AUTOMATED BICYCLE COUNTING PROGRAM REPORT

2015



Contents

Introduction	1
Materials and procedures	3
Results	6
Limitations and lessons learned	10
Next Steps	12
Appendix A: Average Annual Daily Bicyclists (AADB) and seasonal average calculations	13
Appendix B: One page summaries from each count location	15

Introduction

In May through October 2015, Hennepin County implemented the first and pilot year of an annual automated bicycle counting program. The purpose of this report is to describe this effort, report results, and make recommendations for next steps.

CONTEXT

Local, regional, and national plans, policies, and trends support the development of a comprehensive bicycle counting program. For example:

- Hennepin County's 2040 Bicycle Transportation Plan suggests the implementation of an automated bicycle counting system.
- Bicycle monitoring aligns with the Hennepin County Transportation Systems Plan.
- Federal, state, and local transportation agencies nationwide are planning and implementing bicycle counting systems. Notably, the Minnesota Department of Transportation has been researching bicycle counting technologies, providing technical training to local staff, and supplying equipment in the form of 9 permanent bicycle counters throughout the state.

PURPOSE

The main focus of the bicycle counting program is to report bicycle volume information along county roads, including trails adjacent to county roads. Trails owned and maintained by Three Rivers Park District were not included in this program because Three Rivers regularly monitors their trails.

There are many reasons to establish and maintain a regular bicycle monitoring program, including:

- Track bicycle ridership in order to evaluate changes on a seasonal and annual basis
- Provide bicycle data to inform and support planning and engineering decisions and to indicate where more data is needed
- Determine bicycles volumes that may be used to calculate bicycle crash rates
- Track bicycle usage before/after county projects that include bicycle infrastructure
- Report bicycle data to elected officials, local government agencies, and the general public

BACKGROUND: 2013/2014 BICYCLE COUNTING EFFORTS

During 2013/2014 Hennepin County Public Works staff worked with MnDOT and the University Of Minnesota Humphrey School Of Public Affairs to experiment with two different bicycle counting technologies. One technology was manufactured by MetroCount which utilizes automated counting devices, similar to those used for the county's vehicle counting program, that register air pulses that are sent through pneumatic tubes. The second technology was manufactured by Chambers which utilizes microwaves that detect the presence of multimodal users. This effort served as a great opportunity for

Hennepin County staff to gain hands-on experience with the latest technologies and practices. Over that time period, Hennepin County staff was able to obtain the knowledge required to start a bicycle counting program.

In 2014, students in a capstone group at the Humphrey School of Public Affairs provided Hennepin County with a comprehensive report outlining the steps necessary to start up a bicycle count program. Many aspects of this report have been implemented as part of the 2015 pilot program.

FUNDING AND STAFF

A total of \$5,000 was provided by the Planning Department to purchase four MetroCount automated traffic counting devices along with the supplemental materials that are required for equipment installation and data processing (e.g. rubber tubes, nails, drill, hammer). Counts and analysis were primarily conducted by staff in the Planning Department with assistance from five existing county staff, as time was available, from the Transportation Planning, Community Works, and Public Works Administration Divisions.

Materials and procedures

LOCATIONS

Staff collected count information at 31 locations in the southern half of Hennepin County. Counts at 34 locations had been planned but staff were unable to count three sites due to major road construction efforts in the area of the count site.

EQUIPMENT AND DURATION

Staff used Metrocount brand pneumatic tube counting devices (5600 Series RSU) for this bicycle monitoring program. This equipment involves pneumatic tubes that are placed across a bikeway or roadway. Bikes are counted when they roll over the tube, compressing it and sending a pulse that is registered by counter. Metrocount supplies unique "thin walled" tubes that are specifically designed for use in counting bicycles.

At each site, tubes were placed in the location expected to carry the vast majority of bikes:

• In locations with a shoulder or bike lane, the hoses were placed across the shoulder or bike lane as shown in Figures 1 and 2.



Figure 1: Station 505 (westbound), Minnetonka Blvd, E of Fairchild



Figure 2: Station 3503 (southbound), Portland Ave S, N of 74th St $\,$

• In locations with no shoulder or bike lane, the hoses were placed across the entire right traffic lane.



Figure 3: Station 1701 (southbound), France Ave, N of $47^{\rm th}$ St

• In locations with an existing off-street trail adjacent to the roadway, the hoses were placed across the trail (see figure 4). Staff observed bicycle activity for a 48 hour period at a site using camera technologies. It was determined that 90% of bicycle users were traveling on the off-street trail rather than the roadway. Therefore, hoses were only placed across the off-street trail and not within the roadway to improve work efficiency.



Figure 4: Station 402 (northbound), Eden Prairie Rd, N of Berger Drive

Each location was counted for 48 hours due to the desire to count at many locations with limited resources.

Equipment accuracy was analyzed by installing video counting (CountCam) equipment in the same location as Metrocount equipment 3 times over the course of the summer. These tests indicated that the

Metrocount tube counting equipment yielded bicycle volumes that were approximately 95% of the actual volumes observed.

DATA PROCESSING

After 48 hours of data collection at each site, staff created a 1-page report for each count location (see Results below). These reports illustrate hourly trends at each site.

Staff used the 48 hour raw count at each site to estimate Average Annual Daily Bicyclists (AADB) at each location. Much like Average Annual Daily Traffic (AADT) for motor vehicles, AADB represents what the "typical bicycle traffic" is on average at each location. AADB have been controlled for weather and other daily influences so that data from all sites can be compared to each other and from year to year.

In addition to AADB, estimates are provided of average bicycle traffic in January and July at each site in order to provide further details on the seasonal variation in ridership.

See Results below for a chart of annual and seasonal averages at each site and Appendix A for more information on how these averages were calculated.

Results

Figures 5 and 6 indicate Annual, January, and July average daily bicycle (ADB) for the 31 count locations for 2015. A sample one-page summary is provided for one count location below. Appendix B includes a one page summary for all count locations.

Station ID	Local name	Intersection	AADB	Jan ADB	July ADB
303	Lake Street West	E of Dupont	190*	38	371
401	Eden Prairie Road	S of Boys School Rd / N of Ferris Ln	14	3	27
402	Eden Prairie Road	N of Berger Drive	68	14	132
501	Franklin Avenue East	E of 27th St S	321	65	627
502	Franklin Avenue East	E of Elliot Ave / E of Chicago	180	36	352
504	Minnetonka Boulevard	W of Oregon Ave S	23	5	45
505	Minnetonka Boulevard	E of Steele St / E of Fairchild	38	8	74
1701	France Avenue	N of 47 St	47	9	91
1902	Shadywood Road	S of Crabapple Ln	65	13	127
2101	West 50th Street	E of James Ave S / W of Newton Ave S	47	10	92
2202	Lyndale Avenue	N of 36th St	69*	14	135
3202	Penn Avenue S	N of 91st St	28**	6	55
3301	Park Avenue South	S of 27th St	363	73	710
3302	Park Ave South	S of 37th St	261	53	511
3501	Portland Avenue South	S of 40th St	198	40	387
3502	Portland Avenue South	S of 28th	364	73	711
3503	Portland Avenue South	N of 74th St	66	13	129
3901	Valley View Road	W of Anagram Drive	17	3	33
4201	42nd Street	W of 22nd	73	15	143
4601	46th Street West	E of Pleasant	55	11	107
4602	46th Street West	E of 17th Ave	21	4	42
4802	26th Avenue South	S of Midtown Greenway	99	20	193
5201	Nicollet Avenue	N of 90th St	13	3	24
5202	Nicollet Avenue	N of 76th St	21	4	41
6001	Baker Road	N of Excelsior Ave	36	7	70
9201	County Road 92 North	N of Trista Ln	5	1	9
11001	Commerce Road	N of Grandview Blvd / Sherwood Dr	22	4	43
15101	North Arm Drive	N of Cherry Ave	10	2	19
15201	Cedar Avenue South	N of Nokomis Pkwy	8	2	16
15203	Cedar Avenue South	S of E 40th St	20	4	38
15801	Vernon Avenue South	E of Vernon Ln	29	6	56

Figure 5: Average Annual Daily Bicyclists (AADB) for all 2015 bicycle count locations

* In these locations, counts indicated are known to be undercounts.

** In this location, northbound traffic was doubled to estimate two way bicycle traffic. Southbound count equipment failed.

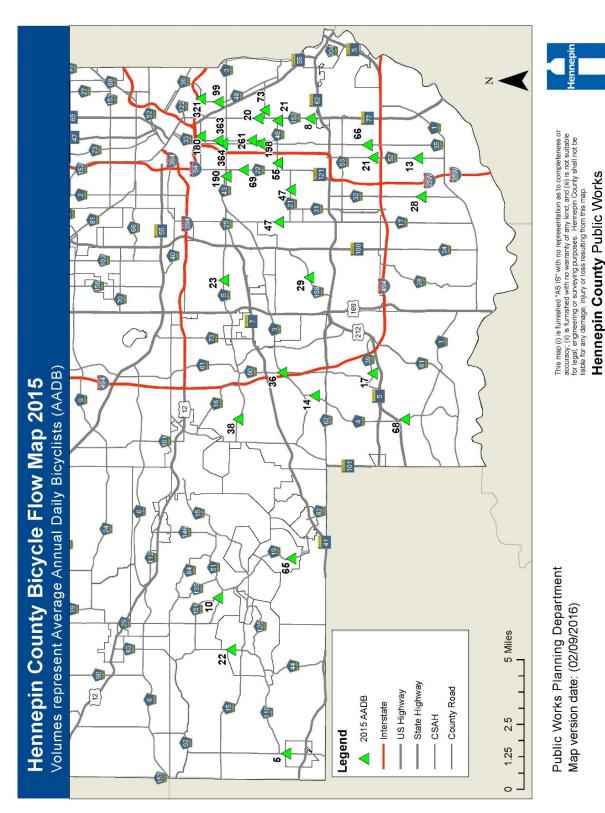


Figure 6: Map of 2015 bicycle count locations with AADB indicated

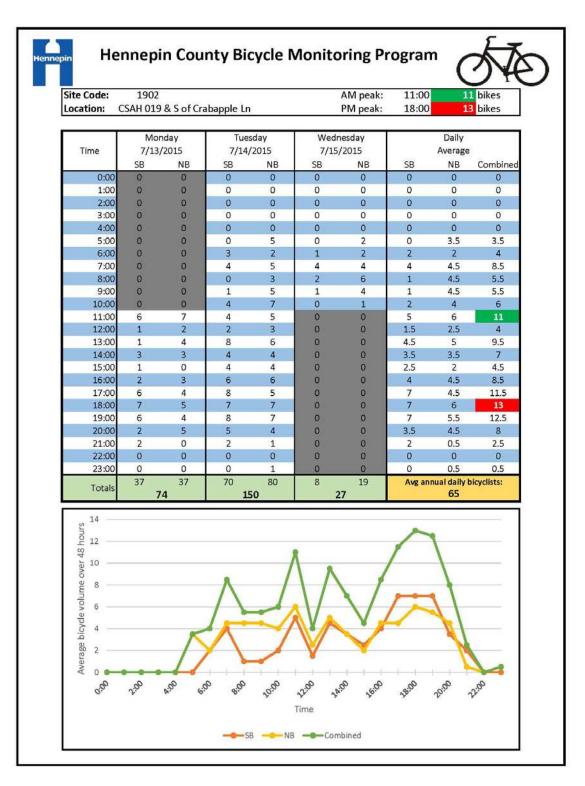
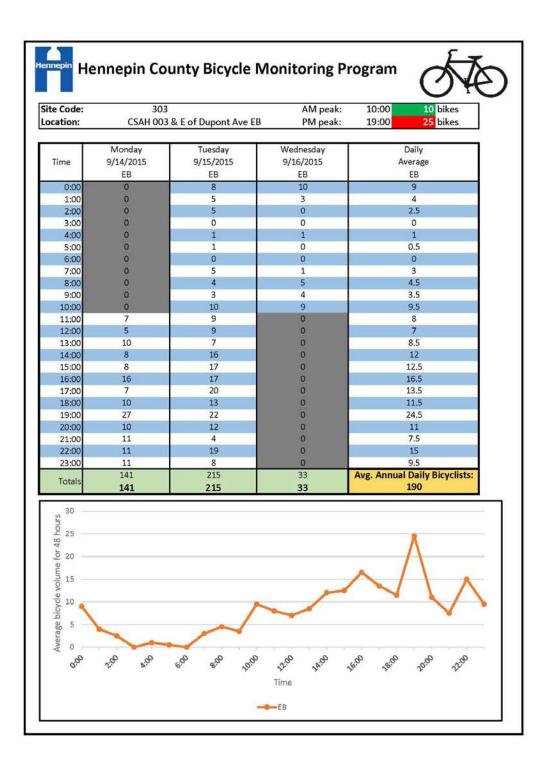


Figure 7a: One page summary of a count site. At this site, both directions were counted in the same

Figure 7b: One page summary of a count site (one direction). At this site, the two directions were counted on different days or in different locations due to equipment needs or re-counts. Note that the AADB indicated is the total estimate for both directions.



Limitations and lessons learned

 Lack of permanent / long term counting stations. Due to the absence of county-owned permanent bicycle counting stations available in 2015, a permanent counting station hosted by MnDOT on Central Ave in Minneapolis was used to create a "day of year factor" for each day that was applied to the 48 hour counts to control for weather and other daily variables (see Appendix A for more information on day of year factors).

