

# Albemarle Road: Traffic Calming Public Meeting

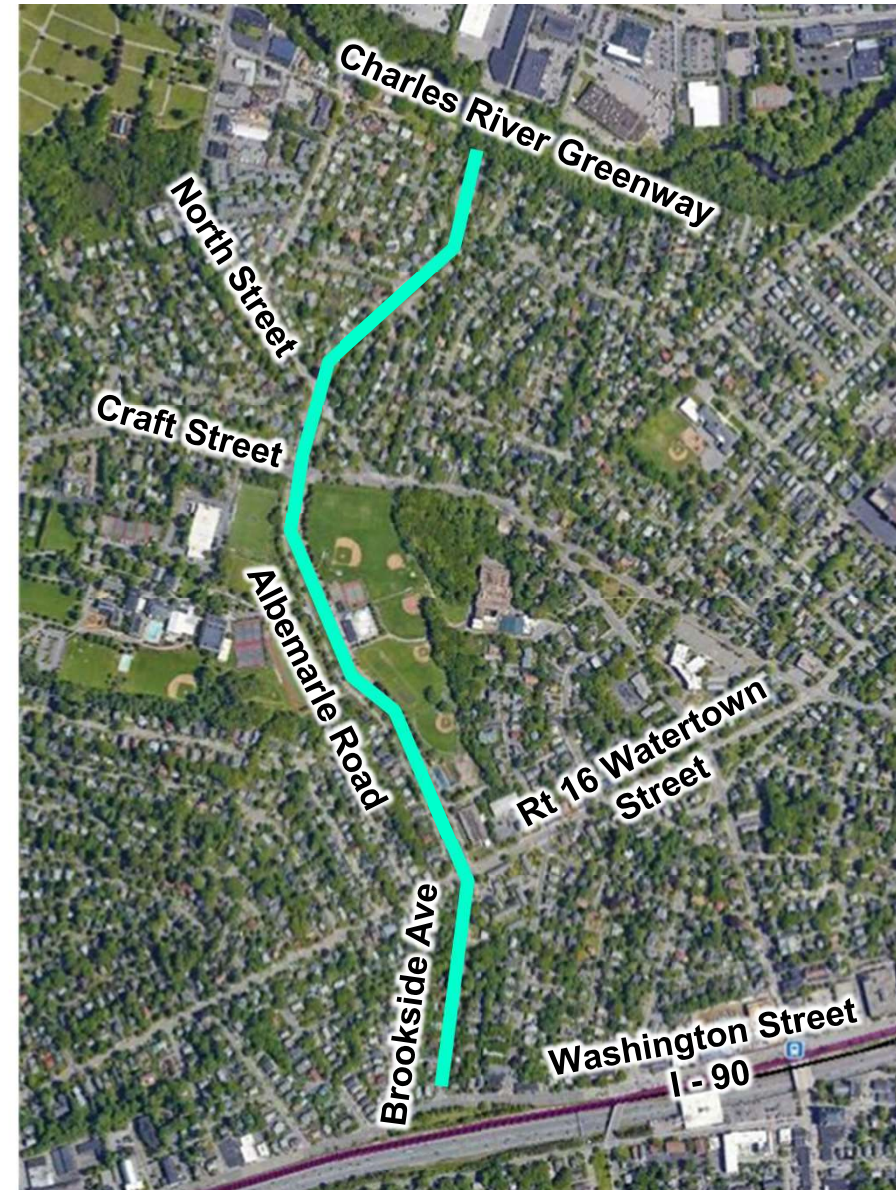


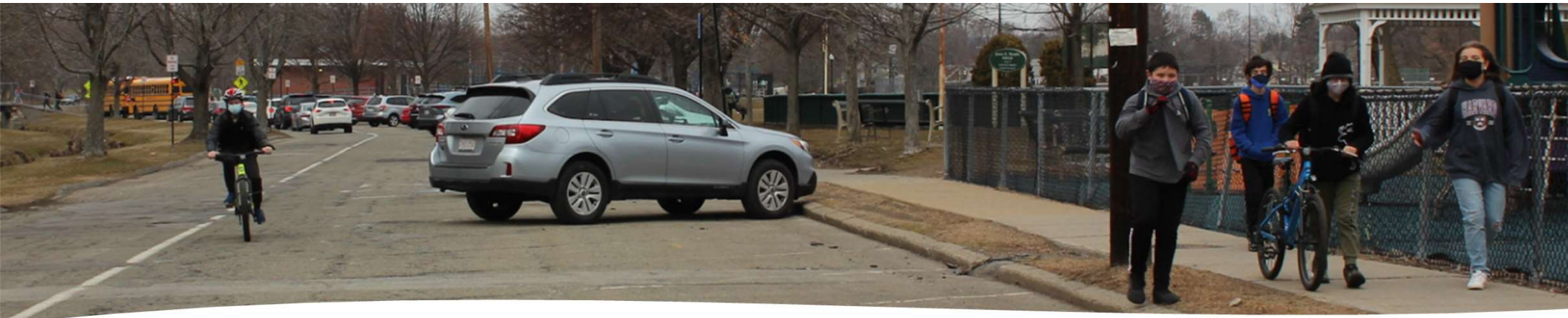
THE LAWRENCE & LILLIAN  
SOLOMON FOUNDATION

neighborwaysdesign

# Project Overview

- Goals
- Background
- Proposed Concept Design
- Scope
  - Short term
  - No construction
  - Lower cost





## Project Goals



Increase  
safety and  
access



Lower traffic  
speeds



Reduce  
conflicts



Add bike  
lanes

# Background



# Project Coordination

- NECP
- SRTS Craft / North / Albemarle Signalization
- Pool Reconstruction
- Bridge Replacement and Accessibility Upgrade
- Field Upgrades



