | 1.6 | 0.2 | 0 | 0 | 0 | 0.1 | 1.2 |
| Bicycles | 0 | 4 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 8 |
| % Bicycles | 0 | 0.3 | 0 | 0 | 0.3 | 0.8 | 0 | 0 | 0 | 0.3 | 0 | 0.2 | 0.3 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0.2 |

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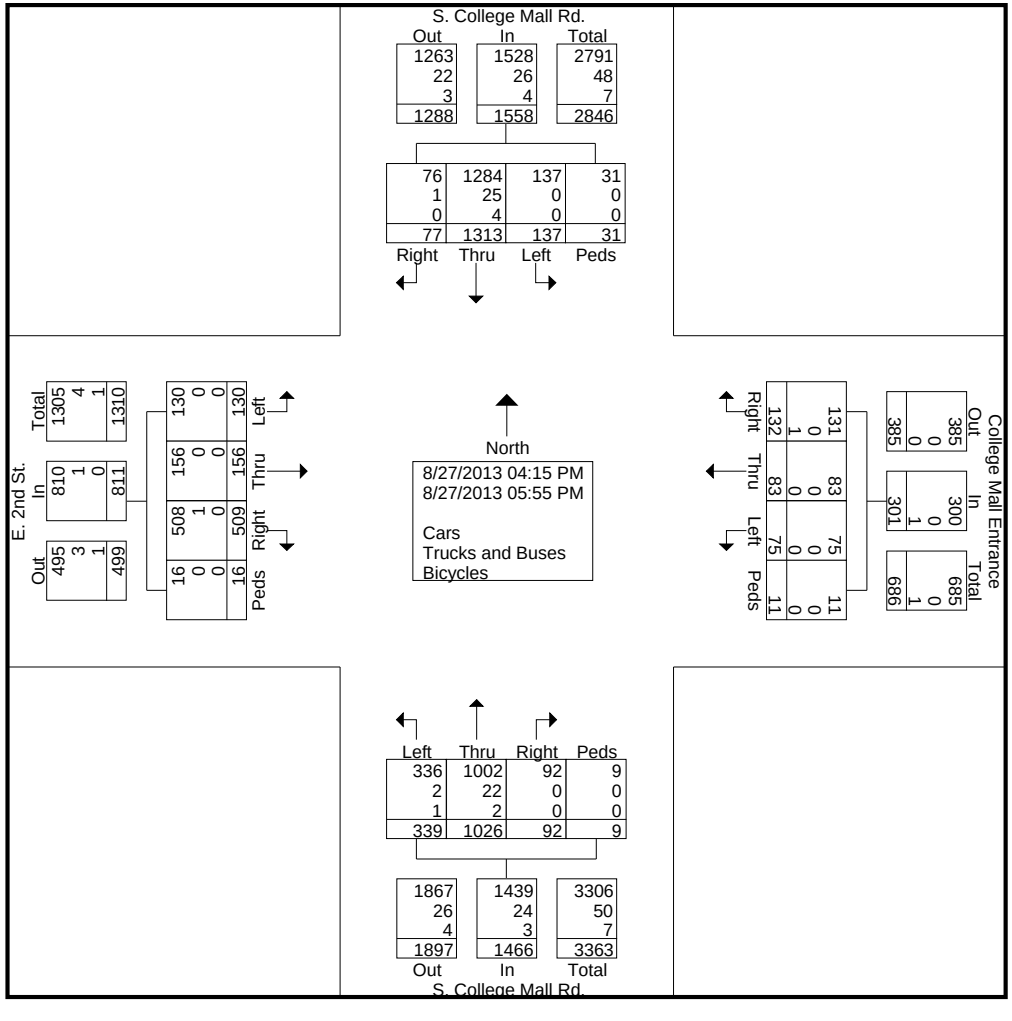

