Travel Demand Management Study & Plan for
The 1901 Project
Chicago, Illinois

Submitted to:

UNITED CENTER

Travel Demand Management Plan

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Submitted by:

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Introduction

Sam Schwartz Consulting, LLC, operating as a subsidiary of TYLin and referred to herein as Sam Schwartz, was engaged by the United Center to provide transportation expertise in support of The 1901 Project, a proposed mixed-use neighborhood that would repurpose approximately 55 acres of surface parking into a vibrant, multimodal district anchored by the arena. In keeping with City requirements for development review and approval, Sam Schwartz has conducted a Travel Demand Management (TDM) Study & Plan that evaluates existing transportation infrastructure and behavior and lays out a suite of strategies that will be implemented to encourage walking, biking, and transit. This document is accompanied by the Traffic & Parking Study, which is submitted under separate cover per the requirements of the Chicago Department of Transportation (CDOT).

The 1901 Project

The 1901 Project is a transformative vision for Planned Development (PD) 522, which is generally located south of Washington Boulevard, north of Jackson Boulevard, east of Hoyne Avenue, and west of Ashland Avenue. The Master Plan for The 1901 Project envisions up to 9,463 residential units, nearly 670,000 square feet of retail and restaurant uses, 660,000 square feet of commercial office space, a maximum of 1,309 hotel keys, and more than 25 acres of publicly accessible open space, including more than 10 acres in the first phase.

Since opening in 1994, the United Center has served as the epicenter of sports and entertainment in Chicago and has welcomed more than 70 million guests through its doors over the last 30 years. United Center Joint Venture seeks to expand on its commitment to Chicago's West Side with The 1901 Project by developing a neighborhood of choice with mixed-use programming including retail, restaurant, entertainment, residential and more. The development will spur economic opportunity with significant job creation, affordable housing, MBE/WBE opportunity, more than 25 acres of open space and expanded community engagement.

By leveraging 55 acres of privately owned land, The 1901 Project will serve as a social and economic bridge connecting opportunity from the east further to the west positioning Chicago’s West Side as a catalyst for growth and opportunity for years to come.

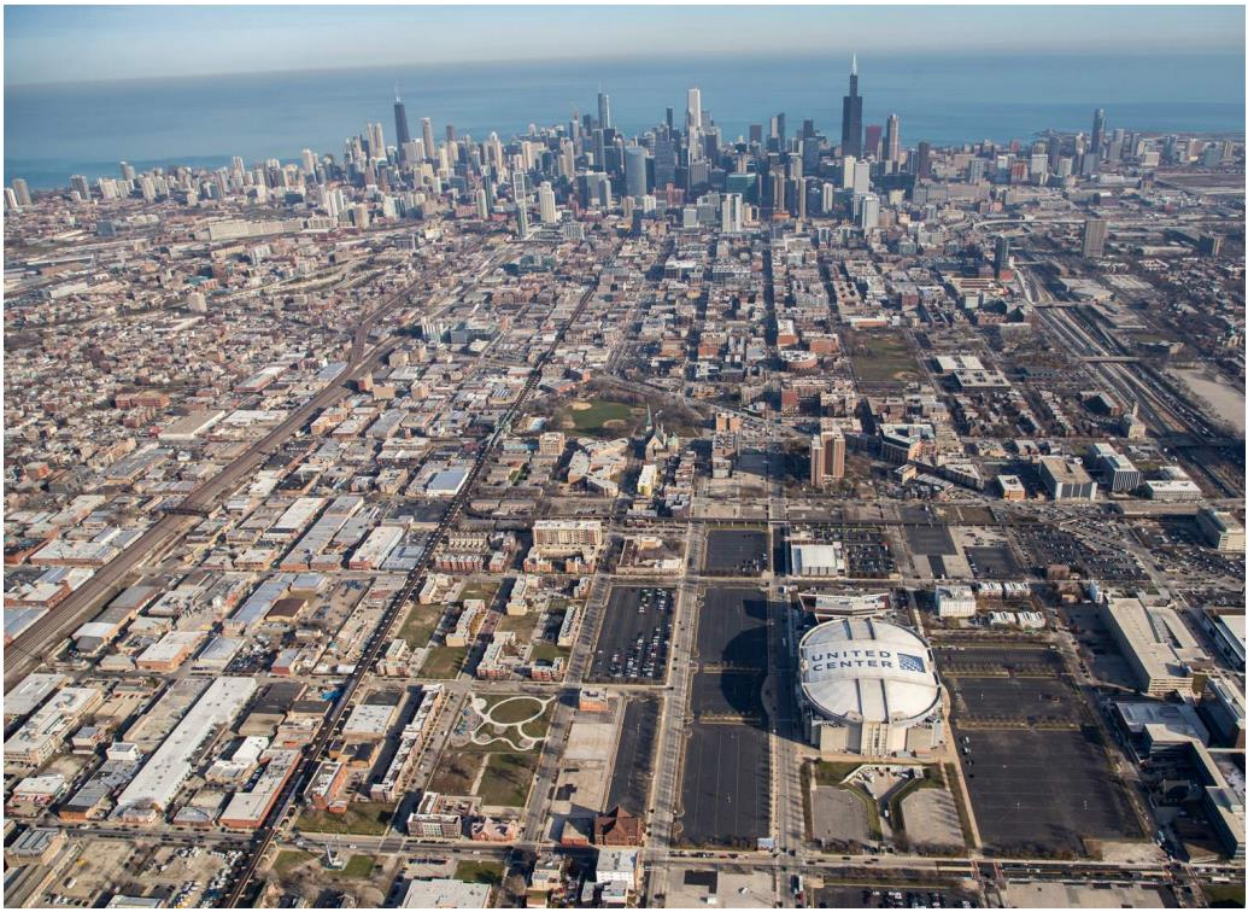

Figure 1 The 1901 Project Master Plan Area

The 1901 Project Master Plan can be supported by the creation of a transit-rich neighborhood. Today, three million people and nearly two million jobs are within a 60-minute transit trip of the United Center. Since the project area is adjacent to the Illinois Medical District (IMD) and the West Loop neighborhood, the plan will be connected to commerce, job centers, educational assets, health care, the Loop, and major destinations throughout the city. With new investment in the area's transportation infrastructure, such as the Damen Green Line station, the site is already becoming one of the most transit-accessible areas of Chicago and a truly walkable and bikeable community – anyone moving into The 1901 Project will be able to choose whether they need a car, or if they want to forego a personal vehicle.

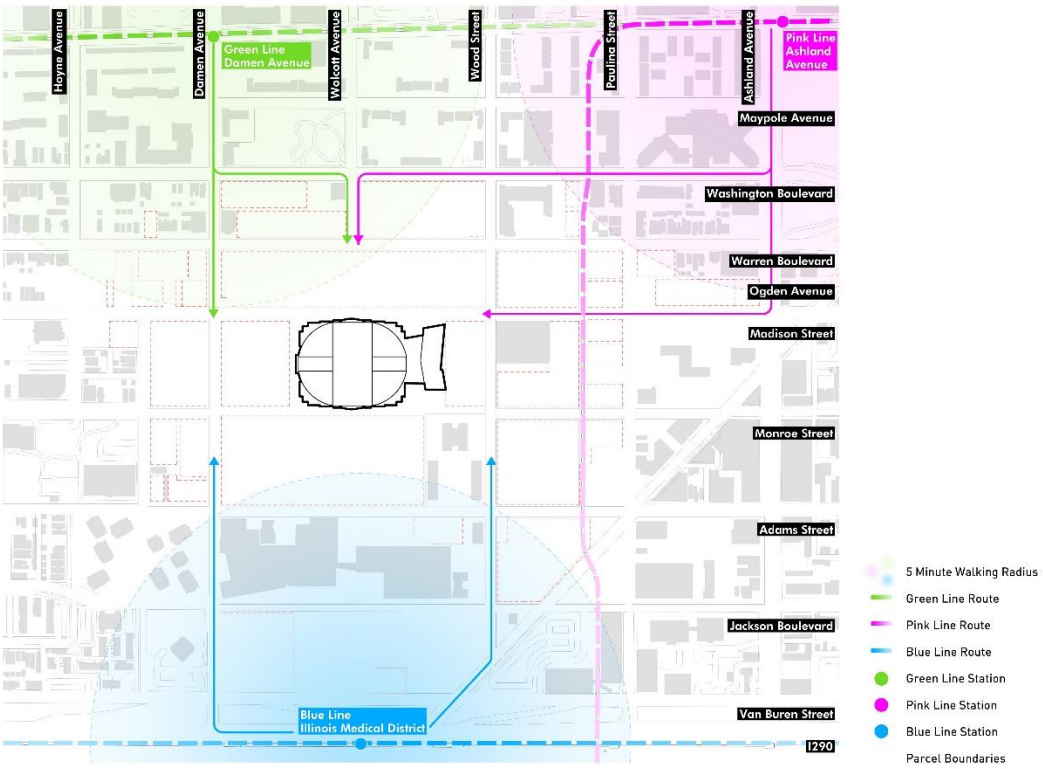

Figure 2 Rail stations in proximity to The 1901 Project

Through sensitive urban design, with curated block lengths, contextual building heights, distribution of public open space, highly active site programming, and a dynamic skyline, the project establishes the pedestrian as the priority. The district street design emphasizes generous sidewalks, planting buffers, and minimized length of pedestrian crossings that prioritize safety and accessibility. Consequently, the entire open space network will be connected via a series of pathways to encourage residents, visitors, and workers to venture through the area. With a sense of pedestrian safety and multi-modal options to encourage more biking and transit reliability, The 1901 Project is also committed to fostering community and creating a must-see destination.

The 1901 Project: Phasing

The 1901 Project will be undertaken as a multi-phase development (there are six phases anticipated over the lifetime of the project), constructed over the coming years. Phase 1 of the project will be constructed to the immediate west and south of the United Center. Phase 1 will consist of 158,567 square feet of new development, including a 6,000-seat Music Hall, approximately 79,200 square feet of retail and restaurant uses, a 2,800 square-foot community room, and up to 233 hotel keys, along with a new public plaza and the beginnings of an elevated park that will eventually encircle the arena.

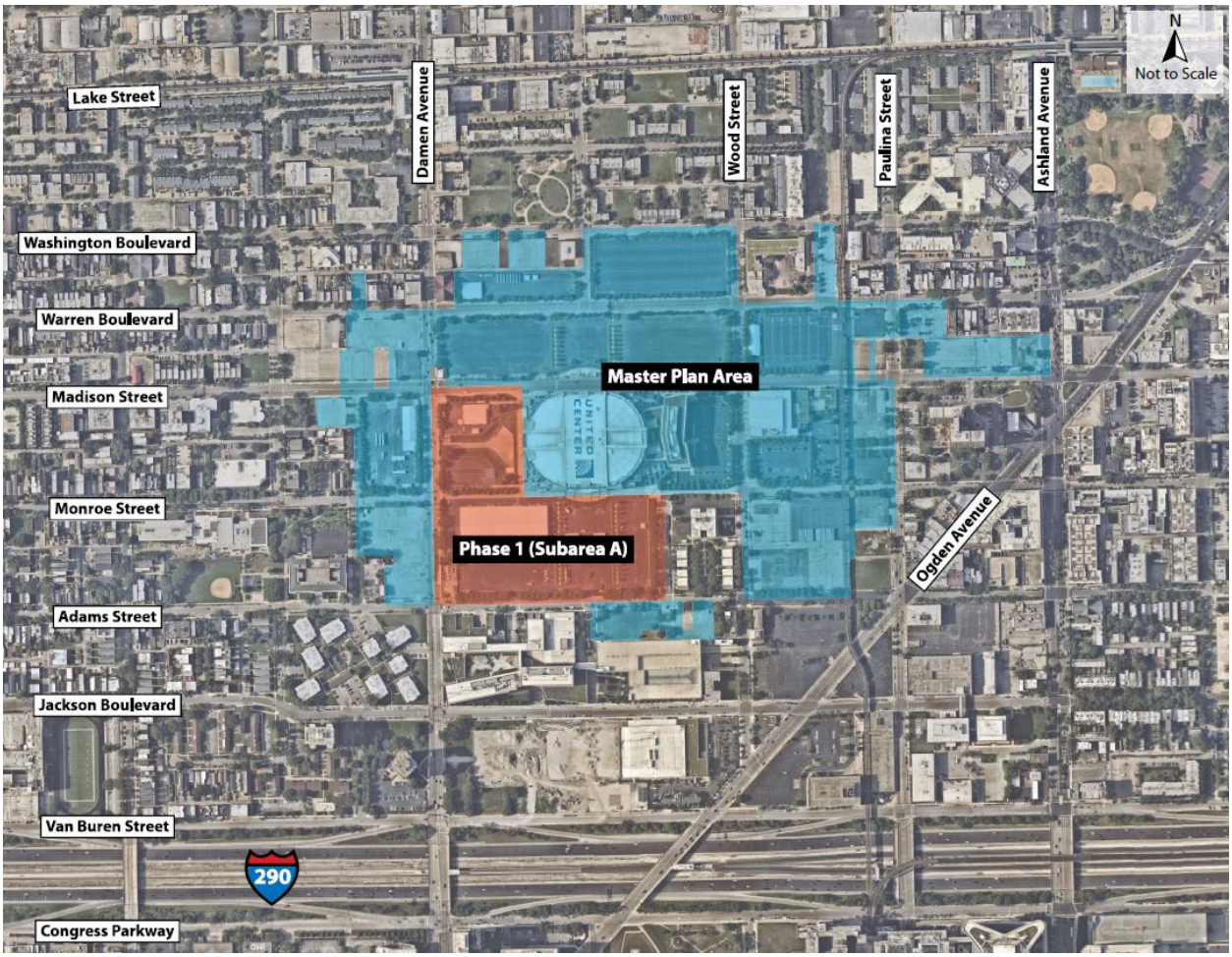

Figure 3 Site Location (zoomed in for Phase 1)

These proposed uses would be built upon the United Center's existing Lot G (North and South) and Lot K, which currently provide approximately 1,315 parking spaces total. To offset the loss of these surface lots, two new parking structures are included in the Phase 1 program with a total of 508 spaces. Implementing TDM strategies that encourage the use of alternative modes will play an important role to play in managing parking demand, both in the project's initial phase and across future phases. Future phases will include a mix of different uses, with significant residential components, including affordable units.

