THE VILLAGE OF EAST AURORA
WALKABILITY, LIVABILITY AND HEALTH PLAN
JULY 8, 2026

Dan Burden and Conor Semler

BLUE ZONES®
live better, longer

EAST AURORA, N.Y. INCORPORATED 1874

KITTELSON & ASSOCIATES

ALL WERE INVITED



Your Voice Matters: Join Blue Zones Built Environment Expert Dan Burden and Share Your Vision for the Village of East Aurora

Meet Dan Burden: Community Open House

Monday, July 8, 2024 | 6:00 to 7:00 PM | Aurora Municipal Center, 585 Oakwood Ave

Join us in welcoming Dan Burden before the Board of Trustees meeting and share your thoughts about the Village of East Aurora.



Community Presentation: Making Walking and Biking Safer and More Inviting

Tuesday, July 7, 2024 | Presentation 7:30 to 8:30 PM, Planning Commission Meeting follows | Aurora Municipal Center, 585 Oakwood Ave

Community Walking Audit and Workshop

Wednesday, July 8, 2024 | Walking Audit 3:30 to 6:30 PM, Workshop 6:30 to 8:00 PM | Meet at Aurora Municipal Center, 585 Oakwood Ave

With this report, we wish to:

- Provide a pathway to active transportation and health for EVERYONE
- Build sustainable, resilient, vibrant, interactive and fun urban places
- Make active transportation the easy choice
- Explain why we must return to past town making principles
- Stop squandering the resources of future generations
- Develop a sense of urgency

OUR APPROACH

Designed in a photo-rich, caption-based format inspired by National Geographic, this walkability assessment highlights the character, lived experience, and opportunities within the Village of East Aurora.

The findings are informed by available data and guided by a people- and place-first perspective. They reflect pre-visit document review, observations throughout the Village and surrounding town roads, workshops, stakeholder discussions, and other on-site experiences.

Although the visit lasted three days, the assessment is supported by a combined 70 years of expertise in walkability and traffic calming. Residents and stakeholders provided essential local knowledge that shaped the findings and recommendations.

East Aurora is a well-established, organically developed community with a strong foundation for continued progress. The recommendations should be considered alongside local experience, refined as needed, tested, and evaluated to help advance a healthy, vibrant, and prosperous future.







WHY THIS STUDY?



WHAT IS THE PURPOSE OF CITIES?

Cities are an invention to maximize exchange (goods, culture, friendship, ideas, conversation, and knowledge) and to minimize travel. The role of transport is to maximize exchange.

- David Engwicht

Like many progressive communities, East Aurora seeks to improve its walkability and bicycle infrastructure to remain healthy. Residents and other stakeholders widely support the return to its historic, well-laid-out origins.





East Aurora's transportation and land-use policies are designed to create a built environment that encourages walking and daily activity, strengthens social connections, supports local economic activity, and enhances overall community well-being.



(Photo: Sarah Bowman)





Our choice to use motors to climb stairs or walk our dogs is comical, but unhealthy. The average child today spends less than 10 minutes outdoors daily, less time than the 1-2 hours required for prisoners!



A community designed to meet the needs of older adults is more accessible, safe, and functional for everyone



Aging In Place

Aging-in-place means remaining in one's home safely, independently, and comfortably, regardless of age, income, or ability level. It means the pleasure of living in a familiar environment throughout one's maturing years, and the ability to enjoy the familiar daily rituals and the special events that enrich all our lives. -National Association of Home Builders

“If you don't continually reinvest, redevelop, breathe new life into your city, it dies," Aniol Bohigas (former Head of the Urban Design Plan for Barcelona). said. "You can't just do the streetscape, make everything look pretty and say, 'OK, we're done.' It doesn't work that way."

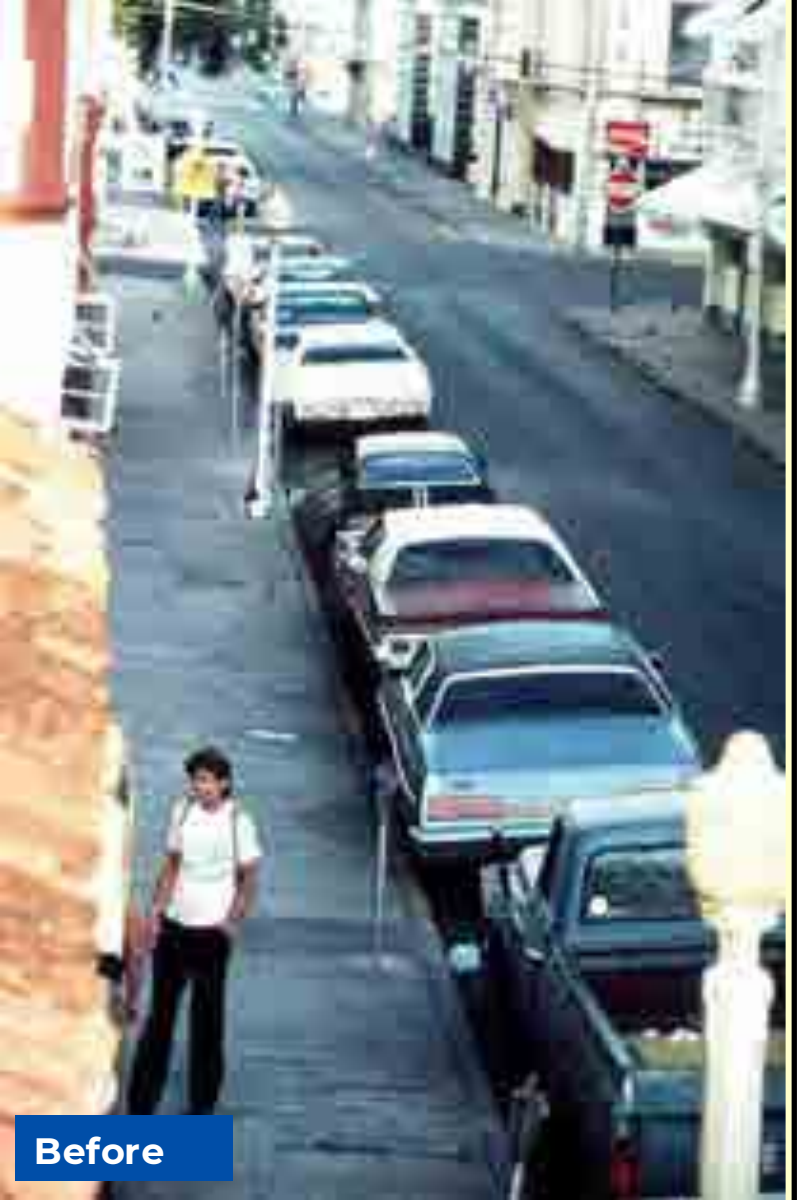




There are 10,000 or more steps to building a community that is lively, vital, healthy, and fun. The walkability event is just one step forward, but an important one to back and embrace. Remember, your downtown, as your entire village, is organic, a living thing that needs change to remain healthy.

BEFORE AND AFTER

Towns and villages are learning the importance of emphasizing people and place over speed. Espanola Way was transformed into a festival street, increasing the property owners' investment 100-fold.





Espanola Way, South Miami Beach, Florida







In the Village of East Aurora, people come first.

- We are amping up this focus, making our people's safety our top priority.







THE SMALL TOWN CONTEXT



Rural, green qualities



Well located



Attractive Edges



Tested before built



Helps people cross streets



Low cost, generates local support

A community takes on life and vitality by making every new feature both functional and attractive

DESIGN FOR EVERYONE



Young people



Bicyclists



Emergency Responders



People with Disabilities



Tourists



Our elders

By designing for our our elders, we meet the needs of everyone

DESIGN STREETS FOR PEOPLE AND PLACE FIRST



Redesign for People



Green First



Effective Crossings



Low-Speed Intersections



Take Back the Street



Active Transportation First

A community takes on life and vitality by making every new feature both functional and attractive

KEEP COSTS LOW



Avoid piping water



On Street Parking Slows Traffic



Use Paint to Narrow Streets



Repaint Lines to Narrow



Don't Overbuild



Low-Cost Materials

Simple, low-cost materials can be applied easily, and become new sources of pride and beauty

ENGAGE THE PUBLIC


Walking Audits


Equity First


Pop Up Events


Work Tables


Inform First


Open Conversations

Change is best faced by informing residents and other stakeholders of new ways to build

FOCUS ON BEAUTY





Streets make up more than 80 percent of public space in cities. Rather than being noisy, intimidating, or unattractive, they can be safe, welcoming places that support daily life, connection, and local activity.

NEIGHBORS WORK TOGETHER TO SOLVE PROBLEMS

Neighbors can best:

- Mobilize residents
- Define the problems
- Develop ownership
- Identify the best tools
- Identify the best locations
- Achieve support
- Monitor level of success



Blue Zones public engagement process informs and inspires residents and other stakeholders allowing them to be the advocates and energy for rebuilding for life, health and vitality.


HEALTH

WHY WALKABILITY MATTERS

What is the first thing an infant wants to do,
and the last thing an older person wants to give up?







Walking is the exercise that does not need a gym. It is the prescription without medicine, the weight control without diet, and the cosmetic that cannot be found at a chemist. It is the tranquilizer without a pill, the therapy without a psychoanalyst, and the holiday that does not cost a penny. (Source: NIH)

WHAT DESIGNING FOR PEOPLE LOOKS LIKE

Health and longevity outcomes are within our control. 80% of health outcomes are controlled by lifestyle choices, including making active and engaging lives a choice. Healthy built environments should make walking and bicycling natural activities.







Dan Buettner author of the 3rd most read article in National Geographic history, addresses health, happiness and longevity

In the past 16 years the Blue Zones organization has assisted more than 120 U.S. cities to become healthier, more livable and economically viable places to live and invest. By studying the 6 places in the world where people live the healthiest, happiest and longest lives, then applying the principles, towns become healthier.

Apply Complete Streets With Each Opportunity



Small, low-cost, quick projects can have high impact. Concurrent construction projects save big money: Resurfacing, Reconstruction, Rehabilitation. This street change dropped crashes 73%, brought new prosperity, and became a model for the region.

RESULTS

PILOT PROGRAM
ALBERT LEA, MN

CITY WORKER'S HEALTH CARE COSTS

DROPPED

49%



Blue Zones projects produce results. Our organization tracks health outcomes. By tracking a full sampling of data available from government workers, we found their health care costs were cut nearly in half.



Streets are the lifeblood of our communities and the foundation of our urban economies. They make up more than 80 percent of all public space in cities and have the potential to foster business activity, serve as a front yard for residents, and provide a safe place for people to get around, whether on foot, bicycle, car, or transit. The vitality of urban life demands a design approach sensitive to the multi-faceted role streets play in our cities (NACTO).



This property owner realized that by building a green gathering place in front of his shop, rather than an ugly parking lot, his business would increase.

People want green and nature, not asphalt and heat.



This retailer transformed a parking lot into a gathering space, resulting in increased business.



As a result of his placemaking his profits soared. He became the “front porch” of Carrboro, N.C.



Public art and a reminder to have fun are key elements of enlivening a community street. (Victoria, BC)



Why do people
Drive slow here?

It’s all about visual cues



But not here?

Motorists that “read” go fast here will not respond to posted speeds or signs. The location of buildings, medians, on-street, parking and lane widths set the right visual cues for safe behavior.



OUR EVENTS

Engagement Approach

The Village of East Aurora has staff and community leaders anxious to advance the art of building streets for all people for all uses all the time. To achieve this the following combination is needed: high levels of collaboration between departments and various user groups, along with keeping elected leaders informed, and gaining high levels of knowledge and input from neighbors and business leaders, who then provide “ground cover” for top staff and elected leaders.

An effective public engagement process helps overcome NIMBYism, and the fear of change, it enables neighborhood groups to speak with an informed, united and compelling voice.





Monday presentation, work tables and information sharing











A generous, lively and helpful set of ideas validated a desire to focus on people and place.













East Aurora residents attended a series of evening meetings to learn about available tools and to help select solutions for testing to reduce speeds and increase walkability.









From individuals met while walking, people in workshops and through interviews a collective vision, and a desire for change was validated.







Over 10 groups of stakeholders, neighborhood leaders, reporters and business leaders shared their ideas.







WALKING AUDIT

More than 40 men, women, and children joined Dan and Conor for an informative downtown walking audit









The walking audit allowed participants to see and talk about what they are doing well and where they may better create more walkable conditions







While most participants watched from the sidelines, a neighborhood mini-circle was drawn at the intersection of Oakwood Avenue and Elm Street, one of many intersections where traffic calming can be applied. In a future event, one or more intersections can be rebuilt for a trial pop-up demonstration and evaluation.

OBSERVATIONS








East Aurora has an exceptional love for walking and enjoying its village. This study is about fine-tuning, amping up, and improving our streets, parks, festivals, and village.











East Aurora residents seek safe places to walk and cross streets. A near universal desire is requested for lower speeds on all streets.



East Aurora has teamed with the NYDOT on past projects to provide high quality crossings with curb extensions. Many new crossings are needed, especially on West Main Street. (Main Street and Willow Street)



Much of historic East Aurora is walkable, with homes facing the street, 5-foot-wide sidewalks on both sides of the street, set back with 5- foot-wide nature strips with a green canopy, and parking on one side of the street. Prospect Avenue.



East Aurora is plagued with too many 4-way stop controls. 4-way stops are not effective for traffic calming. They do not lower overall speeds; drivers speed up between intersections to make up time, and they increase noise and pollution from constant braking and accelerating



Many of East Aurora's crosswalks are well marked. This crossing also denotes the important sight lines to protect from parked cars. However, long term, the sight lines should include bump outs.



Like many communities, East Aurora has a number challenging intersections that are wider, faster and more dangerous than called for in modern engineering practices. This report highlights a few locations, such as this one at Hamburg St and Mill Rd. Note the nearest pedestrian crossings are 500 and 800 feet away.



A lack of safe crossing points forces many people to cross without support. This is a universal problem throughout East Aurora. Proper Spacing keeps walk times short and stops people from crossing in dangerous spots.



TRAFFIC CALMING

REDUCE SPEEDS ON LOCAL STREETS TO 20 MPH





Higher speeds increase the likelihood and severity of crashes while lower speeds improve safety for everyone, especially people walking and cycling. Pedestrian survival is directly tied to vehicle speed. Engage the City Council to craft and pass a resolution that reduces the default speed limit around schools to 20 mph.