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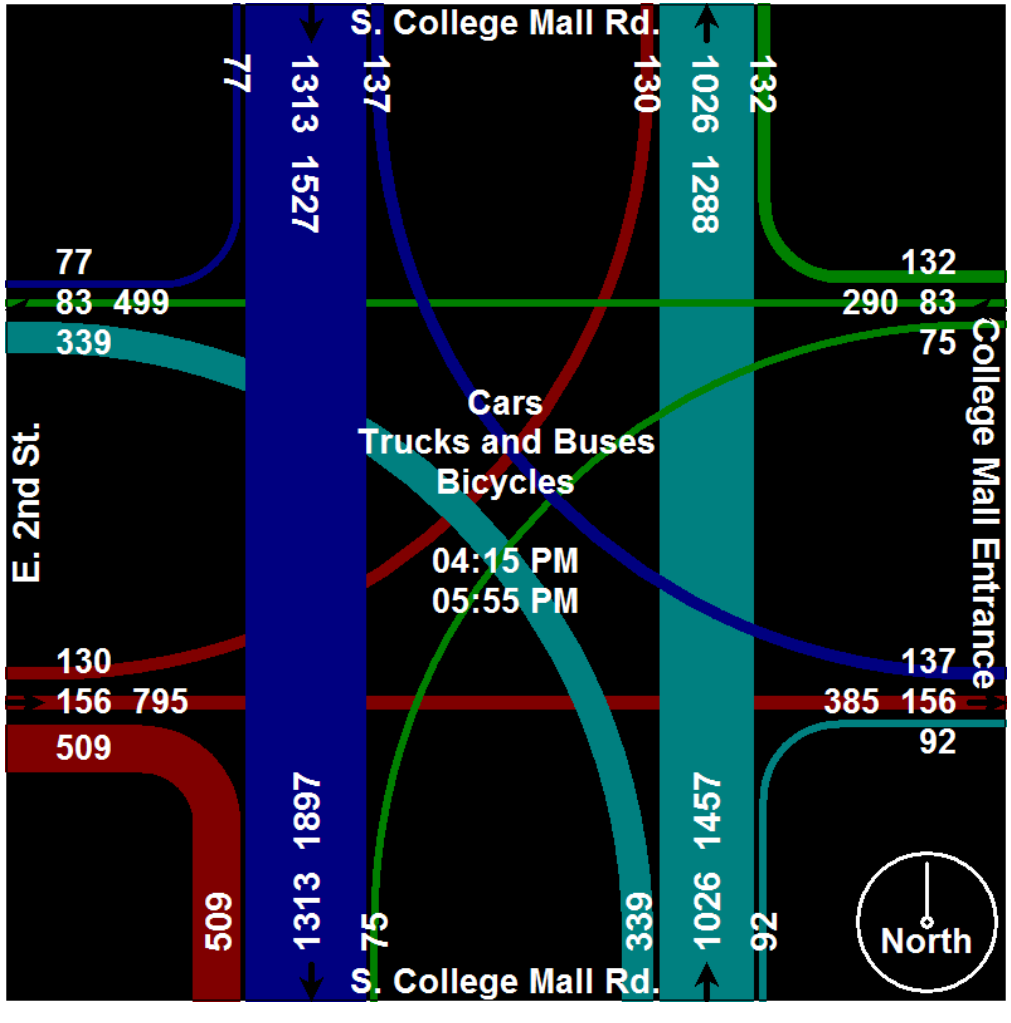

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Groups Printed- Cars - Trucks and Buses - Bicycles

