

2022-2023 Bike-Pedestrian Counts



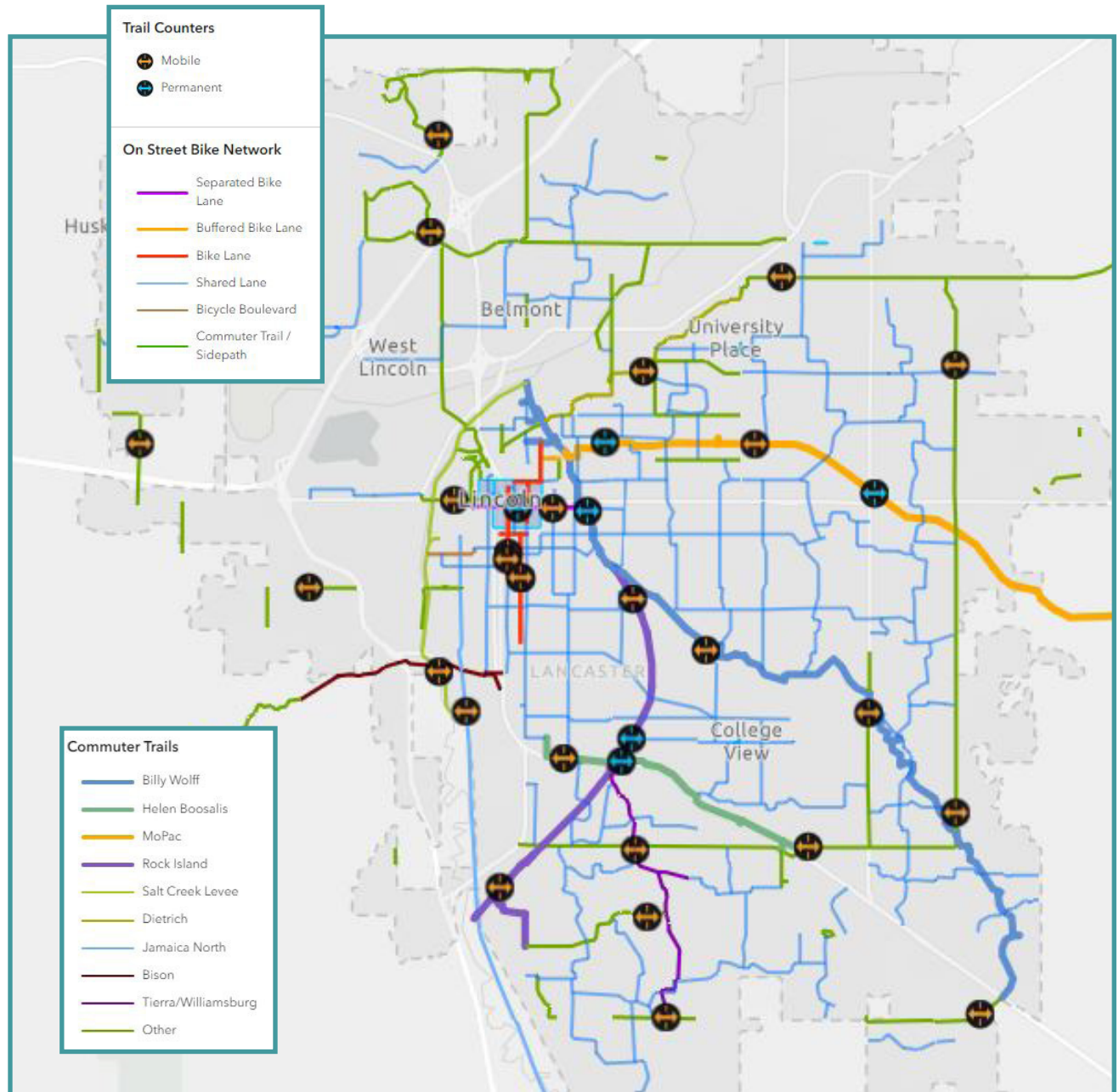
BACKGROUND

In June 2014, the City of Lincoln installed the first permanent trail counter to collect data for bicycle and pedestrian activity on the Rock Island Trail. In the fall of 2015, a mobile counter was purchased and has been available for short term use at several locations across the trail network. Four additional counters were added to the trail network in 2017, bringing the total number to five, with a sixth installed on the N Street Cycle Track in fall of 2021 that replaced the former data collection system on the track. A second mobile counter was also purchased in 2017 which combined the bike and pedestrian count systems into one device.

The permanent counters collect and transmit data daily. The mobile counters are placed at a location for a two week period before rotating to the next site.

Starting in 2022, a mobile count program was established with a total of 24 locations spaced throughout the city along the trail system as well as sidepaths and on-street bike lanes. Each site is intended to be conducted on a biannual basis and the data is extrapolated with adjustment factors based on daily counts from the permanent counters to obtain an estimated annual daily and total annual users.

