2022

MOBILITY INFRASTRUCTURE REPORT

THE VILLE COMMUNITY

4theVille

trailnet
STREETS FOR ALL

This Mobility Report was created to support a neighborhood transportation plan for The Ville Community (The Ville, Greater Ville, and Kingsway East neighborhoods).

This component of 4theVille's Cultural Boulevard Project is part of a larger initiative by local governments and residents in the bi-state St. Louis region that focuses on significant streets as catalysts to preserve cultural legacy, repopulate neighborhoods, and improve access to nearby bicycle, pedestrian, and transit facilities. Trailnet's mission is to support these efforts so the streets of St. Louis can better serve all users.

Funding: EPA BUILDING resilient inclusive COMMUNITIES

PLANNING RECOMMENDATIONS

Calming streets means slowing down traffic and creating visual constraints for drivers through infrastructure. Decreasing street-user stress increases walking and biking in the neighborhood and benefits health and environmental indicators. Prioritizing sidewalk and transit-oriented infrastructure is crucial for promoting safe, accessible street use and active transportation. This includes, in part, significant policy change in the City of St. Louis related to sidewalk management.

FINDINGS

Transportation Barriers

- CONCERNS ABOUT PERSONAL SAFETY DUE TO BAD DRIVER BEHAVIOR
- BAD ROAD & SIDEWALK SURFACE CONDITIONS
- UNSAFE INTERSECTIONS
- NOT ENOUGH SPACE ON ROADS (BIKE RIDERS)

of residents commute via public transit. This means that over 24% of residents are also pedestrians at some part of their travel.

151,378 ft of sidewalk needs replacing

Community Solutions

- IMPROVED SIDEWALK CONDITIONS
- BETTER STREET LIGHTING
- MORE ON/OFF STREET (PROTECTED) BIKE LANES
- MORE AMENITIES THAT ARE WITHIN BIKING/WALKING DISTANCE

Trailnet and 4theVille have maintained a partnership for five years. The collaboration has found many forms, from community bike rides and running events to clean-ups, neighborhood engagement, and traffic-calming demonstrations. This report provides one strategy towards achieving the neighborhood's vision to become an active transportation-friendly space where bicycling, walking, and transit provide safe, accessible, and healthy mobility options for everyone in the community.

Guided by the collaborative problem-solving model of the Environmental Protection Agency (EPA), Trailnet worked with 4theVille to balance larger goals of advancing environmental justice and civil rights within the infrastructural and historical context, needs, and resources specific to the neighborhoods. The development of this Mobility Infrastructure Report (formerly the low-stress, green, bicycle-and-pedestrian infrastructure [LGBPI] plan) can function as an effective strategy of the Calm Streets approach, which results in reduced water and air pollution, improved watershed management, increased physical activity, and reduced incidence of asthma attacks.

The cornerstone of this project centered on community engagement methods to identify transportation behaviors and barriers, as well as street safety conditions and concerns, in the Ville and Greater Ville neighborhood. In September 2021, Trailnet & 4theVille conducted a safe streets demonstration that modeled temporary curb bump-outs and high-visibility crosswalks along MLK Drive. The survey results gathered from this demonstration, coupled with phone banking, intercept surveys, and community meetings provided a comprehensive understanding of how community members would like to utilize their neighborhood streets.

This document details the neighborhoods' existing physical conditions, environmental conditions, demographics, analysis of public health risks, in-depth community engagement, and opportunities to improve transportation network connectivity. It provides justification for ultimately implementing a comprehensive safe streets plan that facilitates the installation of traffic calming elements, bicycle boulevards/calm streets, transit improvements, and improved sidewalks which will result in an increased number of residents who bike and walk. These measures encourage car-alternative mobility, reduce auto emissions, improve air quality, decrease incidences of asthma attacks, and increase rates of physical activity. Integrating green infrastructure elements would aid in decreasing stormwater runoff, improving water quality, and lower stress levels for street users.

This project, a component of 4theVille's Cultural Boulevard Project, is part of a larger initiative by local governments and residents in the bi-state St. Louis region (East-West Gateway Council of Governments) that focuses on major streets like Dr. Martin Luther King (MLK) Drive as catalysts to preserve cultural legacy, repopulate neighborhoods, and improve access to nearby bicycle, pedestrian, and transit facilities. Trailnet's mission is to support these efforts so the streets of St. Louis can better serve users of all ages and abilities.

History of the Neighborhood

Since the early 1900s, the Ville has been a hub for Black culture and home to many Black artists, entertainers, and business people in St. Louis, Missouri. By the late 20th century, the Ville housed a number of important institutions, including Simmons Elementary, Sumner High School, Poro College, Stowe Teachers College, Tandy Recreation Center, Annie Malone Children's Home, and Homer G. Phillips Hospital.

Sumner High School was the first Black high school west of the Mississippi River. Homer G. Phillips Hospital was responsible for training more Black doctors and nurses than any other hospital in the world during the 40s, 50s, and 60s.

While many of these institutions were formed as a byproduct of racist policies, they left a legacy of community support and radical social service models. Superstars such as Tina Turner, Chuck Berry, and Roscoe Robinson claimed the Ville as their home and represent how central the Ville was to African American cultural life in the larger St. Louis region. Such is the complex history that the Ville has inherited and continues to confront and center today.

THE VILLE AND GREATER VILLE NEIGHBORHOOD

Composed of three zip codes: 63107, 63113, and 63115, the roughly **1.4 square miles of the Ville and Greater Ville are bounded by Natural Bridge Road to the North, Martin Luther King Drive on the South, Vandeventer Avenue on the East, and Marcus Avenue on the West.**

DEMOGRAPHICS

THE VILLE AND GREATER VILLE

RESIDENTS
~8,300

POPULATION DENSITY
~4,700/sq. mile

56% female

44% male

98% of RESIDENTS IDENTIFY AS BLACK OR AFRICAN AMERICAN

THE MEDIAN AGE IN THE AREA **47 years old** is noticeably older compared to the broader City of St. Louis median age of 36 years old.

24% of the residents of the Ville and Greater Ville neighborhood are **over the age of 65**

As these populations age, access to smooth, safe, reliable sidewalks, crosswalks, and hospitable public transportation facilities is essential to ensure residents do not feel confined due to lack of mobility options.

Image: 4theVille Facebook

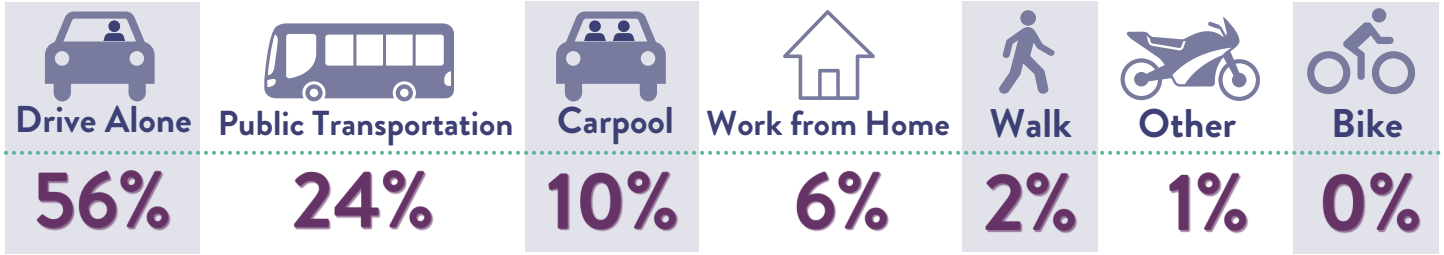
Data: ACS, U.S. Census, 2020

DEMOGRAPHICS

The **70% vehicle ownership** rate in the Ville & Greater Ville is noticeably lower than that of the wider St. Louis City region (81%). Lack of access to a vehicle limits the forms of transportation individuals can participate in; for example, 24% of those who work (16 years old+) rely on public transportation in the Ville/Greater Ville Area for their commute to work versus the 7% using public transit in the greater St. Louis City region.

RESIDENTS OF THE VILLE COMMUNITY ARE 17% MORE LIKELY TO TAKE PUBLIC TRANSIT TO WORK THAN THE AVERAGE CITY RESIDENT.

COMMUTE TO WORK SNAPSHOT - VILLE/GREATER VILLE



100% of census tracts within the neighborhoods were identified by the Department of Transportation's Safe Streets and Roads for All discretionary program as environmentally, economically, and health disadvantaged and **67% of census tracts** as historically and transportation disadvantaged.

DoT set 'disadvantaged' status by evaluating 22 different indicators from the Justice40 program and the Historically Disadvantaged Community Designation.

"Transportation disadvantaged" indicator includes:

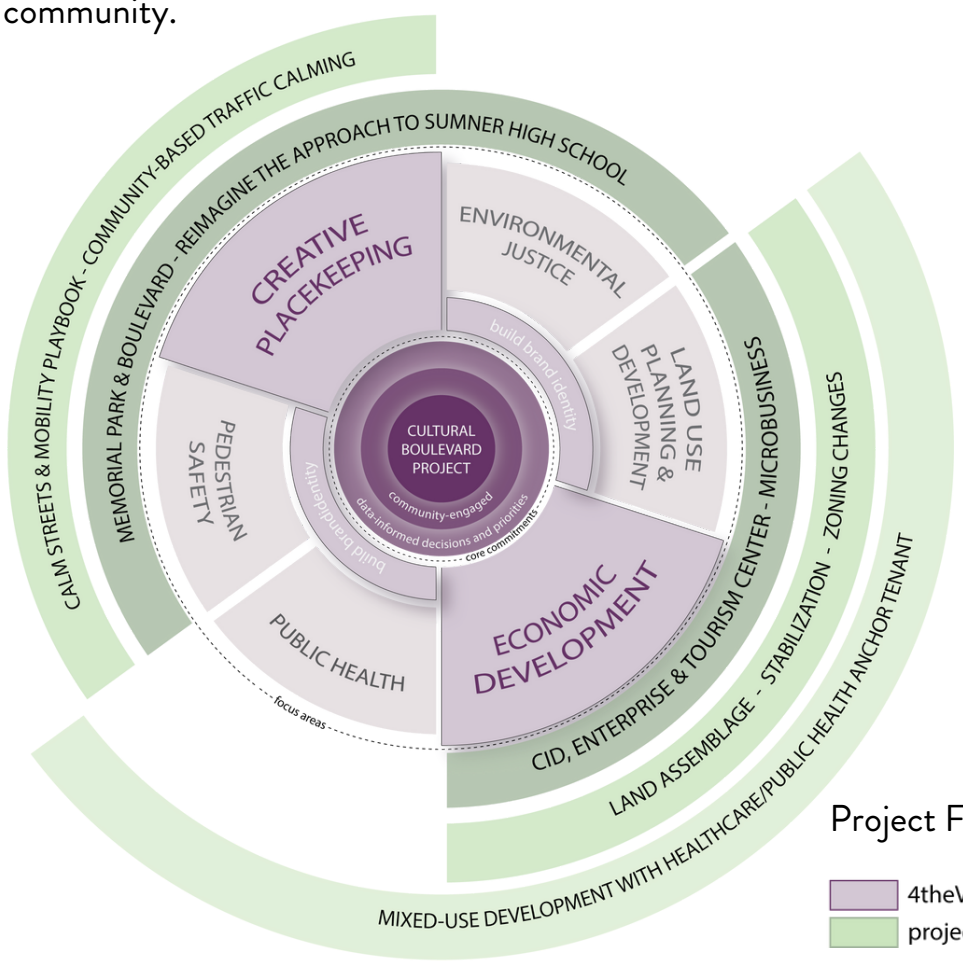
- % of population with drive time to employment >30 min
- % of population with no vehicle(s) available
- Walkability index
- Transportation burden

Considered "disadvantaged" when the average percentage values for all indicators were >50%

CULTURAL BOULEVARD PROJECT

This document is a component of 4theVille's Cultural Boulevard Project (CBP). The CBP is a campaign to transform Dr. Martin Luther King Drive and the approach to Sumner High School by advocating for expansive public infrastructure enhancements in the neighborhood. These enhancements focus on catalyzing initiatives in six areas: creative place-making / place-keeping economic development, land use planning & development, public health, environmental justice, and pedestrian safety. The vision for this Cultural Boulevard highlights connectivity between the Ville's important landmarks and bolsters prosperity in the Black community.

A major City arterial road, a commercial district, and a former state highway, Dr. Martin Luther King Drive serves the St. Louis region as a major connector seeing an Annual Average Daily Traffic of 6,800 vehicles (MODoT, 2021). A portion of this street is featured in East-West Gateway's Great Streets Initiative (2016) to create a more comprehensive vision for mobility on significant streets. However, the initial planning scope of that initiative ends at Union Blvd., about one mile west of the boundary of the Greater Ville neighborhood (at Marcus). The recommendations included in this document are made with consideration for the vision established from CBP committee meetings as well as input from community members.



Project Framework

4theVille scope

project components

Since 2014, Trailnet has sought engagement opportunities within the Ville and Greater Ville neighborhood to help reimagine safer, slower, and greener residential streets. 4theVille & Trailnet utilized EPA grant funding to educate stakeholders about Calm Streets concepts.

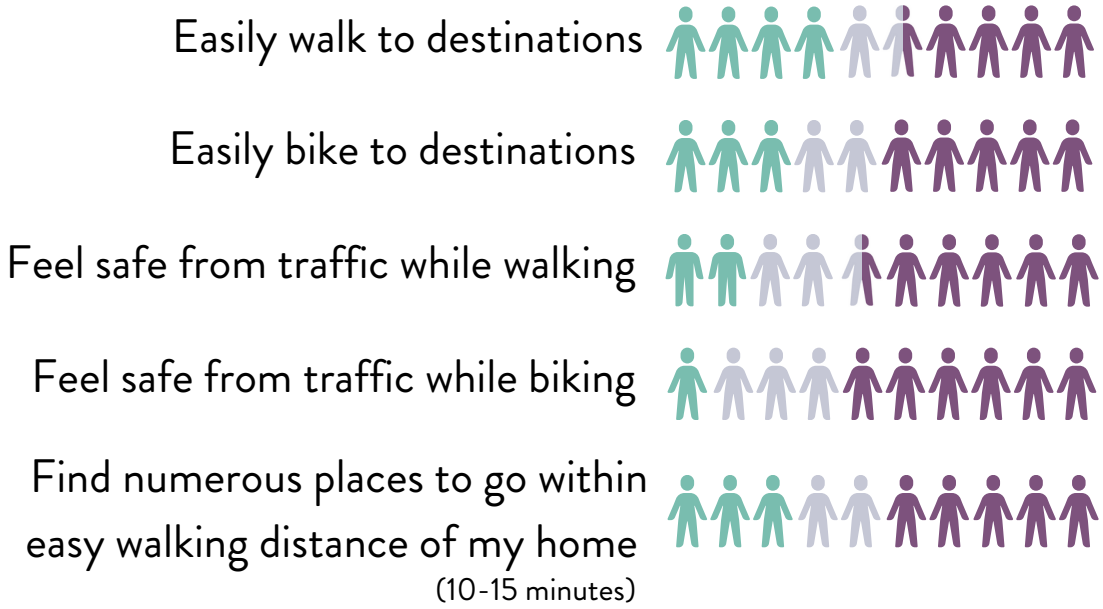
In September 2021, 4theVille & Trailnet hosted a traffic calming demonstration and pop-up community engagement event on MLK Dr. and North Sarah to celebrate the Ville's heritage, highlight talented Black artists and history, and imagine the Ville's potential. This pop-up was part of a larger effort by 4theVille and Trailnet to engage residents in conversations about how the built environment could make it easier for people in the neighborhoods to get around.

During this event, brightly colored tires, traffic cones, and tape were used to create bump-outs and high-visibility crosswalks on MLK & North Sarah and MLK & Whittier that modeled a safer and more comfortable street for all users by making safer and shorter distances for people walking along the street to cross, and encouraging slower vehicle speeds with tighter turning radiuses around corners.

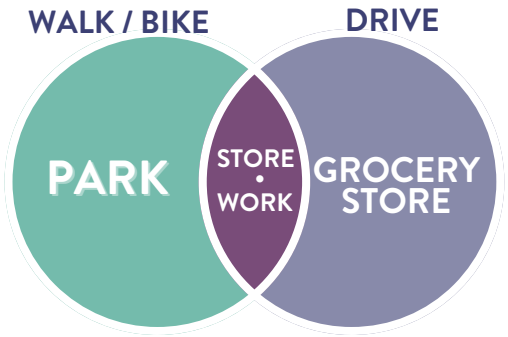
There was a noticeable decrease in speeding along the corridor during the demonstration.

COMMUNITY ENGAGEMENT

In my community, I can ...



When you drive vs. bike or walk, which 3 destinations do you visit the most?



Top Barriers to Walking & Biking More

1. CONCERNS ABOUT PERSONAL SAFETY DUE TO POOR DRIVER BEHAVIOR
2. ROADS/SIDEWALKS ARE IN POOR CONDITIONS
3. UNSAFE INTERSECTIONS
4. NOT ENOUGH SPACE ON ROADS (BIKE RIDERS)

Top community-sourced solutions to these barriers...

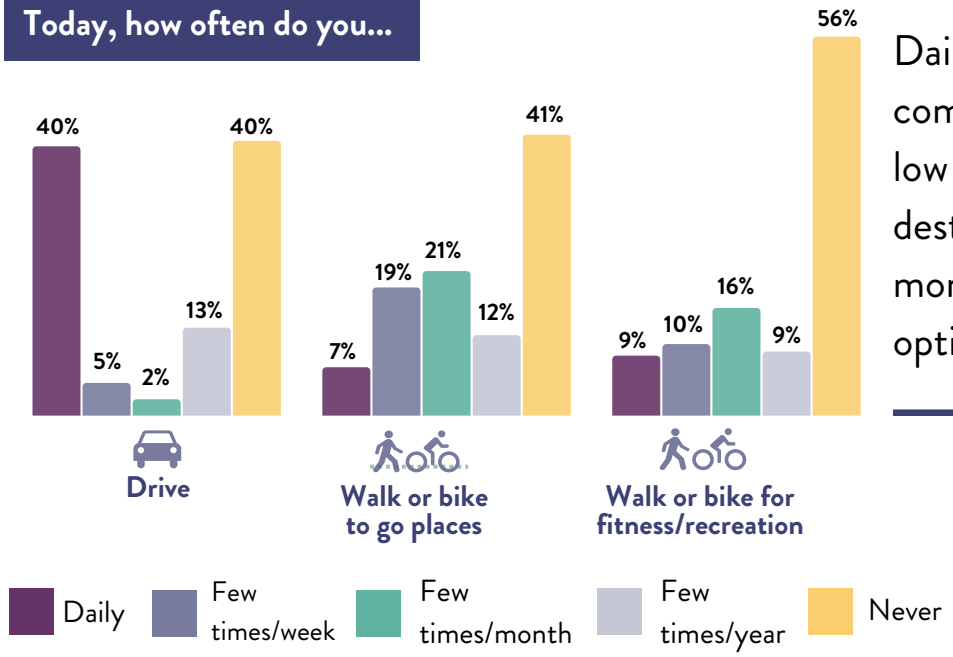
1. MORE ON/OFF STREET (PROTECTED) BIKE LANES & BETTER SIDEWALKS
2. SLOWER VEHICLE TRAFFIC
3. BETTER LIGHTING
4. MORE AMENITIES WITHIN BIKING/WALKING DISTANCE

COMMUNITY ENGAGEMENT

The pop-up demonstration was also used as an opportunity to collects survey responses from community members to help prioritize specific traffic/street concerns and determine priority routes for connectivity.

An analysis of the (73) pop-up survey responses provided insight into how residents utilize different mobility options, and the ways in which these modes and avenues of transportation could be improved and better connected.

Today, how often do you...



Daily use of active transportation (walking/biking) is far less common than the everyday use of cars for transportation. The low proportion of active transportation users reaching destinations and for fitness/recreation represents a need for more infrastructure and services to support those lifestyle options.

Over the past few years, most people have been driving more or about the same. People are walking and biking for transportation with similar frequency compared to a few years ago. The amount of recreational walking and biking has notably decreased in the past years.