Existing Conditions

Sam Schwartz conducted field visits and collected data to gather information on The 1901 Project site areas, including surrounding street and sidewalk networks, transit availability and access, modal choices, mobility safety, and infrastructure at key intersections. This and other data were used to assess the overall mobility landscape and operational conditions in the site, which are detailed in the following sections.

Overall Travel Patterns

Mode Share

While travel patterns and mode share are expected to change substantially as a result of The 1901 Project, current travel choices provide a useful baseline for the transportation analyses contained in this report. Mode share varies between the typical trip made to the study area and trips made to events hosted at the United Center.

As shown in **Table 1**, driving accounts for the majority (70 percent) of all trips ending in the immediate area around the United Center on a typical weekday, while walking, biking, and public transit account for 29 percent of trips (Replica, 2022). The average trip distance across all modes was 5.2 miles.

Table 1 Mode Share to Site

Travel Mode	Mode Share
Walk	18%
Drive	70%
Bike	3%
Taxi/Ridehail	1%
Public Transit	8%
Total	**100%**

In 2023, the United Center distributed an electronic survey to event patrons to estimate existing mode split for the arena. The results of this survey are presented below in **Table 2**. Individuals who purchase tickets to events are more dispersed throughout the region than everyday visitors. Based on home zip code data provided by the United Center for employees and people who purchased tickets, the majority of United Center employees (63 percent) and 43 percent of event patrons live in Chicago. Nearly 70 percent of event patrons currently travel in private vehicles to the United Center, and over 17 percent use ridehail (Lyft/Uber) or taxis. Approximately 43 percent of all attendees are choosing non-single occupancy vehicle (SOV) modes to access events.

Table 2 Event Mode Share to Site

Travel Mode	Mode Share
Walk	5.1%
Drive	56.3%
Passenger	13.2%
Taxi/Ridehail	17.4%
Public Transit	8.1%
Total[1]	**100%[1]**

[1]Due to rounding, total may not equal 100%.

Transit Landscape

Three million people and nearly two million jobs are within an hour from the United Center via public transit. The area is currently served by four Chicago Transit Authority (CTA) bus routes with stops within or adjacent to the project site, as well as three CTA 'L' train stations on the Green, Pink, and Blue Lines, each located within 0.6 miles of the United Center. The Damen Green Line station, which opened on August 5, 2024, provides over 100,000 new riders access to the area in less than 60 minutes on public transit. The new station also provides access to over 100,000 more jobs that area residents can reach by public transit in less than 60 minutes. Even with the addition of the Damen Green Line station, major portions of the campus are more than half a mile from the nearest CTA rail station, including:

- United Center
- New music hall
- >20 acres on the eastern portion of the site

Existing transit facilities are described below and presented in **Figure 5**.

Route 50 (Damen) is a north-south route that provides daily service between the CTA Orange Line 35th/Archer station and Ashland Avenue/Clark Street. Within the subject area, this bus route runs along Damen Avenue and provides northbound and southbound stops at Washington Boulevard, Madison Street, and Adams Street.

Route 20 (Madison) is an east-west route that provides 24-hour service between Austin Boulevard/Madison Street and downtown Chicago. Within the subject area, Route 20 runs along Madison Street. Eastbound and westbound stops are provided at Damen Avenue, the United Center (1901 W Madison), Wood Street, Paulina Street, and Ashland Avenue. There is an additional eastbound-only stop at 1633 W Madison Street, between the stops at Paulina Street and Ashland Avenue.

[1] United Center electronic survey, provided by the United Center, 2023

Route 9 (Ashland) is a north-south route that provides 24-hour service between 104th Street/Vincennes Avenue and the Metra Ravenswood station. Adjacent to the subject area, Route 9 runs along Ashland Avenue and provides northbound and southbound stops at Madison Street.

Route X9 (Ashland Express) is a north-south express bus route that provides daily service between 95th Street/Ashland Avenue and the CTA Red Line Sheridan station with limited stops. Adjacent to the subject area, Route 9 runs along Ashland Avenue and provides northbound and southbound stops at Madison Street.

Route 126 (Jackson) is an east-west route that provides daily service between Austin Boulevard/Jackson Street and downtown Chicago. Within the study area, Route 126 runs along Jackson Street (eastbound) and Van Buren Street (westbound). Eastbound stops are provided at Damen Avenue, Malcolm X College (1900 W Jackson), Ogden Avenue, Paulina Street, and Ashland Avenue. Westbound stops are provided at Damen Avenue, 1900 W Van Buren, Ogden Avenue, Paulina Street, and Ashland Avenue.

The **CTA Green Line** provides daily rapid-transit train service between Oak Park (Harlem Avenue/Lake Street) and each of Ashland Avenue/63rd Street and Cottage Grove Avenue/63rd Street via downtown Chicago. The Damen station is located about 700 feet north of Damen Avenue and Washington Boulevard, 0.4 miles from the United Center on the northwest corner of the Master Plan area. The Ashland station, which also provides access to the CTA Pink Line, is located 0.6 miles from the United Center on the eastern boundary of the Master Plan area. Accessible entry/exit is available at both stations.

The **CTA Pink Line** provides daily rapid-transit train service between Cicero (54th Street/Cermak Road) and downtown Chicago. The Ashland station, which also provides access to the CTA Green Line, is located about a quarter mile north of Ashland Avenue and Madison Street, the eastern boundary of the Master Plan area.

The **CTA Blue Line** provides 24-hour rapid-transit train service between Chicago-O'Hare International Airport and the Forest Park terminal via downtown Chicago. The IMD Station is located about a quarter mile south of Adams Street, 0.5 miles from the United Center on the southern border of the subject site. Access points to the station are provided at Damen Avenue, Ogden Avenue, and Paulina Street. Accessible entry/exit is available at Damen Avenue.

Weekly transit trips available within a ½ mile of the United Center are represented in **Figure 4** (weekly transit trips available refers to all the buses/trains that arrive within ½ mile of the United Center across the week but does not reflect total ridership numbers). It is important to note that frequency and access for all transit routes decrease in the evenings and on weekends, and so transit availability is lower during United Center event times, specifically when events typically end, than during standard daytime hours.

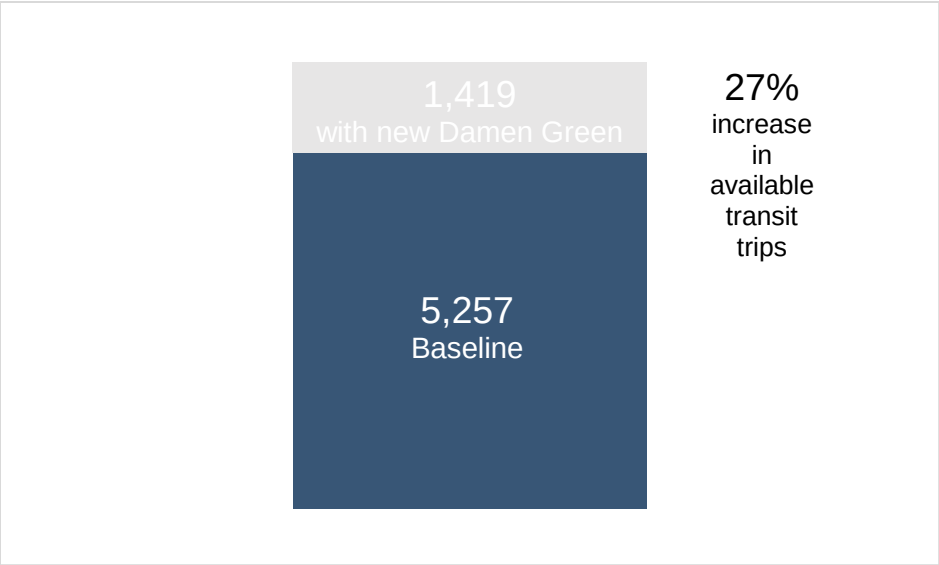

Figure 4 All Available Transit Trips

Table 3 shows average daily station ridership by year for the Ashland and IMD stations (not line specific). As of October 2024, data is not yet available for the Damen Green Line station. Not including 2024, ridership at both stations has incrementally increased year over year since 2019. In the case of the Ashland Green/Pink Line station, average daily ridership has nearly recovered to pre-pandemic levels through the first seven months of 2024.[2]

Table 3 Average Daily Weekday Ridership by Year[3]

	Ashland	Illinois Medical District
2019	2,474	2,758
2020	985	1,083
2021	993	1,101
2022	1,383	1,401
2023	1,779	1,434
2024[1]	2,021	1,337*

*Data available through July 2024.

[2] Chicago Transit Authority GTFS feed, https://www.transitchicago.com/developers/gtfs/, Accessed October 2024.
[3] RTAMS, https://rtams.org/ridership, Accessed October 2024.

In addition to the routes noted above, Chicago's Metra Rail network provides the following stations within two miles of the United Center. These stations operate regional rail service on eight different lines, expanding access throughout the metropolitan region.

- Western Avenue/Hubbard (Lines: MD-N, MD-W, NCS)
- Ogilvie Transportation Center (Lines: UP-N, UP-NW, UP-W)
- Union Station (Lines: BNSF, HC, MD-W, MD-N, NCS, SWS)
- Western Avenue/18th Street (Lines: BNSF)

Recently completed and planned transit improvements in the area include:

- Ashland Avenue was identified as a bus priority by the Better Streets for Buses project.
- Blue Line tracks between IMD and UIC-Halsted were replaced in 2023.
- The Damen Green Line Station opened on August 5, 2024.

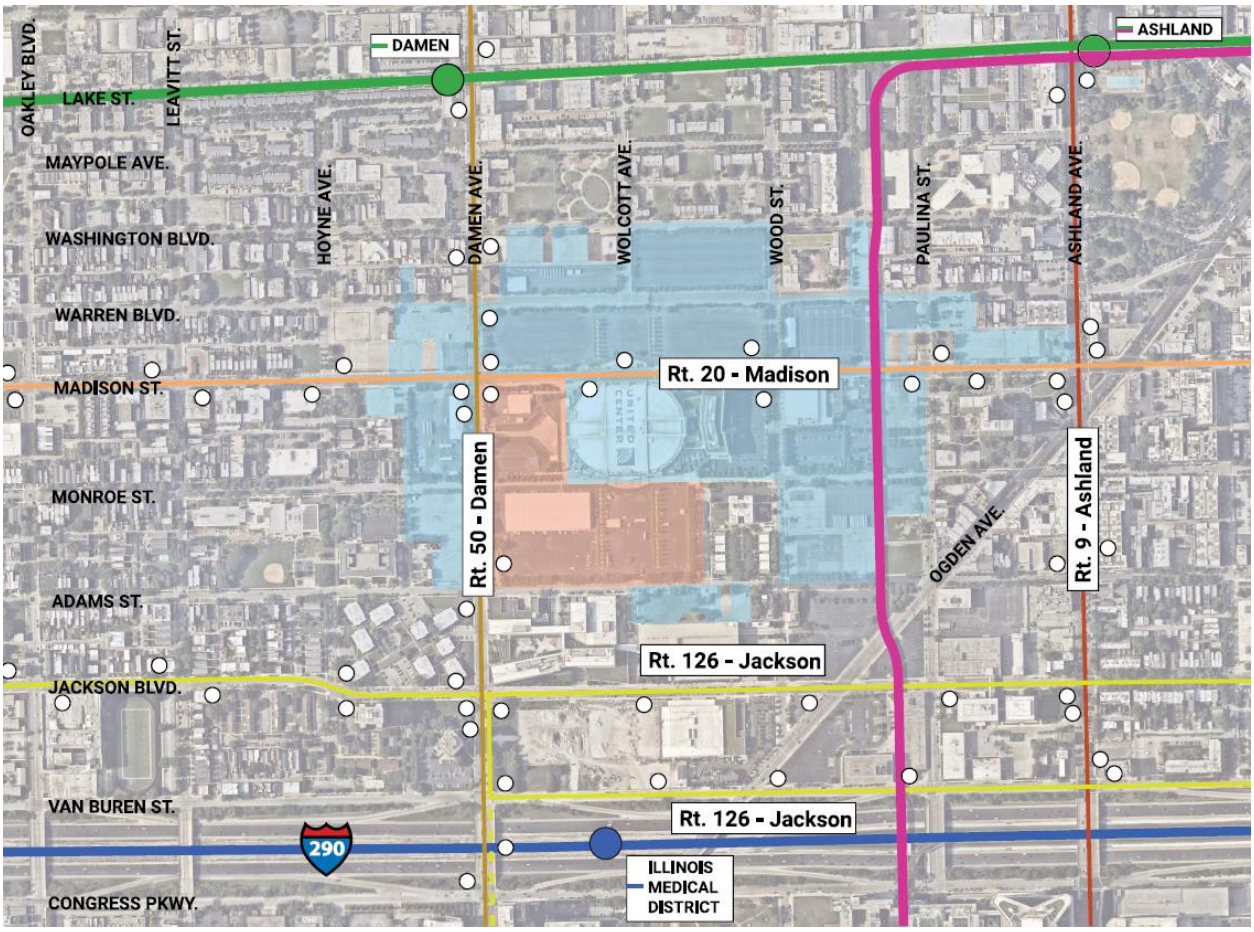

Figure 5 Transit Facilities in the Area

Bicycle and Pedestrian Connections

Bicycle Infrastructure

Bicycle infrastructure within the project site includes buffered bike lanes, protected bike lanes, standard bike lanes, marked shared bike lanes, and signed bike routes, as illustrated in **Figure**

6. Still, there are significant gaps in the existing network and limited high-quality bike facilities directly connecting the United Center. Within the Master Plan boundary, there are two streets with dedicated bike lanes: Warren Boulevard has an eastbound-only buffered bike lane, and Paulina Street provides northbound and southbound standard bike lanes. North/south bike routes include only low-protection options, including a signed route along Damen Avenue, a painted bike lane for portions of Paulina Street, and partially painted bike lanes on Ogden Avenue. There are currently no westbound bike lanes within the subject area, making connections between the project site and West Loop difficult.

