CONNECT COLUMBUS

Building Columbus' Transportation Future

Workshop #2
June 4, 2015

CONNECT COLUMBUS
BUILDING COLUMBUS' TRANSPORTATION FUTURE

Tonight's Agenda

1. Connect Columbus Process
2. Project Goals
3. Workshop 1 Recap
4. This Week's Work
5. Discussion

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Connect Columbus

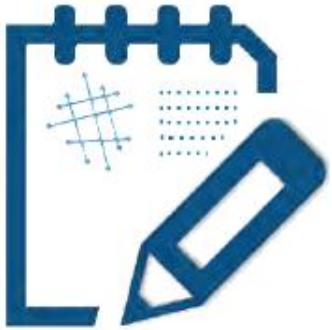
Process

Our Process

1. Discovery

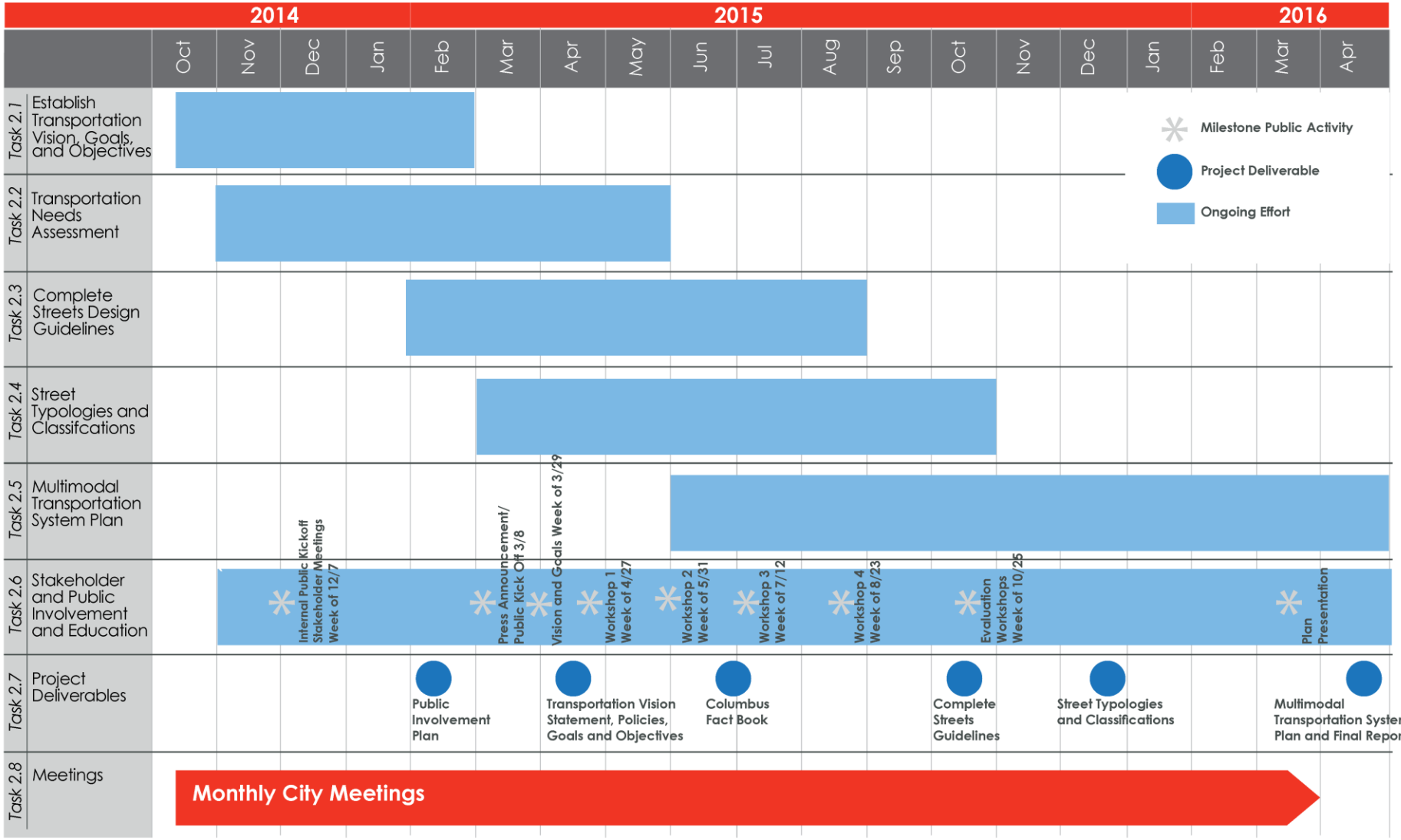
2. Desire

3. Design

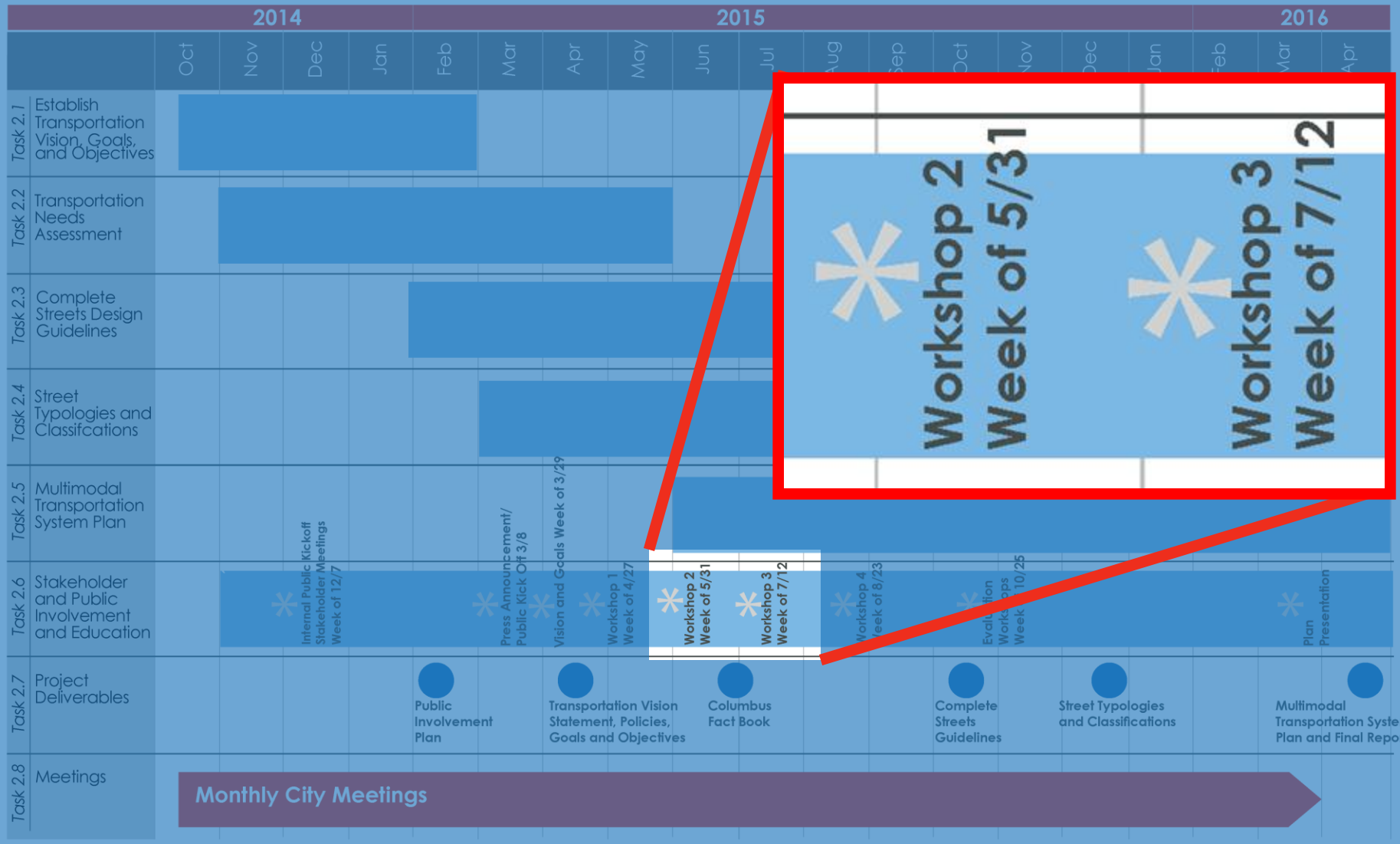


4. Documentation

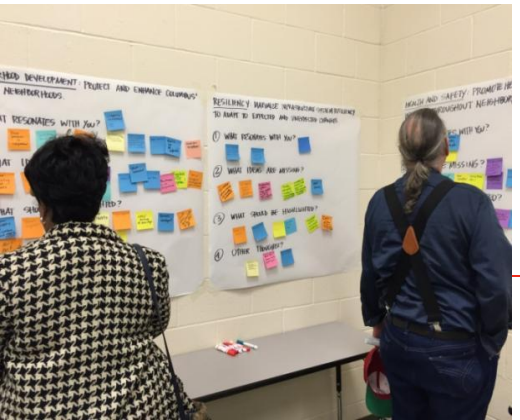
Project Schedule



Project Schedule



Project Goals



215

Planning Documents Reviewed

Of those 215 planning documents reviewed by the Connect Columbus team, how many documents supported each of the goals?

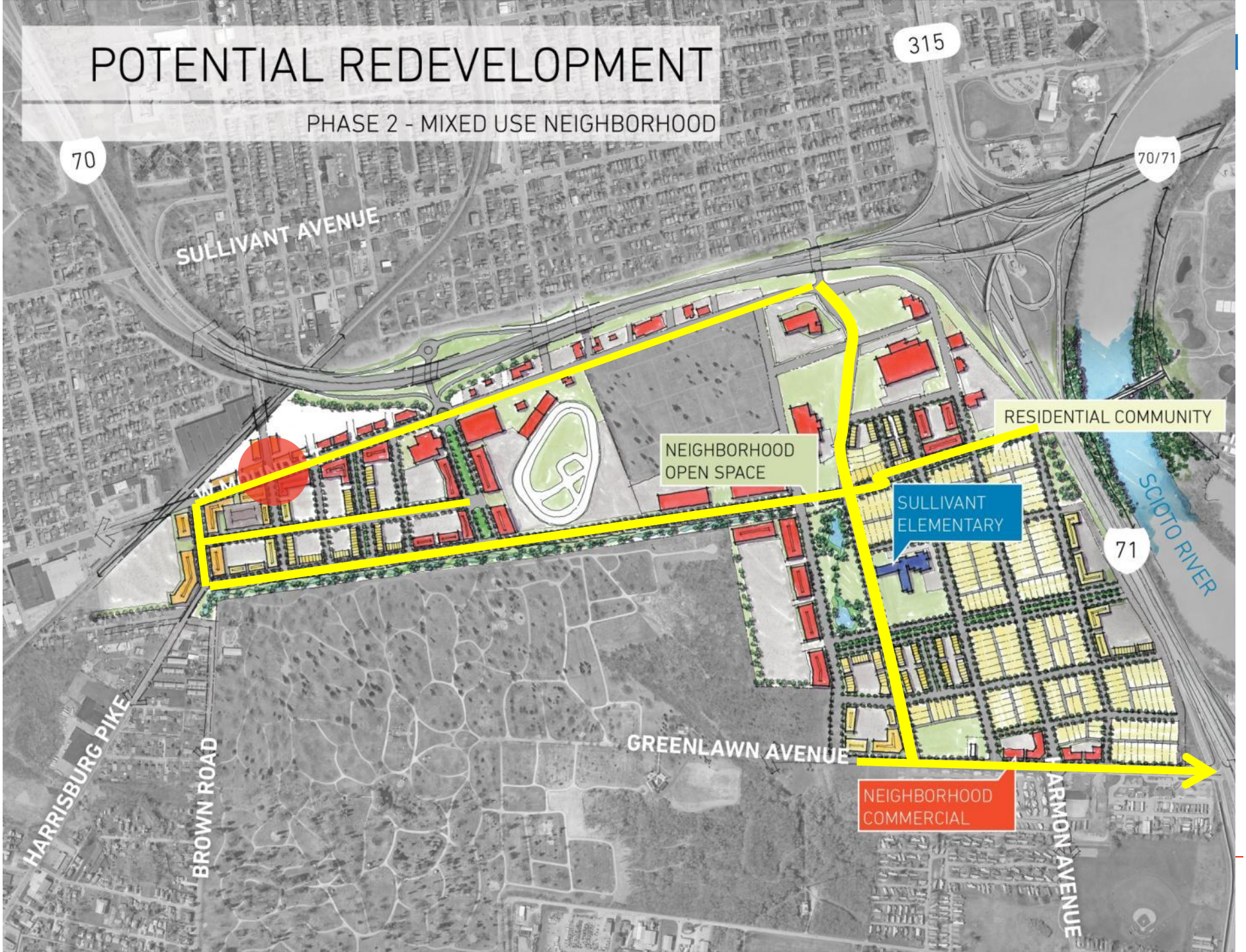
4 Community Meetings

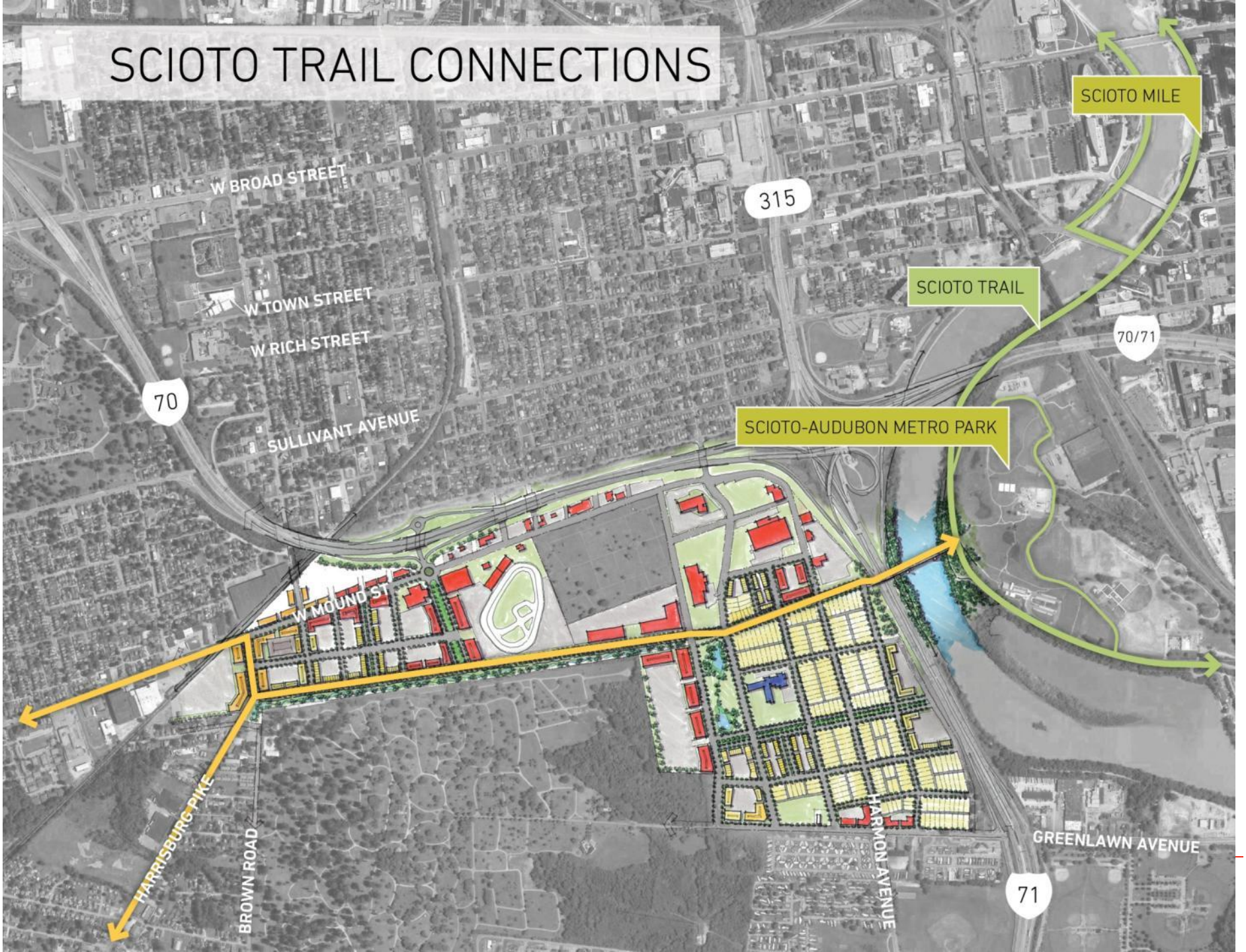
Proposed Final Goals

- **Neighborhood Vitality:** Through placemaking and community development, be responsive to neighborhood's character and needs.
- **Health and Safety:** Balanced access for walking, biking, and active transportation that promotes health, safety, and well- being
- **Equitable Access**: Provide quality transportation choices that are socially and economically inclusive of all.
- **Sustainability**: Promote sustainable and renewable transportation options, aimed at reducing resource consumption.
- **Economic Development**: Build infrastructure to attract and retain jobs and minds, while connecting and enhancing access.
- **Fiscal Sustainability:** Prioritize transportation investments that can be sustained long term

Workshop One

CONNECT COLUMBUS


POTENTIAL REDEVELOPMENT
PHASE 2 - MIXED USE NEIGHBORHOOD
315
70
70/71
SULLIVANT AVENUE
NEIGHBORHOOD OPEN SPACE
RESIDENTIAL COMMUNITY
SULLIVANT ELEMENTARY
71
SCIOTO RIVER
HARRISBURG PIKE
BROWN ROAD
GREENLAWN AVENUE
NEIGHBORHOOD COMMERCIAL
ARMON AVENUE


SCIOTO TRAIL CONNECTIONS
SCIOTO MILE
SCIOTO TRAIL
SCIOTO-AUDUBON METRO PARK
W BROAD STREET
315
W TOWN STREET
W RICH STREET
70
SULLIVANT AVENUE
70/71
W MOUND ST
HARRISBURG PIKE
BROWN ROAD
HARMON AVENUE
GREENLAWN AVENUE
71

W Broad (Powell and Chase) Existing 60 feet

Ranges from 60 feet to 120 feet

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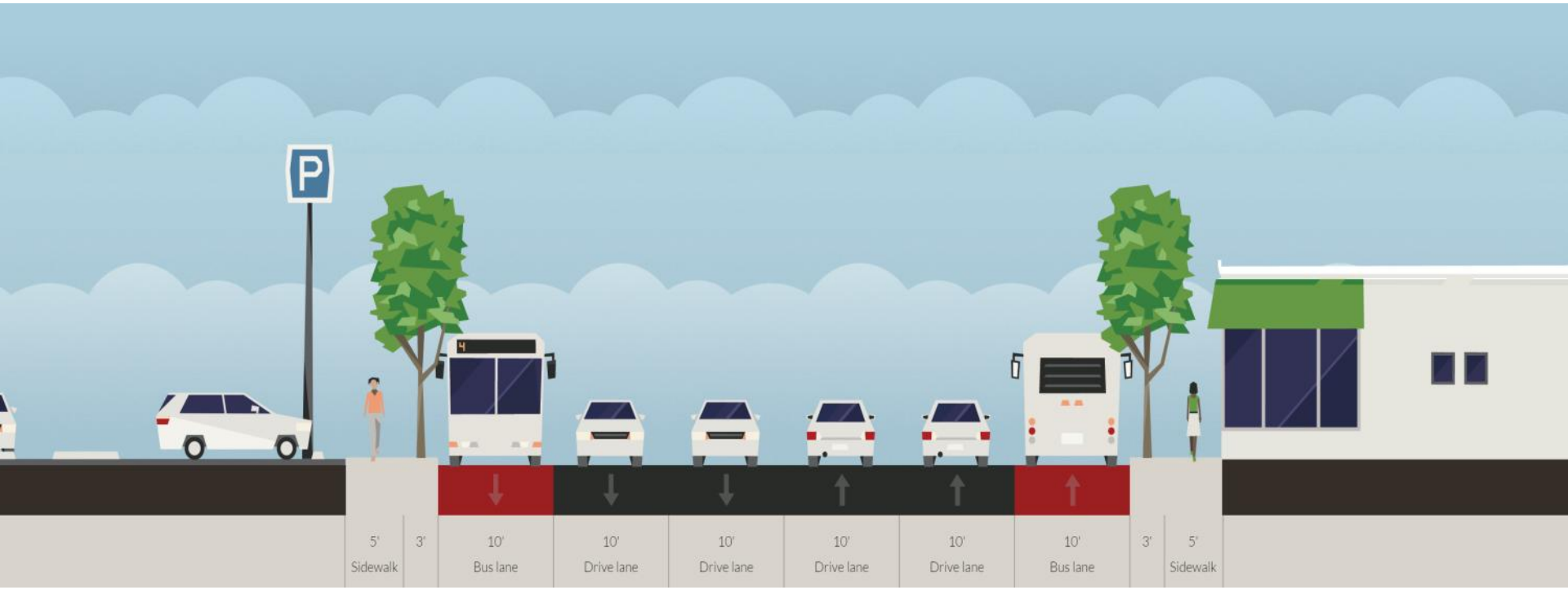
W Broad (Powell and Chase) Proposed Transit



Ranges from 60 feet to 120 feet

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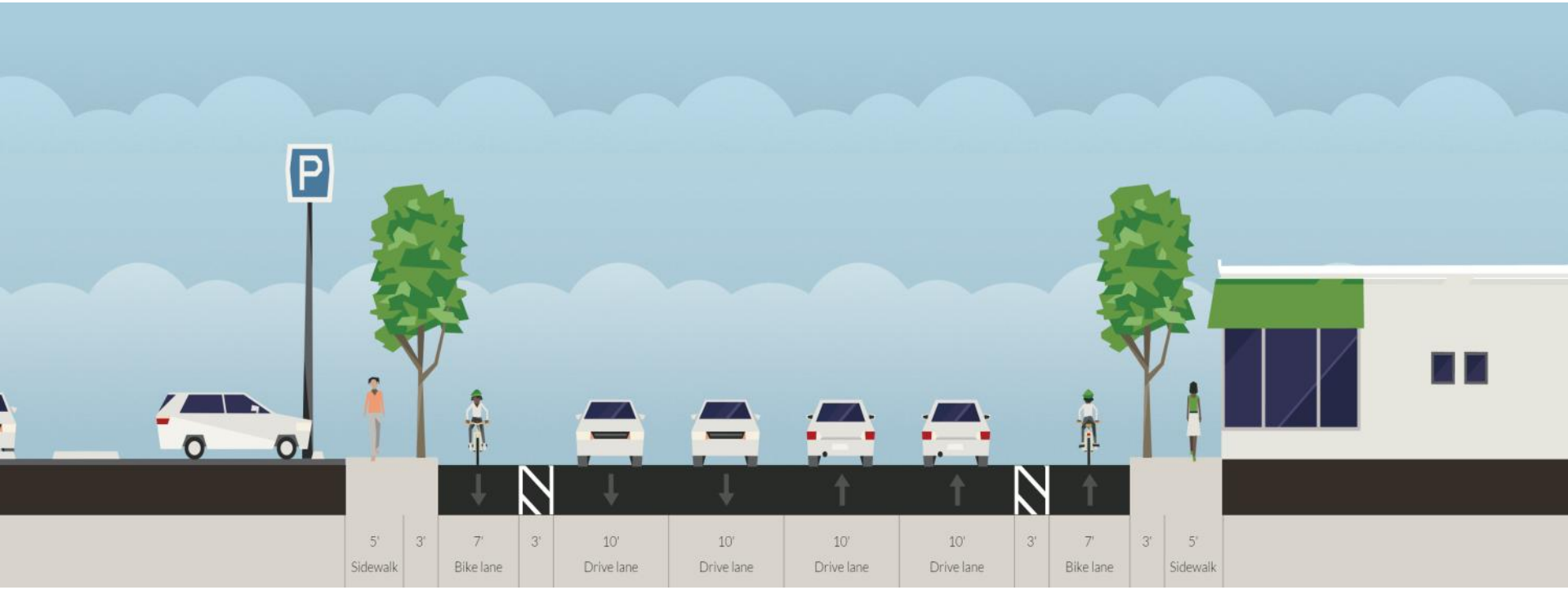
W Broad (Powell and Chase) Proposed Bicycle



Ranges from 60 feet to 120 feet

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Potential Bike Network

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Mound Street

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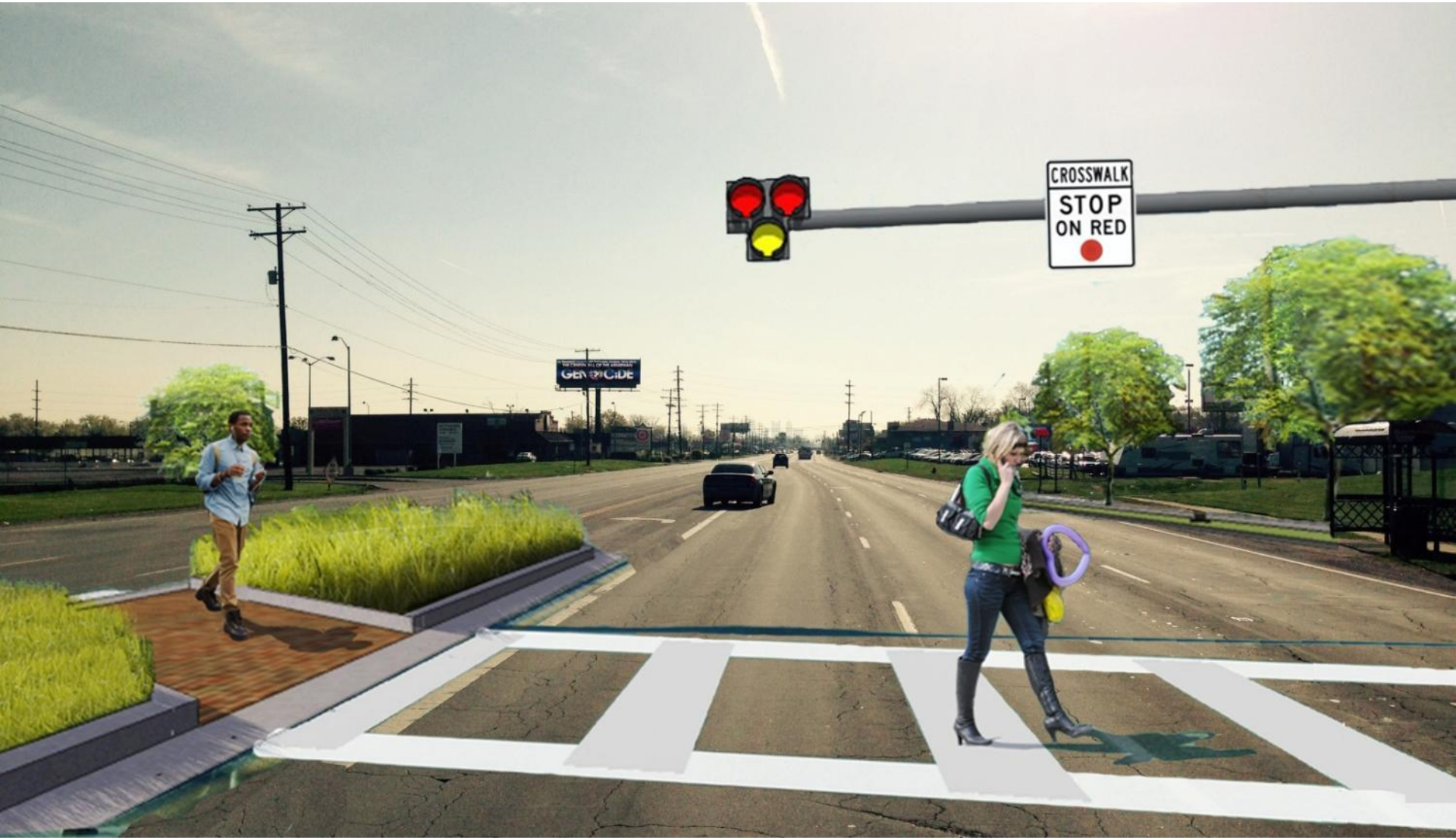
Protected Crossing – Broad Street



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Workshop Two

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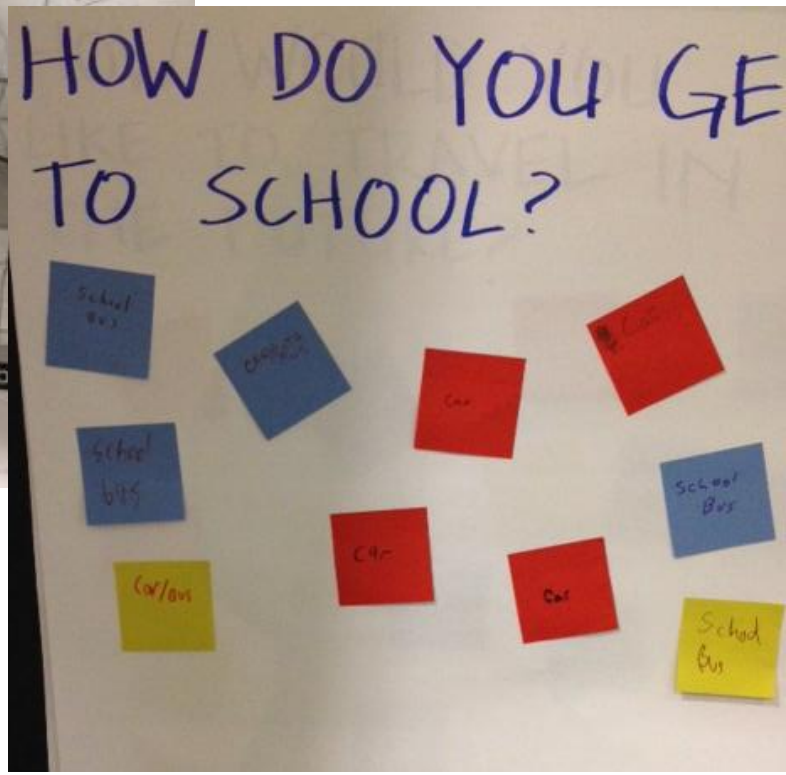
CITY OF COLUMBUS - BASE MAP - NORTHWEST
CONNECT COLUMBUS
CITY OF COLUMBUS - BASE MAP - NO