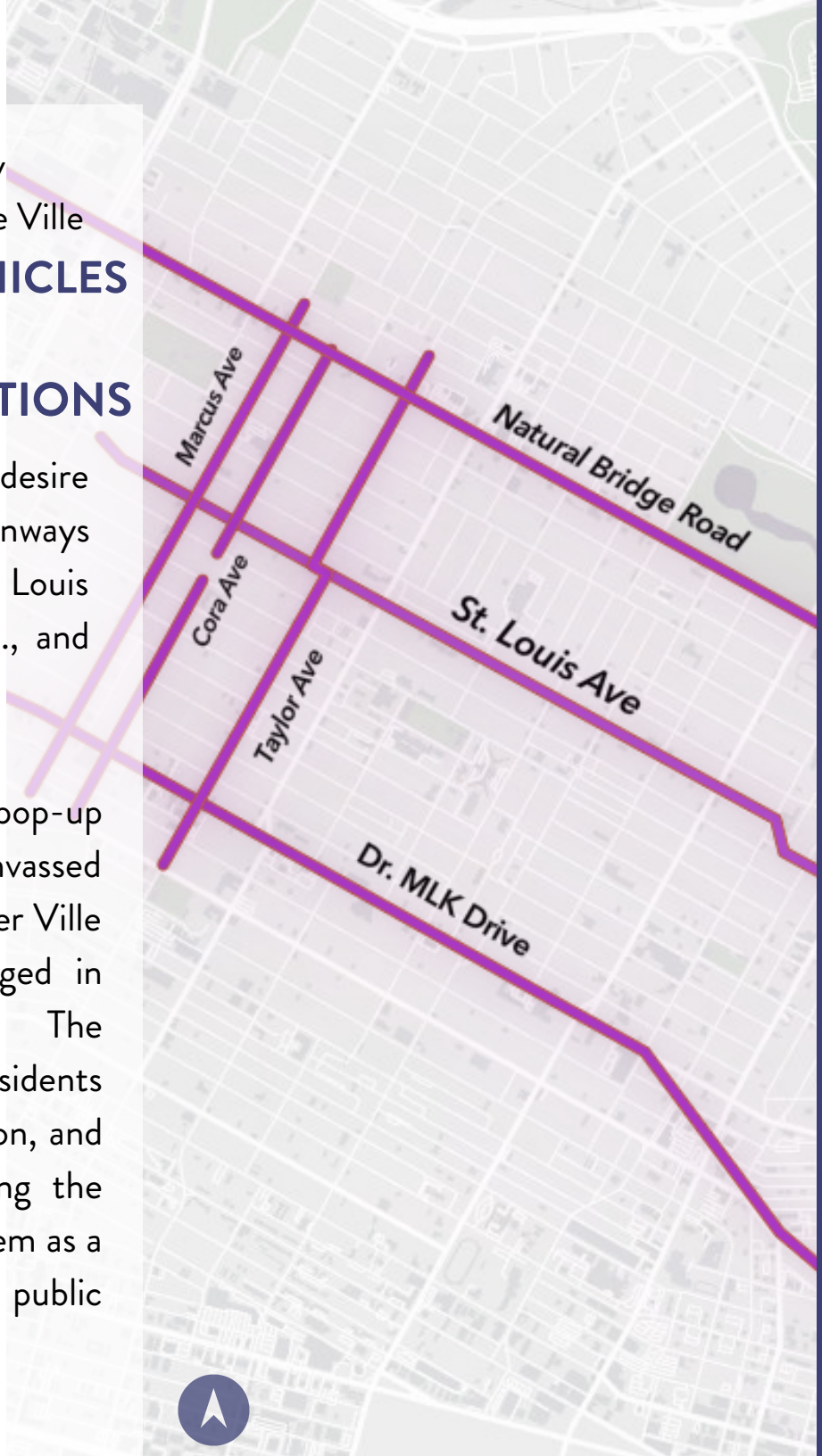
In the last few years, how have your modes of transportation changed?

	MORE	ABOUT THE SAME	LESS	N/A*
Driving	30%	28%	25%	17%
Walking or biking to go places	15%	25%	18%	42%
Walking or biking for fitness/recreation	13%	31%	31%	25%

*participant does not engage in activity

COMMUNITY ENGAGEMENT

Eight (8) intercept surveys conducted outside Hickey Elementary School solicited feedback from parents about transportation in the Ville and Greater Ville. Their concerns regarding **SPEEDING VEHICLES** and **UNSAFE STREET CONDITIONS** mirrored that of the other community surveys. Folks expressed desire for better sidewalks, speed humps, and more bike paths and greenways to be integrated throughout the neighborhoods; and cited St. Louis Ave., Natural Bridge Road, Cora Ave, MLK Dr., Taylor Ave., and Marcus Ave. as desired areas for improvement.



In addition to the community surveys collected from the pop-up demonstration and school intercept surveys, residents were canvassed via phone banking. Of the 246 residents of the Ville and Greater Ville called, seventy (70) were successfully contacted and engaged in conversations about their mobility needs and challenges. The information gleaned from those conversations indicated that residents without access to a car, relied largely on buses for transportation, and those with access to a car used it almost exclusively- citing the perceived "dangerous conditions" of the streets and transit system as a significant deterrent from walking, biking, or using public transportation.

ON THE ROAD

The Ville and Greater Ville neighborhoods are **surrounded by several of the highest density pedestrian crash corridors in the City:**

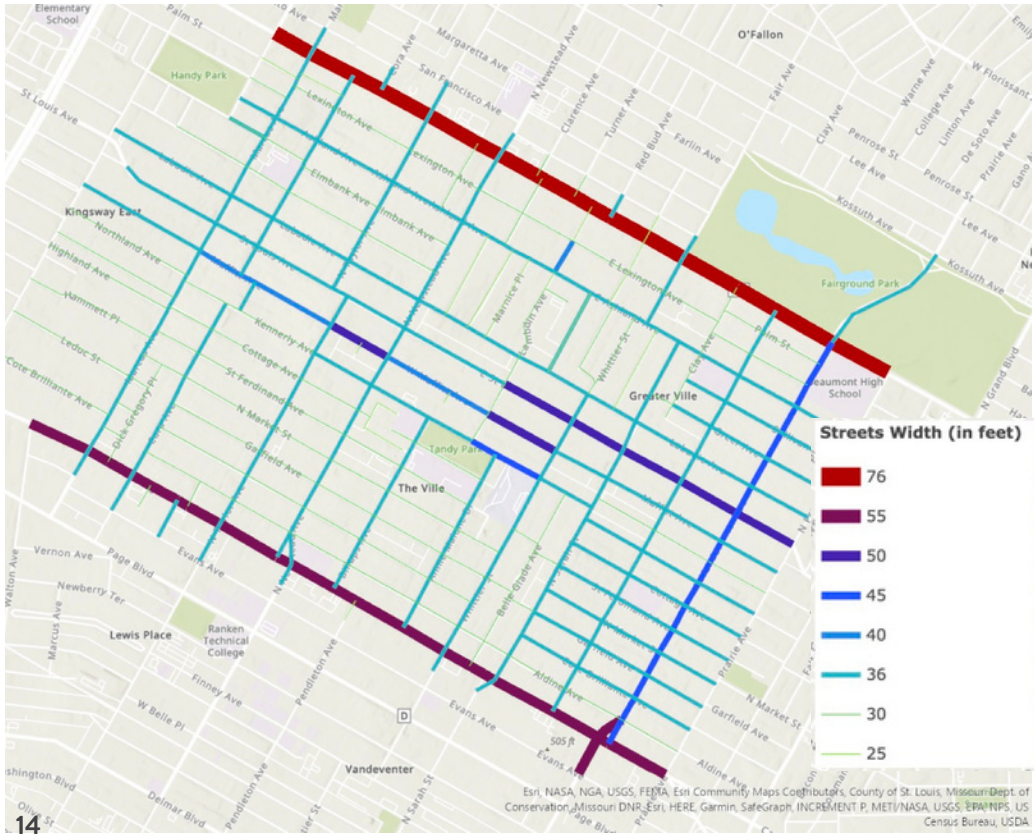
- **NATURAL BRIDGE AVE.** from Union to Harris
- **KINGSHIGHWAY BLVD.** from Delmar to Natural Bridge
- **MLK DR.** from City Limits to Taylor
- **PAGE AVE.** from Belt to Wittier

This is indicative of several possible factors including, but not limited to:

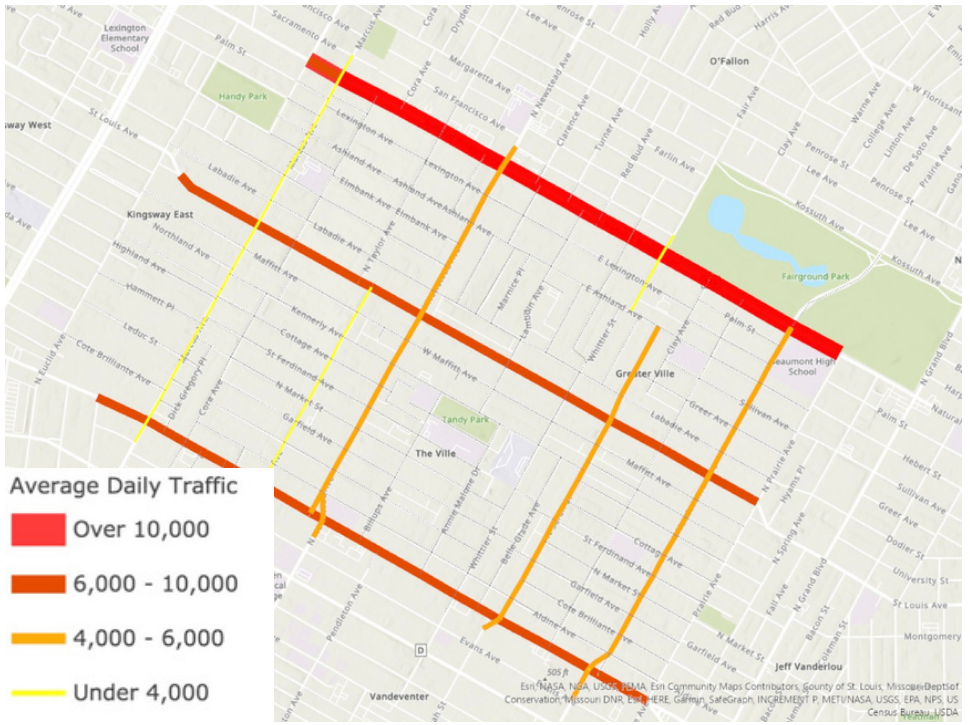
- WIDE WIDTH OF THE ROADWAYS
- POOR PEDESTRIAN INFRASTRUCTURE
- HIGH POSTED SPEED LIMITS
- RECKLESS AND DISTRACTED DRIVERS.