TRAIL COUNTER LOCATIONS



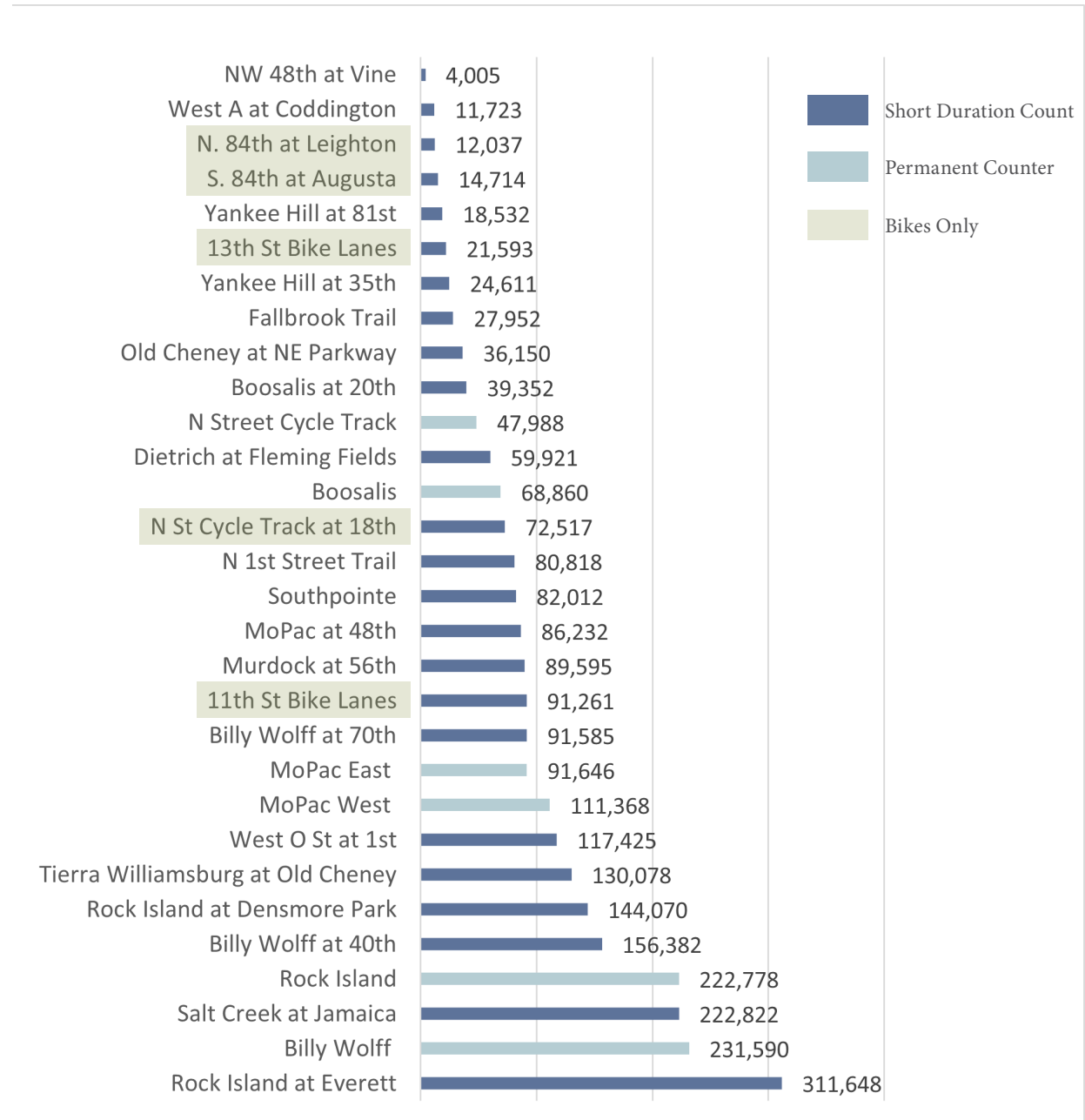
RIDERSHIP SUMMARY

The six permanent trail counters provide daily information on bicycle and pedestrian use which is the basis for the trail count program. Using established patterns and trends from the year round counts, the two week short duration counts are extrapolated to estimate an average annual daily user and average annual total user count. The basis for these projections was the 2022 Boosalis trail counter because the counts are about average among the six counters and has had no data errors in the past year.

The chart to the right includes all 24 short duration and the six permanent counter sites. The data reflects 2022 hard counts for the six permanent locations and estimated counts for the short duration locations to compare annual trail users at each location. Key takeaways include:

- Ridership on the 11th Street Bike Lanes is as high as many well trafficked trails with both bike and pedestrian users.
- All portions of the Rock Island and Billy Wolff Trails show high rates of use.
- Sidepaths in new subdivisions or areas disconnected from the rest of the trail network have the lowest ridership.
- Despite being a long east west connection, high traffic and at grade crossings along Nebraska Parkway create low usership on all segments.

2022-2023 TOTAL ANNUAL USERS (ESTIMATED FOR MOBILE LOCATIONS)

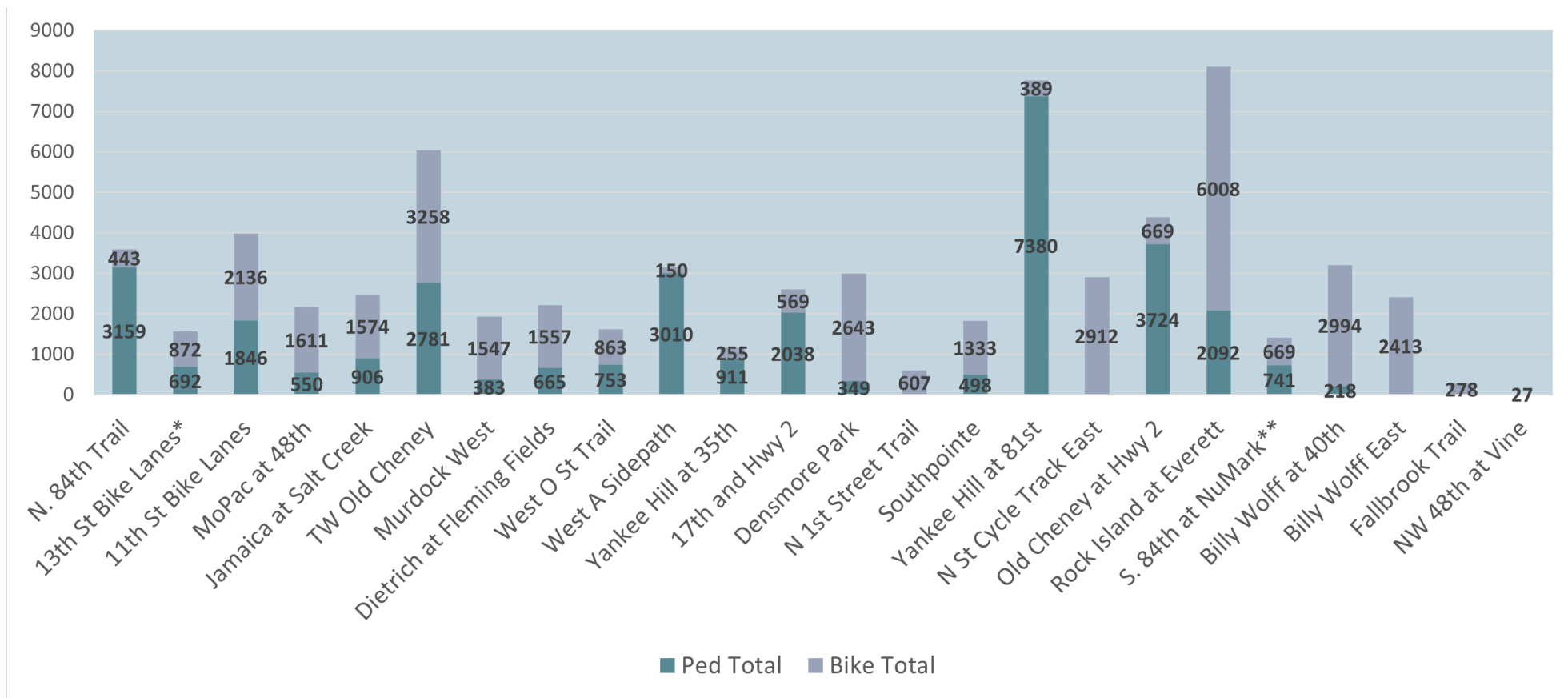


- Trails northeast of downtown, including the Murdoc and Dietrich, are around the median for total trips.
- The midpoint of the MoPac Trail (short duration count) is about 5,000 trips less than the two permanent counter locations on the east and west ends of the trail.
- When looking at facility type for just the short duration counts, all 11 separated trails ranked in the top 14 for estimated average daily use. The bottom 10 for use were all sidepath facilities or the unseparated bike lanes.

A clear preference is shown for trail facilities which are typically running through neighborhoods and are not adjacent to traffic.

- When looking at the sidepath facilities, their use generally is higher for pedestrians and lower for bicyclists, a trend that is flipped with trails which generally see greater amounts of bicycle traffic as compared to pedestrians.

