

CMAP DATA CAN HELP COMMUNITIES CLOSE SIDEWALK GAPS, IMPROVE WALKABILITY

Key takeaways

CMAP developed an innovative dataset on regional sidewalks that is available to [download](#) and [explore](#). The dataset stemmed from ON TO 2050 public outreach where residents across the region expressed a desire for more walkable communities.

Sidewalk coverage varies by age of community, density, and the adjacent transportation network.

In areas of the region identified as highly walkable, the best opportunities to close sidewalk network gaps exist in west Cook County and north Cook County along the border with Chicago.

In areas of the region identified as moderately walkable, the best opportunities to create initial sidewalk networks are near suburban municipal boundaries, with a high concentration in south suburban Cook County.

Executive Summary

CMAP engaged thousands of residents in the ON TO 2050 planning process and people throughout the region expressed a strong desire for more walkable communities. Walkable communities have a variety of services, amenities, and transportation options safely accessible on foot. Such places exist throughout the region, from suburban downtowns and small town main streets to urban neighborhoods.

To be truly walkable, beyond sidewalks and infrastructure, a community must have destinations people want to visit. Some of the destinations that pedestrians should be able to comfortably access on foot include grocery stores, schools, parks, and places where people gather, such as restaurants, civic buildings, and places of worship.

When a large number of destinations are close to one another and arranged so that residents and visitors can comfortably and safely access them on foot, walking becomes a much more desirable mode of transportation. When these destinations are close to where people live, it becomes convenient to walk to perform basic errands, access everyday goods and services, and engage in community life.

This policy brief looks at communities across the region to assess areas where population density, existing amenities, and access to transit indicate opportunity to improve and invest in sidewalk infrastructure. Taking into account the needs and character of individual communities, planners and community members can use this data to optimize commercial development, close gaps in trails and multi-use paths, and make transit more accessible, among other uses. This is the second analysis of CMAP's new sidewalk inventory, the first policy brief examined [improving sidewalk coverage near transit](#).

