

# Complete Green Streets Guide

**City of Madison**

Renee Callaway, Pedestrian Bicycle Administrator

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# Purpose of Guide

- **Build upon previous Complete Streets Resolution by providing more guidance for implementation.**
- **Incorporate green infrastructure and trees into framework to better address sustainability goals.**
- **More consistent process for planning, designing, building and operating streets.**

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# Resident Concerns Over Streets & Safety

Wide streets with low parking utilization lead to people driving fast

Residents want street design changes, even for relatively new streets



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# Complete Green Streets: Street Design Impact



**A process centered in community values**



**Clear direction on priorities**



**Defined street types to use as starting point for design**



**Explicit equity framework and associated process**



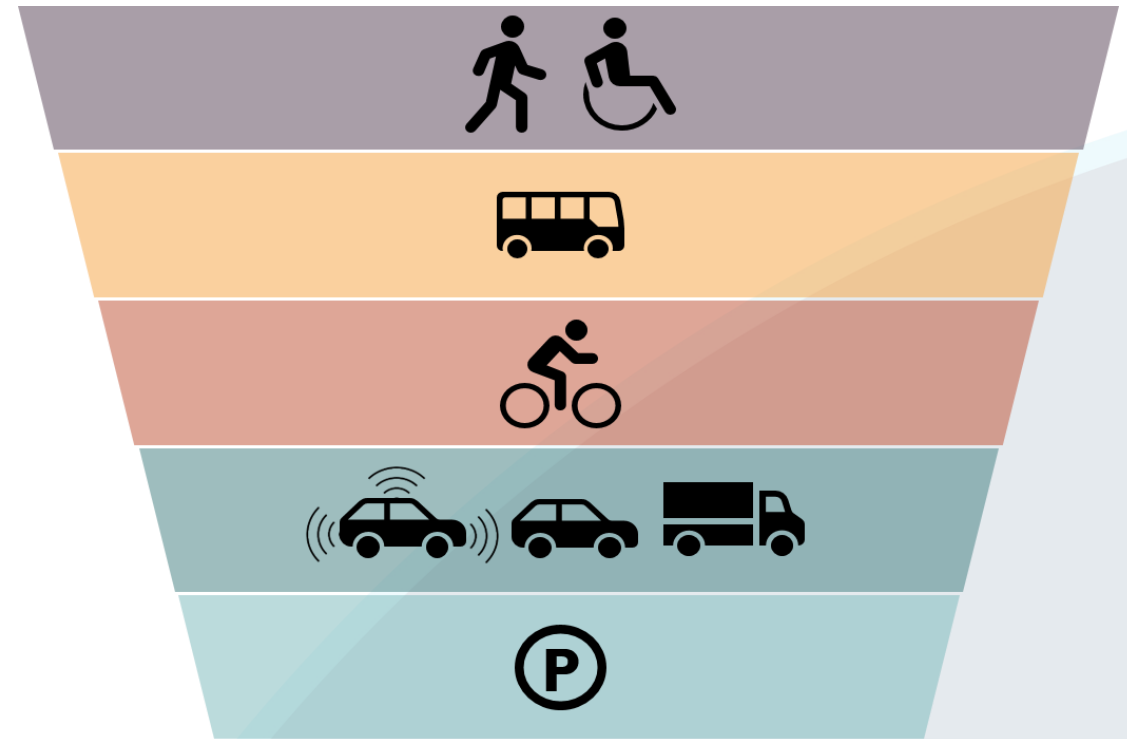
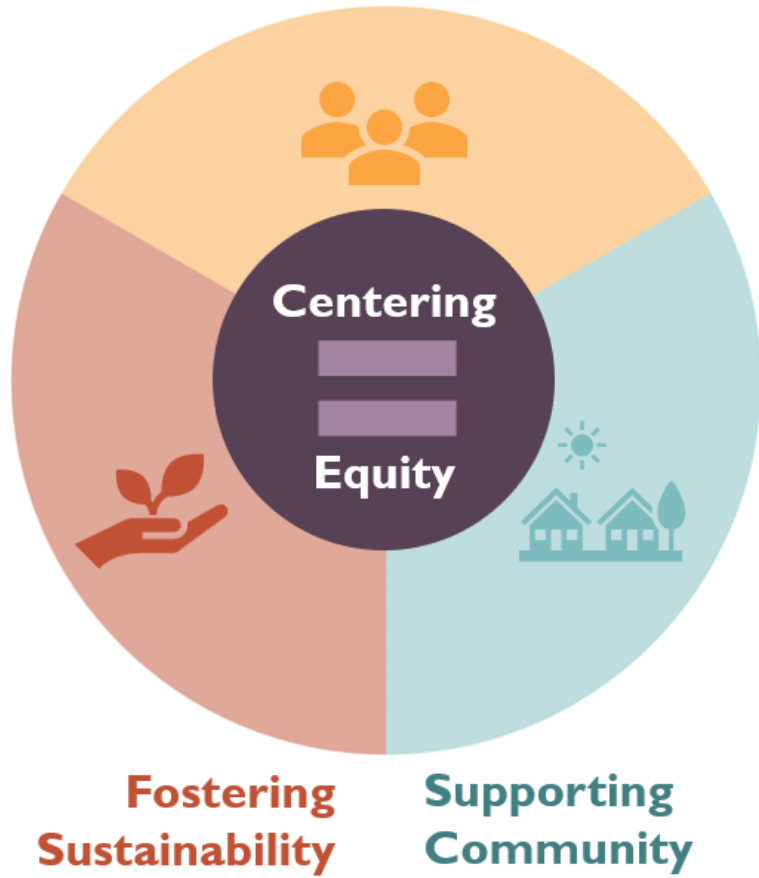
**Flexible tool that will evolve over time as Madison evolves**



# Guide - Process Overview

# Street Values & Modal Hierarchy

Putting People First

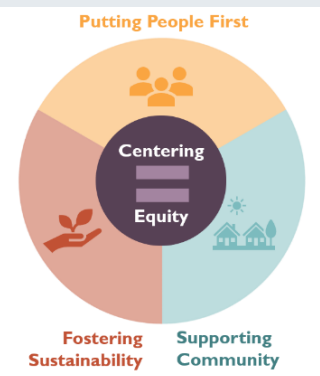
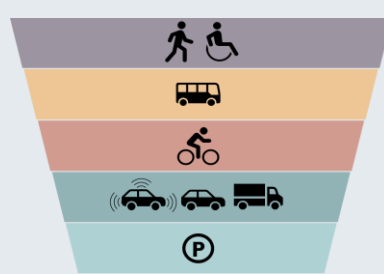


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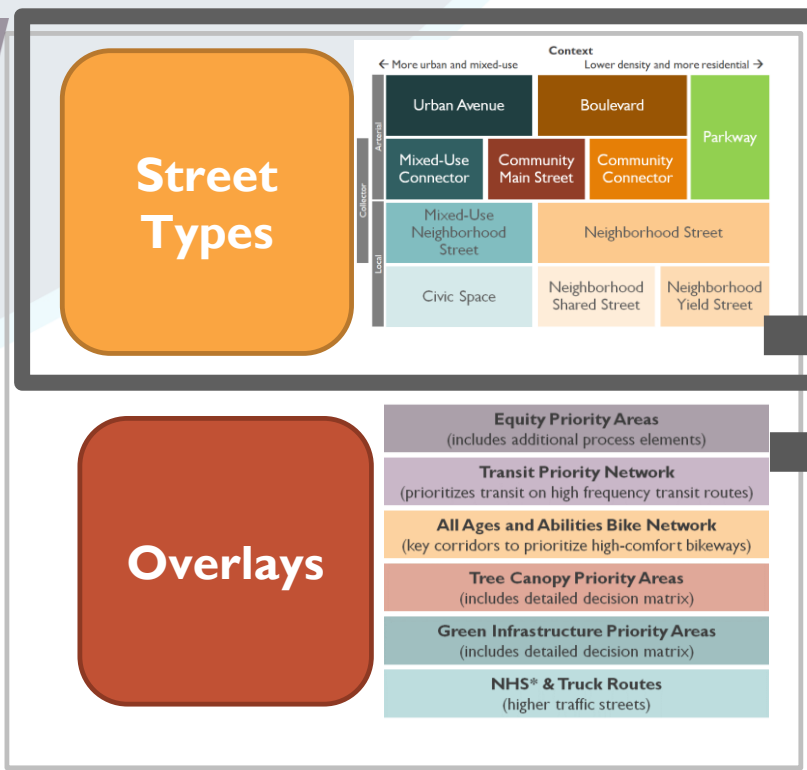