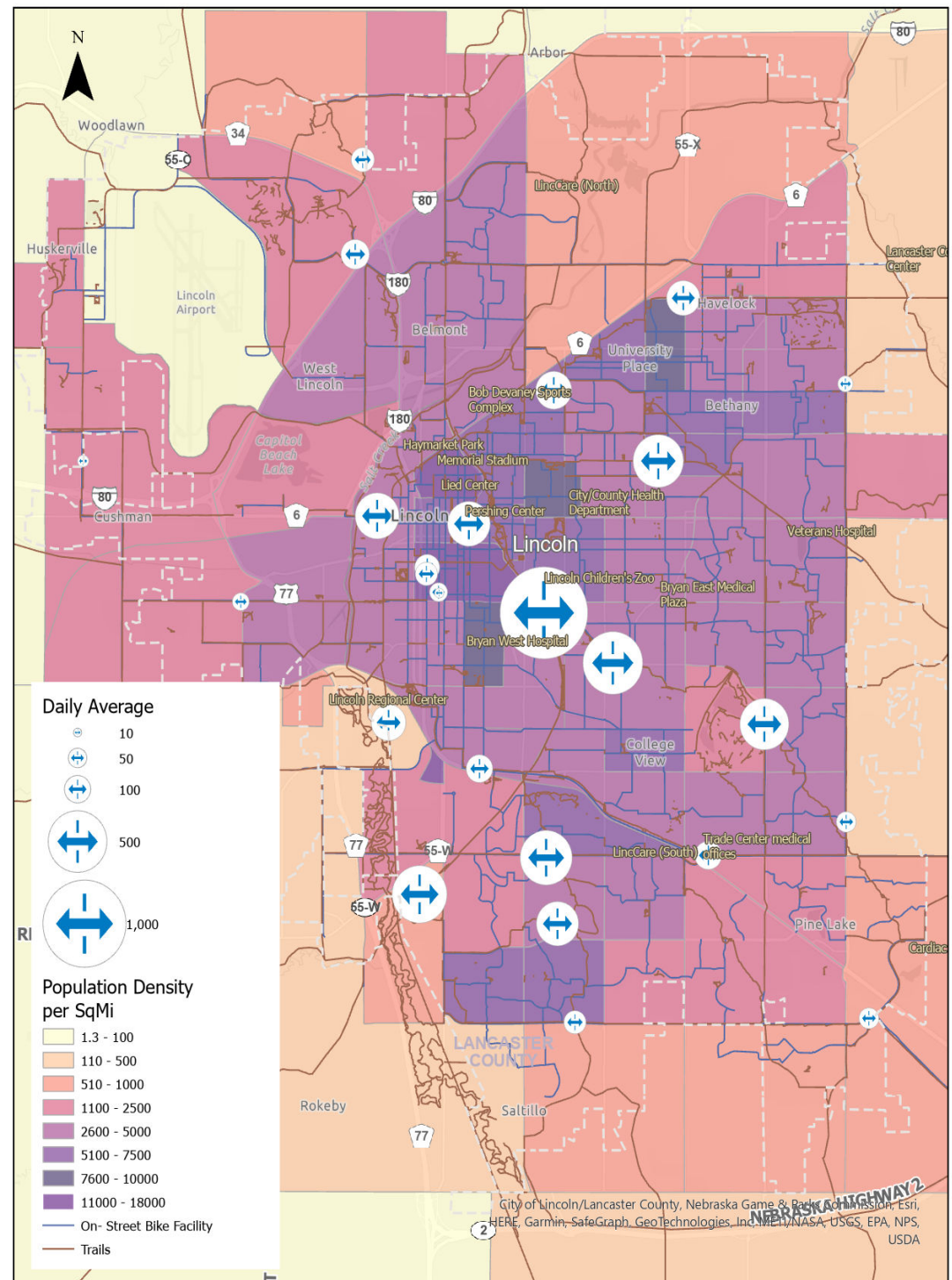
12 DAY TOTAL COUNTS (MOBILE SITES)



An analysis was done to determine whether neighborhood density impacting trail usage. The map to the right shows the average daily counts for the mobile counters only with larger icons representing higher counts. The number of residents by 2020 census tract is shown in color behind with denser neighborhoods in darker colors and less dense in lighter colors.

- While not a certain determinant of facility use, trails, sidepaths, and bike lanes in areas of higher populations are traveled more.
- The sidepaths on the edges of the denser neighborhoods have some of the lowest users reported.
- The one outlier is the Densmore Park counter located between two lower density census tracts. This area is highly recreational with many riders using the Rock Island Trail to connect to the Jamaica South Trail.

AVERAGE DAILY COUNTS AND NEIGHBORHOOD DENSITY



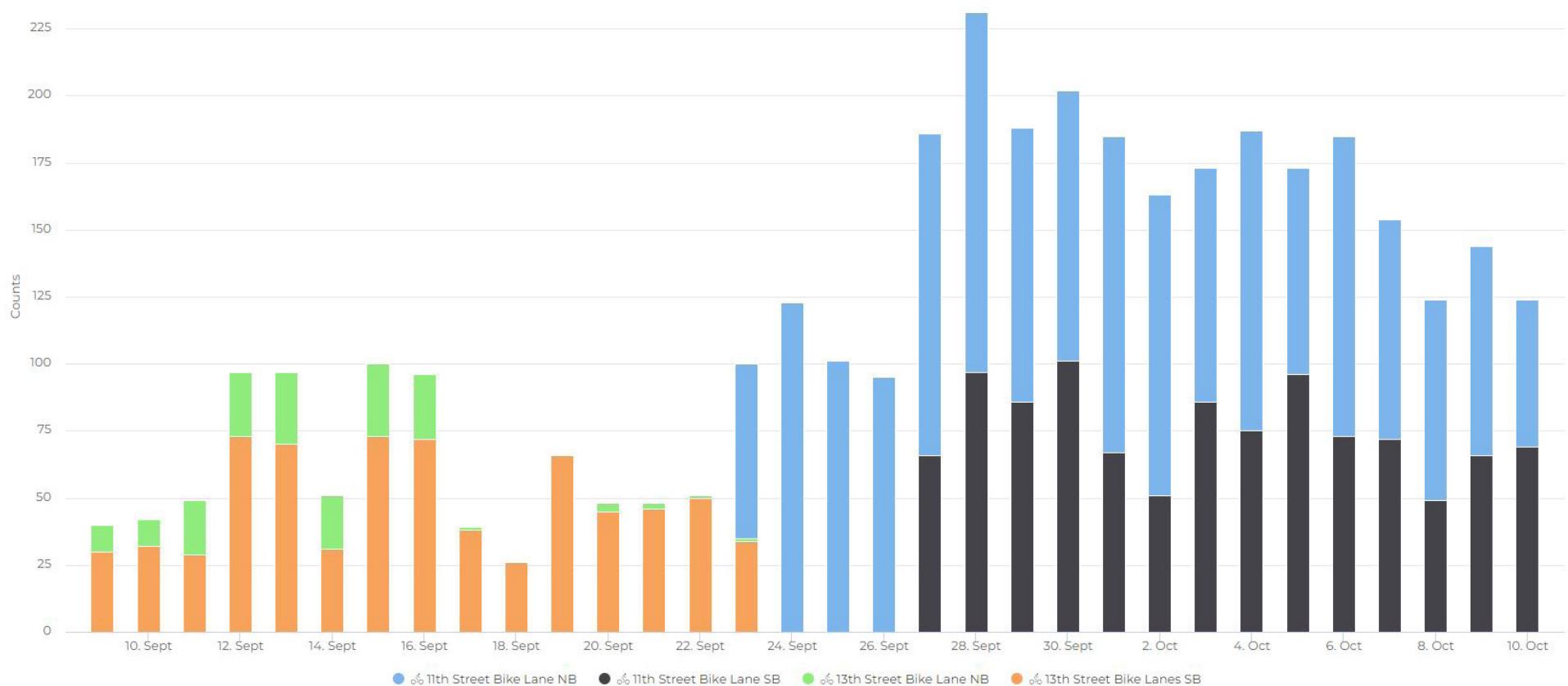
ON STREET BICYCLE FACILITIES

The chart below reflects two week counts conducted on the bike lanes on 11th Street and 13th Street in September/October of 2022. The separated bike lanes were counted with two separate devices at the same time to capture north bound and south bound traffic in each lane.

connectivity in the northbound direction (13th Street lanes end at Lincoln Mall), and the width feels wider with parking adjacent to the 11th Street lanes, whereas the 13th Street lanes are against the curb with no buffer.

What is clear is riders prefer 11th Street over 13th Street for their trips. The 11th Street bike lane has lower traffic speeds (25 mph instead of 35 mph), greater

ON-STREET BICYCLE FACILITY SHORT DURATION COUNTS



11TH STREET BIKE LANE



The 11th Street bike lane above, while unseparated, has adjacent parallel parking with extra space for the door swing zone making the facility feel more comfortable for riders. Additional tree canopy and calming features such as the mini roundabout at D Street help slow traffic down.