| | S. College Mall Rd. From North | | | | | E. Covenanater Dr. From East | | | | | S. College Mall Rd. From South | | | | | E. Covenanater Dr. From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 0 | 11 | 3 | 0 | 14 | 2 | 0 | 0 | 0 | 2 | 2 | 25 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 43 |
| 07:05 AM | 0 | 13 | 5 | 0 | 18 | 2 | 1 | 1 | 0 | 4 | 3 | 27 | 0 | 0 | 30 | 0 | 2 | 0 | 0 | 2 | 54 |
| 07:10 AM | 0 | 12 | 5 | 0 | 17 | 3 | 2 | 2 | 0 | 7 | 2 | 29 | 0 | 0 | 31 | 0 | 1 | 0 | 0 | 1 | 56 |
| 07:15 AM | 0 | 14 | 5 | 0 | 19 | 4 | 1 | 1 | 1 | 7 | 3 | 29 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 58 |
| 07:20 AM | 0 | 13 | 8 | 0 | 21 | 4 | 1 | 1 | 0 | 6 | 5 | 29 | 0 | 0 | 34 | 0 | 1 | 0 | 0 | 1 | 62 |
| 07:25 AM | 0 | 17 | 2 | 0 | 19 | 4 | 3 | 0 | 0 | 7 | 3 | 34 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 63 |
| 07:30 AM | 0 | 16 | 6 | 0 | 22 | 7 | 0 | 4 | 0 | 11 | 5 | 43 | 1 | 0 | 49 | 0 | 1 | 0 | 0 | 1 | 83 |
| 07:35 AM | 0 | 10 | 3 | 3 | 16 | 6 | 2 | 2 | 1 | 11 | 11 | 51 | 0 | 0 | 62 | 0 | 2 | 6 | 1 | 9 | 98 |
| 07:40 AM | 1 | 25 | 5 | 0 | 31 | 7 | 2 | 3 | 0 | 12 | 6 | 54 | 2 | 0 | 62 | 0 | 0 | 0 | 0 | 0 | 105 |
| 07:45 AM | 1 | 16 | 2 | 0 | 19 | 3 | 4 | 3 | 0 | 10 | 8 | 70 | 1 | 0 | 79 | 1 | 2 | 1 | 2 | 6 | 114 |
| 07:50 AM | 1 | 16 | 6 | 0 | 23 | 4 | 1 | 2 | 0 | 7 | 7 | 68 | 1 | 1 | 77 | 1 | 4 | 2 | 0 | 7 | 114 |
| 07:55 AM | 0 | 17 | 4 | 0 | 21 | 3 | 1 | 4 | 0 | 8 | 10 | 77 | 2 | 0 | 89 | 0 | 4 | 1 | 0 | 5 | 123 |
| Total | 3 | 180 | 54 | 3 | 240 | 49 | 18 | 23 | 2 | 92 | 65 | 536 | 7 | 1 | 609 | 2 | 17 | 10 | 3 | 32 | 973 |
| 08:00 AM | 1 | 18 | 6 | 0 | 25 | 1 | 2 | 7 | 0 | 10 | 9 | 68 | 0 | 0 | 77 | 0 | 1 | 3 | 0 | 4 | 116 |
| 08:05 AM | 1 | 25 | 5 | 0 | 31 | 9 | 1 | 4 | 0 | 14 | 8 | 51 | 2 | 0 | 61 | 0 | 1 | 0 | 0 | 1 | 107 |
| 08:10 AM | 0 | 20 | 8 | 0 | 28 | 7 | 1 | 3 | 0 | 11 | 6 | 62 | 0 | 0 | 68 | 0 | 5 | 1 | 0 | 6 | 113 |