Furthermore, the Central Ave permanent counter is located in an urban environment so it does not fully represent traffic patterns around the county. Preferably, Hennepin County would have access to a number of permanent counters located around the county so that each of the 48-hour count sites could be matched to a permanent count site based on hourly and daily traffic patterns. This would improve the accuracy of the AADB estimates.

2. *Duration*. Hennepin County conducted 48 hour counts on weekdays. With a limited number of counters (4) and limited staff time, staff determined that 48 hour counts provided them with the flexibility needed to deploy and retrieve count equipment on different days while still completing other duties. However, 48 hour counts do not provide information on bicycle travel patterns experienced on weekends that can be compared to weekday information. For this reason, MnDOT recommends 7 day counts. Longer count duration improves accuracy but requires additional staff availability.

The 48 hour counts collected this year spanned three days (for example, 11am on a Monday to 11am on a Wednesday). As a result, staff had to calculate "day of year factors" for the exact time period of the 48 hour counts. It would significantly simplify procedures to have data in units of 24 hour days. For example, if data were to be collected from 11am on Monday to 11am on Thursday, full 24 hour counts would exist for Tuesday and Wednesday.

3. *Some re-counts needed*. Much was learned about the technical aspects of deploying Metrocount equipment in this pilot year. Based on experience with motor vehicle counting programs, staff anticipated that up to 30% of sites would need to be counted more than once due to technical problems. This year, 78% of count sites were successful on the first try; most of the rest were successful on the second try, and three sites took more than two tries.

Staff found that sites with higher vehicular traffic were more likely to fail due to the high number of motor vehicles running being registered by the counting devices. This increased the chance that a vehicle was misclassified by the counting device. Additionally, some sites experienced equipment failure due to street cleaners, heavy rain/flooding, and lawn mowing. In future years, additional care can be taken to avoid low lying sites that could be prone to flooding. Some street sweeping and lawn mowing operations are scheduled and can be avoided (eg Minneapolis' street sweeping schedule) although occasional tube destruction by lawn mowers or street sweepers should be anticipated.

4. *Riding against traffic, sidewalk riding, and riding at speeds less than 8-9 mph is not included in data.* Although wrong way riding over the tubes was captured by Metrocount equipment and could be enumerated through further processing, it is not included in the data in this report. Sidewalk riding and riding at very slow speeds was not captured. Staff took care not to place count equipment on a steep hill where people were likely to be riding less than 8-9 mph, but occasional slow bikers, probably children, may have been missed. Locations where these behaviors are known to be common should be further studied using other count methods such as video counts.

Additionally, staff should keep the following technical recommendations in mind:

- Plates are used by motor vehicle count programs to secure the "far" side of the tube (the side farthest from the counting device). We do not recommend using plates because, due to the fact that bike counting tubes rarely cover the entire roadway, the far side of the tube is often in a location where motor vehicles run over it. We recommend using a knot and a figure 8 rather than plates because it stands up better to repeated hits by motor vehicles.
- Use 3.5 inch nails. In 2015, there was only one location (26th Ave S in Minneapolis) where the road was so hard that shorter nails needed to be used. Using 3.5 inch nails rather than shorter nails significantly decreases the likelihood that the nails will dislodge early.
- Drill and install nails at an angle so that the bottom of the nail is pointing ~20 degrees towards the center of the roadway. This technique significantly decreases the likelihood that the nails will dislodge early.

Next Steps

- 1. Work with Hennepin County cities and park districts to compile and map comprehensive bicycle counting information. This bicycle counting program focused only on Hennepin County roads. A number of cities and park districts already collect bicycle counts on their facilities using a variety of techniques. Hennepin County staff will take steps to compile existing count information on to one map in the coming months. A more long term strategy to continuously collect and compile this information should be developed over time.
- 2. *Continue to collect short term bicycle counts in 2016.* Approximately 35 sites have been selected for counts in northern Hennepin County for summer 2016. Although 48 hour counts are efficient when staff time and equipment is scarce, deploying equipment for longer than the minimum 48 hours could make analysis easier and could improve accuracy.
- 3. *Continue to pursue and install permanent counters*. As of January 2016, additional permanent counters have been installed at the following locations:
 - a. CSAH 33 (Park Avenue) in Minneapolis EcoCounter technology
 - b. CSAH 6 in Orono Sensys Networks technology
 - c. CSAH 116 in Rogers Sensys Networks technology

Additional permanent counters are planned to be installed in 2016 at the following locations:

- a. CSAH 19 in Tonka Bay EcoCounter technology
- b. CSAH 152 (Brooklyn Boulevard) in Brooklyn Center Sensys Networks technology

These additional permanent counting sites will provide invaluable information for count programs in summer 2016 and beyond. Hennepin County will continue to pursue permanent counters in a variety of locations in order to better understand how bicycle traffic patterns change in different settings. More permanent counters will help improve the accuracy of the estimated AADB.

4. *Continue to collect counts at locations of special interest.* This annual bicycle monitoring program is helpful in better understanding bicycle traffic all around the Hennepin County network. However, it does not provide the level of detail that is preferred at locations where major projects are planned and where additional information, such as turning movements, wrong way riding, and sidewalk riding needs to be quantified. Video counts, while they are more time consuming and are not recommended on a large scale, are the best way to analyze locations of special interest.

Appendix A: Average Annual Daily Bicyclists (AADB) and seasonal average calculations

In order to calculate AADB, staff used a permanent counting station at the intersection of Central Ave and Lowry Ave in Minneapolis that collected bicycle volumes 365 days per year to **estimate how bicycle traffic on any given day compared to the average bicycle traffic from that entire year**. This serves as a control for weather and other unknown daily factors.

Steps to calculate AADB are as follows:

- 1. Obtain a chart that lists the hourly traffic at the Central Ave & Lowry Ave site for every hour of 2015.
- 2. Calculate bicycle volumes at the Central Ave site (southbound only because northbound broke) for the exact time period of each 48 hour count. For example, for site 303 EB, 123 bicyclists were counted between 11am on 9/14/15 and 11am on 9/16/15.
- 3. Divide that number by the total volume for the year at the Central Ave site. This will give you the percentage of annual traffic at this location that took place during each 48 hour sample period. At site 303 EB, that calculation is 123 / 13146 = .00917. In other words, 0.917% of annual traffic at the Central Ave location took place between 11am on 9/14/15 and 11am on 9/16/15.
- 4. Divide the 48 hour raw counts at each location by the percentage calculated in step 3 above. This will give you the estimated annual traffic at each location. For site 303 EB, this calculation is 389 / .00917 = 42429. In other words, the estimated annual bicycle traffic at site 303 EB is 42,429.
- 5. Divide the estimated annual traffic at each location by 365 to get annual average daily bicycle traffic (AADB). At site 303 EB, this is 42429 / 365 = 389.
- 6. For one-way sites or sites where both directions were counted at the same place at the same time (i.e. both directions are represented in the 48 hour raw count), you are finished. For sites where the 48 hour raw counts are listed separately for each direction because they were calculated at different times or in different places, simply add the AADB for the two directions. Note that if counts were collected in different times or places, you do need to calculate AADB independently for each direction do not combine raw counts unless taken at the exact same time and place.

Steps to calculate monthly or seasonal average are as follows:

- 1. Obtain a chart that lists the hourly traffic at the Central Ave & Lowry Ave site for every hour of 2015.
- 2. Calculate bicycle volumes at the Central Ave site (southbound only because northbound broke) for the exact time period of each 48 hour count.
- 3. Divide that number by the total volume for the month or season of interest. This will give you the percentage of monthly/seasonal traffic at this location that took place during each 48 hour sample period.
- 4. Divide the 48 hour raw counts at each location by the percentage calculated in step 3 above. This will give you the estimated monthly/seasonal bicycle traffic at each location.

- 5. Divide the estimated monthly/seasonal traffic at each location by the number of days in that time period of interest to get the average daily bicycle traffic for that time period.
- 6. For one-way sites or sites where both directions were counted at the same place at the same time, you are finished. For sites where the 48 hour raw counts are listed separately for each direction because they were calculated at different times or in different places, simply add the AADB for the two directions. Note that if counts were collected in different times or places, you do need to calculate AADB independently for each direction do not combine raw counts unless taken at the exact same time and place.

Appendix B: One page summaries from each count location





ite Code:	303		AM peak:	10:00 10 bikes
ocation:	CSAH 003 &	E of Dupont Ave EB	PM peak:	19:00 25 bikes
	Monday	Tuesday	Wednesday	Daily
Time	9/14/2015	9/15/2015	9/16/2015	Average
	EB	EB	EB	EB
0:00	0	8	10	9
1:00	0	5	3	4
2:00	0	5	0	2.5
3:00	0	0	0	0
4:00	0	1	1	1
5:00	0	1	0	0.5
6:00	0	0	0	0
7:00	0	5	1	3
8:00	0	4	5	4.5
9:00	0	3	4	3.5
10:00	0	10	9	9.5
11:00	7	9	0	8
12:00	5	9	0	7
13:00	10	7	0	8.5
14:00	8	16	0	12
15:00	8	17	0	12.5
16:00	16	17	0	16.5
17:00	7	20	0	13.5
18:00	10	13	0	11.5
19:00	27	22	0	24.5
20:00	10	12	0	11
21:00	11	4	0	7.5
22:00	11	19	0	15
23:00	11	8	0	9.5
	141	215	33	Avg. Annual Daily Bicyclis
Totals				
Totals 30	141	215	33	190
25 —				Å
Daily average				
5	have		-	
0 0;0 ⁰	2 ^{:00} A:00		22:00 24:00 26:00	38.0° 20.0° 22.0°



Time





onday 1/2015 WB 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tuesday 9/22/2015 WB 1 0 1 0 2 2 2 2 0 2 2 0 2 3 8	Wednesday 9/23/2015 WB 0 2 1 1 3 3 3 1 4	Daily Average WB 0.5 1 1 1 0.5 2.5 2.5 2.5 0.5 3
1/2015 WB 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9/22/2015 WB 1 0 1 0 2 2 2 2 0 2 2 0 2 3	9/23/2015 WB 0 2 1 1 3 3 3 3 1 4	Average WB 0.5 1 1 0.5 2.5 2.5 2.5 0.5
WB 0 0 0 0 0 0 0 0 0 0 0 0 0 0	WB 1 0 1 0 2 2 2 0 2 0 2 3	WB 0 2 1 1 3 3 3 1 4	WB 0.5 1 1 0.5 2.5 2.5 2.5 0.5
0 0 0 0 0 0 0 0 0 0 0	1 0 1 0 2 2 2 0 2 0 2 3	0 2 1 1 3 3 3 1 4	0.5 1 1 0.5 2.5 2.5 0.5
0 0 0 0 0 0 0 0 0	0 1 0 2 2 2 0 2 0 2 3	2 1 1 3 3 1 4	1 1 0.5 2.5 2.5 0.5
0 0 0 0 0 0 0 0	1 0 2 2 0 2 0 2 3	1 1 3 3 1 4	1 0.5 2.5 2.5 0.5
0 0 0 0 0 0 0	0 2 2 0 2 3	1 3 3 1 4	0.5 2.5 2.5 0.5
0 0 0 0 0 0	2 2 0 2 3	3 3 1 4	2.5 2.5 0.5
0 0 0 0 0	2 0 2 3	3 1 4	2.5 0.5
0 0 0 0	0 2 3	1 4	0.5
0 0 0	2 3	4	
0 0	3		
0		4	3.5
	N N N N N N N N N N N N N N N N N N N	4 10	9
0	3	2	2.5
2	8	0	5
			7
7	10	0	8.5
9	13	0	11
4	9	0	6.5
2	5	0	3.5
8	13	0	10.5
		0	6.5
			15
			8.5
			8
			6 3
			Avg annual daily bicyclists 190
	9 4 2	710913492581358111989972102475145	7100913049025081305801119089097021002407514531

Note: Actual count likely to be higher. This is a minimum. The AADB of 190 is the total for both directions.