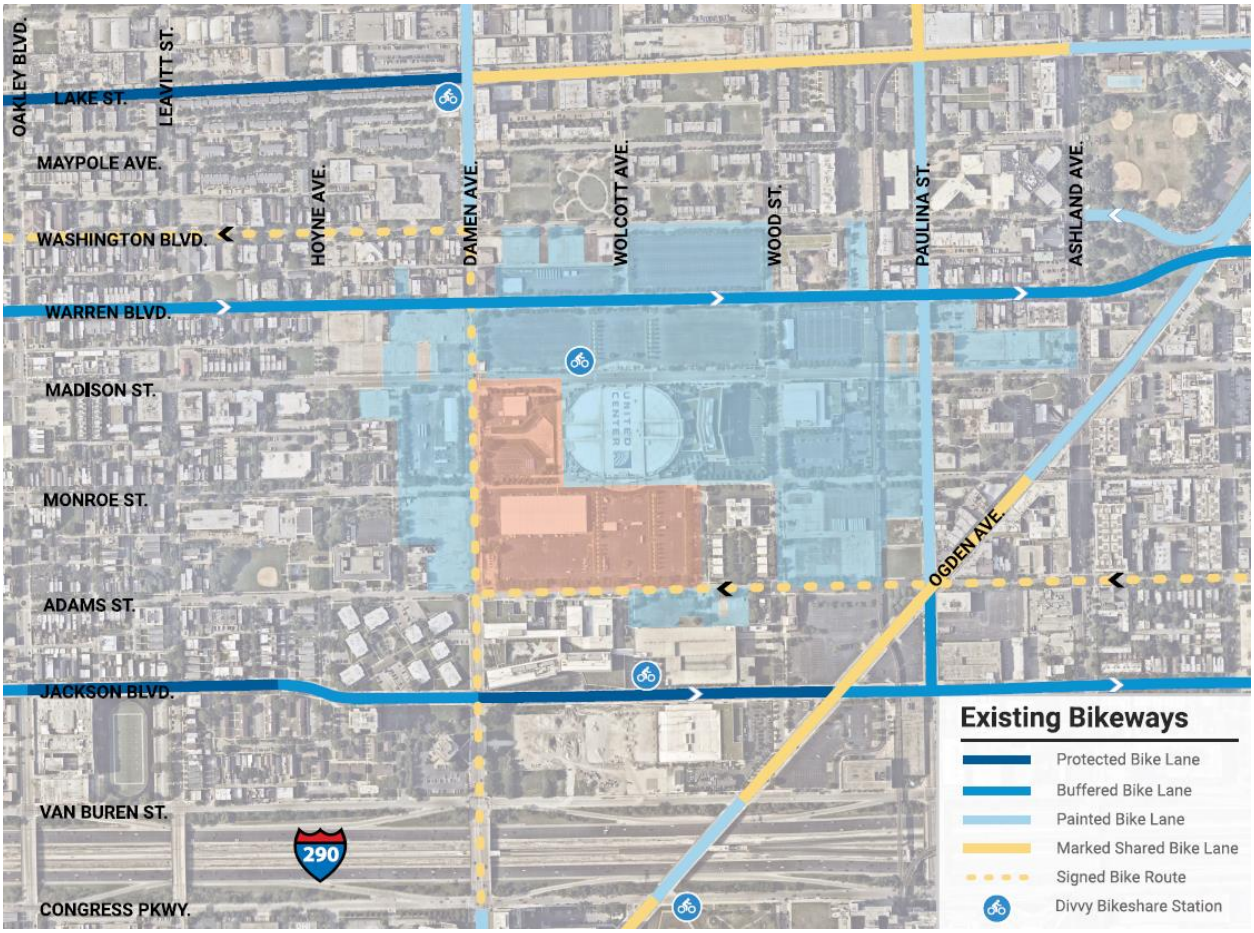

Figure 6 Existing Bikeways in Site Area

Recently completed and planned bicycle infrastructure upgrades in the area include:

- Lake Street eastbound bikeway, from Pulaski Road to Damen Avenue, received concrete barriers in 2022.
- CDOT is in the process of upgrading all protected bikeways with concrete protections, forming a continuous curb that separates the bikeway from vehicle travel lanes.
- The Chicago Cycling Strategy, released in March 2023, details 150 miles of planned new bikeways throughout the City of Chicago, including portions of Lake Street, Warren Boulevard, Paulina Street, and Jackson Boulevard within the study area.

Divvy Bike Share

Despite the lack of high-quality routes directly to the United Center, nearly 15,000 Divvy bikeshare trips ended in the study area, illustrating the opportunity to shift more trips to biking. Just one Divvy bikeshare station is located within the site boundary, on the north side of Madison Street outside of the United Center. Three other Divvy stations are located within three quarters of a mile of the United Center: one at Malcolm X College on Jackson Boulevard, another at the Damen Green Line station on Lake Street at Damen Avenue, and at the Ashland Green/Pink Line station on Ashland Avenue at Lake Street.

Many Divvy bikeshare trips that occurred within the study area originated or ended nearby, with the West Loop being a frequent origin and destination. Wicker Park showed a slightly lower but still significant concentration of trips. Currently, there is relatively little Divvy bikeshare movement south or west of the study area, and relatively little movement past North Avenue or east of the Chicago River. With plans for improved bike infrastructure and increased Divvy capacity, The 1901 Project aims to enhance opportunities for biking to, from, and within the project site.

Divvy Statistics:

- In 2022, the Madison & Damen Divvy station saw 6,315 total trip starts and ends (a 50 percent increase over 2019 trips). This puts the station in the top 45 percent for trips among all system stations.
- The Malcolm X College station saw 4,063 total trip starts and ends in 2022, a 37 percent increase from 2019.
- In 2020, Divvy introduced electric-assist bicycles (e-bikes) that have the added feature of being able to park and end trips outside of stations. In 2022, approximately 4,000 Divvy trips ended outside stations within the study area.

Pedestrian Environment

Despite more than 3,000 walking trips passing through census tracts surrounding the United Center on a typical weekday[4], the area does not currently have a comfortable, inviting pedestrian realm. Narrow sidewalks, a lack of landscape buffer space between sidewalks and streets, and significant presence of inactive uses/facades adjoining sidewalks all combine to make walking unpleasant. This leads to less street-level activity in the area and negatively impacts access to transit.

[4] Replica, https://studio.replicahq.com/, Accessed October 2024.

Pedestrian accessibility and comfort are partially dependent on frequent, safe, and comfortable street crossings. Sam Schwartz performed an inventory of existing pedestrian infrastructure at study intersections, including marked crosswalks and pedestrian signal equipment. The inventory identified that all study intersection crosswalks are equipped with high-visibility markings, which include continental-style crosswalks as well as crosswalks with red stamped pavement.

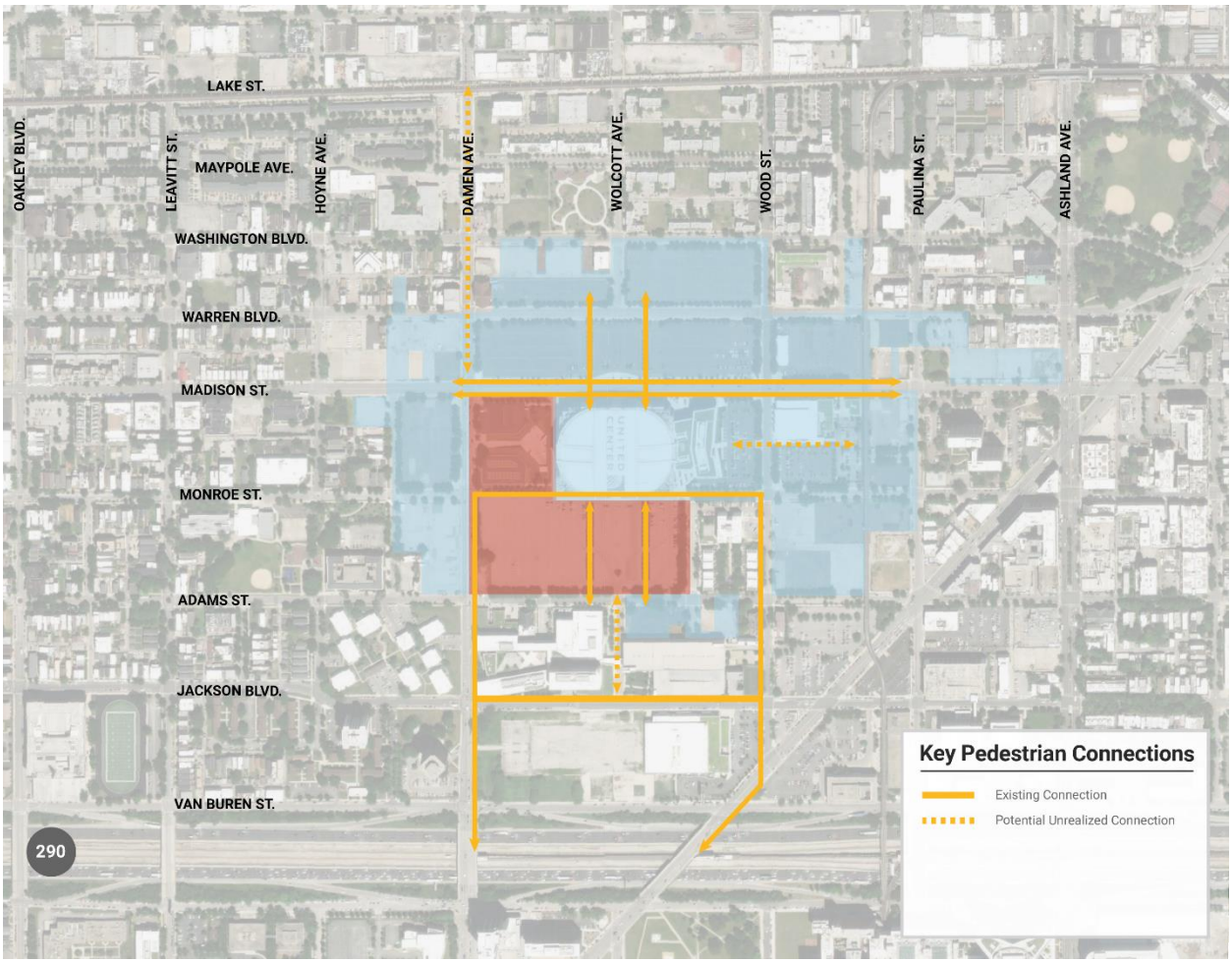

Figure 7 Key Pedestrian Connections in Site Area

As shown in **Figure 8**, most crosswalks around the United Center are less than 50’ long (thus, most roadways are under 50’ wide). While curb extensions at a handful of locations reduce crossing distances to under 30’, the longest gaps between crosswalks in the study area are 600’, and there are 1,250’ between signalized crossings on both Madison Street and Warren Boulevard. Ogden Avenue in particular presents a major barrier to pedestrian access, with long crosswalks and high vehicle volumes: For example, the southern leg of the Jackson Boulevard intersection is approximately 90’, with bus activity, turning vehicles, and no landscaping or sidewalk buffers. These conditions, which are found at all Ogden Avenue intersections in the site area, create unpleasant and unsafe walking conditions.

Additionally, half of the signalized study intersections do not have pedestrian countdown timers present for all marked crosswalks. These intersections are:

- Western Avenue and Jackson Boulevard
- Damen Avenue and Monroe Street
- Damen Avenue and Jackson Boulevard (planned to be installed in connection with Fifth Third Arena expansion)
- Wood Street and Madison Street
- Paulina Street and Monroe Street
- Ashland Avenue and Lake Street

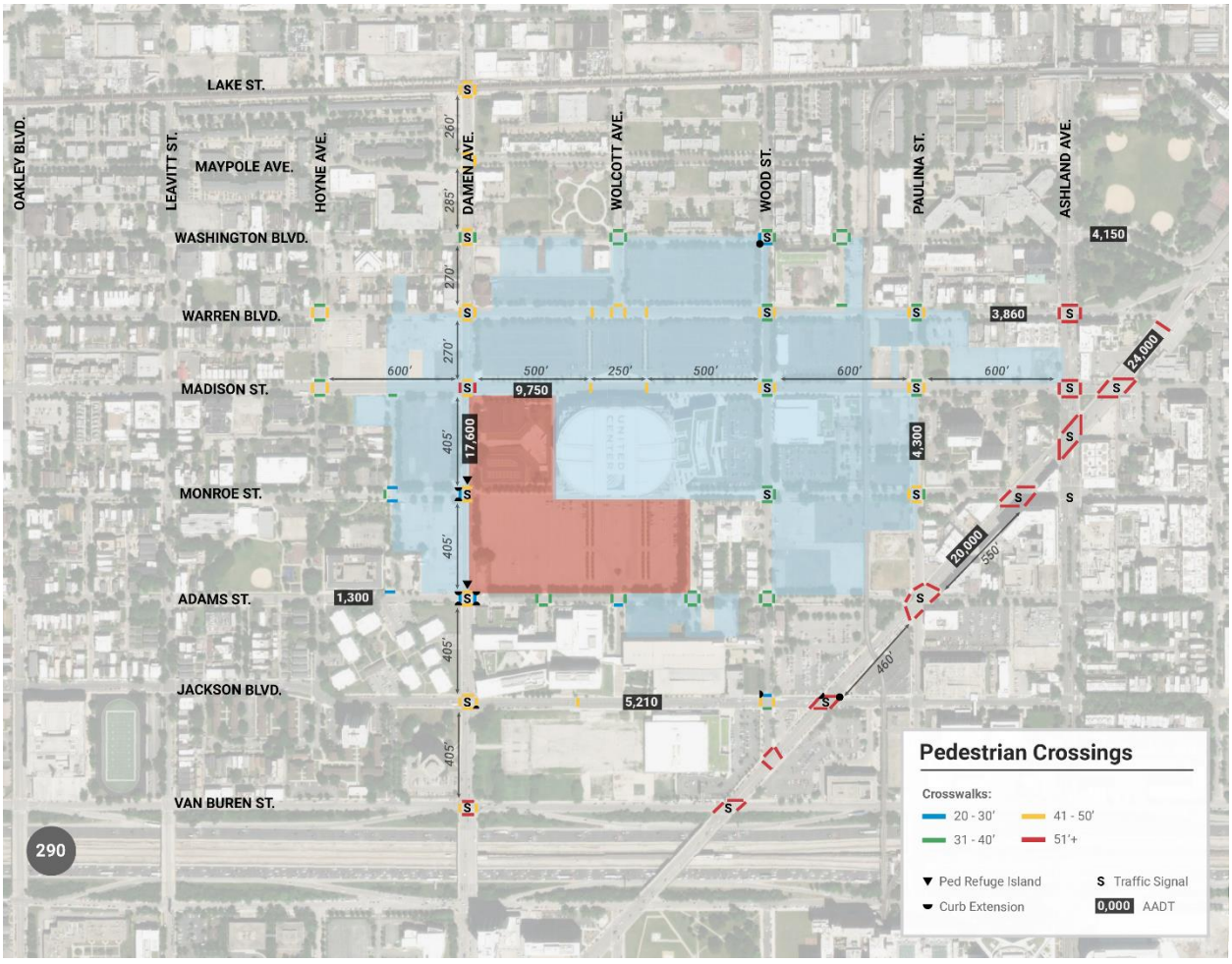

Figure 8 Crossing Lengths in Site Area

Sam Schwartz collected data on all sidewalk widths throughout the Master Plan area and for those connecting directly to key transit connections at the Damen Green Line and Illinois Medica District Blue Line stations, as shown in **Figure 9**. The sidewalk on Ogden Avenue south of Van Buren Street is in poor condition due to buckling, and repairs are expected as part of an IDOT bridge replacement project scheduled by FY 2028.