| 08:15 AM | 0 | 17 | 1 | 0 | 18 | 10 | 3 | 0 | 1 | 14 | 5 | 48 | 1 | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 86 |
| 08:20 AM | 0 | 26 | 6 | 0 | 32 | 8 | 3 | 5 | 0 | 16 | 12 | 58 | 1 | 0 | 71 | 1 | 4 | 1 | 1 | 7 | 126 |
| 08:25 AM | 0 | 19 | 4 | 0 | 23 | 5 | 2 | 4 | 0 | 11 | 4 | 53 | 0 | 0 | 57 | 0 | 1 | 0 | 0 | 1 | 92 |
| 08:30 AM | 0 | 21 | 6 | 0 | 27 | 7 | 1 | 4 | 0 | 12 | 9 | 35 | 1 | 0 | 45 | 2 | 0 | 1 | 0 | 3 | 87 |
| 08:35 AM | 1 | 31 | 4 | 0 | 36 | 5 | 1 | 4 | 0 | 10 | 5 | 50 | 1 | 0 | 56 | 2 | 0 | 3 | 1 | 6 | 108 |
| 08:40 AM | 0 | 21 | 4 | 0 | 25 | 8 | 2 | 2 | 0 | 12 | 5 | 50 | 2 | 0 | 57 | 1 | 3 | 2 | 1 | 7 | 101 |
| 08:45 AM | 2 | 25 | 6 | 0 | 33 | 3 | 1 | 3 | 1 | 8 | 4 | 47 | 0 | 0 | 51 | 0 | 6 | 5 | 0 | 11 | 103 |
| 08:50 AM | 2 | 34 | 10 | 0 | 46 | 11 | 1 | 5 | 0 | 17 | 6 | 45 | 1 | 0 | 52 | 2 | 3 | 2 | 0 | 7 | 122 |
| Grand Total | 10 | 437 | 114 | 3 | 564 | 123 | 36 | 64 | 4 | 227 | 138 | 1103 | 16 | 1 | 1258 | 10 | 41 | 28 | 6 | 85 | 2134 |
| Apprch % | 1.8 | 77.5 | 20.2 | 0.5 | | 54.2 | 15.9 | 28.2 | 1.8 | | 11 | 87.7 | 1.3 | 0.1 | | 11.8 | 48.2 | 32.9 | 7.1 | | |
| Total % | 0.5 | 20.5 | 5.3 | 0.1 | 26.4 | 5.8 | 1.7 | 3 | 0.2 | 10.6 | 6.5 | 51.7 | 0.7 | 0 | 59 | 0.5 | 1.9 | 1.3 | 0.3 | 4 | |
| Cars | 10 | 415 | 103 | 3 | 531 | 110 | 33 | 62 | 3 | 208 | 137 | 1086 | 14 | 1 | 1238 | 10 | 38 | 28 | 6 | 82 | 2059 |
| % Cars | 100 | 95 | 90.4 | 100 | 94.1 | 89.4 | 91.7 | 96.9 | 75 | 91.6 | 99.3 | 98.5 | 87.5 | 100 | 98.4 | 100 | 92.7 | 100 | 100 | 96.5 | 96.5 |
| Trucks and Buses | 0 | 22 | 11 | 0 | 33 | 12 | 1 | 2 | 0 | 15 | 1 | 15 | 2 | 0 | 18 | 0 | 1 | 0 | 0 | 1 | 67 |
| % Trucks and Buses | 0 | 5 | 9.6 | 0 | 5.9 | 9.8 | 2.8 | 3.1 | 0 | 6.6 | 0.7 | 1.4 | 12.5 | 0 | 1.4 | 0 | 2.4 | 0 | 0 | 1.2 | 3.1 |
| Bicycles | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 4 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 8 |
| % Bicycles | 0 | 0 | 0 | 0 | 0 | 0.8 | 5.6 | 0 | 25 | 1.8 | 0 | 0.2 | 0 | 0 | 0.2 | 0 | 4.9 | 0 | 0 | 2.4 | 0.4 |