Time

-WB





Monda Time 7/13/20 NB 0:00 0 1:00 0 0 1:00 0 0 2:00 0 0 3:00 0 0 4:00 0 0 5:00 0 0 6:00 0 0 7:00 0 0 9:00 0 0 10:00 0 0 11:00 0 1 13:00 1 1 14:00 0 1 17:00 2 1 18:00 0 1 19:00 3 2 100 0 2 12:00 0 2 18:00 0 1 19:00 3 2 100 0 2 100 0 1	401 SAH 004 & N of Boys School R	AM pe d northbound PM pe	
Monda Time 7/13/20 NB 0:00 0 1:00 0 0 1:00 0 0 2:00 0 0 3:00 0 0 4:00 0 0 5:00 0 0 6:00 0 0 7:00 0 0 8:00 0 0 9:00 0 0 10:00 0 0 11:00 0 0 12:00 1 1 13:00 1 1 14:00 0 1 17:00 2 1 18:00 0 1 19:00 3 2 20:00 0 2 12:00 0 2 10 0 2 10 0 2	SAH 004 & N of Boys School R	d northbound PM pe	
Time 7/13/20 NB 0:00 NB 1:00 0 1:00 0 3:00 0 3:00 0 4:00 0 5:00 0 6:00 0 7:00 0 7:00 0 9:00 0 10:00 0 11:00 0 12:00 0 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0		•	eak: 12:00 1.5 bikes
Time 7/13/20 NB 0:00 NB 1:00 0 1:00 0 3:00 0 3:00 0 4:00 0 5:00 0 6:00 0 7:00 0 7:00 0 9:00 0 10:00 0 11:00 0 12:00 10 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 21:00 0 22:00 0 23:00 0			
Time 7/13/20 NB 0:00 NB 1:00 0 1:00 0 3:00 0 3:00 0 4:00 0 5:00 0 6:00 0 7:00 0 8:00 0 9:00 0 10:00 0 11:00 0 12:00 10 13:00 1 14:00 0 15:00 2 16:00 1 17:00 3 20:00 0 19:00 3 21:00 0 22:00 0 23:00 0	ay Tuesday	Wednesday	Daily
NB 0:00 0 1:00 0 2:00 0 3:00 0 4:00 0 5:00 0 5:00 0 6:00 0 7:00 0 8:00 0 9:00 0 10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	-	-	Average
0:00 0 1:00 0 2:00 0 3:00 0 4:00 0 5:00 0 6:00 0 7:00 0 8:00 0 9:00 0 10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	NB	NB	NB
1:00 0 2:00 0 3:00 0 4:00 0 5:00 0 5:00 0 6:00 0 7:00 0 8:00 0 9:00 0 10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	0	0	0
2:00 0 3:00 0 4:00 0 5:00 0 6:00 0 7:00 0 8:00 0 9:00 0 10:00 0 11:00 0 11:00 0 11:00 1 13:00 1 14:00 1 14:00 1 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 21:00 0 21:00 0 10:00 0 10	0	0	0
3:00 0 4:00 0 5:00 0 6:00 0 7:00 0 8:00 0 9:00 0 10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	0	0	0
4:00 0 5:00 0 6:00 0 7:00 0 8:00 0 9:00 0 10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	0	0	0
5:00 0 6:00 0 7:00 0 8:00 0 9:00 0 10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	0	0	0
6:00 0 7:00 0 8:00 0 9:00 0 10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	0	0	0
7:00 0 8:00 0 9:00 0 10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	0	0	0
8:00 0 9:00 0 10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	1	1	1
9:00 0 10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	2	0	1
10:00 0 11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	2	0	1
11:00 0 12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	2	0	1
12:00 1 13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	1	0	0.5
13:00 1 14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	2	0	1.5
14:00 0 15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	0	0	0.5
15:00 2 16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	1	0	0.5
16:00 1 17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	1	0	1.5
17:00 2 18:00 0 19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	1	0	1
19:00 3 20:00 0 21:00 0 22:00 0 23:00 0	0	0	1
20:00 0 21:00 0 22:00 0 23:00 0 Totals 10	0	0	0
21:00 0 22:00 0 23:00 0 Totals 10	0	0	1.5
22:00 0 23:00 0 Totals	0	0	0
23:00 0 Totals	0	0	0
Totals 10	0	0	0
Totals	0	0	0
TOLDIS	13	1	Avg annual daily bicyclists:
10	13	1	14
$ \begin{array}{c} 1.4 \\ 1.2 \\ 0.8 \\ 0.8 \\ 0.6 \\ 0.4 \\ 0.2 \\ 0 \\ 0.8 \\ 0.6 \\ 0.4 \\ 0.2 \\ 0 \\ 0.9 \\ 0.$	K'00 6'00 8'00 'DO	s 12.00 14.00 150.00 Time	18:00 20:00 22:00
Note: The AADB of 14	is the total for both direction	→ NB	



ocation: Time 0:00 1:00 2:00 3:00	Tuesday 7/7/2015 SB	N of Ferris Ln southbound Wednesday	PM peak:	
0:00 1:00 2:00	7/7/2015	Wednesday		19:00 3 bikes
0:00 1:00 2:00			Thursday	Daily
1:00 2:00		7/8/2015	7/9/2015	Average
1:00 2:00		SB	SB	SB
2:00	0	0	0	0
	0	0	0	0
3:00	0	0	0	0
	0	0	0	0
4:00	0	0	0	0
5:00	0	1	1	1
6:00	0	1	0	0.5
7:00	0	2	0	1
8:00	0	1	2	1.5
9:00	0	0	0	0
0:00	0 0	0	0	0
1:00 2:00	0	2	0	1
2:00 3:00	2	1	0	1.5
4:00	2	1	0	1.5
5:00	1	1	0	1.5
6:00	1	1	0	1
7:00	2	2	0	2
		1	0	
	5	1	0	3
0:00	0	1	0	0.5
1:00	1	0	0	0.5
2:00	0	0	0	0
3:00	0	0	0	0
otals			4	Avg annual daily bicyclist
Stars	16	17	4	14
17:00 18:00 19:00 20:00 21:00 22:00 23:00 Fotals	2 5 0 1 0	1 1 1 0 0	0 0 0 0 0 0 0 4	1.5 3 0.5 0.5 0 0



1 0

0:00

2:00

Hennepin County Bicycle Monitoring Program



20:00

22:00

18:00

16:00

14:00

2:00

Time

NB and SB

ocation:	C2VH UU1 8	de trail & N of Berger Dr	AM peak: PM peak:	10:00 4 bikes 14:00 6 bikes
	C5AI1 004 8	and beiger bi	Thi peak.	14.00 0 DIKES
	Monday	Tuesday	Wednesday	Daily
Time	8/31/2015	9/1/2015	9/2/2015	Average
	NB and SB	NB and SB	NB and SB	NB and SB
0:00	0	0	0	0
1:00	0	0	0	0
2:00	0	0	0	0
3:00	0	0	0	0
4:00	0	0	0	0
5:00	0	0	0	0
6:00	0	2	1	1.5
7:00	0	3	1	2
8:00	0	3	1	2
9:00	0	4	1	2.5
10:00	0	3	5	4
11:00	1	7	0	4
12:00	0	7	0	3.5
13:00	3	3	0	3
14:00	9	3	0	6
15:00	2	4	0	3
16:00	2	2	0	2
17:00	3	3	0	3
18:00	8	1	0	4.5
19:00	2	6	0	4
20:00	2	0	0	1
21:00	0	0	0	0
22:00	0	0	0	0
23:00	0	0	0	0
Totals	32	51	9	Avg annual daily bicyclist
TUtais	32	51	9	68



9.00

10:00

..00

A.:00

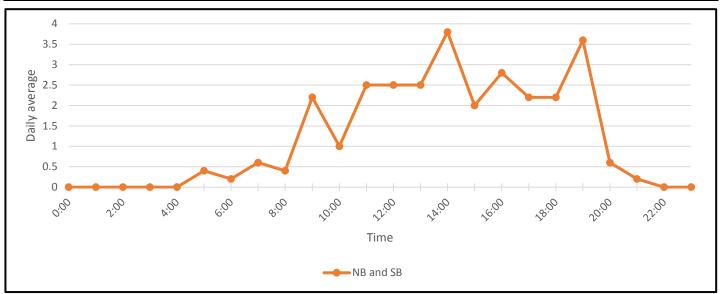




Site Code:402 west side trailLocation:CSAH 004 & N of Berger Dr

AM Peak Hour Starts At:11:002.5bikesPM Peak Hour Starts At:14:003.8bikes

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Daily
Time	8/26/2015	8/27/2015	8/28/2015	8/29/2015	8/30/2015	8/31/2015	Average
	NB and SB						
0:00	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0
5:00	0	0	1	0	1	0	0.4
6:00	0	0	0	0	0	1	0.2
7:00	0	1	0	2	0	0	0.6
8:00	0	0	0	2	0	0	0.4
9:00	0	4	3	2	1	1	2.2
10:00	0	4	0	0	0	0	1
11:00	0	0	3	5	2	0	2.5
12:00	0	2	3	2	3	0	2.5
13:00	0	2	1	2	5	0	2.5
14:00	7	0	4	2	6	0	3.8
15:00	1	4	2	0	3	0	2
16:00	6	2	0	5	1	0	2.8
17:00	0	2	0	0	9	0	2.2
18:00	0	4	2	0	5	0	2.2
19:00	2	3	6	1	6	0	3.6
20:00	1	1	0	1	0	0	0.6
21:00	0	0	0	0	1	0	0.2
22:00	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0
Totals	17	29	25	24	43	2	Avg annual daily bicyclists:
TOTALS	17	29	25	24	43	2	68



Note: Data was collected at this site from 8/26 through 8/31. AADB was calculated using 8/26 through 8/28 only. The AADB of 68 is the total for both directions.



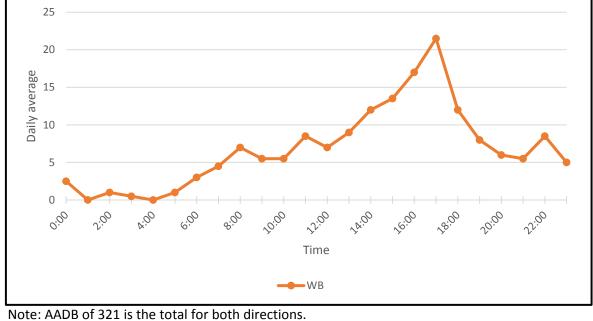


ite Code: ocation:	501 eastbo	ound & E of 27th St S EB	AM peak: PM peak:	8:00 12 bikes 21:00 12 bikes
	C3AN 005		Fivi peak.	21.00 12 DIKES
	Wadaasday	Thursday	Friday	Daily
	Wednesday	Thursday		-
Time	5/6/2015	5/7/2015	5/8/2015	Average
	EB	EB	EB	EB
0:00	0	1	2	1.5
1:00	0	0	2	1
2:00	0	0	0	0
3:00	0	1	1	1
4:00	0	1	0	0.5
5:00	0	2	1	1.5
6:00	0	1	7	4
7:00	0	5	6	5.5
8:00	0	10	14	12
9:00	0	3	17	10
LO:00	0	4	12	8
1:00	0	6	0	6
12:00	3	10	0	6.5
L3:00	12	6	0	9
L4:00	12	3	0	7.5
L5:00	13	6	0	9.5
L6:00	7	11	0	9
L7:00	8	5	0	6.5
8:00	13	2	0	7.5
19:00	15	6	0	10.5
20:00	7	9	0	8
21:00	11	13	0	12
22:00	2	9	0	5.5
23:00	5	5	0	5
	108	119	62	Avg annual daily bicyclists
otals	108	119	62	321
14				
0 — .0 0.	2.00 k.00	6 ^{.0} 8 ^{.0} ,0 ^{.0} ,	2	3.0° 20.0° 22.0°
		Time	e EB	1 ^{8.00} 10 ^{.00} 12 ^{.00}





ite Cod			AM peak:	
ocation	: CSAH 005	& E of 27th St S	PM peak:	17:00 21.5 bikes
	Wednesday	Thursday	Friday	Daily
Time	9/9/2015	9/10/2015	9/11/2015	Average
	WB	WB	WB	WB
0:00	0	0	5	2.5
1:00	0	0	0	0
2:00	0	0	2	1
3:00	0	1	0	0.5
4:00	0	0	0	0
5:00	0	1	1	1
6:00	0	4	2	3
7:00	0	3	6	4.5
8:00	0	6	8	7
9:00	0	4	7	5.5
10:00	0	7	4	5.5
11:00	8	9	0	8.5
12:00	5	9	0	7
13:00	8	10	0	9
14:00	9	15	0	12
15:00	13	14	0	13.5
16:00	16	18	0	17
17:00	28	15	0	21.5
18:00	13	11	0	12
19:00	10	6	0	8
20:00	7	5	0	6
21:00	3	8	0	5.5
22:00	5	12	0	8.5
23:00	6	4	0	5
Totals	131	162	35	Avg annual daily bicyclist
TOTAIS	131	162	35	321





Location:	502 eastbou CSAH 005 &	nd E of Elliot Ave EB	AM peak: PM peak:	8:00 12.5 bikes 17:00 11 bikes
	Monday	Tuesday	Wednesday	Daily
Time	10/5/2015	10/6/2015	10/7/2015	Average
	EB	EB	EB	EB
0:00	0	4	1	2.5
1:00	0	2	0	1
2:00	0	0	0	0
3:00	0	0	0	0
4:00	0	2	2	2
5:00	0	1	1	1
6:00	0	3	4	3.5
7:00	0	5	11	8
8:00	0	13	12	12.5
9:00	0	8	10	9
10:00	0	7	10	8.5
11:00	9	6	0	7.5
12:00	5	5	0	5
13:00	8	11	0	9.5
14:00	10	9	0	9.5
15:00	5	7	0	6
16:00	9	7	0	8
17:00	9	13	0	11
18:00	11	10	0	10.5
19:00	5	5	0	5
20:00	2	8	0	5
21:00	7	5	0	6
22:00	4	6	0	5
	5	2	0	3.5
23:00				
	89	139	51	Avg annual daily bicyclist
	89 89	139 139	51 51	Avg annual daily bicyclist 180
12 10 8 6 4 2				Avg annual daily bicyclist 180
Id 14 12 10 ask 8 6 4	89		51	