Most sidewalks surrounding the United Center and connecting the United Center to transit are between seven to nine feet wide, a width that can become easily congested with even modest crowds. East/west sidewalks immediately adjacent to the United Center are wider—at least 10' and at points over 13'. On the edges of the study area, some blocks have sidewalks just five or six feet wide. Many sidewalks in the study area have no landscape buffer between pedestrians and the roadway, although most blocks adjacent to parking lots feature trees and landscaping separating the sidewalk and the parking lot.

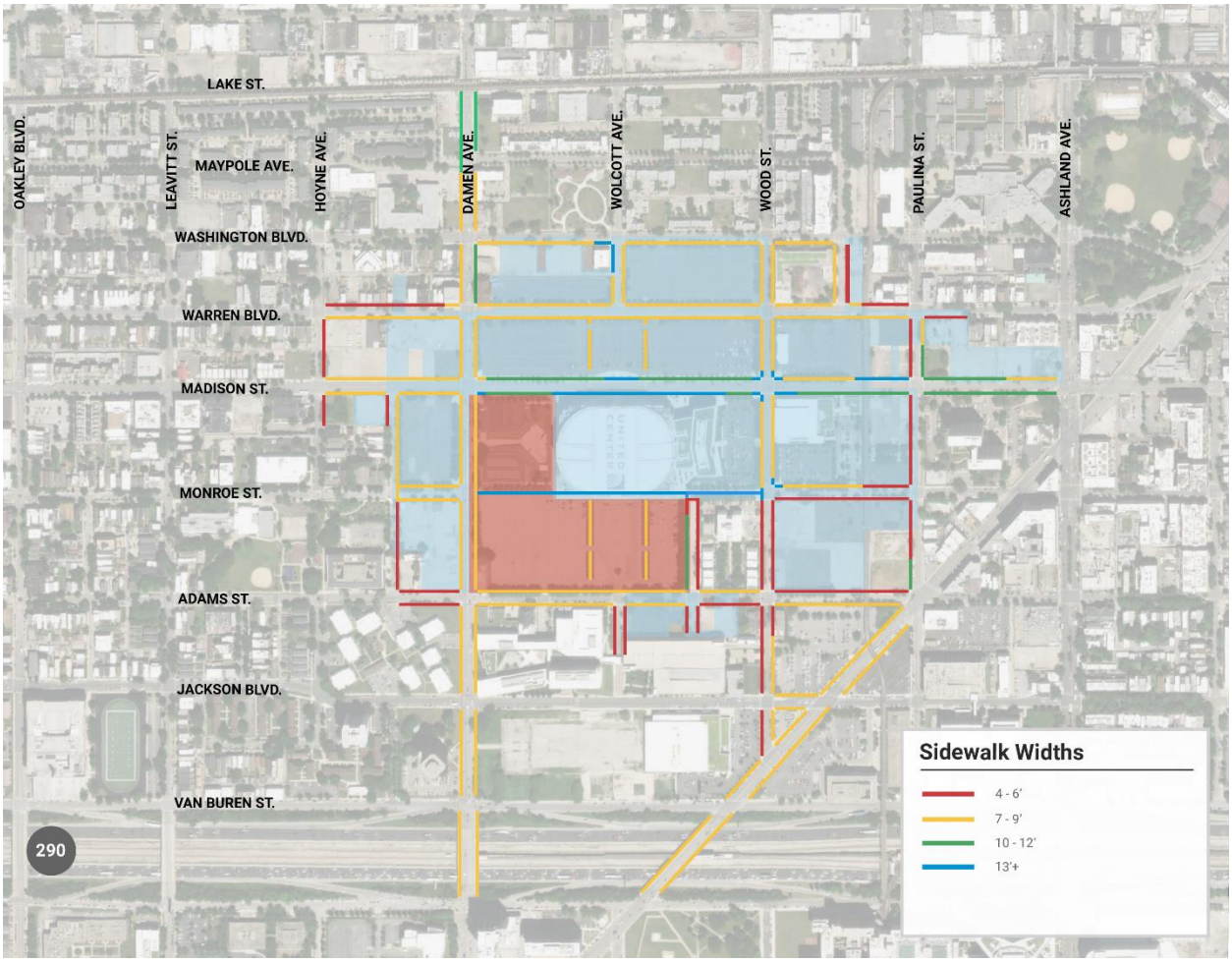

Figure 9 Sidewalk Widths in Site Area

Transportation Safety

The project site is within the Near West Side neighborhood, which the City's Vision Zero Action Plan identified as a High Crash Area. The Vision Zero Action Plan also identified Ashland

Avenue from Fullerton Avenue (outside of the study area) to Van Buren Street as a High Crash Corridor.[5] The Framework Plan provides guidance for the Chicago Department of Transportation (CDOT) to implement effective and feasible safety improvements on prioritized corridors and in areas with a pattern of high crashes resulting in fatalities and serious injuries.

In the study area bounded by (and including) Western Avenue, Lake Street, Ashland Avenue, and Harrison Street, there were 3,884 surface-street (non-interstate) crashes between 2017-2021. Five of these crashes were fatal (with seven total fatalities), 99 crashes resulted in serious injuries, and 1,266 total people were injured in crashes between 2017-2021. Of those crashes, 54 involved a person cycling and 109 involved a person walking.

Table 4 Site Area Crash Data, 2017-2021[6]

Year	Total Crashes	Fatal Crashes	Serious Injury Crashes	Total Fatalities	Total Injuries	Pedestrian Crashes	Bicycle Crashes
2017	469		11	0	166	18	11
2018	950		29	0	329	25	11
2019	950	1	25	3	299	25	13
2020	717	1	15	1	209	19	8
2021	798	3	19	3	263	22	11
Total	**3,884**	**5**	**99**	**7**	**1,266**	**109**	**54**

The most severe hotspot in the area is at the intersection of Congress Parkway, Ogden Avenue, and Wolcott Avenue, with over 250 crashes reported between 2017 and 2021. A full list of crash hotspots is provided below:

- Congress Parkway, Ogden Avenue, and Wolcott Avenue
- Combined intersections of Monroe Street/Madison Street with Ashland Avenue and Ogden Avenue
- Van Buren Street and Ashland Avenue
- Lake Street and Ashland Avenue
- Van Buren Street and Damen Avenue
- Jackson Boulevard and Damen Avenue

When the data are filtered for fatal and severe injury crashes only, three additional intersections within close proximity of the United Center appear as hotspots:

- Hoyne Avenue and Madison Street
- Damen Avenue and Warren Boulevard
- Damen Avenue and Madison Street

[5] City of Chicago, Vision Zero Chicago High Crash Corridors Framework Plan, https://visionzerochicago.org/wp-content/uploads/2018/06/VZ_HCC_FrameworkPlan_2018-06-15.pdf, Accessed October 2024.
[6] IDOT. https://idot.illinois.gov/transportation-system/transportation-safety/roadway-safety/illinois-roadway-crash-data.html, Accessed 2023

The Damen corridor emerged as a dangerous corridor, with hotspots across the length of the road.

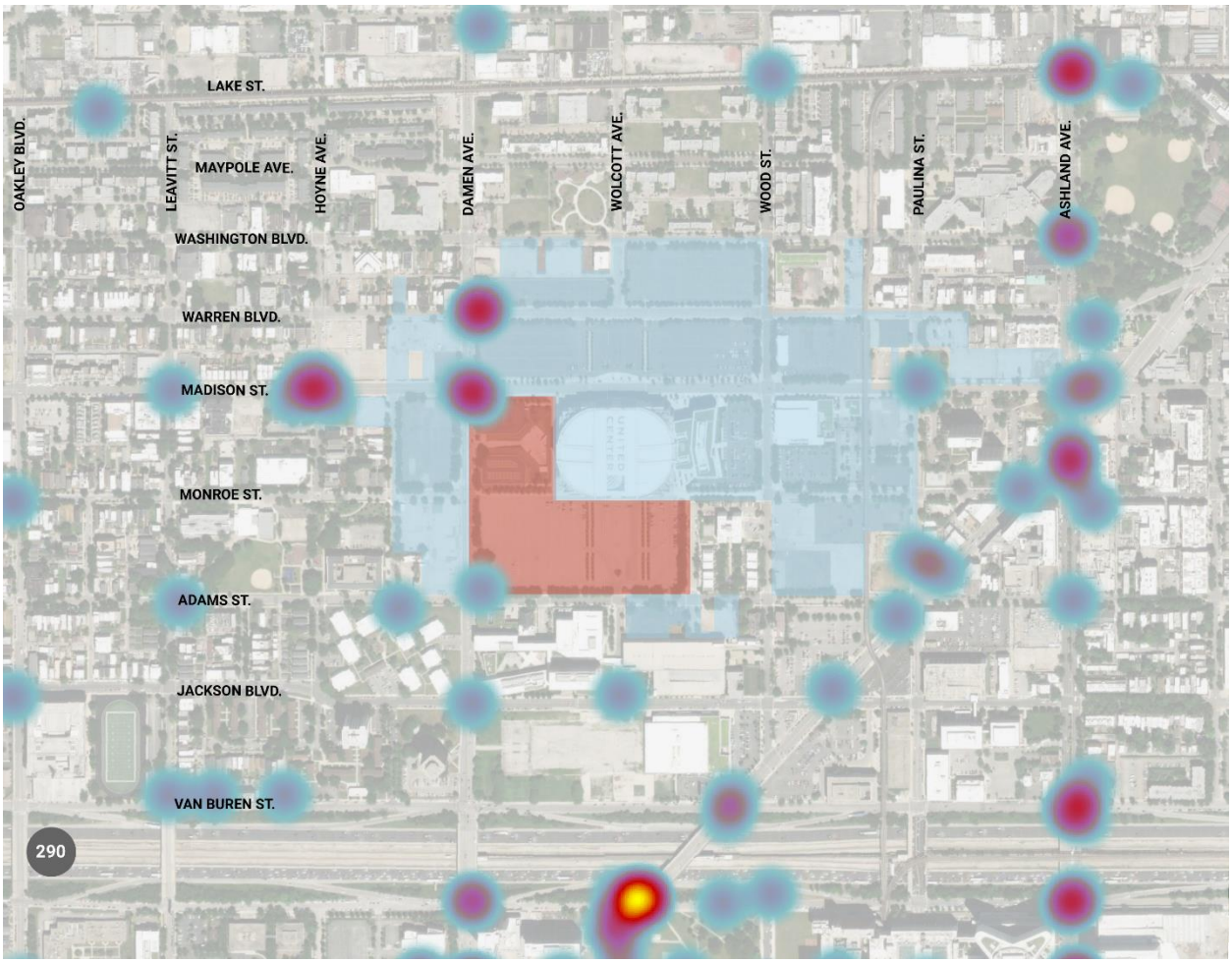

Figure 10 Serious and Fatal Crash Hot Spots

Ridehail Activity

Event day ridehail data for the area surrounding the United Center is presented below, demonstrating a concentration of drop-offs (in red) shortly before events start and a peak of pick-ups (in blue) after events. The total number of drop-offs exceeds the total number of pick-ups by approximately 50 percent, suggesting that patrons are more likely to share ridehail vehicles (or to select an alternate mode of transportation) after events. Additionally, it was noted that nearly 75 percent of ridehail trips begin or end in transit-accessible neighborhoods, including the Loop, West Loop, and River North. This data suggests that improved transit connectivity and frequency, combined with a more comfortable pedestrian environment along

connecting streets to the United Center, could foster a significant mode shift from taxi/ridehail to public transit in the future.

