PBOT
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The City of Portland has several adopted goals related to reducing the number of drive-alone trips on our roads, which negatively impact our climate, health, and community. To date, PBOT has several programs (such as SmartTrips, the Transportation Wallet, Sunday Parkways and Safe Routes to School) that aim to help manage demand for our roadways and increase use of biking, walking, rolling, taking transit, and other active transportation options. While many of these programs are popular and have a positive impact, we need to take a strategic look at which transportation demand management (TDM) strategies are most effective at reaching our mobility, equity and climate goals and best serve the needs of our community members.

The Way to Go Plan sets the foundation for PBOT's TDM policies, projects, and programs. It defines strategic priority areas that will guide the bureau's work to:

- Improve mobility for everyone through better access to and reliability of a wide range of transportation options.
- Remove burdens for Black, Indigenous, and People of Color (BIPOC), people with low incomes, and people with disabilities in using transportation options, and increase the use of those options.
- Reduce greenhouse gas emissions by shifting drive-alone trips to more sustainable modes.

In the following attachments there are some of the background, research and exploration documents that have provided info to The Way to Go Plan process:

1) Community Partner Feedback - summary of conversations with community partners about barriers and strategies to transportation options in Portland.
2) Transportation Demand Model Analysis from Alta – Mapping and analysis exercise to better understand travel patterns across Portland.

The Way to Go Plan, (Phase 1 - the narrative) will be complete in June 2021 and provides an actionable definition of transportation demand management and outlines the Vision, Principles, and Strategic Priority Areas that will advance our mobility, climate, and equity goals. However, this foundation only offers the first phase of the Way to Go Plan. In subsequent phases over the coming year, we will employ existing work products and leverage ongoing, complementary work plans to help us further our understanding on the efficacy of TDM strategies to reduce VMT and advance equity and implement impactful programs, projects, and policies.

Questions? Contact Liz Hormann – Elizabeth.hormann@portlandoregon.gov

Community Partners Feedback to PBOT' *The Way to Go: People Moving in Portland* (TDM Action Plan)

In March 2020 the TDM Action Plan was kicking off engagement with PBOT Community Partners when the COVID-19 pandemic disrupted life globally and the city adjusted to a new reality. We had one in person session prior to the Stay Safe Stay Home order where we received feedback from Hacienda CDC and the Albina Vision. Subsequent engagement was through phone calls and virtual meetings that took place in late April and May with representatives from Urban League, Latino Network, REACH Multnomah County, Green Lents, Ride Connection, Verde Northwest, NAYA, AARP, APANO, and Rosewood Initiative. Here is a summarized collection of comments.

COVID-19 Impacts

- There is anxiety and concern around how to use TriMet Safely. Community members are also concerned about the health of Bus Operators. Some communities are organizing around the distribution of personal protective equipment to transit riders, and bus operators.
- The breakdown of communications through language barriers is apparent in many communities that speak languages other than English. Messaging is unclear about what the Stay Home order means, and what precautions or new requirements are now in place to use public transit and move about the city.
- The shift to digital communications has meant that many community members are left behind. An enormous amount of work is going into getting more digital access for community members and teaching users how to interact with virtual meeting tools. In person computer classes have been suspended.
- Increased incidents of harassment towards the Asian community are being reported, creating another barrier to walking in the public realm.

Barriers to Walking, Biking, and Taking Public Transit

- **Cost** – When many folks are living paycheck to paycheck there is little slack in a household budget. It was repeatedly said that the cost to ride public transit, even using the low-income fare discount is still a burden and barrier to using transit. Additionally, the high capital cost of purchasing a bike, helmet, accessories (lock, gear), and paying for secure storage are difficult to overcome.
- **Lack of a secure space to park bikes** – is also a barrier that many communities face, citing tight living quarters that don't allow for a bike, and no options nearby to rent space.
- **Safety** – personal safety is brought up by organization serving our Black, Latino, and Asian communities. Community members are faced with harassment and discrimination from fare inspectors, police, and other individuals when walking, biking, and taking transit. This has made community members seek to ride in private vehicles and drive when possible. Digital privacy concerns are also cited, in having to use the Hop Card system to pay fares because trips are automatically tracked by the transit agency.
- **Time** – Many cultural organizations commented that their communities have been gentrified out of neighborhoods that are close-in to the central city. Simultaneously many lower wage retail jobs (like at Walmart) are in suburban areas where transit service is less frequent, sidewalks incomplete, and

large roads make biking uncomfortable. This results in increased travel times on buses and makes it impossible to walk or bike. This time barrier pushes people to choose driving and getting rides from friends and family.