Site Code: Location:	502 westbo CSAH 005 &	und E of Chicago Ave	AM peak: PM peak:	7:00 7 bikes 20:00 12 bikes
Time	Monday 9/14/2015 WB	Tuesday 9/15/2015	Wednesday 9/16/2015	Daily Average
0.00		WB	WB	WB
0:00	0	3	2	2.5
1:00	0 0	2 3	1 2	1.5 2.5
2:00		0	0	0
3:00 4:00	0 0	2	1	1.5
		1	4	2.5
5:00	0 0	1	4	2.5
6:00		8	6	7
7:00 8:00	0	4	4	4
	0			
9:00	0	4 5	2	3
10:00	0		3	
11:00	7	4	0	5.5
12:00	8	5	0	
13:00	7	5	0	6
14:00	5	6	0	5.5
15:00	5	12	0	8.5
16:00	11	9	0	10
17:00	12	7	0	9.5
18:00	9	5	0	7
19:00	18	5	0	11.5
20:00	15	9	0	12
21:00	12	12	0	12
22:00	4	2	0	3
23:00	5	2	0	3.5
Totals	118	116	29	Avg annual daily bicyclists
	118	116	29	180
Totals 14 12	118 118	116 116	29 29	Avg annual daily bicycli 180
Daily average 9 8 10				
e c		Λ		-
e /ipa 4 — 2	<u> </u>			
4 —	2.00 k.00	6 ⁰⁰ 8 ⁰⁰ 10 ⁰ 12	.0° ,1°:0° ,1°:0° ,28:0°	p 20:00 22:00
4 2 0	2 ⁰⁰ 1400	Tim	ne	p 20:0 22:0
4 2 0	2:00 k:00		ne	200 2200



Site Code: Location:		504							
Location:		50-				AM peak:	9:00	4.5	bikes
-		CSAH 005 & \	N of Oregon	Ave S		PM peak:	17:00	5.5	bikes
	Moi	nday	Tue	sday	Wedn	iesday		Dail	у
Time	6/29,	/2015	6/30	/2015	7/1/	2015		Avera	age
	EB	WB	EB	WB	EB	WB	EB	WB	Combined
0:00	0	0	0	0	0	2	0	1	1
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	1	0	0	0	0.5	0	0.5
5:00 6:00	0 0	0	3	0	0	0	1.5 0.5	0	1.5 1.5
7:00	0	0 0	4	2	0	1 2	2	1 2	1.5 4
8:00	0	0	0	0	0	1	0	0.5	0.5
9:00	0	0	1	3	2	3	1.5	3	4.5
10:00	0	0	1	0	1	0	1	0	1
11:00	0	0	1	1	1	3	1	2	3
12:00	0	0	0	1	0	0	0	0.5	0.5
13:00	0	0	0	0	0	1	0	0.5	0.5
14:00	3	2	0	2	0	0	1.5	2	3.5
15:00	1	1	1	3	0	0	1	2	3
16:00	1	1	5	2	0	0	3	1.5	4.5
17:00	0	2	5	4	0	0	2.5	3	5.5
18:00	2	1	0	1	0	0	1	1	2
19:00 20:00	1	1 0	2 3	0	0	0 0	1.5 1.5	0.5 0.5	2
20.00	1	0	2	2	0	0	1.5	0.5	2.5
		1	1	1			0.5	1	
	0	0		0	0	0	0	0	0
	9	9	31	24	4	13	Avg an	nual dai	ily bicyclists:
lotais	1	.8	5	55	1	.7		23	
$\begin{array}{c} 6 \\ 5 \\ 4 \\ 3 \\ 2 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$								





Site Code:	505 eastbou		AM peak:	7:00 3 bikes
Location:	CSAH 005 &	E of Steele St	PM peak:	19:00 7.5 bikes
	Monday	Tuesday	Wednesday	Daily
Time	6/29/2015	6/30/2015	7/1/2015	Average
	EB	EB	EB	EB
0:00	0	0	0	0
1:00	0	0	0	0
2:00	0	0	0	0
3:00	0	0	0	0
4:00	0	0	0	0
5:00	0	0	0	0
6:00	0	1	0	0.5
7:00	0	5	1	3
8:00	0	0	3	1.5
9:00	0	0	0	0
10:00	0	0	0	0
11:00	0	1	1	1
12:00	0	0	3	1.5
13:00	2	1	0	1.5
14:00	6	0	0	3
15:00	1	0	0	0.5
16:00	2	0	0	1
17:00	1	0	0	0.5
18:00	1	4	0	2.5
19:00	6	9	0	7.5
20:00	1	0	0	0.5
21:00	0	1	0	0.5
22:00	0	0	0	0
23:00	0	0	0	0
Tatala	20	22	8	Avg annual daily bicyclists:
Totals	20	22	8	38
8				8
6				
9 60				
Daily average				
2 4				
aily —				
۵ 2 —				
1 —				
0 🛑				
0:00	2:00 p.00	00 0,00 0,00 0,00	p 1,00 1,60 1,80	19 20:00 22:00
0	V W			
		Time	2	
		EB		





Location:	505 westbour CSAH 005 & E		AM peak: PM peak:	9:00 4 bikes 16:00 5 bikes
			ſ	
	Tuesday	Wednesday	Thursday	Daily
Time	, 8/4/2015	8/5/2015	8/6/2015	Average
	WB	WB	WB	WB
0:00	0	0	0	0
1:00	0	1	0	0.5
2:00	0	0	0	0
3:00	0	0	0	0
4:00	0	0	0	0
5:00	0	0	0	0
6:00	0	2	1	1.5
7:00	0	1	4	2.5
8:00	0	4	1	2.5
9:00	0	2	6	4
10:00	0	5	2	3.5
L1:00	0	3	1	2
L2:00	2	3	0	2.5
L3:00	6	3	0	4.5
L4:00	5	1	0	3
15:00	1	4	0	2.5
16:00	6	4	0	5
L7:00	2	2	0	2
L8:00	1	7	0	4
L9:00	2	6	0	4
20:00	2	2	0	2
21:00	0	1	0	0.5
22:00	0	3	0	1.5
23:00	0	0	0	0
Totals	27	54	15	Avg annual daily bicyclist
otais	27	54	15	38
5 5 4 5 4 7				
-	\sim /			
0 0,00	2 ^{.00} k ^{.00} 6 ^{.5}	\$ €; ⁰ ,	ne	20:00 22:00

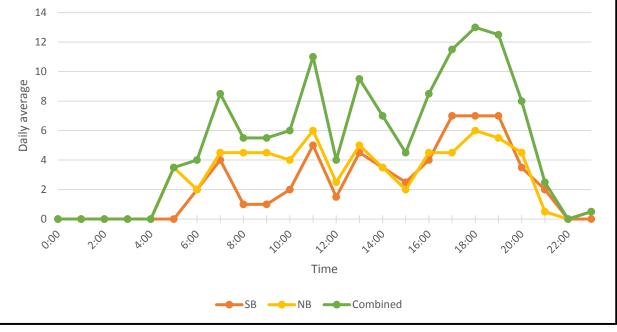


									R
Site Code:		1701				AM peak:	6:00		oikes
Location:		CSAH 017 &	N of 47th St			PM peak:	18:00	7	oikes
	Ma	nday	Tues	dav	Wedn	ocdov		Daily	
Time		2015	6/9/2	-	6/10/			Averag	
Time	NB	SB	NB	SB	NB	SB	NB		.c Combined
0:00	0	0	1	0	0	0	0.5	0	0.5
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	1	0	0.5	0	0.5
5:00	0	0	2	0	10	0	6	0	6
6:00	0	0	1	0	10	3	5.5	1.5	7
7:00	0	0	2	2	0	2	1	2	3
8:00	0	0	2	1	2	1	2	1	3
9:00	0	0	3 5	5	1	1	2	3	5
10:00 11:00	0	0	3	3 1	3	3	4	3 1.333	7 3.33
12:00	1	2	4	2	0	0	2.5	2	4.5
13:00	1	1	2	2	0	0	1.5	1.5	4.5
14:00	0	2	4	3	0	0	2	2.5	4.5
15:00	1	0	3	5	0	0	2	2.5	4.5
16:00	0	1	6	3	0	0	3	2	5
17:00	1	2	3	2	0	0	2	2	4
18:00	3	3	6	2	0	0	4.5	2.5	7
19:00	2	2	0	3	0	0	1	2.5	3.5
20:00	1	3	4	3	0	0	2.5	3	5.5
21:00	2	1	3	0	0	0	2.5	0.5	3
22:00	4	0	2	0	0	0	3	0	3
23:00	0	4	0	0	0	0	0	2	2
Totals	17	23 I O	56 93	37	27 3	10	Avg an	nnual daily 47	bicyclists:
	4	iu	95		3.			47	
B 7 6 5 4 3 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0									
			→ NE	Tim 3 SB -	e Combined				



Ċ	54	E
11	bikes	

ite Code:	1902	0.6.(.)				AM peak:	11:00		1 bikes
ocation: (SAH 019	& S of Cra	abapple Ln			PM peak:	18:00	1:	3 bikes
	Мо	nday	Tue	sday	Wedr	nesday		Daily	
Time	7/13,	/2015	7/14,	/2015	7/15	/2015		Average	1
	SB	NB	SB	NB	SB	NB	SB	NB	Combine
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0
5:00	0	0	0	5	0	2	0	3.5	3.5
6:00	0	0	3	2	1	2	2	2	4
7:00	0	0	4	5	4	4	4	4.5	8.5
8:00	0	0	0	3	2	6	1	4.5	5.5
9:00	0	0	1	5	1	4	1	4.5	5.5
10:00	0	0	4	7	0	1	2	4	6
11:00	6	7	4	5	0	0	5	6	11
12:00	1	2	2	3	0	0	1.5	2.5	4
13:00	1	4	8	6	0	0	4.5	5	9.5
14:00	3	3	4	4	0	0	3.5	3.5	7
15:00	1	0	4	4	0	0	2.5	2	4.5
16:00	2	3	6	6	0	0	4	4.5	8.5
17:00	6	4	8	5	0	0	7	4.5	11.5
18:00	7	5	7	7	0	0	7	6	13
19:00	6	4	8	7	0	0	7	5.5	12.5
20:00	2	5	5	4	0	0	3.5	4.5	8
21:00	2	0	2	1	0	0	2	0.5	2.5
22:00	0	0	0	0	0	0	0	0	0
23:00	0	0	0	1	0	0	0	0.5	0.5
Totals	37	37	70	80	8	19	Avg and	nual daily b	oicyclists:
TOTAIS	7	4	1	50	2	27		65	







		ound E of James Ave	AM peak: PM peak:	6:00 2 bikes 15:00 7 bikes
			1	
	Monday	Tuesday	Wednesday	Daily
Гime	9/21/2015	9/22/2015	9/23/2015	Average
	EB	EB	EB	EB
0:00	0	0	1	0.5
1:00	0	0	0	0
2:00	0	0	0	0
3:00	0	0	0	0
4:00	0	0	0	0
5:00	0	3	0	1.5
6:00	0	3	1	2
7:00	0	0	1	0.5
8:00	0	0	0	0
9:00	0	1	0	0.5
L0:00	0	1	0	0.5
L1:00	0	1	0	0.5
12:00	1	0	0	0.5
L3:00	3	0	0	1.5
L4:00	2	0	0	1
15:00	6	8	0	7
16:00	2	1	0	1.5
17:00	3	4	0	3.5
L8:00	1	0	0	0.5
			0	
23:00				
otals				Avg annual daily bicyclists
	23	28	2	
19:00 20:00 21:00 22:00 23:00 Totals	0 4 1 0 0 23 23 23	1 1 2 1 1 28 28 28	0 0 0 0 0 3 3 3	0.5 2.5 1.5 0.5 0.5 Avg annual daily bicy 47





Wednesday 6/24/2015 WB 4 0 0 0 0 0 0 3 4 4 3 4 1	Thursday 6/25/2015 WB 1 4 0 0 0 0 6 3 1 1 3	18:00 6.5 bikes Daily Average WB 2.5 2 0 0 0 0 0 0 4.5 3.5 2 2 0 0 0 2 0 0 0 0 2 0 0 0 0 0 0 0 0
6/24/2015 WB 4 0 0 0 0 0 0 3 4 3 4 3 4 1	6/25/2015 WB 1 4 0 0 0 0 6 3 1 3	Average WB 2.5 2 0 0 0 0 4.5 3.5 2
WB 4 0 0 0 0 3 4 3 4 3 4 1	6/25/2015 WB 1 4 0 0 0 0 6 3 1 3	WB 2.5 2 0 0 0 0 4.5 3.5 2
4 0 0 0 0 3 4 3 4 1	1 4 0 0 0 6 3 1 3	2.5 2 0 0 0 4.5 3.5 2
0 0 0 0 3 4 3 4 1	4 0 0 0 6 3 1 3	2 0 0 0 4.5 3.5 2
0 0 0 3 4 3 4 1	0 0 0 6 3 1 3	0 0 0 4.5 3.5 2
0 0 3 4 3 4 1	0 0 6 3 1 3	0 0 4.5 3.5 2
0 3 4 3 4 1	0 6 3 1 3	0 4.5 3.5 2
3 4 3 4 1	6 3 1 3	4.5 3.5 2
4 3 4 1	3 1 3	3.5 2
3 4 1	1 3	2
4	3	
1		~ -
		3.5
	2	1.5
1	4	2.5
3	0	2.5
	0	2.5
	0	3.5
		2.5
		1.5
		1
		2
		6.5
		4.5
		5
		3
		1.5
	-	1.5
		Avg annual daily bicyclists
55	24	47
	1 3 2 2 2 1 2 3 5 5 5 5 4 4 4 2 2 1 1 55 55 55 55	1 0 3 0 2 0 2 0 1 0 2 0 1 0 2 0 5 0 4 0 2 0 1 0 5 0 4 0 2 0 1 0 55 24