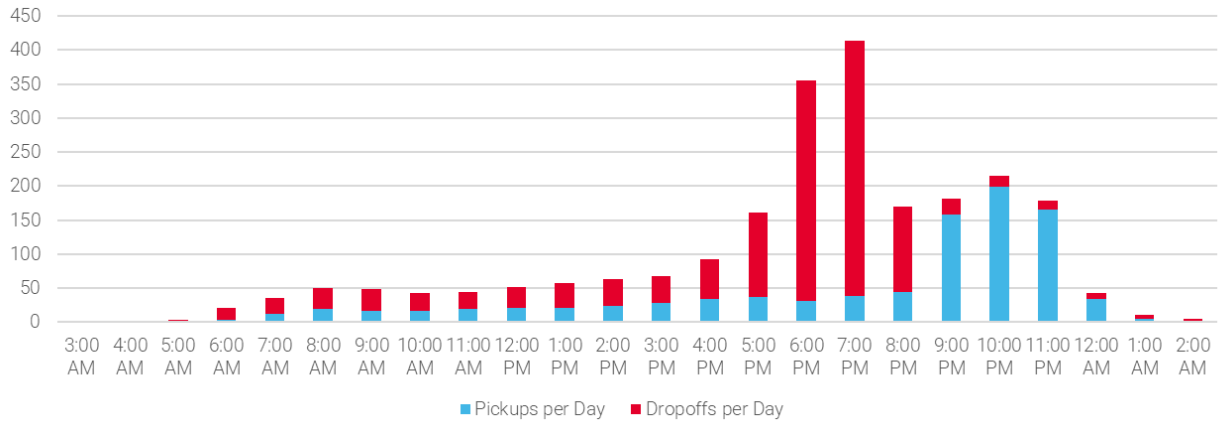

Figure 11 Ridehail Trips by Hour on Event Days (2022)

There was an average of 2,315 total trips (pick-ups and drop offs) on event days in 2022. Seventy-two percent of all trips on event days fall in the evening. Hourly trips range from an average of around 250 trips per hour following Chicago Bulls and Chicago Blackhawks games to nearly 500 trips per hour leading up to concerts and special events.

Parking

Parking lots controlled by the United Center cover approximately 46 acres of land, or about 50 percent of all land area in the development envelope (including roads, building, parkways, etc.). Rightsizing the project's large parking footprint can free up more land for development, reduce capital expenses, and help shape iconic experiences. For example, more than 2,000 parking spaces go unused during the average event at the United Center. Even at events with the highest demand, nearly 1,000 parking spaces are unused.

Based on historical parking data, ***Table 5*** summarizes parking occupancy for the event with parking demand closest to the overall average and the event with maximum parking demand.

Table 5 Existing United Center Event Parking Utilization

Existing Inventory (Parking Spaces)	Average Event[1]		Maximum Event[2]	
	Parking Demand	Occupancy	Parking Demand	Occupancy
5,375	2,785	52%	4,180	78%

[1]Harry Styles concert, 10/13/2022
[2]Chicago Bulls versus Golden State Warriors, 1/14/2022

As shown, overall parking occupancy was approximately 52 percent during an average event, and 78 percent during the event with highest demand. Parking for large-scale events is typically

considered at functional capacity if peak occupancy is at 95 percent. This percentage provides some cushion to accommodate routine events that may reduce the effective parking supply, such as snow cover, minor construction staging or maintenance, and inefficiently parked vehicles.

The parking lot directly south of the United Center, Lot K, where portions of Phase 1 will be developed, has the highest average occupancy rate in the site area at 77 percent occupied. Lot C, the parking lot across Madison Street north of the United Center, is 68 percent occupied on average.

The site area also falls within the Chicago Parking Meters deal, meaning any street parking is controlled and administered by a third party. There are currently no parking meters on streets around the United Center, but there could be in the future. A portion of the southside of Madison Street east of Damen Avenue serves as a cab stand during event days.

Perimeter Land Uses and Destinations

Prominent nearby land uses include Malcolm X College, located directly south of the Planned Development (PD) area along Adams Street between Damen Avenue and Wood Street. The mobility conditions around Malcolm X College are shaped by a variety of transportation options and infrastructure, making it accessible for students, staff, and visitors. Just south of Malcolm X College is the Illinois Medical District (IMD), which contains four major hospitals, two universities, and numerous healthcare facilities. One block south of the project area is Fifth Third Arena, the Chicago Blackhawks' practice facility and community ice rink. These institutions add to the mobility demands in the area, as many visitors and employees use the same transit routes and roadways.

Directly to the east, the West Loop and Fulton Market neighborhoods comprise a dense mixed-use area with residential, commercial, and office uses. Land uses to the west and north are primarily residential.

Access to I-290 is available via two full interchanges within a half mile of the Master Plan area: one at Damen Avenue to the west and another at Ashland Avenue and Paulina Street to the east. Interstates 90 and 94 (I-90/I-94) are approximately 1.5 miles away, with access via Ogden Avenue to the northeast and through the Jane Byrne system interchange. Despite relatively easy access for motorists, these interstates can make pedestrian and bike environments feel unsafe and uninviting, discouraging seamless access to the diverse and vibrant neighborhoods surrounding the United Center.

These perimeter land uses and destinations will inevitably support and be supported by The 1901 Project: the hotel and retail attractions will serve United Center patrons but will also support visitors to the West Loop and IMD; advances in multimodal mobility connections will benefit connections to adjacent neighborhoods and destinations; new dining and event spaces will be used by residents of the surrounding neighborhoods.

Existing Conditions Summary

Enhancing the quality of the public realm in the study area and improving the environment for people walking, biking, and taking transit can help increase activity and vibrancy while also

shifting vehicle trips to other modes—reducing parking demand, congestion, and the amount of space needed to accommodate driving and ridehail vehicles.

With bold new investments in transportation infrastructure, the site is set to become one of Chicago's most connected districts, offering seamless public transit, vibrant walkable streets, and safe bike routes. This transformation will breathe new life into the area, creating a dynamic, easily navigable, and sustainable community where residents and visitors alike can thrive.

Recommendations

The 1901 Project is envisioned as a long-term, multi-phase development that will ultimately become a new neighborhood, blending into and supporting surrounding neighborhoods and institutions: residents will work in the Illinois Medical District; receive education at Malcolm X College; and travel through Chicago using the buses and trains that serve the site. The neighborhood will ultimately seamlessly connect into the larger city fabric. The ultimate vision for The 1901 Project combines best practices for reducing auto dependency and ownership, simultaneously encouraging walking, bicycling, and transit use. In Phase 1, but also throughout the buildout of The 1901 Project, project development will focus on applying best practices to reduce the use of personal vehicles on site.

Recommendations: Larger strategies

The underlying principles of The 1901 Project are not only the building blocks of a comfortable, safe and visually appealing neighborhood, they are also practices that have been demonstrated to reduce the use of private vehicles via sources, such as the California Air Pollution Control Officers Association (CAPCOA) and other state-level resources such as the North Carolina Department of Transportation Vehicle Miles Traveled Reduction Study. These strategies will be deployed throughout the entirety of the project, beginning with Phase 1.

Eventually, all phases of the project will integrate and support each other, so that car use will trend downward even as development proceeds. While the first phase of the project includes a music venue, hotel, restaurants and retail, subsequent development will help the project move from commercial to whole-neighborhood scale. The final build out is envisaged as a new neighborhood with robust transportation options; a high degree of pedestrian and bicycle porosity; and a reciprocal relationship with surrounding neighborhoods and nearby institutions – West Loop, IMD, Tri-Taylor, and East Garfield Park.

There are a few sitewide strategies that will underpin the whole development, including increased residential and job density; integrating affordable housing; and developing complementary land uses, with the goal of cultivating a 'park once' environment for people who drive and encouraging nearby residents and visitors to arrive without a car.

The sitewide strategies that will dictate the entire project development are detailed below.

- Complementary land use mix: Though this has already been referenced elsewhere in the document, The 1901 Project will include a variety of different types of land uses, allowing many of the functions of day-to-day life to be carried out in a relatively concentrated geographic area. Residents, employees, and visitors will be able to access jobs; homes; and

'third place' options like bars and restaurants; fitness opportunities; cultural venues; and open space without having to travel. Research has shown that complementary land uses can reduce vehicle miles traveled by up to 31%, especially when those land uses are clustered near transit.[7]

- Increasing residential density: Increasing residential density is one of the best methods for reducing aggregate car ownership, or car ownership per household. It has been shown to reduce vehicle miles traveled as much as 30%. Within The 1901 Project, the expectation is that the increased residential density – combined with other strategies such as enhanced walkability and robust transit options – will support car-free and car-light households, both within the neighborhood and nearby.[8]
- Increasing job density: The United Center is a major employer, with over 1,000 employees across different companies and franchises (e.g. Bulls, Blackhawks, United Center and associated facilities management). However, both Phase 1 and the eventual full build out will create significantly more jobs. In Phase 1, the hotel, music venue and supporting businesses will offer a variety of jobs for a variety of different skill levels. In subsequent phases, additional mixed-use development will create more job opportunities. Jobs-housing balance on the site will allow employees to live nearby. As with increased residential density, this strategy has been found to reduce vehicle miles traveled by up to 30% in research collected as part of the CAPCOA emissions reduction manual.[9]
- Integrate affordable housing: The United Center already sits at the nexus of very different neighborhoods and districts in Chicago, each of which have their own character and housing mix. Integrating affordable housing will allow people with lower incomes to access employment and enable these residents to forego the costs associated with car ownership. People with lower incomes are less likely to own cars, and so even absent transit-supportive development, provision of affordable housing is likely to drive down overall parking demand. In New York City, for example, only 2.5% of residents in public housing have parking permits.[10] Nationally, the Bureau of Transportation Statistics notes that in 2022, households in the lowest 20% of income owned one vehicle per household, versus 2.6 vehicles in households with income over $245,000. Likewise, 30% of households in the bottom fifth of the income bracket did not own or lease a vehicle, versus 3% of the top 20%.[11] The provision of affordable housing, when compared with market-rate housing, can therefore reduce parking demand by 27%, though specific reductions will depend on the mix of affordable and market-rate housing, as well as access to transit.

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[7] *Handbook for Analyzing Greenhouse Gas Emission Reductions*, (CAPCOA, 2021), 122
[8] *Handbook for Analyzing Greenhouse Gas Emission Reductions*, (CAPCOA, 2021), 82
[9] *Handbook for Analyzing Greenhouse Gas Emission Reductions*, (CAPCOA, 2021), 79
[10] Goldenberg, Emily. *Depending on his argument, de Blasio's facts shift on cars owned by public housing tenants.* Politico, 1/11/2018. Accessed 10/24/2024.
[11] The Household Cost of Transportation: Is it Affordable? Bureau of Transportation Statistics. July 2, 2024. Accessed 10/24/2024.

Strategies for Travel Demand Management

Phase 1 Strategies (Strategies Begun in Phase 1 and Carried Through Subsequent Phases of Development)

Physical Elements:

Add Bus Shelters

Bus shelters at transit stops – along with other transit stop infrastructure development and improvements such as benches, concrete pads, and real-time arrival information – can significantly enhance the experience of riding the bus and encourage greater transit use. Shelters and other improvements not only improve user comfort and convenience, but also increase capacity for public transit use during periods of high demand. A study from the University of Washington found that adding or upgrading bus shelters can dramatically increase boardings; further, focusing on impactful transit stop amenities can be a cost-effective strategy for improving transit use and reducing private motor vehicle trips. [12] Several reports from the University of Utah have found that bus stops that received improved amenities saw local ridership increase but by vary different amounts—from as little as 5.9% to as much as 141%.[13,14] Specifically, bus shelters with real-time arrival information will be targeted for implementation at sites across The 1901 Project.

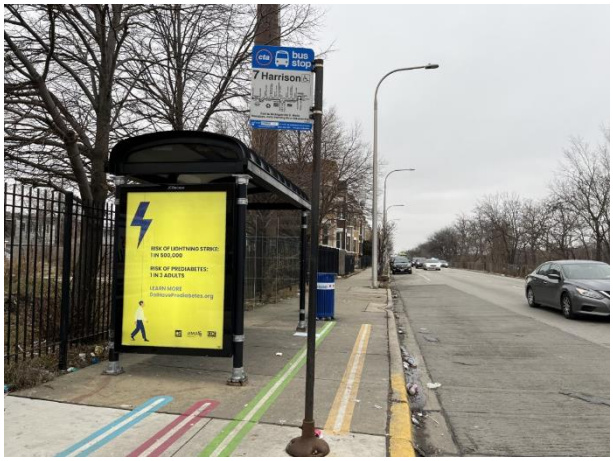

Figure 12 Standard CTA bus shelter on Harrison Street (left) and a CTA Loop Link Shelter on Washington Street (right)

Pedestrian Network Improvements

Whether someone travels primarily by car, bicycle, or public transit, nearly everyone is a pedestrian at some point along their journey. Pedestrian network improvements, therefore, have

[12] Xiao Shi et al., "Does improving stop amenities help increase Bus Rapid Transit ridership? Findings based on a quasi-experiment," *Transportation Research Interdisciplinary Perspectives*, Vol. 10 (2021)
[13] Ja Young Kim et al., "Another one rides the bus? The connections between bus stop amenities, bus ridership, and ADA paratransit demand," *Transportation Research Part A: Policy and Practice*, Vol. 135 (2020)
[14] Bartholemew et al., "Bus Stops Improvements Along Utah Corridor Increase Ridership and ADA Accessibility," *2020.*

the potential to impact the widest segment of users and encourage walking as a convenient, safe, and attractive option to connect to other modes of transportation and engage with local destinations along the way. Relevant elements of the Master Plan include widening sidewalks, enhancing landscaping and streetscape features to calm traffic, and providing additional lighting at the human scale.