13TH STREET BIKE LANE



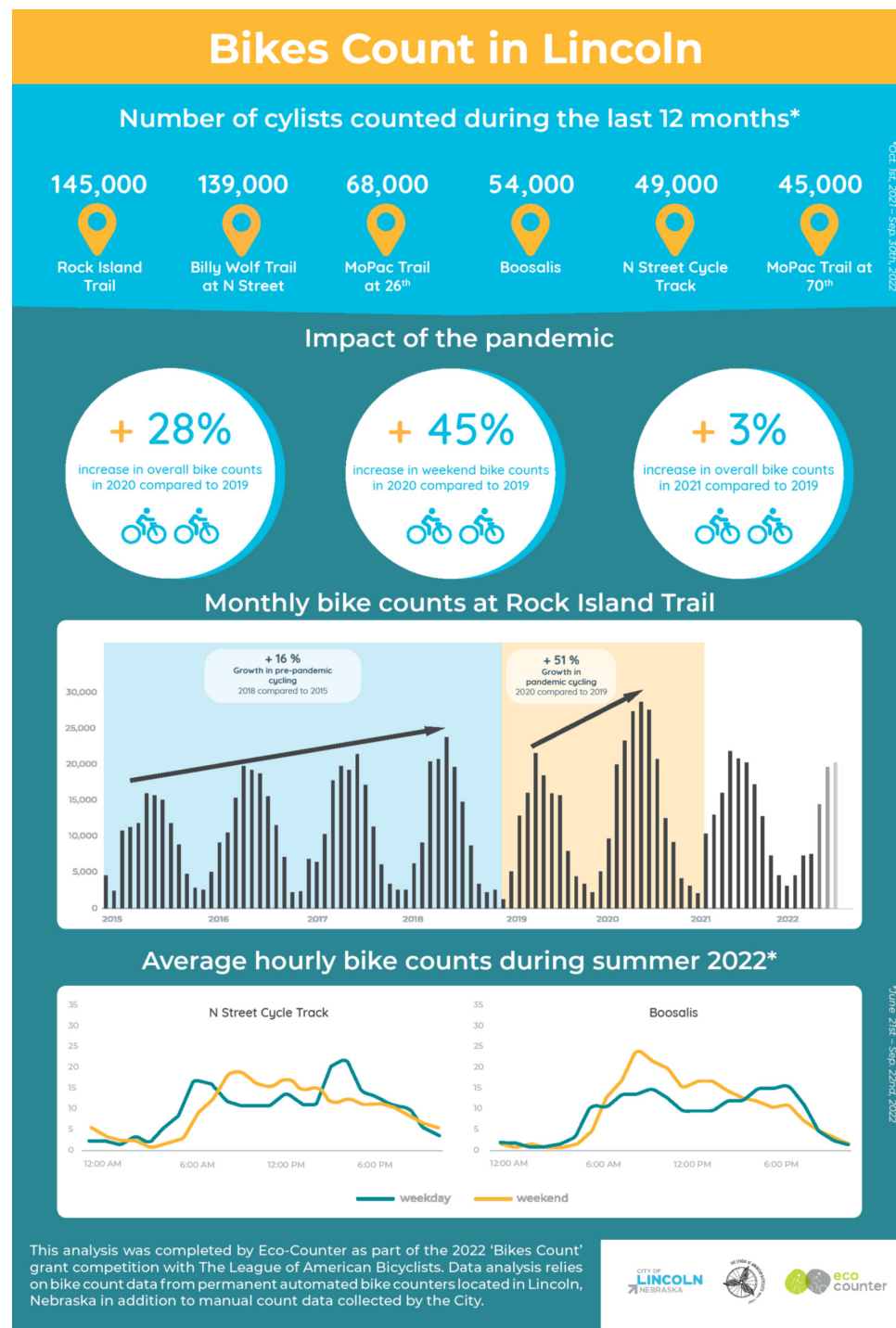
While the southern end of the 13th Street bike lanes has areas with a striped buffer between traffic, areas north of B Street have no buffer and place the cyclists immediately adjacent to the travel lane making for an uncomfortable ride that only the most committed will take.

12 DAY BICYCLE COUNTS



Separated Trails

BIKES COUNT DATA COMPETITION POSTER

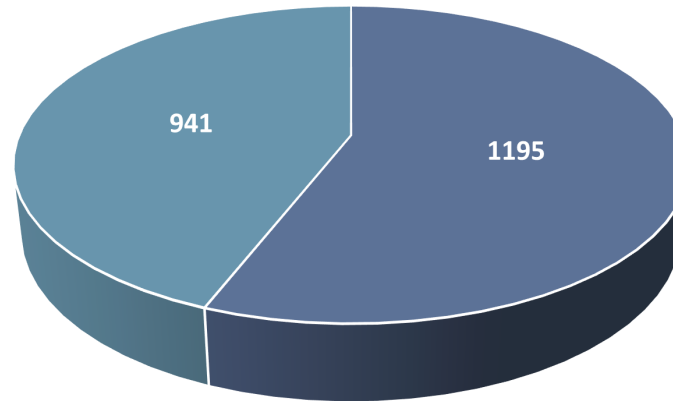


LOCATION PROFILES

11TH STREET BIKE LANES



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Bike In ■ Bike Out

SEPTEMBER 27-OCTOBER 9, 2022



Daily Average:
164



Trail Name: 11th Street

Facility Type: Unseparated Bike Lane

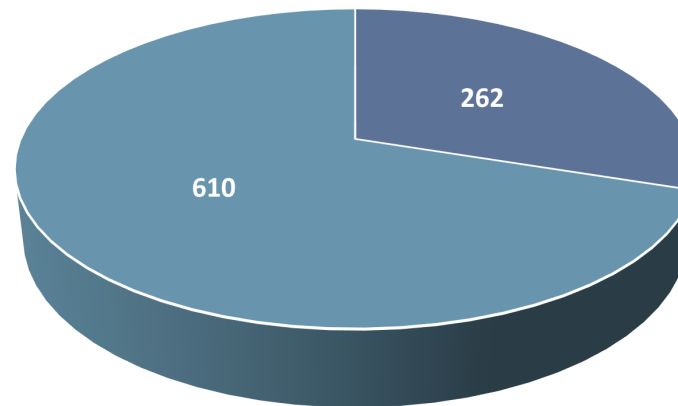
Quadrant: Northwest

Description: Two counters were installed, one on the northbound lane, one on the southbound lane during the same time period at F Street. Given the traffic condition, tubes were both taped and nailed into the concrete.

13TH STREET BIKE LANES



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Bike In ■ Bike Out

SEPTEMBER 9-SEPTEMBER 21, 2022



Daily Average:
67



Trail Name: 13th Street

Facility Type: Unseparated Bike Lane

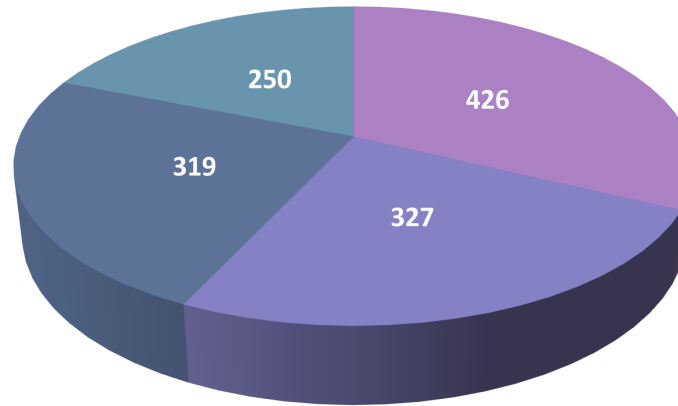
Quadrant: Northwest

Description: Two counters were installed, one on the northbound lane, one on the southbound lane during the same time period at B Street. Given the traffic condition, tubes were both taped and nailed into the concrete.

