HAMBURG SAFE ROUTES TO SCHOOL PLANNING (SRTS)

FRONTIER MIDDLE SCHOOL

By Dan Burden

BLUE ZONES®

September 26, 2023

INTRODUCTION

Safe Routes to School refers to a variety of programs aimed at increasing the number of students walking and bicycling to and from school. These programs involve partnerships between municipalities, school districts, community members, parents, volunteers, students and law enforcement agencies.

This report offers Hamburg opportunities for advancing safe routes to school around the Forest Middle School, and the Cloverbank Elementary School. It highlights the discussions that occurred during the September 2023 walking audit and meetings and presents opportunities to advance active transportation.

"The definitive factors in determining whether someone is in good health extend significantly beyond access to care and include the conditions in their life and the conditions of their neighborhoods and communities."

- John Auerbach, Associate Director for Policy, Centers for Disease Control and Prevention

Study Area


Fabtron Industries
Presbyterian Church
WDCZ Radio Tower Ticonderoga
Emerald Green Apartments
Cloverbank Country Club
Brierwood Child Care Center
Frontier Middle School
harmony embroidery
Buffalo or Nowhere
Amsdell Ice Cream
Electrolysis By Karen

Study Area

Although this Amsdell Road grant covers sidewalk gaps and needed crossings, the master planning work provided to the Town of Hamburg will include wider and more holistic planning. This report will address how much can be built with the current grant (Phase 1), and then price and recommend solutions to give much greater long term lift to active transportation (Phase 2).

Events

Discussion: Built Environment Observations

- Issues?
- Concerns?
- Opportunities?

Discussion: Informing August Activities

- Friday, September 23: Photo, SRTS observations, walking audit and Technical Team Meetings
- Saturday, September 24: Community Workshop, 10:00am - 11.30am
- Monday, All Day Field work by Blue Zones and GObike
- Monday, September 26: Town Board Presentation, 5:30pm

Discussion: Any Other Stakeholders to Engage With?

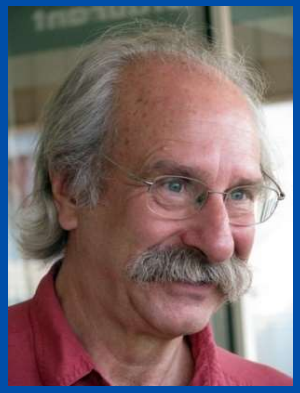
- Others to Engage With?
- Final Thoughts?