- **Technology Barriers** – Tech tools like bus route and arrival information is often inaccessible to folks who are unsure where to find it. Furthermore, information and awareness of the Greenway Network is limited or non-existent and an opportunity for walking and biking, is further minimized.
- **Language Barriers** – Language barriers continue to show themselves through the COVID-19 pandemic as community members are unsure of what messaging is coming from government. This has caused confusion around the stay at home order and fueled uneasiness around riding public transit, going out for walks, and bike rides.
- **Age and Ability** – this should be considered deeply in program design and strategy selection. It was brought up that PBOT has programs that address youth, but nothing that specifically addresses older adults.

What demand management strategies would help your community overcome barriers?

1. **Incentive Strategies** was the most popular category.
    - Many said Public Transit should be free - Youth Pass and Low Income Hop Card is a start but doesn't go far enough. Programs like the Transportation Wallet that actually lower transportation costs are welcome and needed.
    - There was support for a bike coupon program – to offer discounts or subsidies for purchasing a personal bike. Community members who do not typically bike, and have a cost barrier to purchasing a bike, and are without a safe place to store the bike have these large barriers to overcome. This may be a key strategy that is particularly salient during covid-19 pandemic and recovery phases. E-Bikes were also brought up as a very promising technology for connecting folks who live farther out to key trip destinations.
2. **Information and Engagement Strategies** like individualized marketing programs, and open streets event were said to not address the structural barriers to walking, biking, and taking public transit. Direction was given to include Black individuals in marketing collateral, to better connect with the Black community and see themselves for example biking. Language needs must also be addressed in promoting any program. Information only delivered in English make it difficult for members of the community to receive the messaging which further excludes community members from participation and engagement.
3. **TDM Requirements and Pricing strategies** had comments that highlighted that East Portland has an excess amount of parking lot space. It was suggested that the city Tax per parking space and use revenues to de-pave parking lots and put land to other uses or create pockets of green space for better air quality, stormwater management, and reduce heat island effect. This would better capture the costs of business' impact on the Transportation System and Local Community.

Round 2: Community Partners Feedback to PBOT' The Way to Go: People Moving in Portland (TDM Action Plan)

The TDM Action Plan Team met with Hacienda CDC, APANO, Ride Connection, and Multnomah County REACH to discuss progress on the plan and hear updates on current conditions in the community:

- Financial barriers continue to be the biggest barrier to accessing transportation options for BIPOC communities. There has been increased unemployment and reduced hours in the service industry where many community members hold jobs.
- Information is needed in the form of wayfinding (for good walking and biking routes) as well as health benefits communication.
- Thoughts on delivery mechanisms for TDM programs-
    - partner with organizations providing essential services like PPE distribution, meal distribution, and medical rides to offer timely transportation options information. Often information is provided in English (written and spoken) and community members who speak other languages, are left out of accessing new information.
    - Provide information and training to staff working in the community. Getting travel options modeled by staffers and informed on sign up, can help grow followings for various travel options (like BIKETOWN for All)
- Growing inequality between community members who can order on demand food delivery (grocery and prepared meals) and those who cannot afford those services.
- Any MAAS platform initiatives would be well informed to include options for seniors and low income folks like Ride Connection's services.

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Memorandum

Date: January 28, 2020

To: Portland Bureau of Transportation

From: Alta Planning + Design

Re: **Neighborhood Transportation Analysis**

Background

The project team analyzed data from Metro's Transportation Demand Model to understand how travel patterns vary across Portland. The conclusions presented in this memo reflect the findings from the data analysis in addition to mapping key inputs.

Methodology

For the purposes of the analysis, the City of Portland's Transportation Analysis Zones (TAZs) were placed into 26 groups of approximately six square miles each (Figure 1). The boundaries of the groups follow Portland neighborhood boundaries, where possible. The groups were assigned ID numbers from 1-26, which are referenced on the accompanying maps and tables (hereafter referred to as analysis zones 1-26). PBOT provided data for these 26 analysis zones (AZ) about transportation mode, trip distance, and trip purpose.

The trip data was taken from Metro's 2015 trip-based demand model. Trips were only included in the analysis if they originated in the City of Portland. School bus trips were removed from the dataset. The following four analysis zones did not have a sufficient number of commute trips originating in these areas, due to the low numbers of residential units, and were removed from the analysis:

- AZ 20 – Forest Park
- AZ 23 – Forest Park
- AZ 25 – Kelly Point/Smith and Bybee Wetlands
- AZ 26 – Portland International Airport

In addition to displaying trip distance and trip purpose, each map presented in this analysis incorporates PBOT's Equity Matrix overlay. The Equity Matrix uses data on race and income to determine an equity score from 2 (low) to 10 (high) for each census tract in Portland. For the PBOT Equity Index information on Figures 2-6, 'High' indicates census tracts with a score of 7 or 8 and 'Highest' indicates census tracts with a score of 9 or 10.

Key Takeaways

Figures 2-6 display differences in mode share and trip distance across Portland.[1] Key findings from the data analysis and mapping exercise are noted below:

By Mode Type

- Transit and bike trips are more common for commute trips than non-commute trips in all of the analysis zones. (Appendix A)
- The opposite is true for walking. Walking trips are more common for non-commute trips than commute trips in nearly every analysis zone (Appendix A).