BOOSALIS AT 20TH STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
APRIL 10-APRIL 22, 2023



Daily Average:
102



Trail Name: Boosalis

Facility Type: Paved Trail

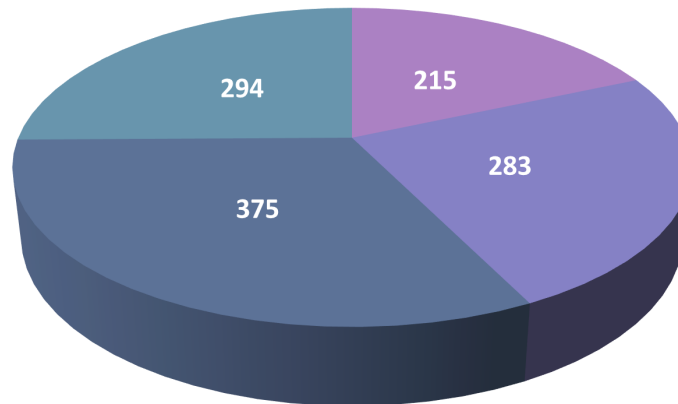
Quadrant: Southwest

Description: Originally counted July 11-31, 2016 as part of the less formal count program, the new location just west of 20th Street allowed for better equipment installation with little environmental interference. When compared, the daily averages for the 2016 and the 2023 counts were nearly identical at 102 people.

OLD CHENEY AT NEBRASKA PARKWAY



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
AUGUST 15-AUGUST 27, 2023



Daily Average:
106



Trail Name: Old Cheney

Facility Type: Sidepath

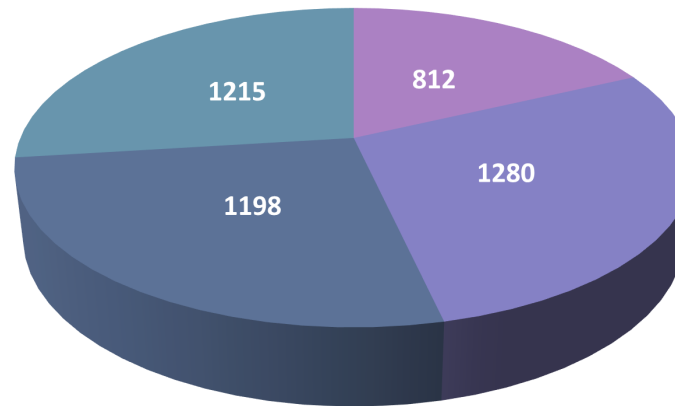
Quadrant: Southeast

Description: Average daily users along the Boosalis Trail are very similar with just over 100 pedestrian and bicyclists a day. Whereas the west end of the trail appears to be evenly split between cyclists and pedestrians, at Old Cheney over half are bicycling.

BILLY WOLFF AT 70TH STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In ■ Ped Out ■ Bike In ■ Bike Out

SEPTEMBER 12-SEPTEMBER 24, 2023



Daily Average:
347



Trail Name: Billy Wolff

Facility Type: Paved Trail

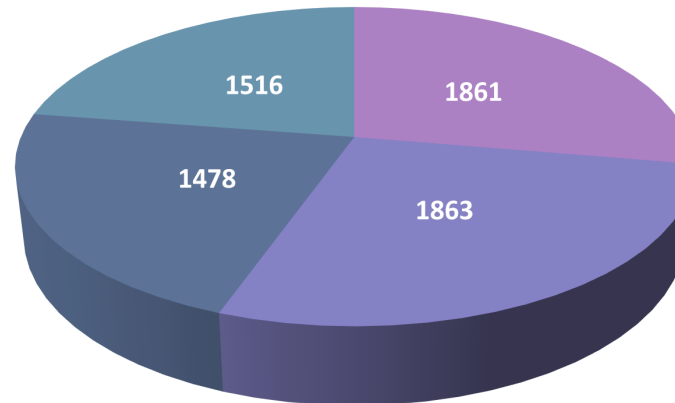
Quadrant: Southeast

Description: The counter was placed just after the Billy Wolff underpass at 70th Street, prior to entering Holmes Lake Park. Ridership was fairly evenly split, with slightly more bicyclists than pedestrians. Daily averages were relatively high, but not were not the highest seen on the Billy Wolff trail.

BILLY WOLFF AT 40TH STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In ■ Ped Out ■ Bike In ■ Bike Out

SEPTEMBER 12-SEPTEMBER 24, 2023



Daily Average:
517



Trail Name: Billy Wolff

Facility Type: Paved Trail

Quadrant: Northeast

Description: This location is just east of 40th Street adjacent to an apartment complex and had a daily average of 517 users, the second highest among all the two week period counts. Slightly more pedestrians were counted than bicyclists, however the trail was still heavily used by cyclists as well.

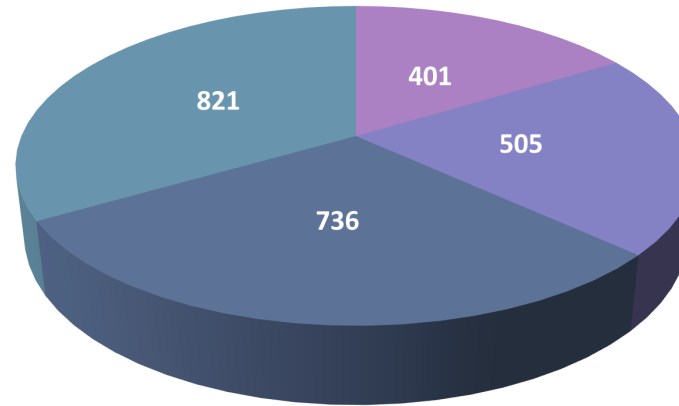


**SECOND MOST
PEDESTRIANS**

DIETRICH AT FLEMING FIELDS



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In ■ Ped Out ■ Bike In ■ Bike Out

SEPTEMBER 7-SEPTEMBER 19, 2022



Daily Average:
189



Trail Name: Dietrich

Facility Type: Sidepath

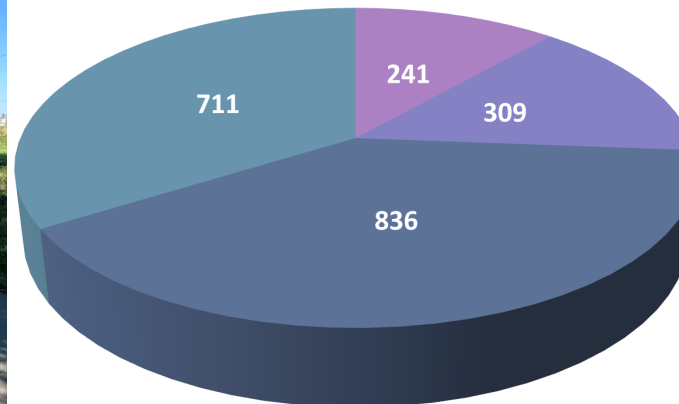
Quadrant: Northeast

Description: Located on the southwest end of Fleming Fields, the Dietrich Trail was most heavily used by bicyclists with about a quarter of pedestrians captures in the two week count. The daily average of 189 was just above the midpoint for all collected sites.

MURDOCK AT 56TH STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In ■ Ped Out ■ Bike In ■ Bike Out

JUNE 15-JUNE 27, 2022



Daily Average:
161



Trail Name: Murdock

Facility Type: Paved Trail

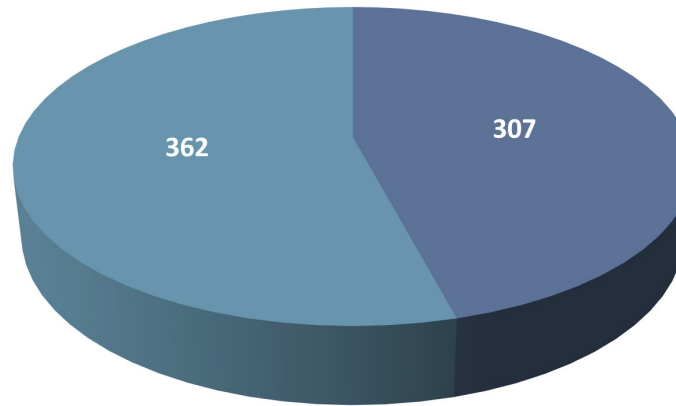
Quadrant: Northwest

Description: The Murdock West counter was placed just west of 56th Street and similar to the Dietrich site, also was overwhelmingly used by bicyclists with a daily average usership at about the median point for the count program.