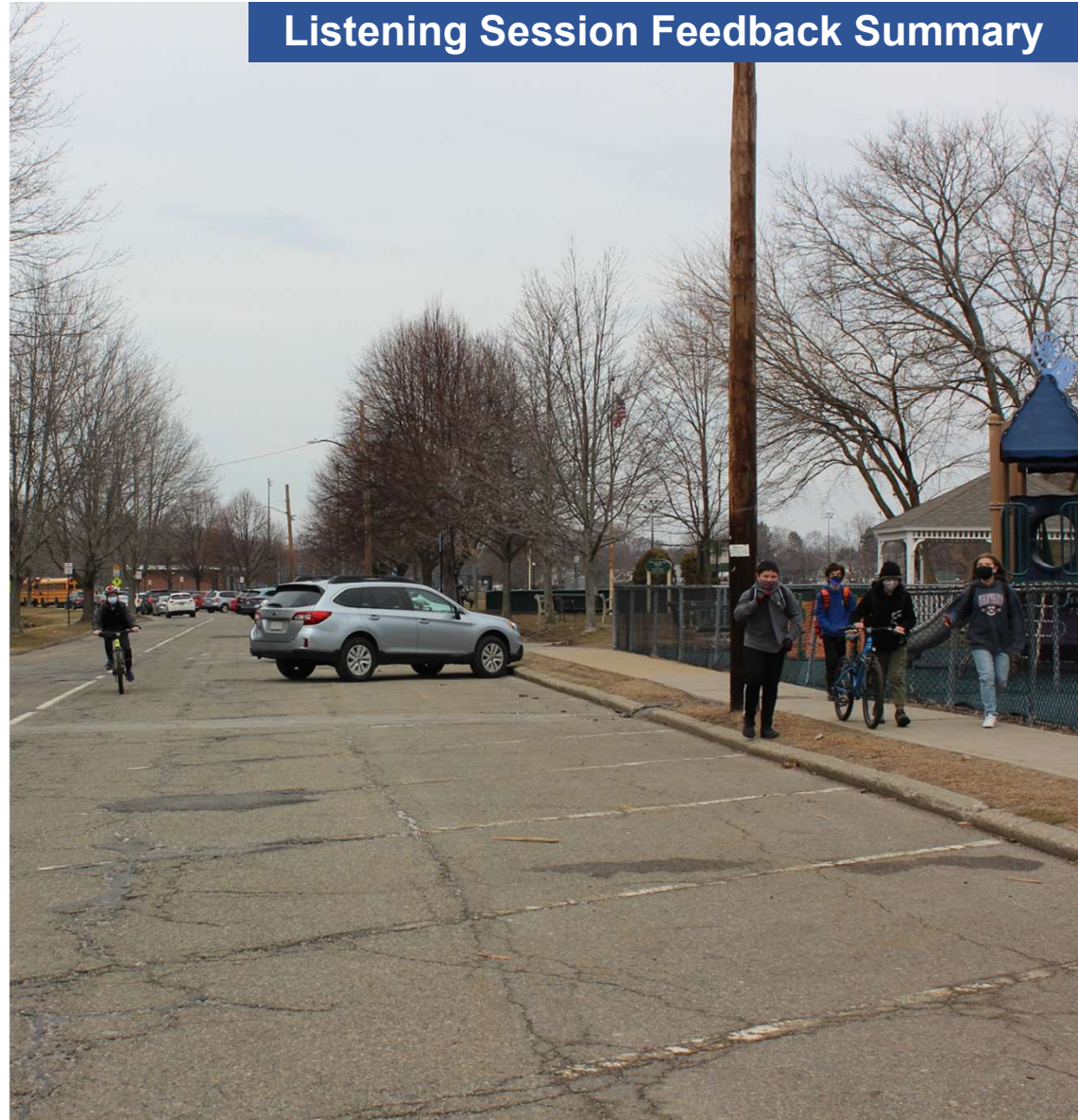
# 2021 Completed Listening Sessions

- Newton City Councilors
- City Departments
  - Department of Public Works
  - Parks Recreation and Culture
  - Planning
  - Public Buildings
  - ADA Coordinator
- Newton Public Schools and NECP
- Complete Streets Working Group
- Newton Athletic Organizations
- Friends of Albemarle
- Fessenden
- Newton Chinese School
- Charles River Watershed Association
- Transportation Advisory Group / Safe Routes to School / Bike Newton
- Boys and Girls Club

# Comment Themes

1. Regional destination
2. Accessibility
3. Pedestrian safety
4. Bicycle safety
5. Bus operations
6. Intersection safety
7. Parking
8. Environmental preservation
9. Placemaking and art

## Listening Session Feedback Summary



# Regional Destination

- Used year round day and night weekends and weekdays
- High population of children
- Popular walking and biking route – regional trail access
- Serving as Newton's Athletic complex - more than a park
- 4<sup>th</sup> of July

## Listening Session Feedback Summary





## Listening Session Feedback Summary



## Speeds

- Support traffic calming and speed cushions



## Pedestrian Safety

- People walk in the road / lack sidewalks
- People bike on sidewalks
- Flexposts improving safety and visibility
- Restrict parking to improve sight lines at crosswalk approaches –
- Consider rapid flash beacon at Gath Pool crosswalk
- Need signal and crosswalk improvements at Crafts and North

## Listening Session Feedback Summary



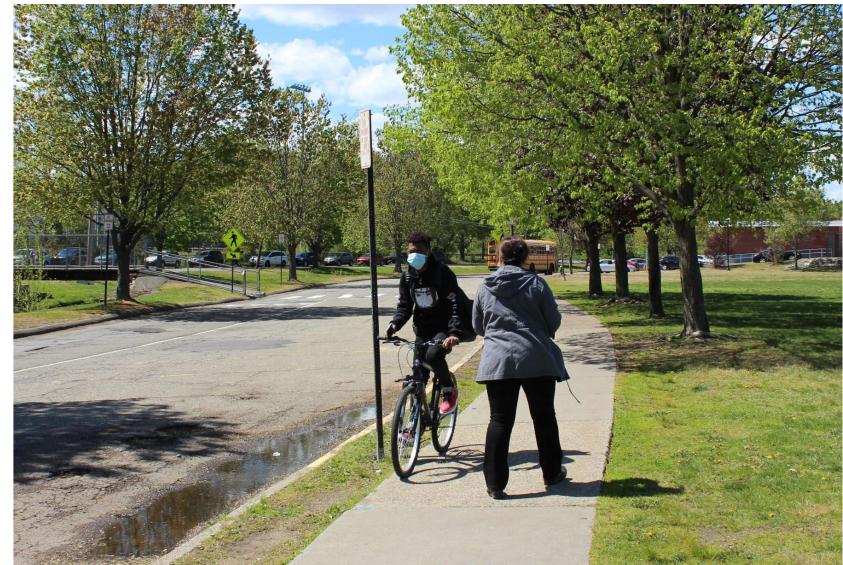
## Accessibility

- ADA compliance of bridges
- Increase number of bridges across Albemarle
- Maintain / increase existing accessible parking
- Relocate accessible crossing and bridge to Pool entrance

# Bicycle Safety

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- Desire for safe and accessible bicycle facilities
- Advocacy for protected bicycle lanes and parallel parking
- People biking on sidewalks and in road
- Safety concerns and conflicts with people backing out of head-in parking spaces
- Head-out angle parking is safer and improves sightlines between people biking and driving
- Need more bike parking



# Bus Operations

- Buses on Albemarle for F.A Day, Fessenden, and Athletic Programs
- Drivers illegally pass buses during dismissal
- Kids weave between buses
- Improve sight lines at crosswalk
- Close road during dismissal



# Parking

- Conflicts / High parking turnover
- Not enough parking
- Shoulder erosion from parking
- Need pickup / drop off
- Need parking map and wayfinding
- Need education and practice for head out angle parking