HOW DO YOU GE
TO SCHOOL?
School Bus
Car
School Bus
School Bus
Car/Bus
Car
Car
School Bus

Boy Scouts

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This Week's Work

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Issues and Ideas

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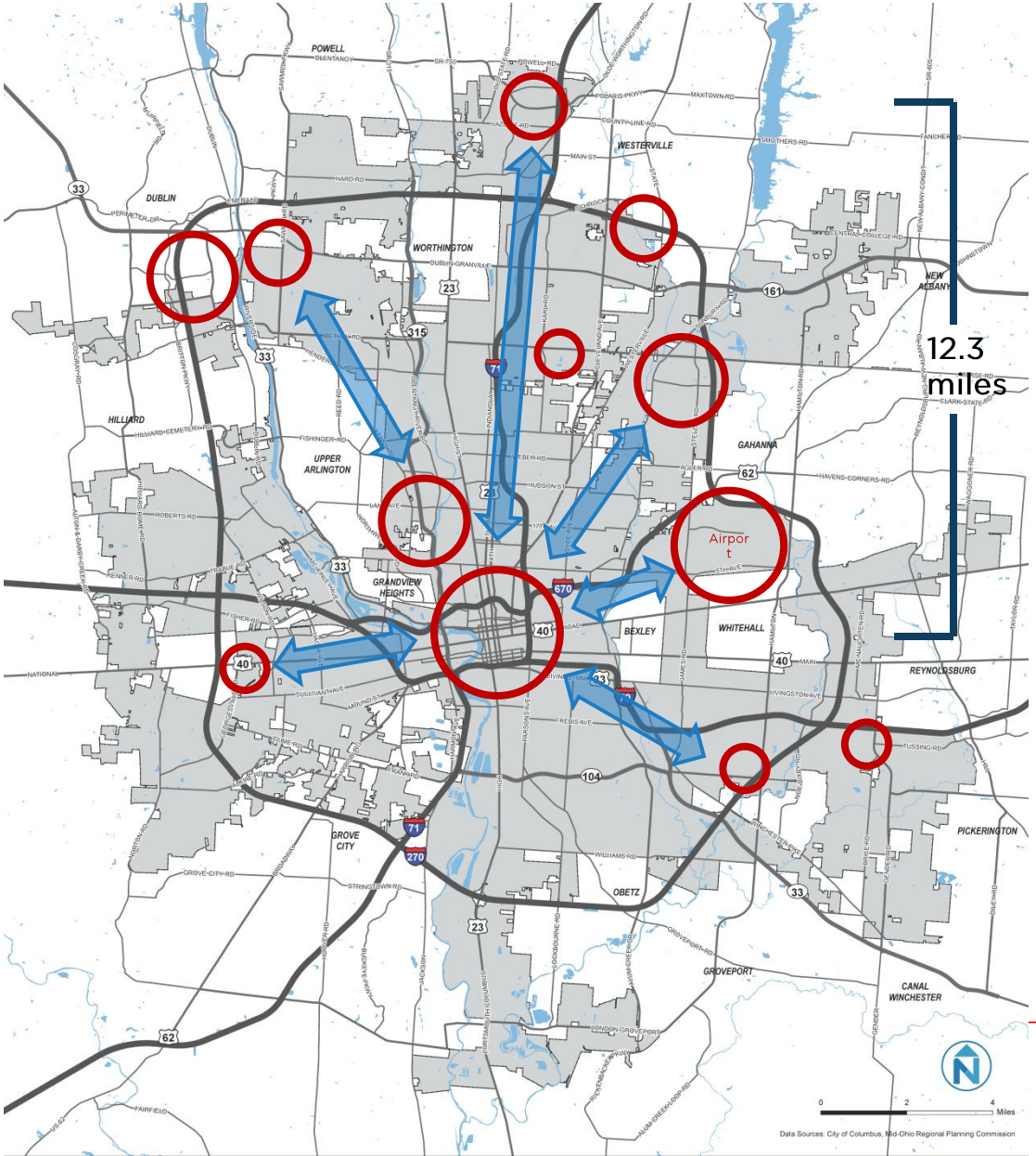
Downtown Commutes



12.3 AVERAGE COMMUTE DISTANCE

IN THE COLUMBUS REGION.

Source: National Household Travel Survey 2009

28% OF ROADWAY MILES ARE COMMUTE TRIPS

Source: AASHTO

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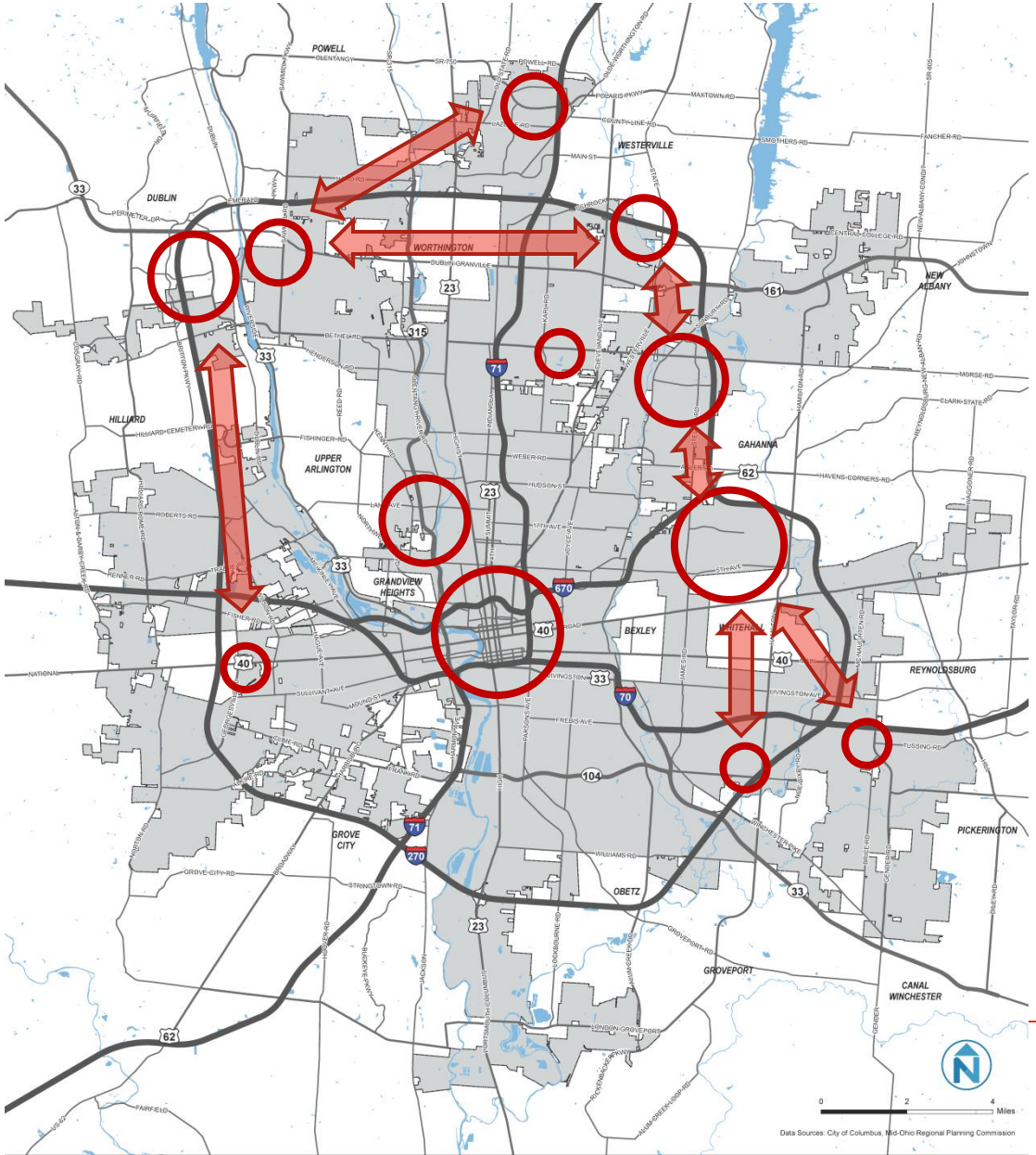
Crosstown Commutes



6.4% OF COMMUTE TRIPS ARE NON-AUTO

MADE BY **WALK, BIKE,** OR **TRANSIT** IN COLUMBUS

Source: 2012 American Community Survey

39% OF TRANSIT PASSENGER MILES ARE COMMUTE

Source: AASHTO

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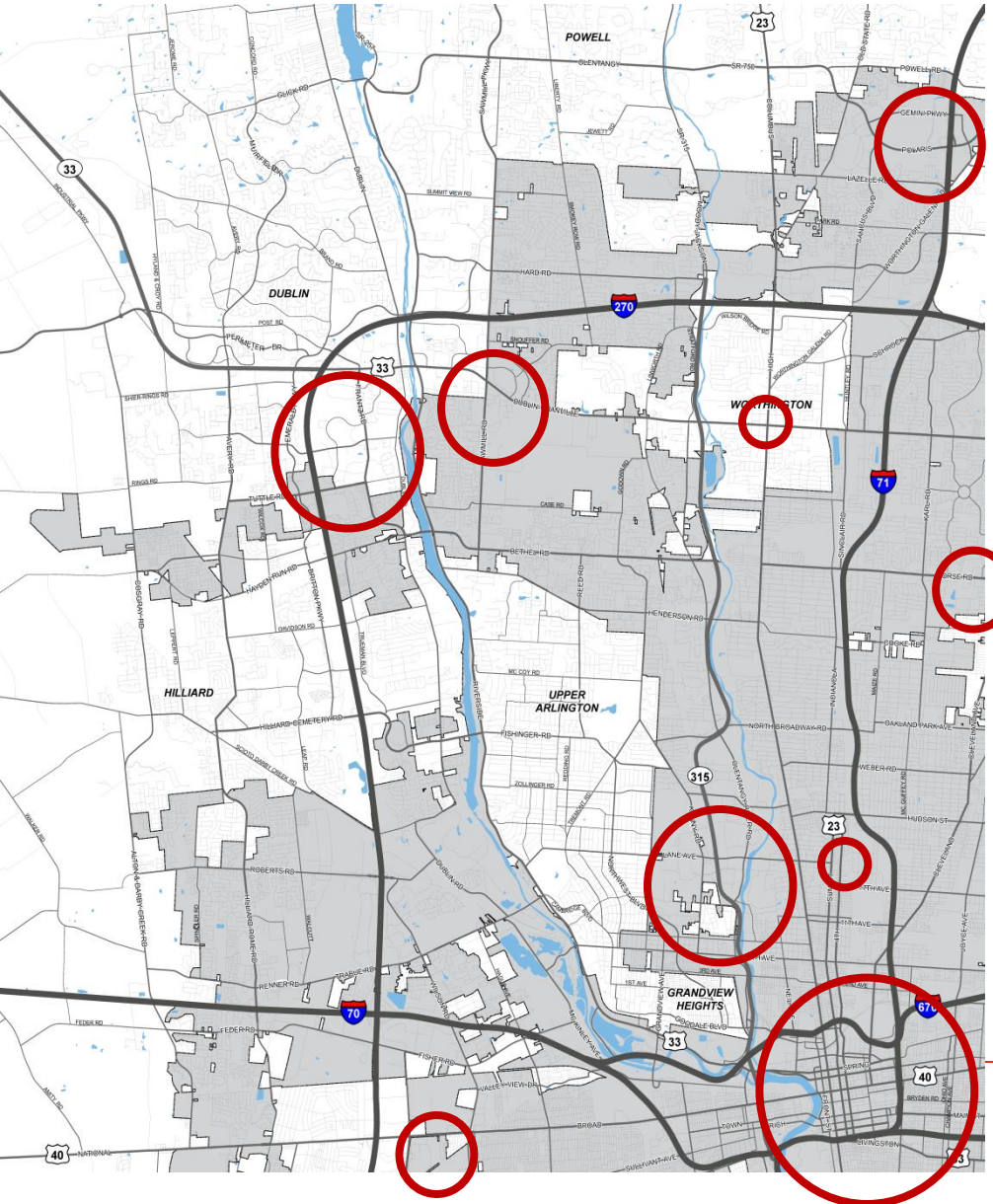
Household Trips



60% OF HOUSE-HOLD TRIPS

ARE **5 MILES OR LESS** IN LENGTH.

Source: NHTSA

85% OF THESE ARE DRIVEN

A DISTANCE THAT IS EASILY VIABLE BY **BICYCLE, TRANSIT OR WALK.**

Source: NHTSA

1 IN 6 HOUSEHOLD TRIPS ARE COMMUTE TRIPS

Source: AASHTO

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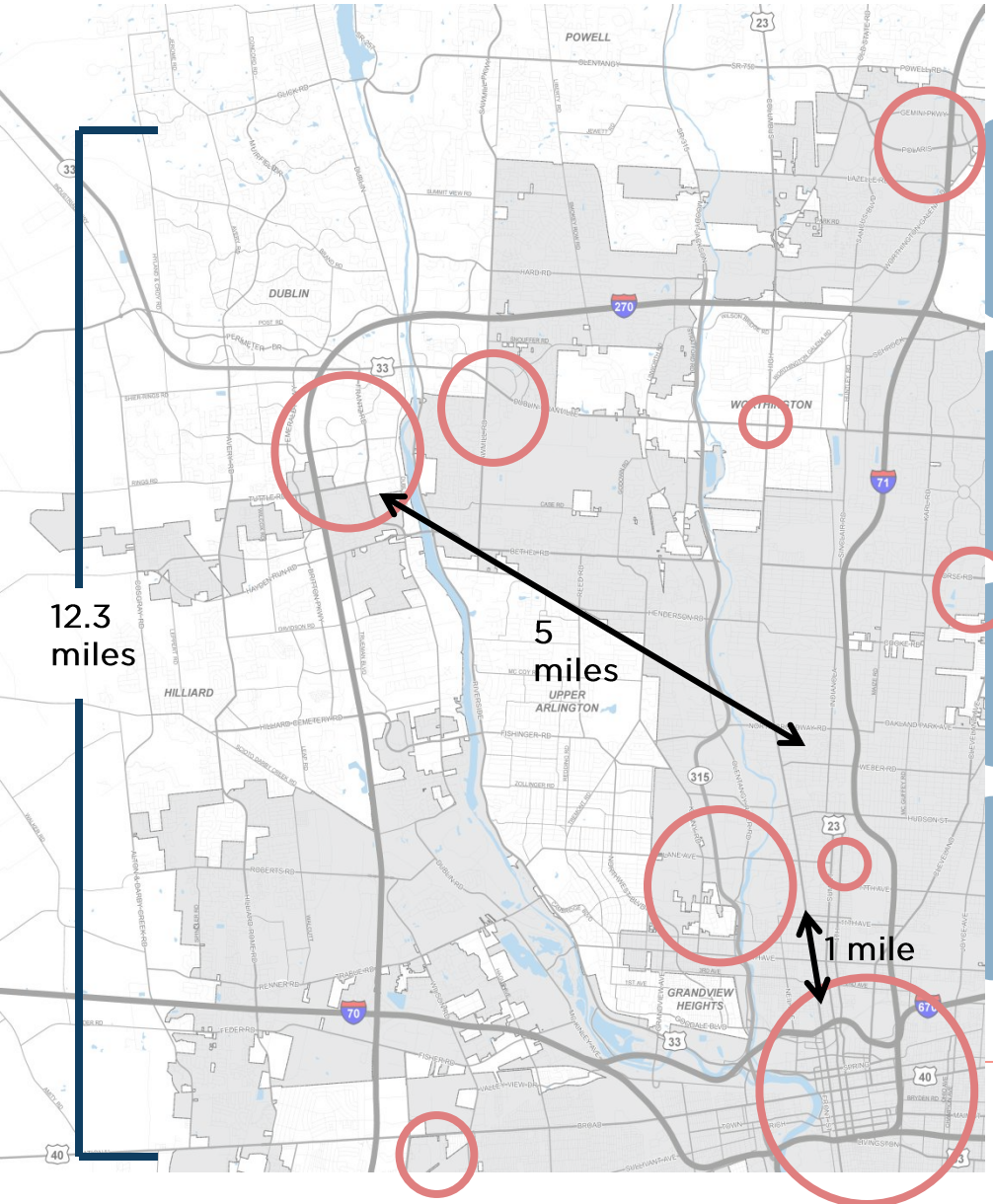
Comfortable Travel Distances



Auto – 5 to 50 miles

Local Bus – 1 to 8 miles

Bike – 1 to 5 miles

Walk 0 to 1

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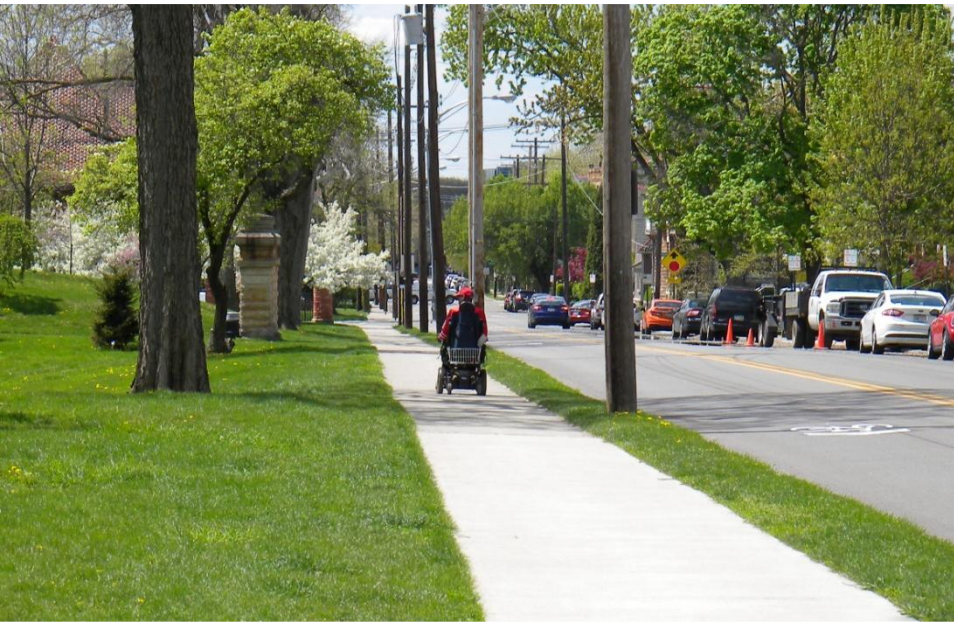
Prerequisites for Viable Options



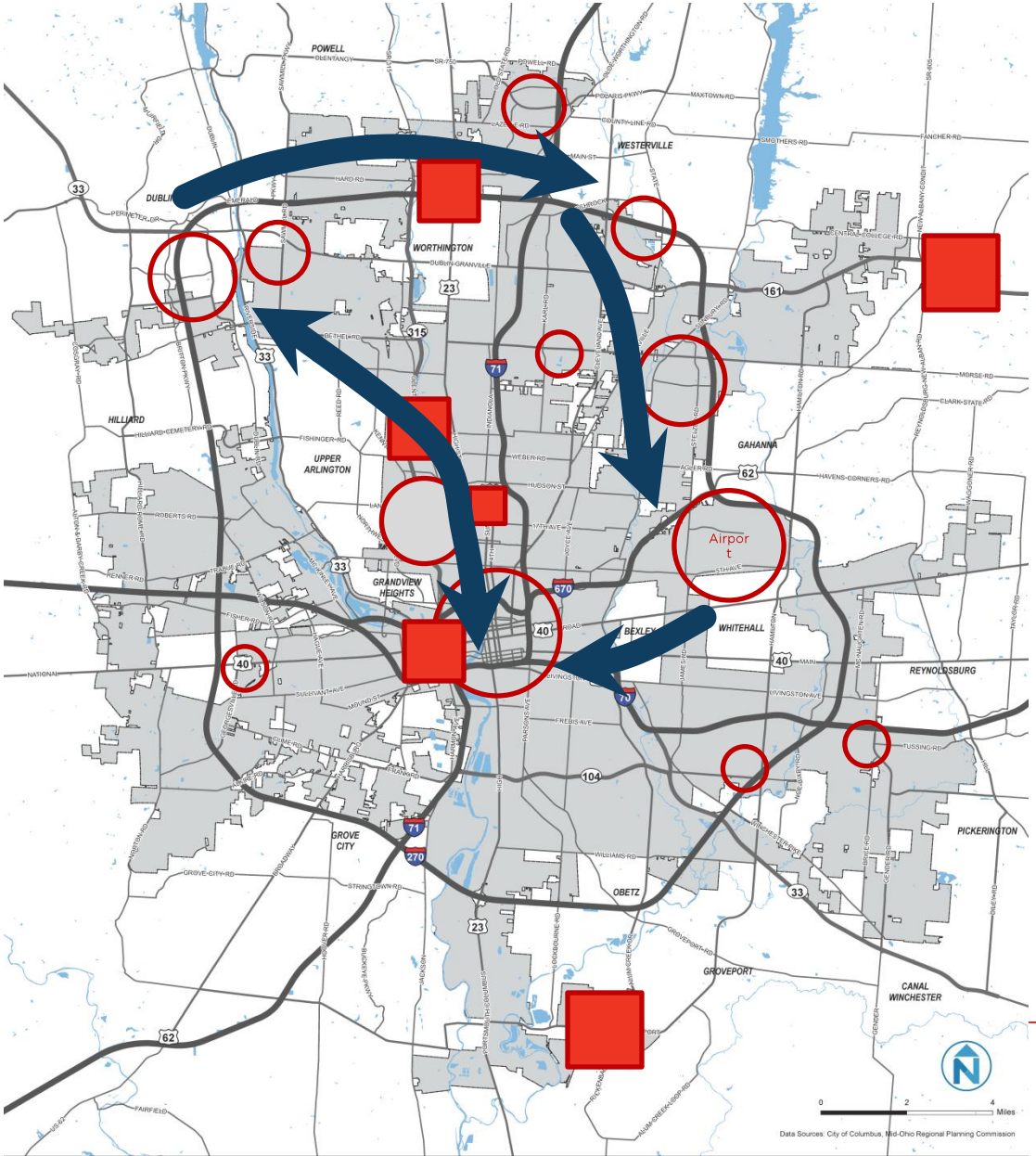
CAR 2GO

15 YEARS

UBER

COGO BIKE SHARE

Additional Activity Centers



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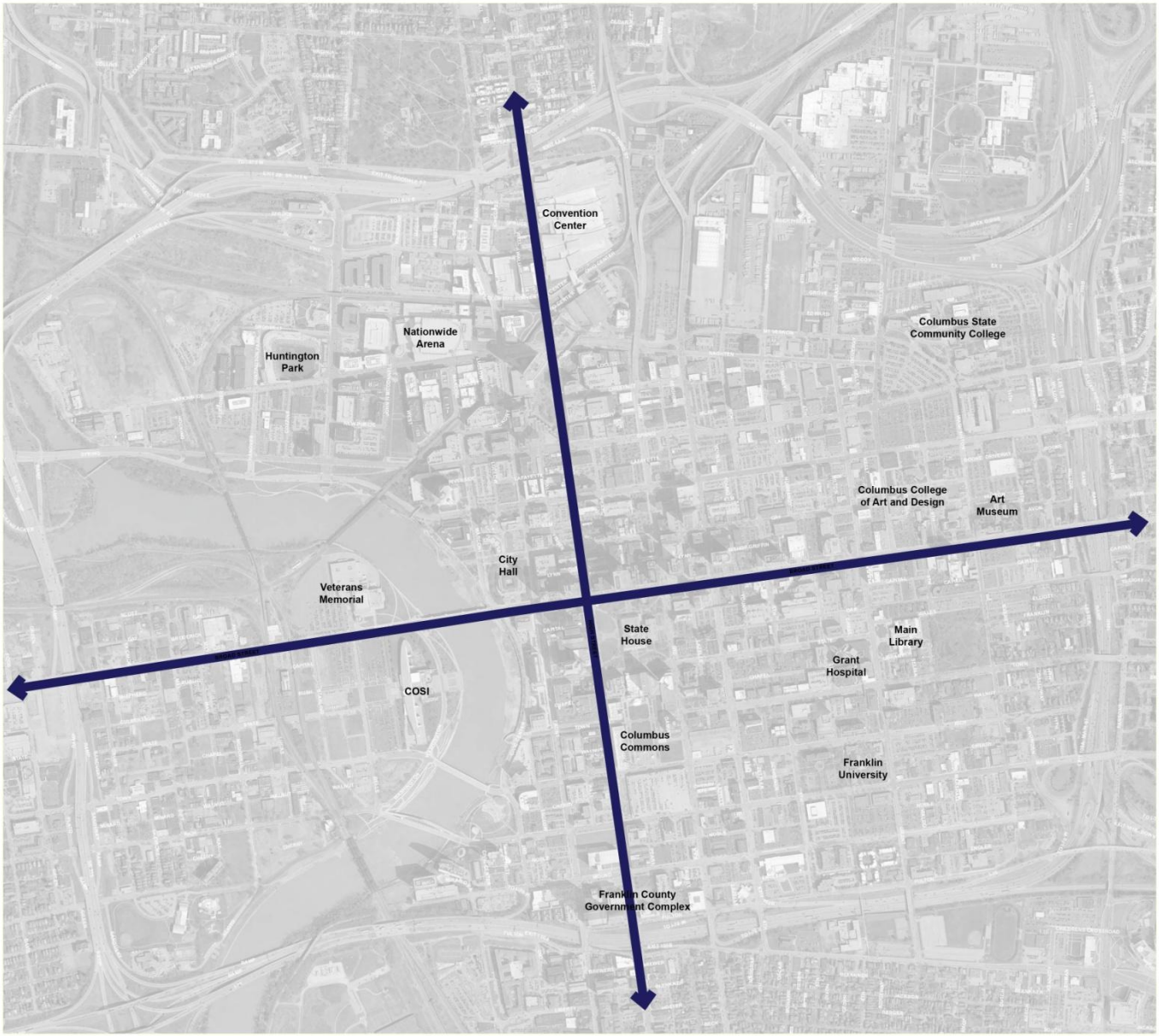
Downtown Network

REGIONAL IDENTITY STREETS:

- Most prominent streets
- Mix of uses along the corridor
- Two way streets
- ***Example of adjustment: Move buses off of High Street***



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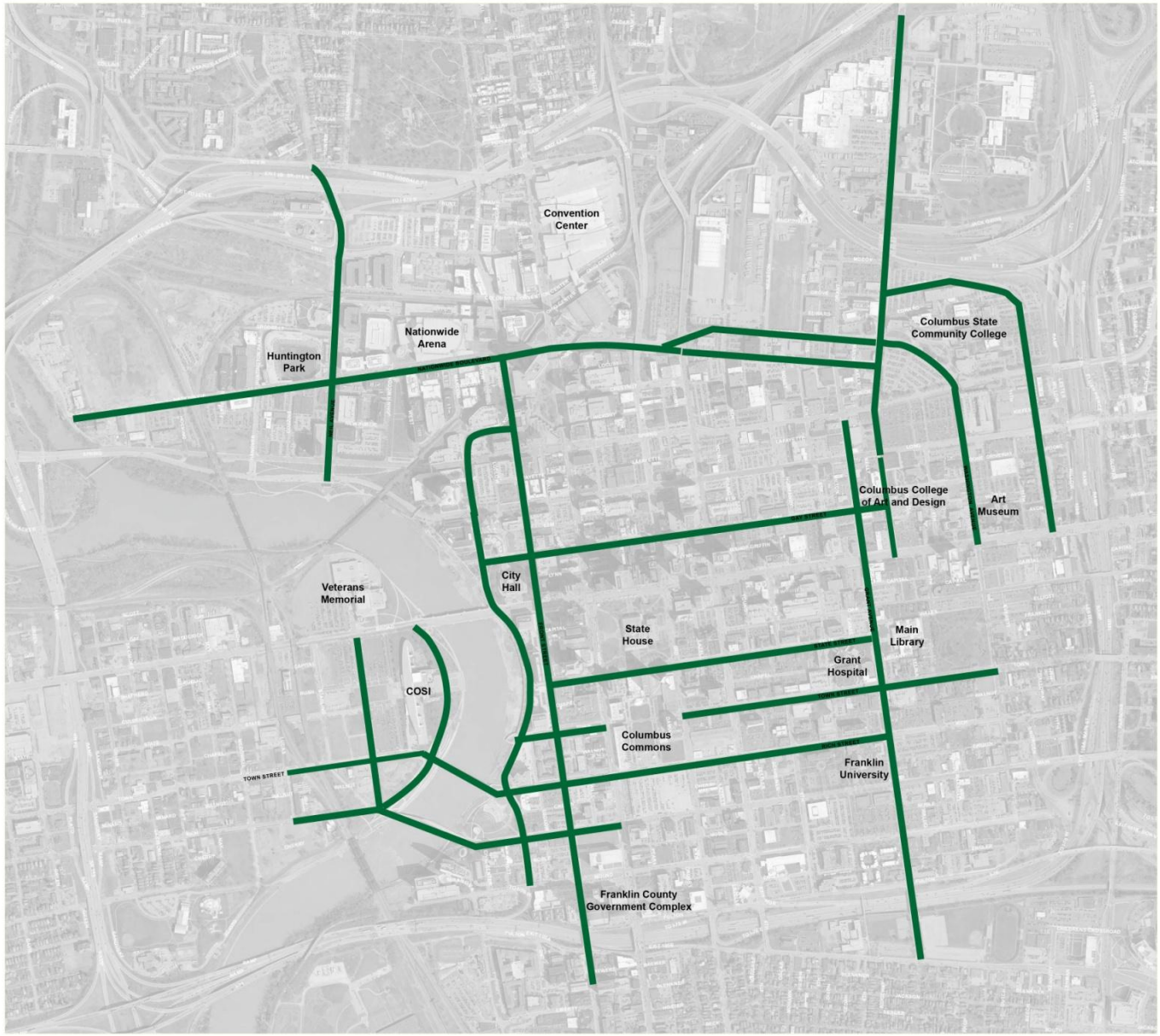
CIVIC/ INSTITUTIONAL STREETS:

- Highly visble streets
- Generally Civic and Institutional Uses along these corridors
- Most are two way streets
- *Example of adjustment: Streetscape Improvements*



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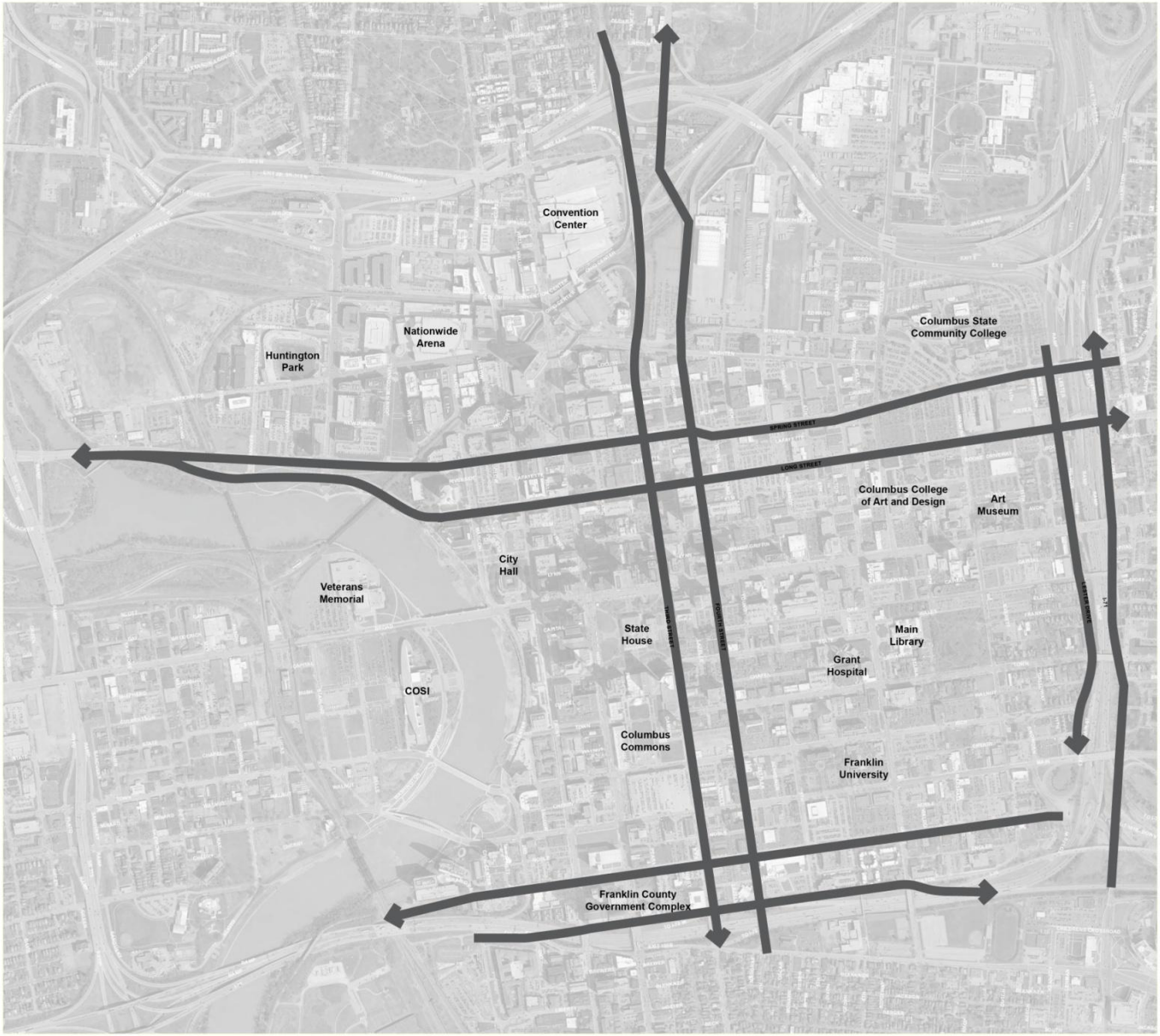
AVENUES:

- Major arterials in Downtown
- Moving people is priority
- Important streets
- Create bike priority where possible
- Consider creation of transit lanes
- ***Example of adjustment: Potential 2-way conversion in the future. Not all can be converted so choices must be made***



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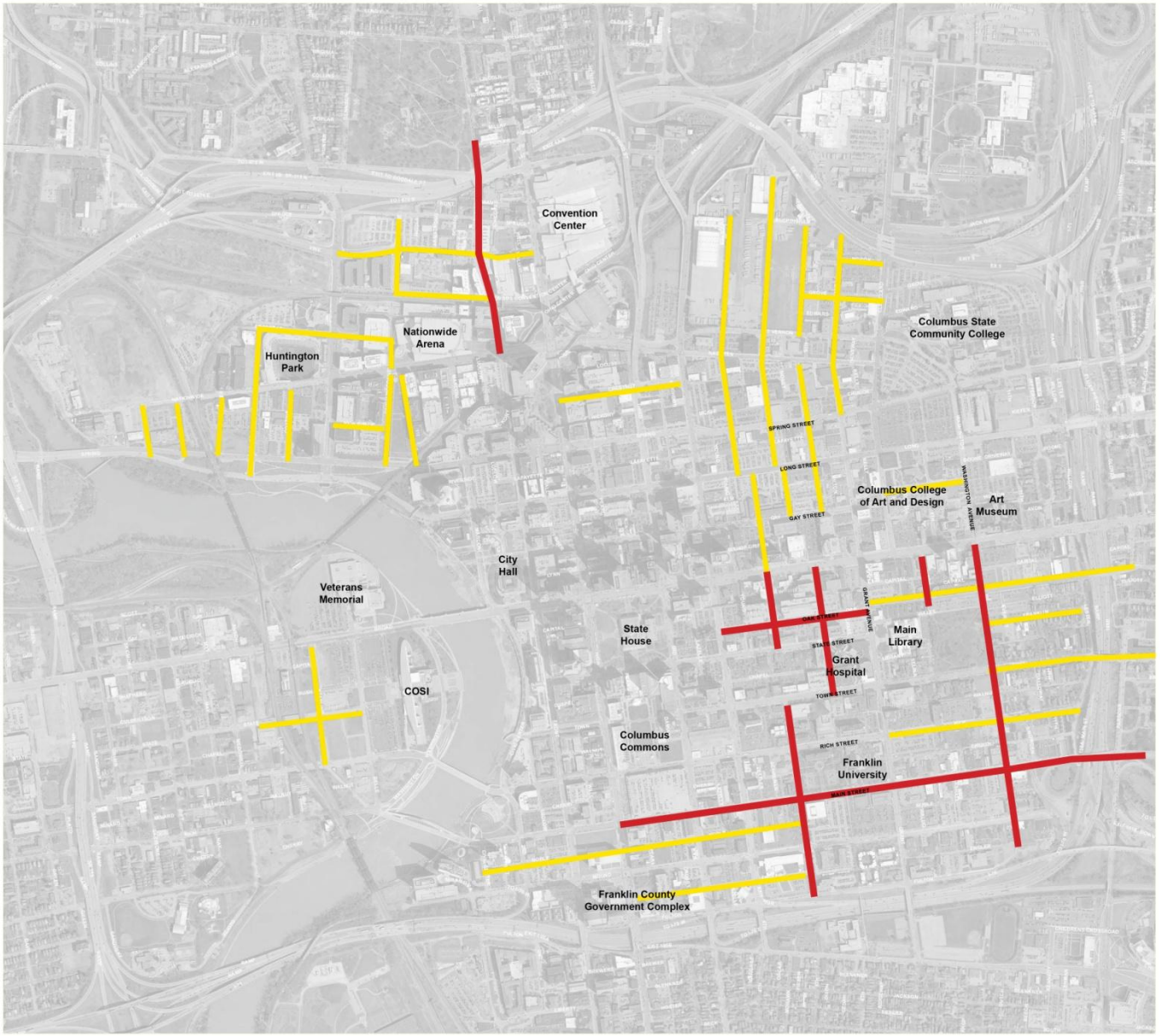
COMMERCIAL/ NEIGHBORHOOD STREETS:

- Predominantly office & residential oriented with some scattered retail
- Street design should encourage economic development
- On-street parking is key for success of businesses & convenience of residents
- Incorporate access to all modes where possible
- ***Example of adjustment: Add street trees and pedestrian improvements to make streets feel more comfortable***



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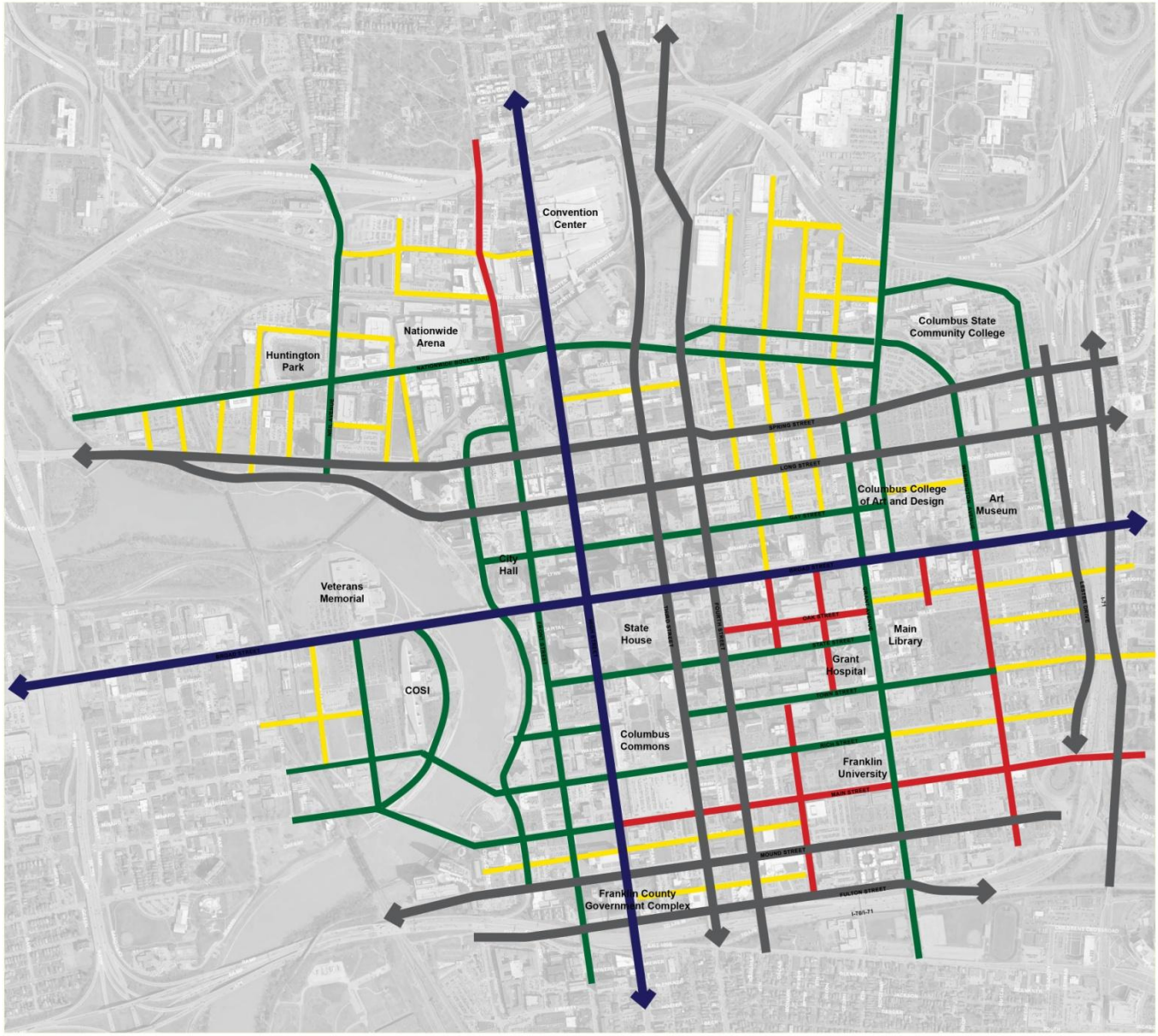
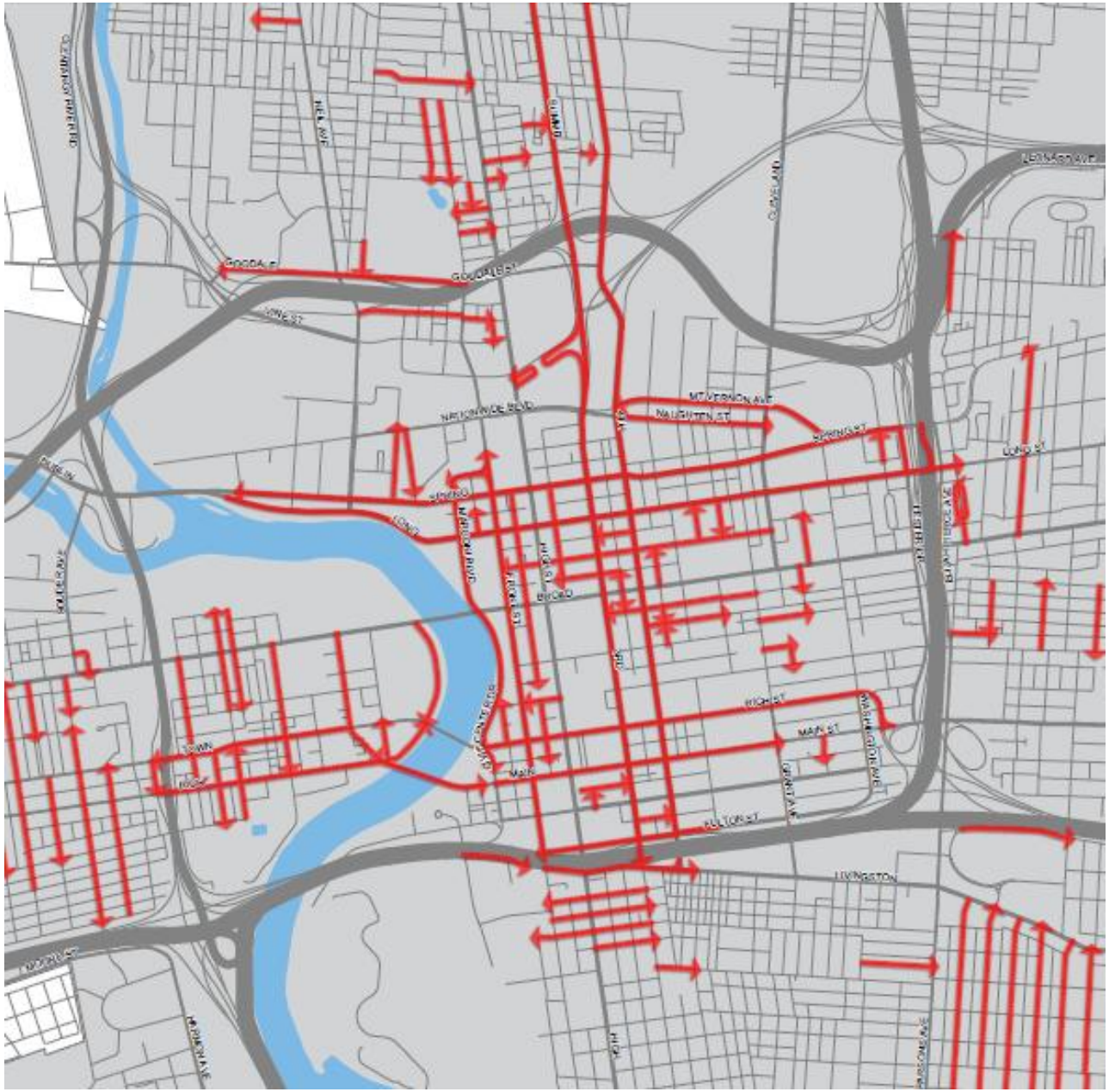
DOWNTOWN STREET TYPOLOGIES

- *Regional Identity Streets*
- *Civic/ Institutional Streets*
- *Avenues*
- *Retail/ Commercial Streets*
- *Neighborhood Streets*



CONNECT COLUMBUS



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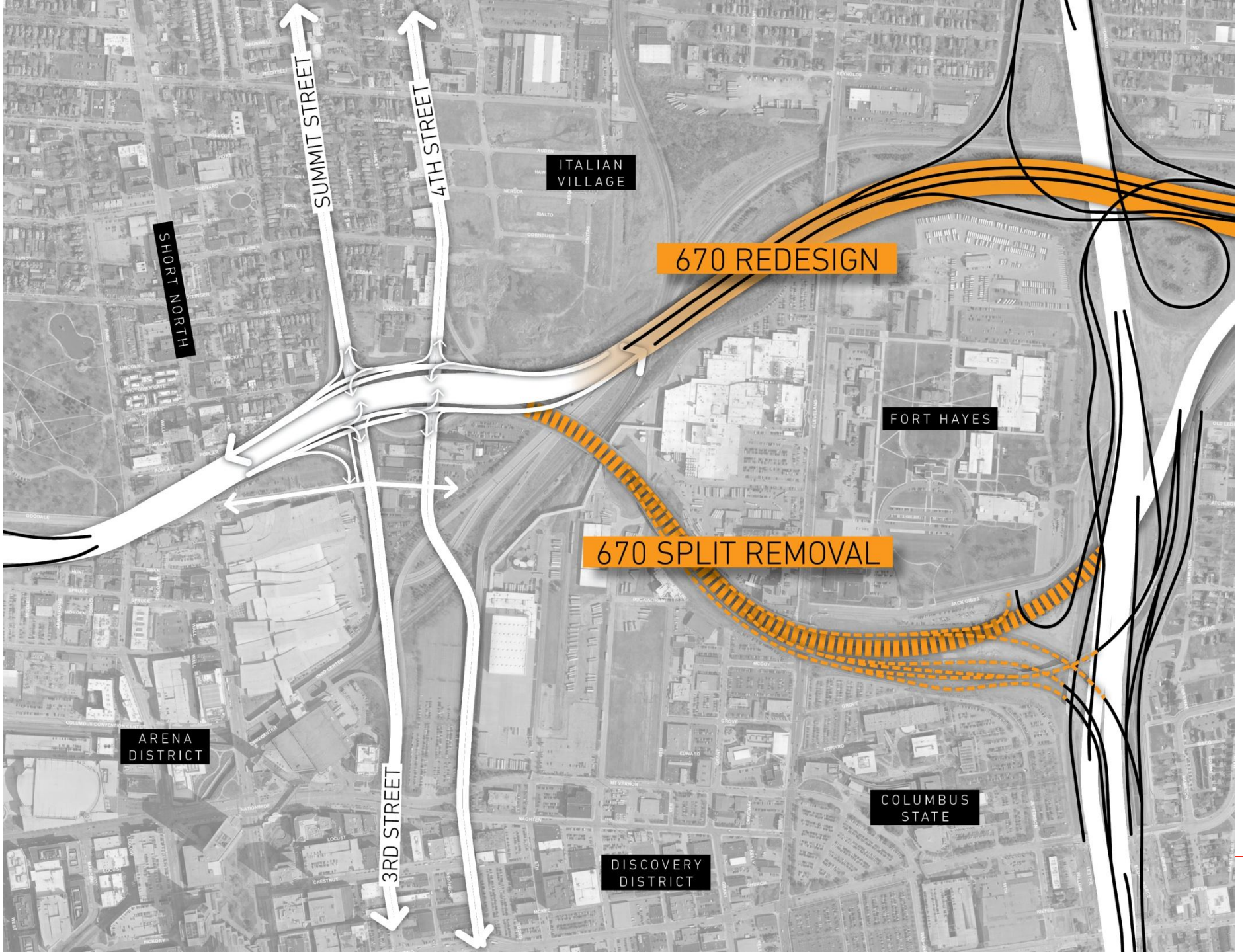
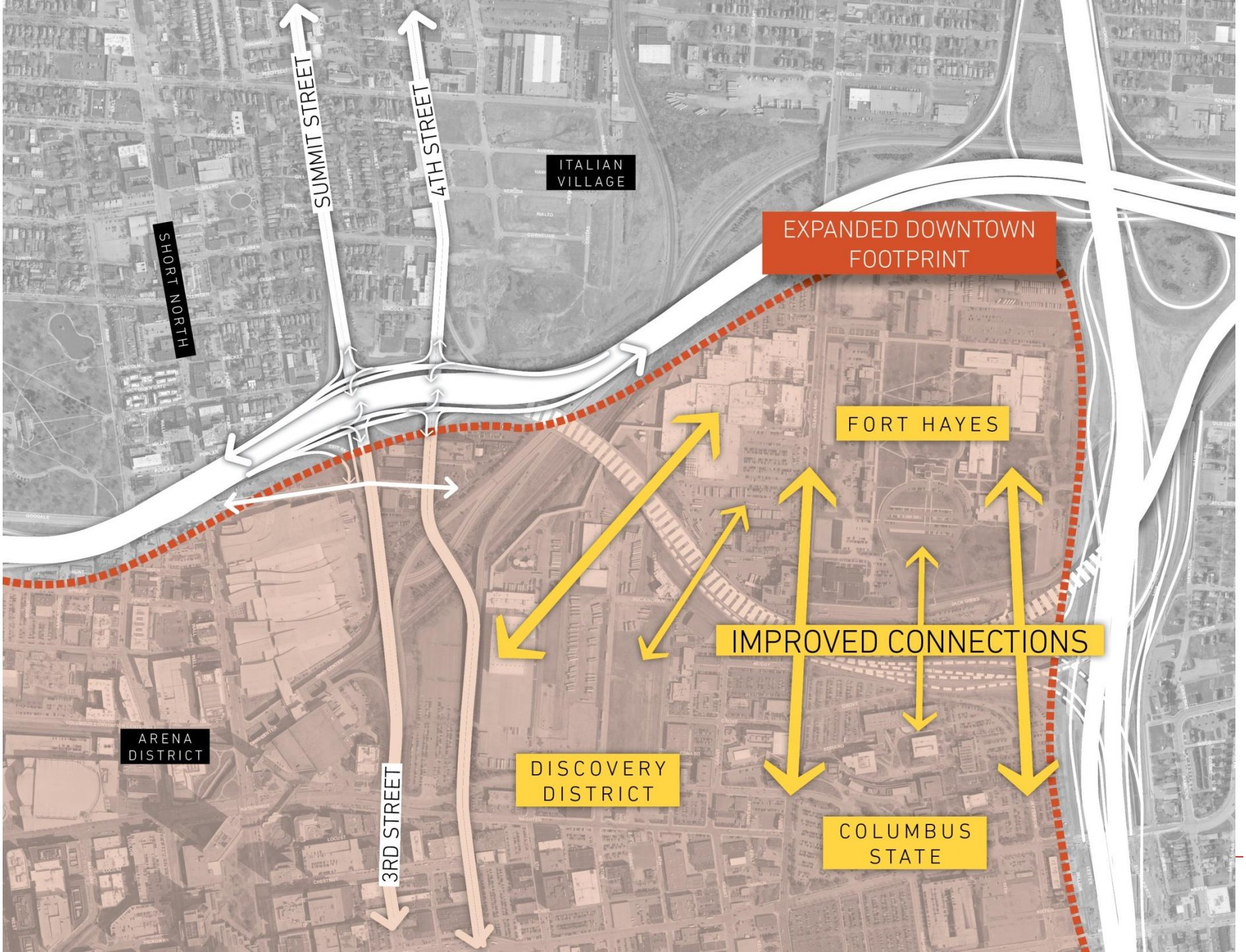
ONE WAY SOUTH
SUMMIT STREET
4TH STREET
ONE WAY NORTH
ITALIAN VILLAGE
SHORT NORTH
500' GAP
FORT HAYES
ARENA DISTRICT
3RD STREET
DISCOVERY DISTRICT
COLUMBUS STATE

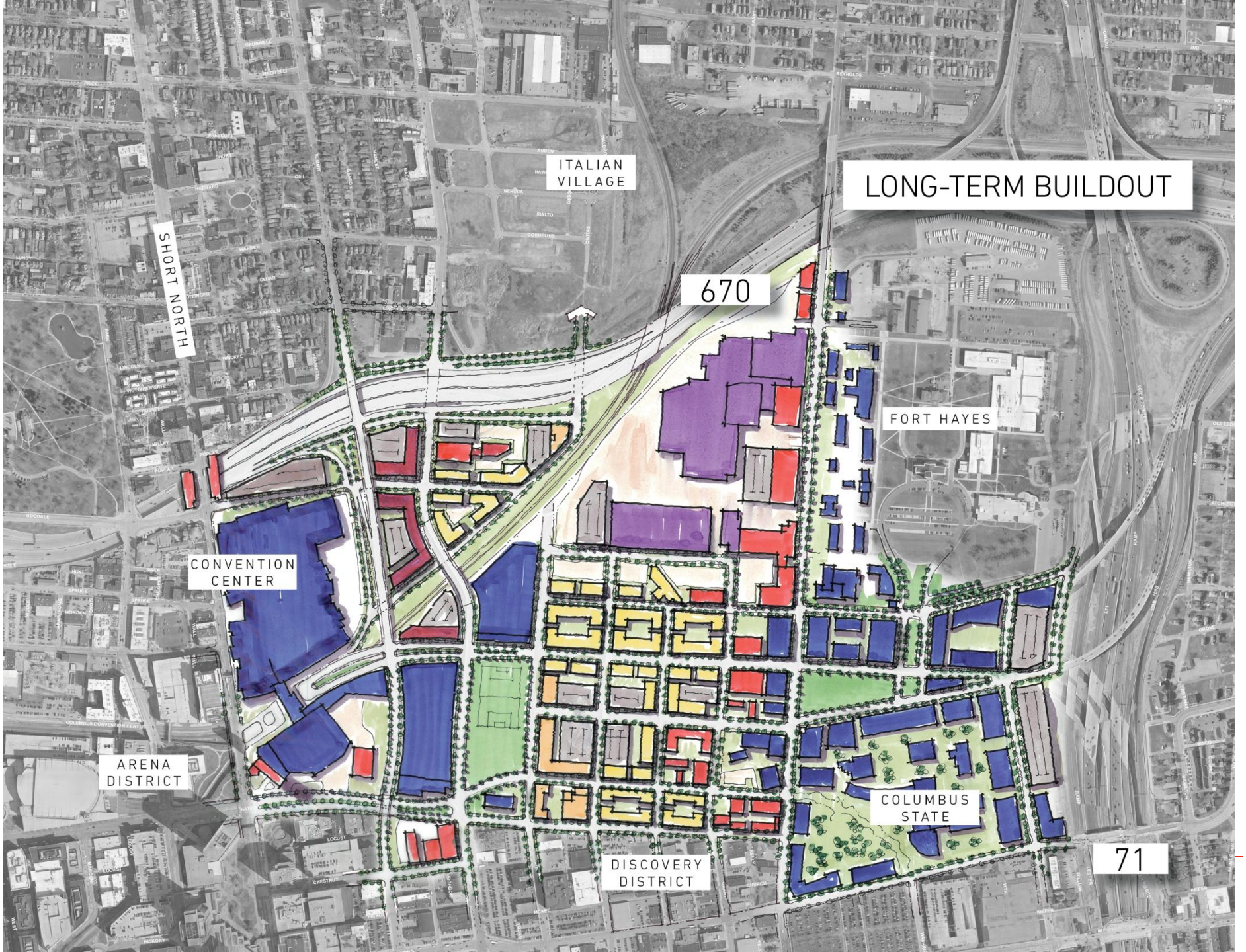

TWO WAY TRAVEL
SUMMIT STREET
4TH STREET
TWO WAY TRAVEL
ITALIAN VILLAGE
SHORT NORTH
260' GAP
FORT HAYES
670 RAMP ACCESS REDESIGN & TWO WAY CONVERSIONS
ARENA DISTRICT
3RD STREET
COLUMBUS STATE
DISCOVERY DISTRICT


LONG STREET BRIDGE
250' GAP
I-670


SUMMIT STREET
4TH STREET
3RD STREET
ITALIAN VILLAGE
SHORT NORTH
FORT HAYES
GAINED DEVELOPABLE GROUND
IMPROVED CONNECTIONS
ARENA DISTRICT
COLUMBUS STATE
DISCOVERY DISTRICT


SUMMIT STREET
4TH STREET
3RD STREET
ITALIAN VILLAGE
SHORT NORTH
670 REDESIGN
670 SPLIT REMOVAL
FORT HAYES
ARENA DISTRICT
DISCOVERY DISTRICT
COLUMBUS STATE