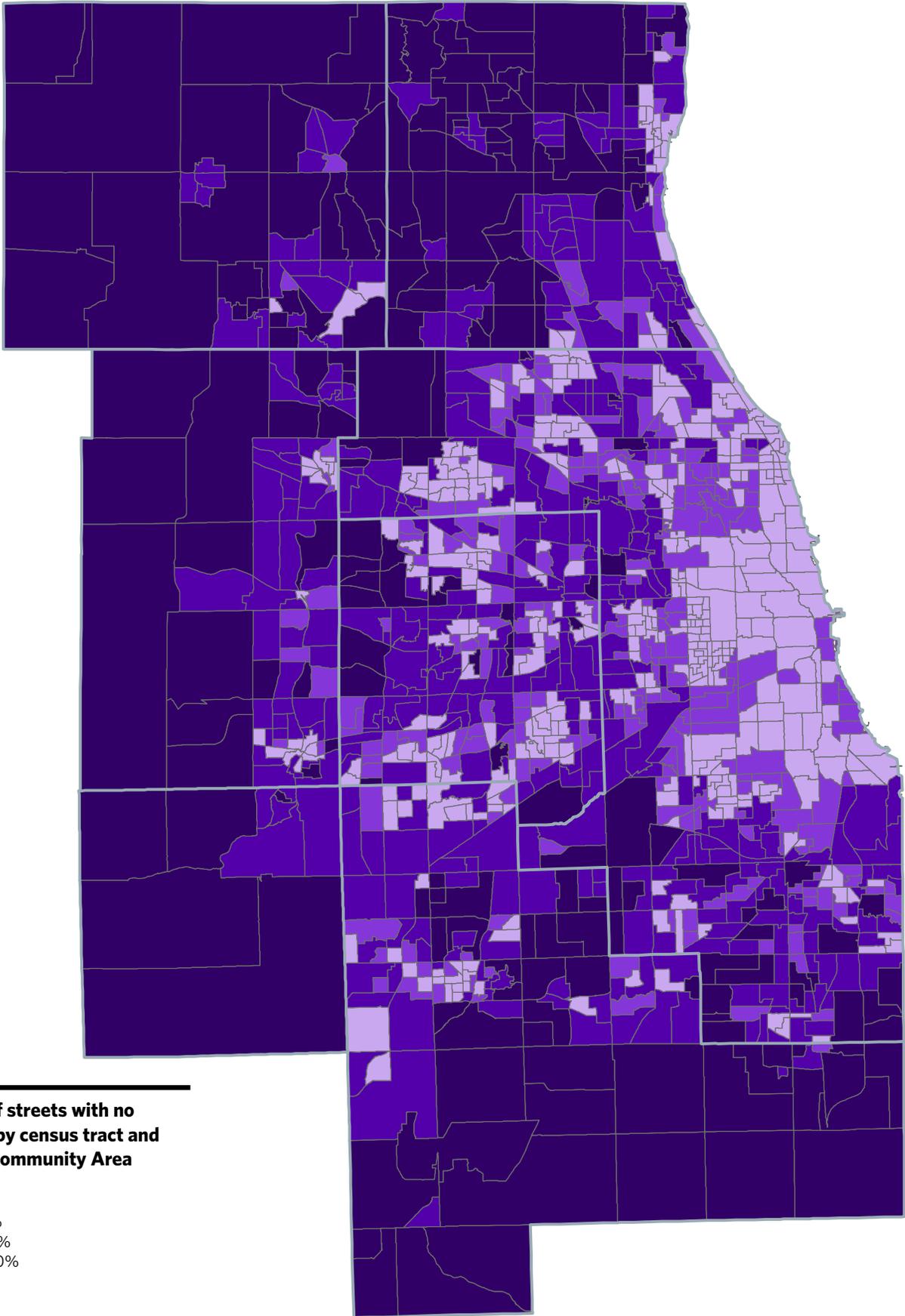
Analysis

Community sidewalk coverage varies by community age, density, and transportation network but investment opportunities exist throughout the region

During the development of ON TO 2050 it became clear that a critical component of measuring a community's walkability was missing — there was no regional data on sidewalks. To promote the strategies that support the development of walkable communities, CMAP released the region's first [comprehensive inventory of sidewalks](#) across the seven-county region.

Using the publicly available [Illinois Roadway Information System](#) highway data and [Nearmap](#) aerial imagery, CMAP analyzed approximately 30,000 miles of roads in Cook, DuPage, Will, Lake, Kane, and McHenry Counties to determine the existence of sidewalks on one or both sides of the street. Road types included in the sidewalk inventory range from local roads to collectors and arterials. Local roads primarily provide access to private property while collectors and arterials have faster moving traffic, serve commercial centers in urban areas, and act as corridor connectors in more rural areas. Interstates, freeways, and expressways were not included in the dataset.

CMAP's new inventory provides insight for the first time into sidewalk coverage across the region. As expected, the urban core has the most continuous area with nearly full sidewalk coverage, with less coverage further out into the region. However, clusters of high sidewalk coverage are seen near denser, older suburban municipalities that were developed before the widespread use of automobiles. The data show that the median sidewalk coverage in the region for municipalities is 59 percent. More rural counties, like Kendall and McHenry, have both the lowest proportion of local roads and streets with sidewalks on one or both sides. Due to low density and high traffic speeds on many of these roads, this brief focuses on where improvements will be most effective, specifically where sidewalks can best connect pedestrians with transit and other amenities.