In most cases, wider roads encourage motorists to move at faster speeds; these faster vehicle speeds create a dangerous and more stressful environment for other street users and put them at higher risk of harm. The same can be said for roadways with a high Average Daily Traffic (ADT) and posted speeds that are either high, or ignored.

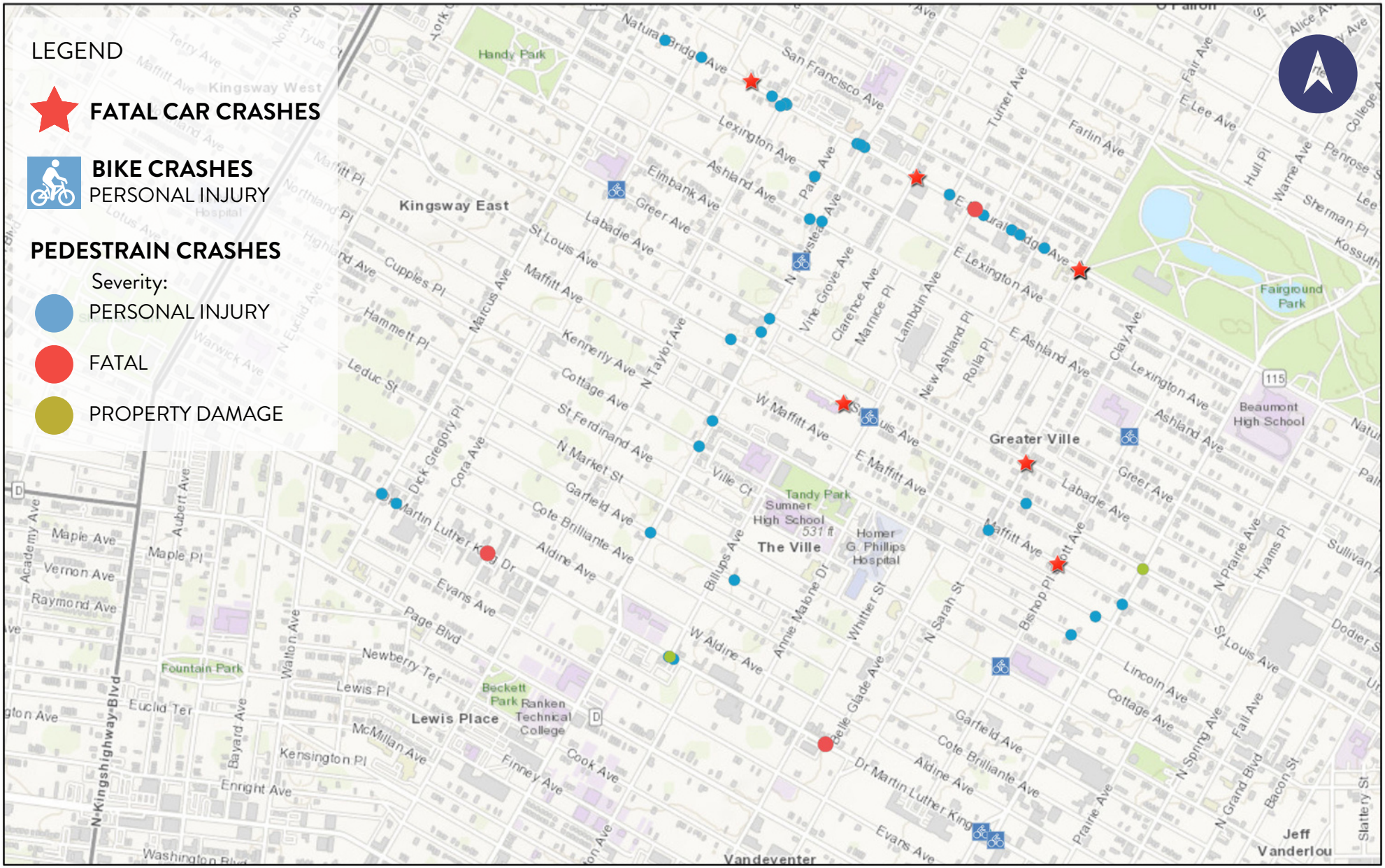
ROAD WIDTHS



AVERAGE DAILY TRAFFIC (ADT)



VILLE & GREATER VILLE (REPORTED) CRASHES (2017-2022)



PUBLIC TRANSIT

There is a relatively high proportion of residents of the Ville and Greater Ville that do not own or have access to a vehicle (average ~30%) compared to City's average of ~19%.

30% **of residents do not own or have access to a vehicle**

In certain areas* of these neighborhoods, over half of residents reported that they rely on public transportation to commute to work, and on average for the Ville/Greater Ville neighborhood almost 24% of residents who work, commute via public transit.

24% **of residents commute via public transit**

*Census Block Groups

AVERAGE DAILY ON-BOARDING AND ALIGHTING DISTRIBUTION

On-Boarding

Alighting

Ave. # of Riders

METRO BUS LINES THROUGH THE VILLE AND GREATER VILLE

Neighborhood bus stops are located along Taylor Ave & N Newstead Ave, Sarah St. & Whittier St., St. Louis Ave, MLK Dr., and Natural Bridge Ave. The shelters or amenities at these bus stops are mostly non-existent.

FREQUENCY OF SERVICE (DAY)

as of 10/4/2022

18 Taylor - 60min

42 Sarah - 60min

19 St. Louis Ave. - 60min

32 MLK - 40min

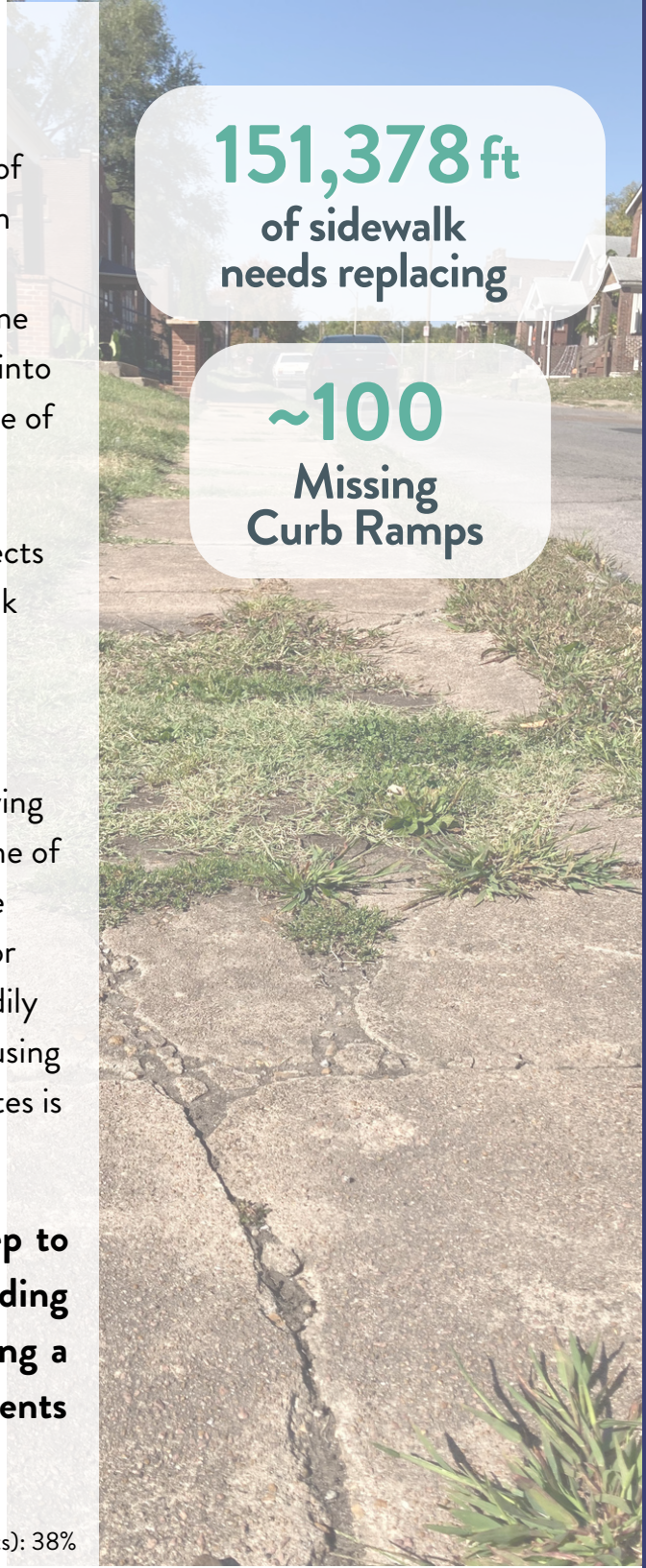
4 Natural Bridge - 30min

SIDEWALKS

Trailnet conducted a walk audit assessment of all the neighborhood sidewalks. The majority of sidewalks throughout the residential neighborhoods in the area do not currently comply with ADA standards and in some cases, are impassable on foot. A vast majority of the sidewalks abutting vacant land or abandoned properties are ADA noncompliant, hazardous, and in some cases, non-existent. After periods of severe storms, trash, and debris congregated 3-6 feet into the streets, covering any available sidewalk and forcing the user to walk directly in the middle of the street, putting them at greater risk of harm.