Presently, streets are marked at 20 mph and around all three schools, but only when children are present or during certain hours. Design and post for 20 mph 24/7/365. Broaden New York City's Sammy's Law to a statewide level, which allows speed limit reductions for target select schools, Open Streets, Shared Streets, and other areas, as well as new 'Regional Slow Zones'

THE WRONG TOOLS ONLY MOVE SPEEDING AROUND



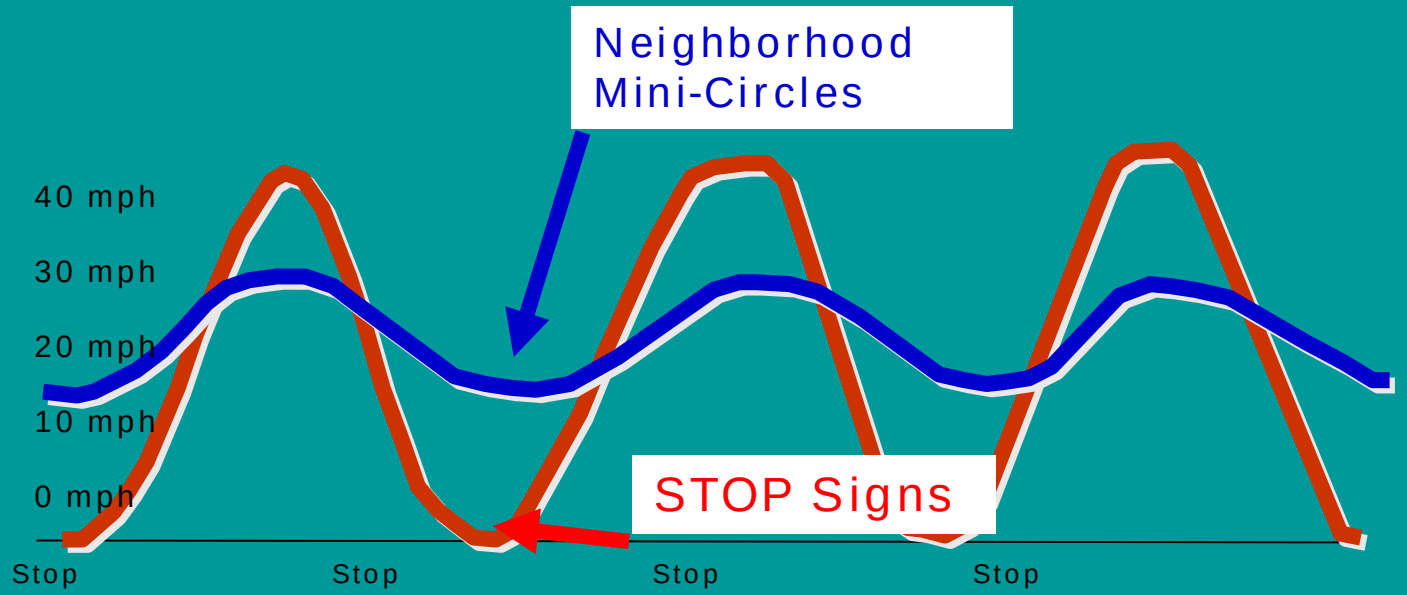




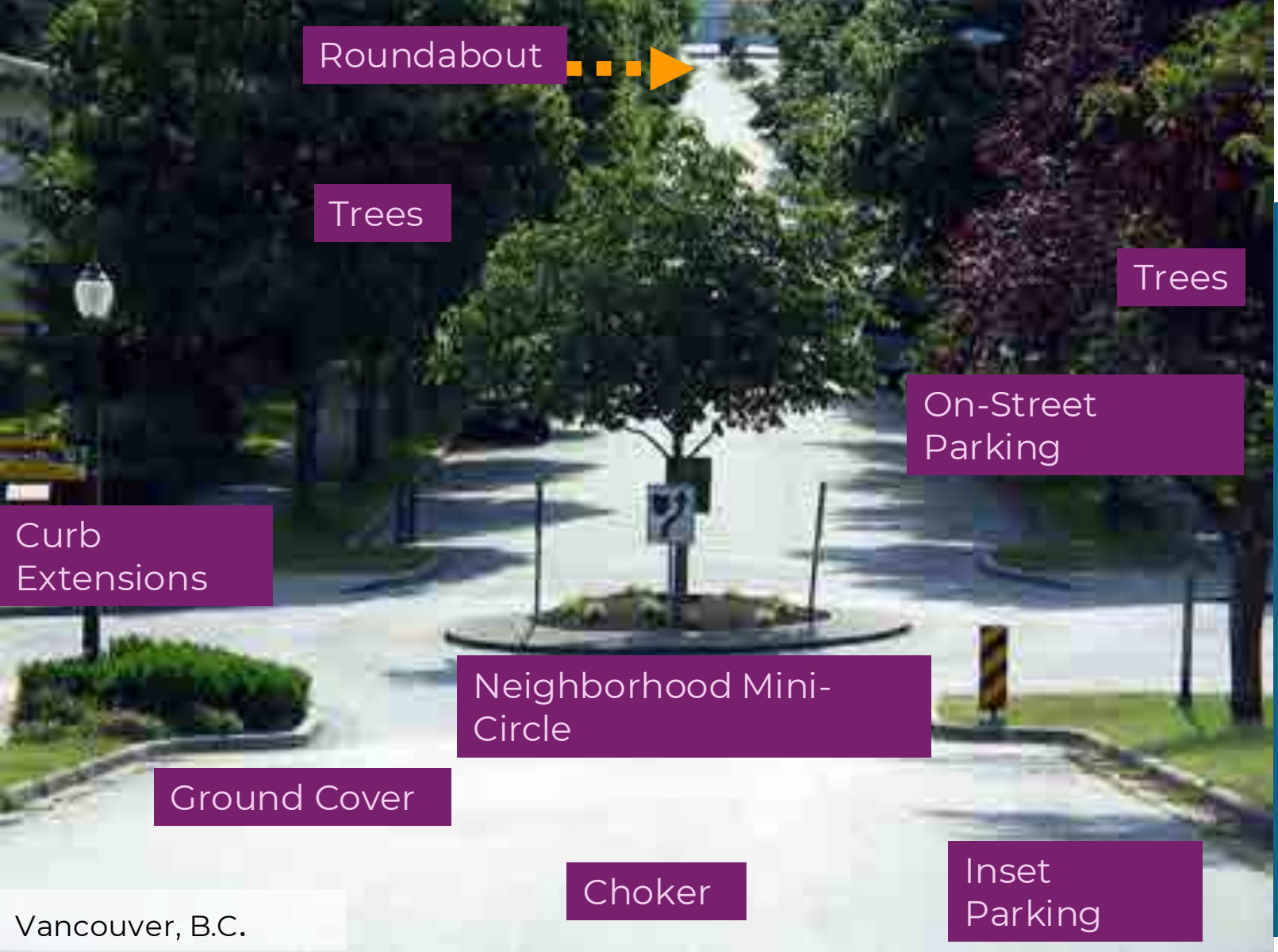
Speed humps and un-warranted stop controls have been overused for traffic calming.

Motorists tend to be frustrated and to increase their speed between devices when these tools are overused. This practice generates noise, frustration, and danger.

STOP SIGNS VERSUS TRAFFIC CALMING



A better solution to keep speeds under control is to not stop motorists, but to moderate their speeds at intersections. Roundabouts and Neighborhood Mini-Circles keep motorists in motion, lower their speeds, reduce noise, and get them to their destinations in less time.



TREAT INTERSECTIONS FIRST

Treat intersections first. It is where you have the most land.

Traffic calming works best when treatments are separated by no more than 400-600 feet. Why? Motorists leaving one treatment see the next, and find little value in speeding then braking.

HORIZONTAL DEFLECTION



To achieve the desired point, engineers set up the deflection points and path to control speeds, often between 15 and 22 mph.



Chicane. When a neighborhood mini-circle is not desired, consider a chicane, consisting of a median on one side, and curb extensions on the other side

Target Speed



In the upper photo motorists go 45-55 mph. The lower photo induces speeds at 25-30 mph.



Wider lane widths, and more lanes than needed not only add to urban heat gain, exacerbate drainage issues and costs, they contribute to speeding and crashes.
Once the safe and appropriate Target Speed is set, lane widths help achieve safe speeds.

TARGET SPEED is the operating speed that the designer intends for drivers to use.

Before: Downtown speeds were high, (45-50mph) walkability and investments are low, businesses are suffering

Lancaster, Ca



After: Speeds are now 10-15 mph. Over $800m in new investments have come to Lancaster's main street



The conversion from 5 lanes to two allowed significantly added parking, low-speed, low-noise, better lighting and wider walkways

CHICO, CA NORD AVENUE



How fast would the average driver feel comfortable driving here? Most people say 40-45 mph

CHICO, CA NORD AVENUE



How about now?

CHICO, CA NORD AVENUE



How about now?

CHICO, CA NORD AVENUE



How about now?

CHICO, CA NORD AVENUE



How about now?

CHICO, CA NORD AVENUE



How about now? In a more enclosed space, with on-street parking, a terminating vista, and a tall vertical wall of well located buildings most motorists slow their speed to 15-20 mph.

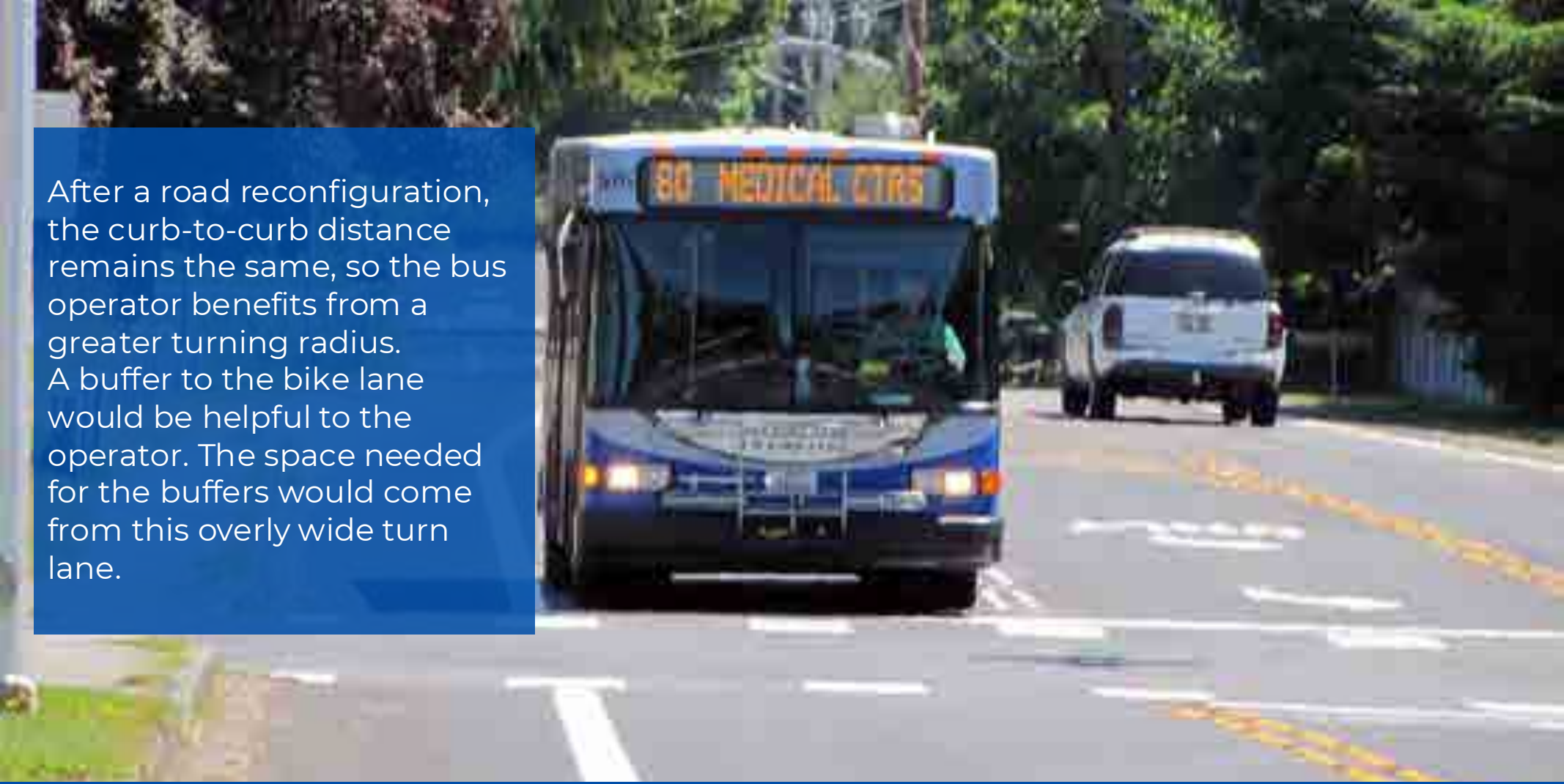
20 MPH IS PLENTY



Engineers have over-designed urban streets for speed for decades. European, Canadian, Australian and now American cities are saying 20 mph is Plenty for downtowns and for all local streets. Designing and posting downtown and neighborhood streets for lower speeds can be a community policy. Shown here, Portland, Oregon has achieved 19 mph speeds throughout their downtown through a series of measures, especially by setting a 19-mph progression speed for their signals.

THE PARTS OF A 20 MPH STREET





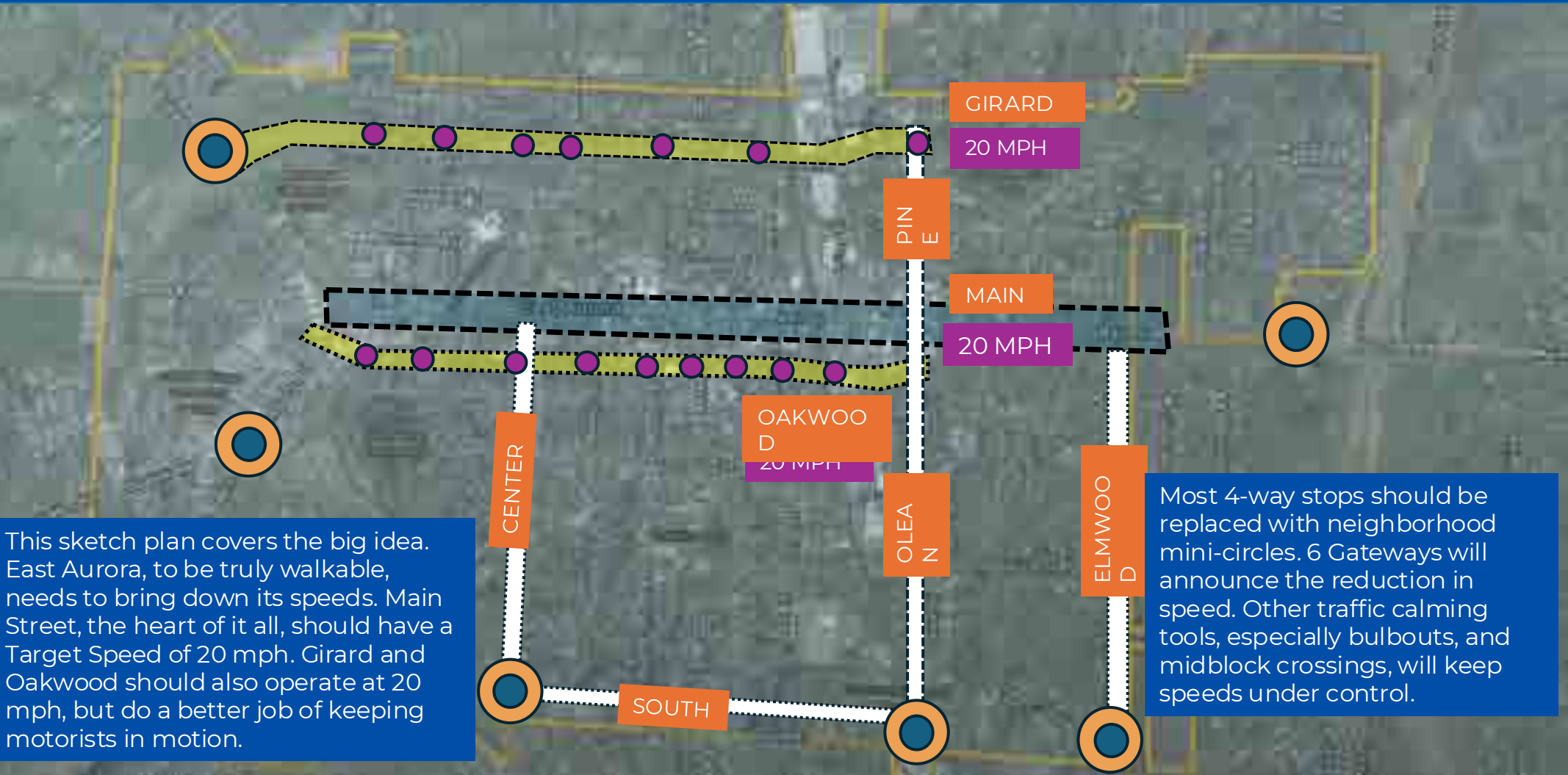
After a road reconfiguration, the curb-to-curb distance remains the same, so the bus operator benefits from a greater turning radius.
A buffer to the bike lane would be helpful to the operator. The space needed for the buffers would come from this overly wide turn lane.