Percent of streets with no sidewalk by census tract and Chicago Community Area

- 0 - 5%
- 6 - 25%
- 26 - 75%
- 76 - 100%

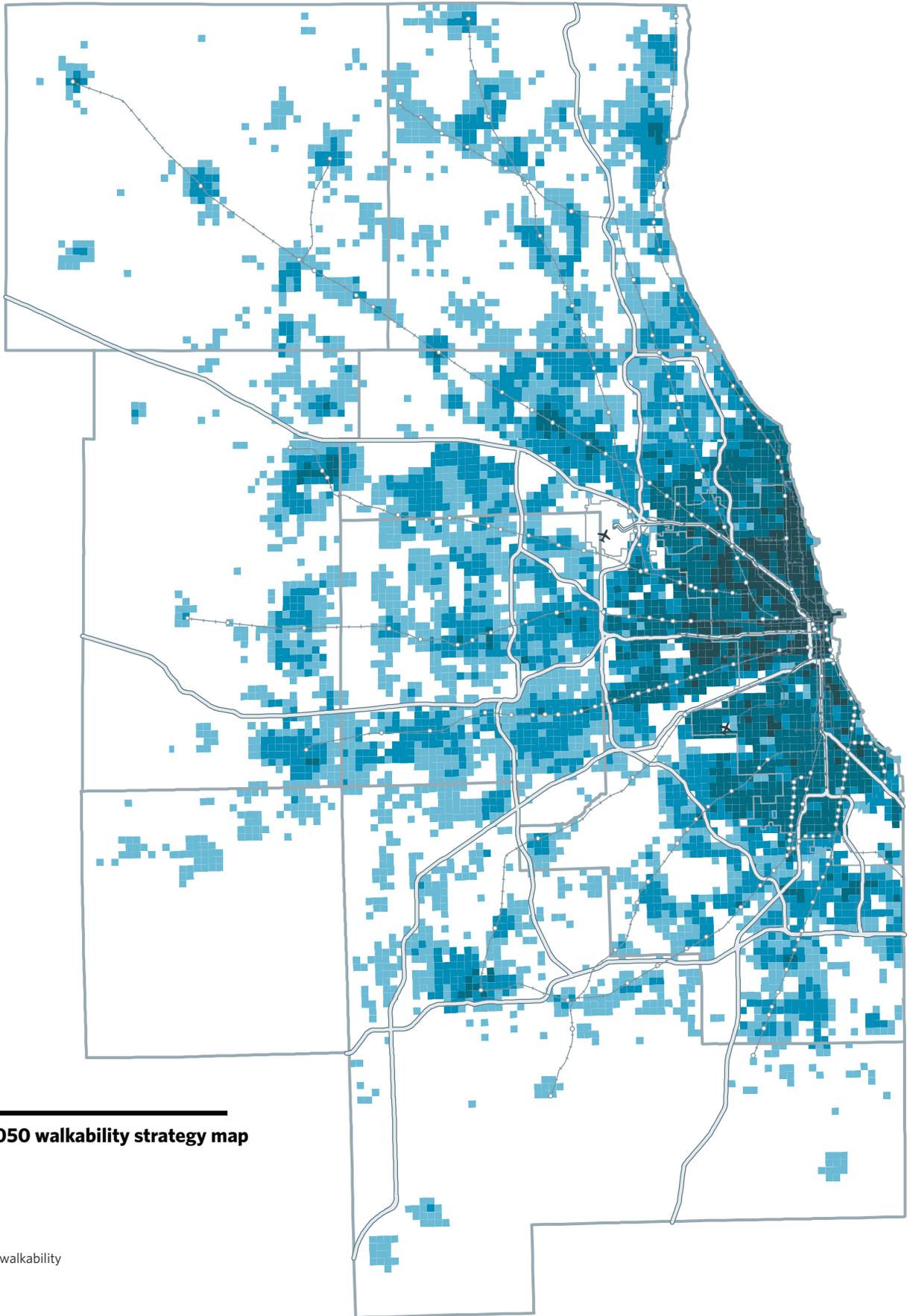
Source: Chicago Metropolitan Agency for Planning analysis of the 2018 Regional Sidewalk Inventory.