Additionally, a raised intersection at Adams Street & Wolcott Avenue will offer a safe, well-lit crossing from the venues to the south rideshare lot, while curb extensions will be constructed to improve visibility and comfort at intersections. Planned connections between key destinations will center the experience of walking, ensuring that people of all ages and abilities are able to access their homes, schools, jobs, and other community assets by foot. Strengthening walking networks is not only a matter of convenience – improving spaces for walking also increases the accessibility of outdoor spaces and advances climate resilience by reducing greenhouse gas emissions released through other forms of transport. CAPCOA estimates that improved pedestrian networks can mitigate greenhouse gas emissions by up to 6.4% through VMT reductions,[15] while researchers from the University of California Davis have demonstrated the positive impacts of improving active travel facilities on nearby retail and food service businesses (even when travel or parking lanes for motor vehicles are removed).[16]

Figure 13 Landscaped curb extension

[15] *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (CAPCOA, 2021), 133

[16] Jamey M.B. Volker & Susan Handy, "Economic impacts on local businesses of investments in bicycle and pedestrian infrastructure: a review of the evidence," *Transport Reviews*, Vol. 41 (2021)

Bicycle Network Improvements

As CDOT continues to emphasize the role of a safe, comfortable, and connected cycling network to complement the continued growth of biking throughout the city, there is tremendous opportunity to transform the biking experience in The 1901 Project area. The Master Plan includes the addition of new, high-quality bikeways on several streets throughout the development that will connect to Damen Avenue, Warren Boulevard, Paulina Street, and other key routes. Specifically, a sidewalk-level bike lane (northbound) on the east side of Damen Avenue (between Adams Street and Madison Street) and a protected bike lane on the north side of Adams Street are included in Phase 1, and development to support the growth and success of theses bike lanes are planned for subsequent phases. Planning these facilities at the network level supports the potential for multimodal connections, allowing for shorter bicycle trips that connect to key transit stations and stops. Building out these bike networks also improves environmental sustainability and public health outcomes. Researchers in the UK found that people biking had 84% lower CO2 emissions from all daily travel than other travelers,[17] while a 2022 study from Old Dominion University in Virginia demonstrated that areas with increasing densities of bicycle and pedestrian networks saw concurrent improvements to a variety of physical health outcomes associated with increased active travel.[18]

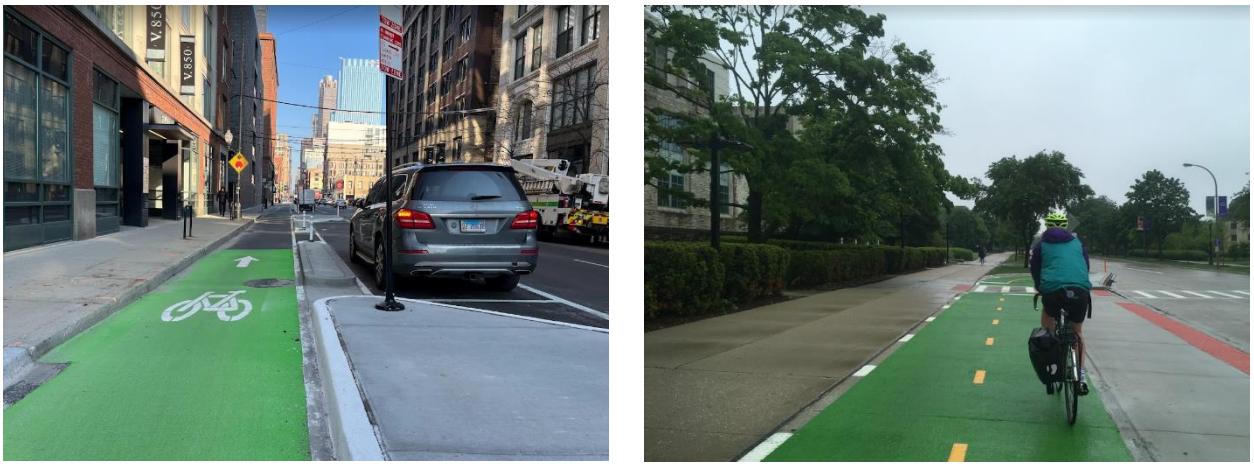

Figure 14 Parking-protected bicycle lane on Jackson Boulevard and a sidewalk-level bicycle lane on Sheridan Road in Evanston

Shared Streets and Vehicle Access Restrictions

Shared streets prioritize people walking, biking, and taking transit while allowing limited private vehicle access, creating safer, more flexible spaces for everyone. Shared streets are places where traditional distinctions between sidewalks, bike lanes, and roadways are minimized, encouraging slower vehicle speeds and greater interaction among different users. Designs may include wider sidewalks, flexible street furniture, and curbless streets. The Master Plan includes

[17] Christian Brand et al., "The climate change mitigation effects of daily active travel in cities," *Transportation Research Part D: Transport and Environment*, Vol. 93 (2021)
[18] Ross Gore et al., "Estimating the Health Effects of Adding Bicycle and Pedestrian Paths at the Census Tract Level: Multiple Model Comparison," *JMIR Public Health and Surveillance*, Vol. 8, No. 8 (2022)

several elements to prioritize safety and comfort for people walking while limiting vehicular traffic, including closing Monroe Street to vehicles west of Damen Avenue. A more comfortable street environment can encourage people to spend more time in an area engaging with local businesses and developments, contributing to a more vibrant sense of place.

Public Bicycle Parking

Public bicycle parking provides secure, convenient, on-street options for people to lock up their bikes close to their destinations. Compared to private vehicle parking, public bicycle parking is very cost- and space-efficient and can be implemented almost anywhere with sufficient sidewalk widths. The Master Plan calls for widening sidewalk space throughout the project site, offering significant opportunity to incorporate bike parking into planned developments – there will be an additional 82 public bicycle parking spaces in Phase I. Public bicycle parking increases the visibility of cycling as an option to more people, promoting it as a sustainable and flexible transportation option that will reduce traffic congestion and vehicle parking demand as it is adopted in greater measure. Strategic planning of bicycle parking also supports multimodal transportation, enabling direct transitions between biking, walking, and public transit to incentivize active travel and further lower carbon emissions. According to CAPCOA, effective provision of public bicycle parking, especially near transit and in coordination with other key facilities of the bikeway network, can reduce greenhouse gas emissions by up to 0.5%.[19]

Figure 15 On-street bicycle corral installed in Andersonville

[19] *Handbook for Analyzing Greenhouse Gas Emission Reductions*, (CAPCOA, 2021), 146.

Long-Term/Off-Street Bicycle Parking

While publicly available bicycle parking can be an excellent strategy for increasing biking capacity immediately outside of local destinations, dedicated off-street bicycle parking facilities can also increase the reliability of cycling as a primary mode of transportation that can support a diverse array of trips. Secure areas such as designated bike-rooms or specially built structures, often protected against weather or the threat of theft or vandalism, offers greater peace of mind for residents or workers who wish to leave their bikes parked for several hours or days at a time. As part of the City's Connected Communities Ordinance, residential buildings near transit are required to provide one off-street bicycle parking space per dwelling unit.[20] CAPCOA estimates that dedicated end-of-trip bicycle parking and facilities can mitigate greenhouse gas emissions by up to 4.4% through reduced vehicle miles traveled.[21] To realize some of this potential, the Master Plan calls for the following ratio of bicycle parking for different land uses:

Table 6 Bicycle Parking Ratios by Land Use

Land Use	**Bicycle Parking Ratio**
Residential	1 space per unit
Retail/Hotel/Office/Event	1 space: 10 auto parking spaces

**max 50 spaces per use*

Figure 16 Long-term, off-street bicycle parking at a workplace

[20] Chicago Zoning Ordinance and Land use Ordinance, City of Chicago (2024), Chapter 17-10
[21] *Handbook for Analyzing Greenhouse Gas Emission Reductions*, (CAPCOA, 2021), 100.

Changing Areas in Offices/Businesses

Long-term off-street bicycle parking strategies can be enhanced through additional amenities provided by offices or businesses to their employees and tenants such as changing areas, showers, lockers, and other features. Joint supply of showers and off-street bike parking have been shown to be more closely related to bicycle commuting than bike parking alone,[22] indicating that these types of perks and amenities can be a cost-effective method for reducing the amount of private vehicle parking demand and nearby traffic congestion that would otherwise result. The Master Plan includes protected bike parking areas with charging points that will be incorporated on the ground floor of office and residential uses. While office buildings will include showers and changing facilities, consideration for family needs (e.g., cargo bikes, trailers, children's bikes, etc.) will also be incorporated into residential use buildings.

Wayfinding Signage to Multimodal Transportation Options

Wayfinding signage that directs people to multiple transportation options can improve accessibility and convenience. This is particularly important in a mixed-use area where event-based visitors, new residents, and a variety of workers converge, often needing to navigate a complex transportation landscape that may be unfamiliar. Clear signage helps people transition smoothly between modes (e.g., from train to bus, or from bike share to walking), reducing the need for personal vehicle use and minimizing congestion. A coordinated wayfinding signage network supports TDM goals by encouraging the use of non-car modes of transport, which can alleviate traffic congestion and parking demand, especially during large events. One study from the Technical University of Vienna, Austria, recommends a mixture of both analogue and digital wayfinding treatments to best create a holistic, barrier-free, and user-friendly experience at

Figure 17 CTA wayfinding signage guiding transit riders to local bus stops

[22] Ralph Buehler, "Determinants of bicycle commuting in the Washington, DC region: The role of bicycle parking, cyclist showers, and free car parking at work," *Transportation Research Part D: Transport and Environment*, Vol. 17, No. 7 (2012) 525-531

transportation hubs.[23] This can include physical signage, app-based wayfinding, and tactile paving treatments to support people with visual impairments. Clear, prominently located wayfinding signage will be located throughout The 1901 Project site as developments are completed.

Shared-Mobility Station/Parking or Infrastructure

Increasing the availability shared-mobility parking and infrastructure, such as Divvy Bike Share stations, can be an effective strategy to provide convenient, flexible, transportation options that reduce parking demand and overall reliance on private vehicles. Shared mobility can be especially valuable for visitors and event attendees who may not be able to access the project site with their own bike or scooter, but still wish to engage in active travel while accessing new developments. Visitors can easily use shared bikes or scooters to travel short distances from transit stops or parking areas, alleviating traffic congestion along important routes throughout the project site. With a robust Divvy Bike Share network already in place throughout Chicago and multiple stations serving The 1901 Project area, the Master Plan will leverage continued system growth and bikeways development by adding new stations to improve bicycle access and connectivity to the project site. Adding density to shared mobility infrastructure means more options and flexibility for travelers to choose options other than private vehicles – the 2020 E-Scooter Pilot Evaluation in Chicago found that the substitution rate of vehicle trips by scooter share trips was 30%.[24] With a commitment to a stronger and more connected Divvy network as part of the Master Planning effort, these gains can be pushed even further to increase shared mobility around the United Center.

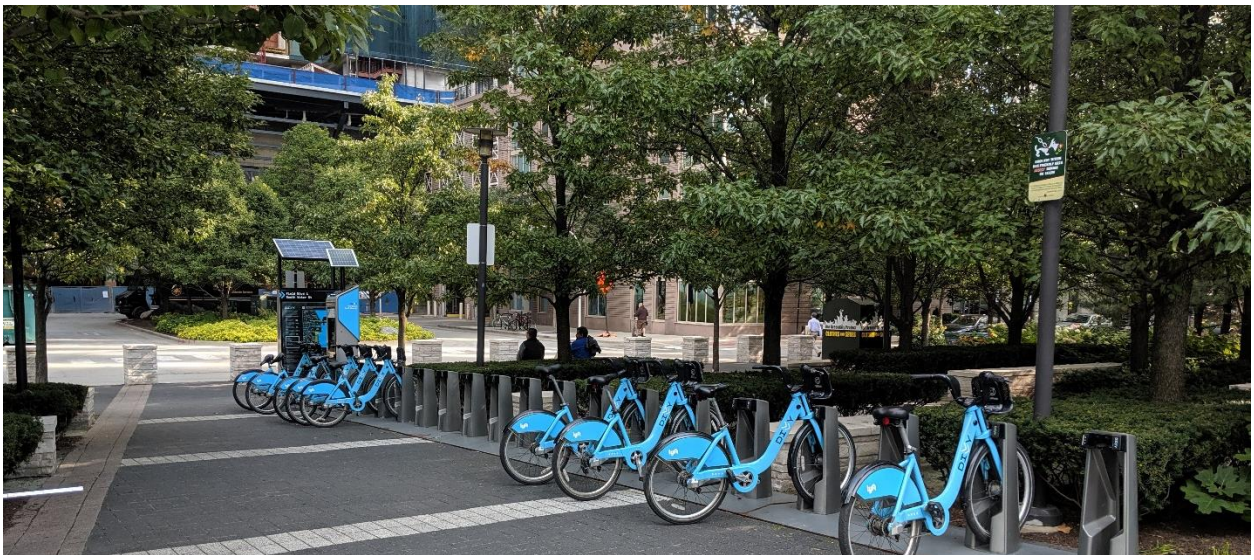

Figure 18 Divvy Bike Share station

[23] Tamea Fian & Georg Hauger, "The Human, the Built Environment and the Technology: Identifying Key Configurations for a User-Friendly Wayfinding System at Transport Hubs," IOP Conference Series, Vol. 960 (2020)

[24] City of Chicago Department of Transportation (CDOT, 2020 E-Scooter Pilot Evaluation), (May 2021), 2020 Chicago E-scooter Evaluation - Final.pdf, October 23, 2024

Parking Policies:

Reduce Total Parking Provision

Reducing the total amount of parking for private vehicles is the most effective way to reduce the use of private vehicles. Providing excess parking supply increases SOV trips; however, constraining the amount of on-site parking provided by residential or office buildings can increase the appeal of alternative modes such as carpooling, walking or biking, and taking public transit. CAPCOA estimates that up to 13.7% of greenhouse gas emissions can be mitigated by reducing parking provision from residential buildings below existing standards.[25] Reducing parking provisions also allows for more efficient land use that supports dense urban environments – rather than setting aside large amounts of space for private vehicles, space can be more efficiently allocated toward housing, commercial developments, public spaces, and other important uses. Phase 1 of the Master Plan calls for existing parking supply to be reduced by 15% across the project area, but parking provision will vary as the site continues to be built out.

In Phase 2 and beyond, residential development will be incorporated into The 1901 Project. The 1901 Project is located within a Transit Oriented Development site per the 2022 Connected Communities Ordinance, which sets a parking cap of 0.5 spaces per dwelling unit (without an administrative adjustment). This ratio is half of what the City's zoning code previously required.[26]

Align Parking Pricing with Demand

While the United Center area is currently dominated by the need for event-based parking, the landscape of parking demand will change as new developments bring an influx of residents, workers, and visitors to the area. Adjusting pricing to align the cost of event parking with its true market value can reduce potential greenhouse gas emissions by up to 30% through reduced VMT,[27] offering a powerful lever to shift travel habits toward more sustainable and efficient modes.

Approaches to residential parking are discussed elsewhere in the document, but it is worth noting here that the plan to unbundle residential parking from condo and apartment pricing will also effectively algin parking pricing with demand. Residents of The 1901 Project will pay for exactly the amount of parking they need, rather than receiving a spot (or spots) by default.