-WB







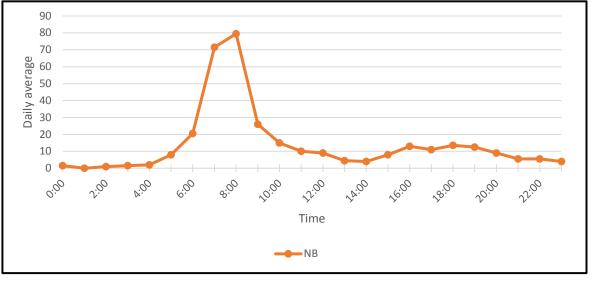
ite Code: ocation:		2202 CSAH 022	& N of 36th	n St		AM peak: PM peak:	0:00 15:00		bikes bikes
	Tues	dav	Wedr	nesday	Thur	sday		Dail	v
Time	6/23/			/2015		/2015		Avera	-
· · · · ·	NB	SB	NB	SB	NB	SB	NB	SB	Combine
0:00	0	0	1	5	1	4	1	4.5	5.5
1:00	0	0	3	3	0	1	1.5	2	3.5
2:00	0	0	0	2	0	1	0	1.5	1.5
3:00	0	0	0	0	0	2	0	1	1
4:00	0	0	0	0	0	0	0	0	0
5:00	0	0	3	2	3	3	3	2.5	5.5
6:00	0	0	4	2	1	2	2.5	2	4.5
7:00	0	0	5	1	2	2	3.5	1.5	5
8:00	0	0	3	2	2	0	2.5	1	3.5
9:00	0	0	5	1	2	2	3.5	1.5	5
10:00	0	0	2	2	2	1	2	1.5	3.5
11:00	2	3	2	1	0	0	2	1.667	3.67
12:00	5	0	12	4	0	0	8.5	2	10.5
13:00	5	1	3	2	0	0	4	1.5	5.5
14:00	9	3	6	1	0	0	7.5	2	9.5
15:00	7	6	4	7	0	0	5.5	6.5	12
16:00	8	2	2	5	0	0	5	3.5	8.5
17:00	5	6	3	4	0	0	4	5	9
18:00	3	4	4	5	0	0	3.5	4.5	8
19:00	4	2	2	4	0	0	3	3	6
20:00	6	7	2	8	0	0	4	7.5	11.5
21:00	4	2	3	3	0	0	3.5	2.5	6
22:00	5	5	3	9	0	0	4	7	11
23:00	2	7	1	2	0	0	1.5	4.5	6
Totals	65	48	73	75	13	18	Avg ar		ly bicyclists
Totals	11	.3	14	48	3	1		69	
12									
0.00	2:00	^{₽,09} 6 ^{,0}	° ;0 ⁰ → NB	,0 ⁰⁰ ,0 Tin →SB			.00	20:00	2.00
Noto: Actua	l count like	elv to he hi	gher. This i						



Site Code:	3202		AM peak:	8:00 1.5 bikes
Location:	CSAH 032	& N of 91st Ave	PM peak:	17:00 5.5 bikes
	Wednesday	Thursday	Friday	Daily
Time	9/9/2015	9/10/2015	9/11/2015	Average
	NB	NB	NB	NB
0:00	0	0	0	0
1:00	0	0	0	0
2:00	0	0	0	0
3:00	0	0	2	1
4:00	0	0	0	0
5:00	0	0	0	0
6:00	0	0	0	0
7:00	0	1	1	1
8:00	0	2	1	1.5
9:00	0	0	2	1
10:00	0	0	2	1
11:00	0	0	0	0
12:00	1	0	0	0.5
13:00	0	1	0	0.5
14:00	0	0	0	0
15:00	2	1	0	1.5
16:00	2	4	0	3
17:00	6	5	0	5.5
18:00	3	0	0	1.5
19:00	1	0	0	0.5
20:00	0	0	0	0
21:00	0	0	0	0
22:00	0	0	0	0
23:00	0	0	0	0
	15	14	8	Avg annual daily bicyclists:
Totals	15	14	8	28
5 4 3				
2				
1	0° k0° 6	50 8:00 500 72:00 MB	14:00 16:00 18:00	20:00 22:00
1 0 0 0 0 0				28:00 22:00



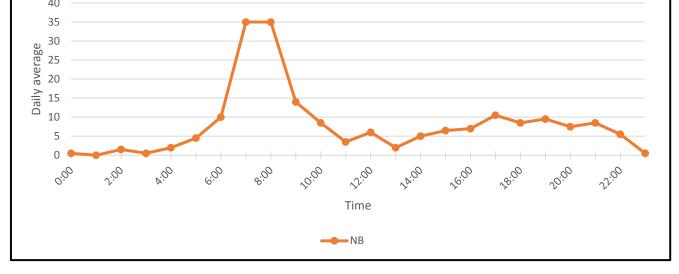
te Code:	3301		AM peak:	8:00 79.5 bikes
ocation:	CSAH 033	8 & S of 27th St	PM peak:	18:00 13.5 bikes
	Monday	Tuesday	Wednesday	Daily
Time	5/11/2015	5/12/2015	5/13/2015	Average
	NB	NB	NB	NB
0:00	0	1	2	1.5
1:00	0	0	0	0
2:00	0	1	1	1
3:00	0	1	2	1.5
4:00	0	2	2	2
5:00	0	7	9	8
6:00	0	17	24	20.5
7:00	0	64	79	71.5
8:00	0	72	87	79.5
9:00	0	20	32	26
10:00	0	12	18	15
11:00	10	10	0	10
12:00	10	8	0	9
13:00	5	4	0	4.5
14:00	2	6	0	4
15:00	8	8	0	8
16:00	7	19	0	13
17:00	5	17	0	11
18:00	14	13	0	13.5
19:00	7	18	0	12.5
20:00	4	14	0	9
21:00	5	6	0	5.5
22:00	3	8	0	5.5
23:00	3	5	0	4
Totals	83	333	256	Avg annual daily bicyclists:
TULAIS	83	333	256	363





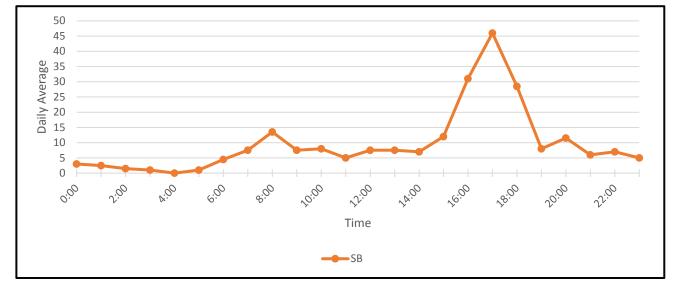


Site Code:	3302		AM peak:	7:00 35 bikes
ocation:	CSAH 033 &	N of 38th St	PM peak:	17:00 10.5 bikes
	Wednesday	Thursday	Friday	Daily
Time	5/6/2015	5/7/2015	5/8/2015	Average
	NB	NB	NB	NB
0:00	0	0	1	0.5
1:00	0	0	0	0
2:00	0	1	2	1.5
3:00	0	0	1	0.5
4:00	0	4	0	2
5:00	0	3	6	4.5
6:00	0	7	13	10
7:00	0	28	42	35
8:00	0	23	47	35
9:00	0	12	16	14
10:00	0	5	12	8.5
11:00	4	3	0	3.5
12:00	2	10	0	6
13:00	2	2	0	2
14:00	6	4	0	5
15:00	8	5	0	6.5
16:00	12	2	0	7
17:00	12	9	0	10.5
18:00	12	5	0	8.5
19:00	14	5	0	9.5
20:00	8	7	0	7.5
21:00	8	9	0	8.5
22:00	8	3	0	5.5
23:00	1	0	0	0.5
Totals	97	147	140	Avg annual daily bicyclis
Totals	97	147	140	261





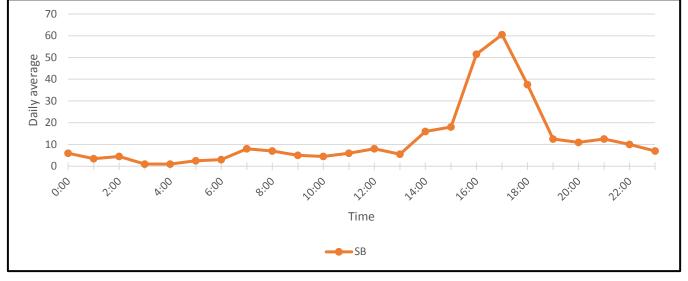
Site Code:	3501		AM peak:	8:00 13.5 bikes
Location:	CSAH 035 &	S of 40th St	PM peak:	17:00 46 bikes
	Wednesday	Thursday	Friday	Daily
Time	4/15/2015	4/16/2015	4/17/2015	Average
	SB	SB	SB	SB
0:00	0	4	2	3
1:00	0	1	4	2.5
2:00	0	2	1	1.5
3:00	0	0	2	1
4:00	0	0	0	0
5:00	0	0	2	1
6:00	0	4	5	4.5
7:00	0	5	10	7.5
8:00	0	11	16	13.5
9:00	0	8	7	7.5
10:00	0	5	11	8
11:00	5	5	0	5
12:00	7	8	0	7.5
13:00	7	8	0	7.5
14:00	5	9	0	7
15:00	11	13	0	12
16:00	31	31	0	31
17:00	51	41	0	46
18:00	28	29	0	28.5
19:00	8	8	0	8
20:00	11	12	0	11.5
21:00	6	6	0	6
22:00	10	4	0	7
23:00	6	4	0	5
Totals	186	218	60	Avg annual daily bicyclists:
Totals	186	218	60	198





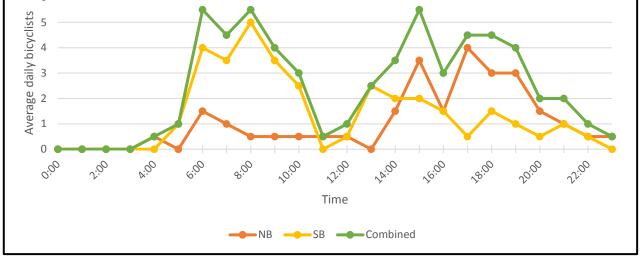


ite Code: ocation:	3502 CSAH 035 &	S of 28th St	AM peak: PM peak:	7:00 8 bikes 17:00 60.5 bikes
	Monday	Tuesday	Wednesday	Daily
Time	5/18/2015	5/19/2015	5/20/2015	Average
	SB	SB	SB	SB
0:00	0	0	12	6
1:00	0	4	3	3.5
2:00	0	4	5	4.5
3:00	0	2	0	1
4:00	0	0	2	1
5:00	0	2	3	2.5
6:00	0	2	4	3
7:00	0	7	9	8
8:00	0	6	8	7
9:00	0	2	8	5
10:00	0	1	8	4.5
11:00	7	5	0	6
12:00	5	11	0	8
13:00	6	5	0	5.5
14:00	8	24	0	16
15:00	14	22	0	18
16:00	45	58	0	51.5
17:00	49	72	0	60.5
18:00	32	43	0	37.5
19:00	7	18	0	12.5
20:00	10	12	0	11
21:00	7	18	0	12.5
22:00	13	7	0	10
23:00	5	9	0	7
Tatala	208	334	62	Avg annual daily bicyclist
Fotals	208	334	62	364





		3503 CSAH 035 &	N of 74th St			AM peak: PM peak:	6:00 15:00		bikes bikes
	Mon		Tues	-	Wedn			Dai	
Time	5/18/	2015	5/19/	2015	5/20/	2015	Average		
	NB	SB	NB	SB	NB	SB	NB	SB	Combine
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	1	0	0	0	0.5	0	0.5
5:00	0	0	0	0	0	2	0	1	1
6:00	0	0	2	4	1	4	1.5	4	5.5
7:00	0	0	2	3	0	4	1	3.5	4.5
8:00	0	0	0	4	1	6	0.5	5	5.5
9:00	0	0	0	4	1	3	0.5	3.5	4
10:00	0	0	1	3	0	2	0.5	2.5	3
11:00	0	0	1	0	0	0	0.5	0	0.5
12:00	0	0	0	1	1	0	0.5	0.5	1
13:00	0	0	0	5	0	0	0	2.5	2.5
14:00	1	0	2	4	0	0	1.5	2	3.5
15:00	1	2	6	2	0	0	3.5	2	5.5
16:00	0	1	3	2	0	0	1.5	1.5	3
17:00	4	0	4	1	0	0	4	0.5	4.5
18:00	1	2	5	1	0	0	3	1.5	4.5
19:00	3	0	3	2	0	0	3	1	4
20:00	0	0	3	1	0	0	1.5	0.5	2
21:00	1	0	1	2	0	0	1	1	2
22:00	1	0	0	1	0	0	0.5	0.5	1
23:00	0	0	1	0	0	0	0.5	0	0.5
Totals	12 1	5	35 7	40	4 2	21	Avg an	nual da 66	ily bicyclists