By Trip Type

- The share of automobile trips increases as distance from Downtown increases for both commute and non-commute trips (Figures 2, 3).
- The share of trips over five miles increases as distance from Downtown increases for both commute and non-commute trips (Figures 4, 5).
- The share of non-commute trips under two miles decreases as distance from Downtown increases (Figure 6). There are approximately one million of these non-commute trips under two miles each day, which is more than twice the number of all commute trips in Portland (Appendix A).
- There are 5.1 non-commute trips for every commute trip (Appendix A).
- Commute trips are generally longer than non-commute trips (Figures 4, 5), yet they are also less likely to be made by car (Figures 2, 3). Conversely, non-commute trips are shorter than commute trips yet more likely to be taken by car.[2] This is slightly surprising, given that non-commute trips might be assumed to be more flexible in their time, manner, and location. There are several possible factors that may be at work here:
    - Congestion during commute hours may be a major motivator to avoid driving. Congestion is less of a factor at other times of day.
    - Likewise, Downtown (AZ 18), and secondarily Northwest (AZ 18-19) and the Central Eastside (AZ 9) are home to many jobs, and do not have free daily paid parking. The desire not to pay for parking may result in many people choosing a non-car commute.
    - Daily commute trips may have more fixed habits than non-commute trips, making it easier to find and stick with alternatives to driving.
    - Commute trips may be better aligned with Portland's downtown hub transit network.
    - Non-commute trips may be more likely to be family trips and/or shopping trips, for which the car may be more appealing.
    - No matter the explanation, however, the fact remains: non-commute trips are shorter than commute trips (Figures 4, 5), they represent a majority of trips in the city, and the data shows there are many people who are comfortable and familiar with alternatives to driving for commute trips who are still defaulting to the car for non-commute trips. This is an opportunity for an intervention.

[1] For more information on PBOT's Equity Matrix, see: https://www.portlandoregon.gov/transportation/74236

[2] Downtown is an exception: the percentage of non-driving trips remains the same for both commute and non-commute trips.

By Location

- The City's best-developed high-speed bicycling corridors (including the Springwater Corridor, Springwater on the Willamette, and the Eastbank Esplanade), as well as the MAX lines west of 82nd are co-located with relatively high rates of non-car trip-making (AZ 14, 7, 5, 3, 1). It is not possible to state causality from this observation, but it may make sense that for these residents the bicycle or transit trip may be faster and/or more reliable than the driving trip.
- Neighborhoods north of Powell, east of 82nd, and south of Highway 30 (AZ 4, 2, 3, 6) have shorter trips than their auto mode share might indicate. There may be some opportunities for intervention with these neighborhoods.
- It should be noted that Downtown and Northwest contain high-equity focus areas based on PBOT's Equity Matrix. While the data shows that these areas have the lowest auto trips, given the density of transit and other transportation options, there is opportunity to lower the percentage of auto use for at least some trips.
- Parts of Portland farthest from the center (e.g. east of I-205; St. Johns; Pleasant Valley; the Southwest Hills) have the longest trip distances for all trip types, and the highest auto mode share for all trip types (AZ 1, 2, 3, 4, 21, 22, 15, 16, 17). They are also worst served by transit. Some of these areas (particularly Outer East) are also the areas of highest equity concern. In these areas, there are serious condition concerns, including lack of bike, walk and transit infrastructure, as well as user safety concerns. Any strategy or program will need to account for these conditions and work to address of the very real barriers that exist.