## Watertown @ Albemarle

- Clarify confusing markings - people drive in parking lane / blue zone

## Intersection Safety

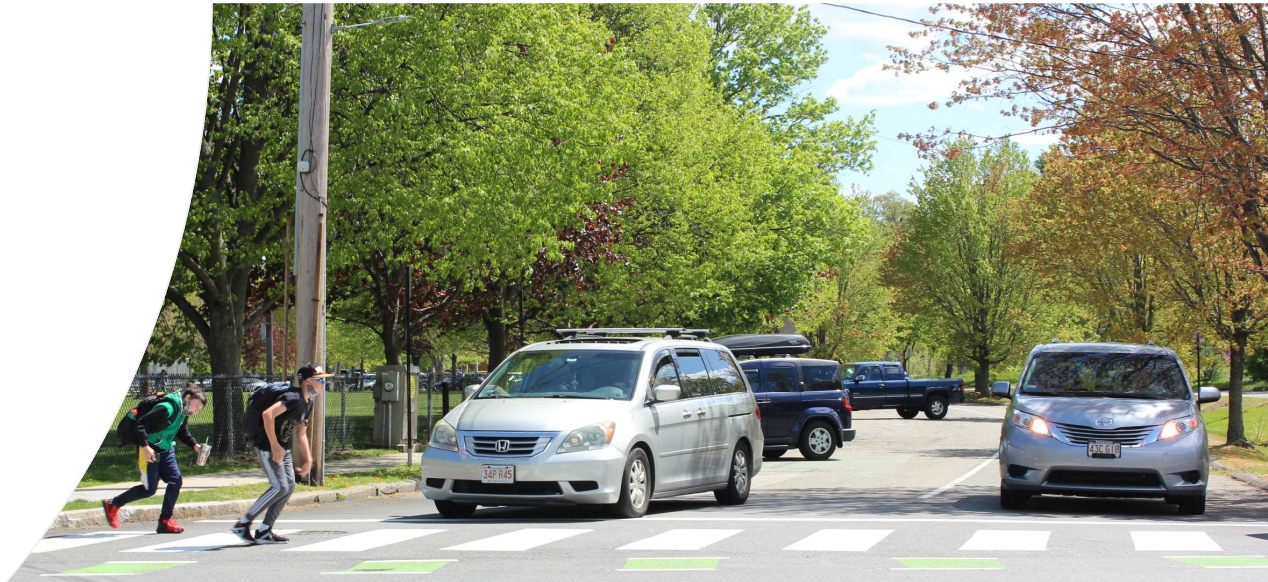
### Listening Session Feedback Summary



# Intersection Safety

## Crafts @ Albemarle

- High crash location
- Northbound traffic forms 2 to 3 lanes in peak
- Maintain road closure – improving safety, reducing conflicts, more people walking/biking

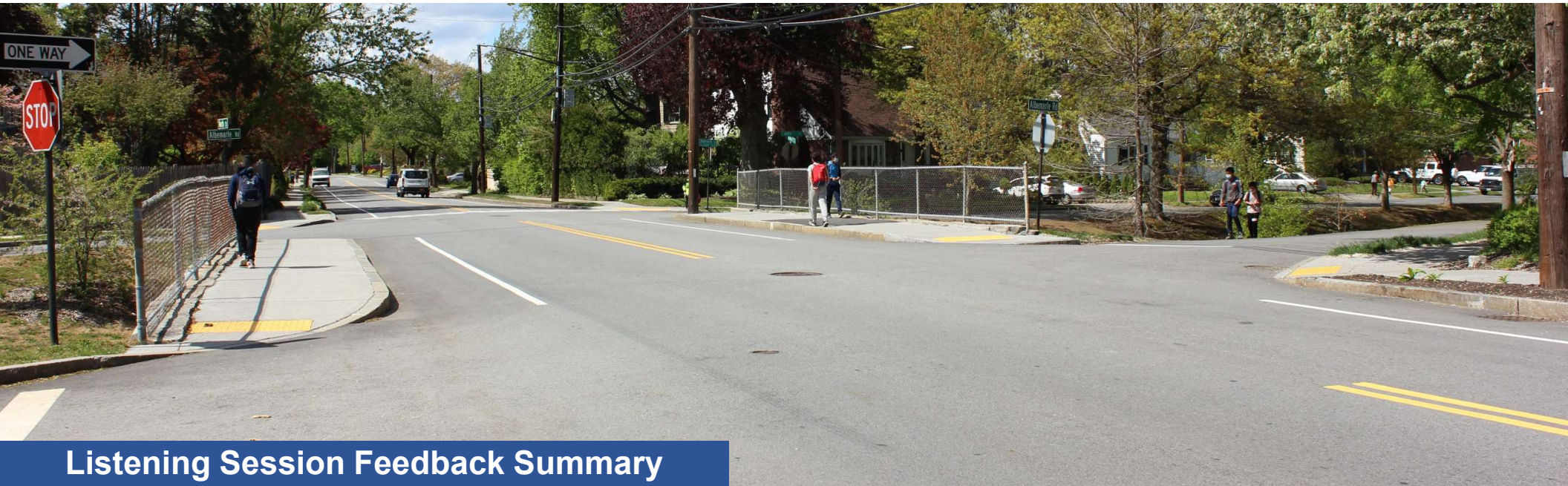




## North @ Albemarle

- Need signs for two-way traffic
- Shared lane markings
- Resident observed crashes with right turning vehicles from Albemarle to North

## Intersection Safety



# Environmental Preservation

- Erosion of banks from parking on shoulders
- Educational opportunity – “ditch” to beloved brook
- Need to address flooding and runoff
- Consider closing Albemarle southbound to daylight Cheesecake brook (concerns from Fessenden about traffic through school)



# Placemaking and Art

- Water fountain
- Rain gardens / landscaping
- Mural at Gath Pool
- Asphalt murals
- Educational kiosks / signs