Within the City of Chicago, 46 out of the 77 community areas have sidewalks on one or both of 95 percent of streets. The community areas with less coverage tend to be clustered and may have less coverage for a variety of reasons. For example, sidewalk coverage is low in many areas with high industrial land use. On the far South Side, the lowest coverage in the city is found in the Hegewisch, South Deering, Pullman, Riverdale, and East Side community areas. These neighborhoods have a large proportion of arterial roads in the industrial zone by the Illinois International Port District that lack sidewalks. There are also a number of local roads without pedestrian infrastructure. Conversely, other areas in Chicago have less sidewalk coverage due to the presence of recreational open space. On the far northwest side, the Jefferson Park, Forest Glen, Norwood Park, Edison Park, and North Park community areas have lower sidewalk coverage compared to the rest of the city. This is due to a number of local roads running alongside Caldwell and LaBagh Woods that lack sidewalks since the adjacent forest preserves have extensive trail networks.

New data reveal opportunities to connect sidewalks in walkable areas

As part of the development for ON TO 2050, CMAP created a [local strategy map](#) of walkability in the region. While many measures of walkability exist, CMAP relied on the theory that walkability exists when [four conditions](#) are met simultaneously: 1) the walk is useful (access to a destination or attraction), 2) the walk is safe and feels safe, 3) the walk is comfortable, and 4) the walk is interesting. CMAP incorporated data like the location of amenities such as supermarkets, schools, libraries, and transit availability alongside data on safety, population and job density, and the built environment.

Safety, accessibility, and design of pedestrian facilities are key factors that determine residents' desire and ability to walk. ON TO 2050 puts forth that a combination of moderate- to high-density housing, amenities, public transit and transportation options, as well as ample employment opportunities are key components of walkable places. The addition of CMAP's new sidewalk inventory allows a closer look at the assumptions from this previous body of work to identify strategies for communities based on regional data.



ON TO 2050 walkability strategy map

- Low
- Moderate
- High
- Very high walkability

Source: Chicago Metropolitan Agency for Planning 2017.

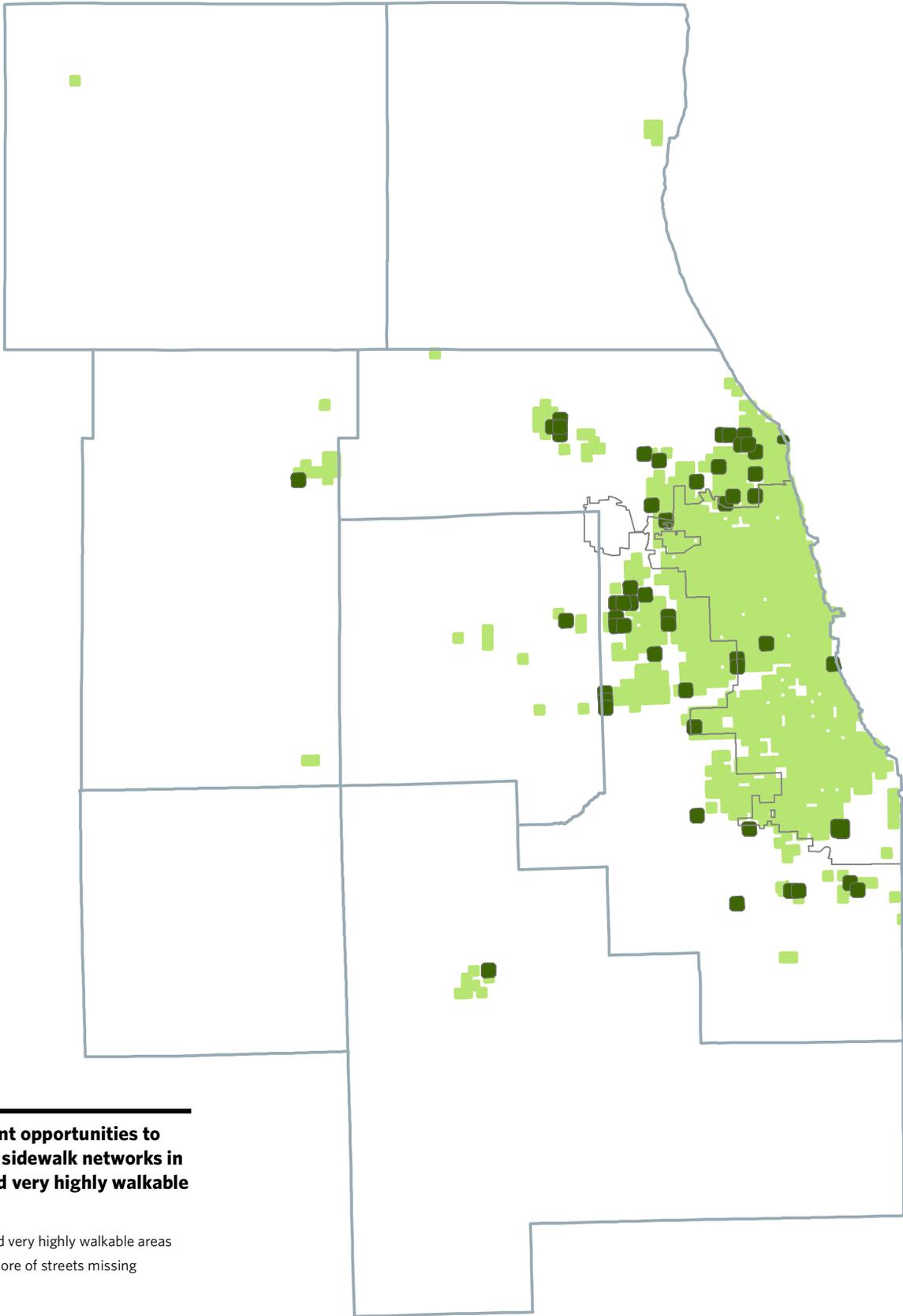
Highly and very highly walkable areas are typically found in urban neighborhoods and suburban downtowns. The region's moderately walkable neighborhoods are found scattered across the South Side of Chicago, within the inner ring suburbs of Cook County, and adjacent to suburban downtowns and Metra stations. Pedestrian improvements in these somewhat walkable areas can be effective when they provide needed connections to transit, jobs, as well as mixed-use amenities.