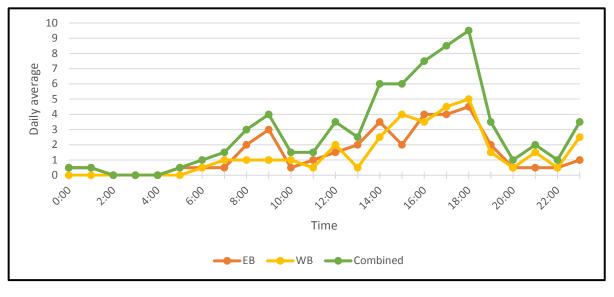




ite Code: ocation:	3901 CSAH 039 & 1	W of Anagram Drive EB & V	AM peak: VB (trail) PM peak:	7:00 1 bikes 17:00 2.5 bikes
	Monday	Tuesday	Wednesday	Daily
Time	8/31/2015	9/1/2015	9/2/2015	Average
	EB & WB (trail)	EB & WB (trail)	EB & WB (trail)	EB & WB (trail)
0:00	0	0	0	0
1:00	0	0	0	0
2:00	0	0	0	0
3:00	0	0	0	0
4:00	0	0	0	0
5:00	0	0	0	0
6:00	0	1	0	0.5
7:00	0	2	0	1
8:00	0	0	0	0
9:00	0	0	2	1
L0:00	0	1	0	0.5
L1:00	0	1	0	0.5
12:00	1	2	0	1.5
13:00	1	0	0	0.5
L4:00	3	1	0	2
15:00	0	0	0	0
L6:00	0	2	0	1
17:00	2	3	0	2.5
L8:00	0	2	0	1
19:00	1	1	0	1
20:00	0	1	0	0.5
21:00	1	2	0	1.5
22:00	0	0	0	0
23:00	0	0	0	0
otals	9	19	2	Avg annual daily bicyclist
	9	19	2	17
- 2.5 - 2.5 - 1.5 - 1.5 - 1.5 - 0.5 - 1.5 - 1.5	2:00 k.00	6 ⁰⁰ 8 ⁰⁰ 0 ⁰⁰ 0 ¹⁰	00 JA:00 J6:00 J8:0	9 20:00 22:00
		Tim EB & WB	ne	



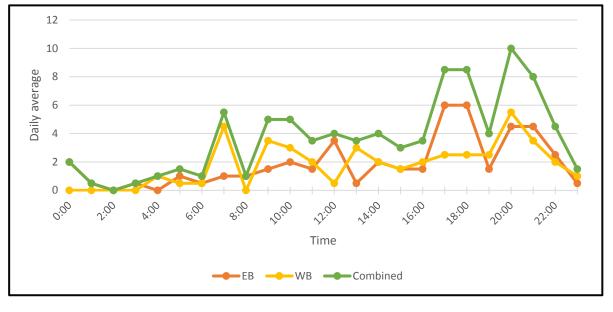
Site Co	de	4201				AM peak:	9:00	Δ	bikes	
Locatio			& W of 22nd	ł St		PM peak:	18:00		bikes	
Locatio		0,11042	2 10 01 22110			The peak.	10.00	5.5	DIRCJ	
	Мо	nday	Tues	sday	Wedr	nesday		Dai	у	
Time	3/30	/2015	3/31/	2015	4/1/	4/1/2015		Average		
	EB	WB	EB	WB	EB	WB	EB	WB	Combined	
0:00	0	0	0	0	1	0	0.5	0	0.5	
1:00	0	0	0	0	1	0	0.5	0	0.5	
2:00	0	0	0	0	0	0	0	0	0	
3:00	0	0	0	0	0	0	0	0	0	
4:00	0	0	0	0	0	0	0	0	0	
5:00	0	0	0	0	1	0	0.5	0	0.5	
6:00	0	0	1	0	0	1	0.5	0.5	1	
7:00	0	0	1	1	0	1	0.5	1	1.5	
8:00	0	0	1	1	3	1	2	1	3	
9:00	0	0	4	0	2	2	3	1	4	
10:00	0	0	0	1	1	1	0.5	1	1.5	
11:00	0	1	2	0	0	0	1	0.5	1.5	
12:00	0	0	3	4	0	0	1.5	2	3.5	
13:00	0	0	4	1	0	0	2	0.5	2.5	
14:00	2	2	5	3	0	0	3.5	2.5	6	
15:00	1	1	3	7	0	0	2	4	6	
16:00	1	2	7	5	0	0	4	3.5	7.5	
17:00	2	4	6	5	0	0	4	4.5	8.5	
18:00	2	5	7	5	0	0	4.5	5	9.5	
19:00	2	1	2	2	0	0	2	1.5	3.5	
20:00	0	0	1	1	0	0	0.5	0.5	1	
21:00	0	0	1	3	0	0	0.5	1.5	2	
22:00	0	1	1	0	0	0	0.5	0.5	1	
23:00	0	2	2	3	0	0	1	2.5	3.5	
Totals	10	19 29	51 9	42 3	9	6 L 5	Avg an	inual dai 73	ly bicyclists:	



Hennepin

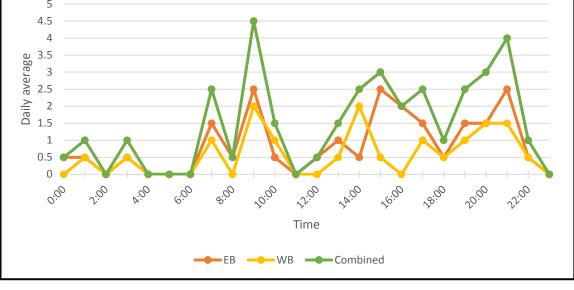


Site Cod Locatior		4601 4601 - CSA	.H 046 & E (of Pleasant		AM peak: PM peak:	7:00 20:00		bikes bikes	
	Wedn		Thur			day		Dail		
Time	6/17/	2015	6/18/	2015	6/19,	6/19/2015		Average		
	EB	WB	EB	WB	EB	WB	EB	WB	Combined	
0:00	0	0	3	0	1	0	2	0	2	
1:00	0	0	1	0	0	0	0.5	0	0.5	
2:00	0	0	0	0	0	0	0	0	0	
3:00	0	0	0	0	1	0	0.5	0	0.5	
4:00	0	0	0	1	0	1	0	1	1	
5:00	0	0	1	1	1	0	1	0.5	1.5	
6:00	0	0	0	1	1	0	0.5	0.5	1	
7:00	0	0	0	3	2	6	1	4.5	5.5	
8:00	0	0	1	0	1	0	1	0	1	
9:00	0	0	1	5	2	2	1.5	3.5	5	
10:00	0	0	3	2	1	4	2	3	5	
11:00	3	1	0	3	0	0	1.5	2	3.5	
12:00	5	0	2	1	0	0	3.5	0.5	4	
13:00	1	2	0	4	0	0	0.5	3	3.5	
14:00	0	0	4	4	0	0	2	2	4	
15:00	1	0	2	3	0	0	1.5	1.5	3	
16:00	1	1	2	3	0	0	1.5	2	3.5	
17:00	4	1	8	4	0	0	6	2.5	8.5	
18:00	3	3	9	2	0	0	6	2.5	8.5	
19:00	1	3	2	2	0	0	1.5	2.5	4	
20:00	6	1	3	10	0	0	4.5	5.5	10	
21:00	5	4	4	3	0	0	4.5	3.5	8	
22:00	5	0	0	4	0	0	2.5	2	4.5	
23:00	1	2	0	0	0	0	0.5	1	1.5	
Totals	36 5	18 4	46 10	56 1 2	10	13 2 3	Avg an	nual dai 55	ly bicyclists:	



Hennepin

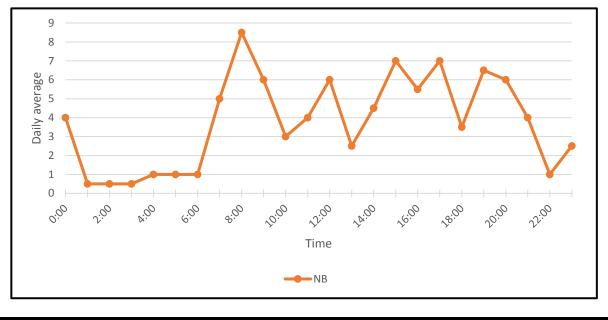
oite Code: .ocation:		4602 CSAH 046	5 & E of 17	7th Avo		AM peak: PM peak:	9:00 21:00		bikes bikes
		CJAIT 040		III AVE		ги реак.	21.00	-	DIKES
	Wed	nesday	Thur	sday	F	riday		Dail	V
Time	6/17/2015			/2015		9/2015	Average		
inne	ΕB	WB	EB	WB	EB	WB	EB	WB	Combined
0:00	0	0	0	0	1	0	0.5	0	0.5
1:00	0	0	1	1	0	0	0.5	0.5	1
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	1	1	0	0	0.5	0.5	1
4:00	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0
7:00	0	0	2	1	1	1	1.5	1	2.5
8:00	0	0	1	0	0	0	0.5	0	0.5
9:00	0	0	3	2	2	2	2.5	2	4.5
10:00	0	0	0	1	1	1	0.5	1	1.5
11:00	0	0	0	0	0	0	0	0	0
12:00	0	0	1	0	0	0	0.5	0	0.5
13:00	0	1	2	0	0	0	1	0.5	1.5
14:00	0	0	1	4	0	0	0.5	2	2.5
15:00	3	1	2	0	0	0	2.5	0.5	3
16:00	0	0	4	0	0	0	2	0	2
17:00	1	0	2	2	0	0	1.5	1	2.5
18:00	0	1	1	0	0	0	0.5	0.5	1
19:00	1	0	2	2	0	0	1.5	1	2.5
20:00	3	3	0	0	0	0	1.5	1.5	3
21:00	0	1	5	2	0	0	2.5	1.5	4
22:00	1	1	0	0	0	0	0.5	0.5	1
23:00	0	0	0	0	0	0	0	0	0
Totals	9	8 L7	28 4	16 4	5	4 9	Avg anr	nual dai 21	ly bicyclists:







Site Code: Location:	4802 Noi CSAH 04	rthbound 8 & S of Midtown Gree	AM peak: enway PM peak:	8:00 8.5 bikes 15:00 7 bikes
			intray interpedia	
Time	Wednesday 8/12/2015 NB	Thursday 8/13/2015 NB	Friday 8/14/2015 NB	Daily Average NB
0:00	0	6	2	4
1:00	0	1	0	0.5
2:00	0	1	0	0.5
3:00	0	0	1	0.5
4:00	0	1	1	1
5:00	0	1	1	1
6:00	0	0	2	1
7:00	0	5	5	5
8:00	0	6	11	8.5
9:00	0	6	6	6
10:00	0	2	4	3
11:00	3	5	0	4
12:00	3	9	0	6
13:00	3	2	0	2.5
14:00	7	2	0	4.5
15:00	4	10	0	7
16:00	6	5	0	5.5
17:00	6	8	0	7
18:00	5	2	0	3.5
19:00	9	4	0	6.5
20:00	6	6	0	6
21:00	4	4	0	4
22:00	0	2	0	1
23:00	1	4	0	2.5
Totals	57 57	92 92	33 33	Avg annual daily bicyclists 99