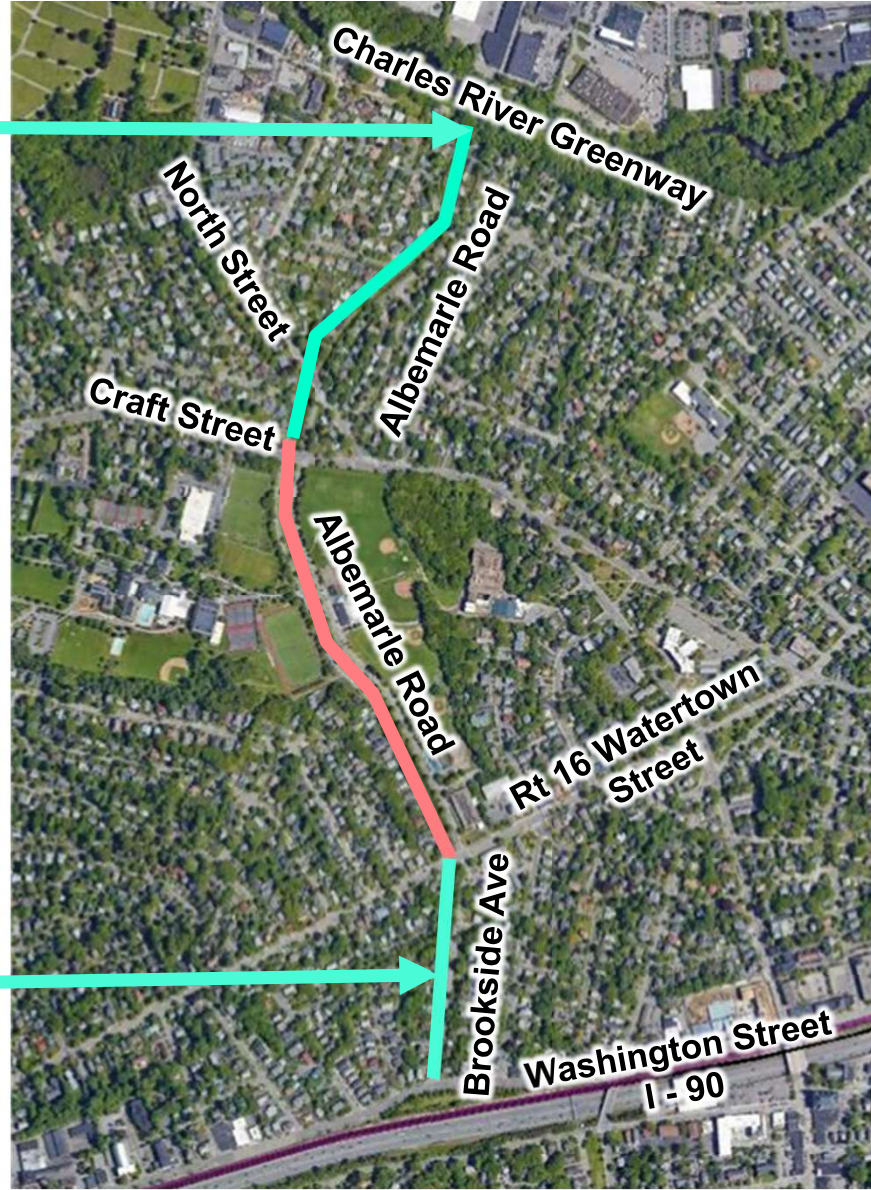
# Proposed Concept Design Plans



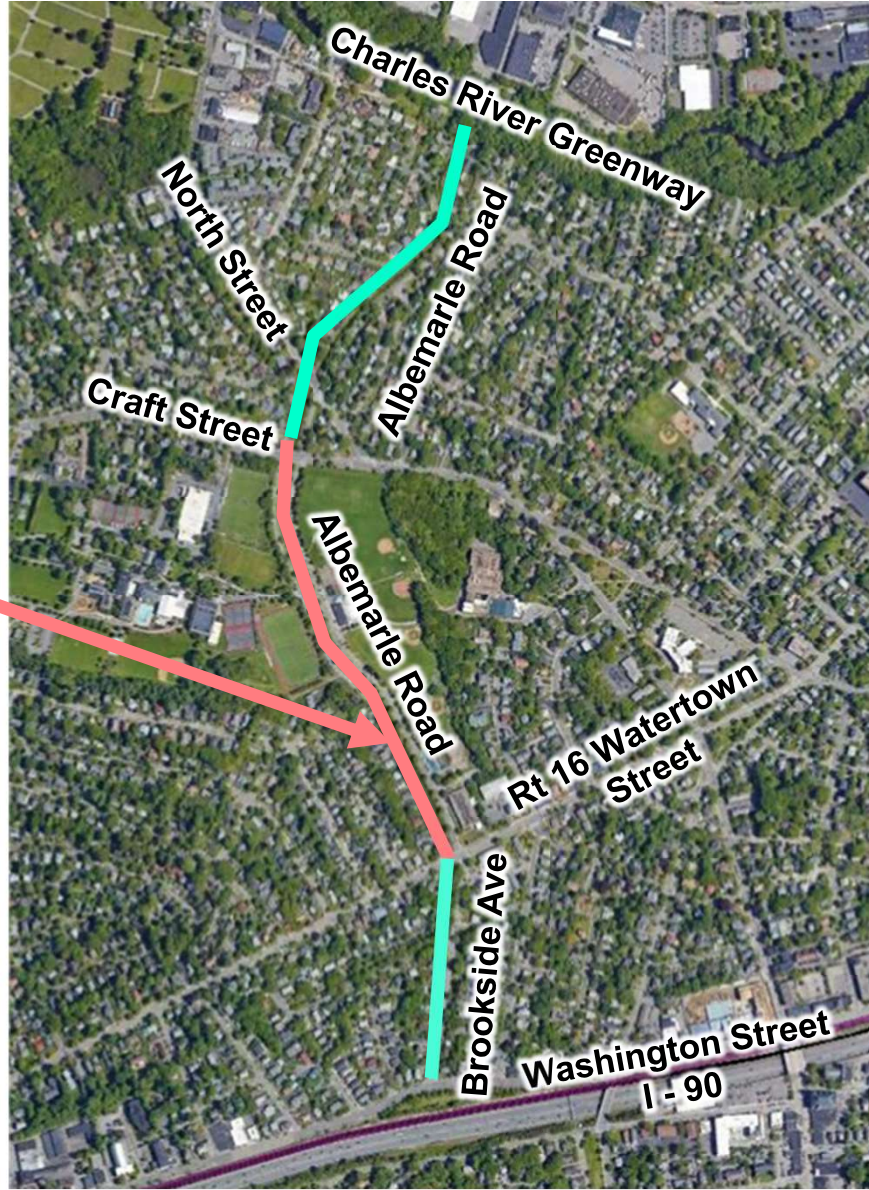
# Options Explored

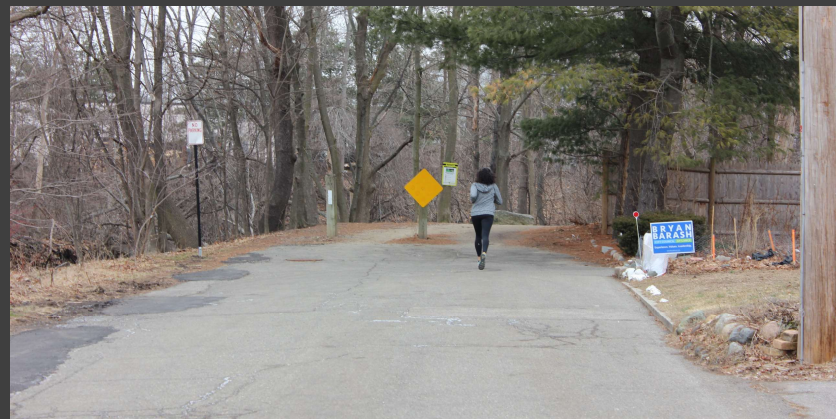
NB Options	Impacts	Description	Cost
Protected Bike Lanes	Signal upgrades, construction, parking loss		\$\$\$\$
Contraflow Bike Lane with Flexpost Protection + Shared Lanes	Signal upgrades, construction		\$\$\$\$
<b>Bike Lanes with Flexpost Protection</b>	<b>Paint, posts, rubber speed cushions</b>		<b>\$\$</b>