SUMMIT STREET
4TH STREET
ITALIAN VILLAGE
SHORT NORTH
EXPANDED DOWNTOWN FOOTPRINT
FORT HAYES
IMPROVED CONNECTIONS
ARENA DISTRICT
DISCOVERY DISTRICT
3RD STREET
COLUMBUS STATE


LONG-TERM BUILDOUT
ITALIAN VILLAGE
SHORT NORTH
670
FORT HAYES
CONVENTION CENTER
ARENA DISTRICT
DISCOVERY DISTRICT
COLUMBUS STATE
71

Driving in Northwest Columbus

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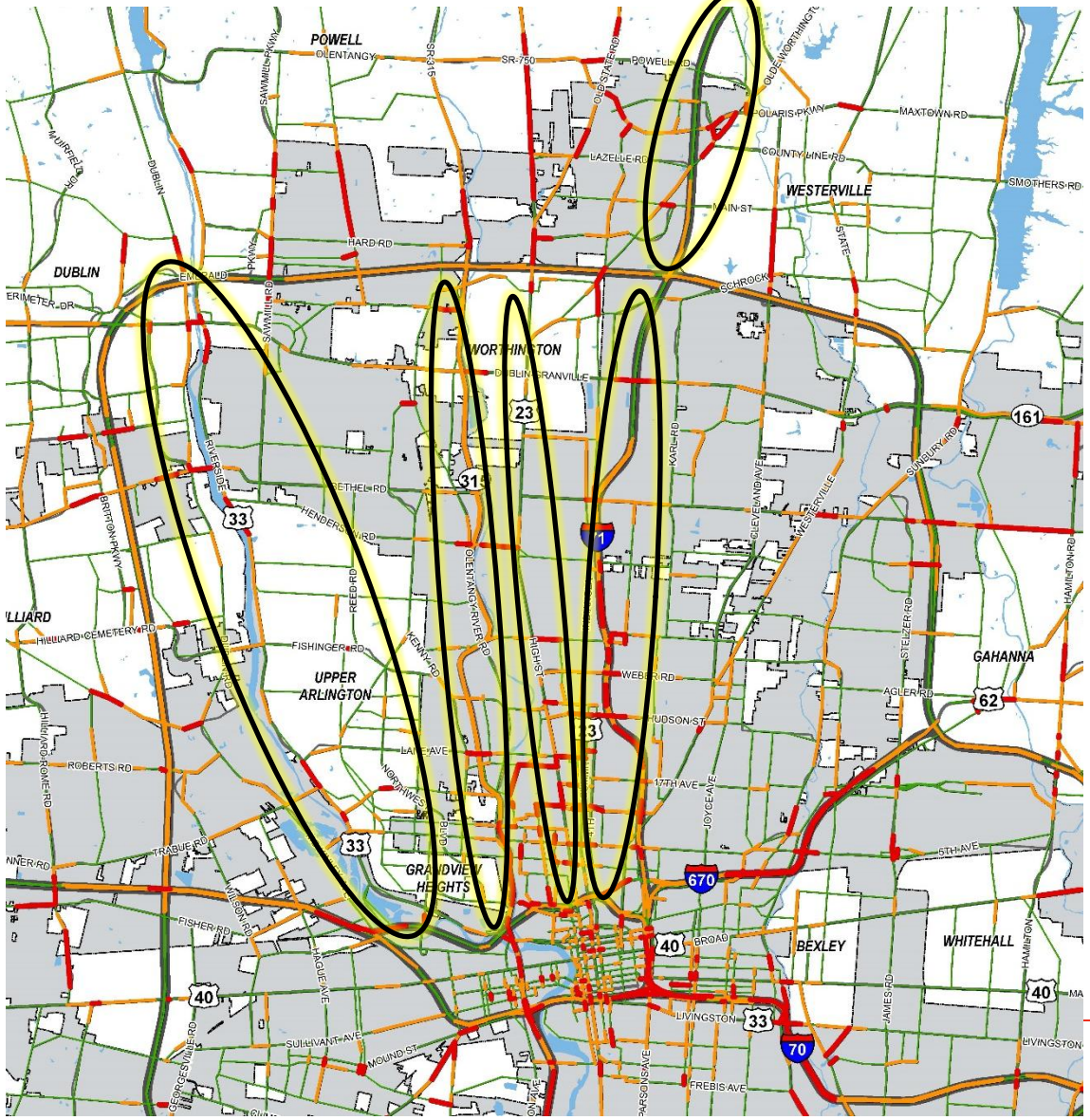
Auto Travel Corridors



North-South Corridors

- Traffic moves north and south very well
- Many corridors to choose from

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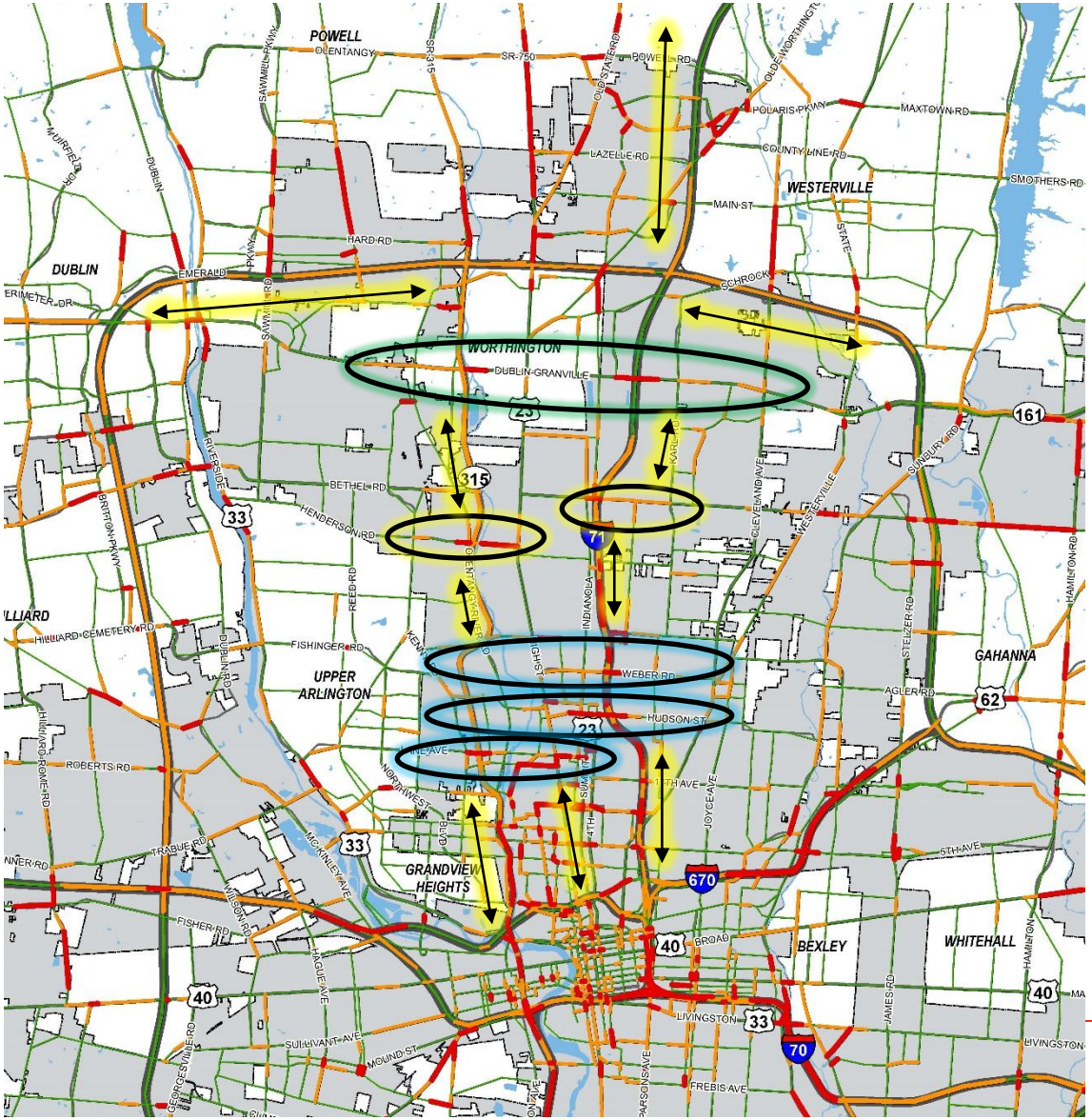
Auto Travel Corridors



East-West Movement

- Traffic travels north-south to move east-west

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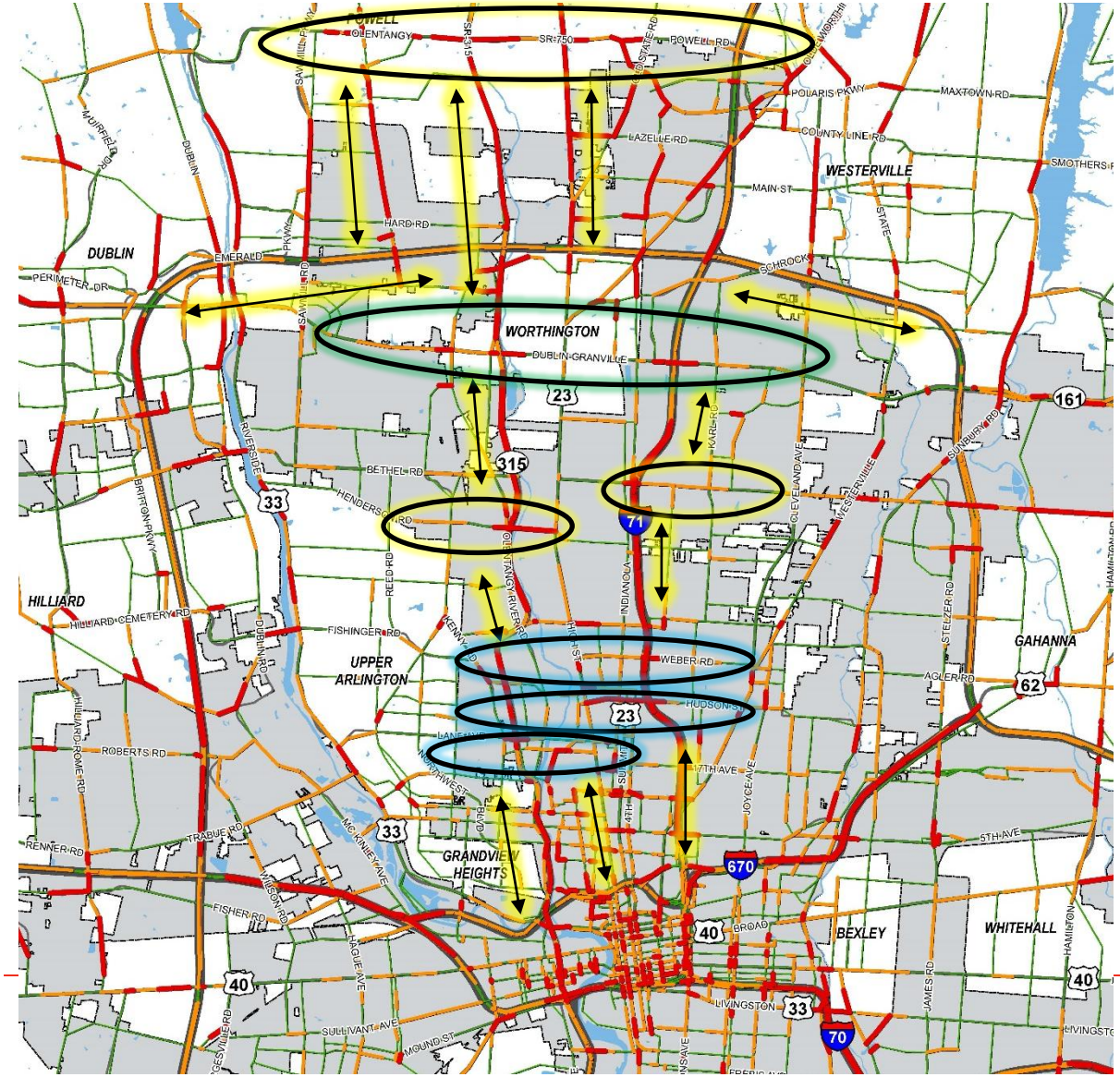
Auto Travel Corridors



East-West movement becomes more difficult

- Traffic travels north-south to move east-west
- 2035 congestion makes travel more difficult

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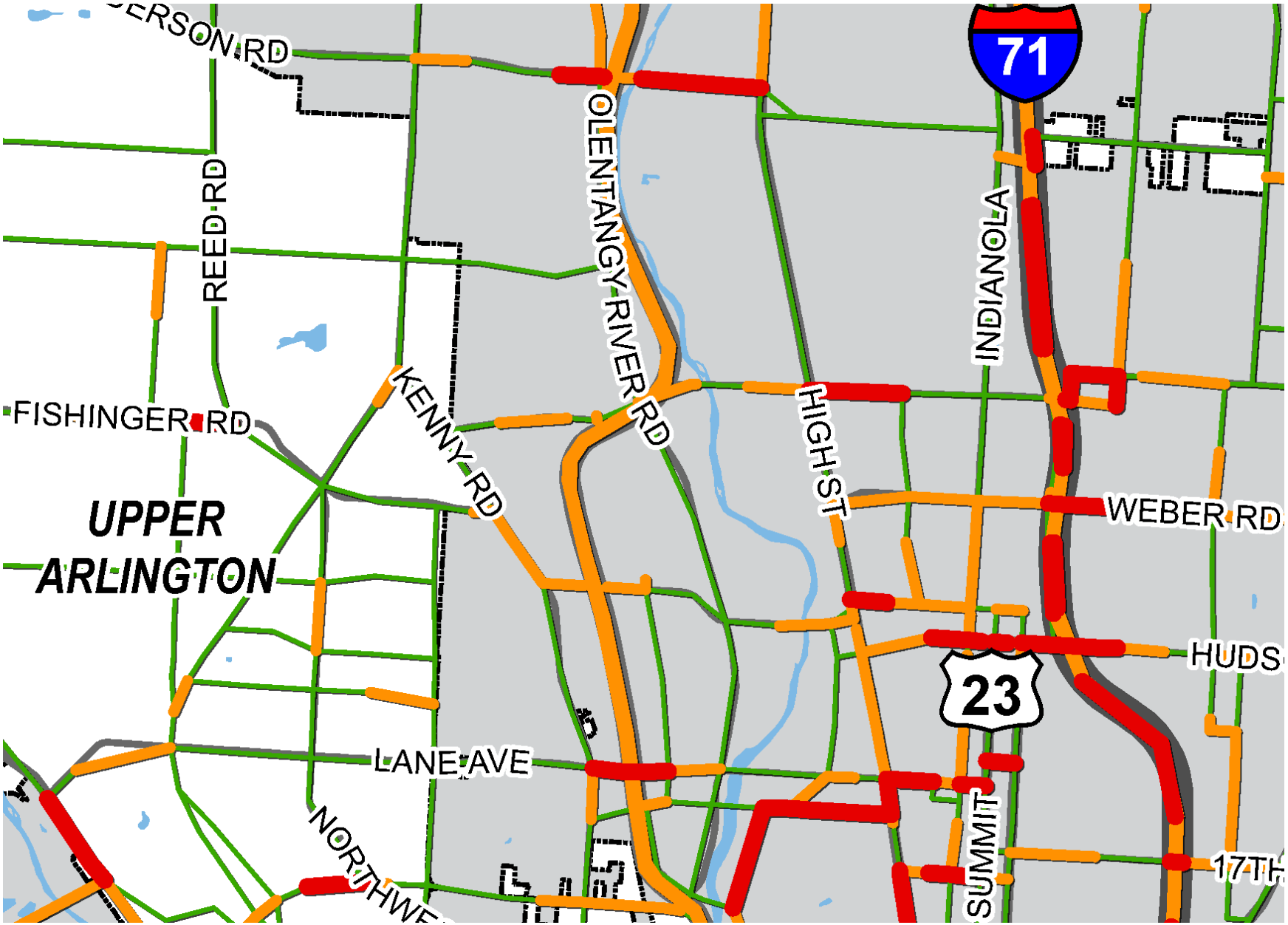

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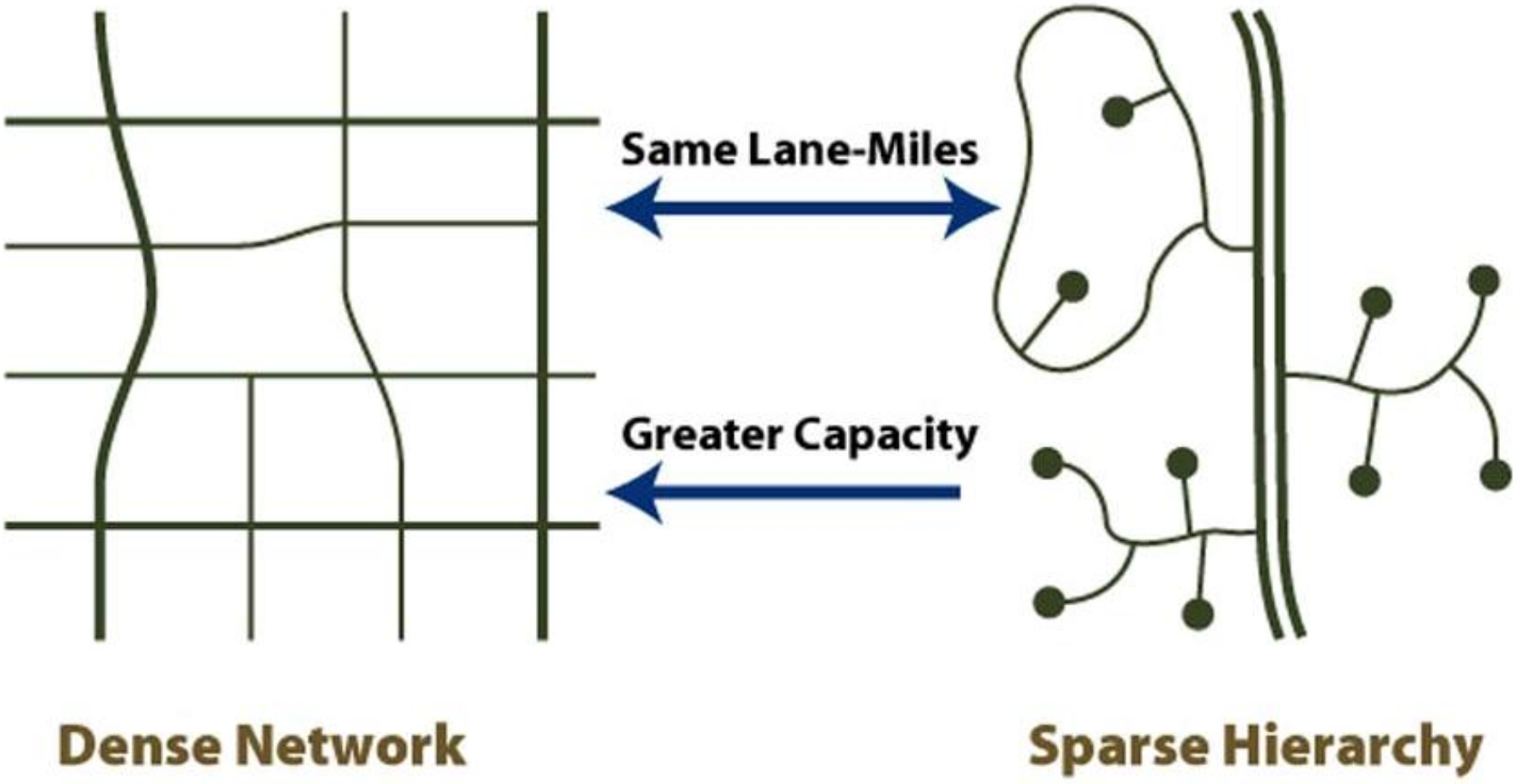
North Broadway: Olentangy River Road and North Broadway

Street Network



315 NORTH
315 SOUTH
RIVERSIDE METHODIST HOSPITAL
W NORTH BROADWAY
W NORTH BROADWAY
KOHLS
UNION CEMETERY
OLENTANGY RIVER ROAD
OLENTANGY RIVER

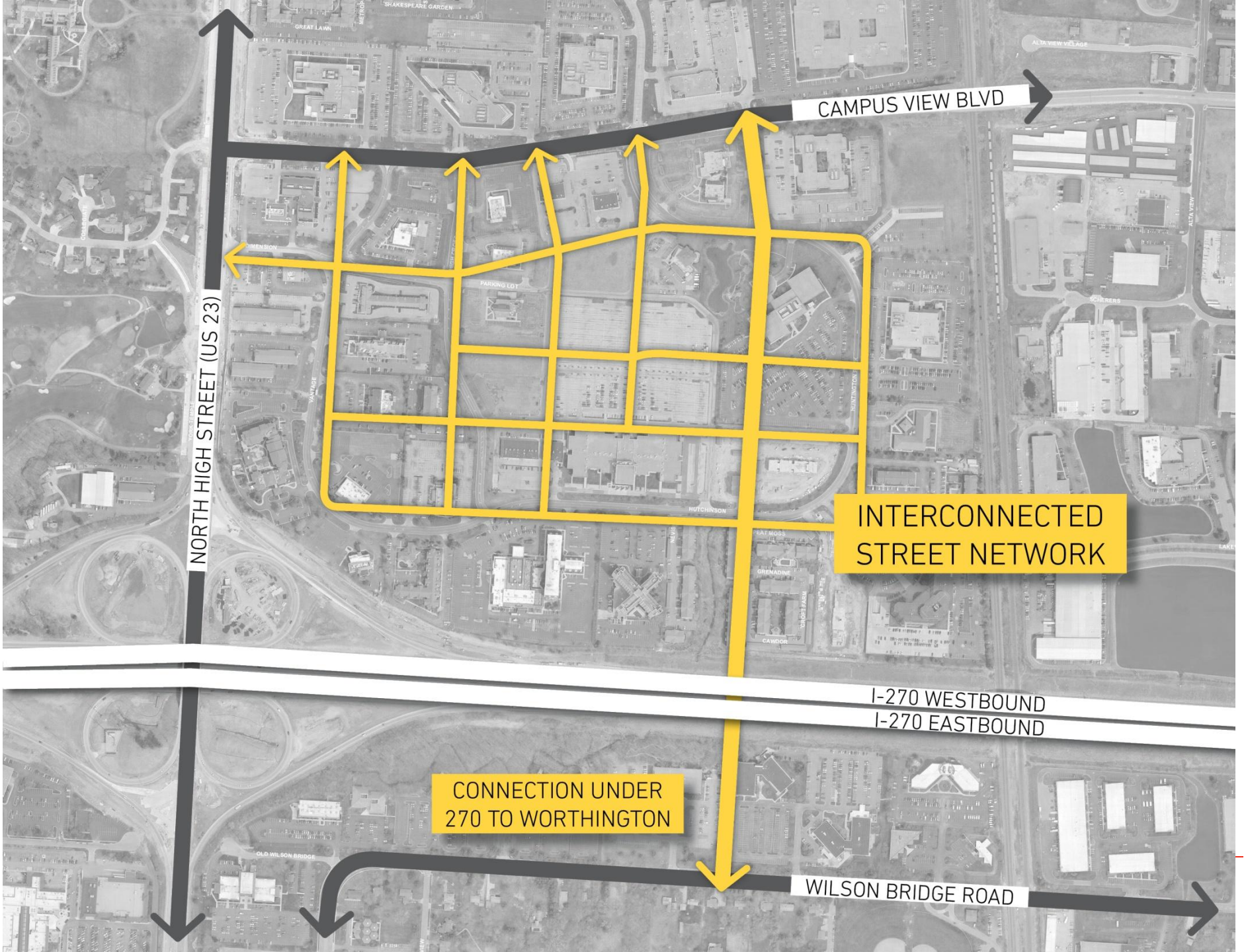

SR 315
RIVERSIDE METHODIST HOSPITAL
W NORTH BROADWAY
W NORTH BROADWAY
KOHLS
UNION CEMETERY
OLENTANGY RIVER ROAD
OLENTANGY RIVER


SR 315
TRAIL CONNECTION
SIMPLIFIED 315 ACCESS
RIVERSIDE METHODIST HOSPITAL
W NORTH BROADWAY
INTERCONNECTED STREET NETWORK
SIMPLIFIED 315 ACCESS
W NORTH BROADWAY
UNION CEMETERY
OLENTANGY RIVER ROAD
OLENTANGY RIVER

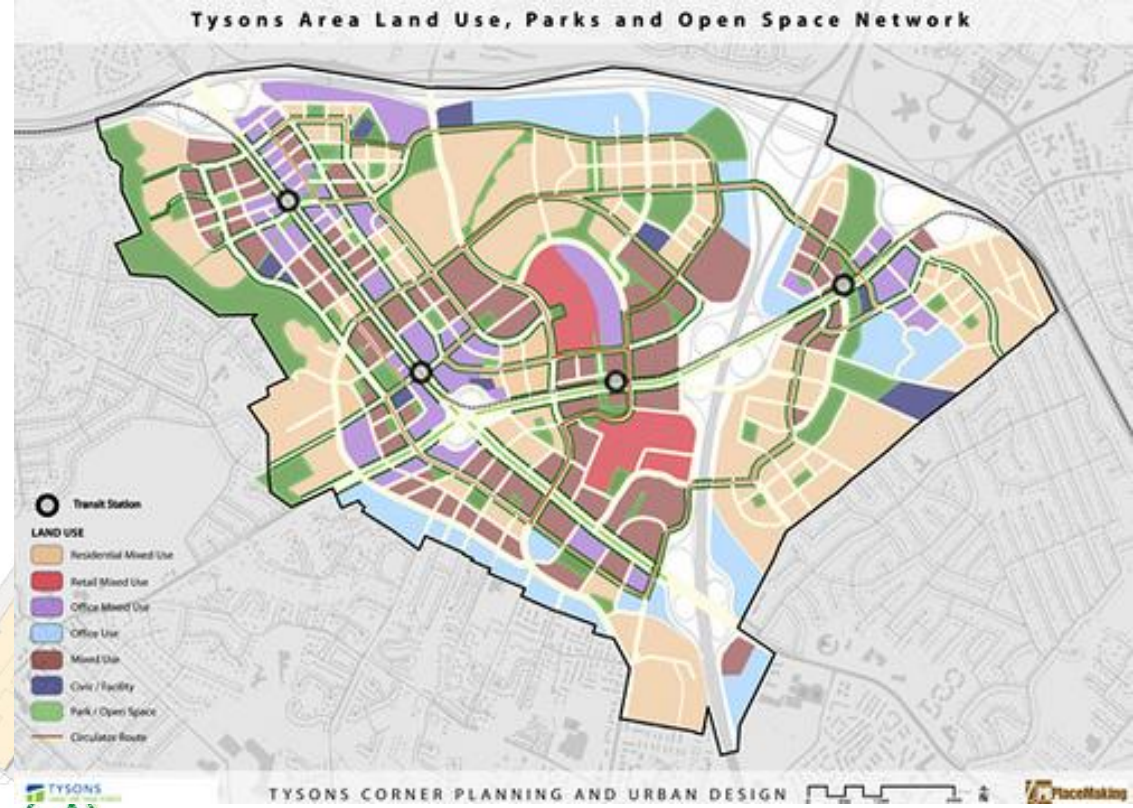

SR 315
POTENTIAL MIXED-USE DEVELOPMENT
RIVERSIDE METHODIST HOSPITAL
W NORTH BROADWAY
W NORTH BROADWAY
UNION CEMETERY
OLENTANGY RIVER ROAD


SR 315
POTENTIAL MIXED-USE DEVELOPMENT
FUTURE
RIVERSIDE METHODIST HOSPITAL
W NORTH BROADWAY
W NORTH BROADWAY
OLENTANGY RIVER ROAD
UNION CEMETERY

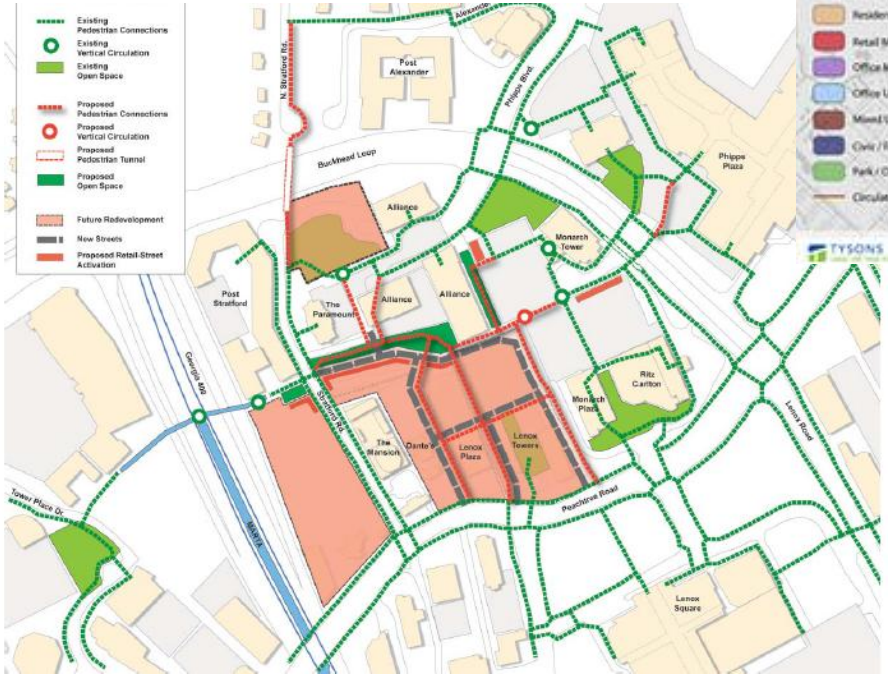

CAMPUS VIEW BLVD
CROSSWOODS
NORTH HIGH STREET (US 23)
I-270 WESTBOUND
I-270 EASTBOUND
WILSON BRIDGE ROAD
GREAT LAWN
SHAKESPEARE GARDEN
ALTA VIEW VILLAGE
CAMPUS VIEW
HORDON
DIMENSION
HIGH CROSS
PARKING LOT
VANTAGE
HUNTINGTON
SCHERERS
ALTA VIEW
HUTCHINSON
PEAT MOSS
GRENADINE
CAWDOR
OLD WILSON BRIDGE
WILSON BRIDGE