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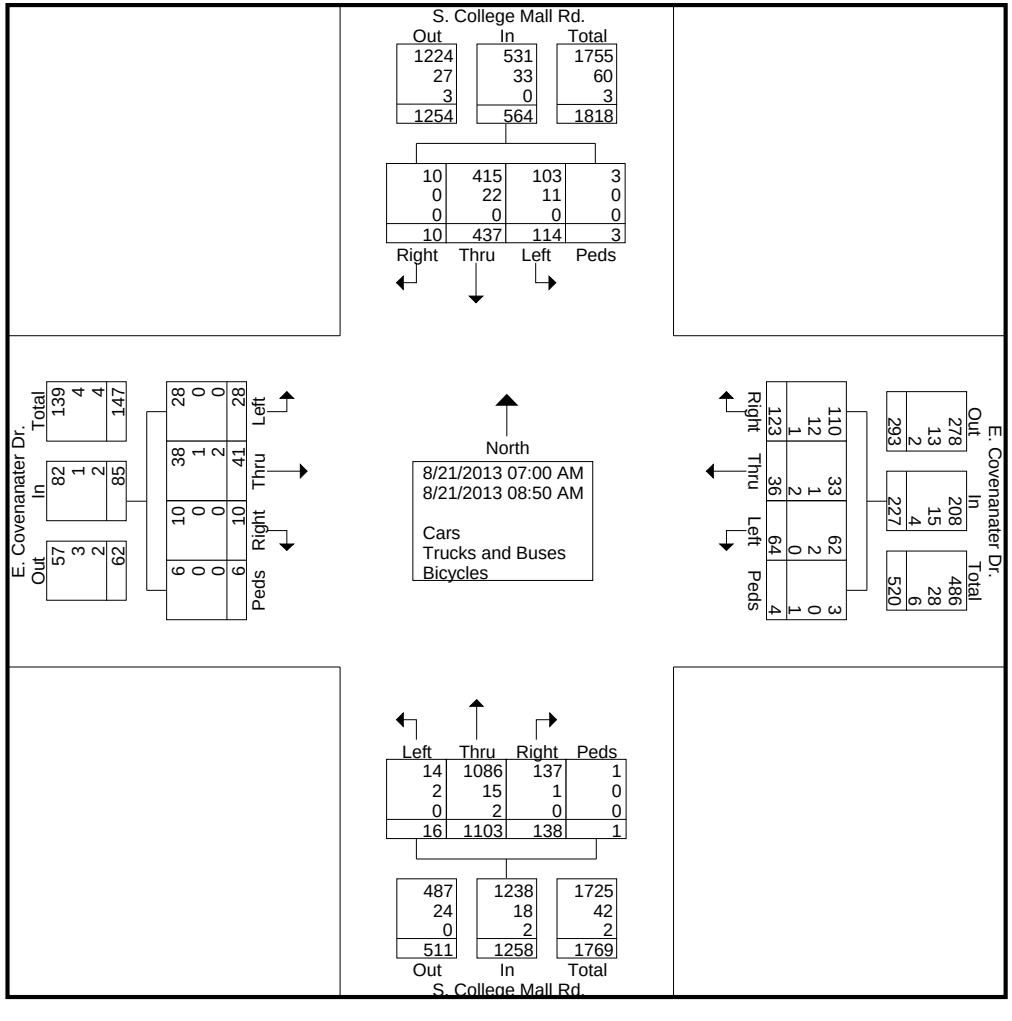