# Street Character



# Street Character





# Northern Connection: Charles River Trail

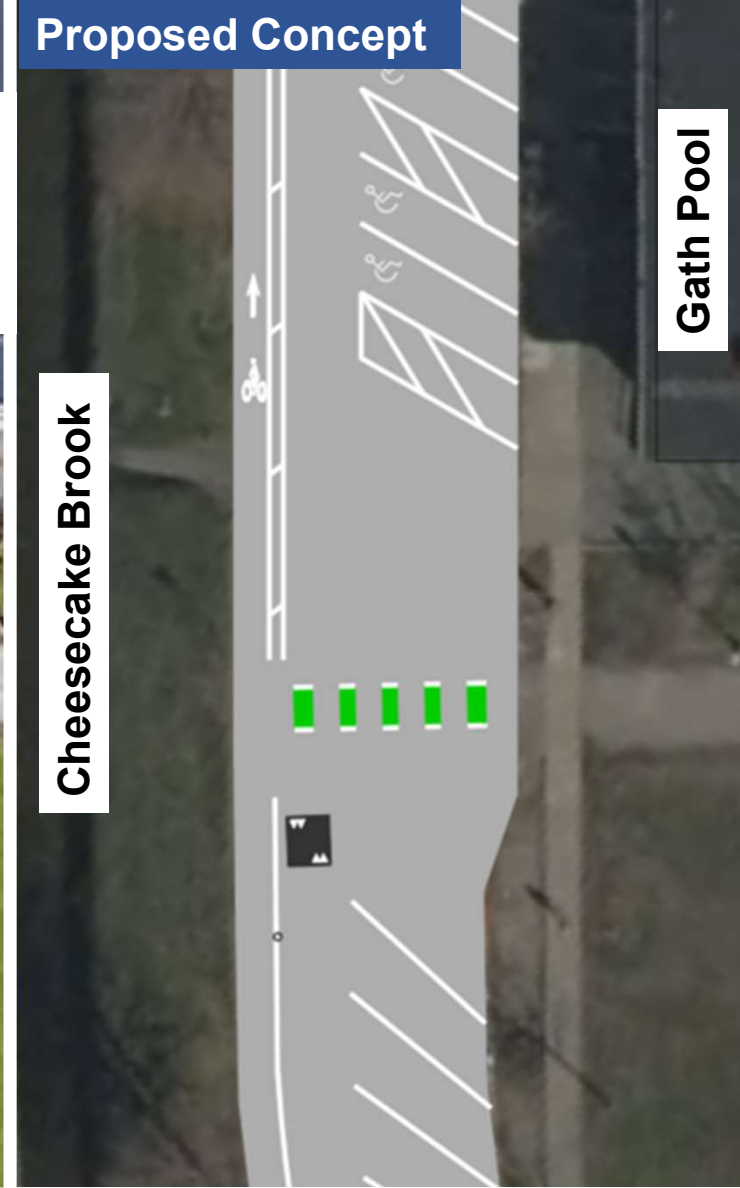


# Southern Connection: Washington Street



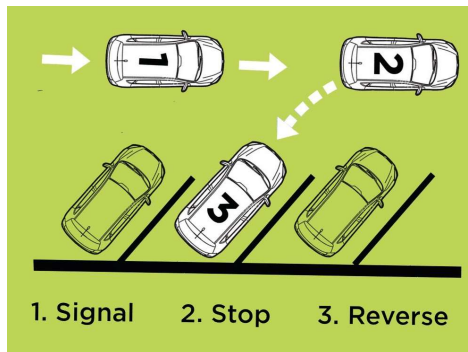
# Parking Impacts

- Change in angle ~ -14
- Fessenden ~ + 30
- Net impacts ~ +16



# Head Out Safety Benefits

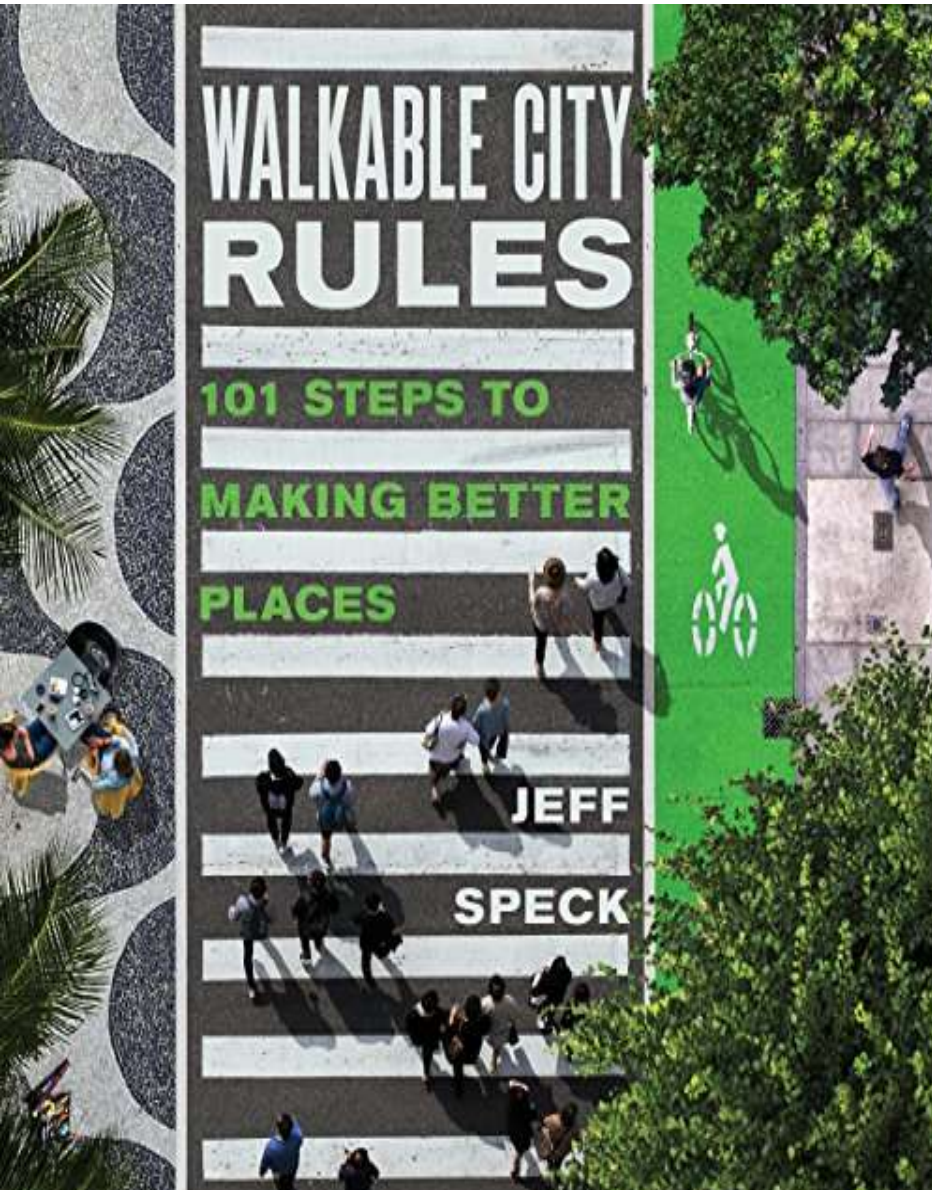
- Dedicated space for bicyclists
- Back into curb vs moving traffic
- Improved visibility exiting space
- Passengers shielded and directed to sidewalk
- Loading shielded from moving traffic
- Easier than parallel parking