CSAH 1 Friday /17/2015 SB 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8 8 8	58 & E of Verr Saturday 7/18/2015 SB 2 1 0 0 0 0 0 0 0 0 3 1 6 6 6 8	Sunday 7/19/2015 SB 6 1 3 1 1 1 0 0 0 1 1 1 2 4	PM P Monday 7/20/2015 SB 0 2 1 2 1 0 0 0 0 0 1 3 3 5 6 6 2	Tuesday 7/21/2015 SB 2 3 1 0 2 1 0 2 3 5 1	17:00 8.25 bikes Daily Average SB 2.5 1.75 1.25 0.25
/17/2015 SB 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8	7/18/2015 SB 2 1 0 0 0 0 0 0 0 3 1 6 6 6	7/19/2015 SB 6 1 3 1 1 1 0 0 0 1 1 1 2 4	7/20/2015 SB 0 2 1 0 0 0 0 0 1 3 3 5 6	7/21/2015 SB 2 3 1 0 2 1 0 2 1 0 3 3 3 3 5	Average SB 2.5 1.75 1.25 0.25 0.25 0.25 0.25 0.25 2.5 2.5 4.75
/17/2015 SB 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8	7/18/2015 SB 2 1 0 0 0 0 0 0 0 3 1 6 6 6	7/19/2015 SB 6 1 3 1 1 1 0 0 0 1 1 1 2 4	7/20/2015 SB 0 2 1 0 0 0 0 0 1 3 3 5 6	7/21/2015 SB 2 3 1 0 2 1 0 2 1 0 3 3 3 3 5	Average SB 2.5 1.75 1.25 0.25 0.25 0.25 0.25 0.25 2.5 2.5 4.75
SB 0 0 0 0 0 0 0 0 0 0 0 0 0 8	SB 2 1 0 0 0 0 0 0 3 1 6 6 6	SB 6 1 3 1 1 0 0 1 1 2 4	SB 0 2 1 0 0 0 1 3 5 6	SB 2 3 1 0 2 1 0 3 3 3 5	SB 2.5 1.75 1.25 0.25 0.75 0.25 0.25 2.5 2.5 4.75
0 0 0 0 0 0 0 0 0 8	2 1 0 0 0 0 3 1 6 6	6 1 3 1 1 0 0 1 1 2 4	0 2 1 0 0 0 1 3 5 6	2 3 1 0 2 1 0 3 3 3 5	2.5 1.75 1.25 0.25 0.75 0.25 0.25 2.5 2.5 2.5 4.75
0 0 0 0 0 0 0 8	1 0 0 0 0 3 1 6 6	1 3 1 1 0 0 1 1 2 4	2 1 0 0 1 3 5 6	3 1 0 2 1 0 3 3 3 5	1.75 1.25 0.25 0.75 0.25 0.25 2.5 2.5 4.75
0 0 0 0 0 0 0 0 8	0 0 0 0 3 1 6 6	3 1 1 0 0 1 1 2 4	1 0 0 1 3 5 6	1 0 2 1 0 3 3 3 5	1.25 0.25 0.75 0.25 0.25 2.5 2.5 4.75
0 0 0 0 0 0 0 8	0 0 0 3 1 6 6	1 1 0 0 1 1 2 4	0 0 1 3 5 6	0 2 1 0 3 3 5	0.25 0.75 0.25 0.25 2.5 2.5 4.75
0 0 0 0 0 0 8	0 0 3 1 6 6	1 0 1 1 2 4	0 0 1 3 5 6	2 1 0 3 3 5	0.75 0.25 0.25 2.5 2.5 4.75
0 0 0 0 0 8	0 0 3 1 6 6	0 0 1 1 2 4	0 1 3 5 6	1 0 3 3 5	0.25 0.25 2.5 2.5 4.75
0 0 0 0 8	0 3 1 6 6	0 1 1 2 4	1 3 5 6	0 3 3 5	0.25 2.5 2.5 4.75
0 0 0 8	3 1 6 6	1 1 2 4	3 5 6	3 3 5	2.5 2.5 4.75
0 0 8	1 6 6	1 2 4	5	3 5	2.5 4.75
0 8	6 6	2 4	6	5	4.75
8	6	4	-		
			2	1	10
8	8	_			4.2
0	0	7	2	0	6.25
4	12	9	4	0	7.25
3	6	7	7	0	5.75
7	5	5	8	0	6.25
9	7	4	8	0	7
11	7	9	5	0	8
4	10	8	11	0	8.25
12	6	1	9	0	7
3	8	8	6	0	6.25
2	8	3	0	0	3.25
5	0	5	1	0	2.75
6	5	1	5	0	4.25
	3	4	2	0	2.25
0	104	91	88	21	Avg annual daily bicyclists:
0 82	104	01	88		99
	2 5 6 0	2 8 5 0 6 5 0 3 82 104	283505651034	2 8 3 0 5 0 5 1 6 5 1 5 0 3 4 2 82 104 91 88	2830050510651500342082104918821

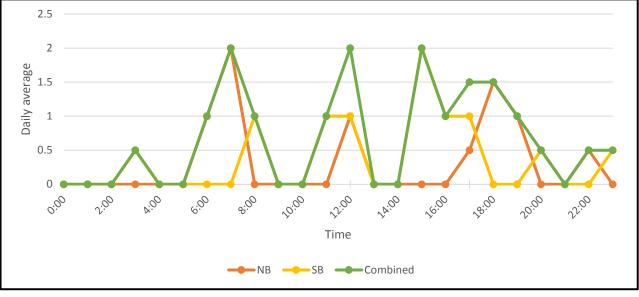


AADB calculation. AADB of 99 is the total for both northbound and southbound.





e Code:		5201				AM peak:	7:00	2	2 bikes	
cation:	tion: CS		& N of 90	th St		PM peak:	12:00	2	2 bikes	
	Tue	sday	Wedn	iesday	Thur	sday		Daily		
Time	6/2/2015		6/3/2015		6/4/2015		Average			
	NB	SB	NB	SB	NB	SB	NB	SB	Combine	
0:00	0	0	0	0	0	0	0	0	0	
1:00	0	0	0	0	0	0	0	0	0	
2:00	0	0	0	0	0	0	0	0	0	
3:00	0	0	0	0	0	1	0	0.5	0.5	
4:00	0	0	0	0	0	0	0	0	0	
5:00	0	0	0	0	0	0	0	0	0	
6:00	0	0	2	0	0	0	1	0	1	
7:00	0	0	2	0	2	0	2	0	2	
8:00	0	0	0	2	0	0	0	1	1	
9:00	0	0	0	0	0	0	0	0	0	
10:00	0	0	0	0	0	0	0	0	0	
11:00	0	2	0	0	0	0	0	1	1	
12:00	0	2	2	0	0	0	1	1	2	
13:00	0	0	0	0	0	0	0	0	0	
14:00	0	0	0	0	0	0	0	0	0	
15:00	0	4	0	0	0	0	0	2	2	
16:00	0	0	0	2	0	0	0	1	1	
17:00	0	2	1	0	0	0	0.5	1	1.5	
18:00	3	0	0	0	0	0	1.5	0	1.5	
19:00	2	0	0	0	0	0	1	0	1	
20:00	0	1	0	0	0	0	0	0.5	0.5	
21:00	0	0	0	0	0	0	0	0	0	
22:00	1	0	0	0	0	0	0.5	0	0.5	
23:00	0	1	0	0	0	0	0	0.5	0.5	
Totals	6	12	7	4	2	1	Avg ann		oicyclists:	
TOTAIS	1	.8	1	1	3	3		13		





		5000					0.00		1.11
Site Code	:	5202				AM peak:	9:00		bikes
Location:		CSAH 052 &	N OF 76th St			PM peak:	13:00	5.5	bikes
							1		
		nday		sday	Wedn	-		Dail	•
Time		2015		2015	6/10/			Avera	
	NB	SB	NB	SB	NB	SB	NB	SB	Combined
0:00	0	0	2	0	1	0	1.5	0	1.5
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0
6:00	0	0	0	1	0	0	0	0.5	0.5
7:00	0	0	0	1	0	1	0	1	1
8:00	0	0	0	0	0	1	0	0.5	0.5
9:00	0	0	0	0	3	4	1.5	2	3.5
10:00	0	0	2	1	2	0	2	0.5	2.5
11:00	2	0	0	0	0	0	1	0	1
12:00	1	4	0	1	0	0	0.5	2.5	3
13:00	5	4	2	0	0	0	3.5	2	5.5
14:00	0	0	0	0	0	0	0	0	0
15:00	3	1	0	0	0	0	1.5	0.5	2
16:00	2	0	1	0	0	0	1.5	0	1.5
17:00	3 2	2	1	0	0	0	2	1	3
		1	0	0	0	0	1	0.5	1.5
18:00			-	~					
19:00	2	0	5	0	0	0	3.5	0	3.5
19:00 20:00	2 1	0 1	1	1	0	0	1	1	2
19:00 20:00 21:00	2 1 1	0 1 2	1 1	1 0	0 0	0 0	1 1	1 1	2 2
19:00 20:00 21:00 22:00	2 1 1 2	0 1 2 1	1 1 2	1 0 2	0 0 0	0 0 0	1 1 2	1 1 1.5	2 2 3.5
19:00 20:00 21:00	2 1 1 2 0	0 1 2 1 1	1 1 2 1	1 0 2 0	0 0 0 0	0 0 0 0	1 1 2 0.5	1 1 1.5 0.5	2 2 3.5 1
19:00 20:00 21:00 22:00	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 20:00 21:00 22:00 23:00	2 1 1 2 0 24	0 1 2 1 1	1 1 2 1 18	1 0 2 0	0 0 0 0	0 0 0 0 6	1 1 2 0.5	1 1 1.5 0.5	2 2 3.5 1 ily bicyclists:
19:00 20:00 21:00 22:00 23:00 Totals	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 20:00 21:00 22:00 23:00	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 20:00 21:00 22:00 23:00 Totals	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 20:00 21:00 23:00 Totals 6 -	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 4 20:00 4 21:00 4 22:00 4 70tals 6 6 - 5 -	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 - 20:00 - 21:00 - 23:00 - Totals - - - 5 -	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 - 20:00 - 21:00 - 23:00 - Totals - - - 5 -	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 20:00 21:00 22:00 Totals 6 - - - - - - - - - - - - -	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 4 20:00 4 21:00 4 23:00 4 Totals 5 6 - 800 4	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 20:00 21:00 23:00 Totals 6 - 5 - age 4 - ag	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 20:00 21:00 22:00 Totals 6 - - - - - - - - - - - - -	2 1 1 2 0 24	0 1 2 1 1 1 17	1 1 2 1 18	1 0 2 0 7	0 0 0 0 6	0 0 0 0 6	1 1 2 0.5	1 1.5 0.5 nual dai	2 2 3.5 1 ily bicyclists:
19:00 20:00 21:00 23:00 Totals 6 - 5 - 98,4 - 1 - 1 - 1 - 1 -	2 1 2 0 24 4	0 1 2 1 1 17 17	1 1 2 1 18 2	1 0 2 0 7 5	0 0 0 6 1	0 0 0 6 2	1 1 2 0.5 Avg an	1 1.5 0.5 nual dai 21	2 3.5 1 ily bicyclists:
19:00 20:00 21:00 22:00 Totals 6 - - - - - - - - - - - - -	2 1 2 0 24 4	0 1 2 1 1 1 17	1 1 2 1 18 2	1 0 2 0 7	0 0 0 6 1	0 0 0 0 6	1 1 2 0.5 Avg an	1 1.5 0.5 nual dai 21	2 2 3.5 1 ily bicyclists:





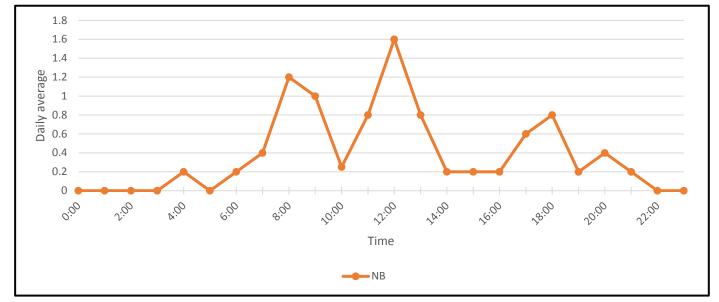


Site Code: Location:	:	6001 CSAH 060 & N	l of Excelsion	Blvd		AM peak: PM peak:	7:00 16:00		bikes bikes
Location.		C3AI1 000 & 1	OI EXCEISION	bivu		гигреак.	10.00	0.5	DIKES
Time		nesday /2015		sday /2015	Fric 8/14/		Daily Average		
	NB	SB	NB	SB	NB	SB	NB	SB	Combined
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	1	0	0	0	0.5	0	0.5
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	3	0	1.5	0	1.5
5:00	0	0	0	0	1	0	0.5	0	0.5
6:00	0	0	0	0	3	2	1.5	1	2.5
7:00	0	0	3	4	1	5	2	4.5	6.5
8:00	0	0	2	1	3	1	2.5	1	3.5
9:00	0	0	2	0	0	3	1	1.5	2.5
10:00	0	0	0	1	0	0	0	0.5	0.5
11:00	0	0	2	0	0	3	1	1.5	2.5
12:00	0	0	3	2	1	1	2	1.5	3.5
13:00	0	0	2	1	1	2	1.5	1.333	2.83
14:00	1	2	6	3	0	0	3.5	1.667	5.17
15:00	0	0	2	2	0	0	1	1	2
16:00	4	5	5	3	0	0	4.5	4	8.5
17:00	5	3	1	1	0	0	3	2	5
18:00	4	4	1	5	0	0	2.5	4.5	7
19:00	2	2	2	4	0	0	2	3	5
20:00	2	2	0	1	0	0	1	1.5	2.5
21:00	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0
23:00	1 19	0 18	0 32	0 28	0 13	0 17	0.5	0	0.5 y bicyclists:
Totals		7		28	3		Avg ar	inual dan 36	y dicyclists:
	3)/	0	U	5	0		30	
1 — 0 • 0;0	2:00	h:00 6:0		to ^{i,0} trine Time B → SB →	2	¹ 6 ⁰ ¹ 8 ⁰	20		2.00





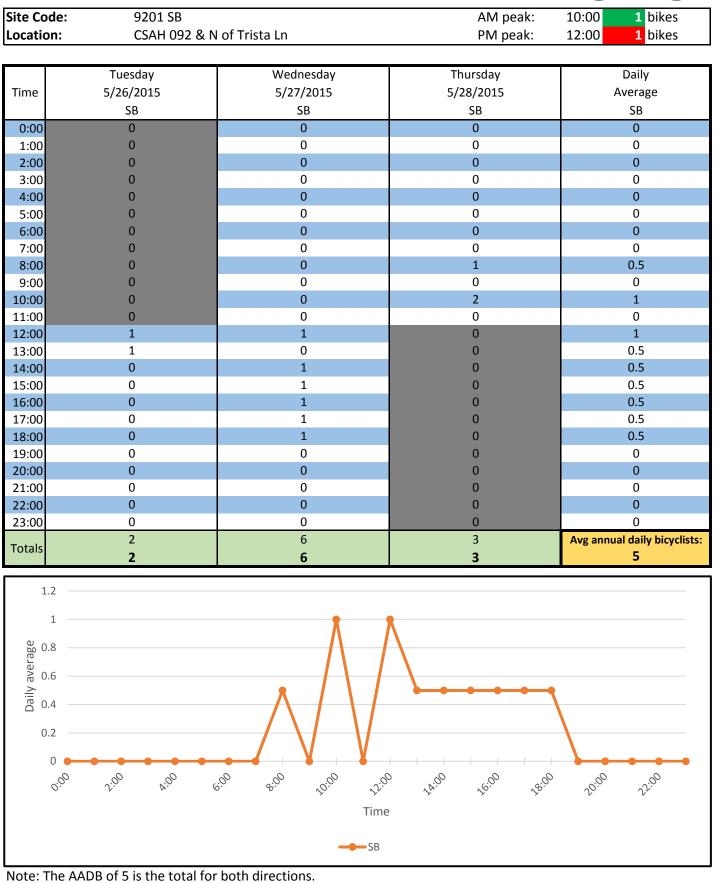
Site Code: 9201 Northbound AM Peak Hour Starts At: 8:00 1.2 bikes Location: CSAH 092 & N of Trista Ln PM Peak Hour Starts At: 12:00 1.6 bikes Wednesday Thursday Friday Saturday Sunday Monday Daily 8/26/2015 8/27/2015 8/29/2015 8/30/2015 Time 8/28/2015 8/31/2015 Average NB NB NB NB NB NB NULL NB 0:00 1:00 2:00 3:00 0.2 4:00 5:00 0.2 6:00 0.4 7:00 8:00 1.2 9:00 0.25 10:00 0.8 11:00 1.6 12:00 0.8 13:00 0.2 14:00 15:00 0.2 16:00 0.2 17:00 0.6 0.8 18:00 0.2 19:00 0.4 20:00 0.2 21:00 22:00 23:00 Avg annual daily bicyclists: Totals



Note: Data at this site was collected from 8/26 through 8/31 but AADB calculation includes only 8/26 to 8/28. AADB of 5 is the total for both directions and is representative of weekdays. Weekend counts were higher.