Figure 1. Analysis Zones 1 - 26

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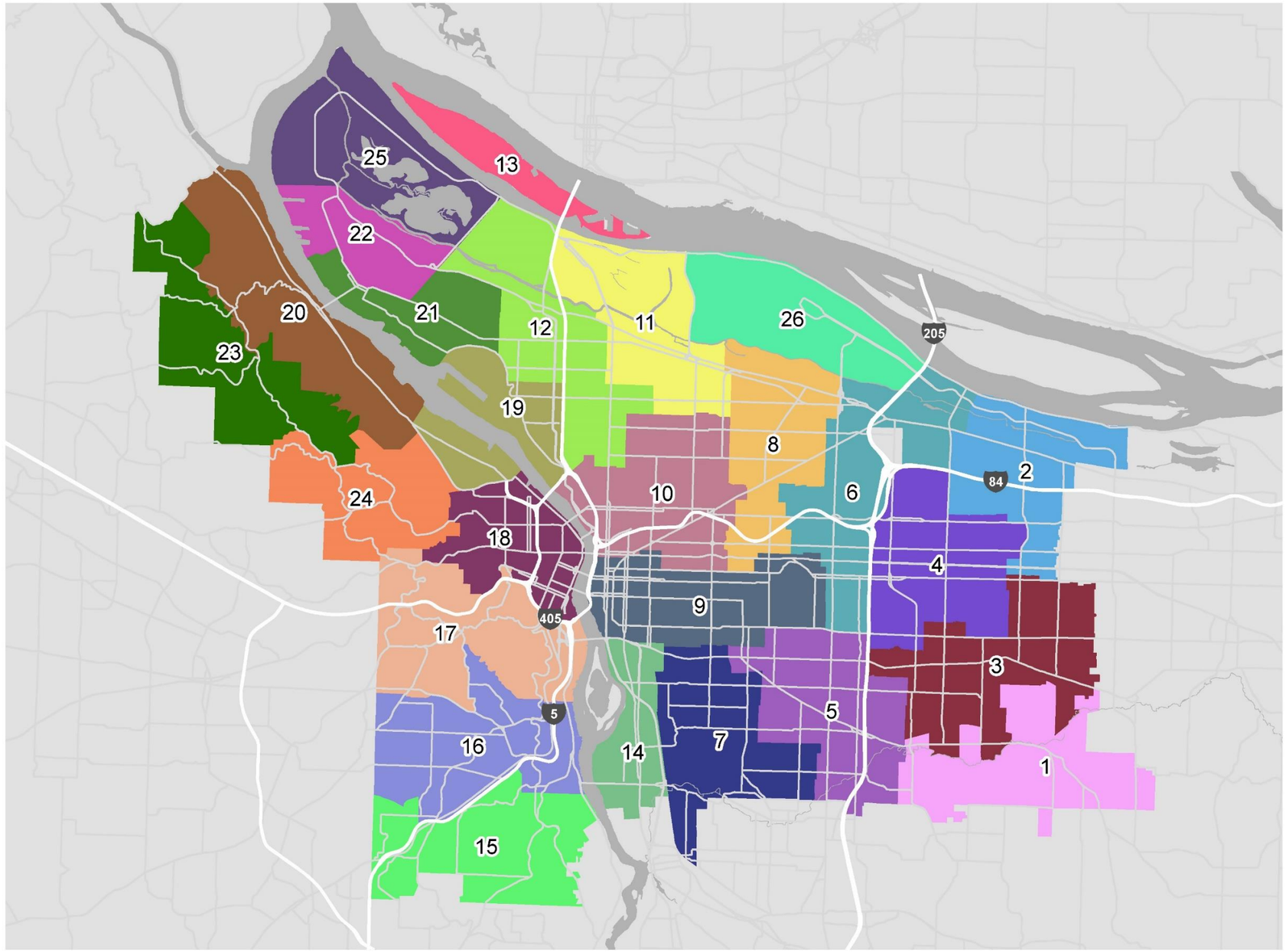
ANALYSIS ZONES (AZ 1-26)



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PBOT and RLIS
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Figure 2. Commute Trips by Automobile