Source: T. Boulanger, Transportation Services, City of Vancouver, WA.



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**REWRITE**

**Quote AAA**

*When Tucson converted a major thoroughfare from front-angle to rear-angle, it went from roughly one car/bicycle crash per week to none in four years.*

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# Next Steps



Public Meeting – March 2022



Shared Streets Grant Application – March 2022



Parking Party – Friday March 18<sup>th</sup> 730am - 1030am 2022



100% Design – Spring / Summer 2022



Installation – Summer / Fall 2022

# Parking Party

**Free Coffee and Pastries!**

Practice head out, head in  
and parallel parking.

Give feedback.

Newton Public Schools Lot

Enter from Crafts

**Friday March 18<sup>th</sup>**

**730am-1030am**



# Questions / Feedback

**Comments and Feedback**

**Email:** [nfreedman@newtonma.gov](mailto:nfreedman@newtonma.gov)

**Nicole Freedman**

**City of Newton**

**Director of Transportation Planning**

**Jessica Mortell**

**Neighborways Design**

**Principal | Sr. Placemaker**




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# On-Street Parking Types and Considerations

Table 1: On-Street Parking Types and Typical Dimensions

Parking Type and Example Picture	Dimensions	Safety Considerations	Parking Maneuver Considerations	Loading, Unloading, and Deliveries
<p><b>Reverse Angle-In</b></p>  <p>© Toole Design</p>	<p>17 feet minimum Depth depends on angle of parking stall, see Figure 1 for details <i>(Note: This dimension is measured as an offset from the curb, not measured along the length of the stalls.)</i></p>	<p><b>PRO</b></p> <ul style="list-style-type: none"> <li>• Improved sight distance</li> <li>• Bicyclists dooring risk eliminated</li> <li>• Bicyclists and motorists have clear sight lines to each other</li> <li>• Easier loading and unloading of vehicles</li> <li>• Rear loading occurs at curb instead of in-street</li> <li>• Wider loading zones are possible</li> <li>• Passengers are channeled toward the curb</li> <li>• Easy to incorporate accessible parking spaces and access aisles</li> </ul> <p><b>CON</b></p> <ul style="list-style-type: none"> <li>• On the downhill side of a steep street, there is the possibility of improperly secured vehicles rolling into the street</li> <li>• A conflict is possible when a driver is reversing into the parking space</li> <li>• A reverse angle-in parked motor vehicle might overhang more into the sidewalk</li> <li>• Some people find it more difficult to back into a parking stall than to back out of a parking stall, especially when adjoining stalls also have cars in them.</li> </ul>	<p><b>3-Step Process:</b></p> <ol style="list-style-type: none"> <li>1. Stop in lane</li> <li>2. Reverse into space while turning</li> <li>3. Exit space by driving out</li> </ol> <p><i>Each step has clear sightlines</i></p> <p><b>Primary Challenges:</b></p> <ul style="list-style-type: none"> <li>• Using side mirrors to align vehicle into space</li> <li>• Not as common a movement</li> </ul>	<p>Large trucks cannot access the curb spaces, requiring that they:</p> <ul style="list-style-type: none"> <li>• Load within the street blocking the parking and bike lane</li> <li>• Load within a travel lane</li> <li>• Be accommodated on a side street or rear alley</li> <li>• Rely on time restrictions applied to the angle parking to allow truck loading at the curb. Dedicated parallel loading zones may be used in conjunction with angled general parking.</li> </ul>

Source: FHWA's [On-Street Motor Vehicle Parking and The Bikeway Selection Process](#), 2021