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# Process and elements



Values



Identify Street Design Priorities

Allocate Street Zone Space

Street Type	Typical # of Travel Lanes (not including any bike facility)	Target Speed (miles per hour)	Typical ADT (motor vehicles)	Total Pavement Widths (includes travel lanes, bike facility and any parking (curb to curb))		
				Plac.	Typ.	Min.
Urban Avenue	4-6	25	>20,000	102'	96'	74'
Boulevard	4-6	25-30	>14,000	102'	80'	74'
Parkway	2 or 4-6	25-35	>10,000	86'	66'	26'
Mixed-Use Connector	2	25	3,000 to 15,000	56'	40'	38'
Community Main Street	2-3	25	10,000 to 20,000	56'	56'	38'
Community Connector	2-3	25	3,000 to 14,000	66'	54'	24'
Mixed-Use Neighborhood Street	2 lanes, often no centerline	20	<3,000	38'	36'	30'
Neighborhood Street	2 lanes, often no centerline	20	<3,000	38'	36'	22'
Neighborhood Yield Street	2 lanes, often no centerline	15-20	<1,000	30'	24'	22'
Civic Space	2 lanes, often no centerline	15	<2,000	52'	Varies	20'
Neighborhood Shared Street	No centerline	10-15	<500	20'	20'	19'



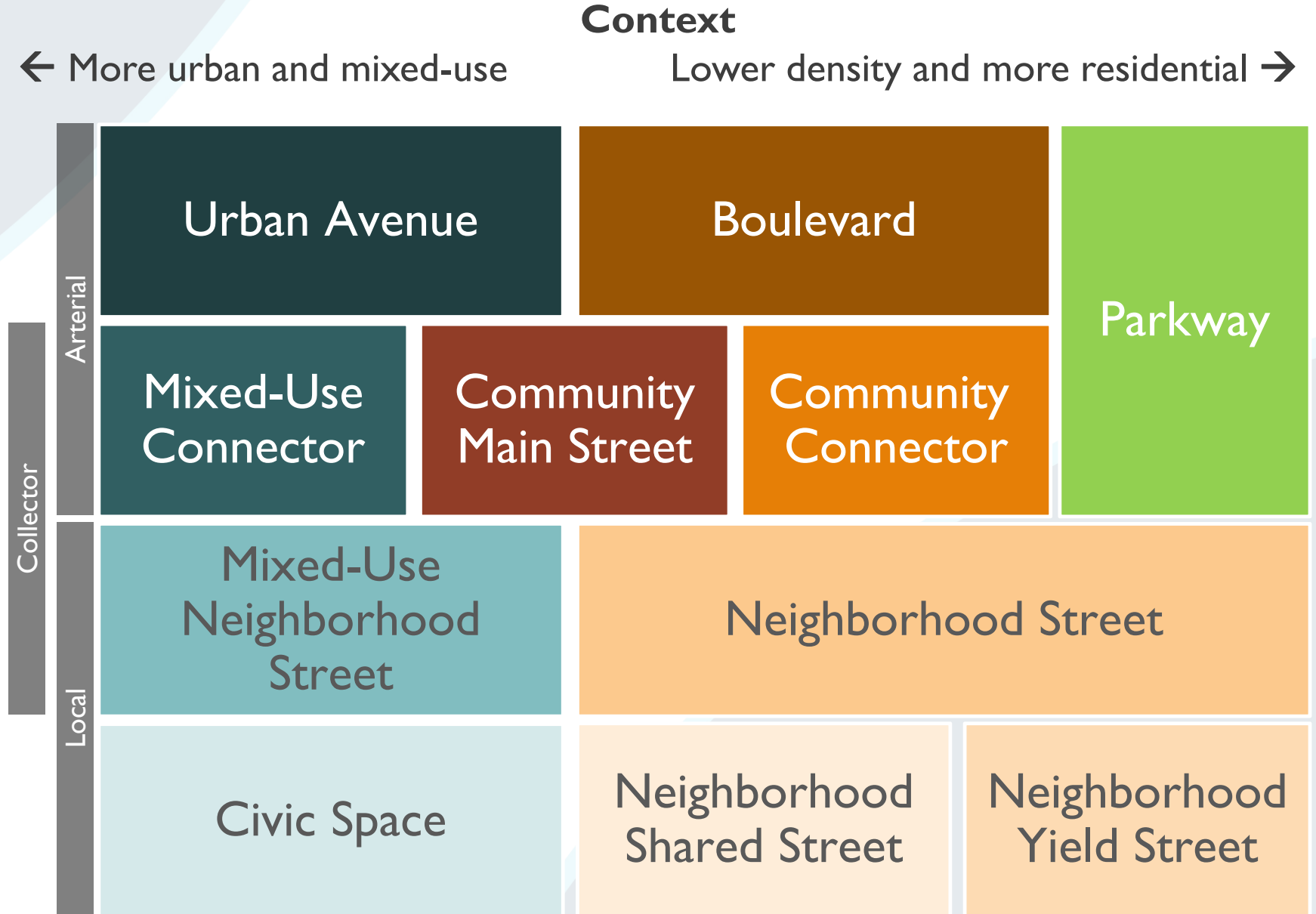
If constrained space, determine tradeoffs

# Street Types

CGS is built around a collection of **11 street types** (the typology) that describe the spectrum of current and future streets in Madison. They serve as **starting points for street design**.

The types are based on **context** and the amount of varied activity occurring.

They are intended to be **aspirational**.





# Street Zones

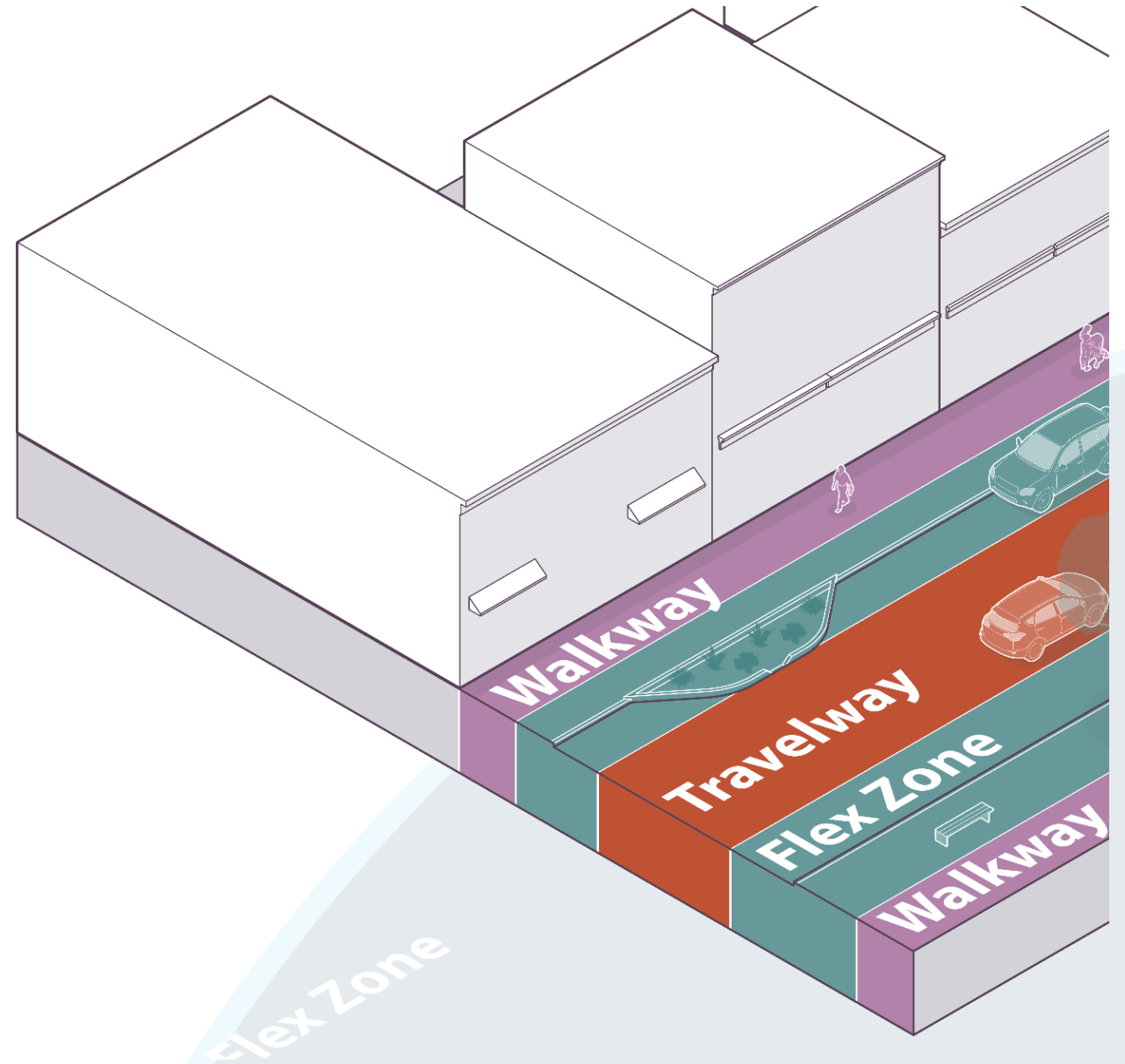
Each street type is divided into zones.

**Movement** (walking, biking, driving) happens in the walkway and travelway.

Bike facilities might be part of the travelway (lanes or cycletrack) or part of the walkway (a path).

