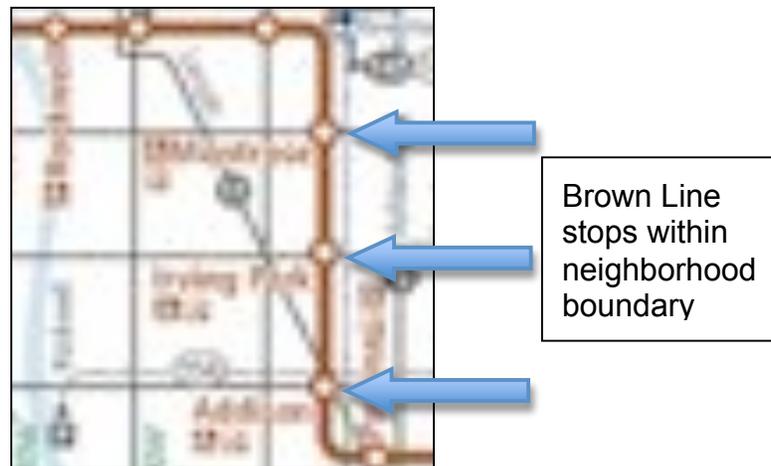


NEIGHBORHOOD ENVIRONMENTAL STRENGTHS

In order to develop long-term strategies and recommendations for facing the challenges of climate change, the stakeholders of North Center must first understand the neighborhood's current environmental strengths. These are not standalone items that just address climate change. Most of these neighborhood assets are inherently interconnected with other things that concern local stakeholders, such as property values, access to transportation, and even the aesthetics of the neighborhood's physical form.

TRANSPORTATION

As a dense urban neighborhood, North Center has an abundance of transportation options. East-west CTA buses run along Montrose Ave. (#78), Irving Park Rd. (#80), and Addison St. (#152); north-south CTA buses run along Western Ave. (#49) and Damen Ave. (#50). The CTA Brown Line makes stops along Ravenswood at Montrose, Irving Park and Addison.



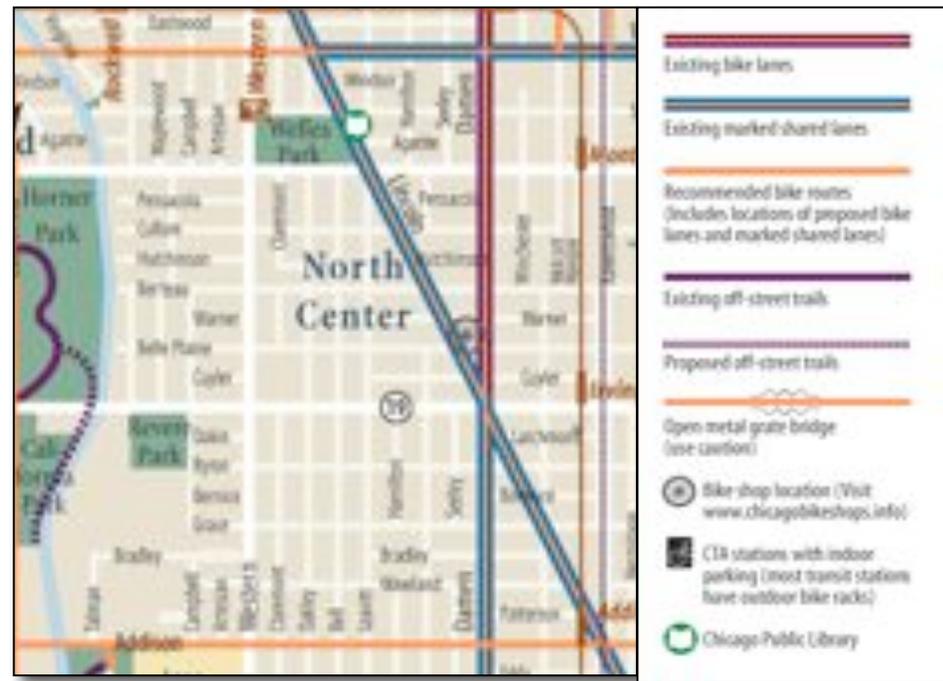
Source: CTA Online System Map – North Side

Bicycle Lanes – In and Around North Center

Additionally, bicycle lanes stretch over Lincoln Ave. and Damen Ave. within the neighborhood, and Wilson Ave. just north of the neighborhood's borders.

Access to public transit and bicycle lanes reduces the “vehicle-miles travelled” by residents in their cars. As taking public transportation is less carbon intensive than driving, and bicycling (like walking) is another carbon-neutral activity, both of these methods of transportation should be encouraged by North Center.