SOUTH 84TH AT AUGUSTA DRIVE



12 DAY BICYCLE COUNTS



■ Bike In ■ Bike Out

AUGUST 30-SEPTEMBER 11, 2023



Daily Average:
56



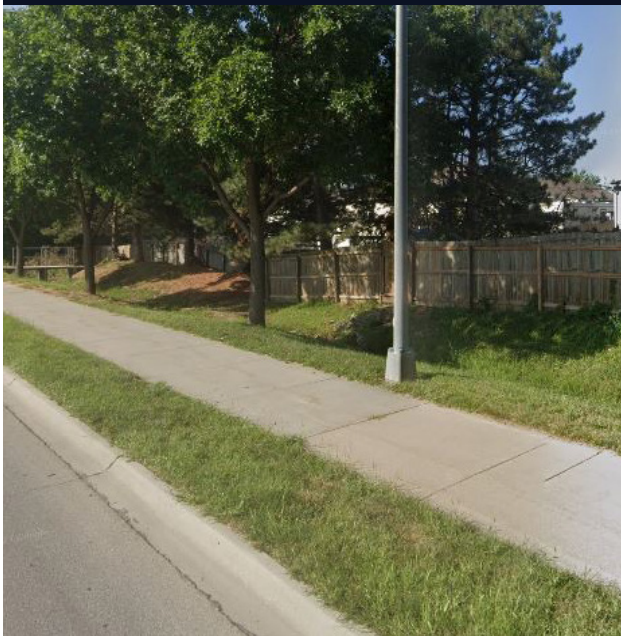
Trail Name: South 84th

Facility Type: Sidepath

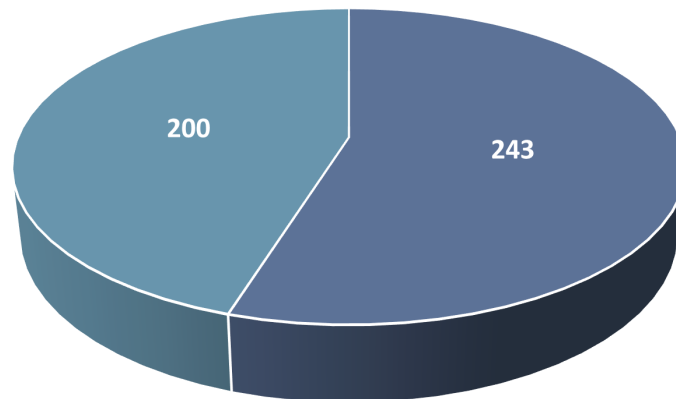
Quadrant: Southeast

Description: While South 84th is both a pedestrian and bicyclist sidepath, the counter experienced significant environmental interference on the infrared sensor making the pedestrian counts unreliable. Therefore, only bicycle activity is shown here which reflects a higher rate of bicycle users than similar sidepaths in Lincoln such as Yankee Hill.

NORTH 84TH AT LEIGHTON AVE



12 DAY BICYCLE COUNTS



■ Bike In ■ Bike Out

JUNE 2-JUNE 14, 2022



Daily Average:
34



Trail Name: North 84th

Facility Type: Sidepath

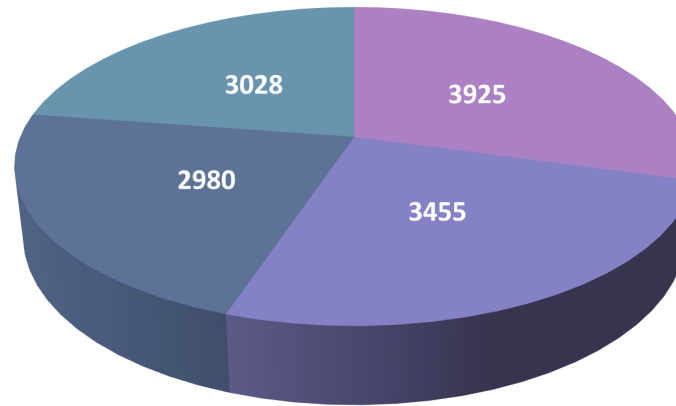
Quadrant: Northeast

Description: Given the lack of trees or poles on the boulevard to attach the infrared sensor to gather pedestrian use, only bicycle activity was collected at the North 84th Street location. With a daily average of 34 bicyclists, the northern end of this trail is less used than the southern end.

ROCK ISLAND AT EVERETT STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
AUGUST 30-SEPTEMBER 11, 2023



Daily Average:
1,116



Trail Name: Rock Island

Facility Type: Paved Trail

Quadrant: Northeast

Description: The Rock Island Trail is highly used by cyclists and pedestrians fairly equally. The counts, the highest of the mobile counts, reflected a daily average of about 300 more users than what was counted at the permanent counter location near Nebraska Parkway over the same period.

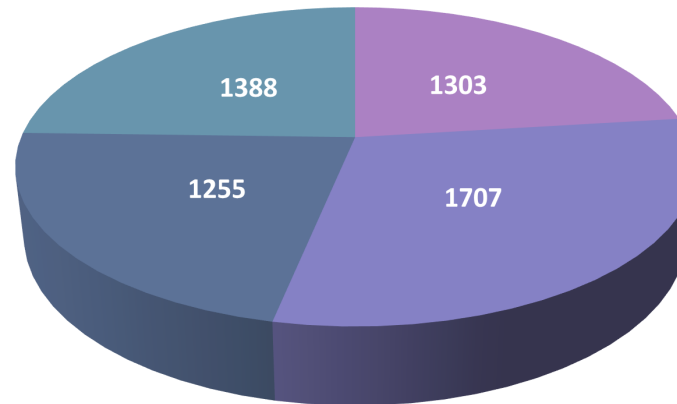


**HIGHEST TRAVELED
LOCATION**

ROCK ISLAND AT DENSMORE PARK



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
APRIL 10-APRIL 22, 2023



Daily Average:
435



Trail Name: Rock Island

Facility Type: Paved Trail

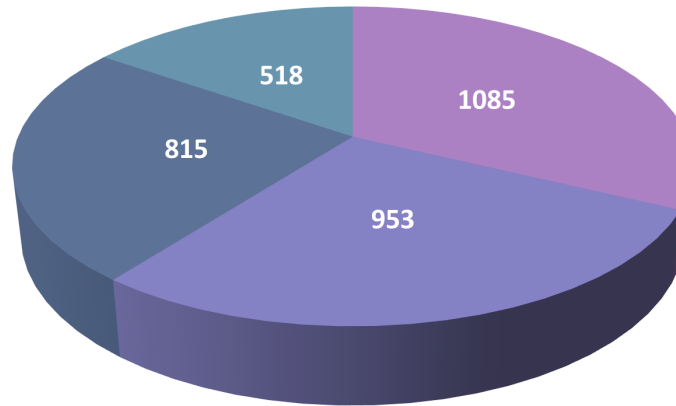
Quadrant: Southwest

Description: This counter is located along the Rock Island Trail just before the trailhead at Densmore Park. The counter, similar to other Rock Island locations, was fairly evenly split, with just a few more pedestrians counted. The daily average was lower than both the Everett location and the permanent counter north of Nebraska Parkway by several hundred daily users.