**Stationary uses** (parking, cafes, trees) occur in the flex zone.

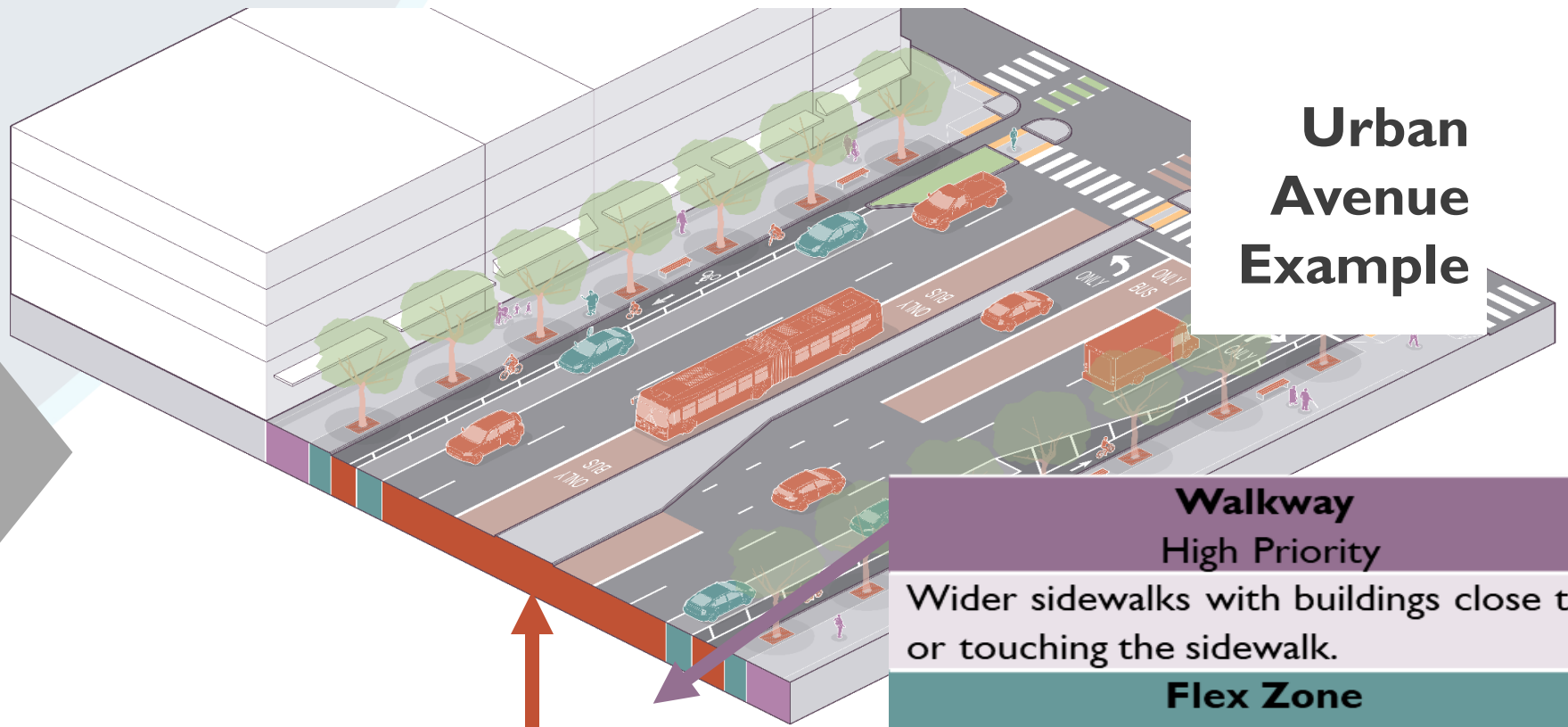
The flex zone can be terrace or part of the roadway.



# Street Zones

Each street type graphic identifies the **location and relative size** of each street zone, with color-coding.

Each street type describes the relative **priority** of each zone, as well as what is **typically provided** in each zone, specific to that street type.



## Urban Avenue Example

### Walkway

High Priority

Wider sidewalks with buildings close to or touching the sidewalk.

### Flex Zone

Medium Priority

Street trees, bike racks, and enhanced transit stops. Parallel on-street parking. Loading zones, if needed, should be provided around the corner on intersecting minor streets.

### Travelway

High Priority

Dedicated transit lanes, separated bike lanes, often 2 travel lanes per direction, and medians.

# Example: Urban Avenue

Major streets that serve as backbones of the street network and convey large numbers of people via multiple modes.

## Walkway

High Priority

Wider sidewalks with buildings close to or even at the edge of the right of way.

## Flex Zone

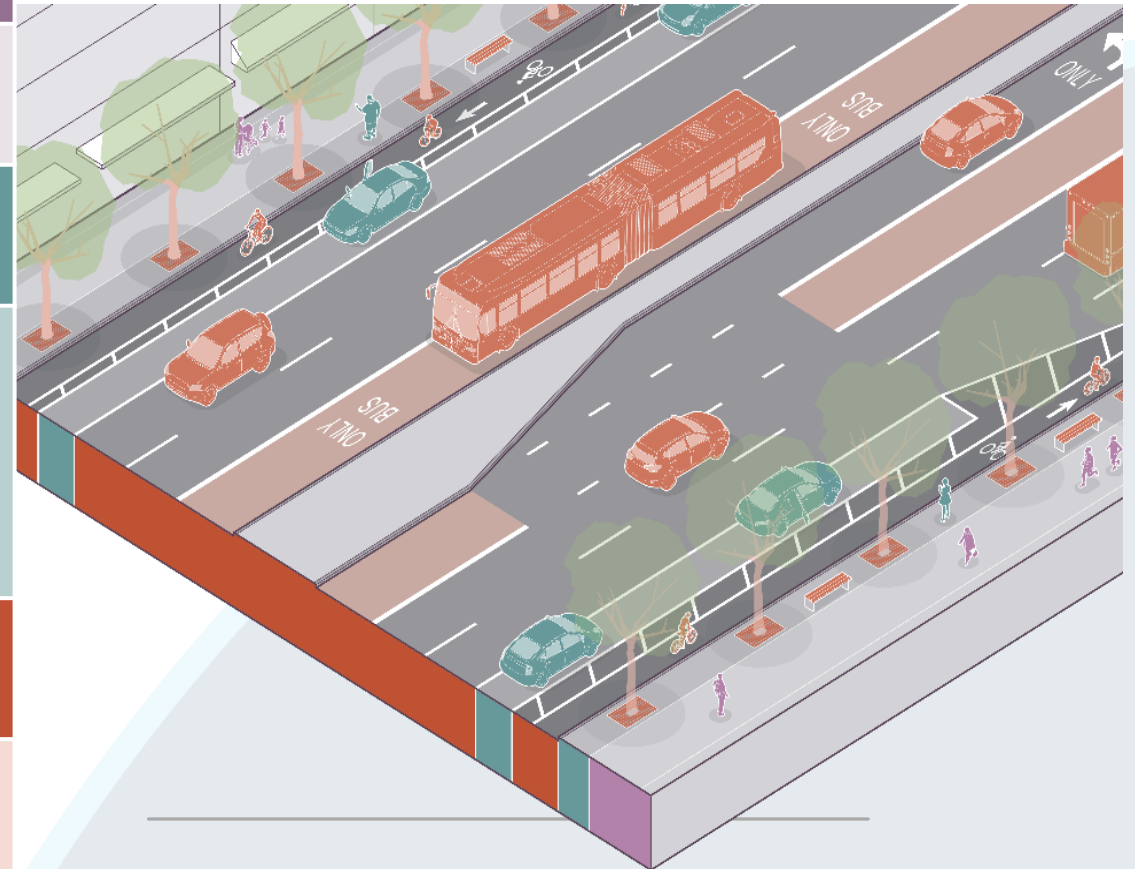
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## Travelway