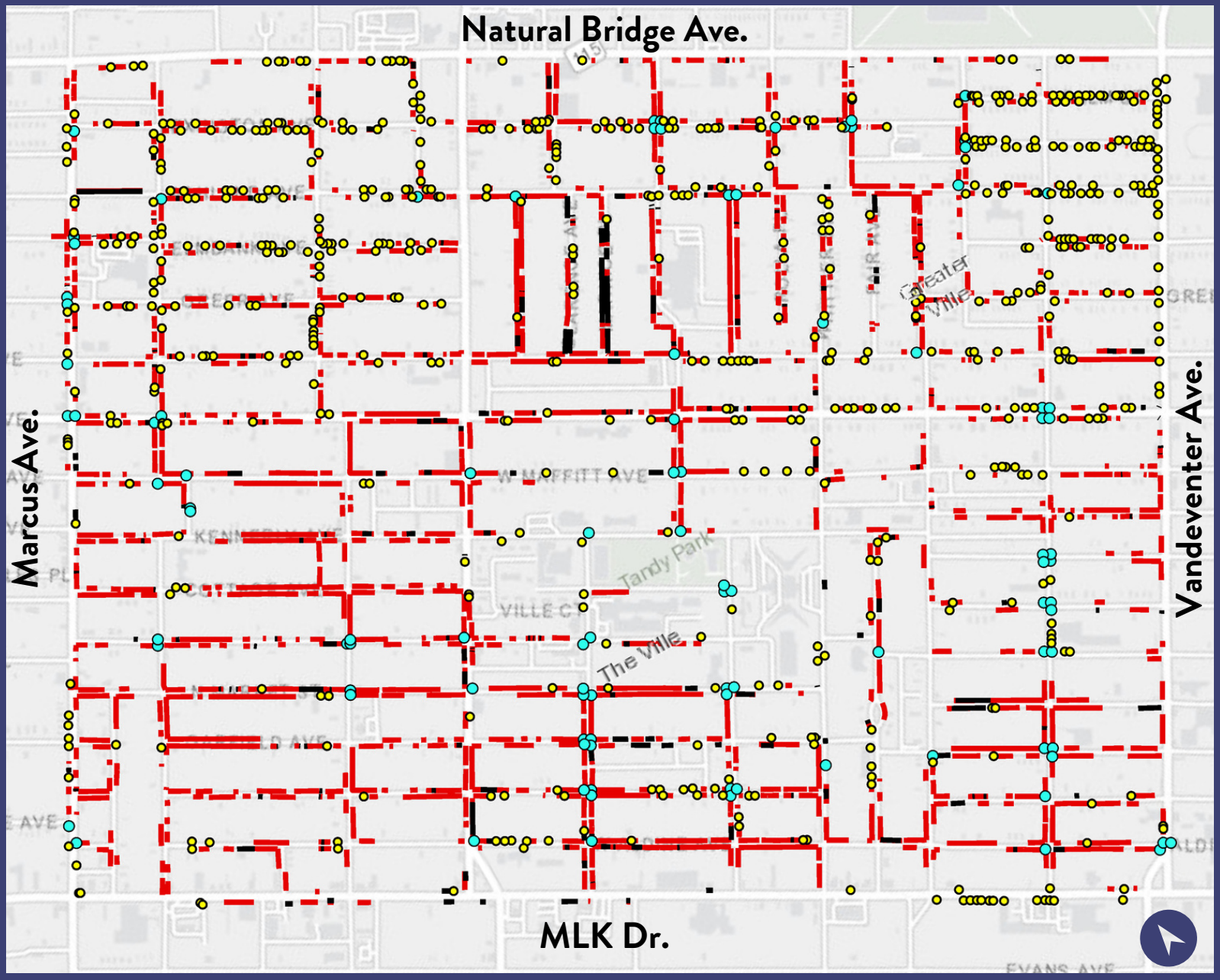
The condition of these sidewalks throughout the Ville and Greater Ville neighborhoods reflects the shortcomings of the current City of St. Louis sidewalk policy. The City's current sidewalk maintenance policy puts the responsibility for maintenance and repairs in the hands of the property owners, but offers a cost-sharing option for covering half of the expenses if the property owner can pay for the other half. Eligibility for this 50-50 Sidewalk Program is contingent upon the property owner being proactive about their property maintenance, having all estate property taxes paid off in full, and that the funds for repairs are available at the time of construction. Alternative sidewalk repair options include using ward capital (allocated by the alderperson(s)) to cover the costs, or full financial accountability from the property owner or developer. This program inequitably favors neighborhoods with more ward capital funds readily available and higher rates of proactive property owners. In an area with over 35% vacant housing units, the opportunities for consistent sidewalk maintenance and contiguous pedestrian routes is limited by the lower neighborhood home ownership.

Sidewalks are essential for connecting public transit users from their doorstep to their bus stop. To put the responsibility of reporting, applying, and funding sidewalk repairs on a homeowner creates an ineffective system for maintaining a safe network for pedestrian connectivity, and puts an unfair burden on residents with disabilities that impact their mobility.



U.S. Census, 2020. Housing Units: 6,219 Occupied: 3,869. Vacancy of Housing Units (not including vacant lots): 38%

VILLE & GREATER VILLE SIDEWALK ASSESSMENT (2022)



LEGEND

- Sidewalks Segment in Poor Condition
- Missing Sidewalk Segment
- Tripping Hazard
- Missing Ramp(s)

SIDEWALKS

A man walking with a mobility device on a street because the sidewalk is impassable.

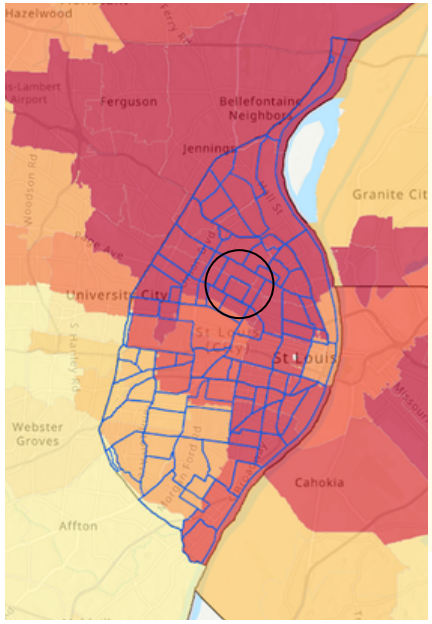
Weathered, crumbling sidewalk surface

Curb at an intersection missing all ramps

Dislodged sidewalk segment

PUBLIC HEALTH AND ENVIRONMENTAL INDICATORS

Data generated using the EPA EJSCREEN tool reveals the severe environmental harm residents face within the target area. A review of just three Environmental Justice Indices-- Air Toxics Respiratory Hazard, Particulate Matter (Diesel Particulate Matter (PM) in the air), and Traffic Proximity (avg. annual daily traffic) -- reveals that the targeted zip codes represent areas with some of the worst air hazards and traffic proximity in both the state and the Midwest United States (EPA Region 7). Residents of The Ville and Greater Ville rank in the 95th percentile in the state and the 96th percentile in Region 7 for exposure to respiratory hazards compared to all other residents of the same areas. This means that only about 4% of the population in the state or region live in communities with a higher index value (i.e. live in areas where the air quality is worse) and indicates some of the manners in which environmental harms disproportionately impact residents.



Air quality in the city is poor. According to the American Lung Association's State of Air 2017 report card, St. Louis was given an "F" due to its extremely high number of High Ozone Days and a "D" for Particle Pollution. Additionally, the St. Louis region has the highest asthma emergency department (ED) visitation rate (6.9 per 1,000) and the highest asthma hospitalization rate (14.3 per 10,000) in the state, with African American children being six times more likely to visit the ED. Like much of North St. Louis City, the Ville and Greater Ville are in the top 5% of asthma rates in children and adults.

St. Louis ranks in the bottom percentile for health outcomes, **38%** **of adults were classified as obese**, **35%** **of adults physically inactive in last 30 days**

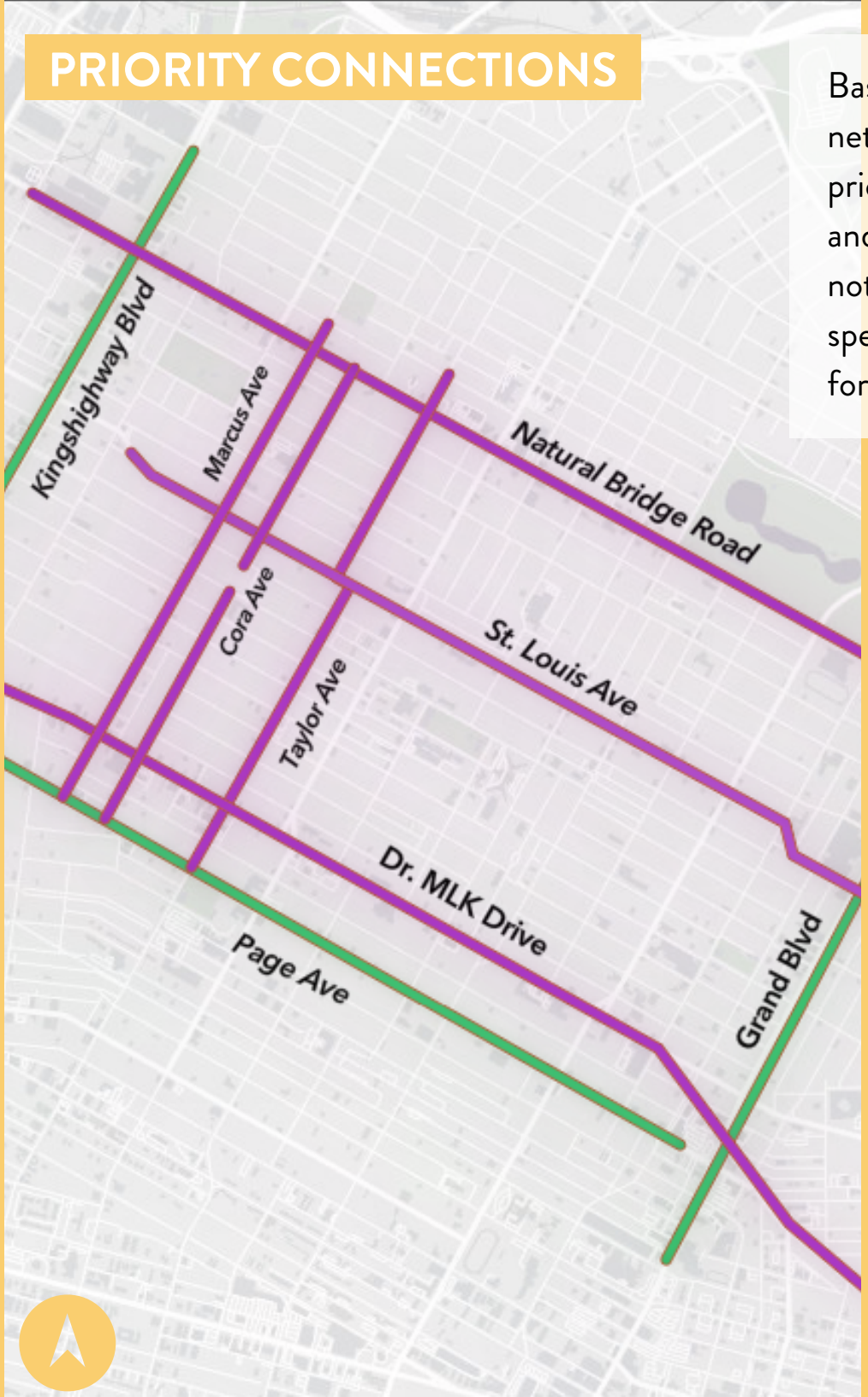
Additionally, there are documented drinking water quality violations (Robert Wood Johnson Foundation's County Health Ranking for Missouri, 2017). Of all the state's rivers and streams, over half are classified as "Impaired", including 200.9 miles for which urban runoff and storm sewers are identified as the probable source of contamination (EPA Missouri Assessment Data, 2016).