On-Site Parking for Car Share

Designating on-site parking spaces for exclusive use for car share services increases accessibility to shared mobility options. Car sharing services like Zipcar provide a flexible alternative to private car ownership while still enabling motor vehicle access for shorter trips where a vehicle is essential. Convenient access to car sharing services makes it more likely that people in urban neighborhoods choose to give up or avoid car ownership while keeping the total number of vehicles entering and exiting The 1901 Project area to a minimum. A 2016 study

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[25] *Handbook for Analyzing Greenhouse Gas Emission Reductions*, (CAPCOA, 2021), 122
[26] Connected Communities Ordinance Explainer. Chicago.gov. https://www.chicago.gov/content/dam/city/sites/etod/Pdfs/CCO-Full-Explainer.pdf. Accessed November 14, 2024.
[27] Gregory Pierce & Donald Shoup, "Getting the Prices Right: An Evaluation of Pricing Parking by Demand in San Francisco," *Journal of the American Planning Association*, Vol. 79, No. 1 (2013) 67-81

estimated that households using car share services reduced total household VMT by 6-16% and greenhouse gas emissions by 4-18% compared to non-users.[28] The Master Plan calls for a minimum of two spaces to be designated for car share or rental services in in each development subphase that contains residential.

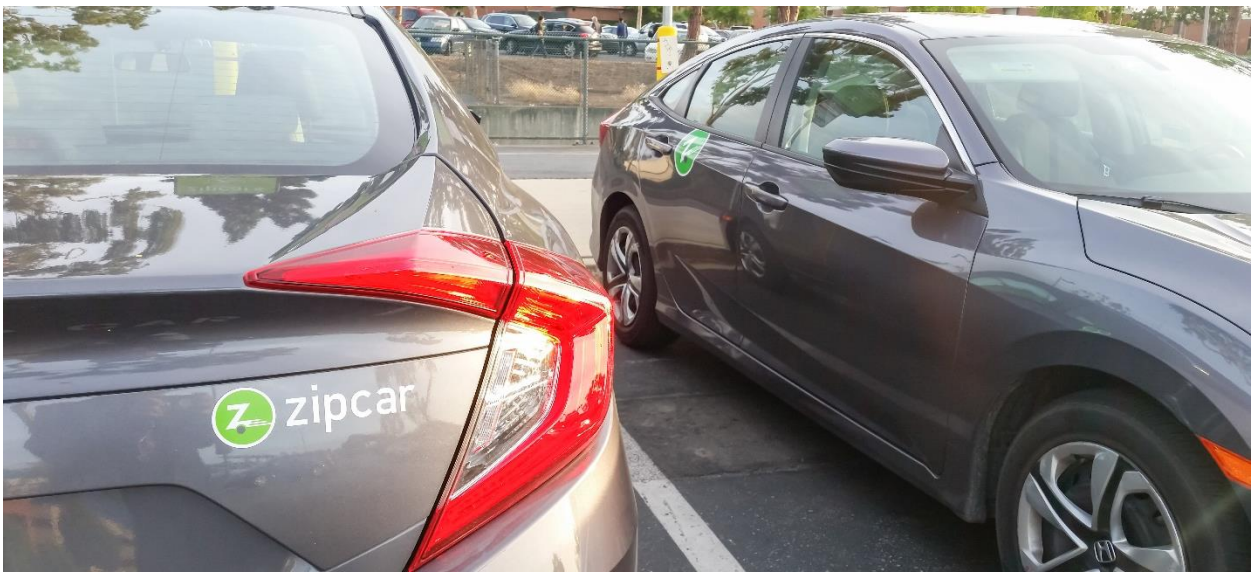

Figure 19 Zipcar car share parking

Programs & Services:

Employee Incentives

Employee inventive policies offer a creative TDM strategy that can reshape how people plan their commutes and make decisions about transportation options. Incentives may involve offering employees or residents the option to forgo a subsidized parking space in exchange for cash or equivalent value in other benefits. This policy provides a direct financial incentive for people to choose alternatives to driving alone, thereby reducing private vehicle congestion and encouraging public transit, walking, and biking. A study conducted by Donald Shoup, a parking policy expert at the University of California, Los Angeles, found that the number of solo drivers commuting to work fell by 17% after implementation of an incentive policy.[29] Phase 1 of the Master Plan calls for an exploration of employee incentives, like parking cash out, to decrease employee reliance on vehicles. As the number of employees on site increases with future development phases, and the increased density across the site makes walking, cycling, and accessing transit feel more appealing, the number of employees who choose to take advantage of employee incentives is likely to increase. This is also a program that will have cascading effects when coupled with other programs, like better transit infrastructure and better street connectivity.

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[28] Elliot Martin & Susan Shaheen, "Impacts of car2go on Vehicle Ownership, Modal Shift, Vehicle Miles Traveled, and Greenhouse Gas Emissions: An Analysis of Five North American Cities," *UC Berkeley: Transportation Sustainability Research Center*, (2016)

[29] Donald C. Shoup, "Evaluating the effects of cashing out employer-paid parking: Eight case studies," *Transport Policy*, Vol. 4, No. 4 (1997) 201-216

The United Center has already introduced pre-tax transit benefits as of January 2024. Pre-tax transit benefits allow staff members to spend up to $315 per month on transit – including commuter trail, urban rail, bus, ferry, and vanpool – as part of a daily commute. The specific savings vary according to mode and personal income, but for a typical CTA commuter, would result in savings of about $20/month or $240/year (assuming purchase of a monthly pass).

TDM Sustainability Coordinator

While transportation decisions are typically left to employees, residents, or eventgoers to make on their own, offering transportation concierge or TDM coordinator services can help to encourage more desirable forms of transportation decision-making at an institutional level. These positions can assist both individual trip planning efforts as well as coordinate development-wide initiatives, demonstrating a commitment to a broad range of transportation options as a core value or a development or organization. The Master Plan includes creation of a TDM coordinator position to promote, coordinate, manage, and evaluate transportation programs, benefits, and services, ensuring these are proactively monitored as conditions change and development continues in subsequent phases.

Event-Specific Shuttles

Providing dedicated shuttles for event attendees, especially in areas that are just out of reach of transit and other alternatives, can help reduce the number of private vehicles entering the project area. Convenient shuttle options reduce the demand for parking near key destinations, keeping motorists cruising for parking in heavily congested pedestrian areas to a minimum while providing a more direct route to a venue or other destination from an area that is known to be a trip generator. Shuttles are already a popular local transportation option for some United Center event attendees coming from bars and restaurants that offer this as a service, helping to minimize the risk of intoxicated driving following sporting or concert events where alcohol is regularly consumed. Meanwhile, some private companies operate intercity shuttles for fans traveling to other cities to see their teams play, minimizing the need for individual parking. The United Center will explore opportunities to promote or even partner with these services to support and maintain their efficacy with increased development to come. The Buffalo Bills have partnerships with a company called rally.co to organize long-distance shuttles; rally.co was also a popular option for organizing bus travel to Taylor Swift concerts in the summer of 2023.

Figure 20 Event shuttle buses connecting people to destinations

Promotion & Information

Transportation Welcome Kits

When people begin new jobs or move to new places, they must often make decisions about how they will get around new and unfamiliar spaces. Transportation welcome kits can help advocates get in on the ground floor of this decision-making process by offering detailed information about the many transportation options available in The 1901 Project area, including transit stops and routes, shared streets and biking or walking paths, car- or bike-sharing services, and other options. A study from Harvard Business School found that major life transitions (such as beginning a new job) can be effective opportunities to produce behavioral shifts when it comes to shifting long-held commuting patterns.[30] By equipping people with this knowledge, TDM coordinators can empower people to make informed travel choices that guide them toward safe and sustainable travel habits.

TDM Marketing

Implementing a marketing strategy to share and promote the project site's vision for transportation will help to educate residents, employees, and eventgoers about the full suite of options available to them that help shift commuting habits. CAPCOA estimates that commute trip reduction and other TDM marketing programs can reduce a project or employment site's greenhouse gas emissions by up to 4%.[31] Marketing efforts centered on travel demand management should be highly visible to anyone that may be visiting the project site, either physically or digitally, focusing on guiding people to transportation alternatives. The 1901 Project includes a commitment to provide clear, highly visible information on walking, biking, and public transit to access the project site via its website, apps, and social media platforms.

Future Strategies

Most of the travel demand management strategies planned for The 1901 Project will be implemented in Phase 1 and then will be carried through in all subsequent phases of development. For example, the additional bus shelters will provide transportation benefits to new stakeholders in later phases, and the enhancement of the pedestrian and bicycle infrastructure across the site will reverberate, with cascading impacts as new residences, businesses and activities make walking and cycling around the site more appealing.

However, there is no residential development planned for Phase 1, while there is substantial new housing planned for later phases. This section of the document focuses on the ways in which later phases of The 1901 Project will incorporate provisions for new land uses.

Unbundle Parking from Residential Rents

In this strategy, residents will pay separately for housing and parking; no residential units will come with a promise of a parking space. By contrast, a survey of currently available real estate (as of November 2024) shows that six properties to the immediate east of the site all include one garage space in the terms of the sale.

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[30] Ashley Whillans et al., "Nudging the Commute: Using Behaviorally-Informed Interventions to Promote Sustainable Transportation," *Behavioral Science & Policy*, Vol. 7, No. 2 (2021) 27-49

[31] *Handbook for Analyzing Greenhouse Gas Emission Reductions*, (CAPCOA, 2021), 89.

For both rental and sales properties in The 1901 Project, car parking will be available; however, it would need to be leased or purchased separately from the living space. This strategy, called 'unbundling,' allows for lower rental and sales prices, and allows occupants to take a more 'a la carte' approach to car ownership. Research shows that having car parking included in your home makes you more likely to own (or acquire) a vehicle, even controlling for all other variables. A 2018 study showed that bundled parking showed that in Arlington, Virgina, auto ownership is higher and SOV commute trips are 12.5% higher in bundled versus unbundled residential developments.[32] A separate study showed that garage parking in Philadelphia, Boston and Seattle are up to 30% vacant, and another showed demand for garage parking in Philadelphia has actually been declining over time.[33]; [34] Finally, a 2021 study from UCLA showed that 'Increased parking causes more car ownership and more driving while reducing transit use.'[35]

Construct New Pink Line Station

The new Damen Green Line station opened in 2024, enhancing the extent to which the United Center is served by transit. As The 1901 Project generates additional trip demand and enhanced walkability, and as parking becomes commensurately constrained, The 1901 Project intends to work with the City of Chicago and the Chicago Transit Authority to construct a new Pink Line station between the existing Polk Street and Ashland stations, approximately at Monroe Street. The introduction of a new Pink Line station would provide a more direct connection to the United Center and directly serve the densest portions of the development, helping to create a transit rich neighborhood, attract significant ridership, and improve access for West Side neighborhoods.

Potential Trip Reduction

By implementing a holistic, robust TDM program, the United Center aims to develop an ecosystem that incentivizes and prioritizes multimodal transportation options. By shifting SOV trips to more sustainable modes of transportation (e.g. walking, bicycling, carpooling and public transit), the TDM program will help reduce parking demand, encourage transit ridership, and help shape a walkable, bikeable community. These interventions will support broader City goals, including supporting strategies to reduce congestion, lower greenhouse gas emissions, promote public health, and add to the City's tax base.

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[32] "Unbundling" parking costs is a top way to promote transportation options. Nay 31, 2018. https://mobilitylab.org/research/building-studies/unbundling-parking-costs-is-a-top-way-to-promote-transportation-options/; accessed November 13, 2024.
[33] The Case for Unbundling Parking and Housing. Philadelphia 3.0 Blog, July 26, 2019. https://www.phila3-0.org/unbundle_parking_and_housing. Accessed November 13, 2024.
[34] Jon Geeting. Study: Center City lost 7 percent of its public parking spaces in the last five years. Plan Philly, December 31, 2015. https://whyy.org/articles/study-center-city-lost-7-percent-of-its-public-parking-spaces-in-the-last-five-years/. Accessed November 13, 2024.
[35] **Parking Access Encourages Driving, Millard-Ball Finds**. UCLA Luskin School of Public Affairs, February 18, 2021. https://luskin.ucla.edu/parking-access-encourages-driving-millard-ball-finds. Accessed November 13, 2024.

Based on existing research, data, and established methodologies, the impact of the proposed TDM program for The 1901 Project development was estimated in terms of the reduction in vehicle trips, also referred to as Vehicle Miles Travelled (VMT). These estimates largely rely on the guidance from the CAPCOA *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, which provides methods to quantify the impact of a broad range of measures on transportation and climate outcomes. For strategies not included in the CAPCOA Handbook, estimates were based off additional research and methods referenced below.

People have a range of mobility needs, and so a variety of strategies are needed to influence different groups. The TDM strategies that will be implemented as part of The 1901 Project development are geared toward five specific user groups: visitors attending an event at the United Center, visitors attending an event at the Music Hall, general visitors to the project site, future residents, and employees. **Table 7** Anticipated Trip Reduction for The 1901 Project, below, highlights the estimated trip reduction for each user group, incorporating all TDM strategies that will be implemented as part of the full Master Plan.

Table 7 Anticipated Trip Reduction for The 1901 Project

User Group	Estimated Vehicle Trip Reduction
United Center Event Attendees	25.3%
Music Hall Event Attendees	31.6%
Personal Vehicles	*31.6%*
Ridehail/Taxi	*14.5%*
General Visitors	35.7%
Employees	18.3%
Residents	31.9%

Several strategies, including implementing an employee incentive program, such as parking cash out, and integrating free transit passes into event tickets, are still under exploration and are not incorporated into these estimates. Likewise, the vision for a new CTA Pink Line station to be constructed on the project site, along with several strategies that only apply in later phases, is not accounted for in the Phase 1 trip reduction estimates. **Table 8** Anticipated Trip Reduction via Phase 1 User Group, below, summarizes the estimated vehicle trip reductions for user groups and strategies that are part of Phase 1. These estimates are solely based on the strategies The 1901 Project is committed to implementing as part of Phase 1 of the development.