High Priority

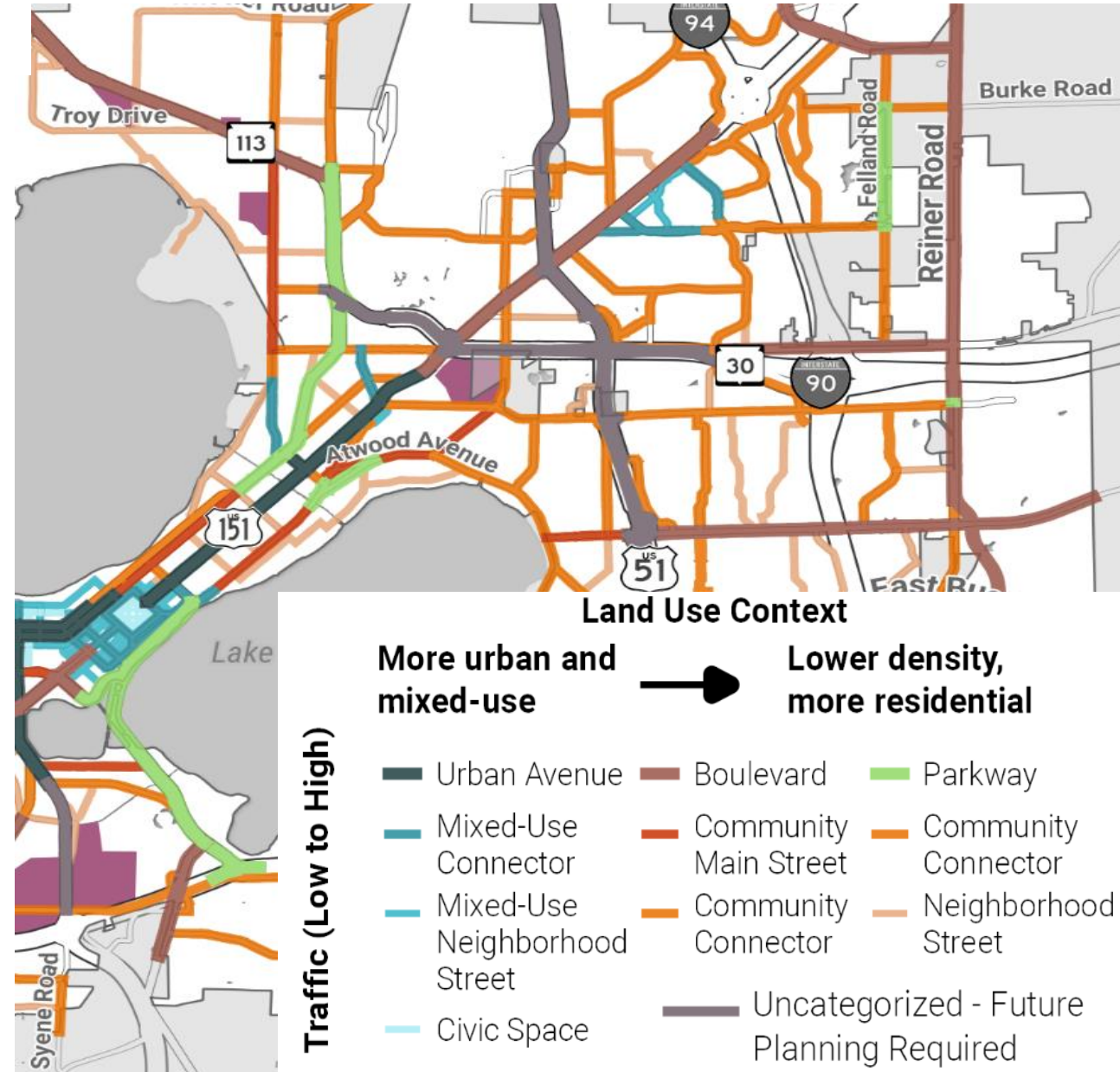
Dedicated transit lanes, separated bike lanes, often 2 travel lanes per direction, and medians.



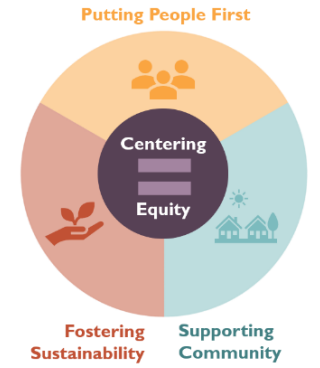
# Street Type Map

The street type map will evolve and change over time as development and land use plans change.

Sub-area plans will designate a street type based on the planned context of the location.



# Process and elements



**Values**

**Street Types**

Context: ← More urban and mixed-use | Lower density and more residential →

Regional	Urban Avenue	Boulevard	Parkway
	Mixed-Use Connector	Community Main Street	
Local	Mixed-Use Neighborhood Street	Neighborhood Street	
	Civic Space	Neighborhood Shared Street	Neighborhood Yield Street

**Overlays**

- Equity Priority Areas** (includes additional process elements)
- Transit Priority Network** (prioritizes transit on high frequency transit routes)
- All Ages and Abilities Bike Network** (key corridors to prioritize high-comfort bikeways)
- Tree Canopy Priority Areas** (includes detailed decision matrix)
- Green Infrastructure Priority Areas** (includes detailed decision matrix)
- NHS\* & Truck Routes** (higher traffic streets)

**Identify Street Design Priorities**

**Allocate Street Zone Space**

Street Type	Typical # of Travel Lanes (not including bike facility)	Target Speed (miles per hour)	Typical ADT (motor vehicles)	Total Pavement Width (includes travel lanes, bike facility and any parking (curb to curb))		
				Flc.	Typ.	Plc.
Urban Avenue	4-6	25	>20,000	102'	96'	74'
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**Design**



**If constrained space, determine tradeoffs**

# Overlays

- Overlays influence design decisions and the priority of various elements.
- Each street type describes the influence of each overlay.

**Equity Priority Areas**  
(includes additional process elements)

**Transit Priority Network**  
(prioritizes transit on high frequency transit routes)

**All Ages and Abilities Bike Network**  
(key corridors to prioritize high-comfort bikeways)

**Tree Canopy Priority Areas**  
(includes detailed decision matrix)

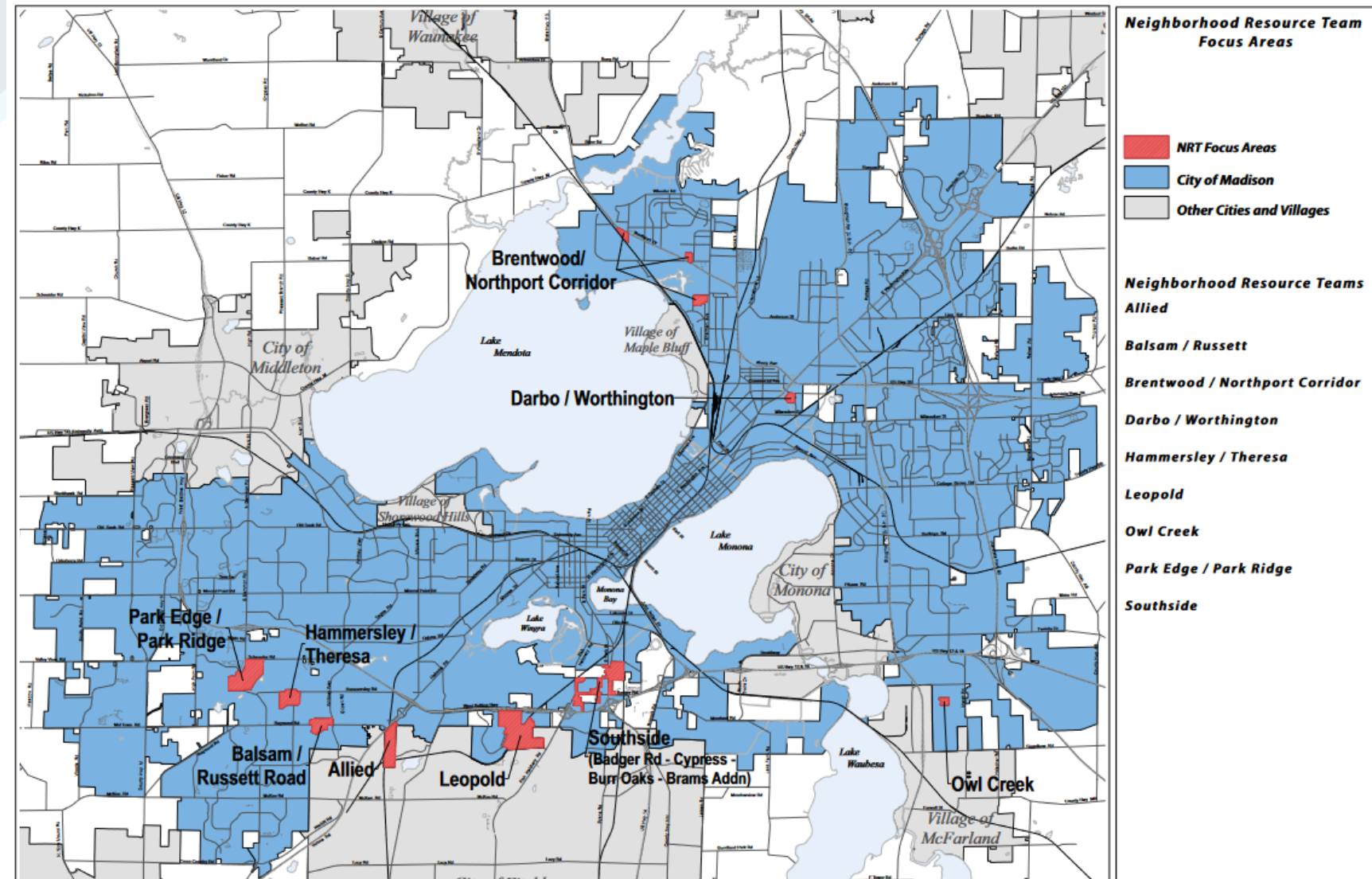
**Green Infrastructure Priority Areas**  
(includes detailed decision matrix)

**National Highway System & Truck Routes**  
(higher traffic streets)

# Equity Priority Areas

Consult the Map of Equity Priority Areas (EPAs)

- Initial map based on Neighborhood Resource Team (NRT) areas
- City will identify additional areas based on demographic data



# Equity Priority Areas

- EPA locations trigger additional process steps that will be in the CGS Project Checklist

Is the project within or near an EPA?