The Center for Neighborhood Technology (CNT), founded in 1978 in Chicago, is a creative “think-and-do-tank” encouraging sustainable solutions to urban problems. CNT has developed ABOGO (abogo.cnt.org), an interactive tool that illustrates the affordability and sustainability of where people live. By using neighborhood variables such as average block size and commute time, and regional variables such as household size, car-ownership, car- and public transit-use rates, the tool can measure the transportation costs of an average household within a selected region.



Source: Chicago Department of Transportation, North Center
<http://www.cityofchicago.org/cityinfo/cdot/bikemap/usemap/8-N.html>

By running the tool for North Center, one can see that both the neighborhood and community area have average household transportation costs significantly less than the regional average.¹ By using public transportation at a higher rate than the regional average, the carbon footprint of an average household's transportation is also lower.

There are ancillary benefits for neighborhoods that have lower driving rates. The Center for Disease Control states that the physical activity of most Americans has declined compared to previous generations. This lack of activity contributes to higher rates of obesity, diabetes, heart disease, and other chronic health conditions. Additionally, transportation-related air pollutants can exacerbate chronic respiratory conditions such as asthma, chronic bronchitis, and emphysema. Finally, motor vehicle crashes “are still the leading cause of death for people ages 1-34”.²



Source: Center Square Journal

¹ Compared to 2000, when the transportation costs for an average household in North Center were \$654/month, by March 2012 that figure had jumped to \$771/month. The ABOGO tool has a “Gas Slider” function that lets the user input different prices of gas to see how transportation costs will be affected. I used the current average price for gas in ZIP code 60618 (\$4.10/gallon) from the website www.gaspricewatch.com, to ascertain what the average North Center household's current transportation costs would be.

² “CDC Transportation Recommendations”. U.S. Center for Disease Control.

TREES ON RESIDENTIAL STREETS

North Center residential streets have a substantial tree canopy, providing a number of environmental benefits to neighborhood residents. Trees absorb carbon dioxide, anywhere from 13-48 lbs. of CO₂ annually.³ They also help moderate local climate factors. When planted in the correct space, trees can help shade buildings, reducing the electrical use for residents and businesses running their air-conditioning. The U.S. Department of Energy estimates that well-planted trees can save homeowners between \$100-\$250 per year, and reducing air-conditioning use also reduces greenhouse gases.

A high density of trees can also improve a neighborhood's home values. The Council of Tree and Landscape Appraisers states that "a mature tree can often have an appraised value of \$1,000 and \$10,000," and the Arbor Day Foundation estimates that "trees around your home can increase its value by 15% or more."⁴

Trees can also improve air quality, control rain runoff, lower noise levels, harbor wildlife, and enhance the public aesthetics of a neighborhood.



Source: North Center Neighborhood Association

³ "Chicago's Urban Forest Agenda" Plan

⁴ Dwyer, McPherson, Schroeder & Rowntree

WALKABILITY

“Walkability” is a concept that attempts to measure how friendly the built environment of an area is to pedestrians. According to the website Walkscore.com, which attempts to measure the distance to the closest amenities within a neighborhood, North Center as a neighborhood ranks 87 out of 100 and is listed as ‘very walkable.’ This is a great asset to the community because high walkability encourages walking and lowers the rates that residents drive. As a carbon-neutral activity, walking is highly preferred as a form of neighborhood transportation.

Furthermore, high walkability contributes to higher home values. A 2009 study estimated that houses with above-average levels of walkability “command a premium of about \$4,000-\$34,000 over houses with just average levels of walkability” and any additional one-point increase in Walk Score correlates with “between a \$700 and \$3,000 increase in home values”.⁵

High walkability can also contribute to lower health costs for a population. A 2005 study in the American Journal of Preventive Medicine found that “people are more physically active and more likely to meet recommendations of >30 minutes of moderate activity when they live in neighborhoods with nearby shops and services, with many street connections between residential and commercial districts”.⁶

⁵ Cortright, Joe

⁶ Frank, Lawrence D., et al

CHICAGO RIVER

Across the river from Horner Park lies the Northcenter Neighbors Riverbank Restoration Project, a great example of community-supported open space. Riverbank Neighbors, a local organization, partnered with Friends of the Chicago River, the Metropolitan Water Reclamation District, the North Branch Restoration Project, and local 6th-graders at nearby Waters Elementary School, in creating a publicly accessible riverbank with native-plants landscaping.⁷ “Steps lead to a small boat dock, and wood-chip paths meander between shaded overlooks and fishing sites.”⁸

“A block away the air is thick with traffic fumes, the eyes dazzled by the glare of used car lots, and the ears assaulted with the screech of elevated train wheels. By our river, the land drops away and children hunt frogs, lovers watch herons feeding, and elders ponder questions big and small—under black willows at the edge of the water.”