PBOT TRANSPORTATION DEMAND MANAGEMENT

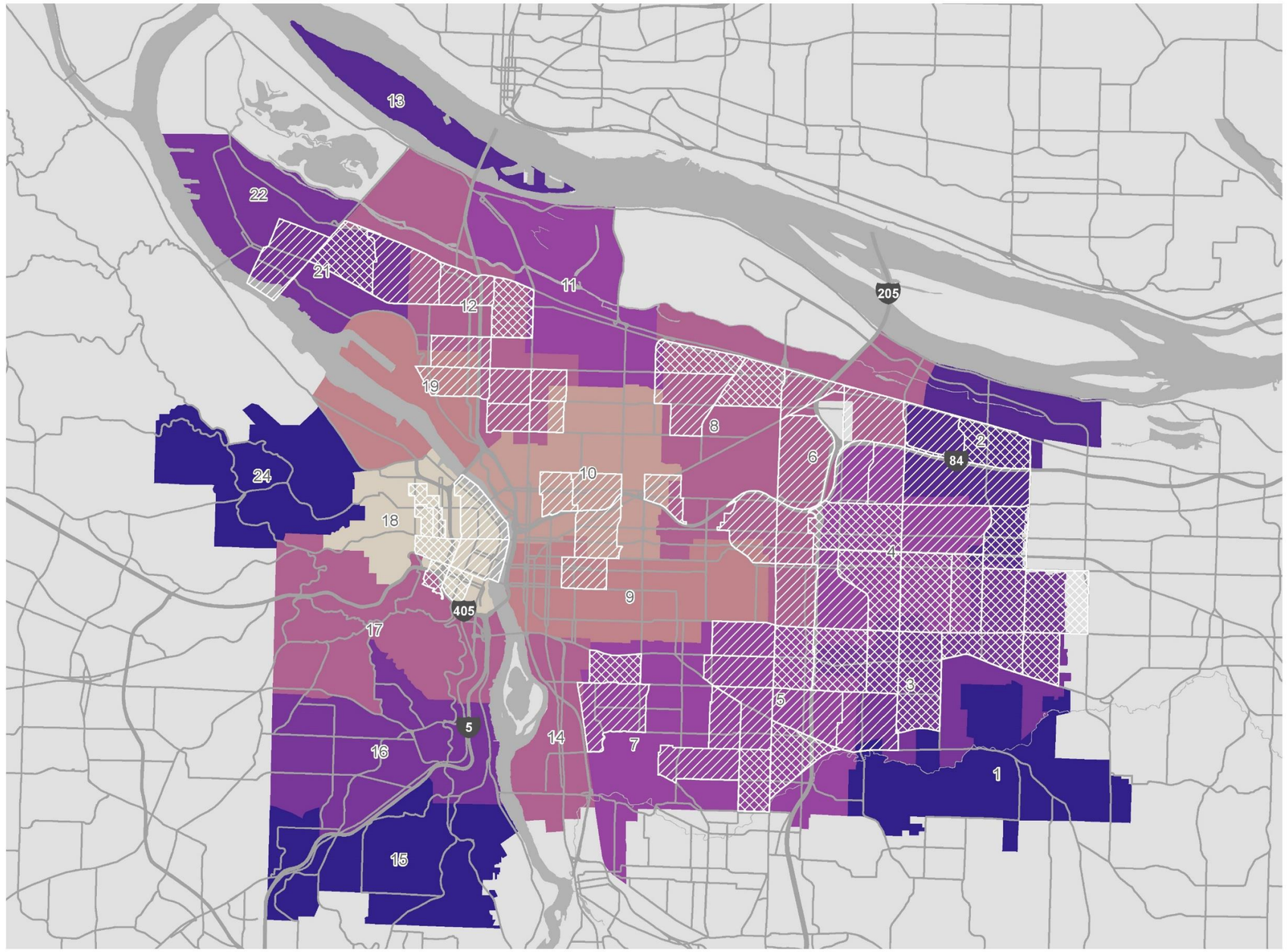
COMMUTE AUTOMOBILE TRIPS

Percent of Commute Trips taken by Automobiles

- 45% - 55%
- 56% - 60%
- 61% - 65%
- 66% - 70%
- 71% - 75%
- 76% - 80%
- 81% - 85%
- 86% or Higher

PBOT Equity Matrix

- High
- Highest



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Data provided by PBOT and RLIS December 2019

Figure 3. Non-Commute Trips by Automobile

PBOT TRANSPORTATION DEMAND MANAGEMENT

NON-COMMUTE AUTOMOBILE TRIPS

Percent of Non-Commute Trips taken by Automobiles

- 45% - 55%
- 56% - 60%
- 61% - 65%
- 66% - 70%
- 71% - 75%
- 76% - 80%
- 81% - 85%
- 86% or Higher