- Engage with community to understand needs
- Engage with NRT
- Review past public input
- Use EPA questions on CGS project checklist

Are there other City departments active in the CGS project area?

- Engage with community to understand needs
- Engage with NRT
- Review past public input & other department projects in area and coordinate work
- Use EPA project checklist

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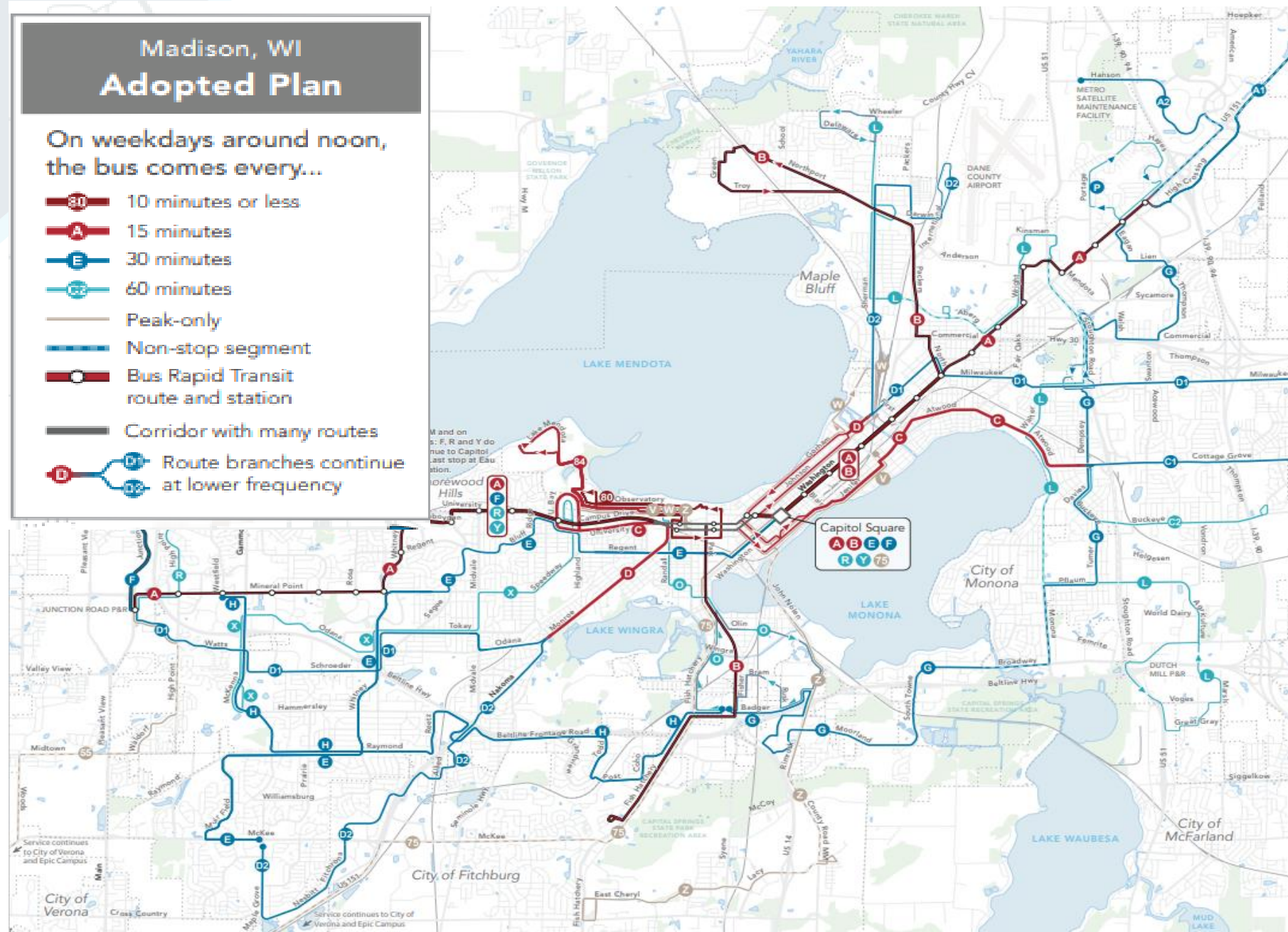


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# Transit Priority Network

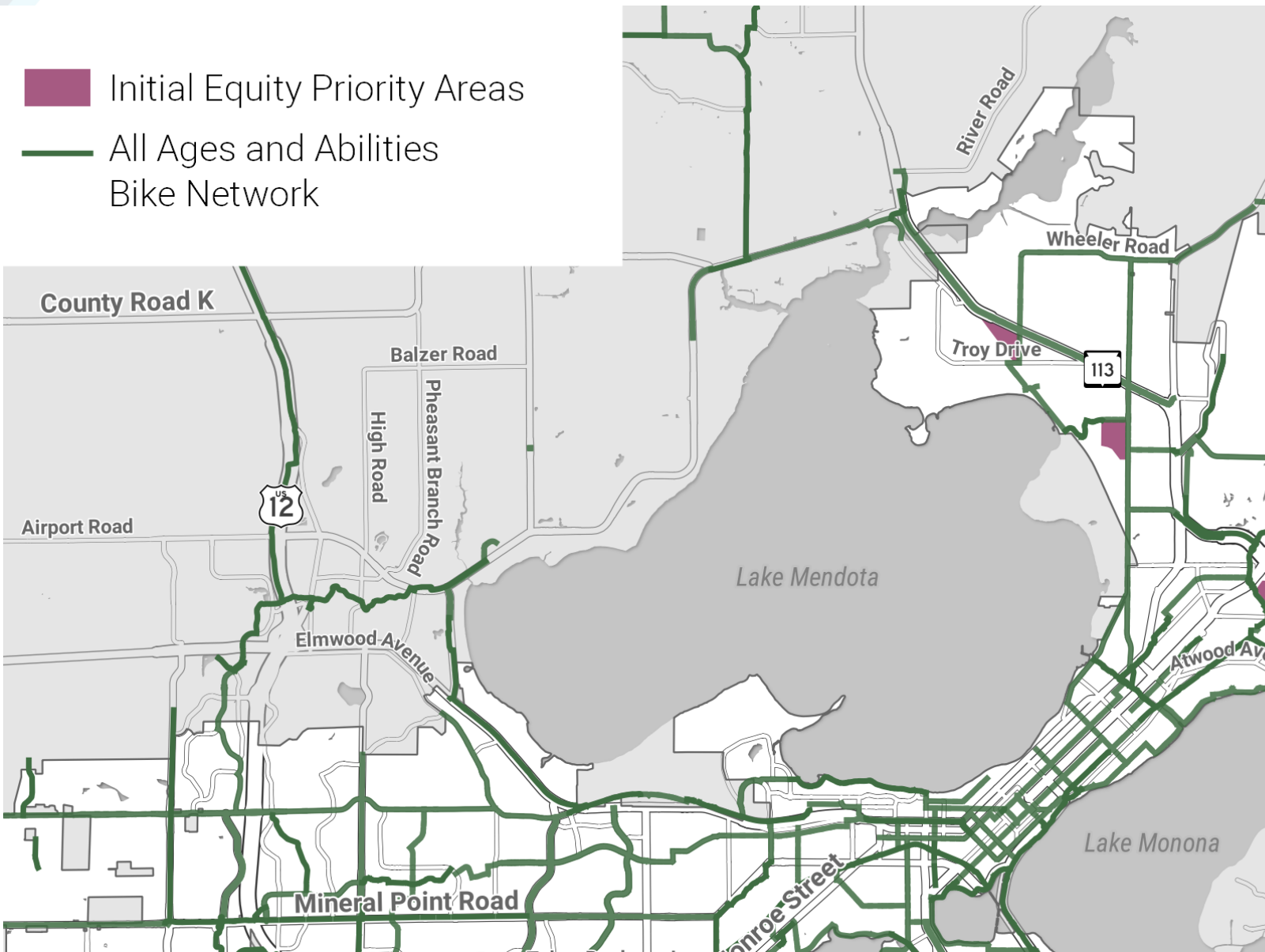
- Transit Priority based on approved routes
- Priority streets would have 15 minute service on weekdays, midday