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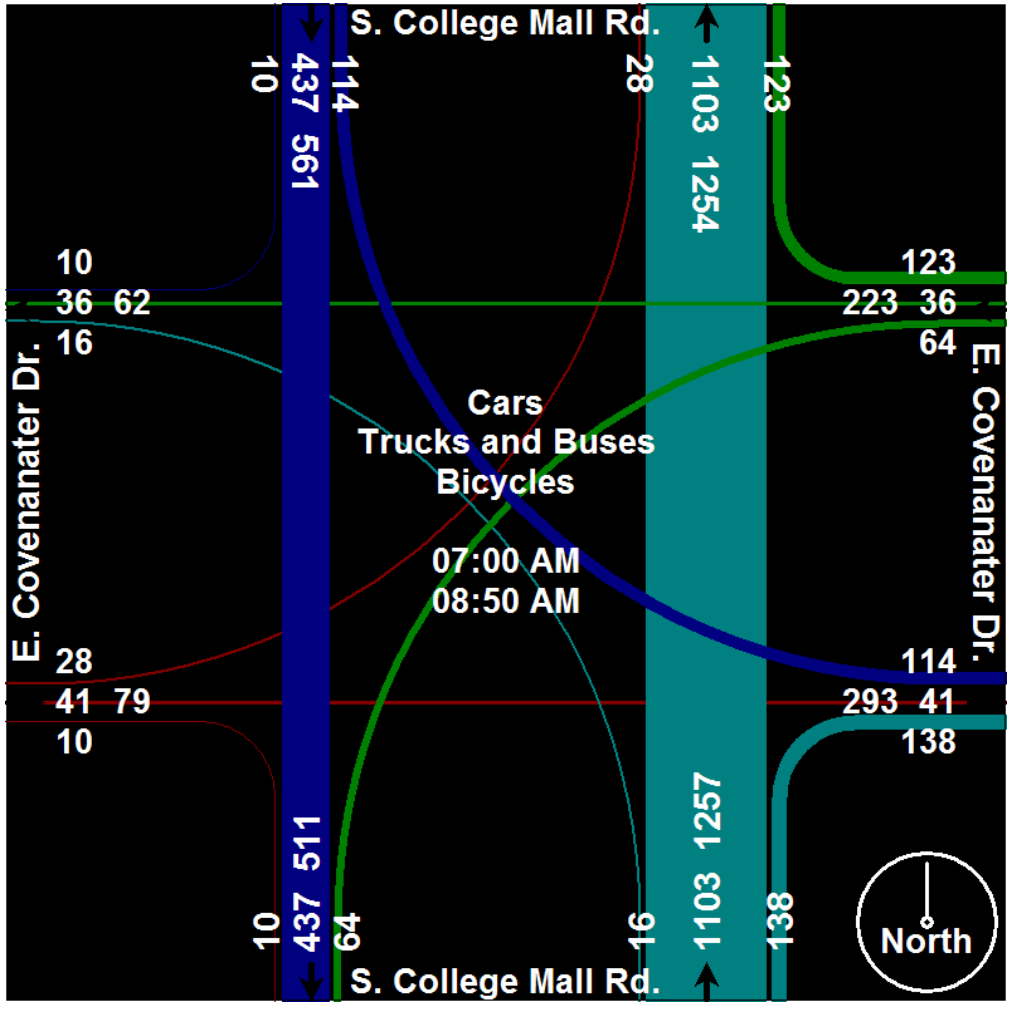
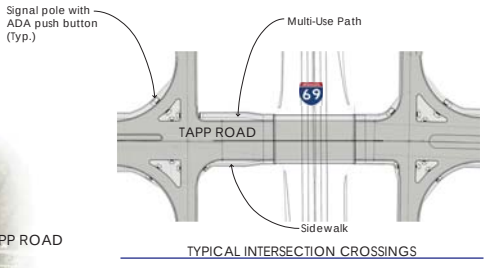
*Bloomington, IN 47404*