SOUTHPOINTE TRAIL AT 33RD STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
MAY 9-MAY 21, 2023



Daily Average:
259



Trail Name: Southpointe

Facility Type: Paved Trail

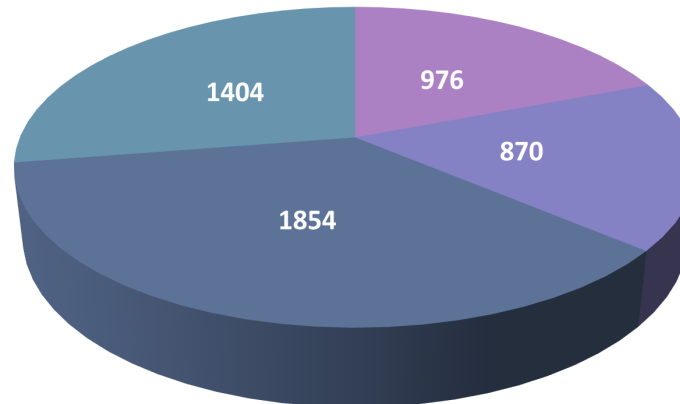
Quadrant: Southwest

Description: The Southpointe Trail location, just east of 32nd Street, showed average users above the median for the count program. Slightly more pedestrians passed this location compared to bicyclists.

TIERRA WILLIAMSBURG AT OLD CHENEY



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
JUNE 2-JUNE 14, 2022



Daily Average:
393



Trail Name: Tierra Williamsburg

Facility Type: Paved Trail

Quadrant: Southwest

Description: The Tierra Williamsburg counter was placed just south of the Old Cheney crossing where an RRFB is to be installed in spring 2024. This location had some of the highest daily average traffic and second most cyclists. Nearly three-fourths of users were cyclists.

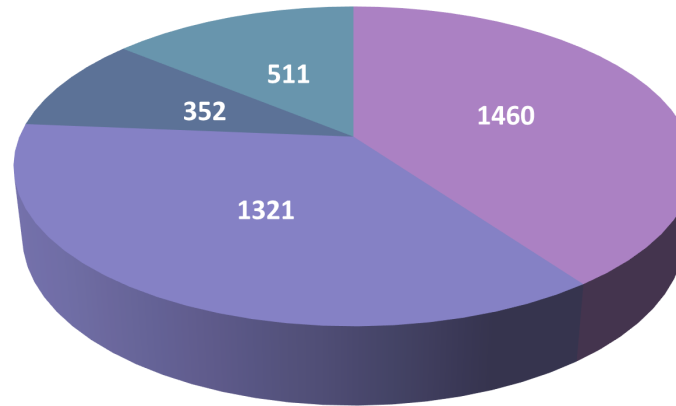


**SECOND MOST
BICYCLISTS**

WEST O STREET TRAIL AT 1ST STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
SEPTEMBER 23-OCTOBER 5, 2022



Daily Average:
280



Trail Name: West O

Facility Type: Sidepath

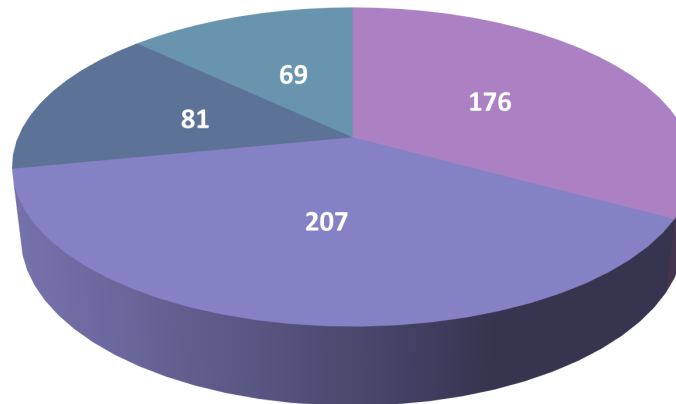
Quadrant: Northwest

Description: The West O Trail Counter was located at the base of the O Street bridge at about 1st Street. The counter showed a majority of users were pedestrians, with a small portion cyclists. Average daily counts were above the median for the count program.

WEST A STREET SIDEPATH AT CODDINGTON AVE



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
OCTOBER 5-OCTOBER 17, 2022



Daily Average:
41



Trail Name: West A

Facility Type: Sidepath

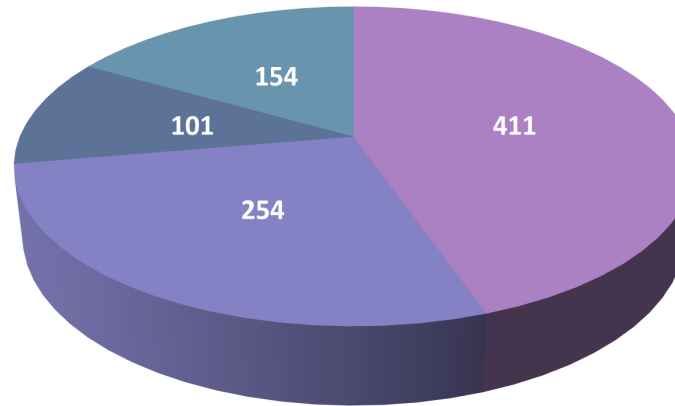
Quadrant: Northwest

Description: The counter at West A Street was placed at the eastern leg of the Coddington Avenue roundabout. Given this portion of A Street was just completed and work had yet to begin on the rest of West A Street to the western city limits, it's not surprising the daily average was so low. Most users counted were pedestrians with about a quarter cyclists.

YANKEE HILL AT 35TH STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
OCTOBER 19-OCTOBER 31, 2022



Daily Average:
71



Trail Name: Yankee Hill

Facility Type: Sidepath

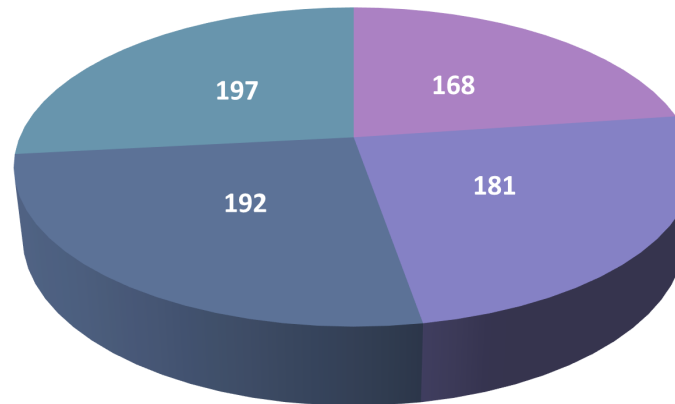
Quadrant: Southwest

Description: Users of the Yankee Hill sidepath at 35th Street were primarily pedestrians, with about a quarter cyclists. Daily average users was low at only 71. Given the overhead power line, there are no trees along this trail to provide shade in the summer months.

YANKEE HILL AT 81ST STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
MAY 9-MAY 21, 2023



Daily Average:
57



Trail Name: Yankee Hill

Facility Type: Sidepath

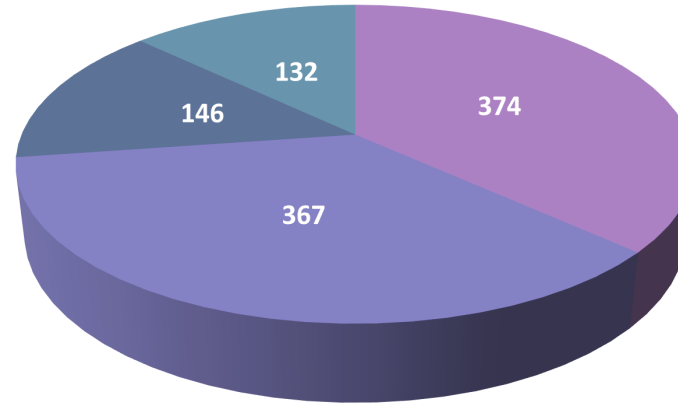
Quadrant: Southeast

Description: The Yankee Hill sidepath at the east end of Lincoln, an area of relatively new development, saw even lower daily average users at only 57 as compared to the western end which saw 71 as an average. The users were almost evenly split between pedestrians and cyclists with just slightly fewer pedestrians passing the counter.