# All Ages Ability Bike Network

## All Ages Ability Bike Network

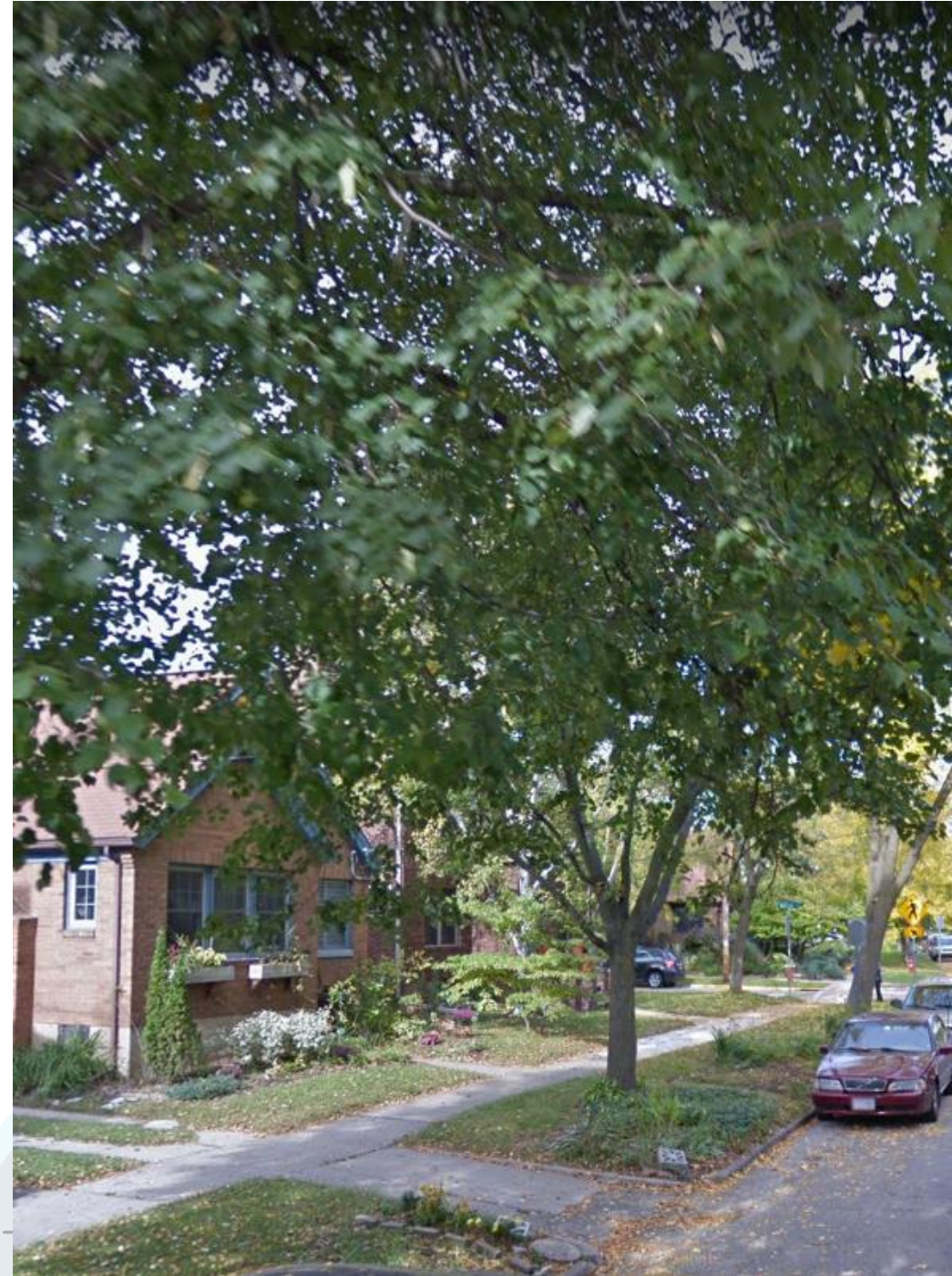
- Considered most critical for creating a complete network.
- Designed for all ages and abilities
- Start with interim map & update work to start later this year
- Updates to map approved by Transportation Commission



# Tree Canopy priority

## Purpose & Goals

- Reach citywide goal of 40% tree canopy coverage.
- Identify areas with low amounts of existing tree canopy coverage to prioritize space in Flex Zone for trees
- Identify appropriate solutions for planting trees while reducing conflicts with other right-of-way priorities.
- Support for [Urban Forestry Task Force Report](#)



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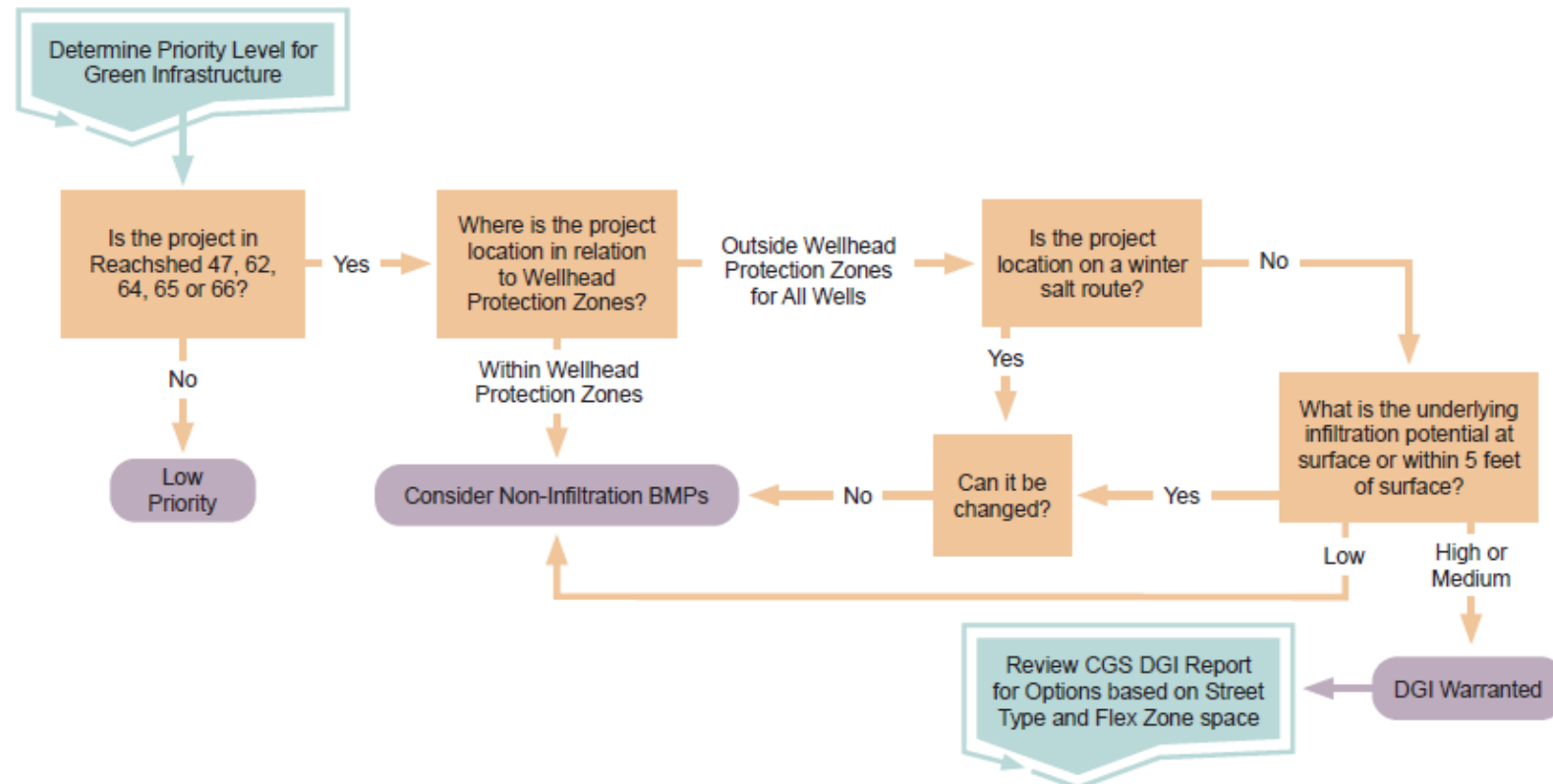


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# Green Infrastructure Priority