ENVIRONMENTAL INDICATORS

According to the American Forests' Tree Equity Scorecard, the average tree canopy cover in the Ville and Greater Ville is only about 20%. The canopy cover goal is 48%. Unfortunately, due to the region-wide infestation of emerald ash borer beetles killing the over 10,000 ash trees in St. Louis City, the Forestry Department is gradually removing the dead trees- contributing to a 17% loss in the City's canopy cover. The majority of the trees located along Dr. Martin Luther King Drive happen to be ash trees, most of which are dead or dying. Without mature tree canopy to purify the air, the pollution accumulates and negatively impacts the health of community members.

INFECTED ASH TREES on MLK Dr.

PRIORITY CONNECTIONS



Based on the feedback from community surveys, networks for safe walking, biking, and transit use should prioritize connections to parks, the recreation center, and grocery stores. Many residents indicated they do not feel safe on any of their neighborhood streets but specified the following as particularly dangerous avenues for walking and biking:

- DR. MLK DRIVE
- ST. LOUIS AVE.
- CORA AVE.
- TAYLOR AVE.
- MARCUS AVE.
- NATURAL BRIDGE ROAD
- GRAND BLVD
- KINGSHIGHWAY BLVD

GATEWAY BIKE PLAN NETWORKS

The broad web of proposed on street bicycle facilities and greenways endorsed by the City of St. Louis and East-West Gateway Council of Governments [represented in this map] outlines specific recommendations for neighborhood connectivity in the Ville and Greater Ville. Included in those proposed networks are the following segments and their suggested updates for bicycle and pedestrian safety and mobility:

MLK DR.
BUFFERED BIKE LANE

N EUCLID
CALM STREET

ASHLAND
CALM STREET

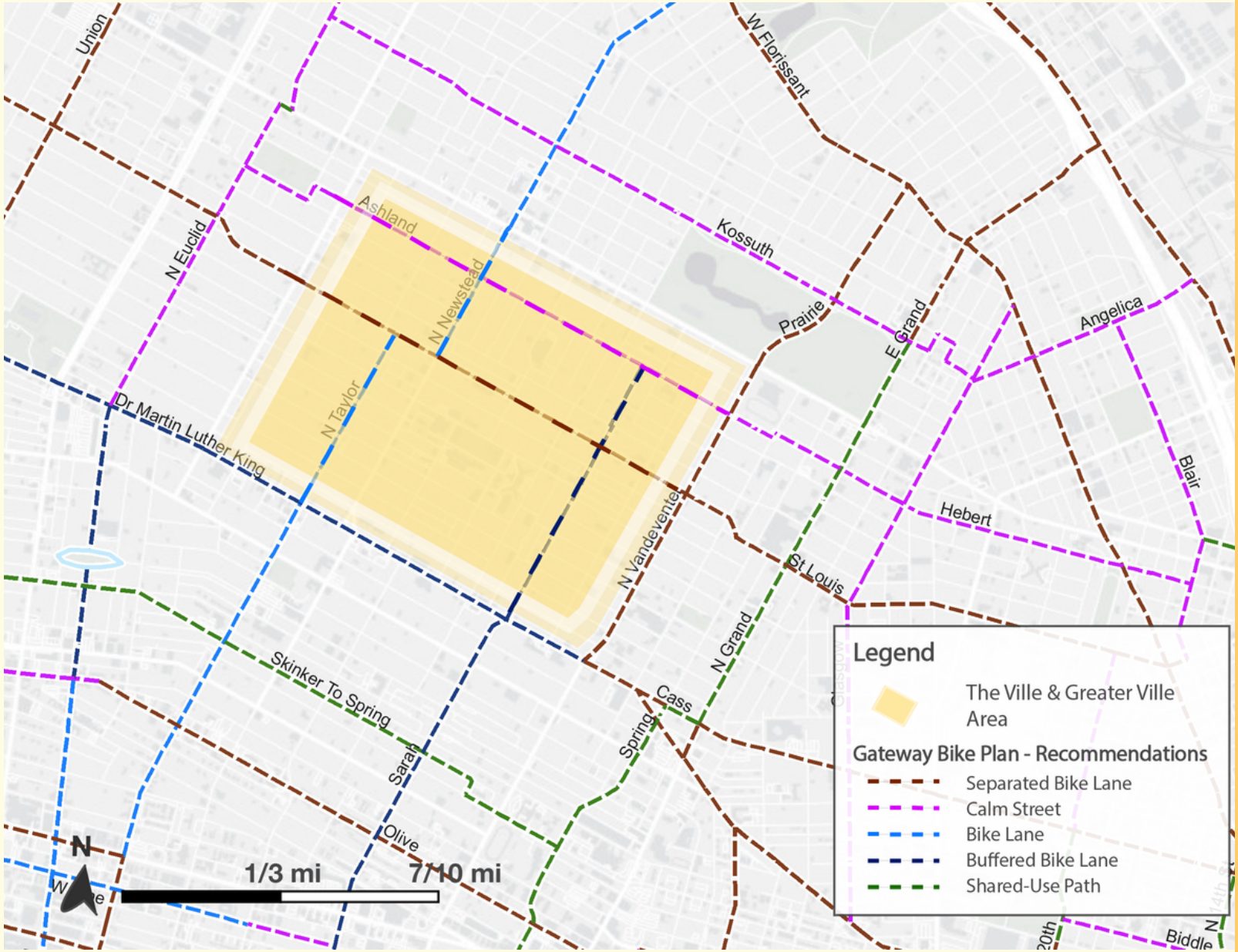
VANDEVENTER
SEPARATED BIKE LANE

ST. LOUIS AVE
SEPARATED BIKE LANE

NEWSTEAD
BIKE LANE

TAYLOR
BIKE LANE

SARAH
BUFFERED BIKE LANE



BICYCLE, TRANSIT, & PEDESTRIAN INFRASTRUCTURE: CALM STREETS

Calm Streets (commonly known as bicycle boulevards and neighborhood greenways) are streets that support safe, accessible, and connected travel for people walking and biking, usually done by designing a street that lowers motorized traffic volumes and speeds, and decreases user stress. These routes are emblematic of a complete streets approach that prioritizes safe streets for everyone, no matter their preferred method of transportation. The local neighborhoods streets of Ville and Greater Ville neighborhoods are ideal routes for these networks as they mostly experience volumes less than 1,500 vehicles per day and could seamlessly connect pedestrians and bike users to transit stations and to thoroughfares. Those main thoroughfares and arterial roads would also benefit from traffic calming elements, and protected bike facilities, particularly those with abundant transit stops and usage. Across the country, similar streets improvement projects have been catalysts for neighborhood revitalization, economic growth, and aid in fostering community connectivity.

Rendering of a Calm Street approach to St. Louis Ave in The Ville

There is a need for coordinated solutions that mitigate poor air and water quality, as well as public health issues such as obesity and asthma attacks. The Calm Streets approach is effective in that it focuses on the installation of physical features (e.g, curb extensions, improved sidewalks and crosswalks, etc.) that promote increased walking and biking by residents, thus leading to decreased driving (especially for trips < two miles). Increased physical activity and improved air quality are positively linked to reducing obesity and the incidence of asthma attacks. The inclusion of green features (e.g., green barriers for protected bike lanes, or rain gardens in curb extensions) decreases storm water runoff resulting in improved stormwater management and promotes a sense of community identity and well-being.

TRANSIT & PEDESTRIAN INFRASTRUCTURE: CALM STREETS

Staff at Metro emphasized the importance of prioritizing pedestrian access to bus stops by improving sidewalk conditions, particularly in areas of close proximity to the homes of seniors and folks with disabilities. Additionally, when reconfiguring the streets, curb extensions need to be appropriately modeled for dedicated bus facilities along roundways for pulling off and pulling back in as well as crosswalk cohesions when making design improvements. This type of work will require proactive collaboration between the City's Street Department and Metro.

Given Metro's (Bi-State Development Agency) focus on providing more consistent, higher frequency service, one could see a situation where some bus routes that run closely parallel are consolidated to provide faster, more reliable service (e.g. [95] Page Ave and [32] MLK Dr.).