# Angle Parking Dimensions

Figure 1: Design Criteria for Reverse Angle-In Parking

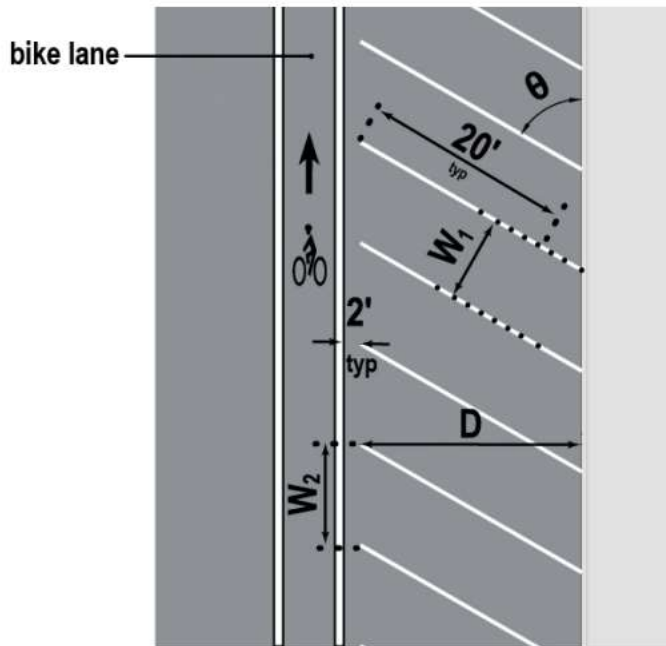


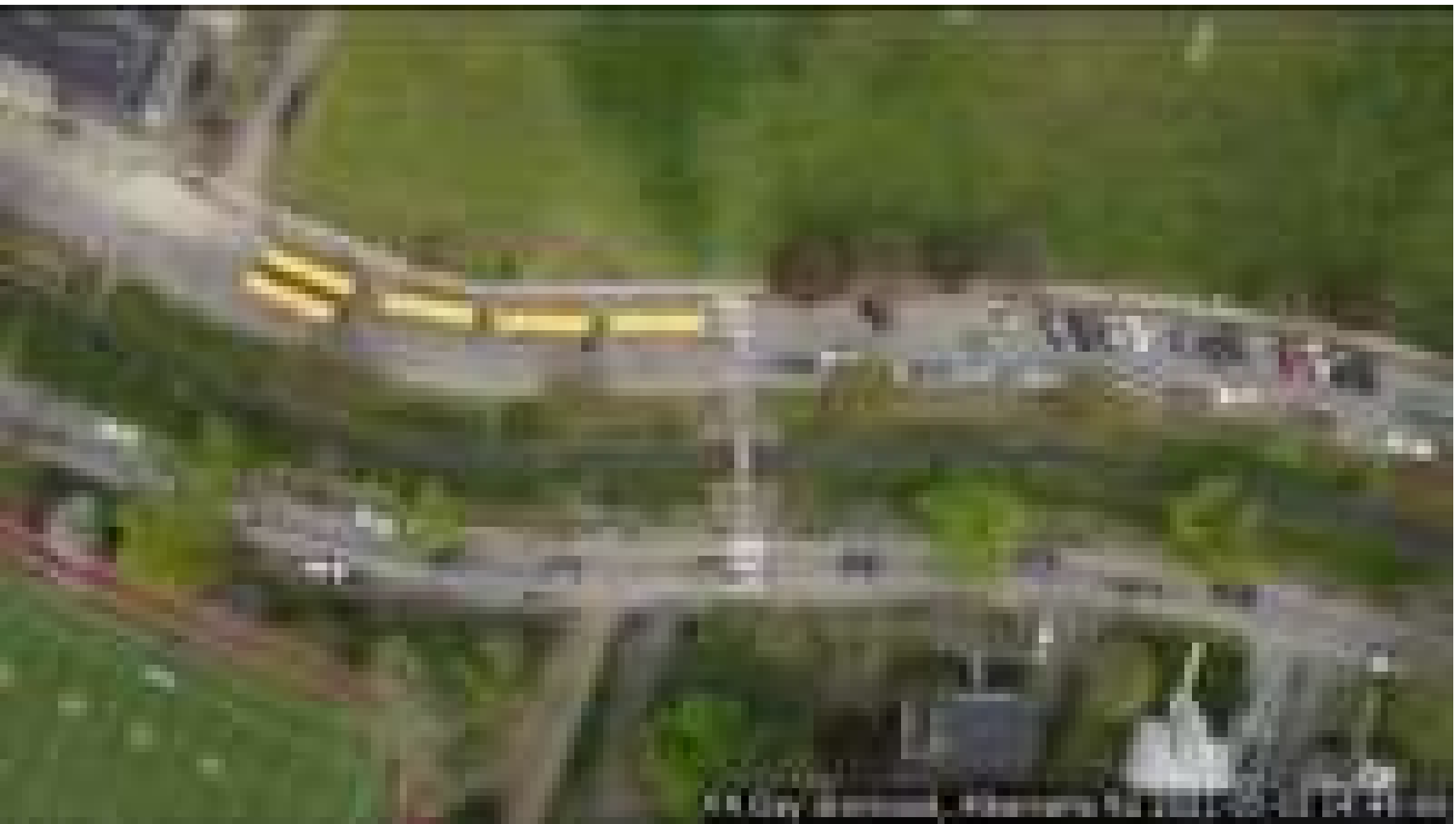
Table 2: Design Criteria for Reverse Angle-In

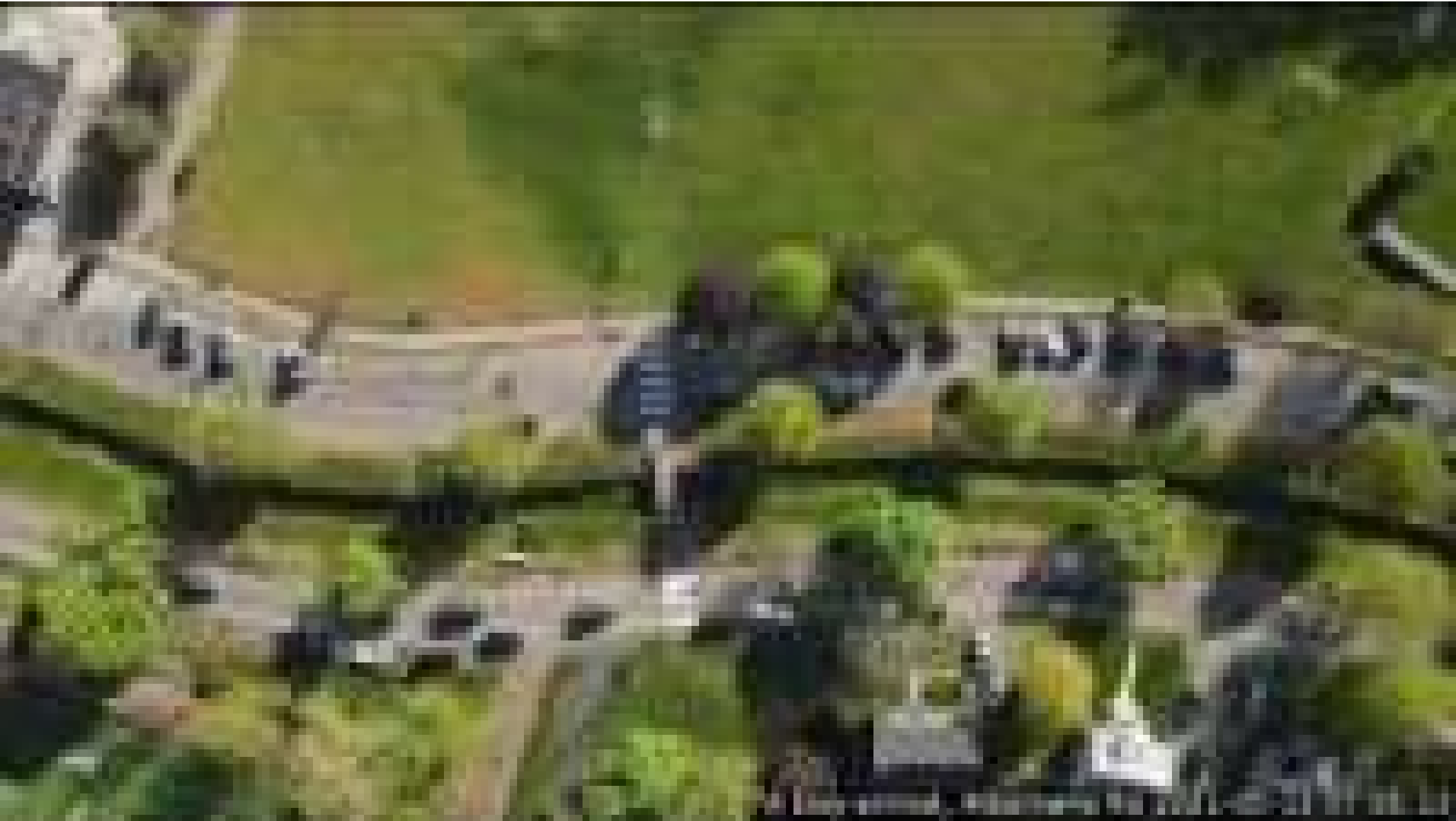
Back in Angle Parking			
$\theta$ (Degrees)	$W_1$ (feet)	$W_2$ (feet)	D (feet)
0°	7–10	20	7–10
30°	8–9	16–18	16.9–17.8
45°	8–9	11.3–12.7	19.8–20.5
60°	8–9	9.2–10.4	21.3–21.8