PBOT Equity Matrix

- High
- Highest

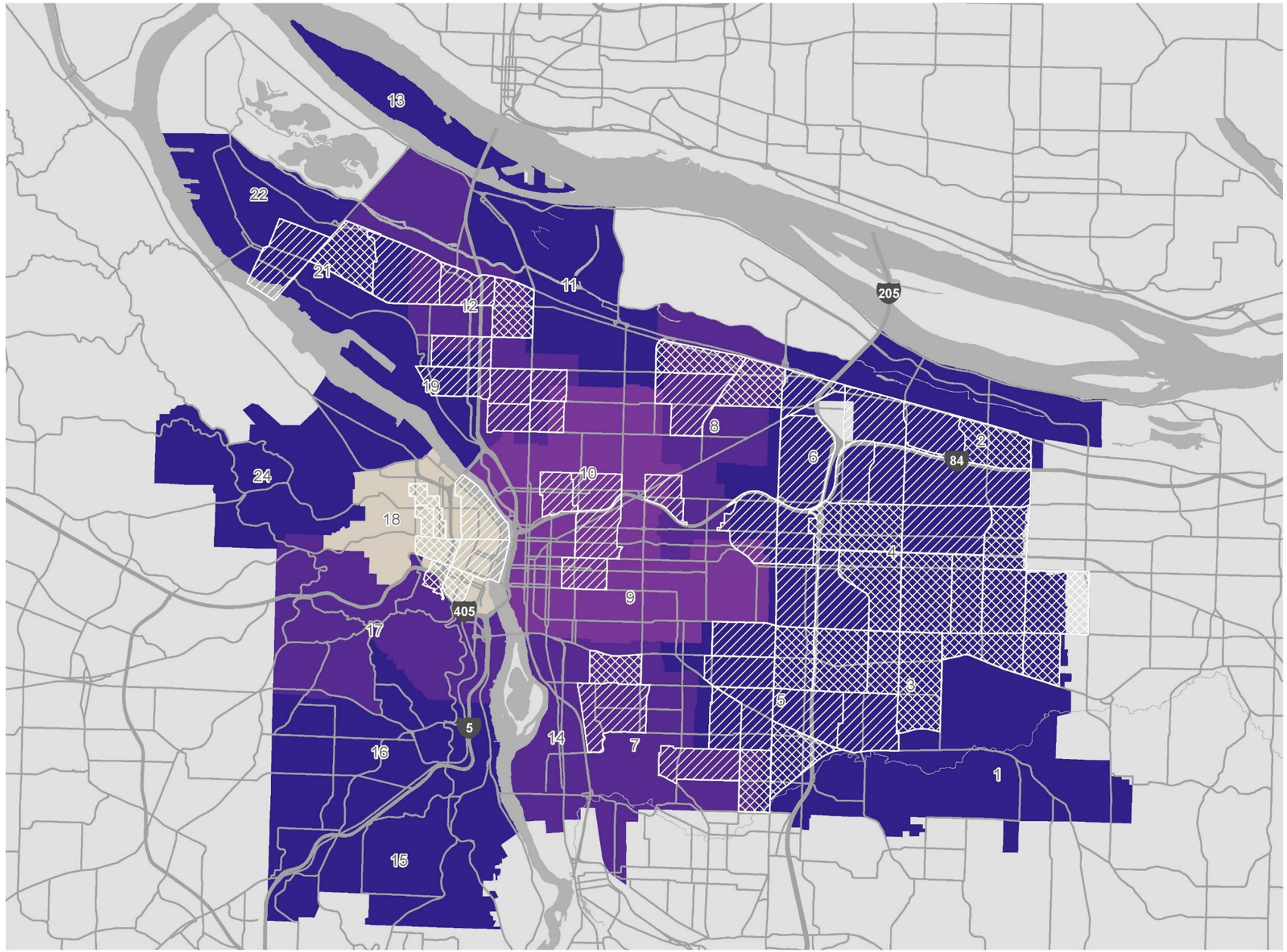

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Figure 4. Commute Trip Distance

PBOT TRANSPORTATION DEMAND MANAGEMENT

COMMUTE TRIP DISTANCE

Percent of Commute Trips that are Under Five Miles

- 13% - 20%
- 21% - 30%
- 31% - 40%
- 41% - 50%
- 51% - 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%