Signalized Intersection Counts

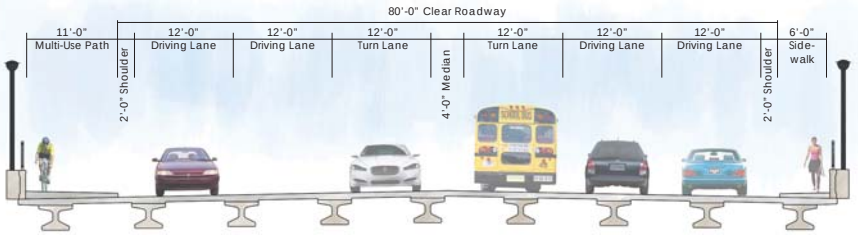
File Name : S. College Mall Rd. and E. Covenanter Dr. 7-9 AM
Site Code : 00000000
Start Date : 8/21/2013
Page No : 3

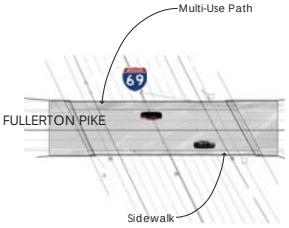




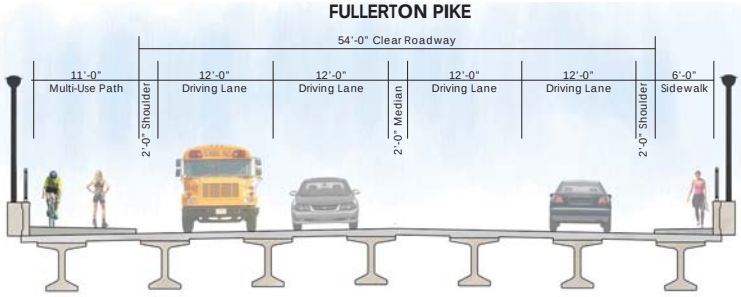

TYPICAL INTERSECTION CROSSINGS

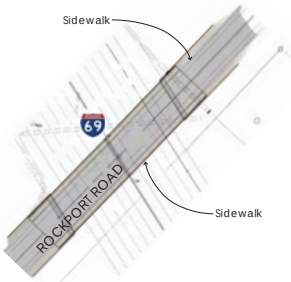

## TAPP ROAD



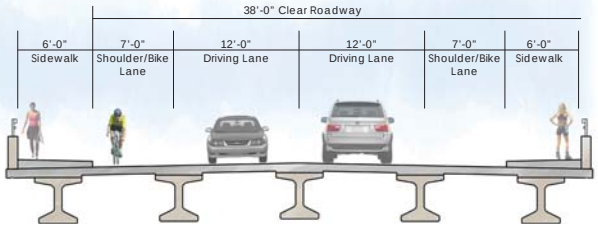




## FULLERTON PIKE



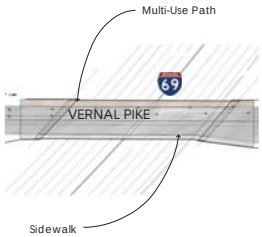




## ROCKPORT ROAD

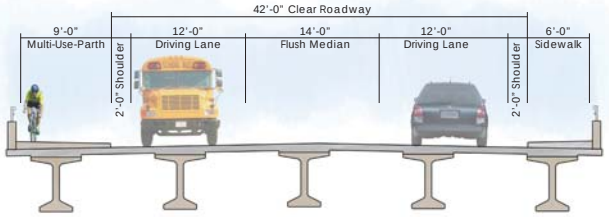


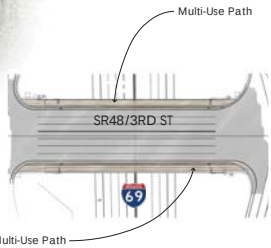

# BICYCLE AND PEDESTRIAN ACCESS

## I-69 SECTION 5

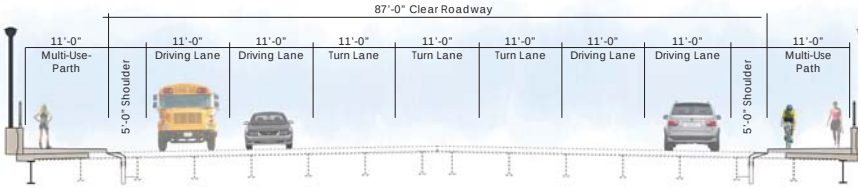



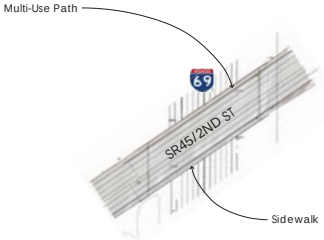

## VERNAL PIKE



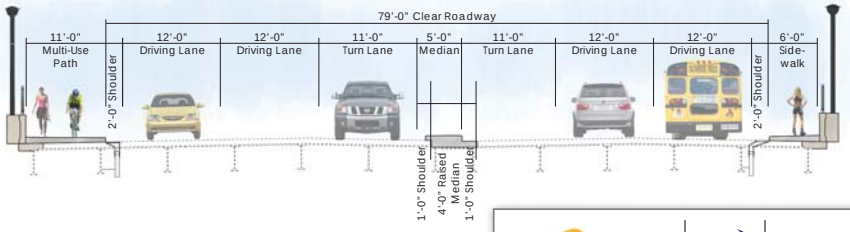




## SR48/3RD STREET




## SR45/2ND STREET





# BICYCLE AND PEDESTRIAN ACCESS

## I-69 SECTION 5


OCTOBER 2014

Indiana Finance Authority

I-69 DEVELOPMENT PARTNERS
CONCESSIONAIRE

ISOLUX CORSAN
D-B CONTRACTOR