Areas of low walkability are found in other suburban and rural residential areas that may lack a true grid system and rely heavily on collector and arterial streets to gather and funnel vehicle traffic from residential areas. Where possible, pedestrian networks in these areas can provide connections within neighborhoods and between neighborhoods and any adjacent commercial areas, schools, or parks.

Sidewalk gaps in highly walkable communities

CMAP's newly released sidewalk inventory can be combined with the existing walkability analysis to highlight areas where the addition of sidewalk infrastructure can be most effective. Combining the two datasets shows that areas that are highly and very highly walkable have an average of at least 95 percent coverage on one or both sides of the street, indicating that the sidewalk network is likely sufficient for pedestrians to reach desired destinations and transit. Sidewalk improvements in these areas may not be necessary given current coverage.

However, there are some outliers. About five percent of highly and very highly walkable areas are missing sidewalks on 20 percent or more of their streets. The map below shows that these areas are concentrated in inner suburban Cook County, particularly along the northern border with Chicago, as well as central areas of Elgin, Joliet and the border between Elmhurst and Villa Park in DuPage County. Such areas can pose threats to safety, as they are in locations with numerous destinations and have relatively high population and/or job density, yet the sidewalk network may not connect critical pedestrian routes. These are areas, identified in the map below, where investment in sidewalks and pedestrian infrastructure can go a long way to completing an existing but inadequate sidewalk network.