PBOT Equity Matrix

- High
- Highest

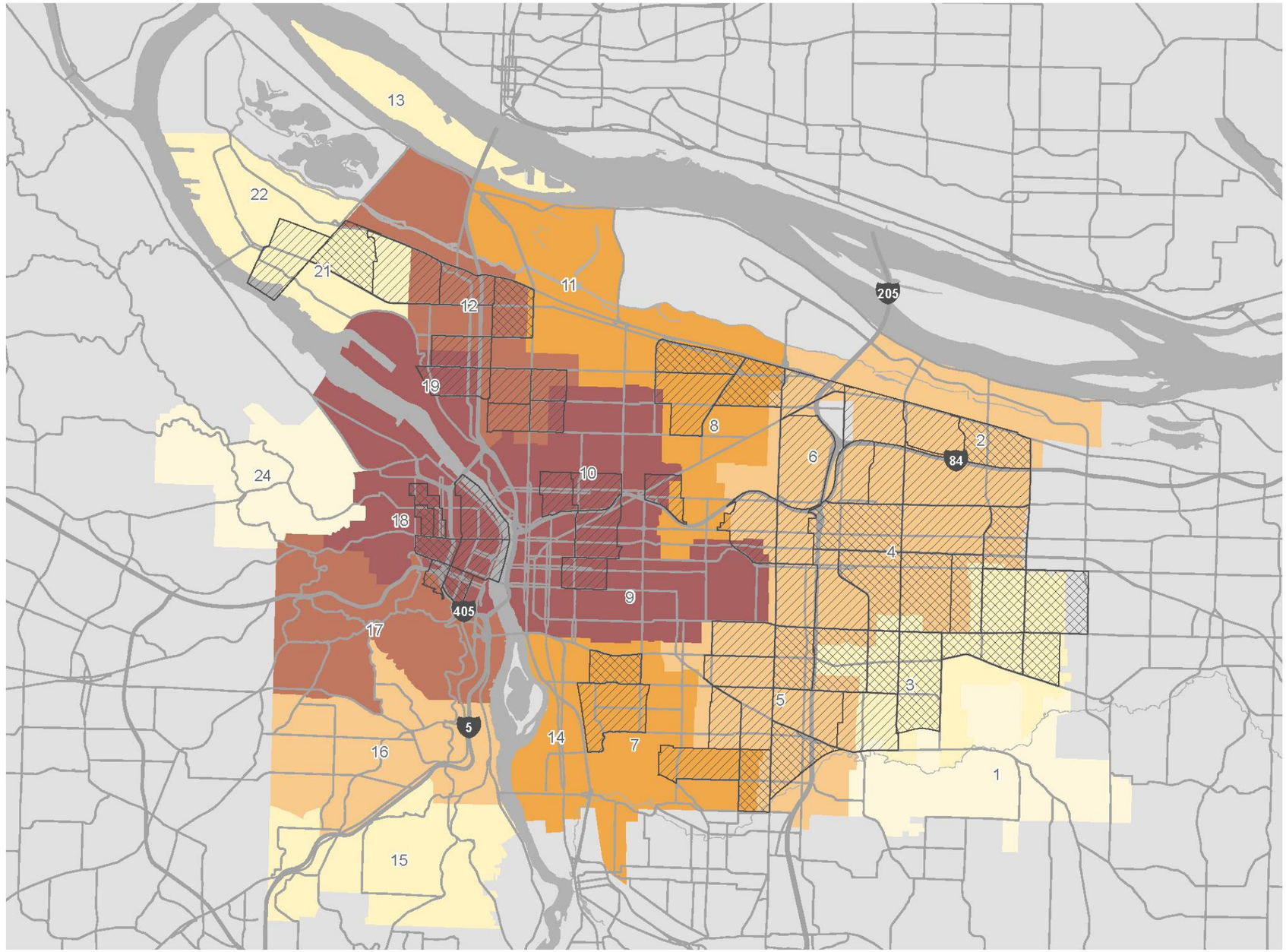

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Figure 5. Non-Commute Trip Distance: Less than 5 Miles

PBOT TRANSPORTATION DEMAND MANAGEMENT

NON-COMMUTE TRIP DISTANCE

Percent of Non-Commute Trips that are Under Five Miles

- 13% - 20%
- 21% - 30%
- 31% - 40%
- 41% - 50%
- 51% - 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%

PBOT Equity Matrix

- High
- Highest

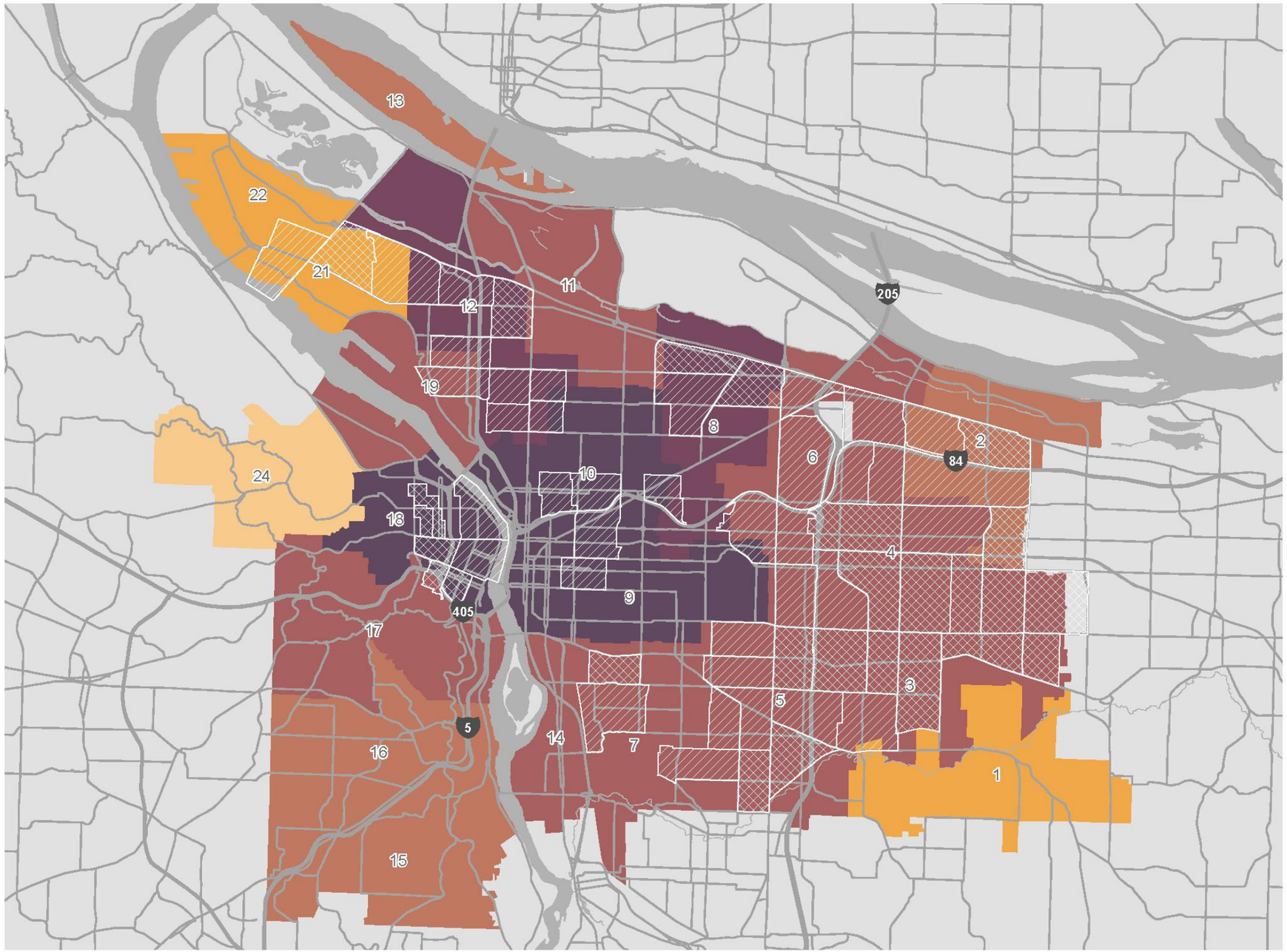

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Figure 6. Non-Commute Trip Distance: Less than 2 Miles