## Purpose & Goals

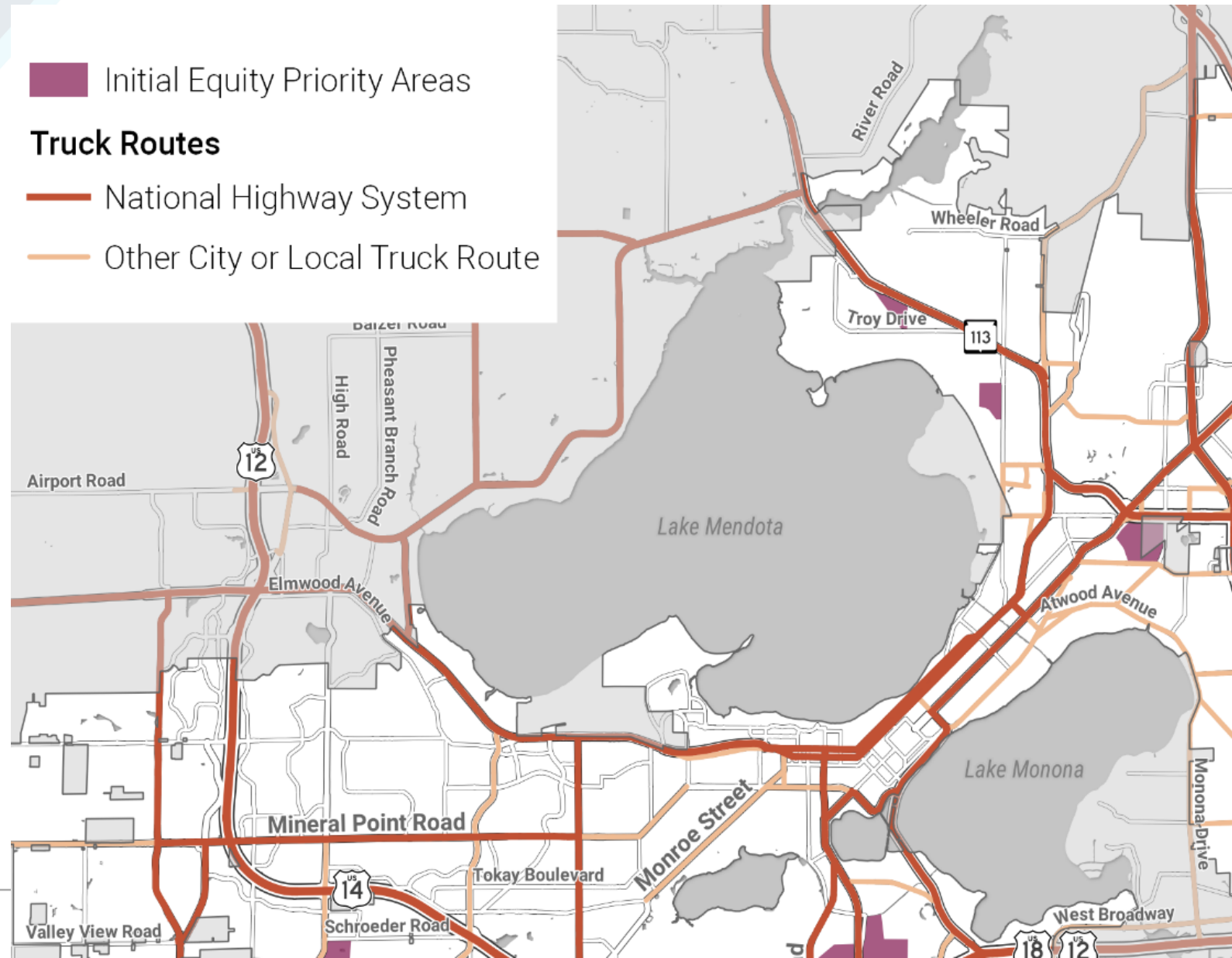
- Identify appropriate and viable locations for distributed green infrastructure (DGI) for stormwater management and water quality improvement and appropriate engineering solutions.



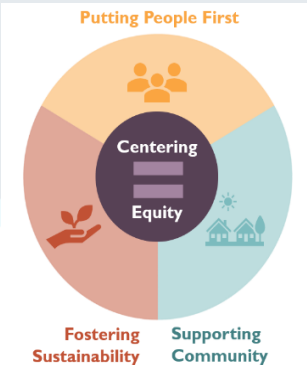
# National Highway System & Truck routes

Changes to NHS routes only occur through collaboration with WisDOT and the Greater Madison MPO.

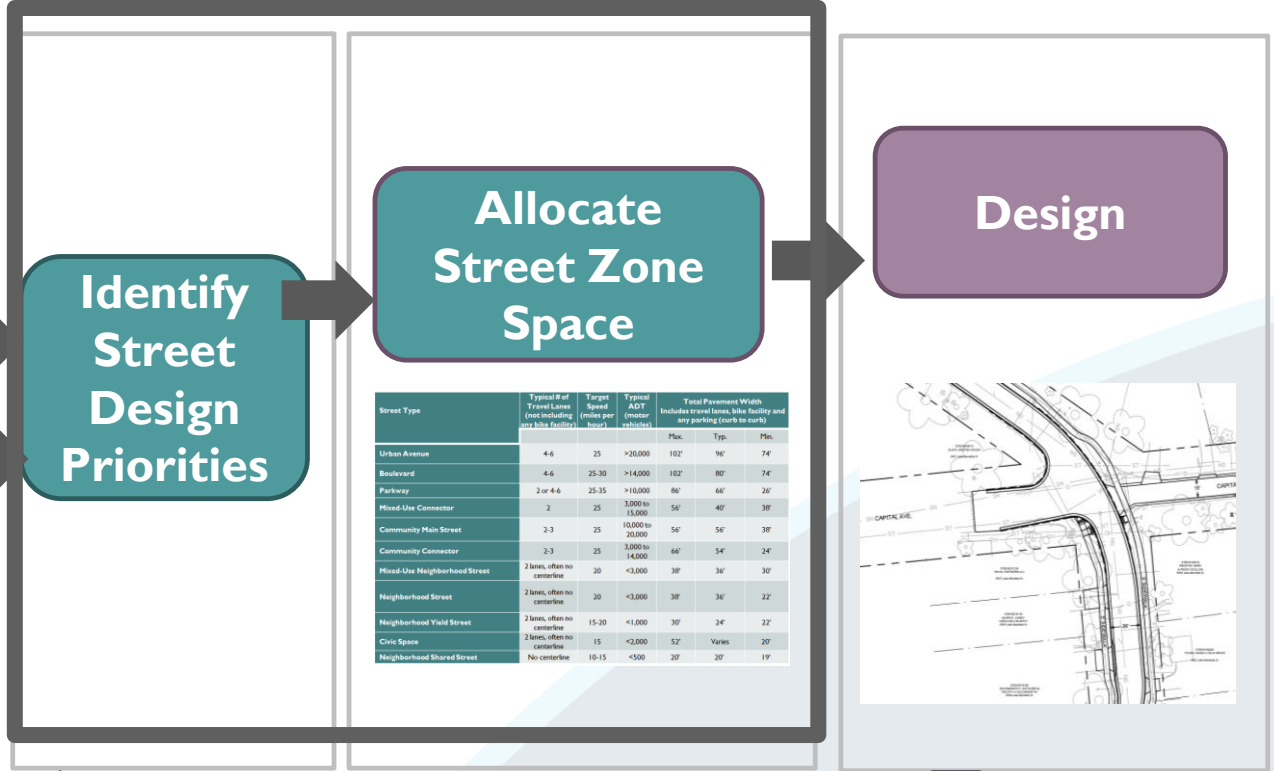
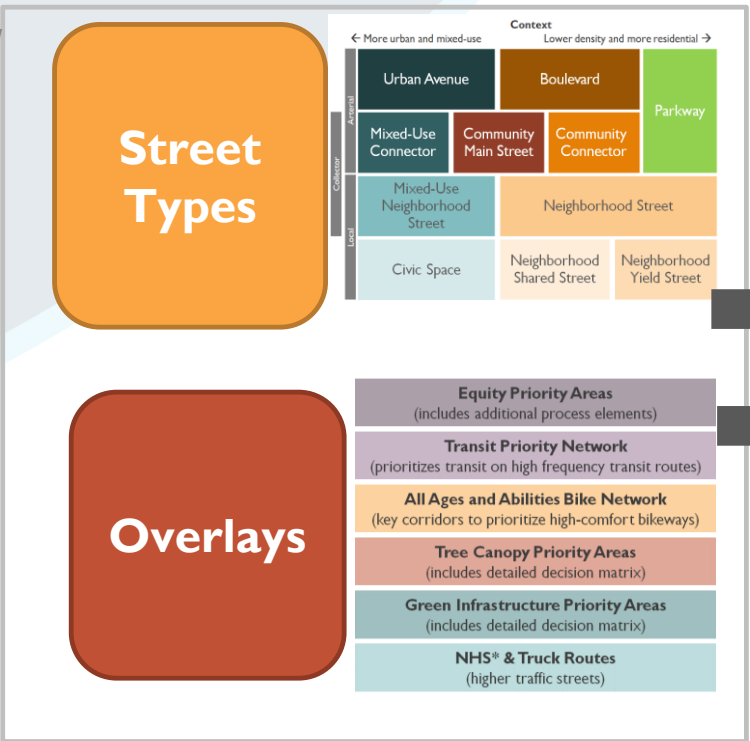
Truck routes must be able to accommodate larger vehicles.