$W_1$  = stall width  
 $W_2$  = striping width  
 D = depth to face of curb  
 $\theta$  = angle

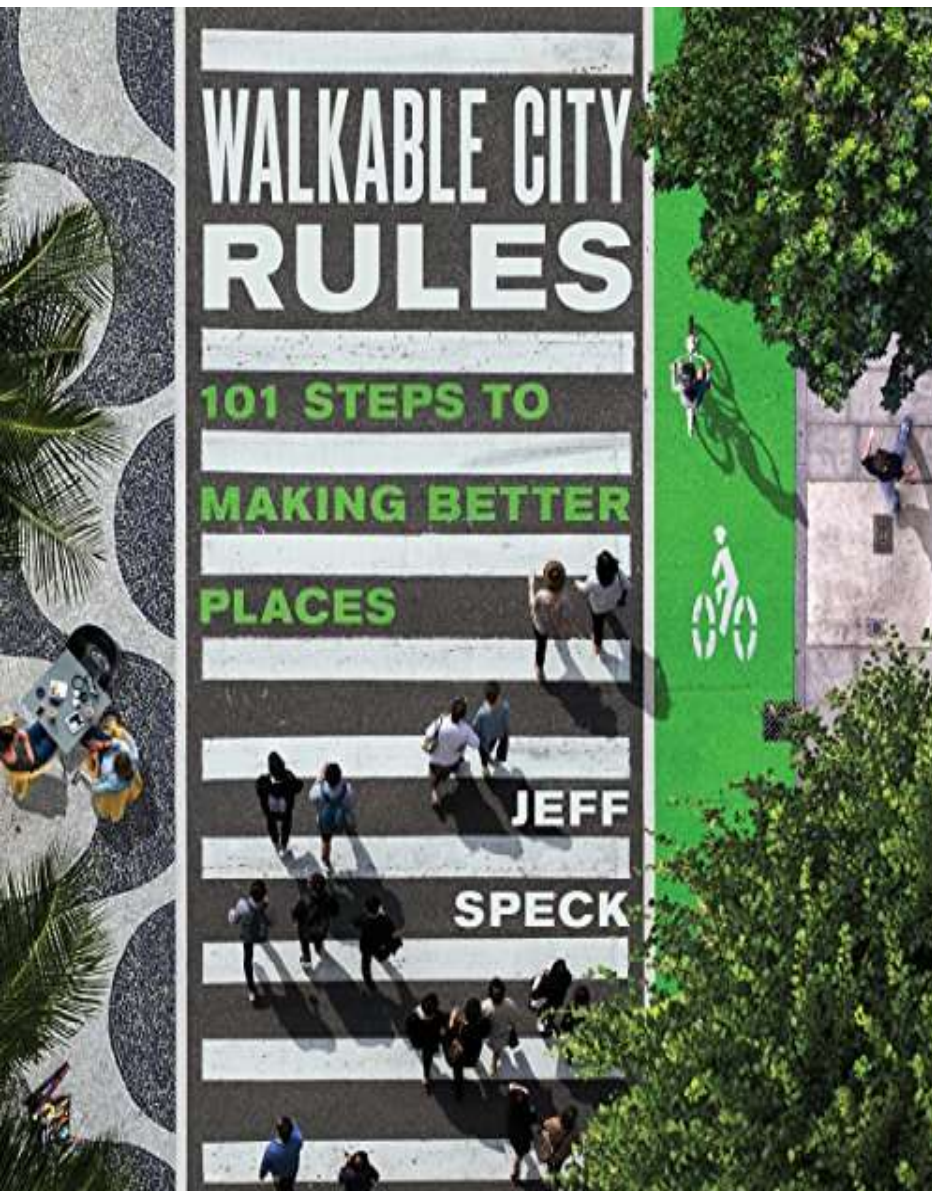
**Vehicle widths**  
 6' to 6'10" for  
 largest SUVs  
 and Vans

Source: FHWA's [On-Street Motor Vehicle Parking and The Bikeway Selection Process](#), 2021









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## Provide Angle Parking Where Warranted

*Angle parking is a great tool for using up excess pavement.*

ONCE A STAPLE OF AMERICAN MAIN STREETS, angle parking is making a comeback. In many cities, it was converted to parallel parking in order to increase the number of driving lanes, to speed up traffic. Now that many streets are being right-sized to meet true travel demand,

*When Tucson converted a major thoroughfare from front-angle to rear-angle, it went from roughly one car/bicycle crash per week to none in four years.*

and lanes are being narrowed to safer widths, extra pavement is becoming available for better use. In some cases, that use is bike or transit lanes; in others it is to increase the supply of parking. If a street already has parallel parking on both flanks, the next step to adding more parking is to convert one or both flanks to an angled configuration.

Angle parking increases the parking supply and slows traffic, both of which are great for urban retail. It is rare to see people speeding on streets with angled parking, because the opportunities for conflict—and finding a spot—are so high. Like many things that seem dangerous, drivers backing up into heavily-traveled roads is safe precisely because it scares people into proceeding with caution.

While angle parking is most common and useful on retail streets, it is an acceptable configuration on all streets where there is both a demand for parking and extra pavement to use up. Spaces typically sit at an angle of either 45° or 60° to the curb, depending on the amount of roadway available. Traffic engineers are often too conservative in providing room for angle parking, so some rules of thumb are useful: Generally, 45° parking requires a zone 15 to 16.5 feet deep against a (wider than standard) 12-foot driving lane, while 60° parking requires a zone 16.5 to 18 feet deep against a 12-foot lane. Beyond that width—once driving plus parking exceeds 30 feet—the parking should sit perpendicular to the curb. As usual, providing more room than needed can be expected to cause speeding.