CAMPUS VIEW BLVD
NORTH HIGH STREET (US 23)
INTERCONNECTED
STREET NETWORK
I-270 WESTBOUND
I-270 EASTBOUND
CONNECTION UNDER
270 TO WORTHINGTON
WILSON BRIDGE ROAD


POTENTIAL MIXED-USE DEVELOPMENT
COTA PARK&RIDE
GREAT LAWN
SHAKESPEARE GARDEN
ALTA VIEW VILLAGE
CAMPUS VIEW
SCHERERS
OLD WILSON BRIDGE
WILSON BRIDGE



Tyson's Corner, VA



Buckhead – Atlanta, GA

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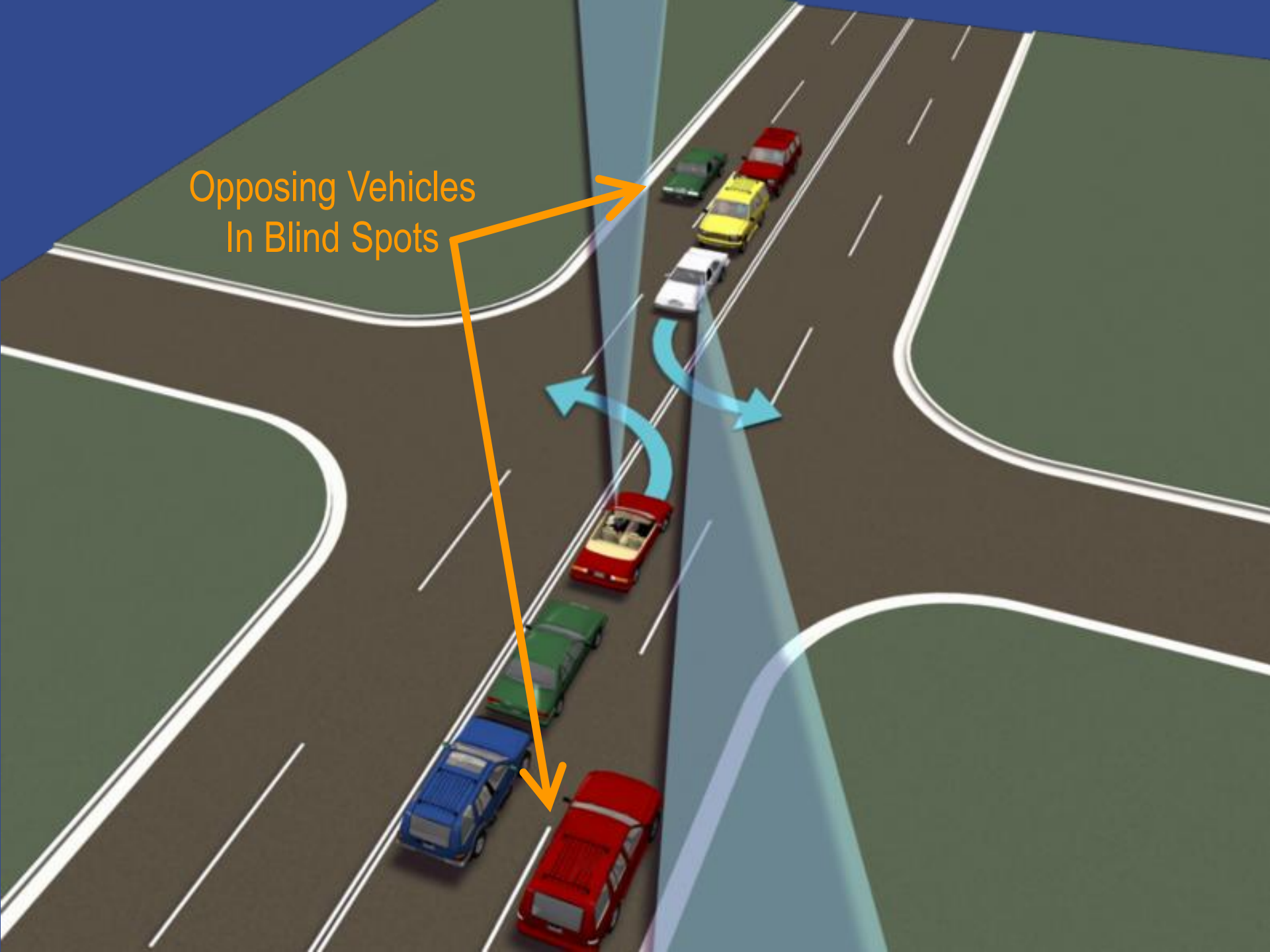
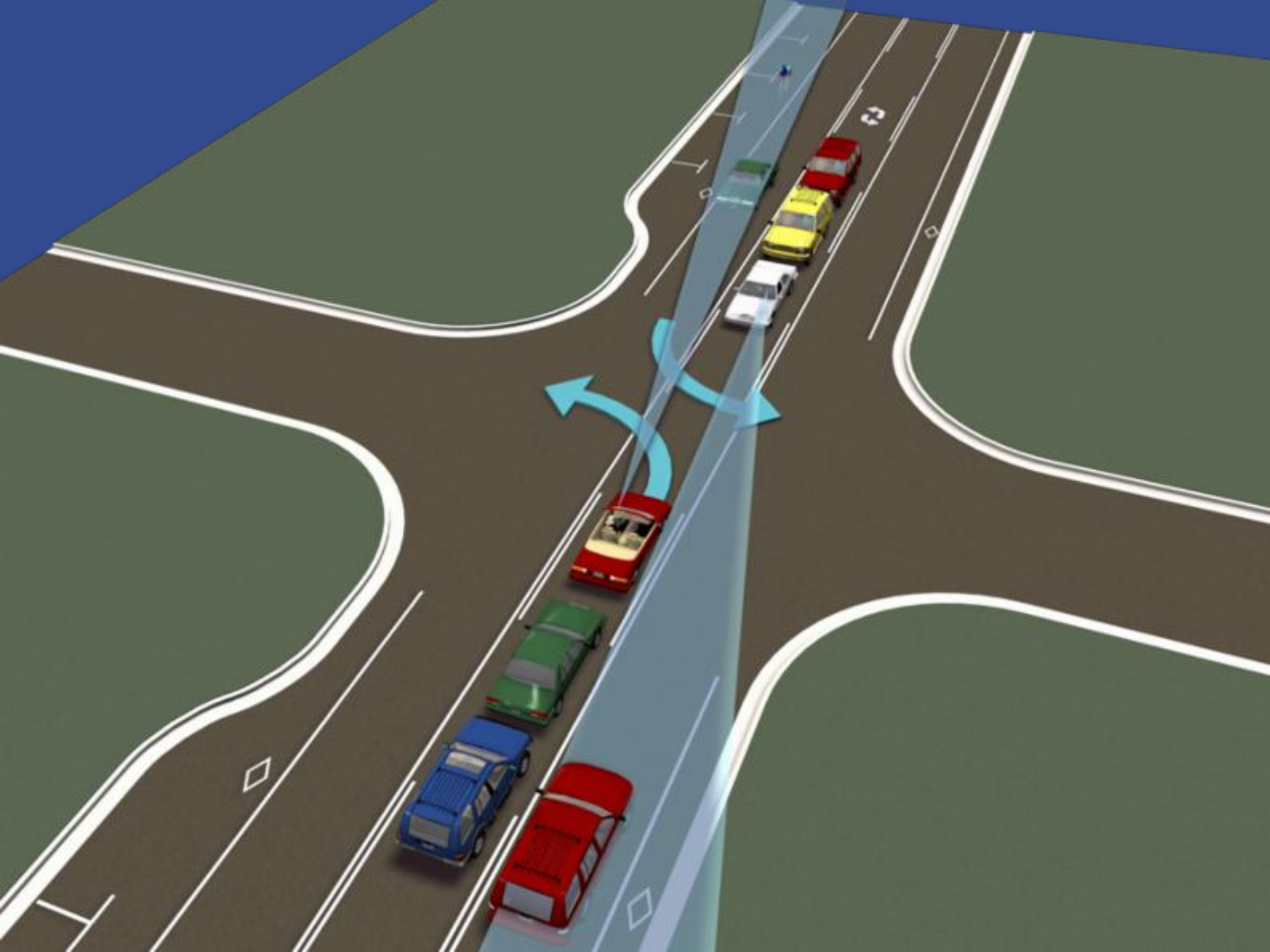
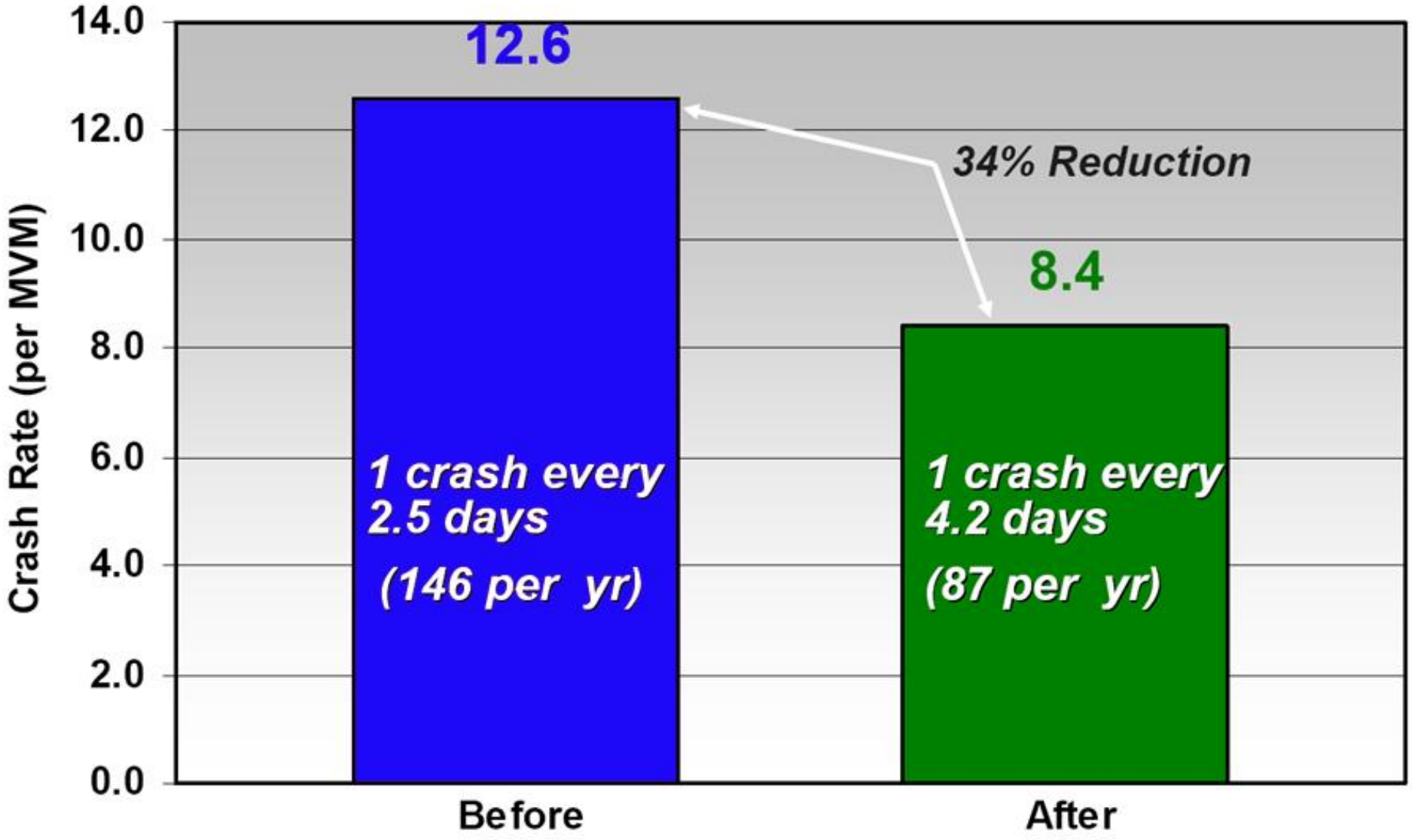
Right Sizing Streets


Opposing Vehicles
In Blind Spots




Edgewater Drive – Orlando, FL

Safety Enhancements



Data: Edgewater Drive, Orlando, FL

Kenny Road

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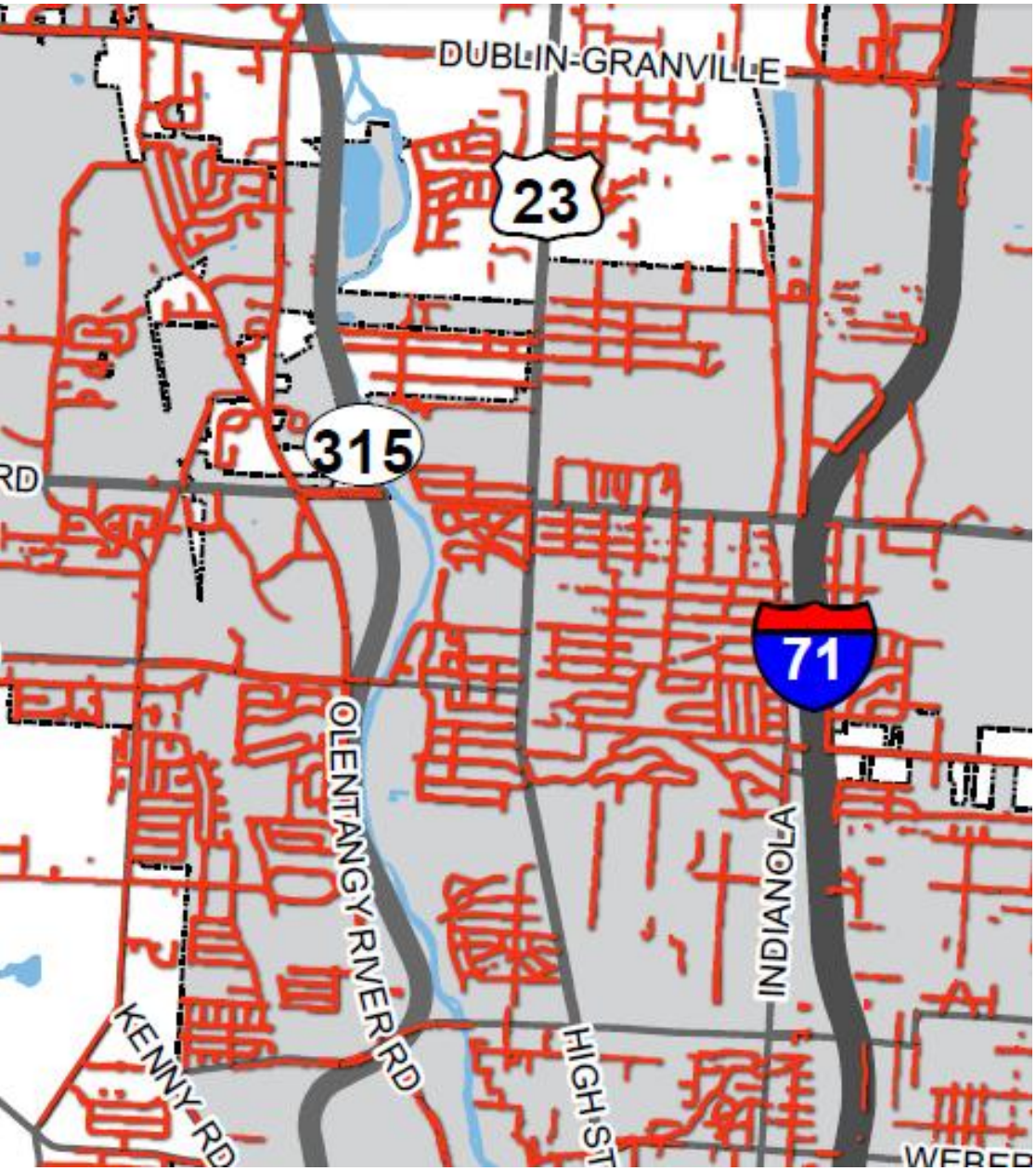
Walking in Columbus

CONNECT COLUMBUS

CONNECT COLUMBUS

Clintonville Sidewalks



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Access ⟷ Mobility

There is more to life than increasing its speed.

- Mahatma Gandhi

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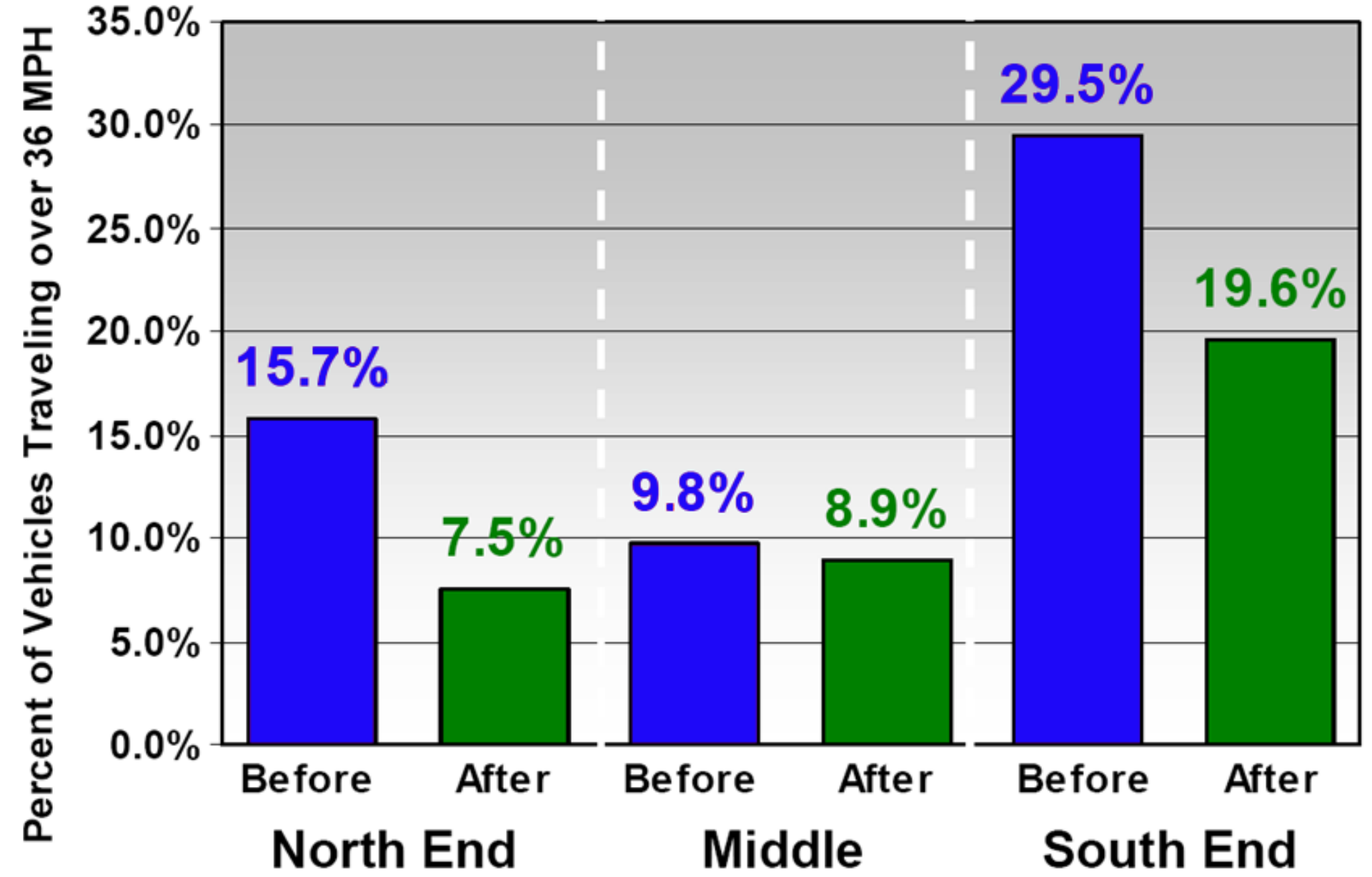
Vehicle Speed	Percentage of Pedestrian Fatalities in accidents
15 Mph	3.5%
31 Mph	37.0%
44 mph	83.0%

Source: National Highway Traffic Safety Administration
Federal Highway Administration

Top Bike/ Ped Crash Locations

CITY OF COLUMBUS - TOP BIKE/PED CRASH LOCATIONS 2011 TO 2013



Data: Edgewater Drive, Orlando, FL

Vision Zero

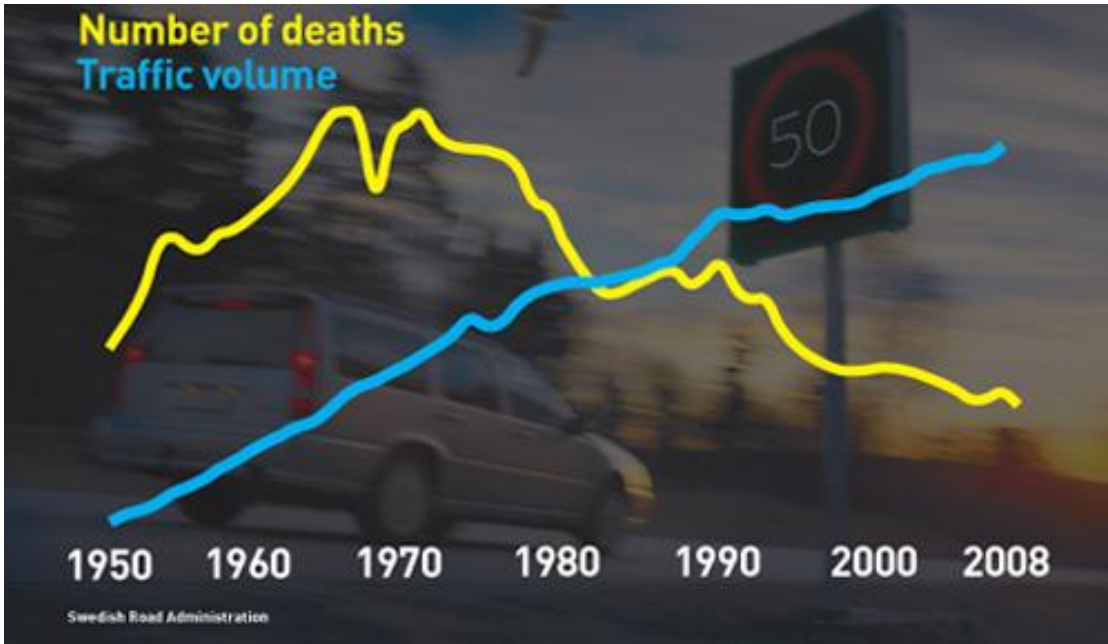
Premise: No loss of life is acceptable

Approach

1. **Preserve Freedom to Move**
2. **Manage Speeds**
3. **Build Safety into Design**

86% of Ohio Drivers Support These Policies

Source: AAA of Ohio



Biking in Columbus

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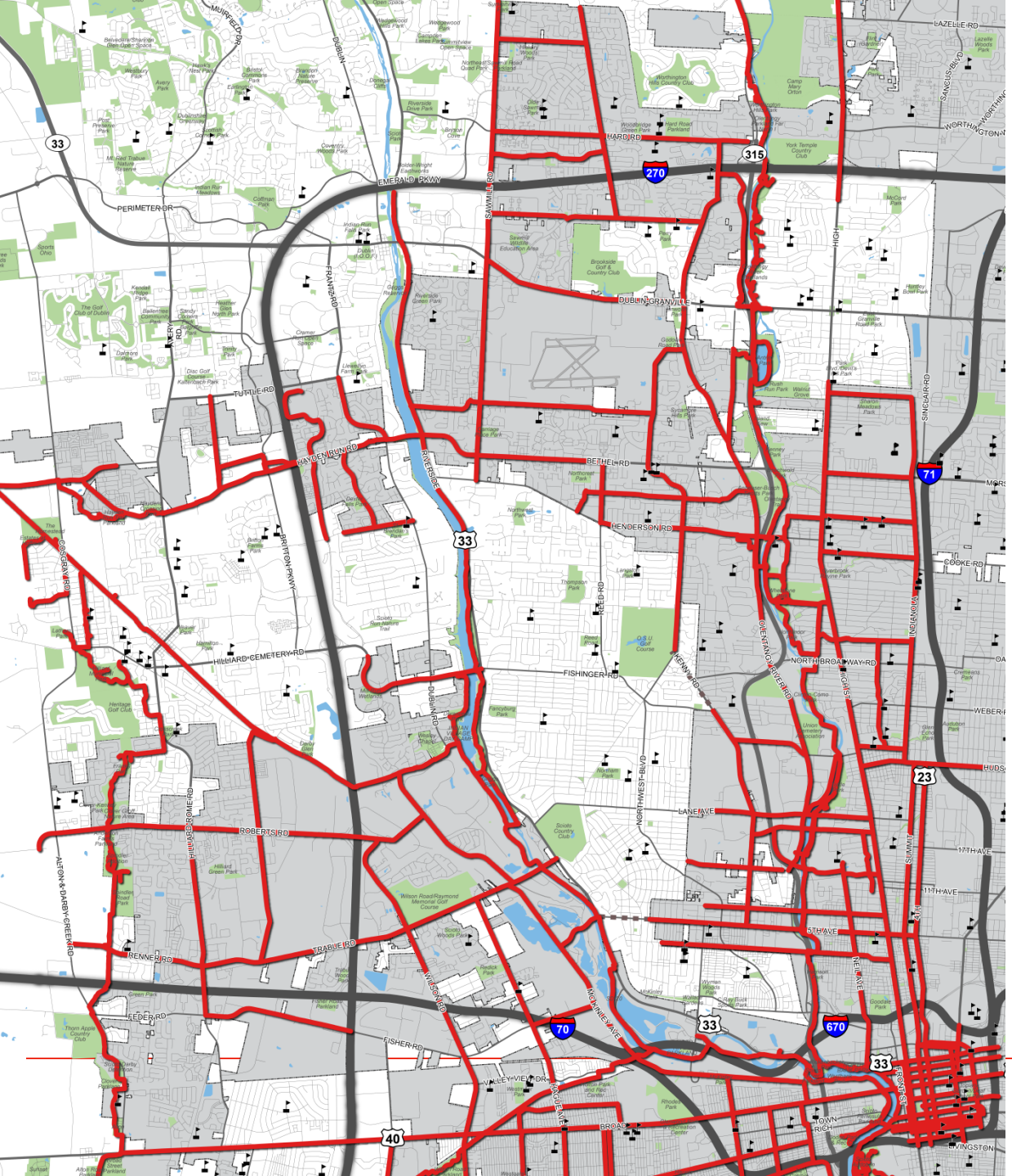

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HOW DID BIKE TRAFFIC ON THE STREET CHANGE AFTER ONE YEAR OF THE PROTECTED LANE?

AUSTIN, TX

BARTON SPRINGS

+58%

BLUEBONNET

+46%

RIO GRANDE

+126%

CHICAGO, IL

DEARBORN

+171%

MILWAUKEE

+21%

PORTLAND, OR

MULTNOMAH

+68%

WASHINGTON D.C.