In urban areas consider setting the default lane width at 10-foot wide. Narrow Lanes, Olympia, WA



WALKABILITY AND SAFETY TOOLS

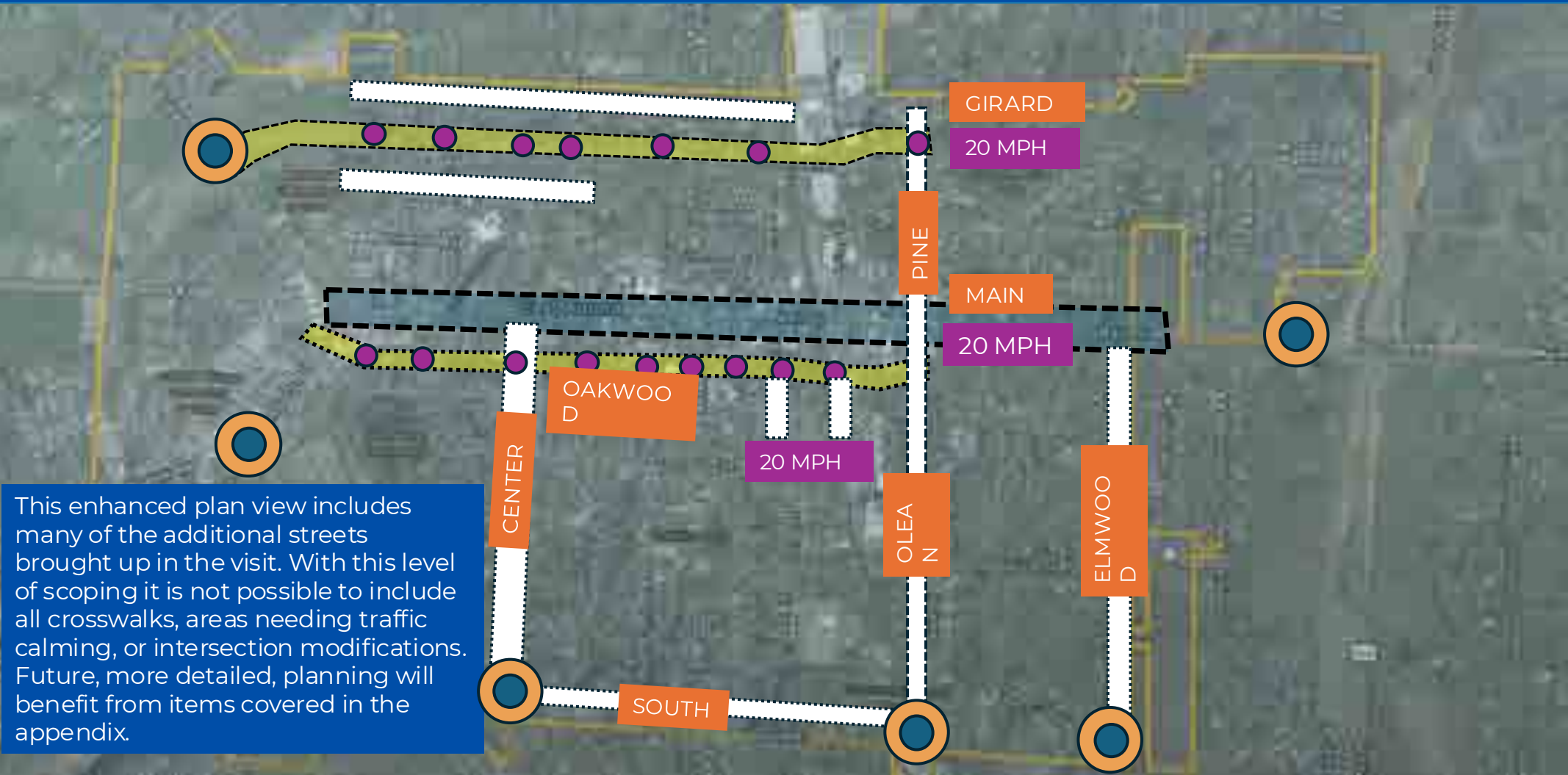
THE PLAN AT A GLANCE



This sketch plan covers the big idea. East Aurora, to be truly walkable, needs to bring down its speeds. Main Street, the heart of it all, should have a Target Speed of 20 mph. Girard and Oakwood should also operate at 20 mph, but do a better job of keeping motorists in motion.

Most 4-way stops should be replaced with neighborhood mini-circles. 6 Gateways will announce the reduction in speed. Other traffic calming tools, especially bulbouts, and midblock crossings, will keep speeds under control.

THE PLAN AT A GLANCE



This enhanced plan view includes many of the additional streets brought up in the visit. With this level of scoping it is not possible to include all crosswalks, areas needing traffic calming, or intersection modifications. Future, more detailed, planning will benefit from items covered in the appendix.

THE PLAN AT A GLANCE

Overview

This 3-day visit and sketch plan for walkability, livability, and health achieved a great deal. The next step calls for in-depth work to conduct pop-up demonstrations, then build 3-4 model projects, such as neighborhood mini-circles, new raised crossings, an Edge Lane Road, and a gateway roundabout.

In time, 16 neighborhood roundabouts on Girard and Oakwood would help traffic move at the correct speed, while 4 roundabouts would serve as gateways for traffic moving through.

In the next few months, to sustain the momentum of these events, East Aurora should host 2-4 pop-up demonstrations. From these results, a small string of low-cost neighborhood mini-circles, or other

Recommended Policy Changes

Use 10-foot-wide travel lanes as the default lane width
Use 9-foot-wide turn lanes as the preferred width
Use Pedestrian Lead Intervals at all signals
Consider a signal progression speed of 19 mph for Main Street
Minimize Right-Turn-On-Red
Keep corner radii to 15 feet when possible
Use roundabouts as the preferred option to signals
Replace all unwarranted 4-way stops with mini-circles and chicanes
Use curb extensions for intersections
Use curb extensions and medians for crossings
Focus on beautifying streets and public spaces
Use target speeds of 20 mph for local streets and Main Street
Launch an incubator for business innovation
Start a local nursery for free flowers and trees for the streetside



NARROW LANES

- All roads under 35 mph. Use 10 feet (preferred) or 11 feet (maximum) for all through lanes and 9 feet (minimum) for turn lanes.
- If along a roadway with high truck or transit volumes, provide necessary turn lane and outside through lane widths of 11 feet. WSDOT

Language from the Washington DOT Active Transportation Guide

RECOMMENDED TOOLS



GATEWAYS



RAISED CROSSINGS



SIDEWALKS



ROUNDABOUTS



CURB EXTENSIONS



INTERSECTIONS

RECOMMENDED TOOLS



NEIGHBORHOOD MINI-CIRCLES



PARKING



EDGE LANE ROADS



NIGHT LIGHTING



FESTIVAL STREETS



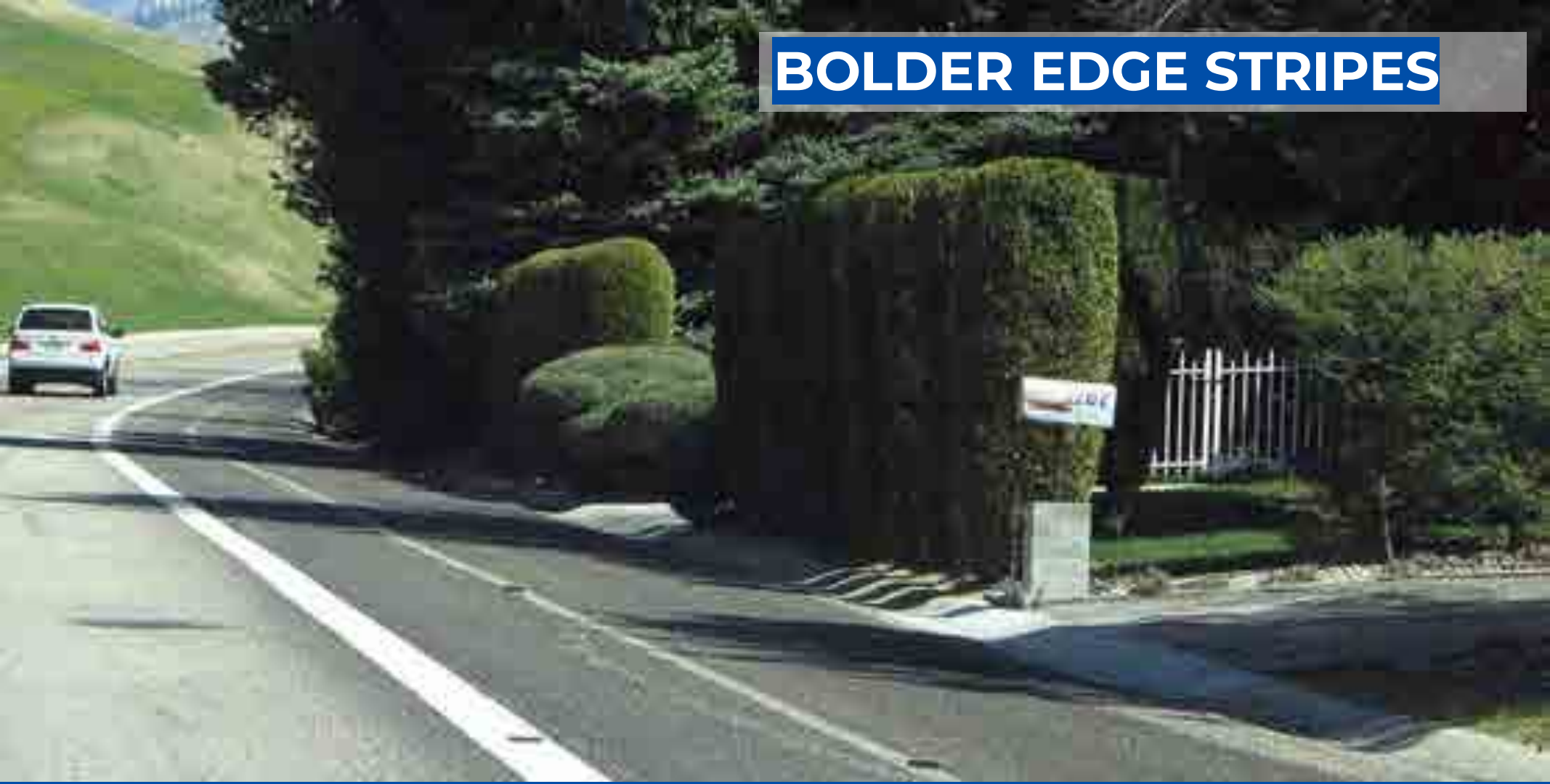
RAISED MEDIANS

KEEP COSTS LOW



As a rule, centerlines induce speed. Eliminating centerlines, where you can, has proven to reduce speeds by 2-7 mph.

BOLDER EDGE STRIPES



Increasing the width of edge stripes (TO 8-12 inches) has been shown to reduce speeds 1-4 mph, and help motorists further separate from bicyclists (Boise, Idaho)





Golden Colorado created this midblock crossing that includes curb extensions and a median crossing. They also tricked motorists into going slower by using wide gutter pans.

The actual width curb-to-curb is 13 feet, but due to the contrast of materials, motorists only perceive their lane to be 8 feet wide, so they slow down.

PRIORITY LOCATIONS

West Main Street

West Main Street Midblock

East Main Street

Quaker and Mill

South and Olean

Chestnut Hill and Olean

Chestnut Hill (MIDBLOCK)

Girard

Oakwood

Olean



Meanwhile, there are many street crossings that are too wide, inviting high-speed turns, and discouraging walking or bicycling trips. This crossing at Grey Street and Buffalo Road is 60 feet across, when 30 feet would work.



Reclaim pavement space and divide the crossing into two short crossing steps. A roundabout would also serve this space as a gateway.

CHESTNUT AND OLEAN



South Street at Olean Street is an important gateway into the village and an important crossing location. To assure low speeds, consider a neighborhood mini-circle.

SOUTH STREET AND OLEAN STREET



South Street at Olean Street is an important gateway into the village and an important crossing location. To assure low speeds, consider a neighborhood mini-circle.

CHESTNUT HILL AND OLEAN STREET



Chestnut Hill and Olean Street is an appropriate location for traffic slowing and either a raised crosswalk or a neighborhood mini-circle.

HAMBURG STREET AND MILL ROAD



This study places a special emphasis on key gateways and crossing points which need additional design and operational effort.



Gateway roundabouts keep all motorists in motion, slow speeds to 15-20 mph, and reduce injury and fatal crashes 70-90%. They also move 30-50% more traffic and help pedestrians and bicyclists stay in motion.

QUAKER ROAD AND GREY STREET



Pedestrians are exposed to a 65-foot crossing of Grey Street, and a 50-foot wide crossing of Quaker Road. With crossing islands, gateways are created, and the exposure of pedestrians is significantly reduced. A gateway roundabout would solve many problems here, including those associated with the proposed senior housing project.

CHESTNUT HILL ROAD



A number of local roads lack sidewalks. Traffic volumes are low, making these streets candidates for lower-speed 20 mph Edge Lane Roads

CHESTNUT HILL ROAD



As an alternative, the walking/bicycling space can be moved to one side of the street



With a 30-foot-wide curb-to-curb street width, consider a 11-foot wide 2/way cycle track with a 1-foot buffer, leaving 7 feet for parking and an 11-foot shared lane for 2-way traffic.

FISHER PRICE ENTRANCE

CURB EXTENSIONS AND CROSSING ISLANDS






Fisher
Price
Girard Ave
Church St
Riley St



An example rebuild of Riley Street and Church Street. This is a good location for a POP-UP demonstration, then a quick build, then a PAVEMENT TO PARKS permanent rebuild.



Another sample rebuild location is Whaley Avenue and Ridge Avenue. If on-street parking is not needed, the street can be reallocated for buffered bike lanes.



An example of a street converted for buffered bike lanes.



E MAIN STREET

Assuming 30’ street width, the ideal set of street dimensions is 10+10+4+6




Parking
Parking
With a 30’ wide curb-to-curb street width, parking is only available on one side. If parking is still desired, and if speeding is an issue, consider flipping parking to the opposite side every 600-800 feet.


6
6
?
6
PINE ST
MAIN ST
Each leg of an intersection has 6
conflicts. When a crosswalk is le
the pedestrian has 18 conflicts, n
Missing crossings also create
significant time delays.



Raised medians reduce pedestrian crashes. Instead of crossing 30 or 40 feet, people on foot only cross 12-14 feet at a time.


Consider making Elm Street a festival street, where parking is accessible for 6-8 hours per day, but through-traffic is prohibited. Several options are possible, such as a 100-300 foot area that is for people and place only.
Elm Stree

Effect of Corner Turning Radii on Pedestrian Crossing Distances



Radius	Crossing Distance	Increased Crossing	Percent Increase
15'	37'	+11'	42%
25'	50'	+24'	92%
50'	89'	+53'	203%

In some locations, curb radii on corners are high, allowing unsafe turning speeds and increasing exposure and crossing times for pedestrians.



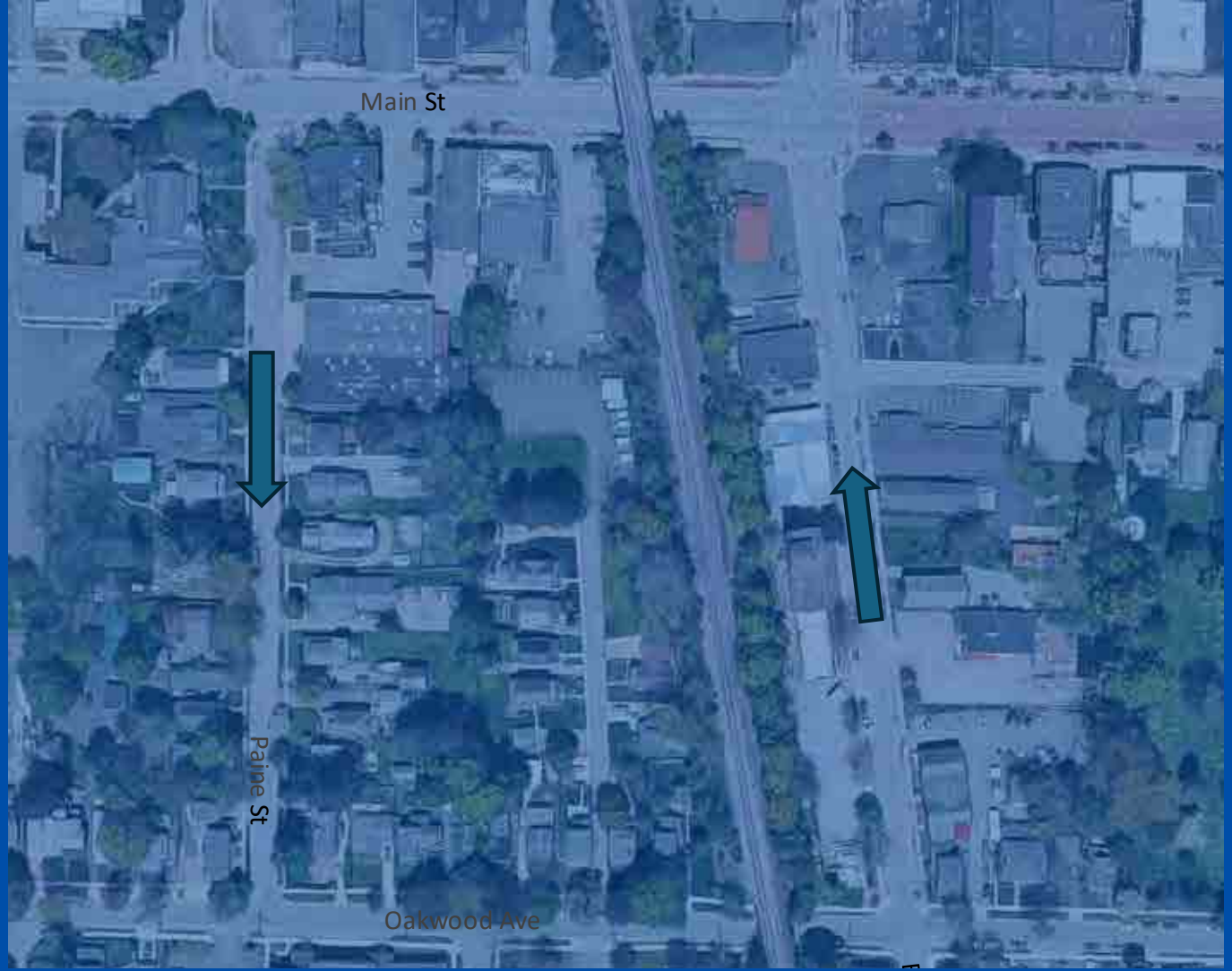


East Aurora's downtown streets use high speed suburban street designs. Side streets should minimize curb radii to reduce crossing exposure and to reduce motorist entry and exit speeds.