--Northcenter Neighbors



Source: “Chicago River Corridor Development Plan”

⁷ Leki, Pete. Northcenter Neighbors Riverbank Restoration Project.

⁸ “Chicago River Corridor Development Plan”. City of Chicago.

NEIGHBORHOOD ENVIRONMENTAL WEAKNESSES

PERMEABLE SURFACES

As with most urban neighborhoods, North Center suffers from a lack of permeable surfaces. Streets, sidewalks, and permanent physical structures cover most of the city's surface area.



LAND USE	% OF CITY SURFACE AREA	% IMPERVIOUS COVER
Residential	96.3	85.1
Manufacturing	16.1	88.8
Commercial	2.8	79.8
Public Open Space	1.8	10.7

Source: "Adding Green to Urban Design"

http://www.cityofchicago.org/content/dam/city/depts/zlup/Sustainable_Development/Publications/Green_Urban_Design/GUD_booklet.pdf

This lack of permeability runs off rainwater into the city's combined sewer system instead of back into the ground. Chicagoans dealt with a rainfall record of 6.86 inches in July 2011⁹ and with its proximity to the Chicago River, flooding remains a major concern for North Center residents. Such a combined sewer system treats rainwater as a

⁹ "Chicagoans Deal With Record-Breaking Rain."

available via travel west on the main streets that cross the river – Addison St, Irving Park Rd, or Montrose Ave. Welles Park, beginning with the intersection at Western Ave. and Montrose Ave., is just north of the neighborhood boundary and serves both the North Center and Lincoln Square neighborhoods.

Revere Park only provides the residents of North Center with one square block of park open space, equaling 10 acres for over 16,000 residents. The city’s recommendation of 2 acres per 1,000 residents suggests at least 32 acres of park space are needed.

Revere Park Fieldhouse



Source: The Chainlink

<http://www.thechainlink.org/group/ccacfc/forum/topics/tour-of-north-center>

While Chicago Public Schools sometimes also have outdoor facilities, they are frequently paved-over lots such as the exterior of Bell Elementary School that do nothing to increase the amount of permeable space in the neighborhood.

A lack of sufficient open space ultimately deprives North Center residents and their children of recreational options, and further contributes to the lack of permeable-surface space in the neighborhood.

Alexander Graham Bell Elementary School



Source: The Chainlink

COMMUNITY GARDENS

The North Center Neighborhood Association (NNA) has a Garden Club, providing resources and workshops for neighborhood residents interested in gardening. The Garden Club hosts an annual ‘Garden Walk’ and in 2011, 43 residents offered their gardens for visitors to tour (*see Appendix A*).

Source: North Center Neighborhood Association



Source: North Center Neighborhood Association



Members of the “St. Ben’s Buds Garden Club” help to maintain the gardens on the St. Benedict’s Parish church campus and were recently awarded First Place for the schools category in the Mayor’s Landscape Award Program.

Additionally, the Northcenter Neighborhood Association promotes a “Parkway Corner Initiative” that helps transform street corners into native-plant ecosystems and bioswales. According to the NNA website, these corners are “constructed and maintained by volunteer land stewards living on that block where the corner is located, trained and aided by NNA volunteers, with plant material donated by North Branch Restoration Project (NBRP).” The Parkway Corner Initiative serves as another wonderful example of the neighborhood’s volunteerism, and in 2012 the NNA plans to transform up to 14 street corners.



However, there seems to be a lack of larger *community* gardens in this neighborhood. The website [Openlands.org](http://www.openlands.org) maps community gardens and none are in the immediate vicinity of North Center (<http://www.openlands.org/community-greening.html>).

This is unfortunate because like walkability, community gardens have been shown to correlate with higher home values and tax bases. In New York, a 2008 study estimated that the gross tax

benefit generated by all community gardens over a 20-year period equaled \$503 million. Had the local government fully subsidized the gardens (which was rarely the case), the city's total investment would have amounted to about \$177 million. *Thus, the estimated net tax benefits over 20 years would have been \$325 million or about \$512,000 per garden.*¹³

Thankfully, the NNA is currently making plans to obtain contiguous parcels of land within the neighborhood boundary in the hopes of creating the first North Center community garden.

CURRENT STATE OF BICYCLE LANES

Bicycle Lanes within North Center's neighborhood boundaries have not been maintained well. Lincoln Ave. (between Addison and Montrose) and Damen Ave. (between Addison and Montrose) have many patches where the white demarcation lines are nearly gone.

Feeling unsafe is one of the greatest deterrents to encouraging more people to use bicycles for commuting and/or leisure. A lack of visible separation from car lanes only helps dissuade more people from riding.



Source: www.thechainlink.org

¹³ Been & Voicu.