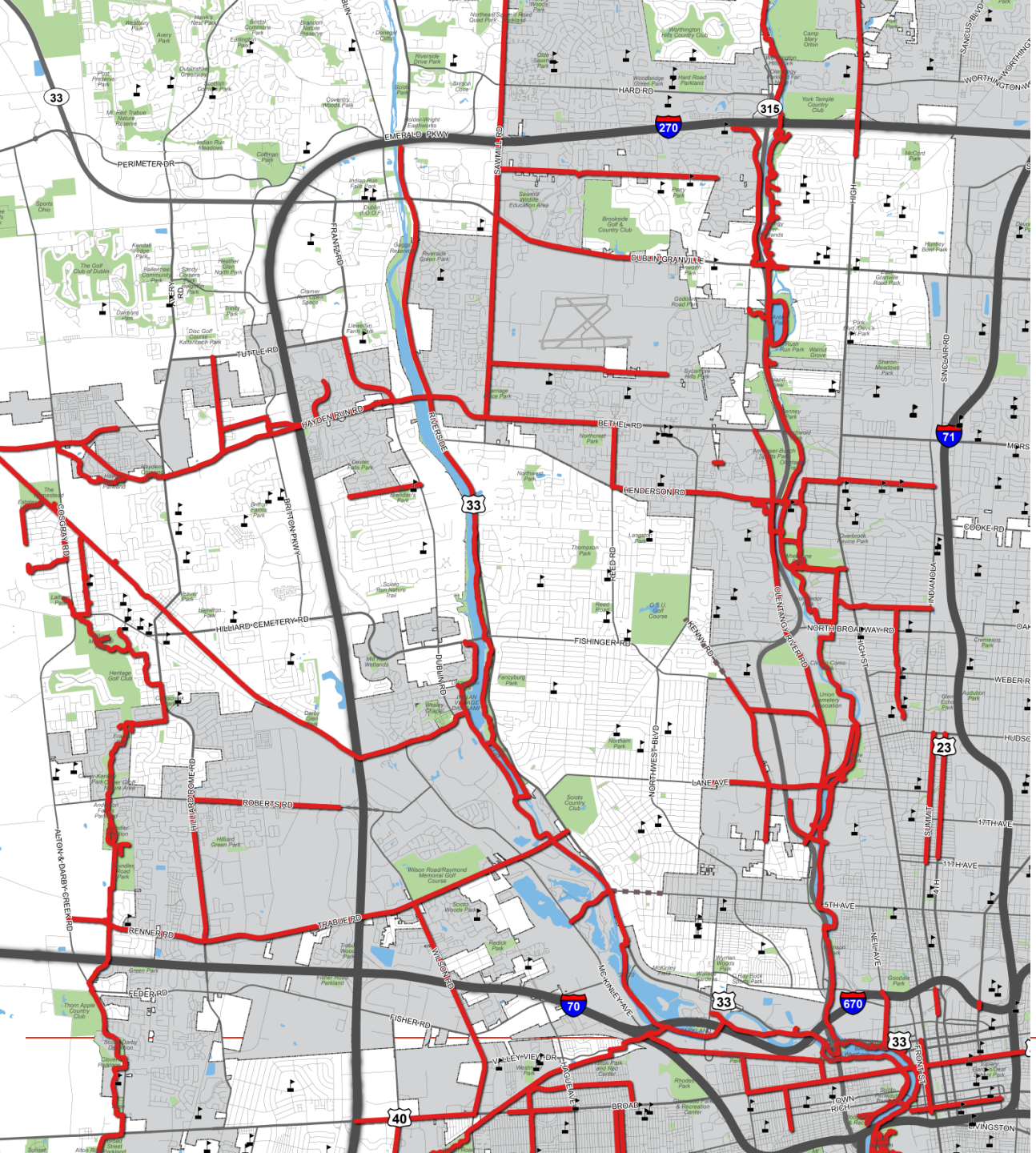
L STREET

+65%

SAN FRANCISCO, CA

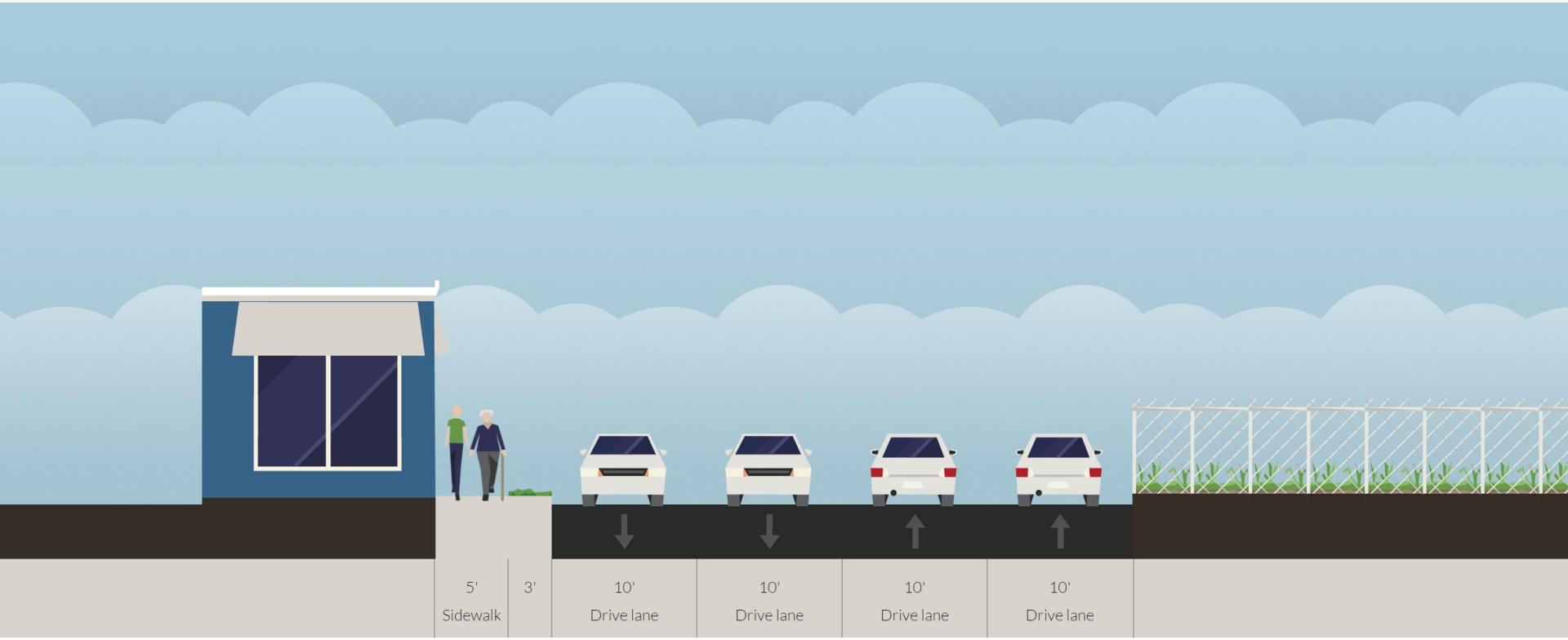
FELL

+46%



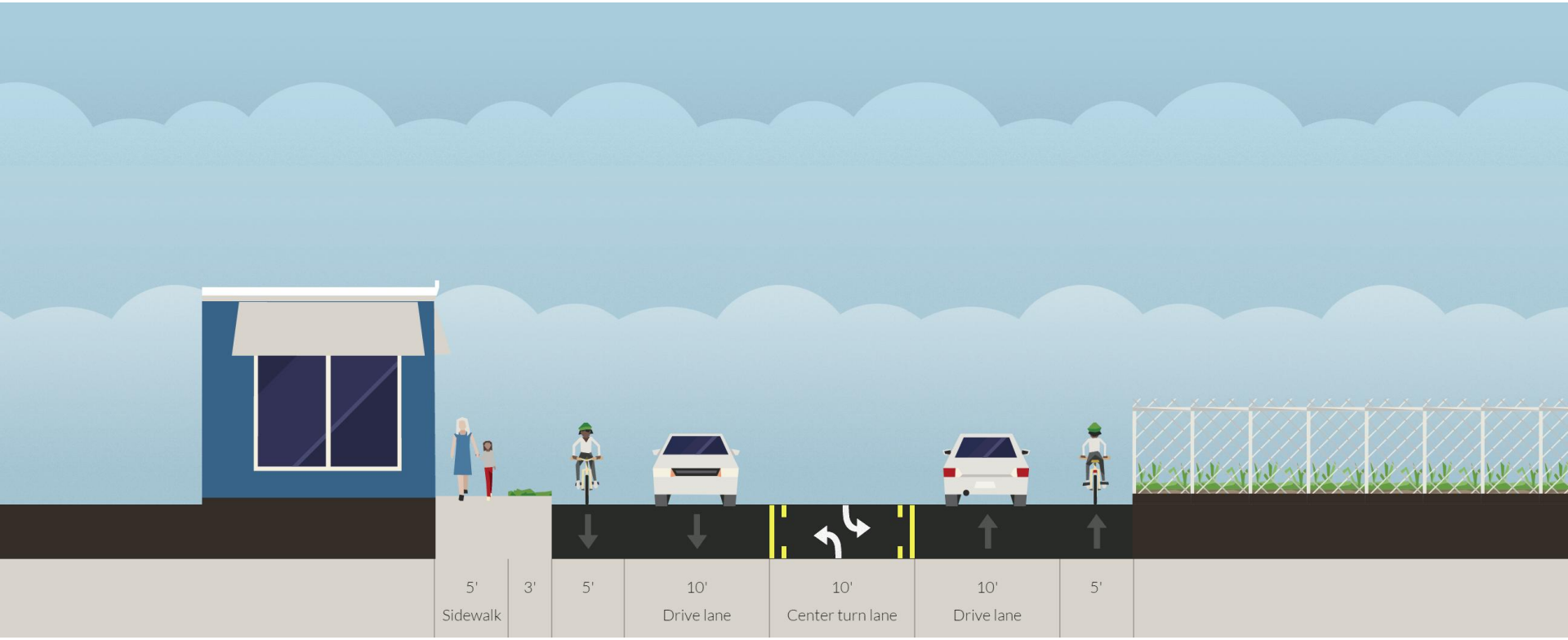
CONNECT COLUMBUS

Indianola (Morse to Oakland Park)
Existing (40ft ROW)



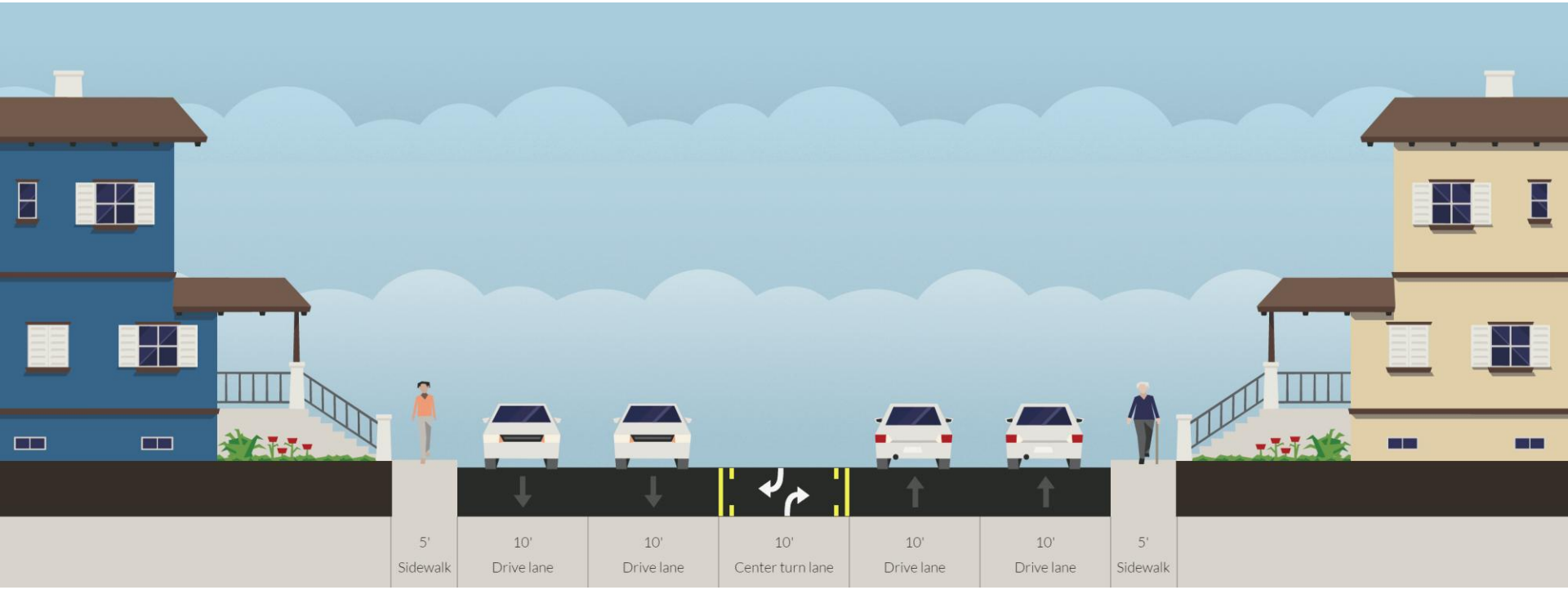
CONNECT COLUMBUS

Indianola (Morse to Oakland Park) Proposed



CONNECT COLUMBUS

Indianola (Oakland Park to Arcadia) Existing (50ft ROW)

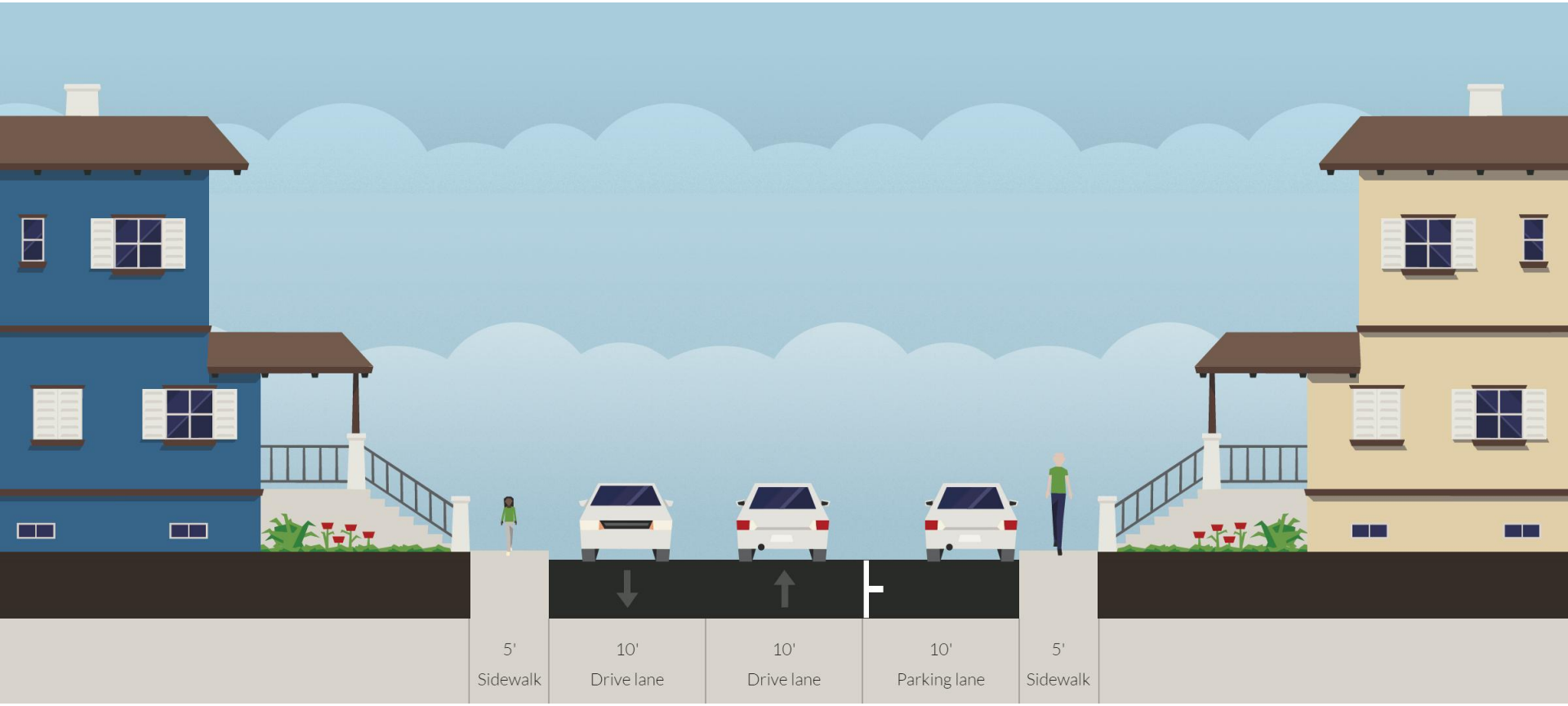


CONNECT COLUMBUS

Indianola (Oakland Park to Arcadia)
PROPOSED

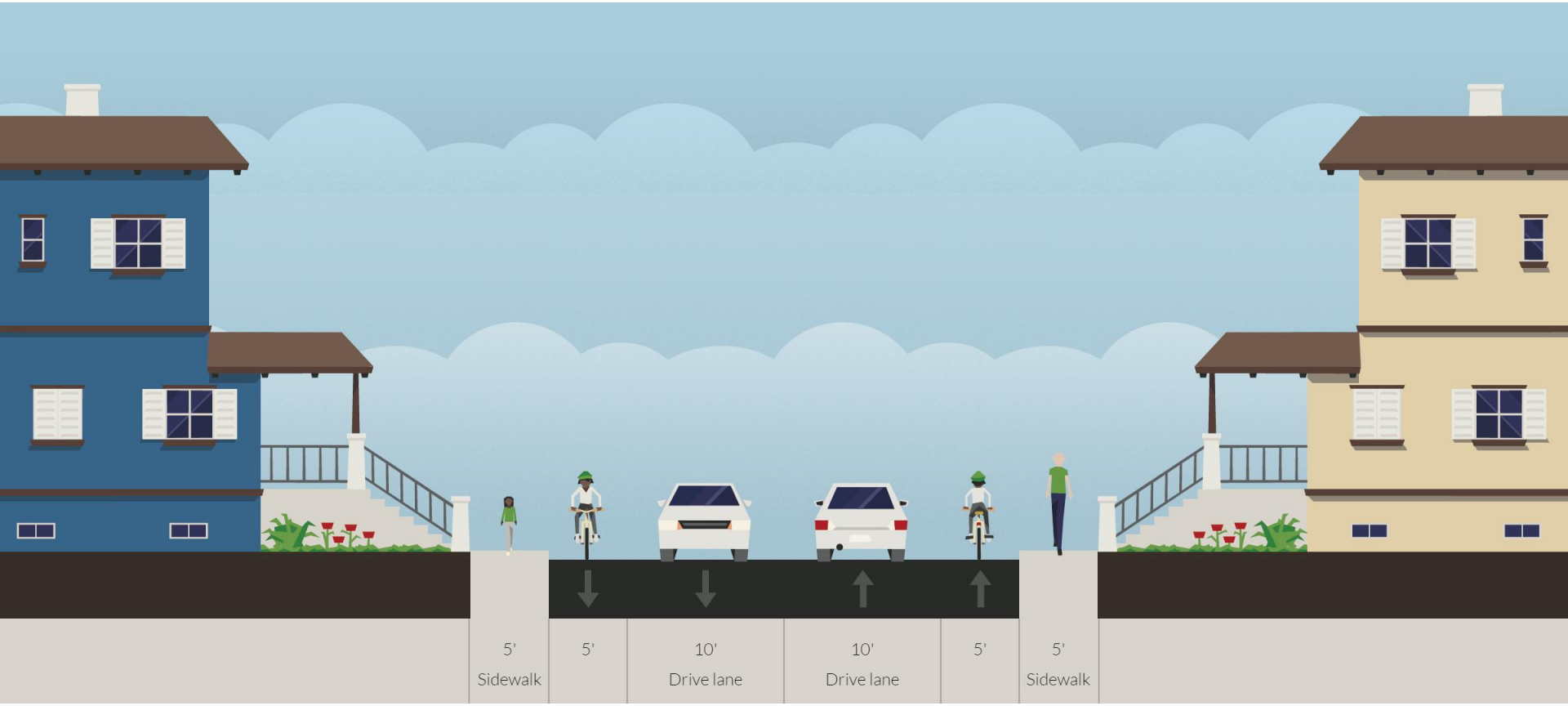
CONNECT COLUMBUS

Indianola (Hudson to E Lane)
Existing (30ft ROW)



CONNECT COLUMBUS

Indianola (Hudson to E Lane) Proposed



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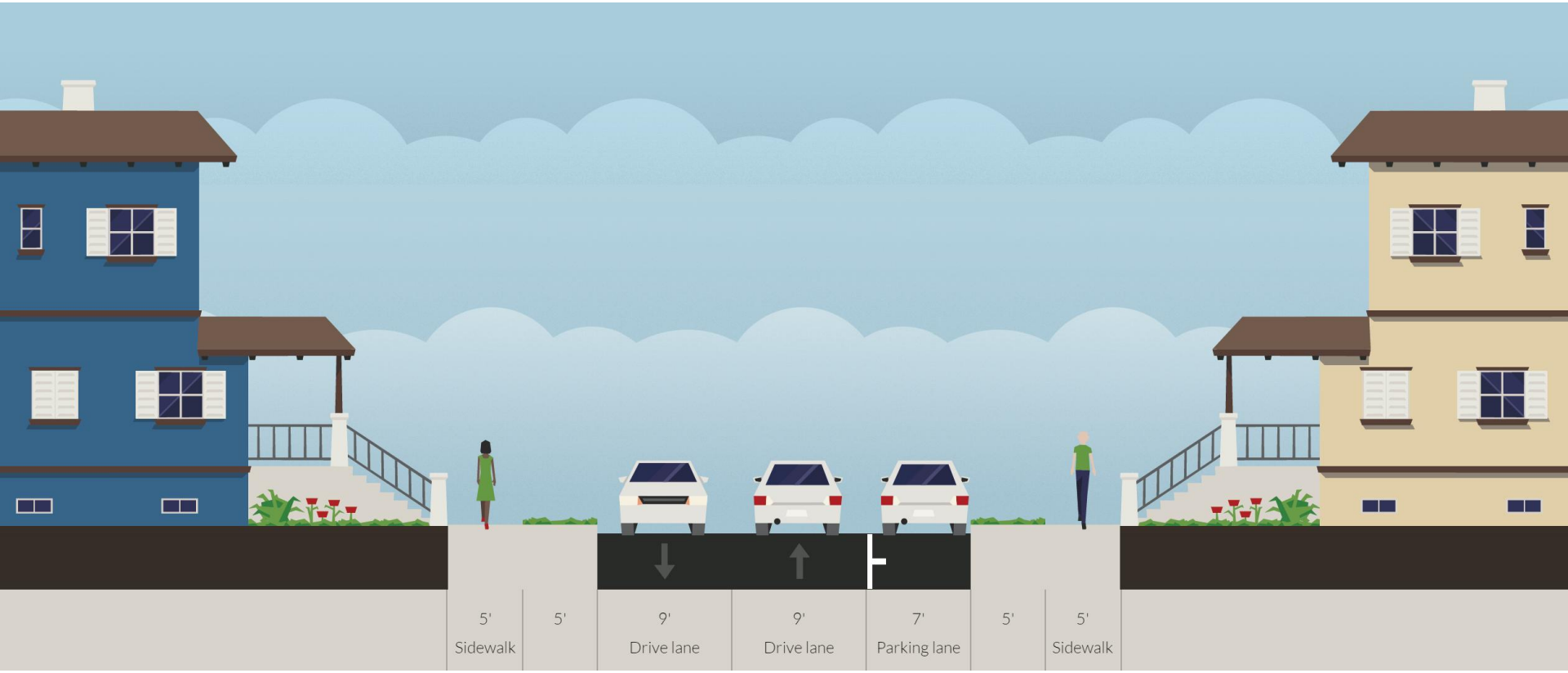
Indianola (E Lane to E 17th)
Existing (25ft ROW)



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Indianola (E Lane to E 17th) Proposed

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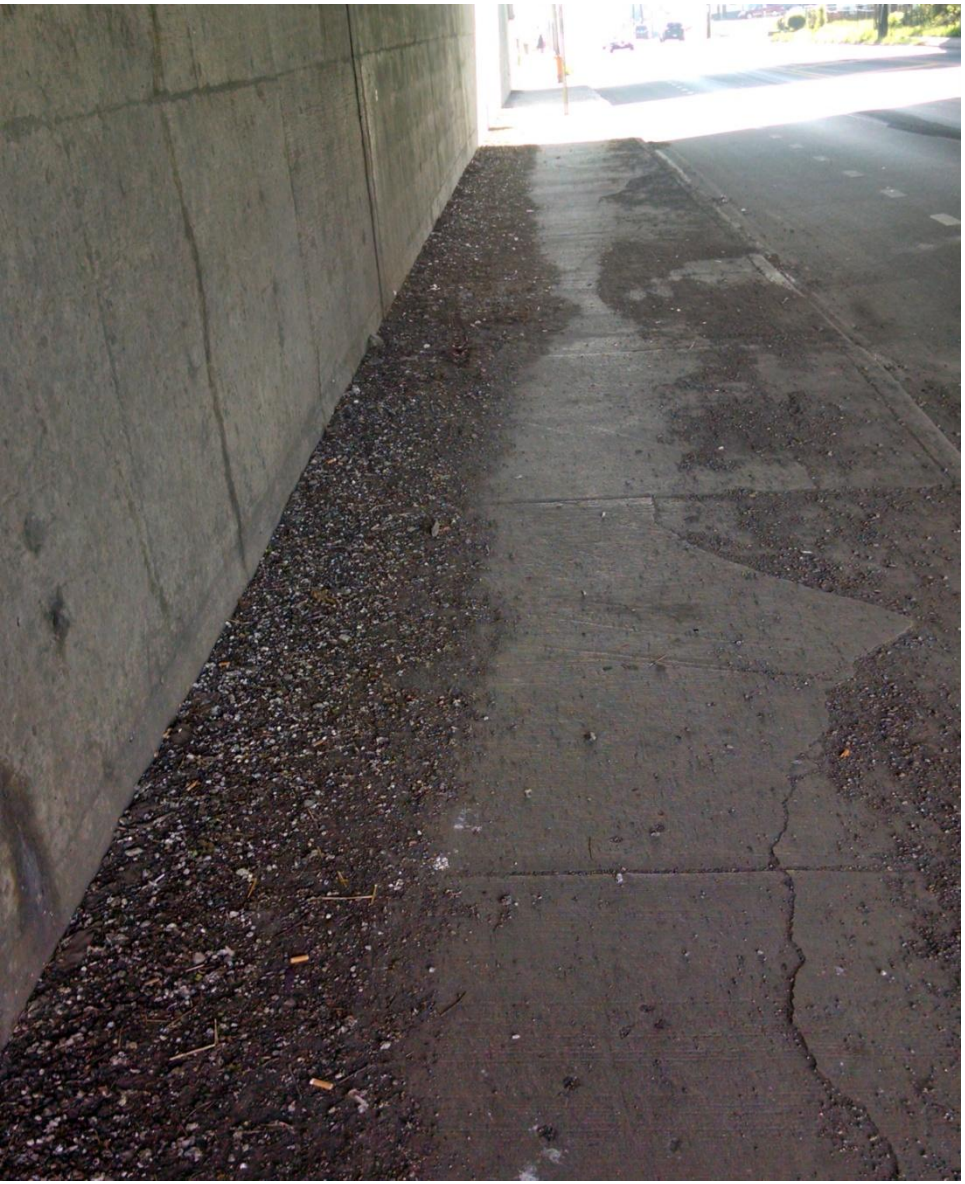
System Maintenance



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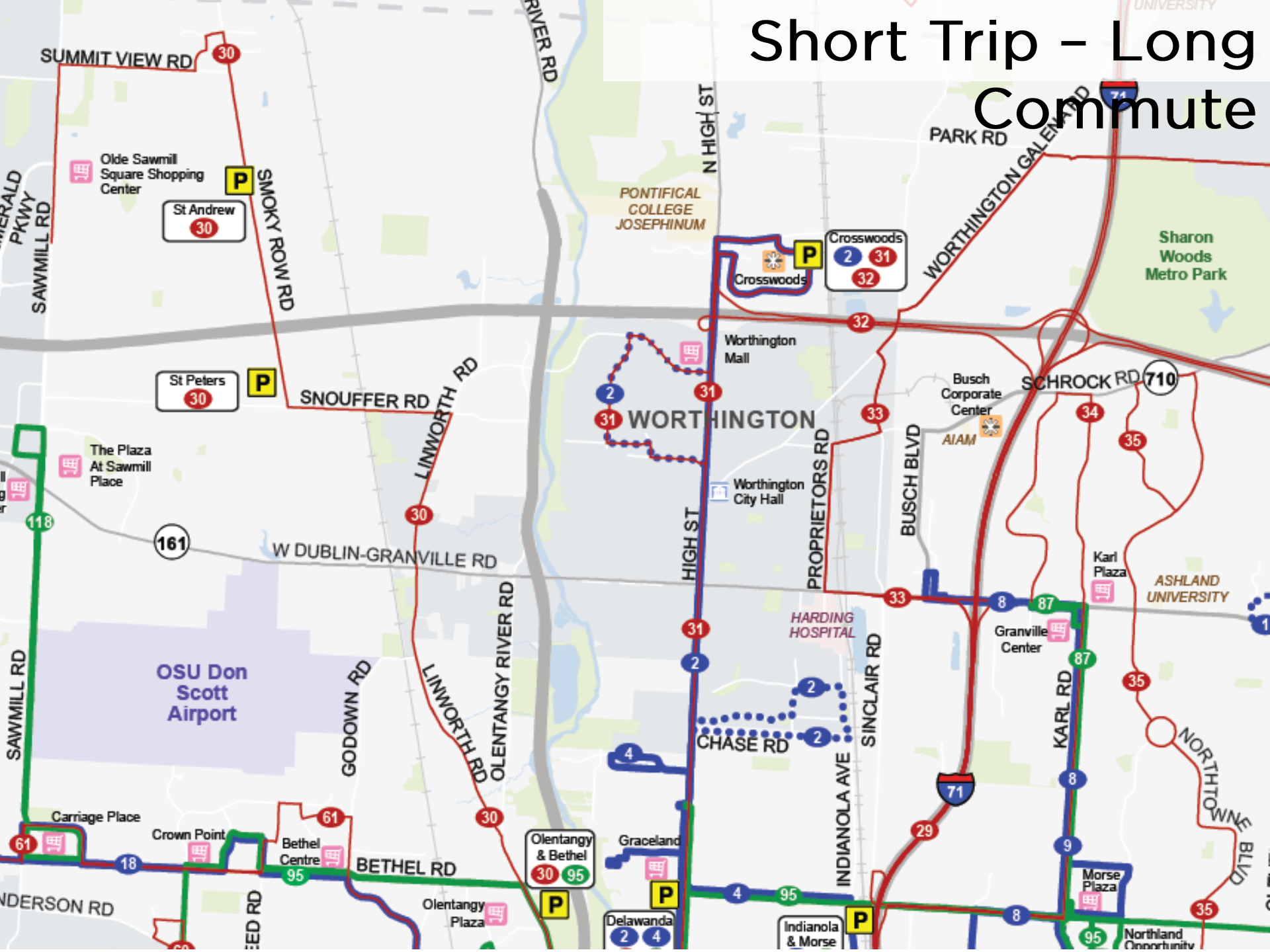
Better Transit