Bus Shelter: St. Louis @ Cora East Bound

121 Total Bus Stops

21 Benches at Stops

3 Bus Shelters

- **More bus shelters needed: Bus shelter construction costs $50K-200K depending on the condition of disrepair of the sidewalk.**

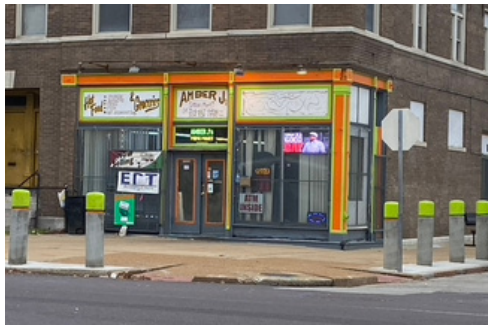
- Adopt-a-stop program: maintenance for advertisement trade.
- Tearing up sidewalk foundation for a shelter requires an environmental assessment which requires much coordination between stakeholders.
- All new improvements must be ADA-compliant.

TRAFFIC CALMING ELEMENTS

Concerns around speeding, reckless, and distracted driving behavior can be addressed by implementing some of the “quick-build” and large-scale treatments that can slow driver speeds, create visual constraints, and increase awareness or uncertainty of drivers.

TRAFFIC CIRCLES / ROUNDABOUTS are placed in the middle of a four-way intersection, directing cars to slow as they approach the intersection and travel counterclockwise around the circle rather than driving straight through it. These function like roundabouts but on a smaller scale and without major construction. Roundabouts and neighborhood traffic circles are generally safer than traditional 4-way stops or traffic signal-controlled intersections. Studies have shown that roundabouts reduce all types of crashes. The high frequency of stop signs throughout the neighborhood streets, many of which are regularly ignored, could be replaced by traffic circles depending on the numbers of average daily traffic (ADT). The only roundabout currently in the neighborhood is located on Natural Bridge Road at Vandeventer.

CURB EXTENSIONS also called "bump-outs," narrow a street at an intersection and encourage people driving to slow down when turning. These curb extensions can be easily added to streets with parking lanes and have a limited impact on stormwater management systems (drainage). Curb Extensions shorten the crossing distance and increase the visibility of pedestrians, forcing vehicles to slow down through right-hand turns and reducing the likelihood of vehicles hitting a person in a crosswalk. Curb extensions also create more room for curb ramps which benefits all users- especially folks using wheelchairs, strollers, or visual impairments- when navigating the intersection. Examples of these pinned-on curb extensions are found on Natural Bridge Road at Red Bud Ave and Vandeventer.



BOLLARDS can be placed on mid-block crosswalks around the painted edge of a curb extension to provide a visual cue to drivers to slow their speeds and be used to delineate scooter and bicycle parking. Some bollards also have high-visibility striping or paint, making them easier to see at night. Bollards can be used in various ways for calming traffic, but are most commonly used as curb extensions. One defensive use of bollards in the Greater Ville outside a corner shop at (St. Louis Ave. and N Sarah) utilizes this measure to cue cars to steer clear of the corner curb and protects the building from damage in an instance of a car veering off the road.

TRAFFIC CALMING ELEMENTS

PEDESTRIAN REFUGE ISLANDS are raised concrete medians with a refuge area. These islands can improve safety for people crossing the street by giving them a place to pause, reducing the amount of time exposed to moving vehicles. Additionally, refuge islands can slow turning movements and prevent illegal passing at intersections, preventing cars from veering into oncoming traffic. Pedestrian refuge islands typically include other features like ADA ramps, high-visibility crosswalks, improved lighting, and curb extensions. Refuge islands can be installed on local roads and higher volume, multi-lane roads with higher speed limits. Successful implementation of refuge islands are seen on Natural Bridge Road at Vandeventer Ave. and Red Bud Ave.

DURABLE CROSSWALK MARKINGS are made with materials which are more durable than paint. These types of crosswalks last as long as the underlying road surface and remain more visible at night and in bad weather. These markings cut down on maintenance required by the Streets Department. The new markings on Natural Bridge Road and Doctor Martin Luther King Blvd utilize this feature; they are also present on the corner of Annie Malone Drive and Kennerly Ave. near the Tandy Recreation Center.

SPEED HUMPS/BUMPS are asphalt or concrete humps placed in the middle of local and neighborhood streets to reduce vehicle speeds to about 20mph. The humps are around 3 to 4 inches tall and are as wide as the street. To alert drivers of their presence, proper signage should be placed ahead of the humps and should be marked with high-visibility chevron arrows. Speed Humps are designed to allow cars to traverse them at appropriate speeds. They have minimal impact on emergency response times and are designed to be gradual enough to be bicycle friendly. They can be combined with other traffic calming features, or used throughout a corridor, to lower overall average corridor speeds. There is currently infrequent use of these features in the Ville and Greater Ville neighborhoods.

GREEN INFRASTRUCTURE ELEMENTS

Green Infrastructure refers to design elements that convert hard surfaces within and adjacent to the roadway to allow water to flow through and be absorbed. The excess of impermeable surfaces (concrete, asphalt, etc.) in urban areas complicates rainwater management with the lack of natural watersheds, which leads to more frequent and detrimental flooding, exacerbates urban heat island effect, and limits opportunities to plant trees and vegetation that would reduce the urban heat island effect and air particulate matter improving air quality. Green Infrastructure has many benefits when integrated into traffic calming projects, such as curb extensions. It enables the creation of rainwater catchments and additional green spaces that generate a variety of environmental benefits. Shrubs, flowers, and larger plants can also provide visual cues that help slow drivers and decrease stress for all users.

STREET TREES (Canopy)

Tree canopy includes the leaves and branches of mature trees that cover the ground and provide shade. There are ample benefits of increasing tree canopy in neighborhoods and cultivating healthy, mature trees along streets.

- **Cool their surroundings, reducing energy bills in the summer;**
- **Filter air pollutants which help reduce asthma rates;**
- **Absorb stormwater which reduces basement and street flooding;**
- **Reduces stress levels to improve mental health and can lower crime rates;**
- **Beautify neighborhoods which can lead to increased spending in commercial districts and increase property values.**

The tree wells available for planning need a maintenance overhaul to foster healthier, more abundant street trees in The Ville and Greater Ville. Currently, the tree wells along the major streets are too small, which causes damage to both the tree and sidewalks, and are irregular in size and frequency, which limits possibilities for types and abundance of trees for planting. The responsibilities for general maintenance of these tree wells need to be more broadly understood and defined as evidence of the number of abandoned, overgrown, and littered planting spaces. MO Forest ReLeaf has ignited the #TreetheVille campaign to get 200 trees planted in the Ville Community. They have 50 trees allocated and ready to be planted on public land come spring and 150 trees available for distribution on property owned by residents. Given the amount of private property in the Ville, these 150 trees have great potential to combat tree canopy loss in the area.

RAIN GARDENS

An example of a rain garden in the Ville, established by MSD's Project Clear program, is located at N. Sarah St and Cote Brilliante Avenue. A bioretention basin invites rainwater and runoff to be collected and pollutants to be filtered through the placement of stones. The plants absorb water and excess water drains into the sewer, reducing sewer overflows. Land acquisition is required to establish off-street gardens (like this one); however, for on-street features established by the streets department, maintenance is fairly low-effort.

POLICY CONSIDERATIONS

- 50/50 SIDEWALK PROGRAM REASSESSMENT
- MORE CONSISTENT FUNDING FOR NON-AUTO TRANSPORTATION
- TRANSIT ORIENTED DEVELOPMENT ("TOD")
- ADDRESS VACANCY AND RE-DENSIFY THE NEIGHBORHOOD WHILE MAINTAINING AFFORDABLE HOUSING

NEXT STEPS

1. The lead agency for this planning process will use the information in this report to drive responsible decision-making.
2. Support the ongoing work of local individuals and organizations.
3. Formalize community participation.
4. Leverage diverse and creative funding sources and implementation tools.

REASSESSMENT OF 50-50 SIDEWALK PROGRAM

The current system in place in the City of St. Louis for maintaining and repairing neighborhood sidewalks is discriminatory and counterproductive for creating a safe, accessible, and cohesive transportation network in areas like the Ville and Greater Ville. The current state of the sidewalks unfairly burdens residents with disabilities that impact their mobility. In these neighborhoods where the use of public transit is a way of life, a contagious, maintained sidewalk network is essential to the commute. The City's Sidewalk Program needs amending: policymakers must realize that even a "cost-sharing" option for some homeowners is an unreasonable ask, and in neighborhoods with high levels of vacancy, property owners are absent and unable to tend to the sidewalk maintenance adjacent to abandoned properties.

Sidewalks are a transportation necessity and are public spaces that should not be a private responsibility to maintain. Rather, maintaining smooth, consistent sidewalks ought to be an extension of the street and therefore a responsibility of the City's Street Department.

MORE CONSISTENT FUNDING FOR NON-AUTO TRANSPORTATION

Over the past decade, the prioritization of safe transportation choices has generally been adopted as an ethical and environmental imperative in the minds of policymakers and elected officials. The funds needed to enable those choices have been slower to follow and are largely lacking despite the political will and support to make those changes a reality (i.e. fixing broken sidewalks, adding ADA accessible curb ramps, curb extensions, protected bike lanes).

On the local level, change can be made by amending the way Ward Capital is distributed and used. The current Ward Capitol System is both an inequitable distribution of scarce resources and an impracticable way to plan for citywide infrastructure. Neighborhoods like The Ville and Greater Ville should receive a greater proportion of funding based on their disproportionate quantity of residents reliant on sidewalk networks and quality bus stops, as well as their higher risk and exposure to traffic violence due to inadequate quality of their streets.

Additionally, the City of St. Louis should consider a new dedicated funding source to address sidewalk gaps and glaring accessibility issues. Something like a dedicated citywide bond- timed to keep property taxes the same when another ages out- could provide the extra money needed to proactively start addressing sidewalk needs. Reforming the current Ward Capital system alone will not be enough to meet the demands of making real transportation choice a reality for neighborhoods across the City, and dedicated funding for sidewalk and curb ramps should be the City's first priority for available dollars.

USE OF DEVELOPMENT INCENTIVES

The use of development incentives both bring desired community assets to a place and help promote the placement and siting of those amenities in a way that best benefits residents while also fitting the neighborhood's historic character. To that end, there should be an emphasis on using development incentives to serve current residents and help bolster and support the bus lines that so many residents use to get around.