A question was asked if there is room for angled parking on Main Street. A benefit of angled parking is to amp up retail use by adding convenient parking and to further slow traffic. Transitioning from parallel parking to 60-degree



One idea was brought out to increase parking on Paine Street and Elm Street. Angled parking can work by making the pair of streets into a one way..



Santa Barbara closes its principal street, State Street, for festival days

WHALEY, PAINE AND MAIN



Additional speed controls on Main Street might be considered. For instance, this staggered intersection could support raised medians.

WHALEY, PAINE AND MAIN

A question was asked if there is room for angled parking on Main Street. A benefit of angled parking is to amp up retail use by adding convenient parking and to further slow traffic.

GROVE AND MAIN

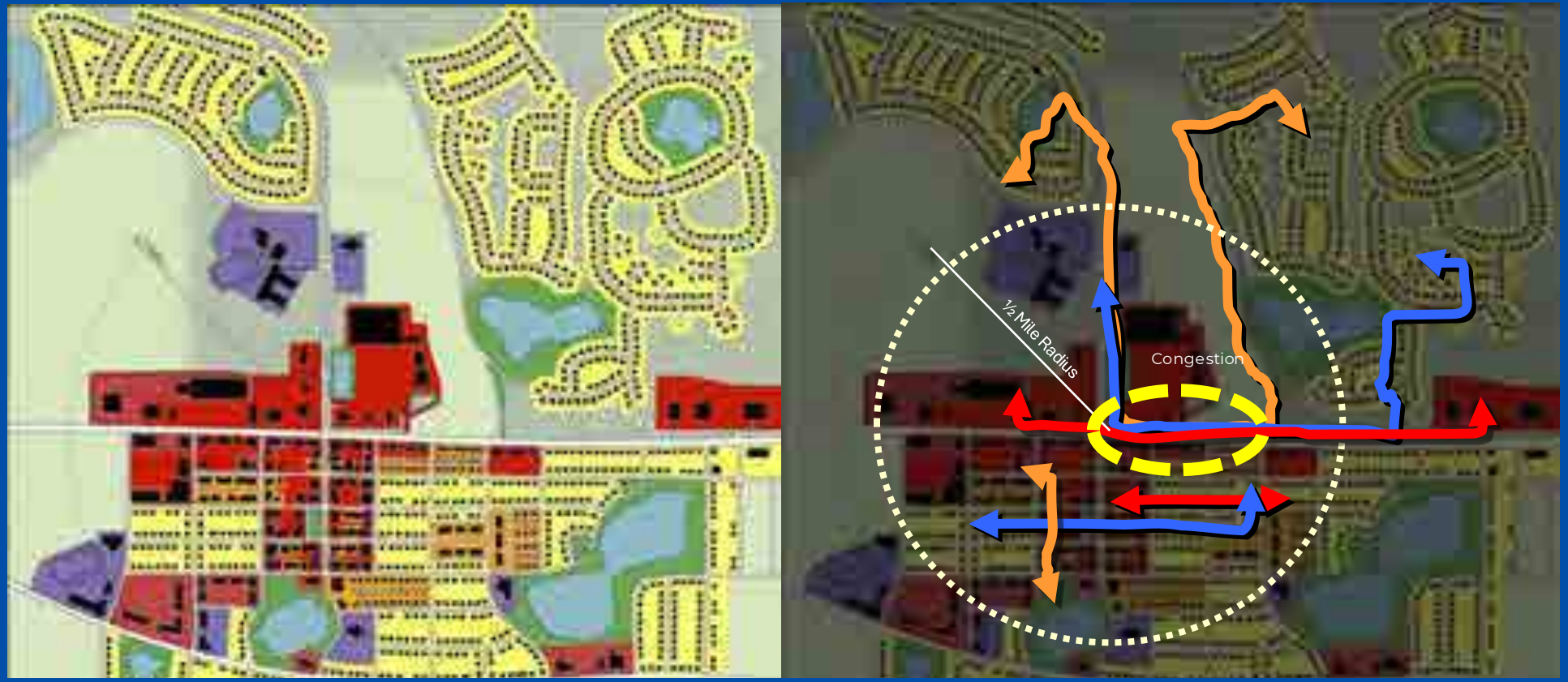


In only 3 days of work, there remain many unanswered questions and answers. For instance, where are more bulbouts (curb extensions) needed. This 54-foot-wide crossing of Main Street could be reduced to 30 feet, and 2 ramps per corner could be achieved. (Grove and Main)

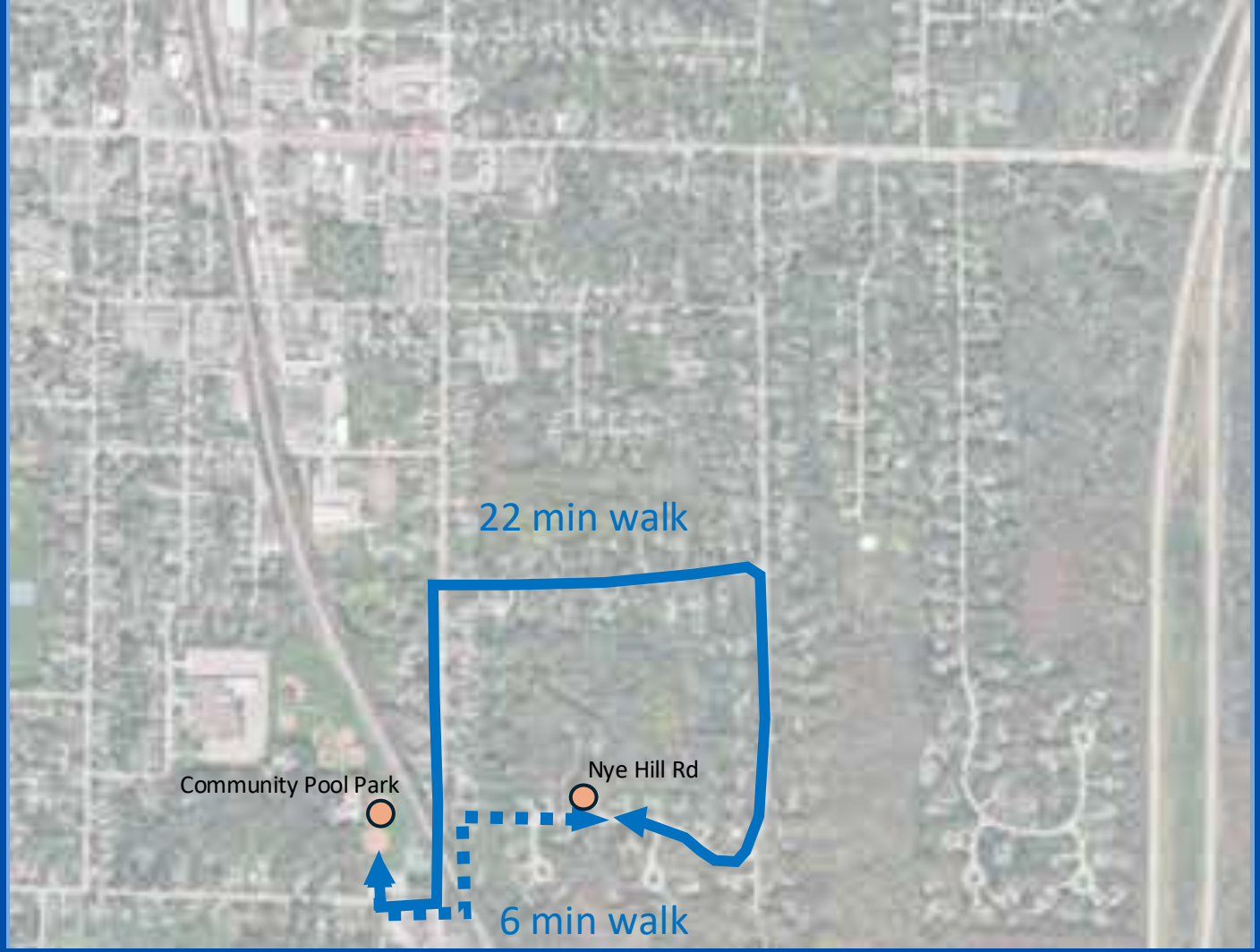


Tee intersections almost always allow raised crossing islands. Islands better control speed, and they improve the safety of all.

CONNECTIVITY IMPACTS



East Aurora can benefit from a number of trails or links to shorten walking routes. Recent conventional street layouts not only induce speeding, but they also lengthen walking times and distances to impossible levels.



For instance, a person living here has an indirect 22-minute walk to McDonald's Fields. Following a new trail shortens the walk to 6 minutes.



For a person living on Glenridge the walk to McDonald's Fields is 40 minutes instead of 15 minutes.



WHAT COMES NEXT?

WHERE DO WE GO FROM HERE?



- You are never alone; build a team
- Apply the concepts based on this visit
- What planning solutions will help?
- What engineering solutions apply?
- How does your team gain needed community support?
- Pick 1-4 model local projects and begin with pop-up demonstrations, then build quick builds from those that solve your problems.



POP-UP DEMONSTRATIONS

INTERIM/DEMONSTRATION PROJECTS



This weekend pop-up demonstration proved to the neighborhood that there was strong support for an intersection and street rebuild. This demonstration led to securing $12M to rebuild an entire corridor.





Use Pop-Up Demonstrations (Tactical Urbanism)



Painted Curb Extensions

Paint may be enough. Motorists in Hamilton, Ontario, appear to have slowed and changed their behavior after this corner was painted, making this a low cost, lasting solution. If paint alone is not enough, the test period allows residents to observe then vote for a lasting, attractive raised curb extension.



Painted Curb Extensions and Crosswalks

Low cost materials can be used for attractive week long pop up events. Convert two blocks of 12th Street using temporary paint and lots of street furniture, added parking and a buffered or protected bike lanes. Each block would apply a different solution, drawing inspiration from the Batesville, Arkansas, model and other solutions.



Painted Parklets

Seattle is taking back portions of their streets one block at a time. They have funded a Pavement to Parks program. Seattle brings neighbors together to redesign streets. One year after installation, the street changes go to a vote and with neighborhood approval, streets are turned into permanent parks.



QUICK FIXES



1

(Click center of photo for a live demonstration)



2



3

WHAT ARE OUR STEPS AND CHOICES?

1. Pop-Up demonstrations are short-term demonstrations, low cost, under $500, and for only a half day or a weekend,

2. Quick Build projects might cost $10,000 or more, last 3 months up to 10 years, and allow time to fund a,

3. Permanent installations are the final product, ranging in cost from $25,000 to $1 million or more depending on length and complexity.



(Click center of photo for a live demonstration)



Chico, California

To demonstrate to fire responders that curb extensions (Bulb Outs) were beneficial, they parked a car near the curb. It took 2 minutes for the ladder truck to gain access. Then they simulated a curb extension with cones, reducing access to 20 seconds.

QUICK BUILD CURB EXTENSIONS



An example of a full intersection transformation using only paint and wands.



Marysville, California, used two old tractor tires, then bolted down rubber curbing for their year-long quick build

VISION ZERO, OMAHA NEBRASKA

- Pilot to improve safety and access on a high injury corridor served by transit.
- Quick-Build refuge islands that enhance safety by allowing pedestrians to cross one direction of traffic at a time and a place to pause in between.
- Faster, cheaper solution while the city explores permanent infrastructure improvements.









Quick-build projects can be tested for 3 months or multiple years, allowing time to fund a permanent solution.

QUICK BUILD ROUNDABOUTS



Presidio, San Francisco





Sarasota County, Florida



Example of a quick-build and mountable small roundabout.







This SRTS quick-build roundabout was installed at the intersection of Arlen Drive and Almond Street in Rohnert Park (2024). Quick build roundabouts cost about a quarter the cost of a regular roundabout. Installation takes days or weeks, compared to months or a year. They are built with prefabricated modular materials and can be tested, modified, removed or replaced with permanent pavement and landscaping.



One problem with center lines is that motorists tend to crowd bicyclists and people parking, even when there are no cars in an opposing traffic lane. Traffic volumes above 6000 vehicles per day require center lines.

MEASURE WHAT WE WANT,

NOT WHAT WE DON'T WANT



Capacity of Streets



Lead your own walking audits.

Starting in 1985, Dan Burden applied walking audits to get people excited about overcoming fear of change.


STUDIO
OPEN

CIVICWELL

Engage Your Community



Continue your engagement for each new idea, such as a pop-up demonstration with an open house event



What would you like your city to be for your children, grandchildren and for their generation?

Final Thoughts

Active Transportation in East Aurora should feel not just acceptable, but be the most natural, easy and chosen way to get around for most travel. This people centered focus celebrates your unique sense of place while honouring the unparalleled beauty of the natural environment. Aim to make each new project an example of good practice and a model for the future, not a carry-over of auto intimidation practices from the recent past



CONCLUDING THOUGHTS

Our built environment prioritizes walking, cycling, and transit use. Active Transportation should feel not just acceptable, but be the most natural, easy, and chosen way to get around for most travel. This focus is truly the only way to celebrate our history and unique sense of place while honoring the unparalleled beauty of the natural environment. Each new project is an example of good practice and a model for the future, not a carryover of auto intimidation practices from the recent past.





Your mission from here on out is to identify what policies and implementation strategies are missing towards creating complete streets, complete systems, compact walkable scale neighborhoods and to identify next steps to support your new compass bearing.

What technical support is needed, and what political support or process do you need?

APPENDIX

Gateways
Sidewalks
Crosswalks and Raised Crossings
Raised Medians
Curb Extensions (Bulbouts)
Intersections
Roundabouts
Neighborhood Mini-Circles
Parking
Edge Lane Roads
Quick Build
Conclusion


GATEWAYS

Provide Gateways into the Downtown





An important step to honor pedestrians and to bring speeds and motorist behaviors into acceptable levels is to provide distinctive gateways. A district gateway more than pays its way by making clear which portions of town are celebrated as authentic historic, cultural, or other places of emphasis.



A very wide median island with a fountain greets Grandview drivers in the Marble Cliff Neighborhood in Central Ohio. The speed here is controlled by a deflection path to 20 mph.



A true gateway and median great motorists entering this Buffalo neighborhood in the Bidwell Parkway area.



The colorful floral nose on this island, along with vertical features, slows drivers entering this Davidson NC neighborhood.

The Parts of the Street - GATEWAYS



Chicanes are another gateway type. The engineer uses curb extensions and a raised median to set a 15-mph deflection path. These features work best with attractive landscaping.