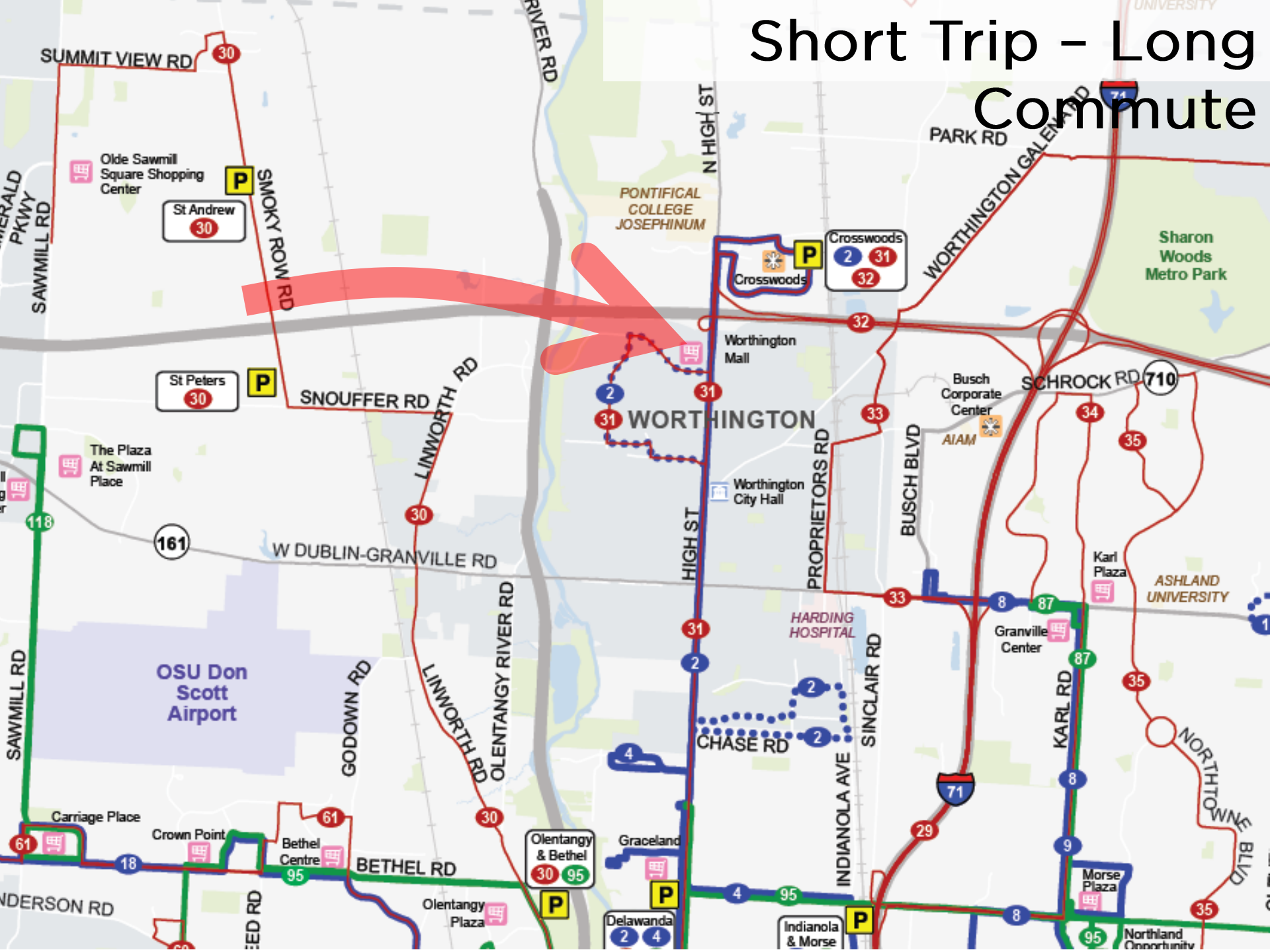
CONNECT COLUMBUS

CONNECT COLUMBUS

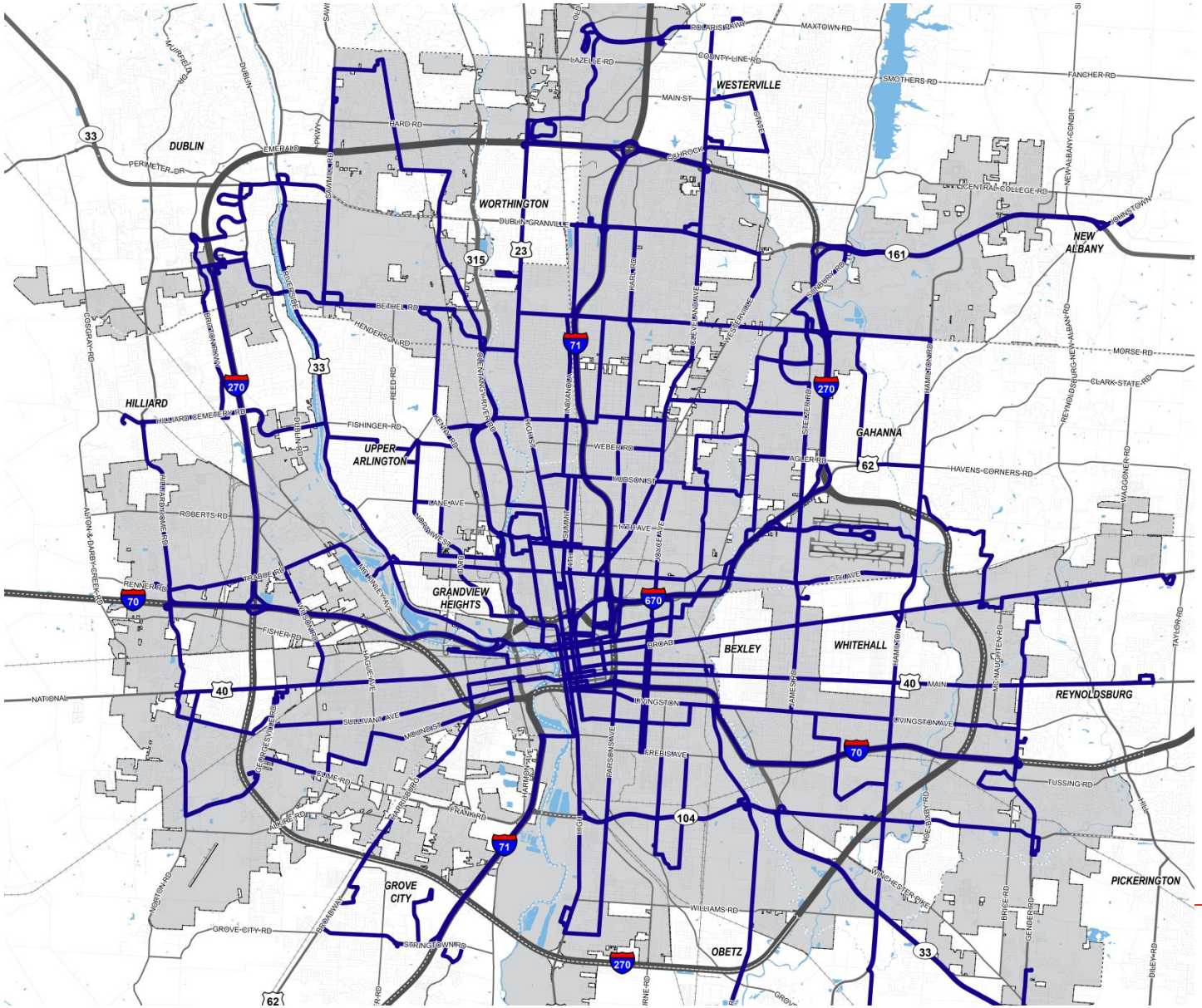
Short Trip – Long Commute



Short Trip – Long Commute



Cross-Town Gaps



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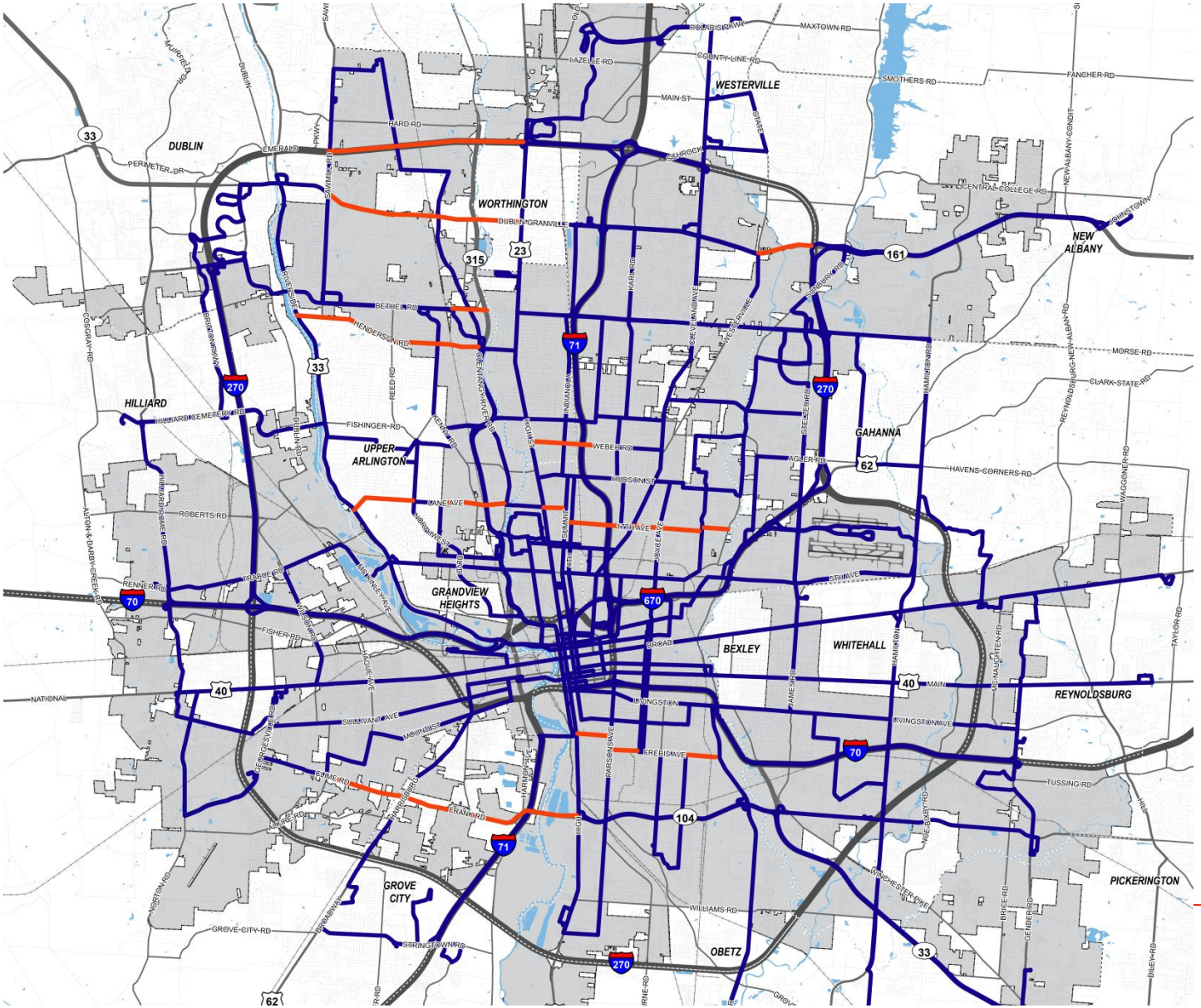
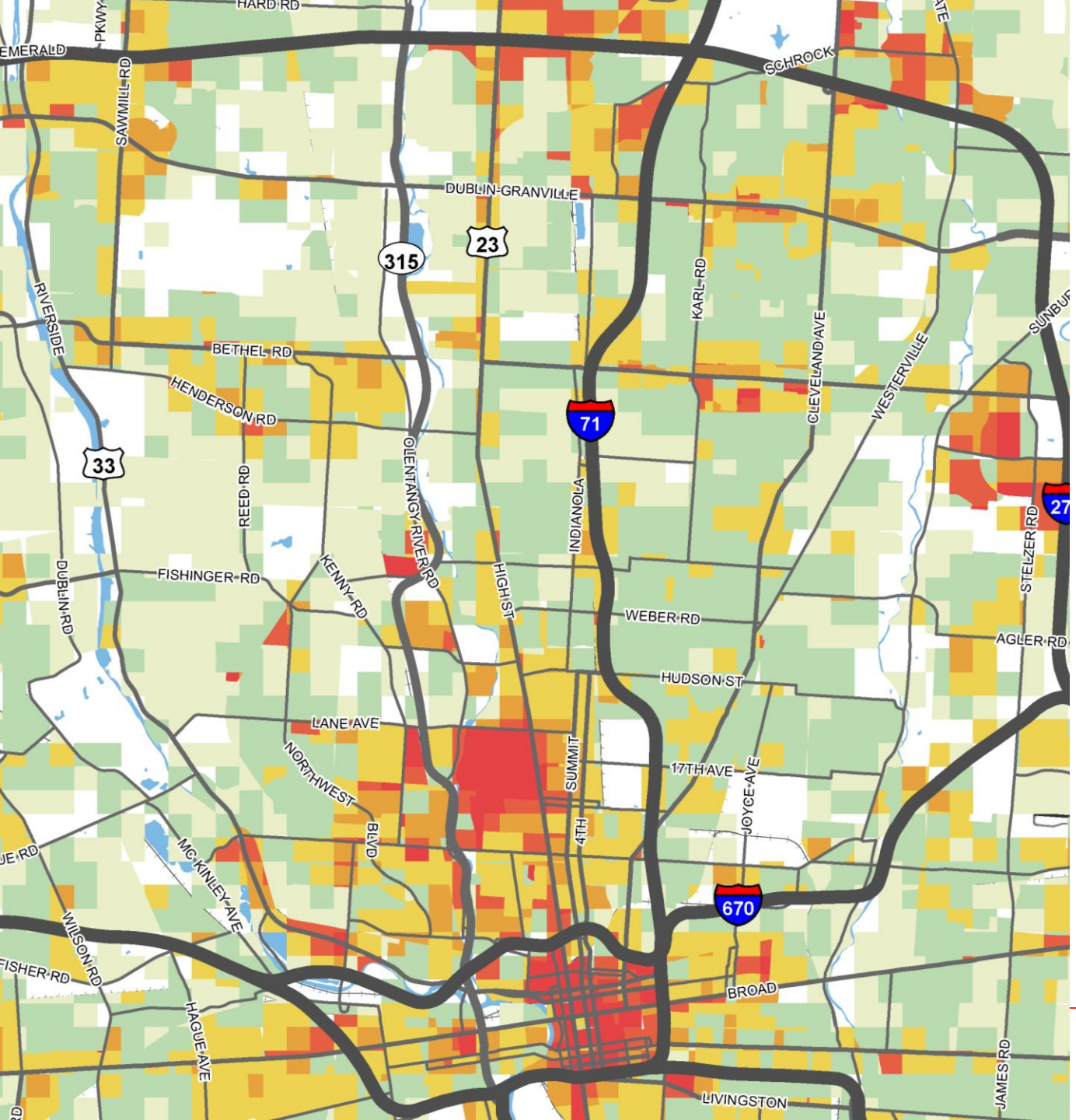
Potential Cross-Radial Connections



CONNECT COLUMBUS



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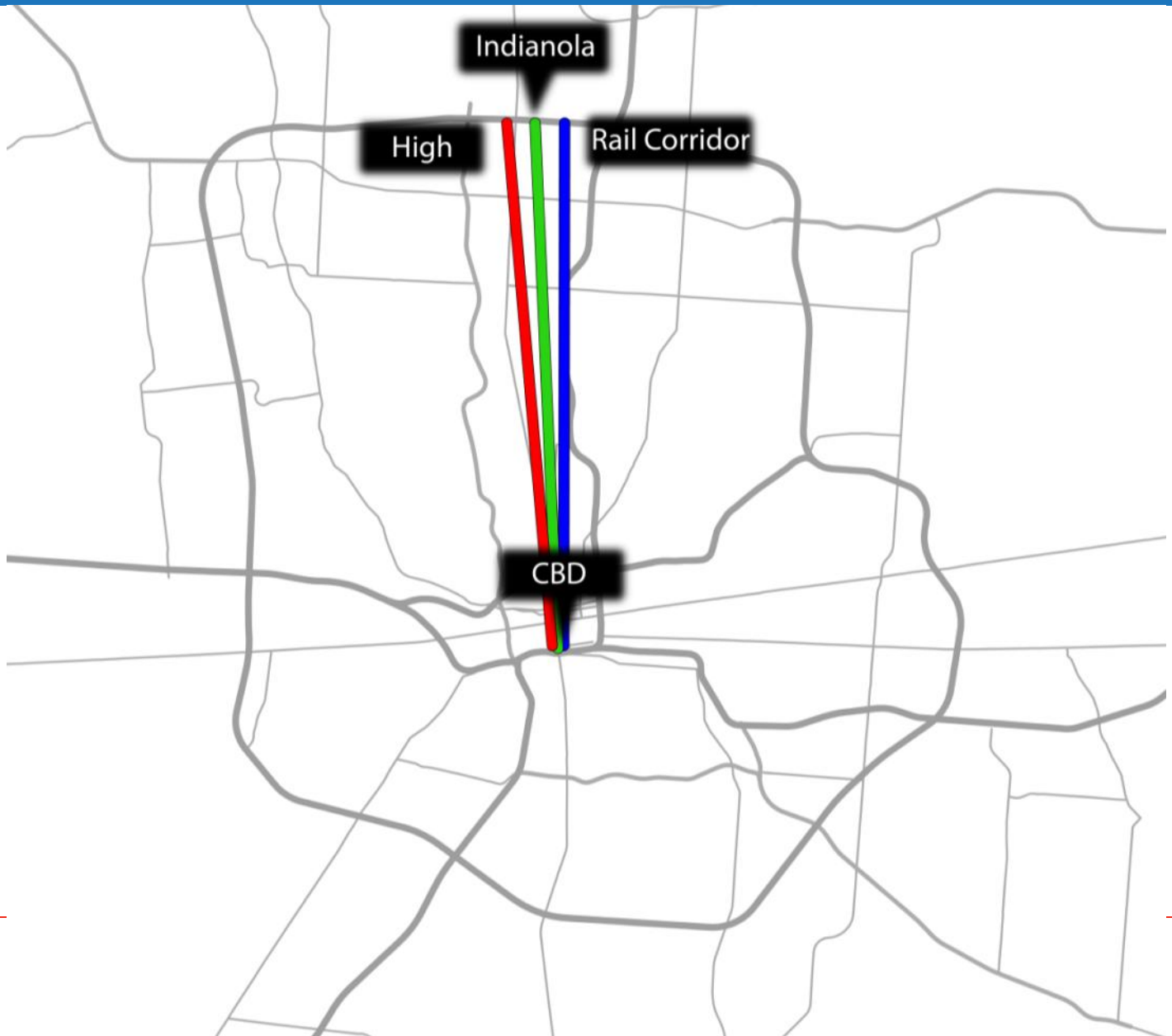
Premium Transit



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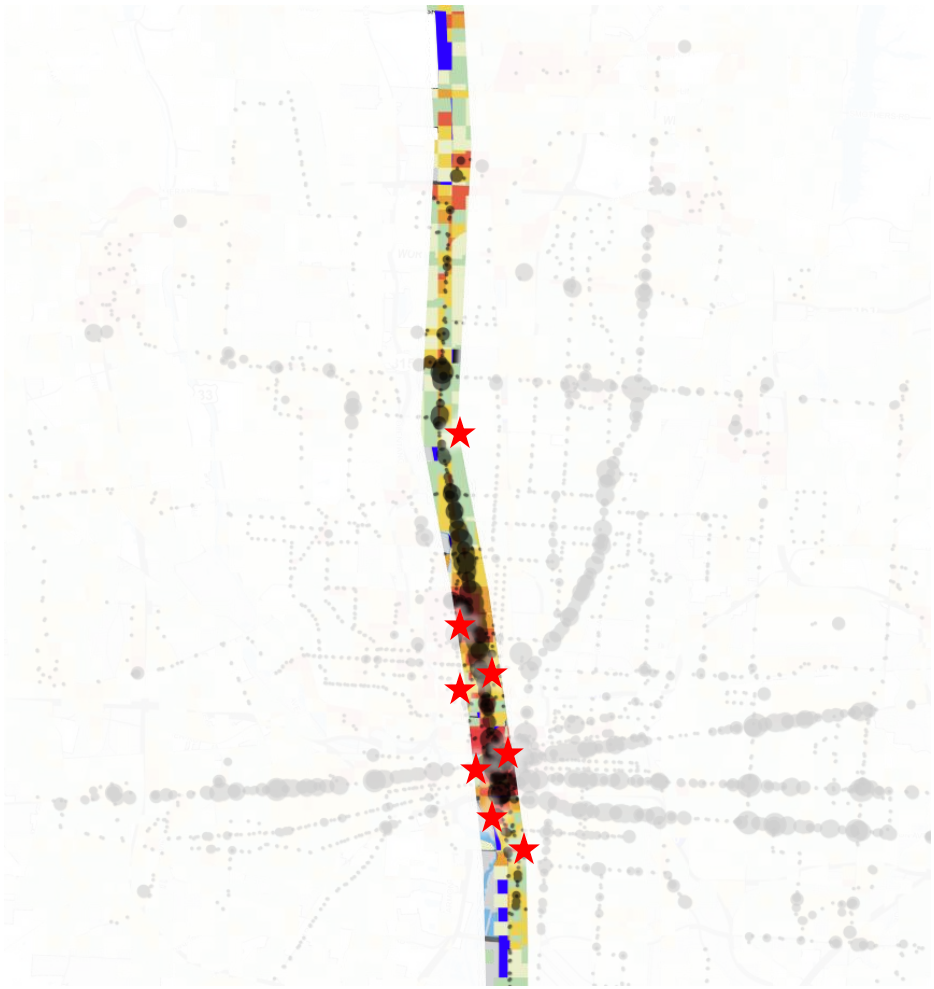
High Street

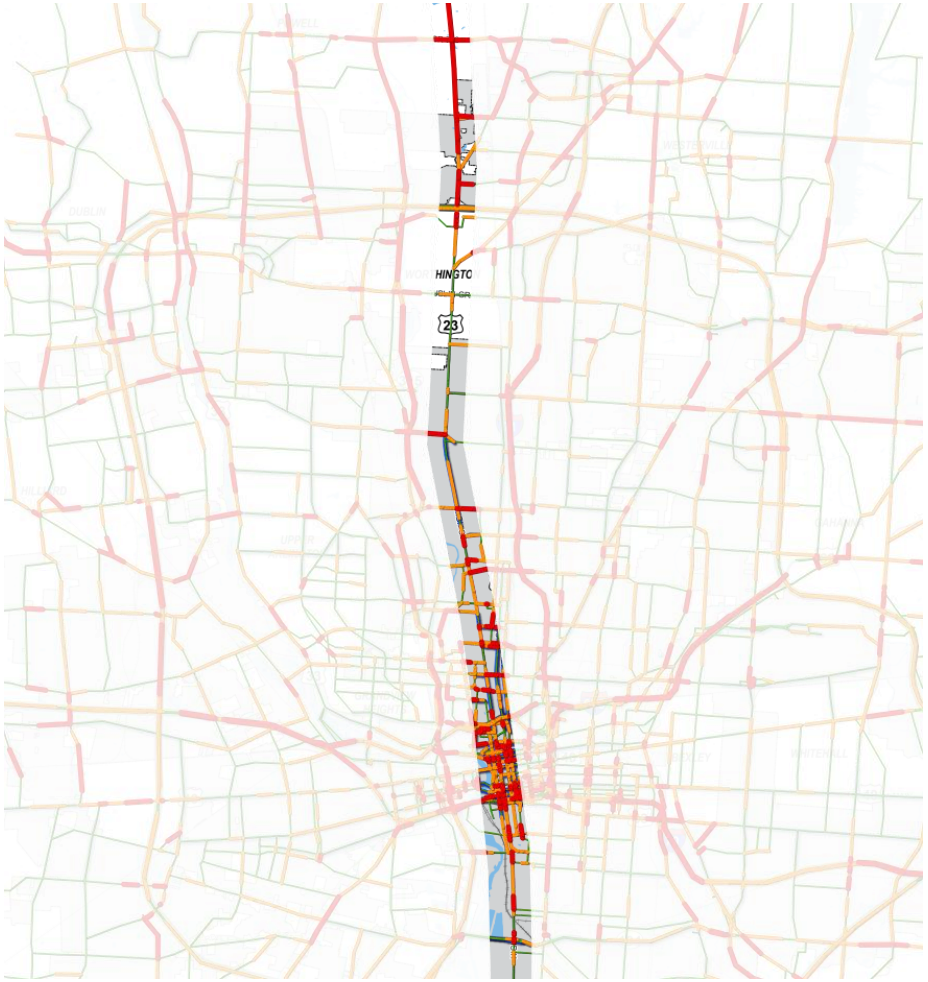


PROS

- Primary north-south connection
- Serves key destinations
- Transit-supportive density
- High transit ridership

CONNECT COLUMBUS

High Street



CONS

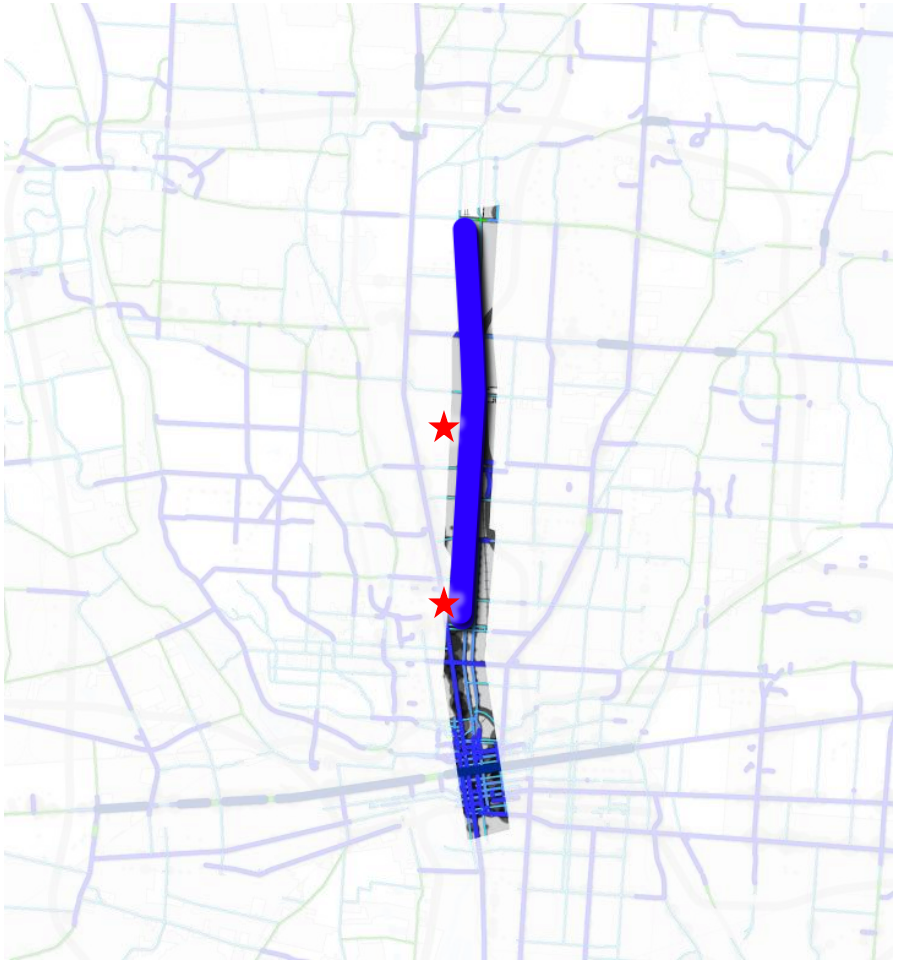
- Major connection for vehicle traffic
- High parking demand
- Limited capacity
- Expensive to go underground

Indianola Ave

PROS

- Few conflicting uses (less parking demand and traffic)
- Not a primary route for vehicular travel
- Excess roadway capacity (north of Weber)