Table 8 Anticipated Trip Reduction via Phase 1 User Group

User Group	Estimated Vehicle Trip Reduction
United Center Event Attendees	20.8%
Music Hall Event Attendees	27.6%
Personal Vehicles	*27.6%*
Ridehail/Taxi	*9.5%*
General Visitors	30.4%
Employees	16.3%

Table 9 on the following pages provides additional details on the estimated trip reduction for each individual strategy, along with an explanation and sources for how the estimated reduction was calculated.

Table 9 Vehicle Trip Reduction Estimates for The 1901 Project

Strategy	User Group	Estimated Trip Reduction	Explanation/Sources
Physical Elements			
Transit stops infrastructure development/improvement	All	0.10%	Providing additional amenities at bus stops will improve the experience of people using transit and incentivize its use in comparison to personal vehicles. Adding bus shelters has been shown to increase ridership by 2-4%.[36] A median ridership increases of 3% was applied to existing ridership at stops within the project site and adjusted based on an estimate of how many new transit trips would replace a car trip (73% based on the share of Chicago households with access to a vehicle).
Completion of Damen Green Line Station	All	4.10%	The Damen Green Line Station opened in August 2024 and thus was not incorporated into any baseline mode share data. The station, though, represents a major new transit asset and is closer to the United Center than other existing stations. The estimated trip reduction was based off ridership estimates at other nearby stations and adjusted based on an elasticity of transit ridership with regard to station distance [37]
Construct New Pink Line Station	All	3.60% - 5.70%	The 1901 Project envisions the construction of a new Pink Line station to more directly serve the United Center along with thousands of new residents, employees, and visitors. The estimated trip reduction is based off a ridership estimate that applies transit mode share data from

[36] Ja Young Kim, Keith Bartholomew, Reid Ewing, Another one rides the bus? The connections between bus stop amenities, bus ridership, and ADA paratransit demand, Transportation Research Part A: Policy and Practice, May 2020, https://doi.org/10.1016/j.tra.2020.03.019., October 23, 2024.
[37] Bruce Chapman, The Effects of Out-of-Vehicle Time on Travel Behavior: Implications for Transit Transfers, (January 2006), Microsoft Word - Final Deliverable No 1 EPIC Project.doc, October 23, 2024.

			the West Loop to parcel-level trip generation estimates, along with ridership estimates for events at the United Center and Music Hall. Ridership for the new station was then converted to vehicle trip reduction based off on an estimate of how many new transit trips would replace a car trip (73% based on the share of Chicago households with access to a vehicle).
Shared-mobility station/parking	All	0.20% - 0.40%	Phase 1 of the project will include installing one additional Divvy station and two additional stations are planned for the full Master Plan. The estimated trip reduction was based off ridership at the existing Divvy station in the study area, controlling for the number of shared mobility trips that replace a car trip.[38]
On-site parking for car share or rental services	General Visitors Employees	0.40%	A minimum of two spaces for car share or rental services will be incorporated in each phase of the Master Plan. The estimated trip reduction is based off research showing that each shared car made available leads to a reduction of 13 personal vehicles.[39]
Pedestrian network improvements	All	0.30 - 2.20%	Significant pedestrian improvements, including widened sidewalks, buffering pedestrians from vehicle traffic, streetscape improvements, lighting upgrades, and traffic calming elements, will all be implemented as part of Phase 1. The estimated increase in walking trips resulting from these improvements, as well as the reduction in vehicle trips, was estimated using guidance from the California Air Resources Board (CARB, 2019).[40]

[38] City of Chicago Department of Transportation (CDOT, 2020 E-Scooter Pilot Evaluation), (May 2021), , October 23, 2024
[39] Zipcar, Zipcar Impact Report: Unlocking Access in a Pivotal Year, (2022), 2023-Zipcar-Impact-Report.pdf, October 23, 2024.
[40] California Air Resources Board, Quantifying Reductions in Vehicle Miles Traveled

Bicycle network improvements	General Visitors	0.50% - 0.60%	Significant bicycle network improvements, including the implementation of protected bike lanes along Damen Avenue and Adams Street, will be implemented as part of Phase 1. The full Master Plan incorporates additional new bicycle infrastructure. The estimated increase in biking trips resulting from these improvements, as well as the reduction in vehicle trips, was estimated using guidance from the California Air Resources Board.[41]
Parking Policies			
Align parking pricing with demand	Event Attendees	16 - 20%	The existing parking supply on the project site will be reduced by 15% during Phase 1. All parking being constructed across the Master Plan will require payment. The estimated trip reduction is based on an elasticity of VMT with respect to parking pricing of -0.4.[42]
Unbundle the cost of parking from rents/residential costs	Residential	8.00%	Unbundling parking pricing from housing costs makes the costs of car ownership more transparent and, therefore, can reduce vehicle ownership and associated trips. The estimated trip reduction is based on an elasticity of vehicle ownership with regards to price of -.4, applied to a ratio of parking costs to overall vehicle costs of 20%. [43]
Programs & Services			

from New Bike Paths, Lanes, and Cycle Tracks, (April 2019), Quantifying Reductions in Vehicle Miles Traveled from New Bike Paths, Lanes, and Cycle Tracks Technical Documentation, October 23, 2024.

[41] Ibid.

[42] Todd Litman, Parking Requirement Impacts on Housing Affordability: The Costs of Residential Parking Mandates and Benefits of Reforms, (October 2024), Parking Requirement Impacts on Housing Affordability, October 23, 2024.

[43] California Air Pollution Control Officers Association (CAPCOA), (2021), Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, https://www.caleemod.com/documents/handbook/full_handbook.pdf, October 23, 2024.

Complementary transit programs	Employees	6.10%	Providing discounted transit fares incentivizes employees to increase their use of transit. The United Center will introduce a pre-tax transit program, which is estimated to reduce vehicle trips by 6.1% (CAPCOA, 2021).[44]
Increase job density	Employees General Visitors	6.20%	Increasing job density in the area. The estimated trip reduction was increase in job density above the baseline and an elasticity of VMT with respect to job density of –0.07 (CAPCOA, 2021).[45]
Integrate affordable and below market rate housing	Residential	5.70%	Integrating affordable housing provides greater opportunity for lower income families to live closer to job centers and achieve a jobs/housing match near transit. VMT from affordable units can be 28.6% lower than market rate units. [46]
Promotion & Information			
Transit marketing	All	2-4%	The 1901 Project is committed to using marketing and communications to encourage the use of alternatives to private vehicles. Strategies will include hiring a TDM coordinator to manage these efforts; providing clear, highly visible information on walking, biking, and transit; implementing prominent multimodal wayfinding and real-time transit information; and developing transportation welcome kits for employees and future residents. Research demonstrates these marketing efforts can reduce vehicle trips 2 – 4% (CAPCOA, 2021).[47]

[44] Ibid.
[45] Ibid.
[46] Institute of Transportation Engineers (ITE), Trip Generation Manual 11th Edition, (2021), November 12, 2024.
[47] Ibid.

Phase 1 Implementation

Additional detail on the implementation of TDM strategies within Phase 1 of The 1901 Project are provided in the table below. A Travel Demand Management (TDM) Coordinator will be designated for The 1901 Project to guide the implementation of TDM strategies during Phase 1. The TDM Coordinator will provide updates at the completion of each development phase on the implementation of strategies along with annual updates on data collection and monitoring.

Strategy	Implementation
Physical Elements	
Add bus shelters	Along Damen Avenue: • Install a bus shelter at the stop on the northeast corner of Damen Avenue/Adams Street • Install a bus shelter at the stop on the southeast corner of Damen Avenue/Adams Street • Install a bus shelter on the north side of Madison Street east of Damen Avenue
Pedestrian network improvements	Along Damen Avenue: • Development setback to enable clear sidewalk widths of nearly 10 feet (9 feet and 6 inches) • Development setback to enable street trees and landscaping (buffer of 7 feet between sidewalk and sidewalk-level bike lane and additional buffer of 13 feet between sidewalk-level bike lane and street) Along Adams Street: • Development setback to enable clear sidewalk widths of nearly 10 feet (9 feet and 6 inches) • Development setback to enable street trees and landscaping (buffer of 7 feet between sidewalk and street) • Install a raised intersection at Adams Street/Wolcott Avenue (serving as a safe, well-lit crossing opportunity for pedestrian entering and exiting the new plaza) • Install curb extensions on the southern corners of Adams

	Street/Honore Street and Adams Street/Wood Street Along Madison Street: • Development setback along proposed western garage building to enable widened sidewalk • Development setback to enable street trees and landscaping
Bicycle network improvements	Along Damen Avenue: • Install raised bike lanes on both the east and west sides of Damen Avenue from Adams Street to Warren Boulevard • Install protected bike lanes on both the east and west sides of Damen Avenue from Warren Boulevard to Maypole Avenue Along Adams Street: • Install a protected bike lane on the north side of Adams street from Damen Avenue to Paulina Street
Public bicycle parking	Along Damen Avenue: • Install 14 new spaces Along Madison Street: • Install 38 new spaces Along Adams Street: • Install 30 new spaces
Wayfinding signage to multimodal transportation options	• Rios, on behalf of the United Center, will complete the wayfinding signage plan as part of the implementation for Phase 1 construction and for future phases of development as they are approved. • Screens with real-time information on nearby transit and shared mobility options will be installed within the Music Hall and the United Center near main entrances
Shared-mobility station/parking or infrastructure	• Install new Divvy station on the east side of Damen Avenue between Adams Street and Monroe Street (or another location as agreed upon with the City and Divvy team)
Parking Policies	

Reduce total parking provision	• 508 new vehicle parking spaces will be provided between the proposed western and southeast garage; however, overall vehicle parking within the Phase 1 area will be 15% below the existing baseline
Align parking pricing with demand	• All parking within Phase 1 will require payment • Parking rates for events at the United Center and Music Hall will increase from the current baseline
Programs & Services	
Employee incentives	• Pre-tax transit benefits will be made available to all United Center employees
TDM/Sustainability coordinator	• A TDM Coordinator will be designated for The 1901 project to oversee implementation of TDM strategies, outreach and engagement, and data collection and monitoring
Promotion & Information	
Transportation welcome kits	• Transportation welcome kits will be provided to all new United Center employees (including Music Hall employees) providing information on walking, biking, transit, and shared mobility options along with information on available pre-tax transit benefits • Transportation welcome kits with information on walking, biking, transit, and shared mobility will be provided to other employers within the Phase 1 area to be distributed to all new employees
TDM marketing	• Information on walking, biking, transit, and shared mobility options will be prominently displayed on the United Center and Music Hall's websites, within its app, and on social media platforms

Monitoring/Reporting

The 1901 Project will mature and evolve over the course of its eight-phase development. To monitor the change in transportation patterns, and to administer the programs that are proposed in this document, The 1901 Project will designate a Travel Demand Management (TDM) Coordinator. The TDM Coordinator will conduct data collection on a regular basis and will iterate TDM programs as necessary – for example, there is no residential development planned as part of Phase 1, but the TDM Coordinator will introduce programs and materials to cater to residents once apartments and condos are completed.

The TDM Coordinator will establish a regular calendar of data collection, allowing for year-on-year comparisons of travel behavior. This data collection will include a travel survey administered to employees and residents; an assessment of parking utilization on-street and in garages; and analysis and benchmarking of key performance metrics (i.e., mode share for trips to/from the site, vehicle miles traveled to/from the site, annual transit ridership at the site, and overall participation in TDM programs).

The goal of the TDM plan is to keep individual parking needs and vehicle trips low, even as total trips to and from the site increase. The ongoing data collection will allow The 1901 Project to iterate their program offerings to better serve the needs of the constituent populations. For example, there may be opportunities for better marketing efforts – which has been shown to reduce car-oriented travel demand by up to 10% at site-specific locations. The 1901 Project may also work on TDM enhancements like improved bicycle parking (if appropriate); ‘buddy’ systems for commuters who want to become more comfortable with urban cycling; or enhanced wraparound services like emergency ride home or carsharing provision.

The TDM coordinator and the monitoring that the appointee will undertake will extend beyond the construction phase. The TDM coordinator will be an ongoing role and will be able to iterate and introduce new programs as the neighborhood, and the communities that surround it, evolve.

Engagement

As mentioned above in Monitoring/Reporting, The 1901 Project site will be monitored by a TDM Coordinator. The 1901 Project will also establish a mechanism, such as a Transportation Management Association (TMA), so that all employers and residential properties (via condo associations or management companies) will be included in the TDM program by default. The TDM Coordinator will be responsible for outreach and engagement to businesses and residents, as well as providing assistance in the event complications arise or troubleshooting is needed to properly utilize the TDM strategies.

There are a variety of successful transportation management associations or similar umbrella organizations that will serve as case studies or models for how a TMA could be organized. Locally, the IMD is a quasi-governmental organization that undertakes many of the same outreach and engagement activities of a TMA. Nationally, the Longwood Medical Area in Boston and University Circle, Inc in Cleveland both have organizations with embedded TMAs and staff who are dedicated to transportation issues.

The TDM Coordinator will be responsible for publicizing TDM programs and initiatives and for working with employers, key staff, and stakeholders. While they will hopefully become institutionalized over time, the TDM coordinator will continue to implement and hone different best practices (detailed above) to reduce parking demand and reliance on individual vehicles.

The TDM Coordinator will be responsible for developing and implementing an engagement plan. Such a plan might use individual ‘champions’ within different organizations (e.g. a designated staff person at the hotel, music hall, and individual businesses) and will also work with stakeholders to determine the preferred method of communicating; strategies for onboarding new staff (and, eventually, residents), and strategies for encouraging visitors to arrive without a personal automobile.

Conclusion

The 1901 Project is committed to creating a vibrant neighborhood that blends with surrounding Chicago neighborhoods, and the City of Chicago and the Master Plan have already established many of the building blocks that will allow that to happen. The project site is a transit-rich location, surrounded by vibrant neighborhoods with amenities. Creating a walkable community with an emphasize on multimodal transportation will allow employees, visitors and residents of The 1901 Project to access transit and local amenities that are currently within walking distance but are unpleasant or unsafe to access. At the same time, it will create a new nexus within the west side of Chicago that will serve the entire city and create reciprocal exchange with the surrounding community.