The Parts of the Street - GATEWAYS



The Parts of the Street - GATEWAYS

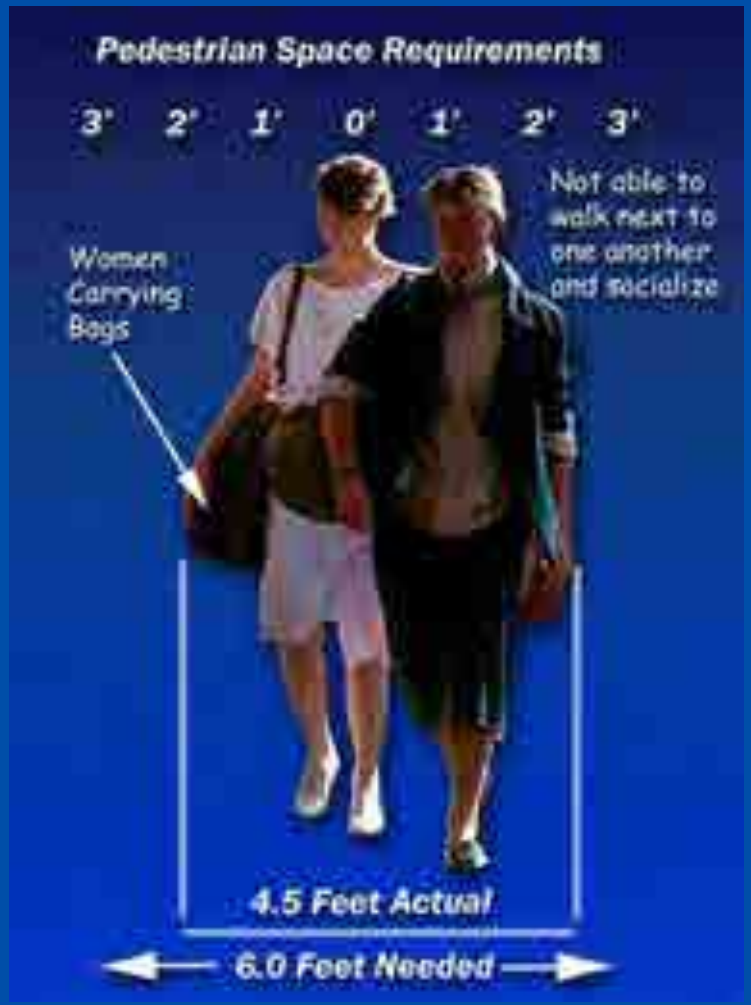




SIDEWALKS

Why 4-Foot Wide Sidewalks Fail





A 4-foot sidewalk accommodates one pedestrian. However, people enjoy walking with others and need to pass, use strollers, and walk pets.

A 5-foot sidewalk should be the minimum width, and if the sidewalk is attached to the curb, a 6-foot minimum is needed, as noted in federal standards.

The good news: adding one foot to a 4-foot sidewalk only increases the cost by 7%.



Not Walkable[151]



Walkable

SIDEWALKS WITH PLANTER STRIPS INCREASE WALKING SAFETY AND COMFORT





Build sidewalks, for walkability. A minimum width of 5 feet Is essential for comfortable walking, if set back, and 6 feet is needed if connected to the curb. East Aurora has excellent well positioned sidewalks in its older neighborhoods, but gaps and inadequate widths in many newer neighborhoods.



Create spaces that encourage children to run, climb, explore, and play.









Provide comfortable and inviting places to sit. Set benches back to allow people on foot to pass unimpeded

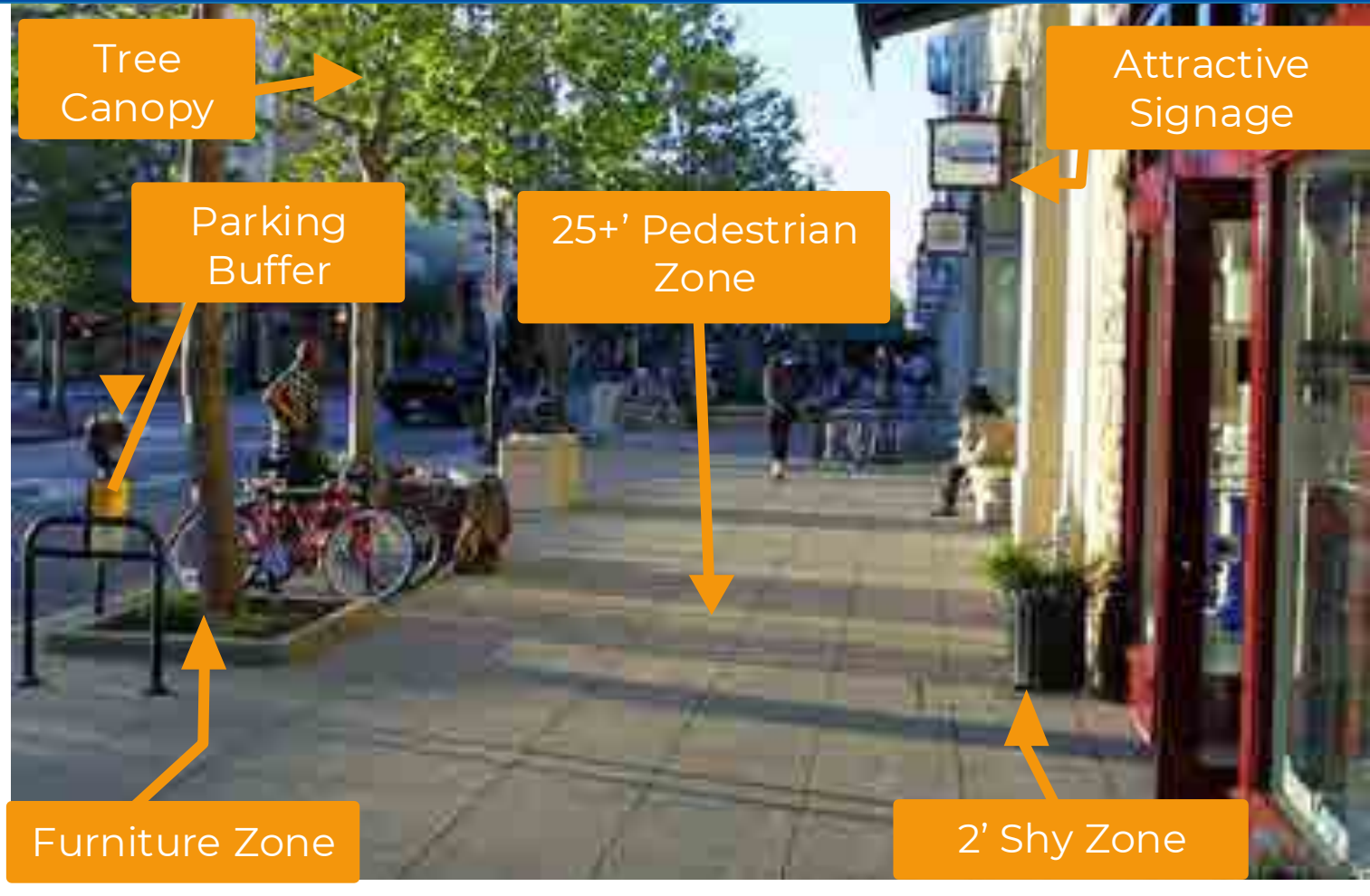
The Parts of a Sidewalk



Image Location: Birmingham, Michigan

The Parts of a Sidewalk

Once the parts of the sidewalk are understood, context sensitive design solution flex the rules to create authentic, fun and memorable places. Pacific Avenue in Santa Cruz was once a four-lane drag strip. Following the Loma Prieta earthquake, the street became one-way, terminating for all traffic at the center. The recovered space became one of the best places in the state for people to relax and spend time and money.



Designing for Lower Speeds

Low speed design of streets requires more parts, and these added parts set the stage for transit walking and bicycling.

Only part of achieving target speeds occurs in the street. Note the role of terminating vistas, block lengths, vertical walls of trees shrubs and surrounding land uses. Each element plays a role in holding down speeds.

The sidewalk and buffer width equals the overall street width, achieving a 50:50 ratio.



Curbless Streets

This Jacksonville Beach, Florida, street was rebuilt for walking. Reduced from four to two lanes, a median was added, along with parking.

The use of color, and parking as a buffer, makes this low speed 20 mph road a joyful walk.

The area is now ready for the right set of buildings to come to populate this street. Bike lanes were not included, due to the low speed operations of this street.



QUALITIES OF PLACE

TRANSPARENCY
ENCLOSURE
HUMAN SCALE
IMAGEABILITY
COMPLEXITY



IMAGEABILITY



ENCLOSURE



TRANSPARENCY



HUMAN SCALE



COMPLEXITY



Elements that enliven the walking experience and enjoyment of a downtown.

By breaking sidewalks into three distinct parts (Shy Zone, Furniture Zone and Walk/Talk Zone it is easier to see and protect each function. The Walk/Talk Zone should NEVER have intruding parts, such as sandwich boards, trash cans or other interrupting features.

Today, East Aurora has a number of features in the downtown sidewalk system that could use repair and better alignment with the above principles.




CROSSWALKS
AND RAISED
CROSSINGS

The Parts of A 30 mph Street



Target speed 30 mph. This design for cooke street achieves 20 mph speeds and high yielding rates by 95% of all motorists (Victoria, British Columbia)



Low-cost islands reduce crossing exposure from 28-36 feet to only 12-14 feet at one time. Consider well-lit, high-visibility 12-foot wide, or wider, crosswalks on principal roads as a standard practice.



The narrow median allows this crossing to have three Rectangular Rapid Flash Beacons (RRFB). Studies show that these signs increase motorist yielding rates from 18% to as high as 98%. Typical crash rates to pedestrians drop 47%. Consider placing double-sided RRFB signs/signals for $6-7,000 per crossing.

The Parts of A 30 mph Street

This unsignalized intersection correctly applies an RRFB

High visibility crosswalk markings

A Rectangular Rapid Flash Beacon (RRFB) is activated by the pedestrian.

A median nose is correctly applied

10-foot lanes are applied

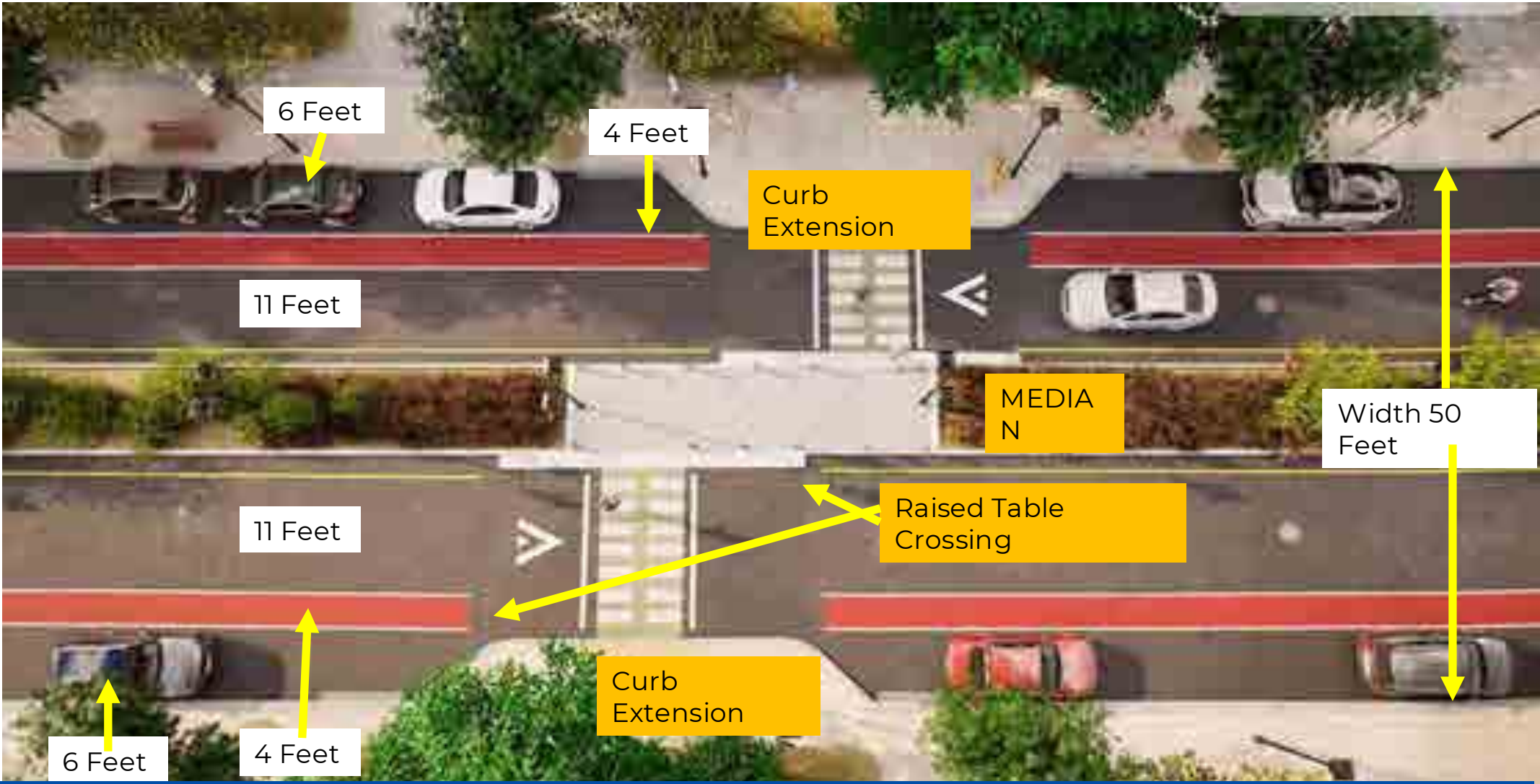


When 8 or more feet are available for the median, a Z-crossing can be built, and the landscaping can be added. The result, even better speed control, a shorter crossing, and higher motorist yielding compliance

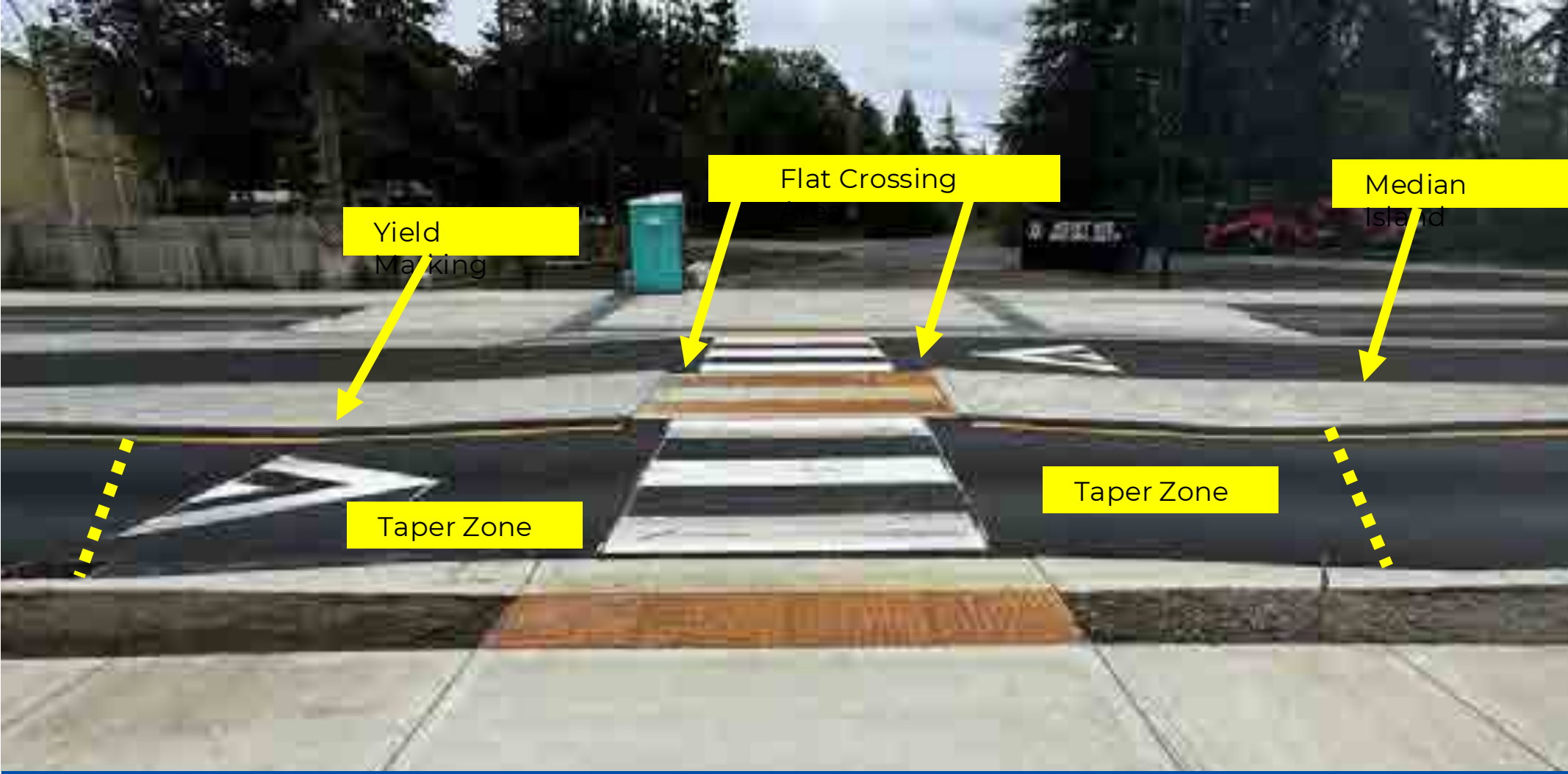
GOOD PRACTICE: CROSSING



This Golden Gate, Colorado, crossing uses a curb extension on each side plus a crossing island. This low-cost treatment does not interrupt drainage, while the landscaping allows the islands to be seen over 500-foot on approach. The asphalt portion is only 8-foot wide, while the curb-to-curb opening is 14-foot.