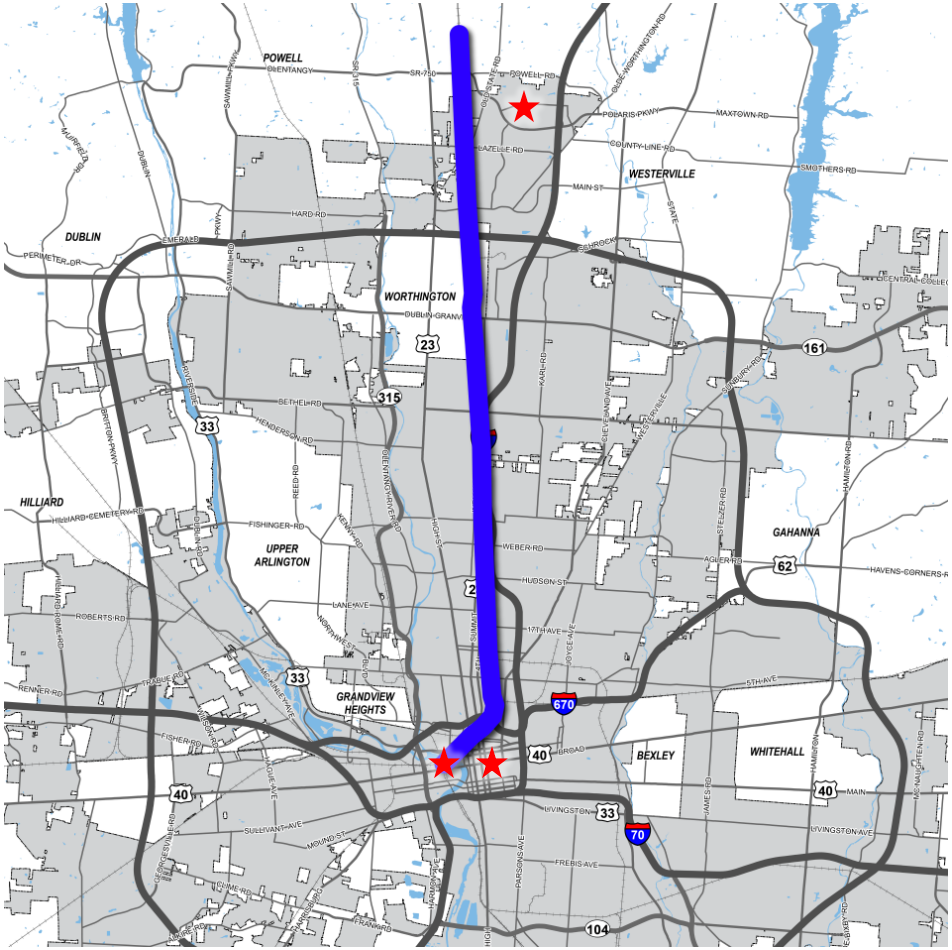
Indianola Ave



CONS

- Lower density
- Varying ROW (25’-50’)
- Disjointed corridor (not a continuous connection)
- Few adjacent destinations
- Low transit ridership

Existing Rail Corridor

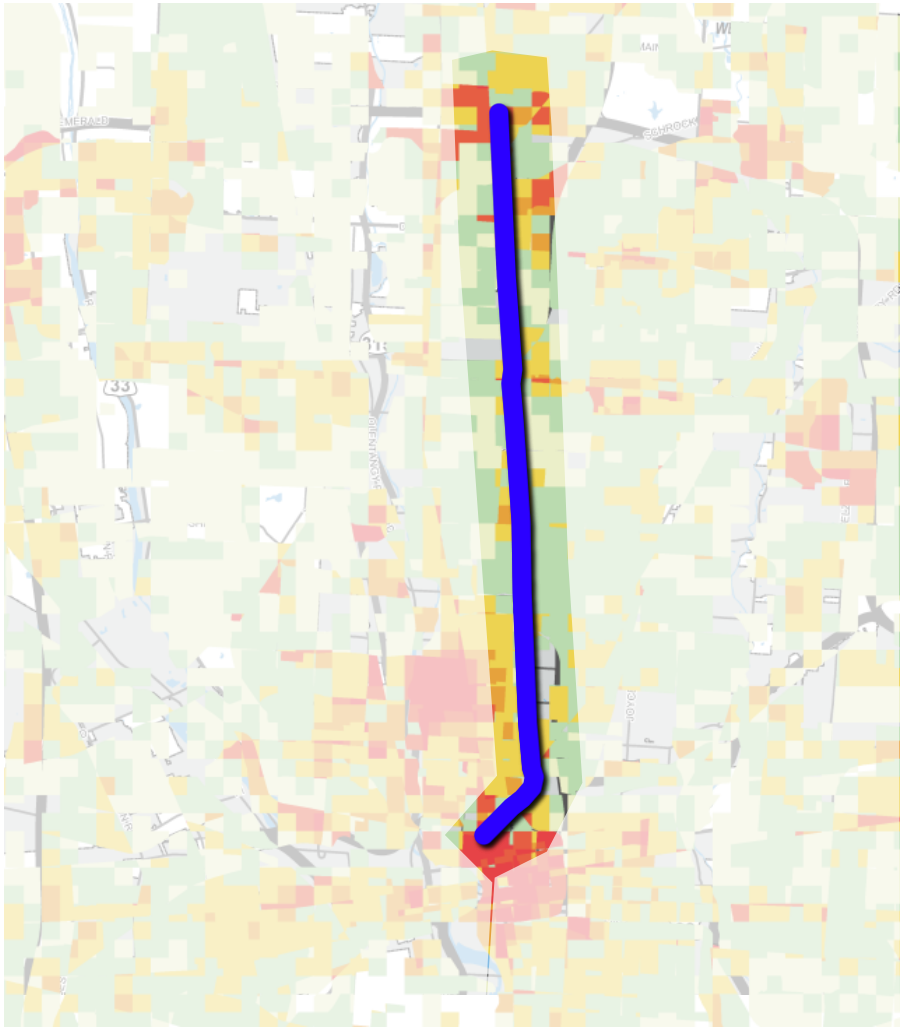


PROS

- Existing dedicated rail corridor
- No impact to street network or traffic
- Potential to Connect major destinations

CONNECT COLUMBUS

Existing Rail Corridor



CONS

- Limited ROW
- Active Rail Line
- Travels through low density areas

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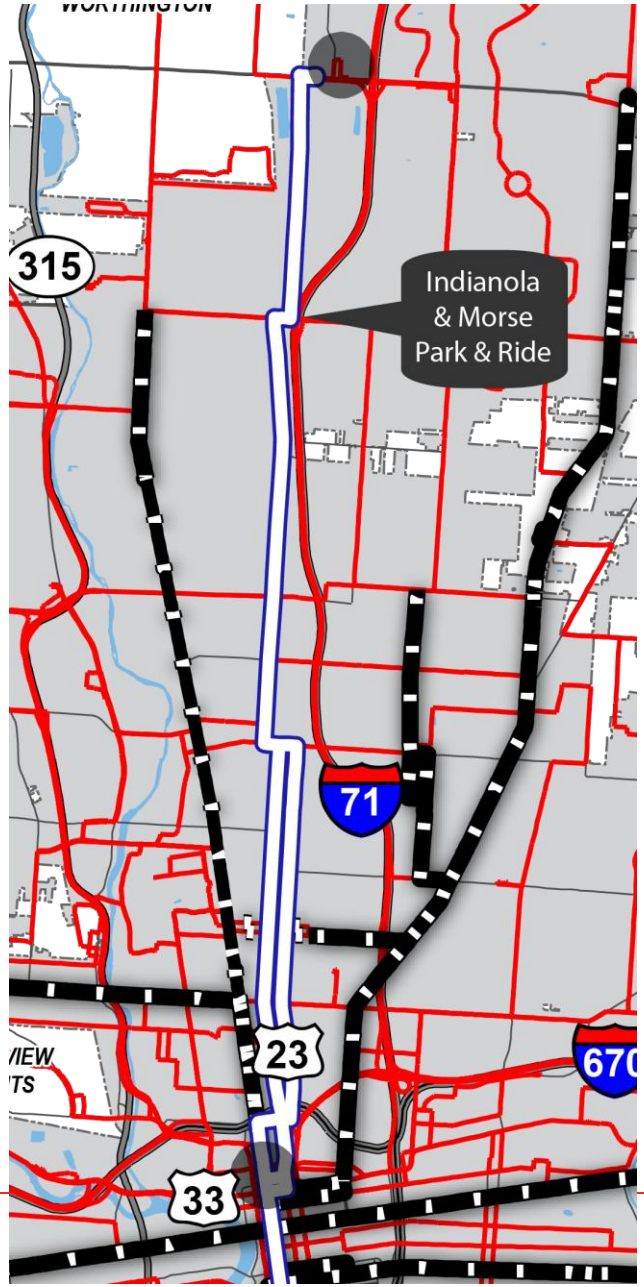
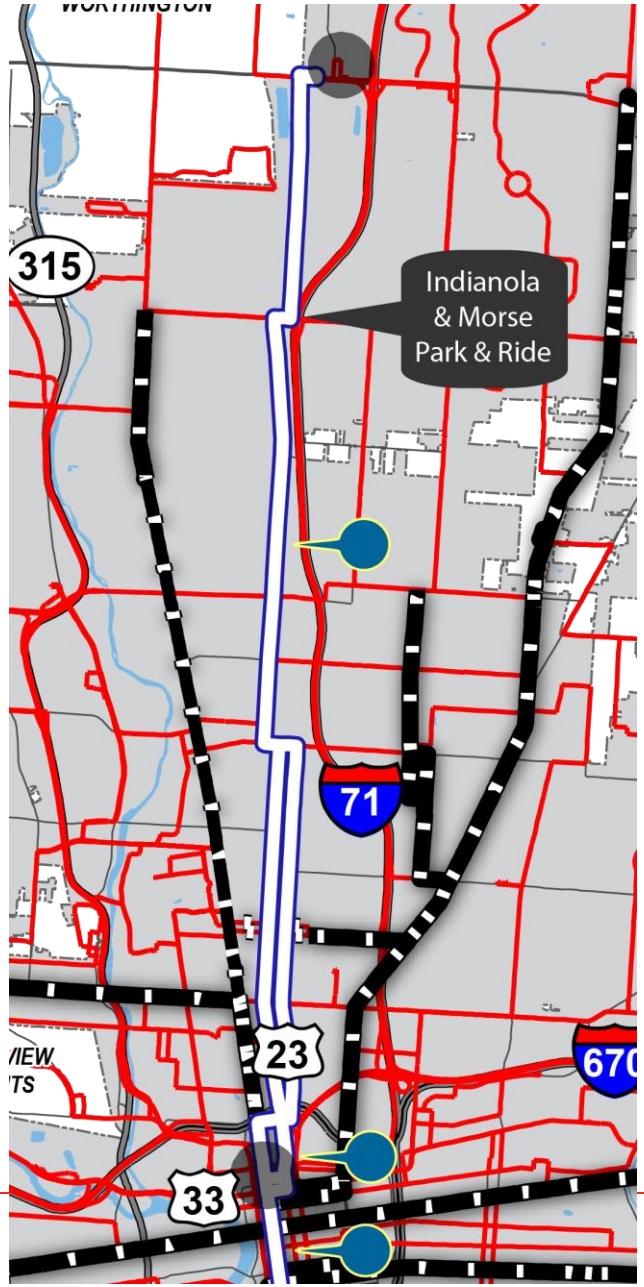


Route 4 – Indianola
Stops with more than 100 average daily riders

CONNECT COLUMBUS



Route 4 – Indianola
Stops with more than 100 average daily riders
Development in downtown, by OSU and at Indianola and North Broadway

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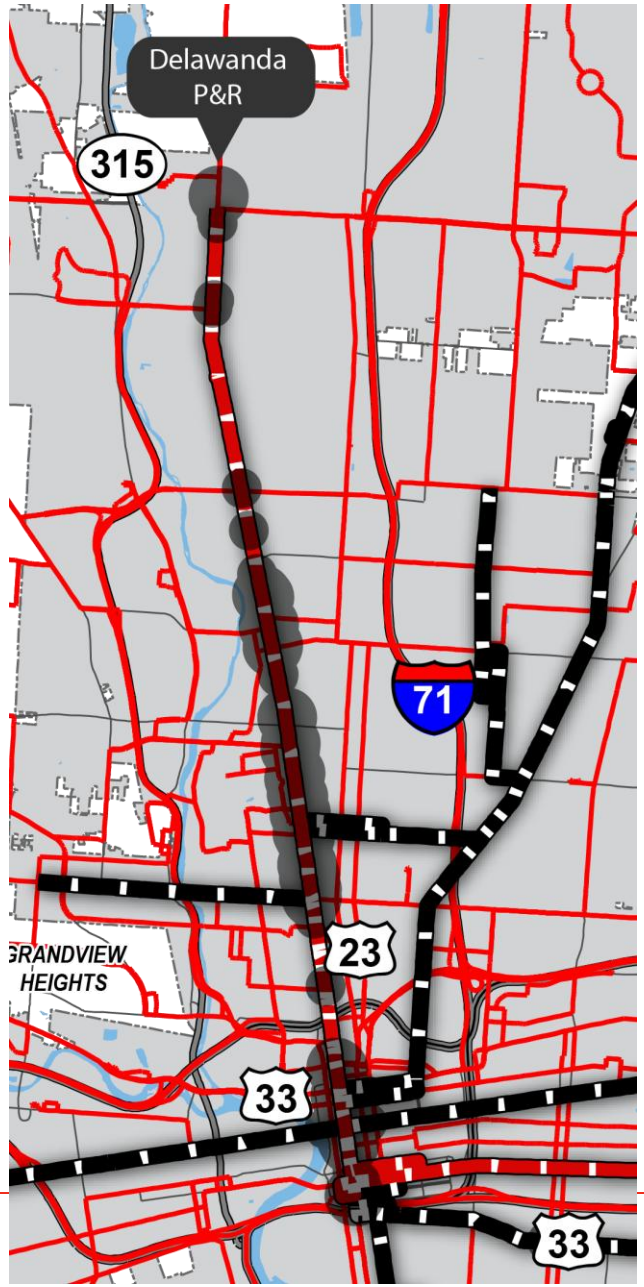

Route 2 – North High
Stops with more than 100 average daily riders

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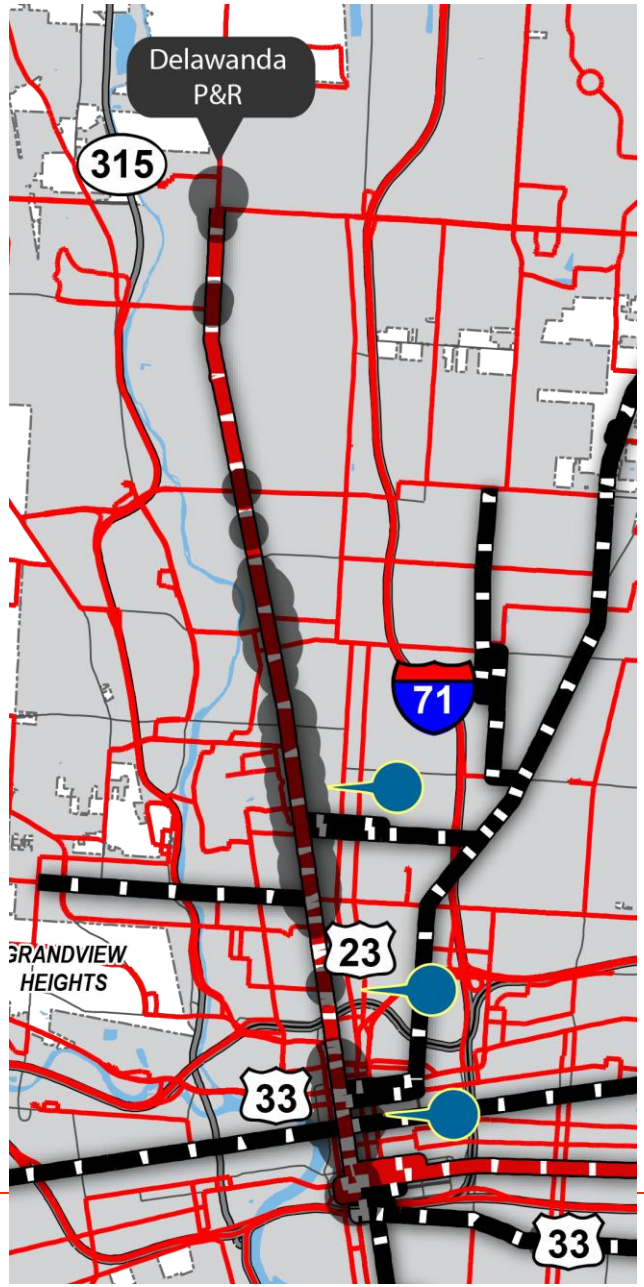

Route 2 – North High
Stops with more than 100 average daily riders
Development Downtown, in the Short North and adjacent to OSU

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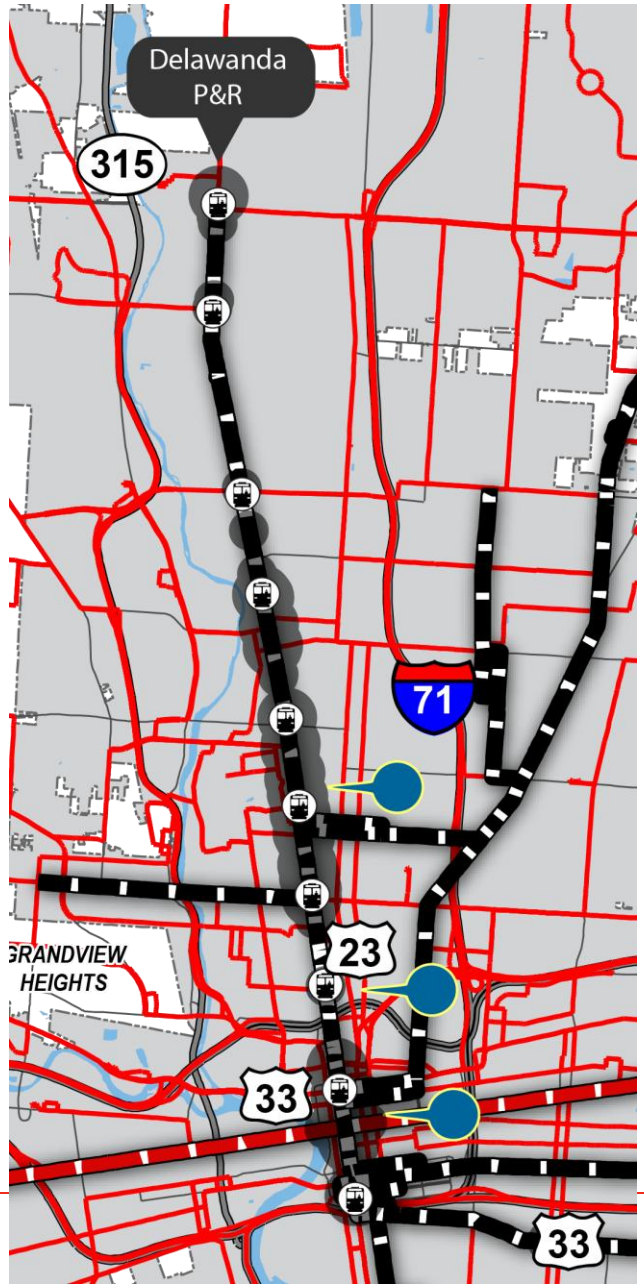

Route 2 – North High
Stops with more than 100 average daily riders
Development in downtown, by OSU and at Indianola and North Broadway
Light rail replacing local service

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High Street

The Workhorse

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High Street

Crosswoods

- Major freeway interchange
- Hotels/restaurants
- Autocentric

Clintonville CBD

- Pockets of concentrated retail/restaurants
- Single occupant businesses
- Adjacent housing

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High Street

OSU Campus
- Student life (west side)
- Retail/restaurant/residential (east side)

Downtown
- City Core
- Residential
- Restaurants/retail
- Night life
- Neighborhood

Short North
- Residential
- Restaurants/retail
- Night life
- Neighborhood

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Light Rail Capital Costs

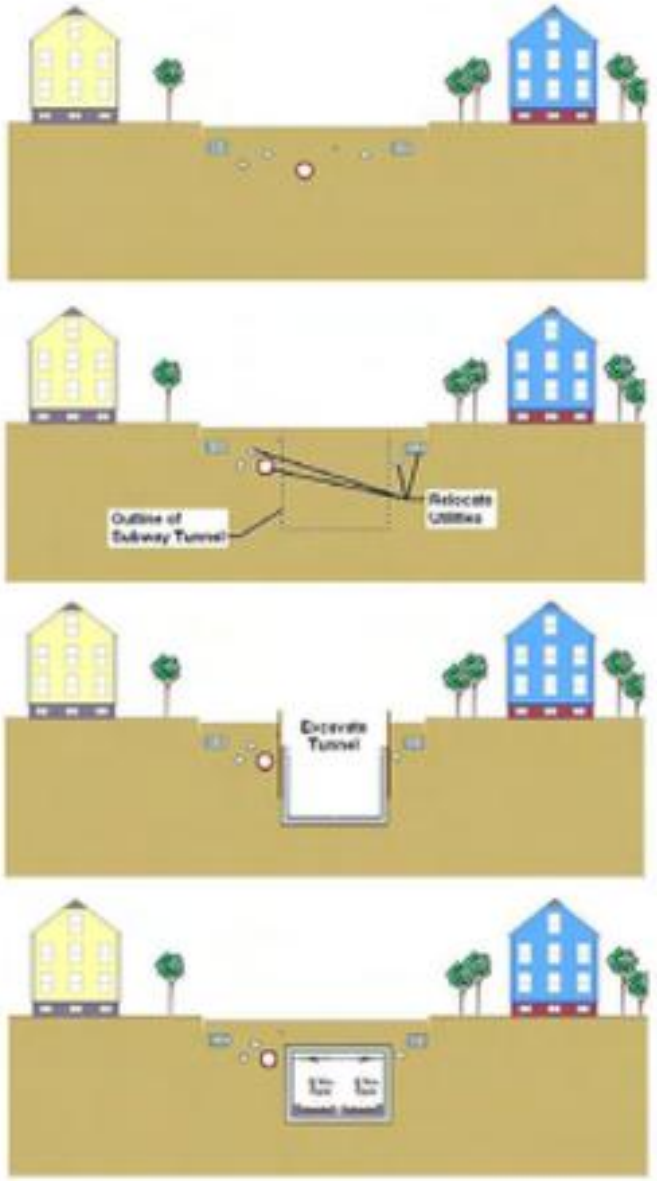
Recent Light Rail Project Costs

- ***Min. Average: $125M per mile***

- Ranges from low of $43 million per mile in Norfolk, VA to a high of $204 million per mile for the new Milwaukie line in Portland.

- Los Angeles's Crenshaw Line, costs $165 million per mile.

- In Toronto, the Eglinton LRT line, (50/50 split between surface and underground), is estimated to cost US$400 million per mile.

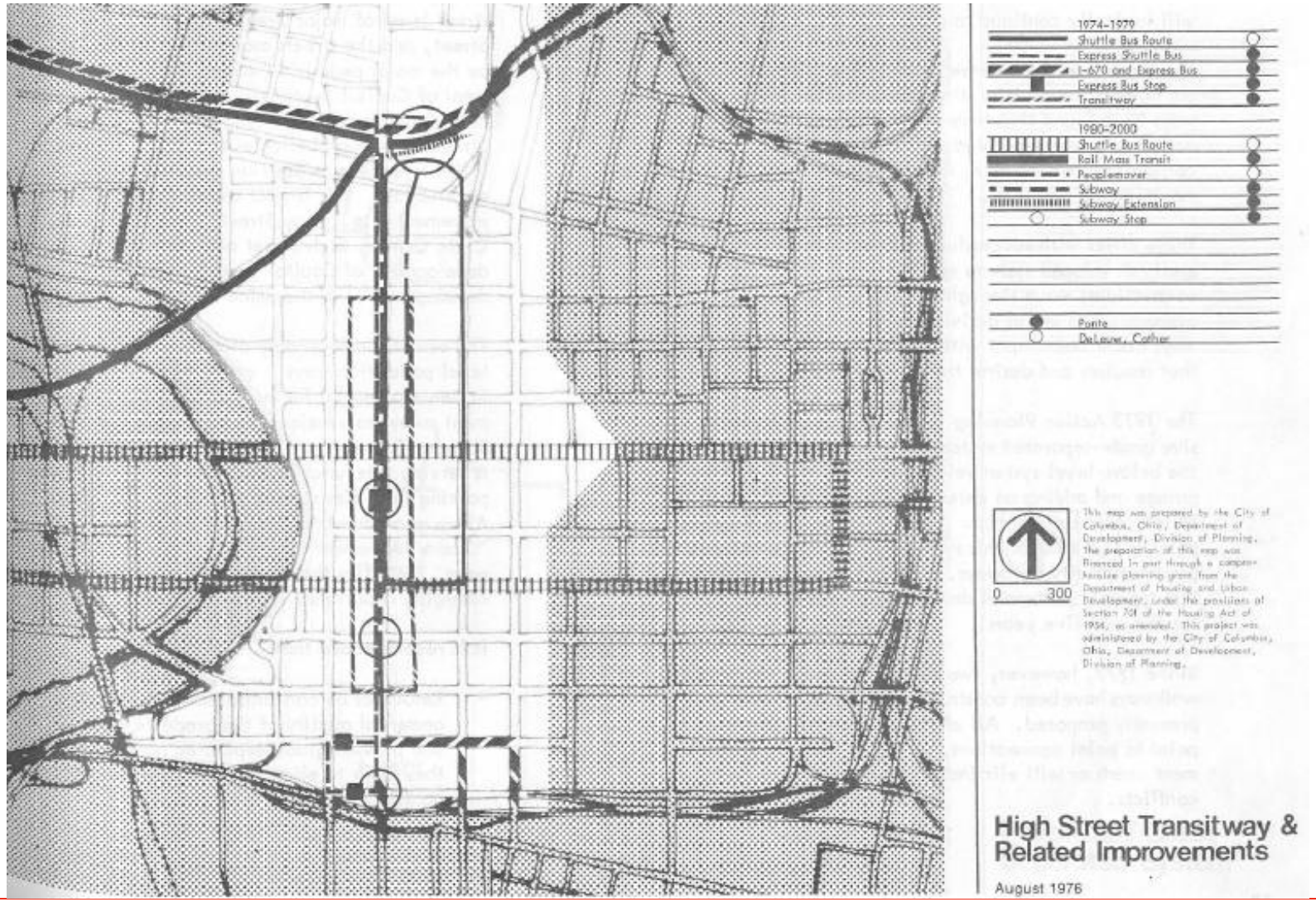


Light Rail Capital Costs

High Street Underground Light Rail Costs

Location	Cost
3 Miles (~$165 Million/ Mi)	- $495 Million
4 Stations (~$150 Million per station)	~ $600 Million
Total	**~ $ 1.1 Billion**

High Street Subway - 1976



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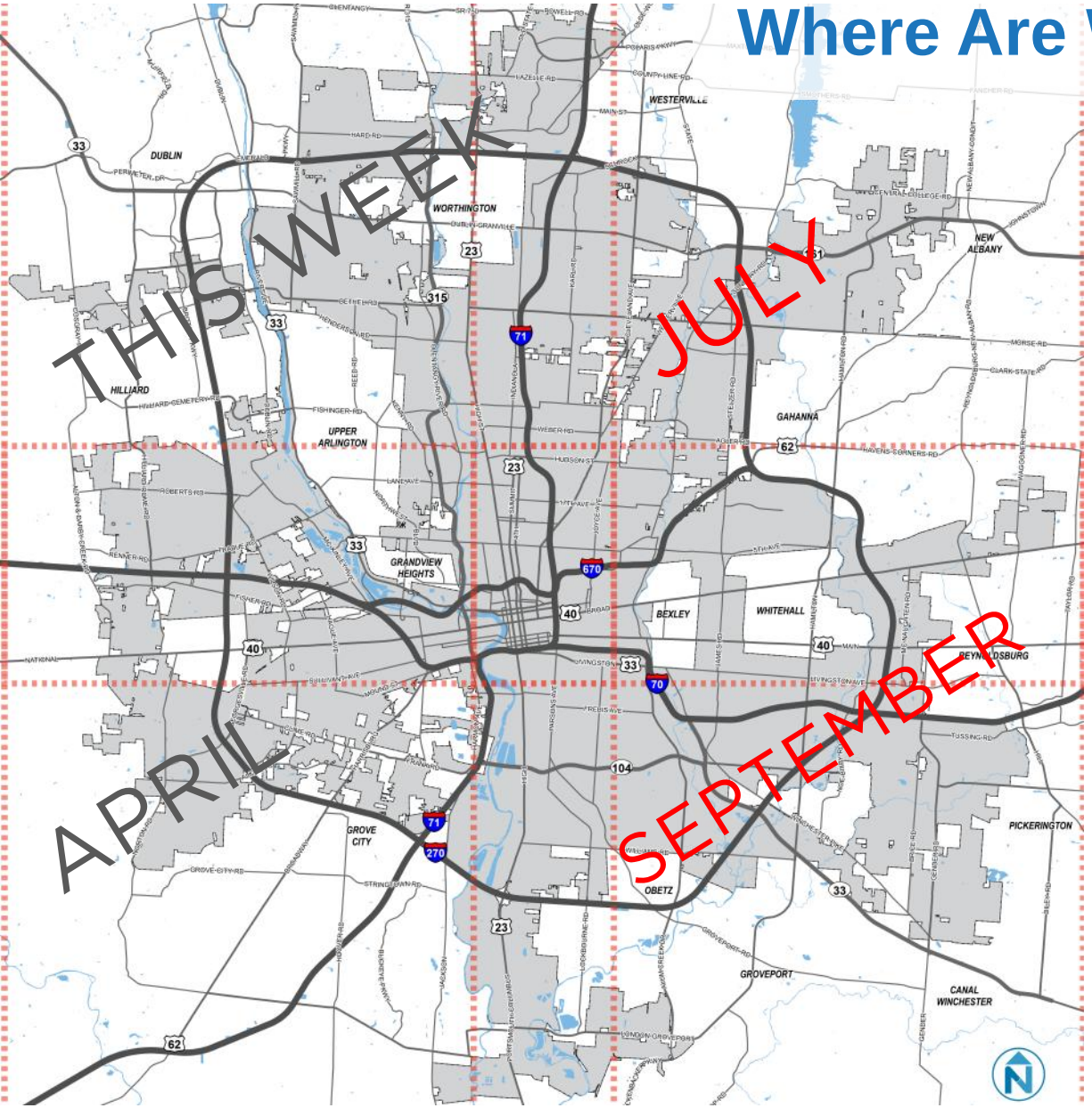
Where Are We Concentrating?



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DISCUSSION

THANK YOU