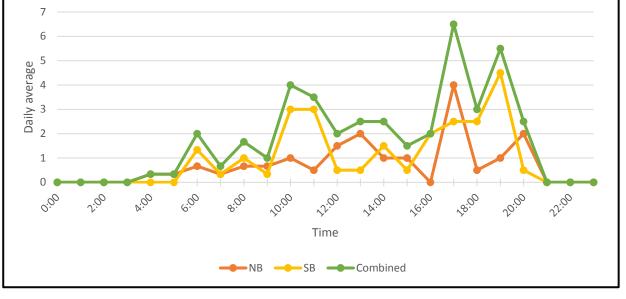








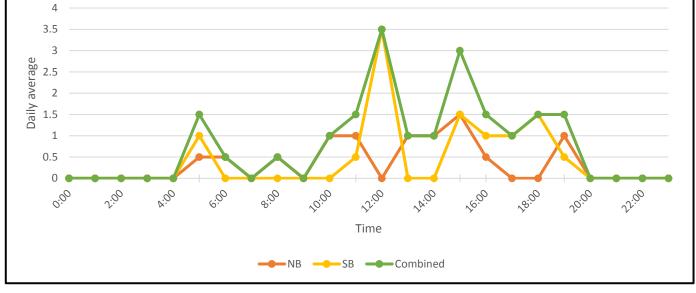
e Code: 11 cation: CS		of Grandview Bl	vd / Sherwood Dr	AM peak: PM peak:	10:00 17:00		bikes bikes	
		nesday	Thurs			Dail		
Time	5/27	/2015	5/28/2	2015		Average		
	NB	SB	NB	SB	NB	SB	Combin	
0:00	0	0	0	0	0	0	0	
1:00	0	0	0	0	0	0	0	
2:00	0	0	0	0	0	0	0	
3:00	0	0	0	0	0	0	0	
4:00	0	0	1	0	0.33	0	0.33	
5:00	1	0	0	0	0.33	0	0.33	
6:00	1	0	1	2	0.67	1.33	2	
7:00	0	1	0	0	0.33	0.33	0.67	
8:00	0	0	2	2	0.67	1	1.67	
9:00	1	0	1	1	0.67	0.33	1	
10:00	1	4	1	2	1	3	4	
11:00	1	4	0	2	0.5	3	3.5	
12:00	3	1	0	0	1.5	0.5	2	
13:00	3	1	1	0	2	0.5	2.5	
14:00	0	1	2	2	1	1.5	2.5	
15:00	1	0	1	1	1	0.5	1.5	
16:00	0	2	0	2	0	2	2	
17:00	3	3	5	2	4	2.5	6.5	
18:00	0	5	1	0	0.5	2.5	3	
19:00	2	4	0	5	1	4.5	5.5	
20:00	3	1	1	0	2	0.5	2.5	
21:00	0	0	0	0	0	0	0	
22:00	0	0	0	0	0	0	0	
23:00	0	0	0	0	0	0	0	
Totals	20 4	27 1 7	17 38	21	Avg annual daily bicyclist 22			







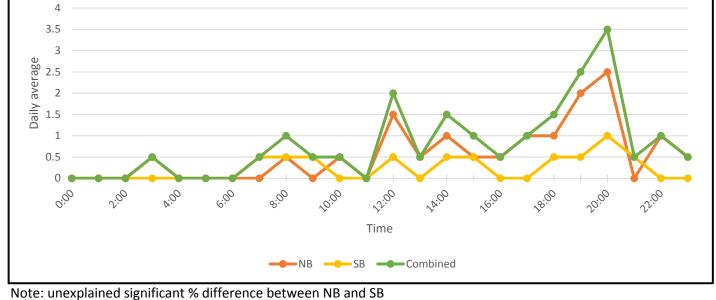
e Code: cation:		15101 CSAH 151 8	N of Cherry	Ave	AM peak: 5:00 1.5 bikes PM peak: 12:00 3.5 bikes					
	Tuesday			Wednesday		Thursday		Daily		
Time	8/4/2015 NB SB		8/5/2015			2015	Average			
			NB	SB	NB	SB	NB	SB	Combin	
0:00	0	0	0	0	0	0	0	0	0	
1:00	0	0	0	0	0	0	0	0	0	
2:00	0	0	0	0	0	0	0	0	0	
3:00	0	0	0	0	0	0	0	0	0	
4:00	0	0	0	0	0	0	0	0	0	
5:00	0	0	1	2	0	0	0.5	1	1.5	
6:00	0	0	1	0	0	0	0.5	0	0.5	
7:00	0	0	0	0	0	0	0	0	0	
8:00	0	0	0	0	1	0	0.5	0	0.5	
9:00	0	0	0	0	0	0	0	0	0	
10:00	0	0	1	0	1	0	1	0	1	
11:00	2	0	0	1	0	0	1	0.5	1.5	
12:00	0	7	0	0	0	0	0	3.5	3.5	
13:00	2	0	0	0	0	0	1	0	1	
14:00	2	0	0	0	0	0	1	0	1	
15:00	3	3	0	0	0	0	1.5	1.5	3	
16:00	0	2	1	0	0	0	0.5	1	1.5	
17:00	0	2	0	0	0	0	0	1	1	
18:00	0	2	0	1	0	0	0	1.5	1.5	
19:00	2	1	0	0	0	0	1	0.5	1.5	
20:00	0	0	0	0	0	0	0	0	0	
21:00	0	0	0	0	0	0	0	0	0	
22:00	0	0	0	0	0	0	0	0	0	
23:00	0	0	0	0	0	0	0	0	0	
Totals	11 2	17 8	4	4 8	2	0 2	Avg anı	nual da 10	ily bicyclist)	







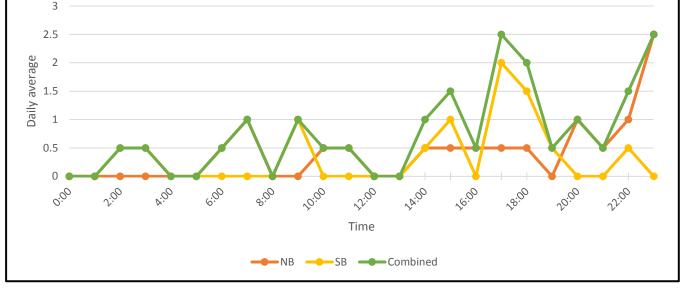
8:00 Site Code: AM peak: 1 bikes 3.5 bikes Location: CSAH 152 & N of Nokomis Pkwy PM peak: 20:00 Wednesday Thursday Friday Daily Average Time 7/22/2015 7/23/2015 7/24/2015 NB SB NB SB NB SB NB SB Combined 0:00 1:00 2:00 3:00 0.5 0.5 4:00 5:00 6:00 0.5 7:00 0.5 8:00 0.5 0.5 0.5 9:00 0.5 10:00 0.5 0.5 11:00 12:00 1.5 0.5 13:00 0.5 0.5 0.5 14:00 1.5 15:00 0.5 0.5 16:00 0.5 0.5 17:00 18:00 0.5 1.5 19:00 0.5 2.5 20:00 2.5 3.5 21:00 0.5 0.5 22:00 23:00 0.5 0.5 Avg annual daily bicyclists: Totals





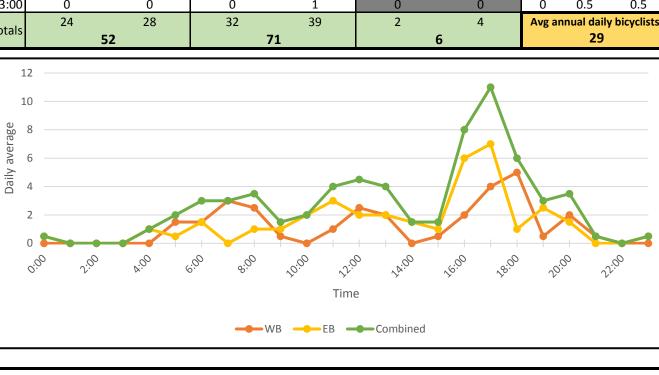


Site Co		15203	AM peak:	7:00		bikes			
Locatio	on:	CSAH 152 & S	of 40th St			PM peak:	17:00	2.5	bikes
		nday	Tuesday			esday	Daily		
Time	5/11	/2015	5/12/	/2015	5/13/	/2015		Avera	age
	NB	SB	NB	SB	NB	SB	NB	SB	Combined
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	1	0	0	0	0.5	0.5
3:00	0	0	0	0	0	1	0	0.5	0.5
4:00	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	1	0	0.5	0	0.5
7:00	0	0	1	0	1	0	1	0	1
8:00	0	0	0	0	0	0	0	0	0
9:00	0	0	0	1	0	1	0	1	1
10:00	0	0	1	0	0	0	0.5	0	0.5
11:00	0	0	1	0	0	0	0.5	0	0.5
12:00	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0
14:00	0	0	1	1	0	0	0.5	0.5	1
15:00	1	1	0	1	0	0	0.5	1	1.5
16:00	1	0	0	0	0	0	0.5	0	0.5
17:00	0	1	1	3	0	0	0.5	2	2.5
18:00	1	3	0	0	0	0	0.5	1.5	2
19:00	0	1	0	0	0	0	0	0.5	0.5
20:00	1	0	1	0	0	0	1	0	1
21:00	1	0	0	0	0	0	0.5	0	0.5
22:00	0	0	2	1	0	0	1	0.5	1.5
23:00	2	0	3	0	0	0	2.5	0	2.5
Totals	7	6	11	8	2	2	Avg an		ily bicyclists:
locals	1	.3	1	9	2	4		20	





Site Code: Location:		15801 CSAH 158 & E	of Vernon Ln			AM peak: PM peak:	11:00 4 bikes 17:00 11 bikes			
		nesday	Thursday		Friday		Daily			
Time	7/22,	/2015	7/23,	/2015	7/24/	2015		Average		
	WB	EB	WB	EB	WB	EB	WB	EB	Combine	
0:00	0	0	0	1	0	0	0	0.5	0.5	
1:00	0	0	0	0	0	0	0	0	0	
2:00	0	0	0	0	0	0	0	0	0	
3:00	0	0	0	0	0	0	0	0	0	
4:00	0	0	0	1	0	1	0	1	1	
5:00	0	0	3	1	0	0	1.5	0.5	2	
6:00	0	0	3	3	0	0	1.5	1.5	3	
7:00	0	0	5	0	1	0	3	0	3	
8:00	0	0	5	1	0	1	2.5	1	3.5	
9:00	0	0	0	2	1	0	0.5	1	1.5	
10:00	0	0	0	2	0	2	0	2	2	
11:00	2	5	0	1	0	0	1	3	4	
12:00	2	2	3	2	0	0	2.5	2	4.5	
13:00	3	1	1	3	0	0	2	2	4	
14:00	0	2	0	1	0	0	0	1.5	1.5	
15:00	1	0	0	2	0	0	0.5	1	1.5	
16:00	2	6	2	6	0	0	2	6	8	
17:00	5	9	3	5	0	0	4	7	11	
18:00	4	0	6	2	0	0	5	1	6	
19:00	1	2	0	3	0	0	0.5	2.5	3	
20:00	4	1	0	2	0	0	2	1.5	3.5	
21:00	0	0	1	0	0	0	0.5	0	0.5	
22:00	0	0	0	0	0	0	0	0	0	
23:00	0	0	0	1	0	0	0	0.5	0.5	
Totals	24	28	32	39	2	4	Avg an		ily bicyclist	
	5	52	7	1	E E	5		29		
12 -										
10 -						$-\Lambda$				
- 8 g										
average 9 &										



Hennepin County Public Works

701 Fourth Avenue South, Suite 400 **Tel** 612-543-1963 *www.hennepin.us/bike*