An ideal raised median Z-crossing also raises the crossing y 6 inches, using a 1/20 taper to bring speeds to 15-20 mph.



An ideal midblock crossing is raised, has a median island, and has narrow lanes. Speeds are controlled the quarter-mile commercial Village radius, not to exceed 20 mph.



This raised midblock crossing works well in snow country. The 1/20 taper is easily handled by snow plows.



HALF SIGNALS

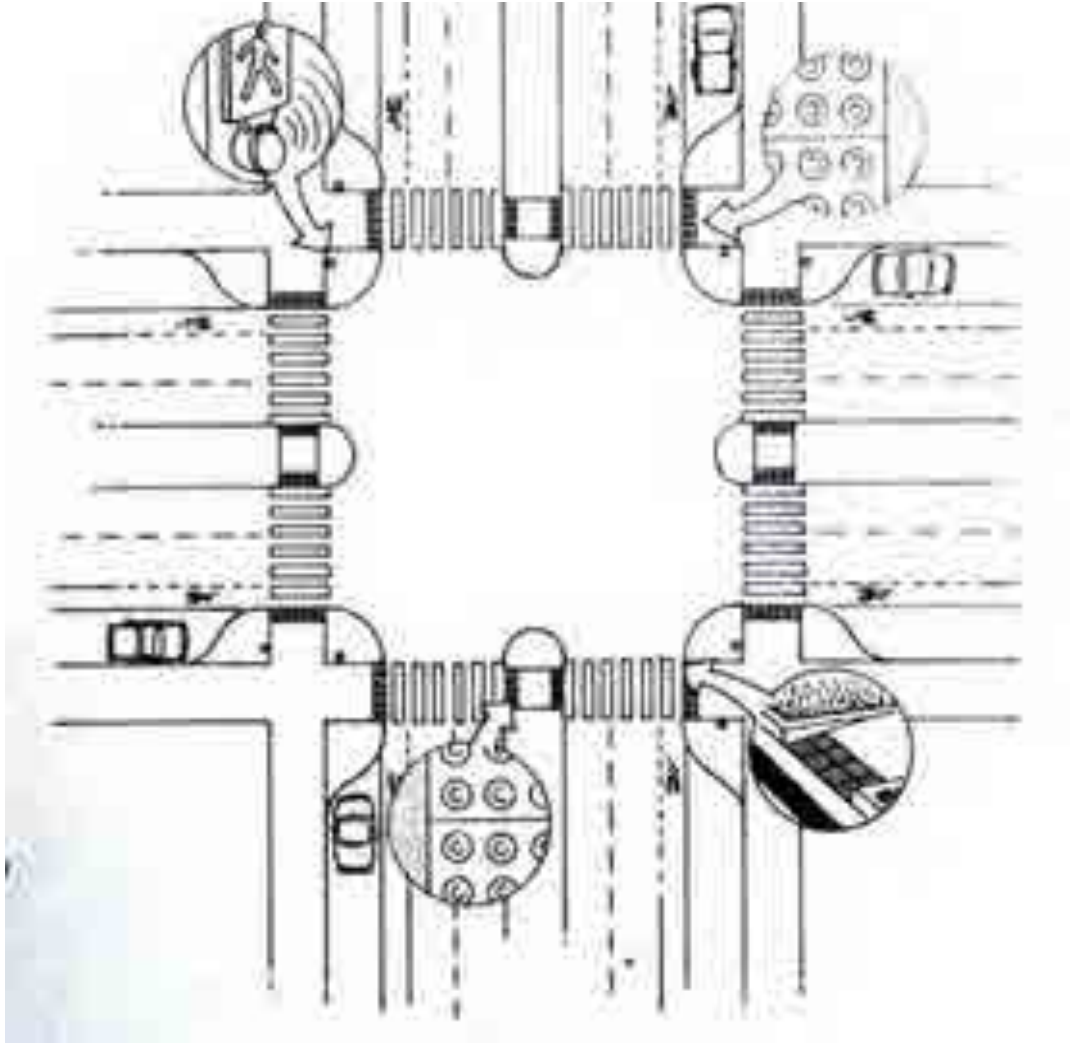
Seattle has been building half-signals for over 20 years. Half signals use standard, universally recognized red-yellow-green indications that drivers intuitively understand, reducing confusion and motorist violation rates. Studies indicate that standard red indications on half-signals can yield higher driver compliance and fewer motorist violations compared to hybrid beacons.



NTERSECTIONS

GOOD PRACTICE: INTERSECTIONS

- Apply two ramps per corner
- Maximize the use of curb extensions
- Use high visibility crosswalks
- Use curbing in ramps
- Keep lanes narrow
- Use bike lanes and buffers
- Use medians with a median nose



Source: Scott Lewendon

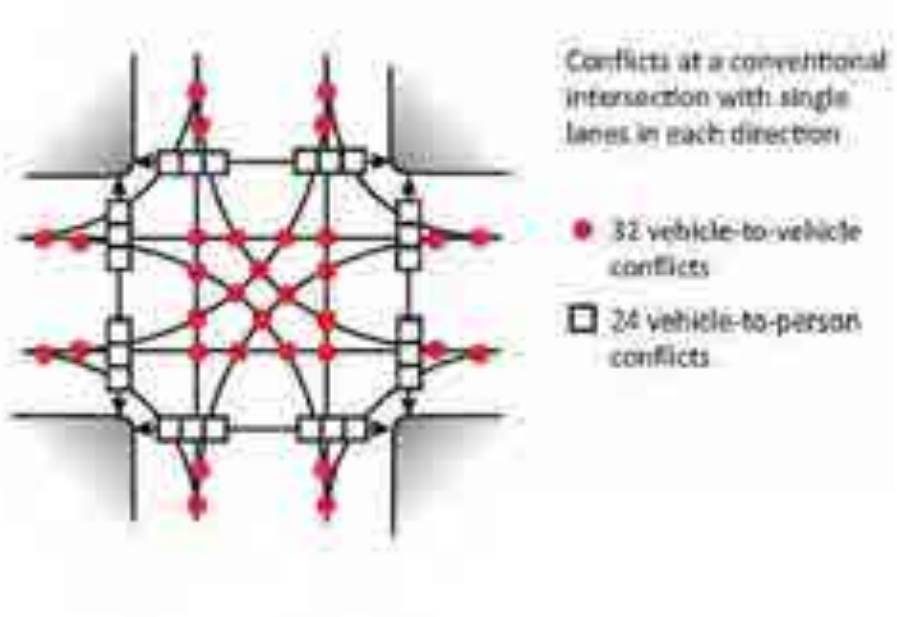


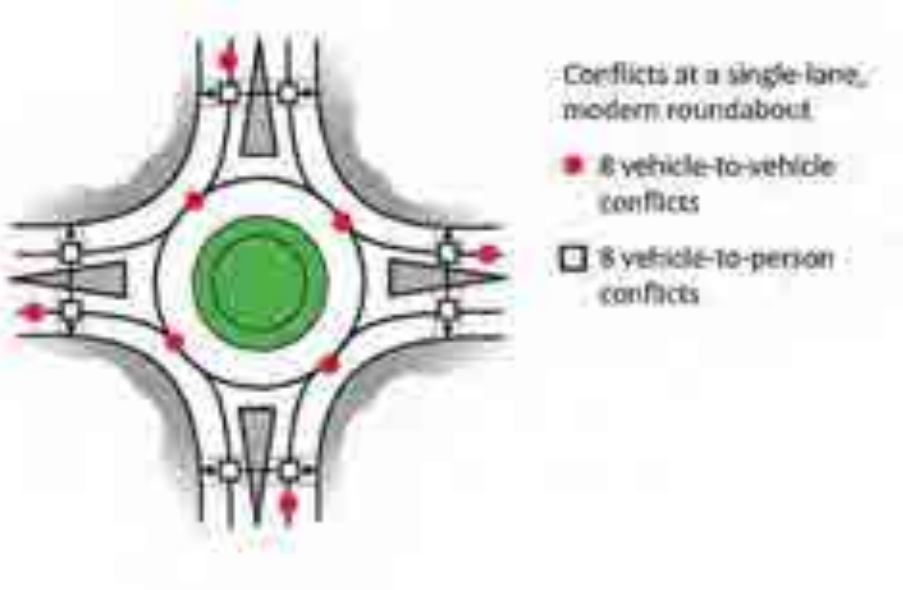
MAXIMIZE CROSSWALK WIDTH. For schools and downtowns, use a 12-foot width on principal streets for crosswalks, and try to keep ADA RAMP openings wide. When practicable, use two ramps per corner.



ROUNDABOUTS

Choose a ‘Roundabouts First’ Intersection Policy





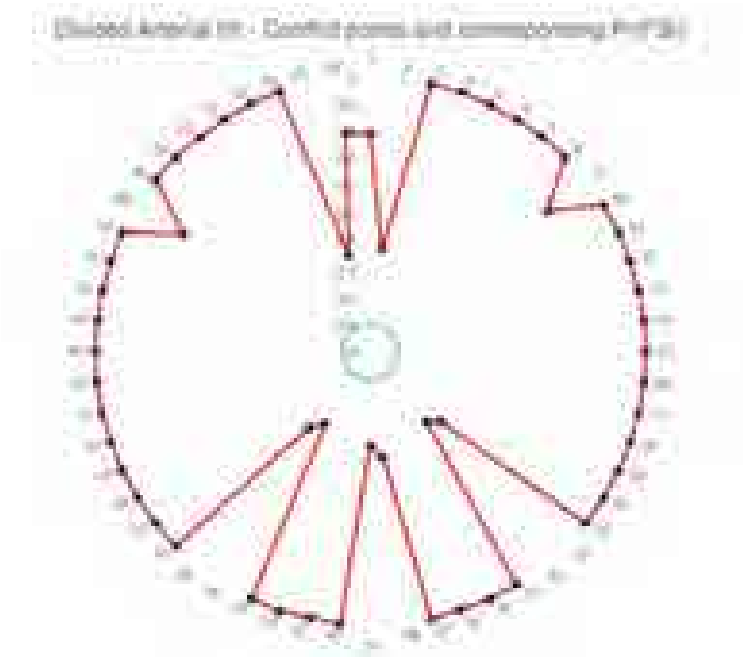
A roundabout has ¼ of the number of potential conflicts compared to signalized intersections. These conflicts are at low speed since vehicles enter the intersection at lower speeds and at softer angles. Roundabouts reduce personal injury crashes by 90% and have been recognized as a proven safety countermeasure by the U.S. Department of Transportation Federal Highway Administration and the National Insurance Institute, with each encouraging communities to choose a ‘roundabouts first’ approach to intersection design.

REDUCE INTERSECTION ENERGY

Divided arterial signals - 80 km/h x 60 km/h

$K = \frac{1}{2} mv^2$

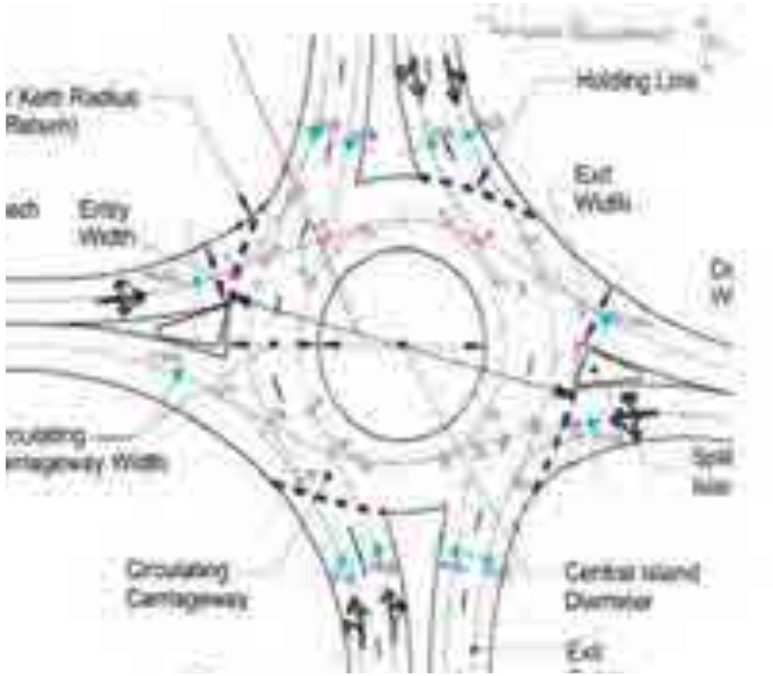


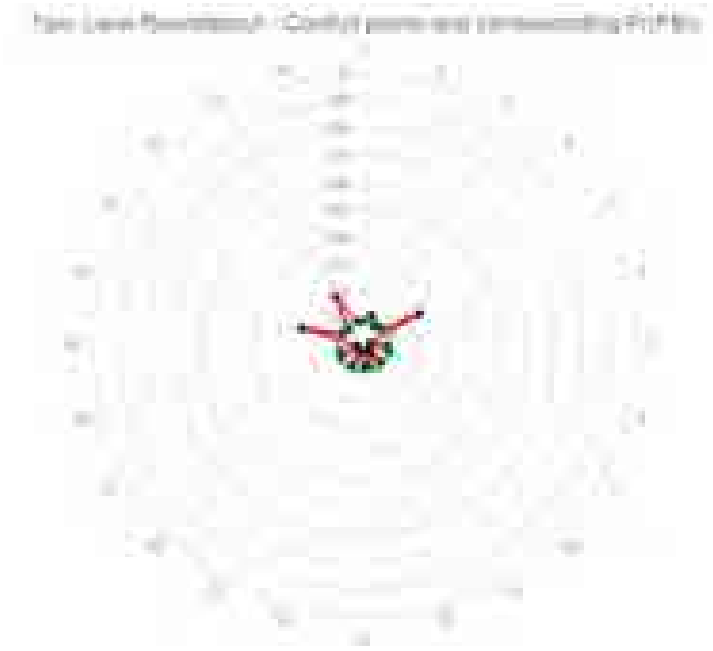


SIGNALIZED INTERSECTIONS create high-speed and kinetic energy forces shown in the outer red band.

REDUCE INTERSECTION ENERGY

Divided arterial roundabout - 80 km/h x 60 km/h





Source: Blair Turner

ROUNDABOUT INTERSECTIONS, in contrast, produce only a small fraction of the kinetic effect of signalized intersections, and thus they result in far less force to a vehicle or human body.

Hamburg, New York







Faced with the need to rebuild all principal town center streets, Hamburg asked the New York Department of Transportation to retain or add additional parking, keep the travel lanes to 10-feet, remove all signals and apply roundabouts to slow traffic and keep it moving. This is a major U.S. truck route and the approach works. The downtown is now thriving, with improved safety, and novel designs that are winning national street design awards.

WHY ROUNDABOUTS WORK

Pedestrians cross with no delay. Motorists do not have to wait for pedestrians to cross, since they are in and out of their lane in 3-4 seconds





Brighton, Michigan had a high imbalance between their principal street and this side street (21,000 ADT) VS 2,000). Motorists on the side street rarely wait more than 30 seconds to get in.

University Place, Washington had traffic queues 1/2 mile long with a 4-way stop design intersection. After the roundabout was built, the longest queue length is 8 cars.





University Place, WA,

Since roundabouts move 30-50% more traffic per lane they can eliminate traffic queues. Steve Sugg is proud of having built the first roundabout in Washington state in 1998. Today Washington has more than 400 roundabouts.