Investment opportunities to complete sidewalk networks in highly and very highly walkable areas

- Highly and very highly walkable areas
- 20% or more of streets missing sidewalks

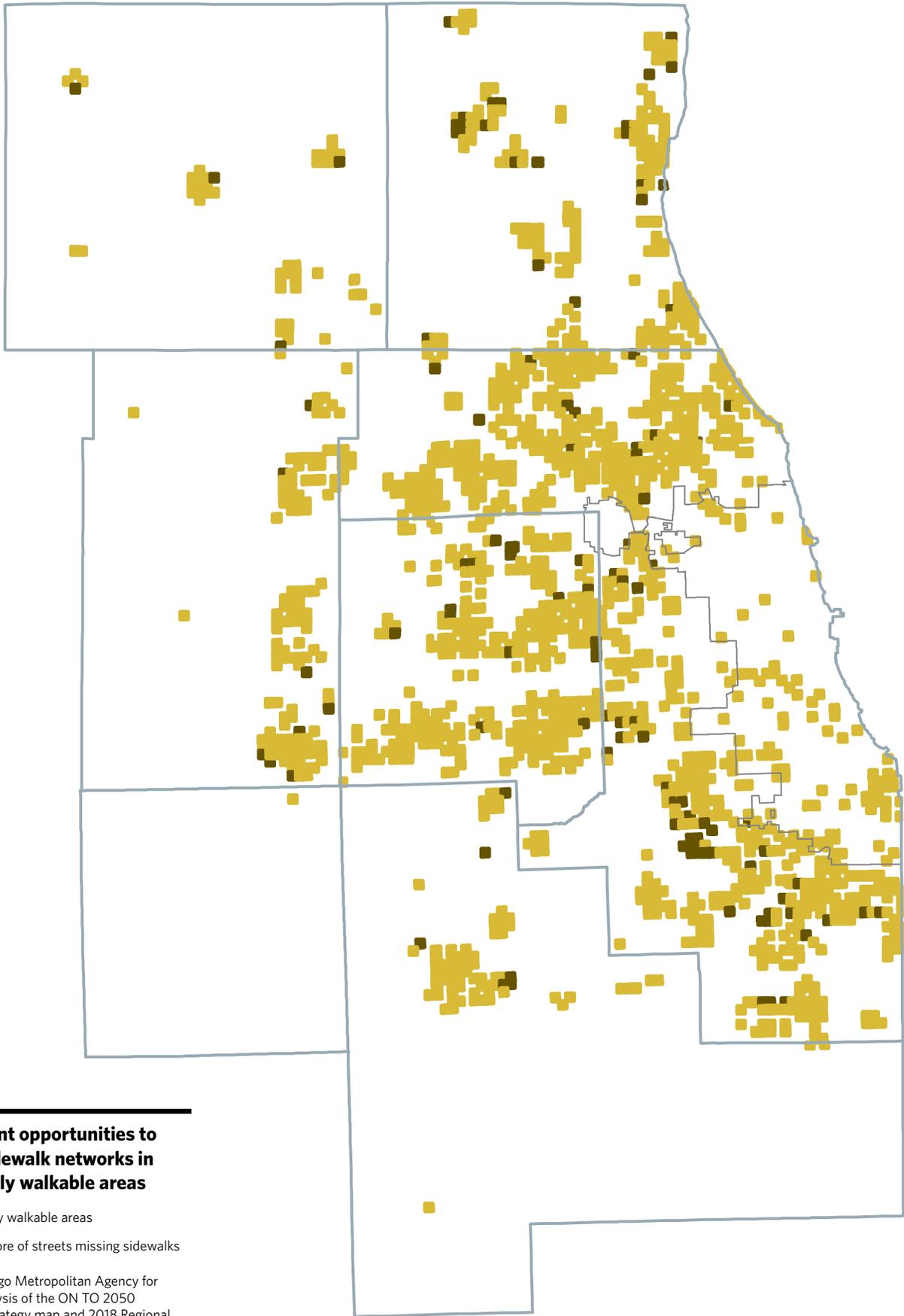
Source: Chicago Metropolitan Agency for Planning analysis of the ON TO 2050 walkability strategy map and 2018 Regional Sidewalk Inventory.

Sidewalk gaps in moderately walkable communities

Eleven percent of the region is considered moderately walkable based on the ON TO 2050 walkability strategy map. Of the moderately walkable areas, seven percent are missing sidewalks on 80 percent or more of all streets, exclusive of freeways, expressways, and interstates. This finding indicates that despite the presence of the types of attributes that may make an area attractive for walking, there is likely no basic established sidewalk network in these areas.