# Process and Elements



**Values**



# Street Zone Allocation Charts

## Charts with widths for each street zone

- May be typical widths and/or minimum/maximums

## ROW based on preferred widths for each zone

Street Type	Travelway						Total Pavement Width‡ (curb to curb)			
	Typical # of Travel Lanes*	Lane Width			Center Turn Lane / Median	Target Speed (miles per hour)**	Typical ADT (motor vehicles)	Max.	Typ.	Min.
		Max.	Pref.	Min.						
<b>Urban Avenue</b>	4	11'	10'	10'	Median Standard	25	>20,000	106'	100'	80'
<b>Boulevard</b>	4	11'	10'	10'	Median Standard	25-30	>14,000	106'	84'	80'
<b>Parkway</b>	2-4	11'	10'	10'	Median standard	25-35	>10,000	64'	64'	26'
<b>Mixed-Use Connector</b>	2	11'	10'	10'	Optional	25	3,000 to 15,000	56'	48'	32'
<b>Community Main Street</b>	2-3	10'	10'	10'	Optional (not common)	25 or less	10,000 to 25,000	60'	52'	40'
<b>Community Connector</b>	2-3	10'	10'	10'	Optional	25 or less	3,000 to 14,000	52'	46'	24'
<b>Mixed-Use Neighborhood Street</b>	No centerline†		N/A†		Not preferred	20-25	<3,000	38'	30'	30'
<b>Neighborhood Street</b>	No centerline†		N/A†		Not preferred	20 or less	<3,000	38'	36'	28' ∞
<b>Neighborhood Yield Street</b>	No centerline		N/A		Not compatible	20 or less	<1,500	32'	28'	24' ∞
<b>Civic Space</b>	No centerline		N/A		Not compatible	20 or less	<2,000	Varies	Varies	24'
<b>Neighborhood Shared Street</b>	No centerline		N/A		Not compatible	10 or less	<500	Varies	Varies	Varies

# Street Zone Allocation Charts

Street Type	Total Walkway Width (per side) <sup>2</sup>		Total Flex Zone Width (per side) <sup>b</sup>		Total Travelway Width <sup>c</sup>			Total Right-of-Way Width		Typical ADT (motor vehicles)
	Pref.	Min.	Pref.	Min.	Max.	Typ.	Min.	Typ.	Min.	
<b>Urban Avenue</b>	9'	6'	15'	10'	102'	96'	76'	150'	108'	>20,000
<b>Boulevard</b>	7' if sidewalk	6'	15'	10'	102'	80'	76'	146'	108'	>14,000
<b>Parkway</b>	14' <sup>d</sup>	6'	20'	12'	62'	60'	22'	128'	58'	>10,000
<b>Mixed-Use Connector</b>	9'	6'	19'	8'	38'	38'	28' <sup>e</sup>	94'	56'	3,000 to 15,000
<b>Community Main Street</b>	9'	6'	18' <sup>f</sup>	9'	56' <sup>f</sup>	36'	36'	90'	66'	10,000 to 20,000
<b>Community Connector</b>	7' <sup>g</sup>	6' <sup>g</sup>	15'	9'	36'	36' <sup>g</sup>	26'	80'	56'	3,000 to 14,000
<b>Mixed-Use Neighborhood Street</b>	9'	6'	19'	9'	22'	20'	20'	78'	50'	<3,000
<b>Neighborhood Street</b>	6'	6'	15'	10'	22'	20'	18'	64'	50'	<3,000
<b>Neighborhood Yield Street</b>	6' <sup>h</sup>	6' <sup>h</sup>	17'	10'	16'	16'	14'	62'	46'	<1,500
<b>Civic Space</b>	13'	10'	19'	13'	Varies	Varies	20'	Varies	66'	<2,000
<b>Neighborhood Shared Street</b>	7' <sup>i</sup>	6' <sup>i</sup>	Varies	Varies	Varies	NA	NA	Varies	Varies	<500

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# Street Zone Allocation Charts

## Additional Design Guidance

Street Type	Compatibility of Treatments with Street Types (Y=yes; M=maybe; N=no)										
	Signal Timing	Pedestrian Refuge / Median Islands	Curb Extensions	Road Diets	Raised Intersection	Raised Crosswalk *	Speed Humps **	All-Way Stops	Traffic Diverters	Chicanes	Choker / Pinchpoint
Urban Avenue	Y	Y	Y	Y	M	N	N	N	N	N	N
Boulevard	Y	Y	M	Y	M	N	N	N	N	N	N
Parkway	Y	Y	M	Y	M	M	N	N	N	N	N
Mixed-Use Connector	Y	Y	Y	Y	Y	M	N	M	N	N	N
Community Main Street	Y	Y	Y	Y	Y	M	M	M	N	N	N
Community Connector	M	Y	M	Y	Y	M	M	M	N	N	N
Mixed-Use Neighborhood Street	M	Y	Y	N	Y	Y	M	Y	M	M	M
Neighborhood Street	M	Y	Y	N	M	Y	M	Y	M	M	M
Neighborhood Yield Street	N	M	Y	N	M	Y	Y	Y	Y	Y	Y
Civic Space	Y	M	Y	N	Y	Y	M	Y	M	M	Y
Neighborhood Shared Street	N	N	M	N	Y	Y	Y	Y	Y	Y	Y

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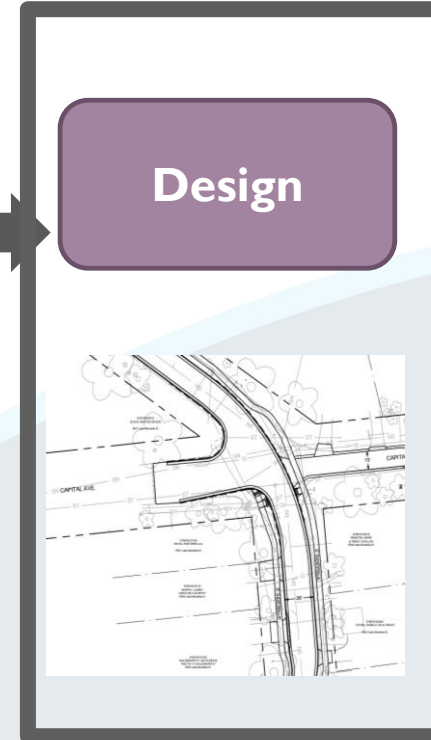
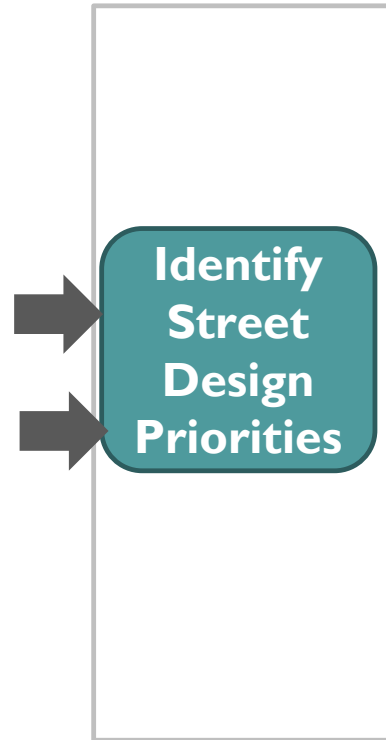
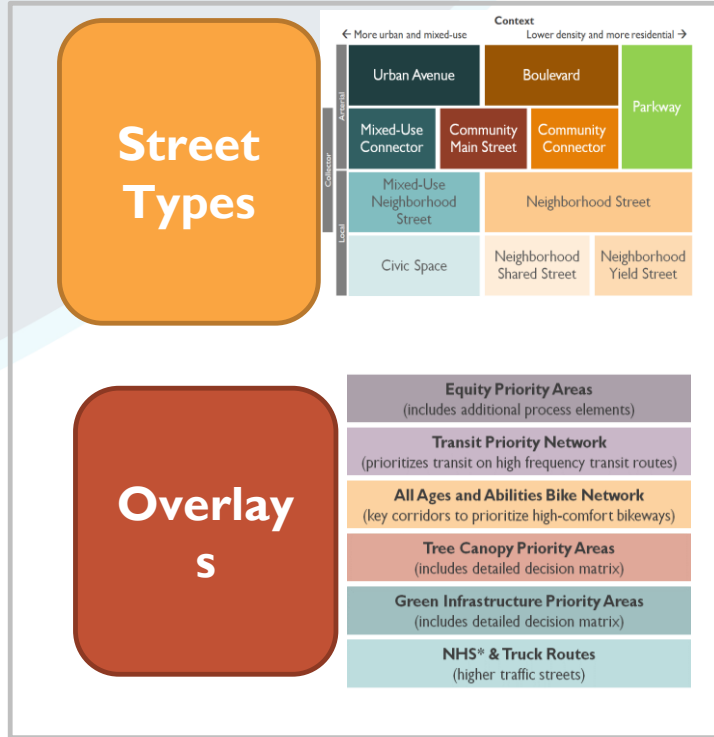


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# Process and Elements



**Values**



If constrained space, determine tradeoffs

# Implementation

## Transportation Commission Responsibilities

- Street construction and reconstruction that vary from the Complete green Street Policy Guide shall only be implemented if approved by the Transportation Commission
- Ability to modify the Complete Green Streets Policy Guide on an annual basis to address unforeseen challenges & remain current with state of the art design practices
  - Review 18 months after adoption (July 2024)
- Approve updates to the Transit Priority Network and All Age Ability Bike Network
  - All Age Ability Bike Network planning to being later this year
  - Transit updates ongoing

# Implementation: Checklist

**Key elements of the project checklist will include:**

- Record of project limits, type, schedule
- Identification of Street Type, Overlays and other context that influences design
- Inventory of current conditions and other data
- Identification of engagement efforts and outcomes
- Initial and final cross section
- Final design elements & communication
- Additional Equity Priority Area engagement, collaboration and issues identified but not resolved by project

# Questions?

Renee Callaway, Pedestrian Bicycle Administrator

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[www.cityofmadison.com/transportation/initiatives/complete-green-streets](http://www.cityofmadison.com/transportation/initiatives/complete-green-streets)

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