Transit Oriented Development ("TOD") is the practice of creating or preserving dense, walkable, mixed-use development near transit facilities like light rail stations or bus stops. The Federal Transit Administration says, "TOD attracts people and adds to vibrant, connected communities. Public transportation can help foster partnerships in communities that support affordable housing development around transit. When done right, TOD leads to more equitable communities." While most commonly seen around light rail stations, a focus on TOD can be a successful model for both serving the existing riders of the bus with increased amenities and opportunities for housing near stops. It can also be a beneficial focus for businesses looking for ways to co-locate in areas with high foot traffic and activity.

In a neighborhood like that Ville and Greater Ville, Transit Oriented Development could look like working to:

- **Get new businesses and housing development along streets that already serve residents who ride the bus.**
- **Ensure that the zoning of streets with bus routes easily allows for the mixed-use development of both ground-floor businesses and the residential housing units above without going through specialty variance proceedings.**
- **Ensure that new parking lots or driveway entrances are off the frontage of buildings that face bus or future transit routes.**

ADDRESS VACANCY AND RE-DENSIFY THE NEIGHBORHOOD WHILE MAINTAINING AFFORDABLE HOUSING

The Ville and Greater Ville neighborhoods have both high rates of vacancy as well as a high proportion of vacant lots. This lack of occupied housing units can make it challenging to attract businesses and sustain long-term activity in the neighborhoods. A concerted effort is being made by organizations such as Northside Community Housing and others to rebuild housing on vacant lots, as well as rehab existing housing stock that has fallen into disrepair. These efforts are vital to long-term health and well-being, and both elected officials and businesses should support connectedness of current and future residents.

As the neighborhood continues to be successful in redeveloping properties, rehabbing existing housing stock, and attracting new businesses, **mechanisms to retain current affordable rentals as well as keep homeowner property taxes at affordable rates for individuals looking to age in place will likely need to be formalized and enshrined in policy.** Things like community land trusts, community benefits agreements, inclusionary zoning, and limited equity cooperatives can be used to ensure that affordability is not sacrificed in the process as the neighborhood becomes denser and development occurs.

St. Ferdinand Homes, Greater Ville Neighborhood
Northside Community Housing

GOING FORWARD...

THE STEWARD OF THE SAFE STREET PLANNING PROCESS FOR THE NEIGHBORHOODS, 4THEVILLE, WILL CONTINUE TO BE THE LEAD AGENCY FOR THIS PLANNING PROCESS AND USE THE INFORMATION IN THIS REPORT TO DRIVE RESPONSIBLE DECISION-MAKING.

- Cultivate interest and foster relationship between 4theVille and City Staff (Planning and Design Agency, Streets Department, Board of Public Service)

SUPPORT THE ONGOING WORK OF LOCAL INDIVIDUALS AND ORGANIZATIONS.

FORMALIZE COMMUNITY PARTICIPATION.

- Annual pop-up traffic calming demonstrations and other community-building and engagement activities
- Frequent community feedback to guide mobility development improvements

LEVERAGE DIVERSE AND CREATIVE FUNDING SOURCES AND IMPLEMENTATION TOOLS.

- ex. Deaconess Foundation, Safe Streets and Roads For All (EWG)

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About Trailnet

Trailnet is a 501c3 nonprofit in St. Louis, Missouri, and is the region's voice for better biking and walking. Trailnet's mission is to lead in fostering healthy, active, and vibrant communities where walking, bicycling, and the use of public transit are a way of life.
http://trailnet.org/

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Building Resilient Inclusive Communities (BRIC) Program
Prevention Research Center at Washington Univeristy

Glossary:

Active Transportation
Active transportation is any self-propelled, human-powered mode of transportation, such as walking or bicycling.
(Centers for Disease Control and Prevention, 2011)

Americans with Disabilities Act (ADA)
Passed by Congress in 1990, the Americans with Disabilities Act (ADA) was the nation's first comprehensive civil rights law addressing the needs of people with disabilities, prohibiting discrimination in employment, public services, public accommodations, and telecommunications.
(https://www.eeoc.gov/eeoc/history/35th/1990s/ada.html)

Alighting (buses)
Descending from a bus, train, or other form of transport. Opposite of boarding.

Average Daily Traffic (ADT)

The total traffic volume during a given time period, ranging from 2 to 364 consecutive days, divided by the number of days in that time period, and expressed in vpd (vehicles per day). (https://www.fhwa.dot.gov/)

Bike Lane

A Bike Lane is defined as a portion of the roadway that is designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions and facilitate predictable behavior and movements between bicyclists and motorists. A bike lane is distinguished from a cycle track in that it has no physical barrier (bollards, medians, raised curbs, etc.) that restricts the encroachment of motorized traffic. Conventional bike lanes run curbside when no parking is present, adjacent to parked cars on the right-hand side of the street or on the left-hand side of the street in specific situations. Bike lanes typically run in the same direction of traffic, though they may be configured in the contra-flow direction on low-traffic corridors necessary for the connectivity of a particular bicycle route.
(https://nacto.org/publication/urban-bikeway-design-guide/bike-lanes/)

Buffered bike lane

Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.
(https://nacto.org/publication/urban-bikeway-design-guide/bike-lanes/buffered-bike-lanes/)

Community Land Trust

"Community land trusts (CLTs) are nonprofit organizations governed by a board of CLT residents, community residents and public representatives that provide lasting community assets and shared equity homeownership opportunities for families and communities. CLTs develop rural and urban agriculture projects, commercial spaces to serve local communities, affordable rental and cooperative housing projects, and conserve land or urban green spaces."
(https://groundedsolutions.org/strengthening-neighborhoods/community-land-trusts)

East-West Gateway Council of Governments (EWG)
EWG is the official Metropolitan planning organization for Greater St. Louis; The council coordinates planning and problem-solving in areas of governmental responsibility for transportation planning that impact multiple jurisdictions in the Greater St Louis area.
(https://www.ewgateway.org/)

Environmental Justice

"The fair treatment of people of all races, cultures, incomes, and educational levels with respect to the development and enforcement of environmental laws, regulations, and policies. Fair treatment implies that no population should be forced to shoulder a disproportionate share of exposure to the negative effects of pollution due to lack of political or economic strength."
(https://www.epa.gov/environmentaljustice)

Environmental Protection Agency (EPA)

"The Environmental Protection Agency is an independent executive agency of the United States federal government tasked with environmental protection matters."
(https://www.epa.gov/aboutepa/our-mission-and-what-we-do) Trailnet received a grant from the Environmental Justice Small Grants (EJSG) Program to conduct a Calm Streets Project that focuses on Safety and Environmental Justice.

Glossary:

Gateway Bike Plan

"The Gateway Bike Plan is the result of a cooperative effort between the Great Rivers Greenway District, East-West Gateway Council of Governments, City of St. Louis, the Counties of St. Louis and St. Charles, Metro, Trailnet and the Missouri Department of Transportation. (https://www.stlouis-0mo.gov/government/departments/street/streets-sidewalks-traffic/bicycling/gateway-bike-plan.cfm)"

Greenway

"Greenways are a form of multi-use path, also called a multi-use trail or shared-use path, that provides a safe space for people to walk, run, bike, or roll. They are almost always paved and provide additional amenities such as benches, water fountains, vegetation, as well as other nature conservation."
(https://greatriversgreenway.org/what-is-a-greenway/)"

Inclusionary zoning

"Inclusionary Zoning (IZ) is a tool that requires or encourages developers to make a percentage of housing units in new residential developments available to low-and moderate-income households. In return, developers receive incentives or development rights in the form of density bonuses, zoning variances, and/or permits that decrease construction costs."
(https://www.onestl.org/toolkit/list/practice/inclusionary-zoning)

Land Use

Land use involves managing and modifying the natural environment or wilderness into built environments such as settlements and semi-natural habitats such as arable fields, pastures, and managed woods. It also has been defined as "the total of arrangements, activities, and inputs that people undertake in a certain land cover type."
(http://revenue.stlouisco.com/ias/LandUseCodes.htm)

Low-Stress

A contiguous network of corridors or streets that are comfortable environments for all pedestrians and cyclists. (Trailnet)

Mobility

Mobility refers to the movement of people or goods. It assumes that "travel" means person- or ton-miles, "trip" means a person- or freight-vehicle trip. It assumes that any increase in travel mileage or speed benefits society. (Victoria Transport Policy Institute, 2011)

Phone Banking

In the political and advocacy space, phone banking is a way to canvass voters and supporters over the phone. In other words, campaigns and organizations call voters and supporters to get out the vote, fundraise, or sway public opinion about a politician or issue. In this case, we used phone banking as simply a means of information-gathering.
(https://www.impactive.io/blog/what-is-phone-banking-and-why-is-it-important)

Place Making

Placemaking is the process of creating quality places where people want to live, work, play, and learn. Placemaking is a process. It is a means to an end: the creation of Quality Places.
(https://www.cnu.org/publicsquare/four-types-placemaking)

Pop-up Demonstration

Pop-up traffic calming—a form of tactical urbanism, placemaking, and the "lighter, quicker, cheaper" method—is a way to use low-cost, short-term solutions to have a large impact on communities. Pop-up traffic calming demonstrations offer temporary and creative solutions that change the built environment by adding relatively low-cost items such as traffic cones, planters, and paint. (Trailnet)

Protected/Separated Bike Lane

Protected bike lanes are bikeways that offer physical protection from passing traffic. The protection can vary in design and material, and may be combined with a parking lane or other barrier between the bike lane and motor vehicle traffic. Protected bike lanes can be elevated at the sidewalk level as a "raised cycle track" or "on-street" at the same level as the street. Designs can be for one direction only or for bi-directional travel, which is referred to as a two-way cycle track." (Trailnet)

Safety

"The condition of being protected from or unlikely to cause danger, risk, or injury.
(https://explorestlouis.com/frequently-asked-questions-safety-st-louis/)"

Urban Heat Island Effect

The Urban Heat Island Effect occurs when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat. This effect increases energy costs (e.g., for air conditioning), air pollution levels, and heat-related illness and mortality.
(https://www.epa.gov/green-infrastructure/reduce-urban-heat-island-effect)