Hamburg, NY altered all 3 of its principal roads, all primary truck routes, to slow and improve traffic flow. The red pigmented park assist lanes are too narrow to be bike lanes, but they slow traffic and make it easier and safer to get in and out of cars.





To further dampen speeds, the use of color for the domed mini-roundabout could consider adding an artistic, celebratory, cultural, or sports feature.

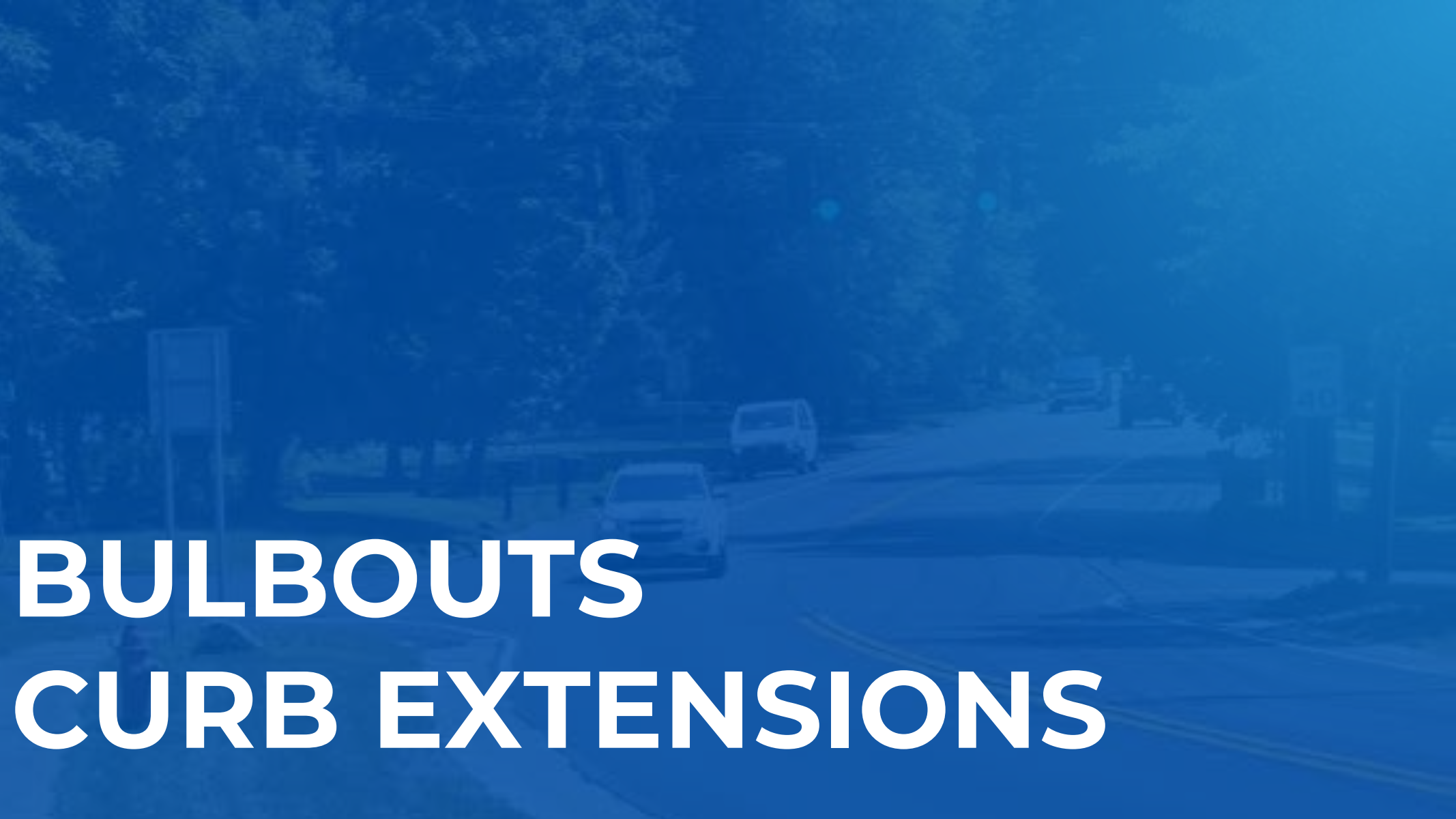
. MANITOU SPRINGS, COLORADO



Domed mini-roundabout Domed min-roundabouts fit in tight intersections. Oversize freight vehicles make their turns the way they do today by mounting the low domed center. This domed feature can have added art to celebrate a local team or other source of community pride

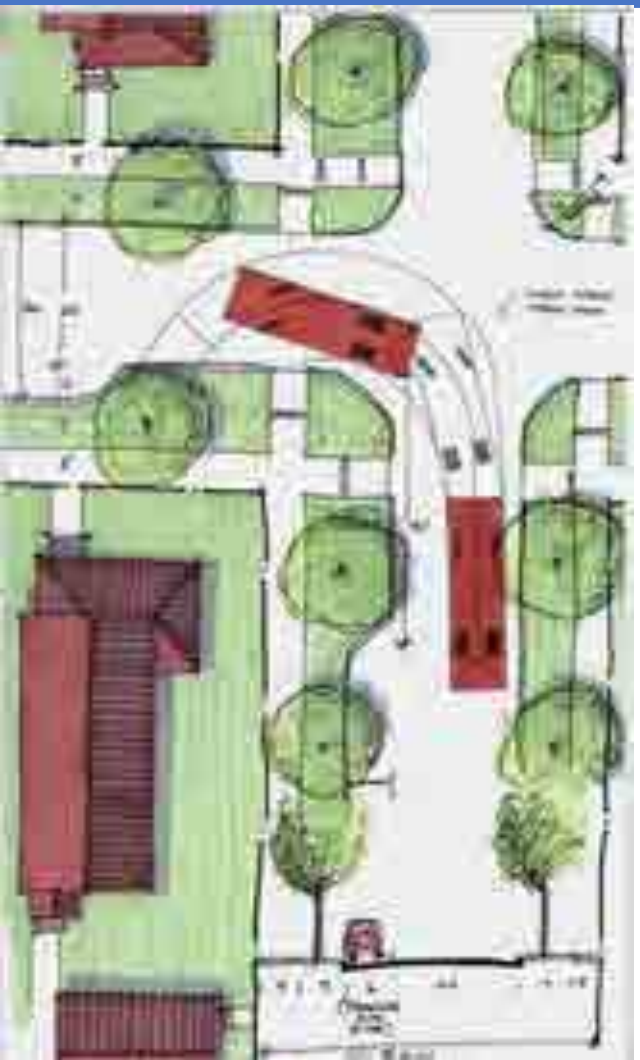


Domed mini-roundabouts fit in tight spaces, honoring historic buildings, and allow oversize vehicles to make their turns across the face.



BULBOUTS
CURB EXTENSIONS

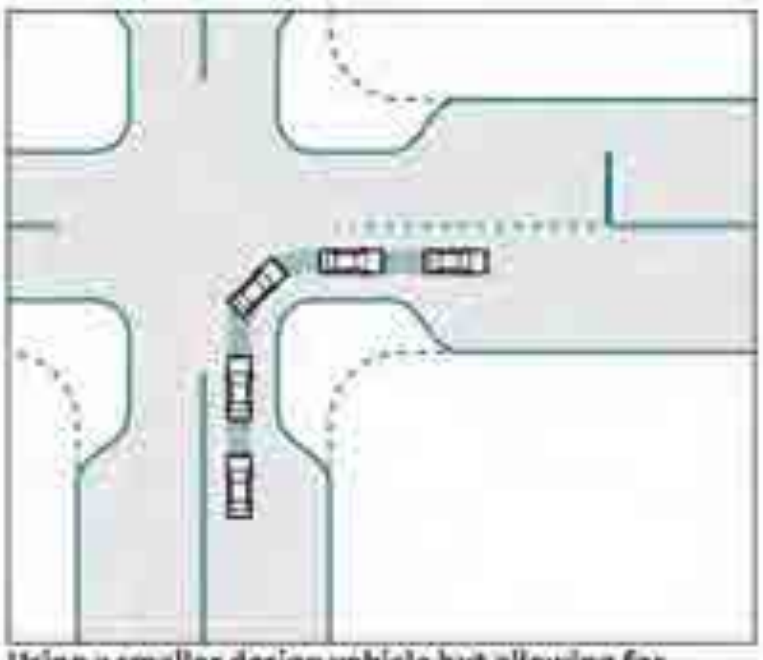
PROTECT ACCESS



Curb radii designed to accommodate the largest possible vehicle at its highest possible speed degrade the pedestrian environment and result in longer crossing distances. (NACTO)

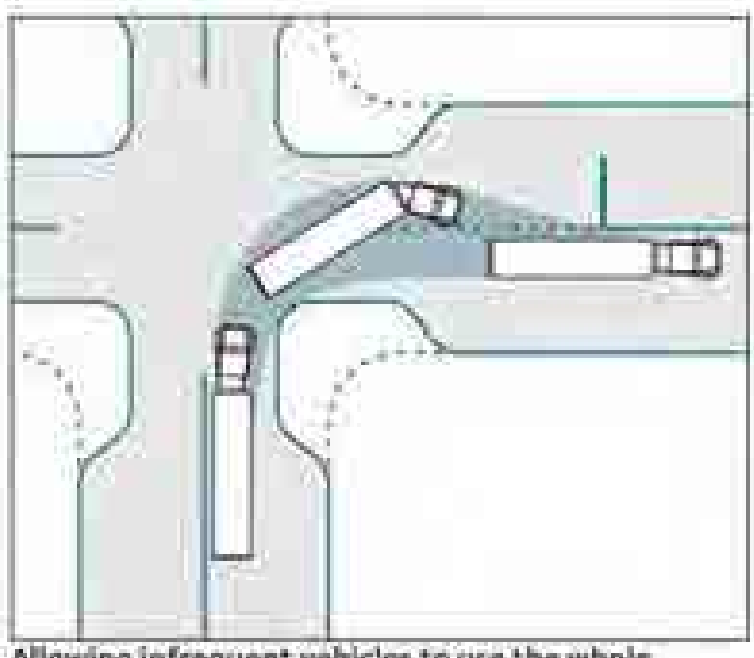


Honor the pedestrian and Safety First



Using a smaller design vehicle but allowing for occasional larger vehicles to use the entire intersection allows the design to promote a typical turning speed of 5–10 mph.

Before selecting a design vehicle, consider the ideal design given the overall context of the roadway, understanding how larger vehicles might flexibly operate within the proposed design



Allowing infrequent vehicles to use the whole intersection (moving left slightly before the turn and using the lane adjacent to the right lane on the receiving side) allows the entire intersection to become more compact, reducing turning speeds of regular vehicles to 12–15 mph. A recessed stop bar prevents conflicts with opposing traffic.

Poor Sight Lines and Far Side Drop-offs



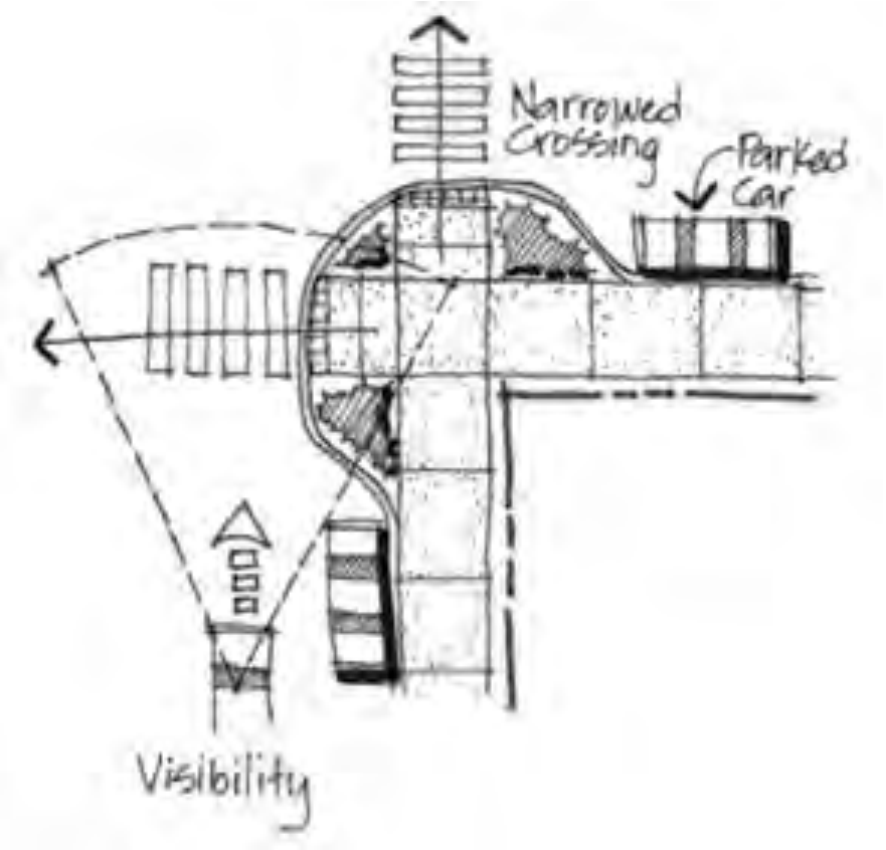
School zones need adequate sight lines before all crosswalks. The lack of curb extensions allows motorists to create unsafe sight lines at crossings. Approaching motorists cannot see students, and students cannot see drivers. All drop-offs and pick-ups should be on the school side of streets.

Poor Sight Lines and Far Side Drop-offs



School zones should have adequate sight lines approaching all crosswalks. The lack of curb extensions here creates unsafe crossings. Approaching motorists cannot see students, and students cannot see drivers. All drop-offs and pick-ups should be on the school side of the streets. South Davis Street is 38-feet wide and has parking and setback sidewalks on both sides of the street.

Curb Extensions (Bump Outs)



- Motorists no longer block sight lines;
- Ground cover is kept trimmed to 24 inches;
- Trees are undercut to seven feet;
- Motorists can pull forward to see past parked cars;
- Motorists are able to see pedestrians;
- Keeps speeds under control, especially on turns;
- Creates a new public space;
- Slows traffic in important areas.

Curb Extensions (Bump Outs)





Curb extensions, or bumb-outs, place pedestrians out from behind parked cars, improving sightlines and reducing crossing distances. Curb extensions create compact intersections that promote walking and make the intersection operate more efficiently. They reduce vehicle turning speeds by physically and visually narrowing the roadway. They also provide increased pedestrian waiting space.



Curb extensions reduce the crossing distance for pedestrians by 44 feet at this intersection in Venice,



Include ramps and curb extensions for accessibility



BENEFITS

- Keeps sight lines open
- Eliminates parking where motorists would block sight lines
- Shortens crossing times and exposure
- Keeps lanes and streets narrow
- Reduces speeding



A permanent curb extension can be disconnected from the curb, allowing the drainage to remain in place, and reducing construction costs to 20-25%


NEIGHBORHOOD
MINI CIRCLES

Neighborhood Mini-Circles









1. Mini-circles use ground cover and trees to advance neighborhood placemaking.
2. Neighborhoods often select their planting scheme, and then adopt the landscaping maintenance for the mini-circle.
3. Islands minimize ugly signage and some mini-circles use landscaping to establish a gateway feature into the community.
4. Islands can be key neighborhood feature, including up-lighting and even fountains.

Image Locations:
1. Santa Barbara, California
2. Vancouver, B.C.
3. Lake Oswego, Oregon
4. Holland, Michigan



A Neighborhood Mini-Circle slows traffic while keeping it in motion. The cost for these structures is low, since drainage is not affected, typically $15-35,000.



Consider Neighborhood Mini-Circles where 4-way stops are not the best tool for intersections such as the Oakwood and Girard corridors



Consider Neighborhood Mini-Circles where 4-way stops are not the best tool for intersections such as the Oakwood and Girard corridors



Consider Neighborhood Mini-Circles where 4-way stops are not the best tool for intersections such as the Oakwood and Girard corridors.



Pittsford, New York



The combination of curb extensions and mini-circles can accent the arrival into a neighborhood commercial district. This gateway approach emphasizes transitioning to a lower speed.



A citizen advocate for safety received a permit from the city of Port Townsend, then built this neighborhood traffic circle for less than $100 in 2005.