FALLBROOK TRAIL AT NORTH 1ST STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In ■ Ped Out ■ Bike In ■ Bike Out

SEPTEMBER 26-OCTOBER 8, 2023



Daily Average:
78



Trail Name: Fallbrook

Facility Type: Sidepath

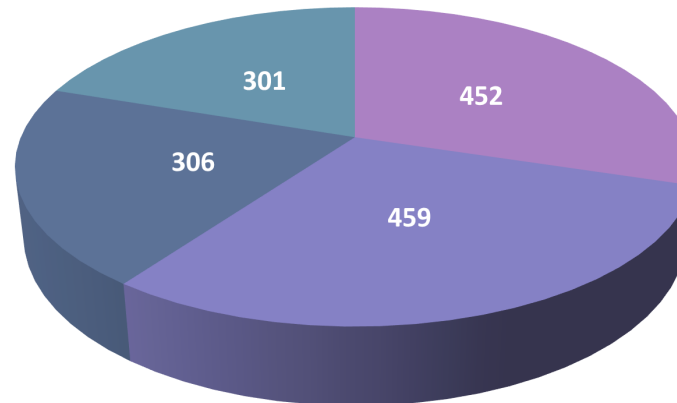
Quadrant: Northwest

Description: The trail portion of the Fallbrook route was not conducive to installing the counter, therefore it was placed on the sidepath on Fallbrook Blvd just south of N. 1st Street. Counts showed primarily pedestrian use, with about a quarter bicyclists. Daily average users was below the median for the count program, but not among the lowest counts.

NORTH 1ST STREET TRAIL AT TECHNOLOGY DRIVE



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In ■ Ped Out ■ Bike In ■ Bike Out

APRIL 24-MAY 6, 2023



Daily Average:
117



Trail Name: North 1st Street

Facility Type: Sidepath

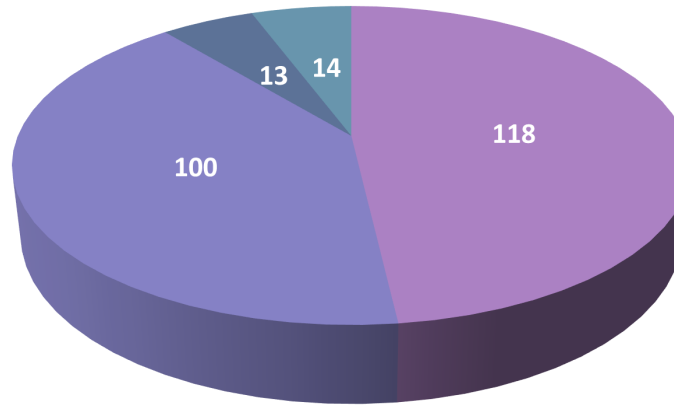
Quadrant: Northwest

Description: The North 1st Street Trail counter was installed just east of Technology Drive and saw a daily average of 117 users, just below the median for the count program. Slightly more pedestrians were counted compared to cyclists. This area had a reduced setback to the street and lacked any street trees.

NW 48TH AT VINE STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
SEPTEMBER 26-OCTOBER 8, 2023



Daily Average:
19



Trail Name: NW 48th Street

Facility Type: Sidepath

Quadrant: Northwest

Description: The sidepath at NW 48th Street, connecting from West O Street to West Holdrege Street across from Northwest High School is one of the newest facilities and least dense neighborhoods. Given the separation from the rest of the trail network, it is not surprising to see such low counts.

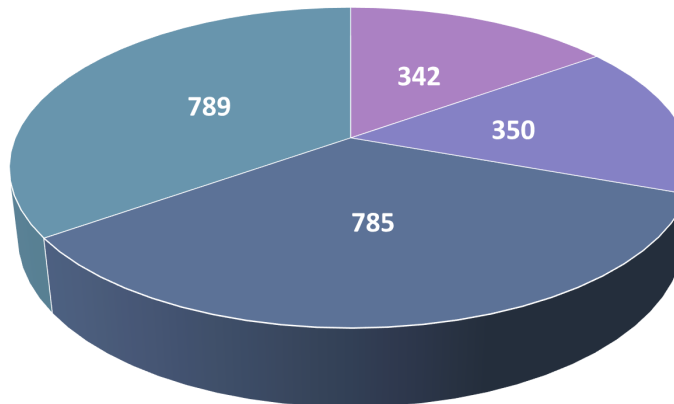


**FEWEST USERS
OVERALL**

SALT CREEK LEVEE TRAIL AT JAMAICA TRAIL



12 DAY BICYCLE & PEDESTRIAN COUNTS



■ Ped In
 ■ Ped Out
 ■ Bike In
 ■ Bike Out
MAY 10-MAY 22, 2022



Daily Average:
174



Trail Name: Jamaica

Facility Type: Paved Trail

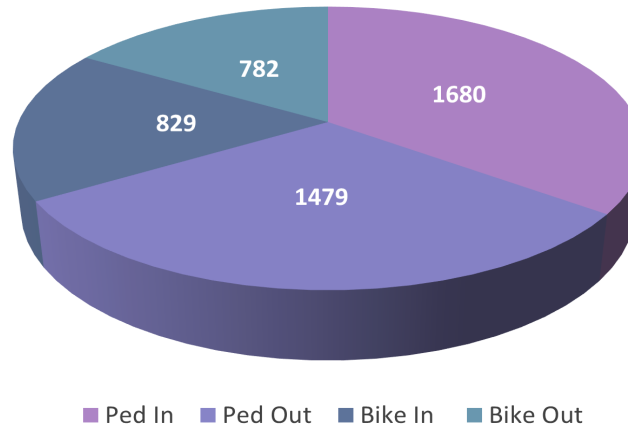
Quadrant: Southwest

Description: The Jamiaca at Salt Creek counter was installed just north of the junction of these two trails on the concrete portion of the Salt Creek Levee Trail. This location reflected higher bicycle activity with only about a quarter of users walking. Overall daily average users was just above the median for the count program.

MOPAC TRAIL AT 46TH STREET



12 DAY BICYCLE & PEDESTRIAN COUNTS



APRIL 25-MAY 7, 2022



Daily Average:
367



Trail Name: Mopac

Facility Type: Paved Trail

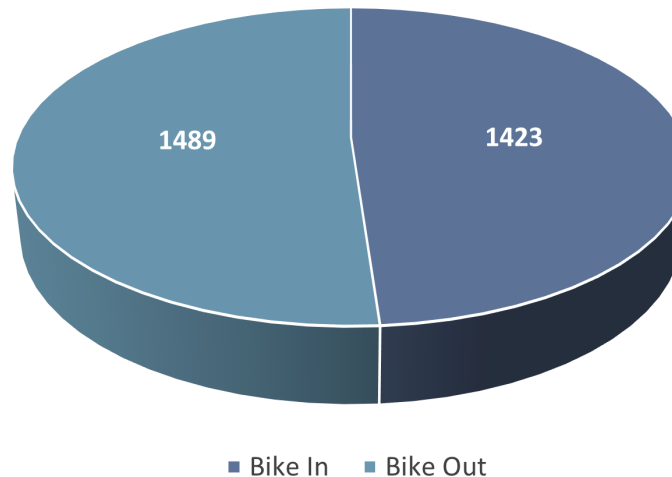
Quadrant: Northeast

Description: This portion of the Mopac Trail is densely populated with established neighborhoods, a nearby school, and connections to the business corridor on 48th Street.

N STREET CYCLE TRACK AT 18TH STREET



12 DAY BICYCLE COUNTS



AUGUST 15-AUGUST 27, 2023



Daily Average:
265



Trail Name: N Street

Facility Type: Separated Bike Lane

Quadrant: Northwest

Description: The east end of the cycle track at 18th Street shows higher daily averages than the permanent counter located at about 13th Street. During this same period, daily average riders on the west end was 189, while the east end was 265 riders, possibly showing riders turning off the cycle track to travel north on the 14th Street bike lanes.

LINCOLN BIKE AND PEDESTRIAN COUNT PROGRAM

2022-2023 ANNUAL REPORT