PBOT TRANSPORTATION DEMAND MANAGEMENT

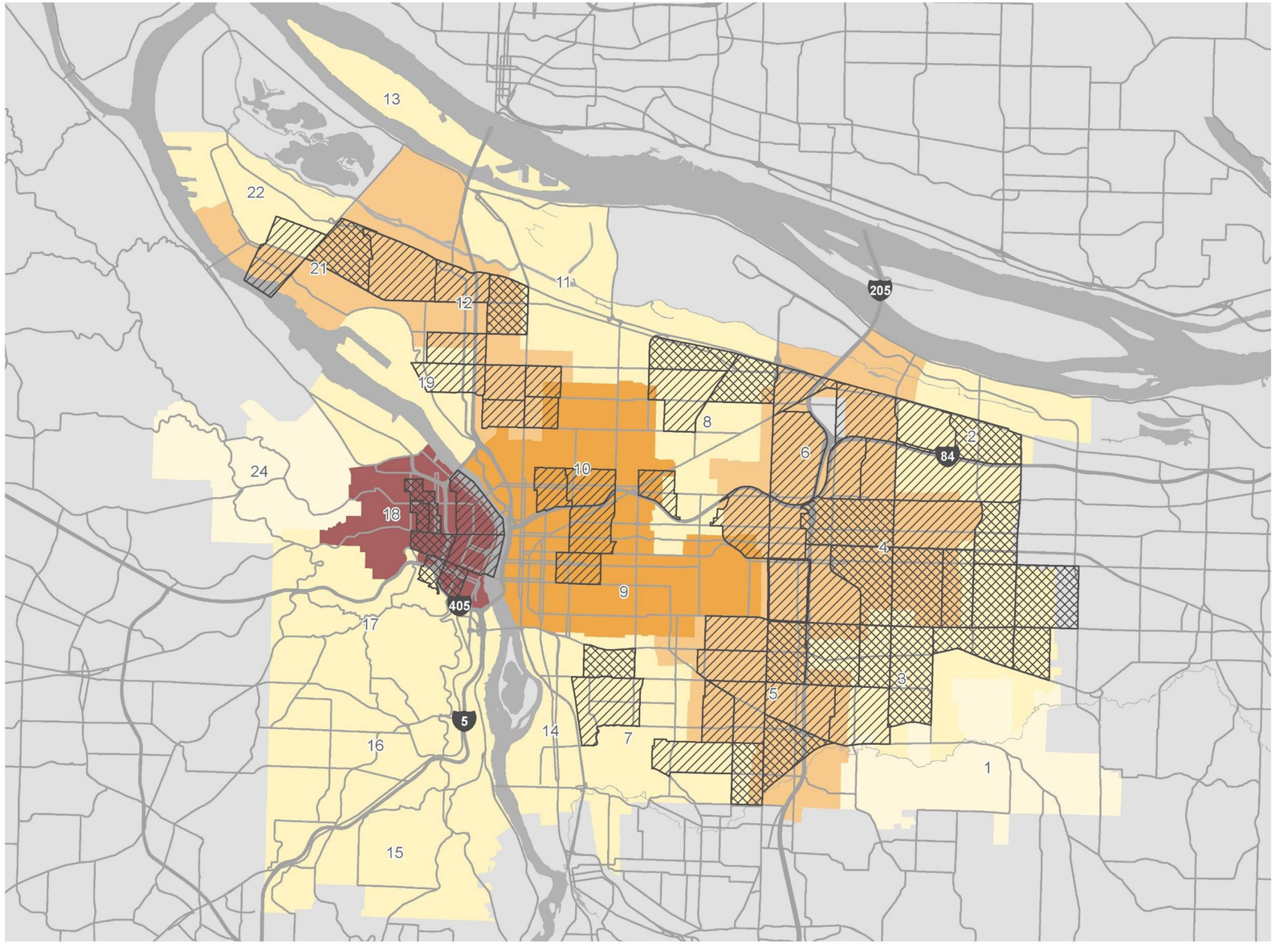
NON-COMMUTE TRIP DISTANCE

Percent of Non-Commute Trips that are Under Two Miles

- 13% - 20%
- 21% - 30%
- 31% - 40%
- 41% - 50%
- 51% - 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%

PBOT Equity Matrix

- High
- Highest



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