Neighborhood mini-circles, such as this one in London, can be domed to allow oversize vehicles to circulate

MEDIANS


8' WIDE MEDIAN
SPECIAL PAVEM'T.
@ CROSSINGS
AUHUHU
5' WIDE
EXTENSION
NOTE: LARGER
LEFT TURN

Medians and Greening





Use Native, Low Growth Plants and Keep Ground Cover to 2’

Keep Large Calliper Trees Back 15 - 150’ and Under-Trim Trees to 7’

Add Color to the Nose and Use Nightime Feature Lighting

Image Left: Boulder, Colorado
Image Right: Lake Oswego, Oregon

MEDIANS



MEDIANS provide a traffic calming effect, they add a source of vital green and nature to a neighborhood or downtown.



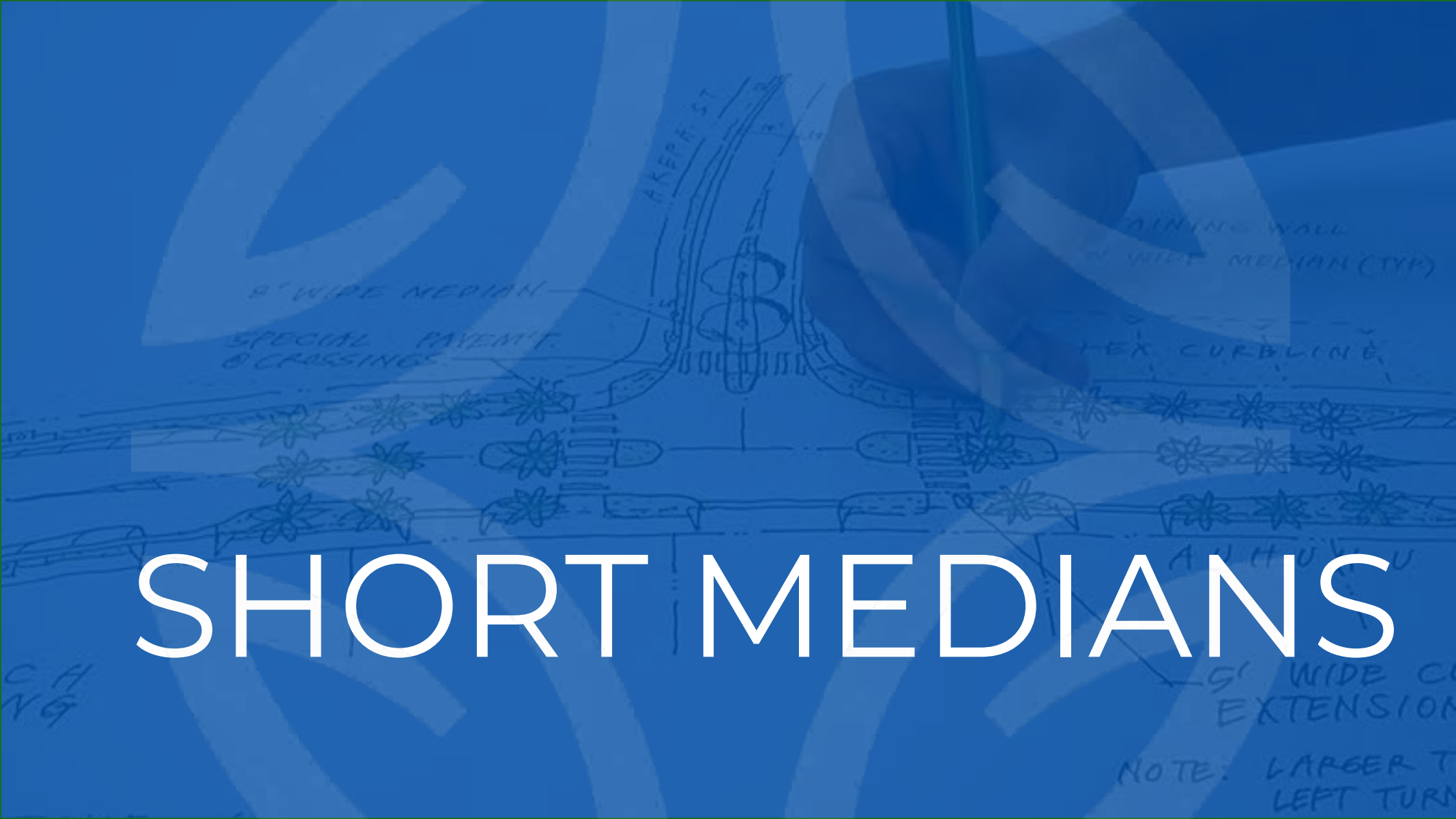


MEDIANS provide a traffic calming effect, they add a source of green and nature to a neighborhood/downtow









SHORT MEDIANS



Another popular tool to maintain low speeds is to apply a short median to set up a proper deflection path. Landscaping increases traffic slowing to up to 500 feet. (Vancouver, BC)




EDGE LANE ROADS

EDGE LANE ROADS



Glenridge Road, Town of Aurora



This is a confusing message. Engineers have transferred their responsibility to the driver, the road encourages high speeds, so they are asking the driver to go fast but to watch out for children.

A significant number of East Aurora streets lack sidewalks. Although traffic volumes may be low, speeds are posted at 30 mph. These streets can become much safer, quieter and more comfortable by making them into an Edge Lane Road. Posted speeds would be 20 mph. Note in

Edge Lane Roads

Edge Lane Roads have two-way traffic, which stays inside the center, until an opposing car is faced. This has many advantages, lower speeds, a safe place to walk or bike, reduced wearing of the street edge, more turn radius and better sight lines.





Edge Lane Roads can have on-street parking, if needed. Note this center lane operates two-way traffic in ten feet. Bike lanes and a buffer to parking is included.



Edge Lane Roads work on neighborhood streets that lack sidewalks. They often bring down speeds by 2-7 mph, reduce crashes, and increase courtesies to people walking and bicycling.



Edge lanes for local streets are posted at 20 mph. Port Townsend, Washington has a population of 10,000 and already has 7 Edge Lane Roads, with more coming.

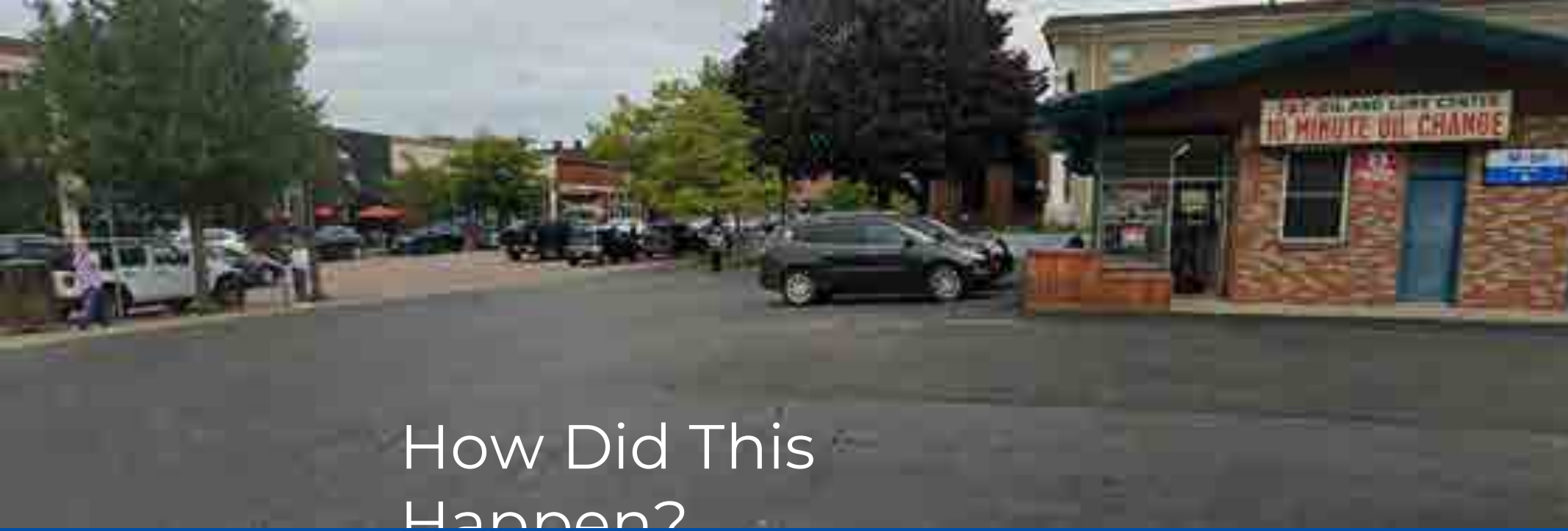


One advantage of an Edge Lane Road is that people exiting driveways can pull far enough forward before exiting to see their gap in traffic. Edge Lane Roads can be applied, with discretion, with volumes under 3,000 vehicles per day.



Another way to operate a two-way Edge Lane Road is to apply the walking/bicycling movements to one side of the street. A colorful pattern was added to this edge.

URBAN FORM AND LIGHTING



How Did This Happen?

Is this building behaving? Main Street buildings need to contribute to the social and civic continuity of Main Street? Any new development needs to contribute to the function of the street.

Many projects begin with isolated decisions: a road section, a building style, a density target, a parking requirement, a drainage solution. Each may seem reasonable on its own. But when they are not tuned together, the result is a place that functions poorly or feels incomplete.

ENCLOSURE



Durango, Colorado is reclaiming key corners by permitting and encouraging small corner retail


ALLEYS



Don’t Overlook East Aurora’s Alleys. These spaces can be transformed into places of beauty and attraction, especially in the commercial heart of the village. Alleys are quieter than Main Street, and they can become colorful art centers.





Don’t Overlook East Aurora’s Alleys. These spaces can be transformed into places of beauty and attraction, especially in the commercial heart of the



LIGHTING

TRANSPARENCY -- EYES ON THE STREET (70% TO 90% GLASS)







By placing buildings at the edge of sidewalks, then applying 70-90% glass at grade, pedestrians feel more watched over and secure. The build-to line is essential for a lively, vibrant downtown street.



Provide three sources of light

- Street lamps
- Lighting on buildings
- Interior lighting (on timers until 11:00 pm

Culdesac has no pavement, no cars. It is 16 degrees cooler than other Tempe neighborhoods



Culdesac, Tempe, AZ

FESTIVAL STREETS

The Parts of a 15 mph Street



A festival street is a public road or alley designated for recurring, temporary closures to cars so people can use the space for community events, markets, and pedestrian activities. A festival street may be permanently closed to autos, have restricted hours, or make clear that people are in



Asheville, NC converted Wall Street, an alley, into a delightful place for people, complete with a

PAVEMENT TO PLACE







A "third place" is a social environment outside of your home ("first place") and your workplace ("second place"). Coined by sociologist Ray Oldenburg in his 1989 book The Great Good Place, these are neutral, accessible, and affordable spots where you can connect with your community and regularly unwind.


PARKING

Parking



Try Back-In Angled Parking

On-street parking only takes up one-third of the space needed for off street parking, since the access lane and turn radii are always included in the street. In this low speed parking access street, only 23 feet (curb to curb) was needed to achieve this parking.



Image Location: Sarasota, Florida

Use Inset Parking



Image Locaton: Lake Oswego, Oregon

Try Back-In Angled Parking

The best use of space and safest way to park applies to back-in angled parking. Advantages are numerous and include:

- Safest way to park and un-park
- Easy to load from the trunk
- Uses less space
- Increases parking (over parallel)
- Allows adjacent travel lanes to be much narrower
- Less space use, which allows wider sidewalks or greening of the street
- Works well with curb extensions
- Works better than any other parking for bicyclists



Midblock Tools



Parking– Level 6



Parking– Level 6-- Elements: Back in parking maximizes safety, buffers to bicycling and sidewalk facilities. Diagonal parking, helps slow traffic speeds, used with curb extensions.

Try Back-In Angled Parking





Staggering Parking from one side to the other can produce traffic calming.

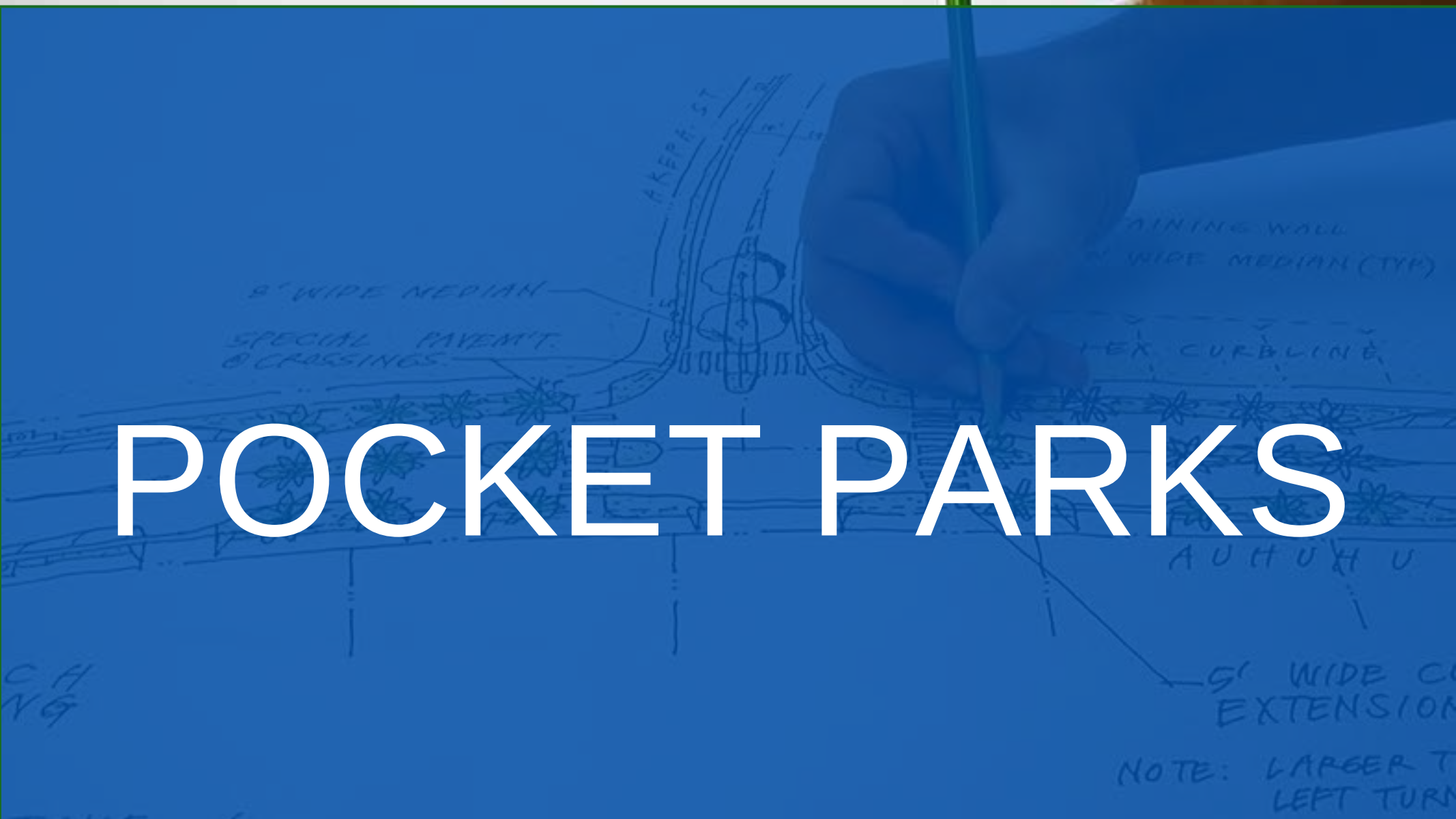
Parking– Level 3 Parallel, inset with curb extensions



Parking– Level 3-- Elements: Parking acts as an added buffer to sidewalks, and is inset with curb extensions.



Hillsborough Street in Raleigh, NC was once 4 lanes, and highly unsafe. It was converted to two lanes and is now one of the safest and most loved streets in the state. It carries over 20,000 cars per day in two lanes.


POCKET PARKS

Street Closure or Pocket Park



If residents agree, a street closure conversion on Elm or Paine .Properties would still have driveway access. (Victoria, BC)



A pocket Park street closure would still maintain through movement for walking and bicycling



Seattle has a neighborhood Pavement to Parks program. The neighborhood selects the sight and temporary design. One year after the design is built, the city checks with the neighborhood, and often turns the project into a permanent park. (Seattle, WA)

Consider Parklets and Flexible Streets



The design of streets should create nodes where people naturally gather, share, gain information and knowledge. When motorists see people making active use of the street, they slow down, and many then shop for a parking space


GO FOR BEAUTY