Adding to pedestrian infrastructure in areas that have inadequate coverage can help close accessibility gaps between residential and commercial areas, enabling walking connections to transit and other destinations. Moderately walkable areas that pose the most opportunity for sidewalk investment, as shown in the map below, are spread across the region but cluster near municipal boundaries, with a high concentration in south suburban Cook County. Constructing even a basic sidewalk network in these areas could incent walking given the moderate density, numerous local destinations, and access to transit as identified in the previous walkability map.

There are a number of barriers local jurisdictions may face to build and connect adequate sidewalk networks in areas with modest density. The right-of-way of some facilities may not lay with a municipality, complicating the planning and construction of sidewalks within a given community where there is a desire for more pedestrian infrastructure. Additionally, along corridors that span municipal borders, it may be difficult to coordinate a continuous sidewalk network that effectively connects pedestrians with key amenities. Challenges like these may stymie efforts to establish basic sidewalk networks in communities with appropriate land uses and density, such as those identified as moderately walkable in the ON TO 2050 strategy map.



**Investment opportunities to
create sidewalk networks in
moderately walkable areas**

- Moderately walkable areas
- 80% or more of streets missing sidewalks

Source: Chicago Metropolitan Agency for Planning analysis of the ON TO 2050 walkability strategy map and 2018 Regional Sidewalk Inventory.

Next steps

Prioritize sidewalk investments near amenities, transit, and population density

CMAP's new regional sidewalk inventory will help municipal and county planners identify the highest priority sidewalk needs within individual communities to improve pedestrian connectivity and safety. Walkability trends identified at the regional scale in the maps above demonstrate how the new data will allow communities to both complete existing sidewalk networks in already walkable areas, as well as plan for the construction of basic networks in areas with sufficient density and amenities.

Improve safety by examining sidewalk coverage against crash data

The data can be even more effective when combined with other existing data sets, such as the [Illinois Roadway Crash Data](#). With consideration of both the gaps in sidewalk networks as well as locations that have historically been dangerous for pedestrians, together, the data will help local planners make investments that improve safety for all residents, whether they are on foot, on bike, or in a car.

Collect data on sidewalk accessibility and quality

While this is the first glimpse into regional sidewalk coverage at a high level, there are still critical missing components to fully assessing the network. Sidewalk condition, for example, was not captured as part of the development of the dataset. If a sidewalk is impassable, understanding its condition is just as important as understanding its presence. This is especially the case for assessing ADA accessibility of certain facilities, another component that was infeasible to capture at the time the dataset was developed.

Use local plans to identify and prioritize sidewalk improvements

The counties, local governments and transportation implementing agencies all have a role to play in planning for and funding sidewalk enhancements and connections in northeastern Illinois. Local plans, such as those developed through CMAP's [Local Technical Assistance Program](#) and RTA's [Community Planning Program](#), can use the new regional sidewalk data to identify areas where additional sidewalks can best connect residents with the destinations they want to go to. After planning phases have been completed, communities can explore funding opportunities to support the design and construction of sidewalk improvements.

Communities have several options for funding these improvements. There are newly available transportation funds that local governments may use to fund sidewalk improvements. In 2019, Illinois increased the state motor fuel tax by 19 cents per gallon as part of Rebuild Illinois, the first capital program enacted in over a decade. From the new revenue collected, 32 percent will be distributed to municipalities, counties and road districts who may use the new funds to invest in pedestrian infrastructure. Though these revenues could be used to target gaps in sidewalk networks, sidewalk improvements may be coupled with larger corridor and other transportation facility projects. In addition to local sources of revenue, certain local and federal funds can be applied improve pedestrian infrastructure, these include RTA's Access to Transit; CMAP's Surface Transportation Program, Congestion Mitigation and Air Quality program, and Transportation Alternatives Program; and Cook County's Community Development Block Grant program.

312-454-0400
info@cmap.illinois.gov
www.cmap.illinois.gov

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