Our Team

Justin Booth
Planner

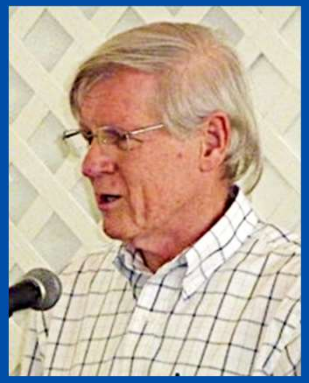
Jim Jones
Engineer

Mohammad Hossain
Planner



Dan Burden
Planner

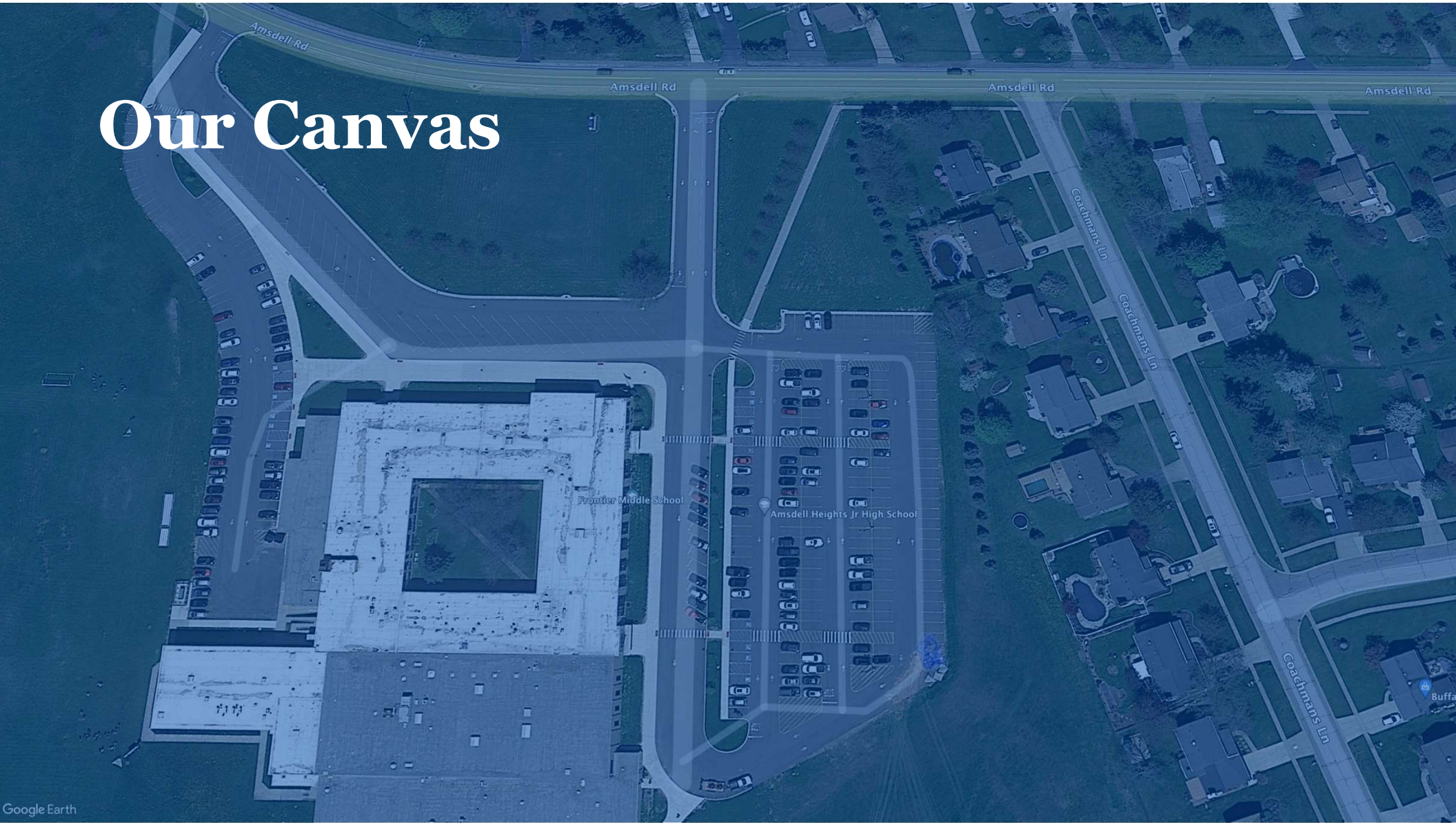
Sarah Bowman
Coordinator



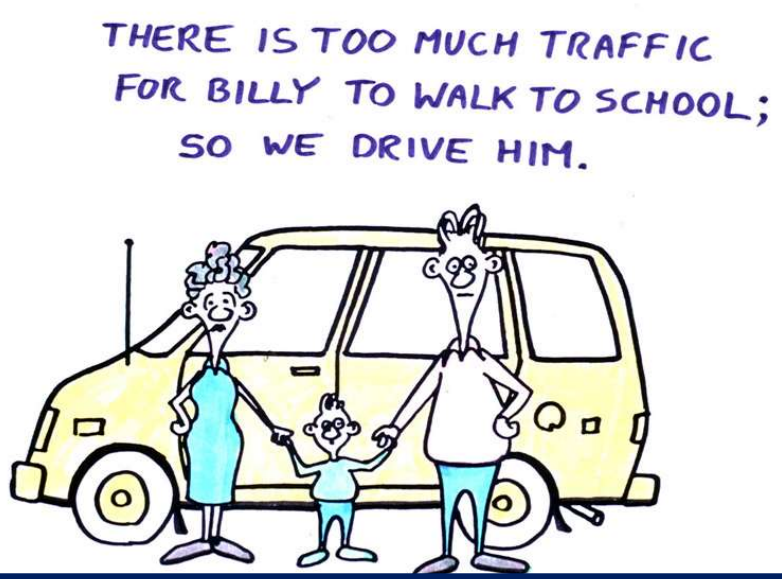
Michael
Wallwork
Engineer

Todd Clements
Landscape
Architect

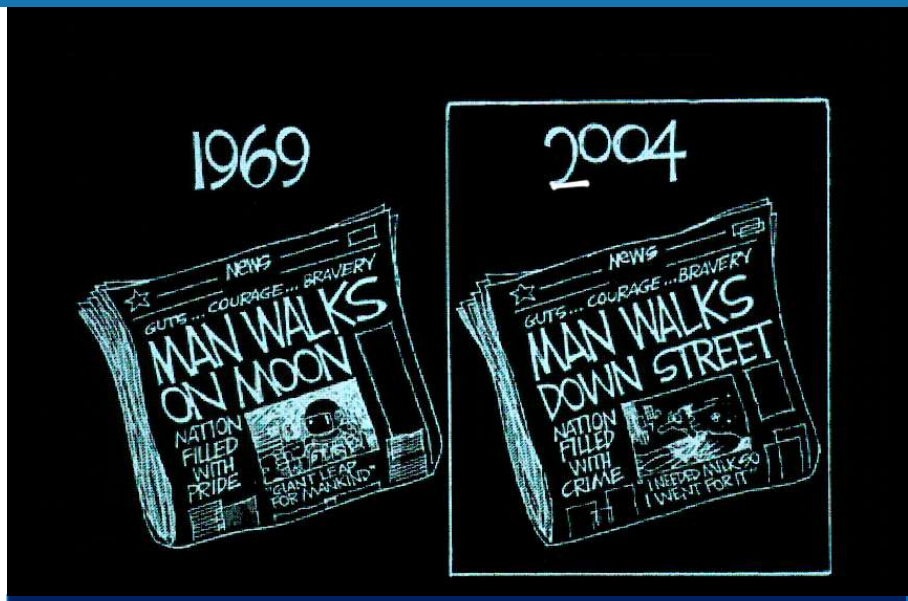
Our Canvas


Amsdell Rd
Amsdell Rd
Amsdell Rd
Amsdell Rd
Coachmans Ln
Coachmans Ln
Coachmans Ln
Frontier Middle School
Amsdell Heights Jr High School
Google Earth

How Far Have We Fallen?



Obesity-related health spending in the U.S. reached $147 billion in 2009 and accounts for 91% of all medical spending (U.S. Department of Health and Human Services Secretary Kathleen Sebilus, 2009).



"The definitive factors in determining whether someone is in good health extend significantly beyond access to care and include the conditions in their life and the conditions of their neighborhoods and communities."

- John Auerbach, Associate Director for Policy, Centers for Disease Control and Prevention

Schools throughout the nation have overlooked the need of students to safely and comfortably access their schools. This leads to even more parents driving their kids to school.

School busing and parent drop off’s account for as much as 30% of a city’s rush hour traffic.

In some towns school rush hour is bigger than the morning commuter rush hour.

This effect is part of an undesired result of poorly located, oversized schools, poor walkability, wide roadways, poor neighborhood design and school busing not being charged to local school boards.

Any town that doesn't have sidewalks doesn't love its children. --Margaret Mead

How did we get here?

- School siting issues
- Individual barriers to walking to school
- Community issues

Key design principles for a School Campus

Image Source: Todd Clements, Dan Burden and Sarah Bowman, WALC Institute

School area Operations/Principles: Maintain low (15-20 mph speeds 24/7), separate all modes (bus, parents, staff, walking/bike), receive students at earliest campus entry, provide many “eyes” on the street using campus and housing design, provide 8-foot-wide sidewalks with setbacks on all approaches to school, keep all intersections compact and low speed, provide adequate lighting, especially at crossings, Design school(s) as community centers, maximize on-street parking, green the streets for added cooling and speed reductions.

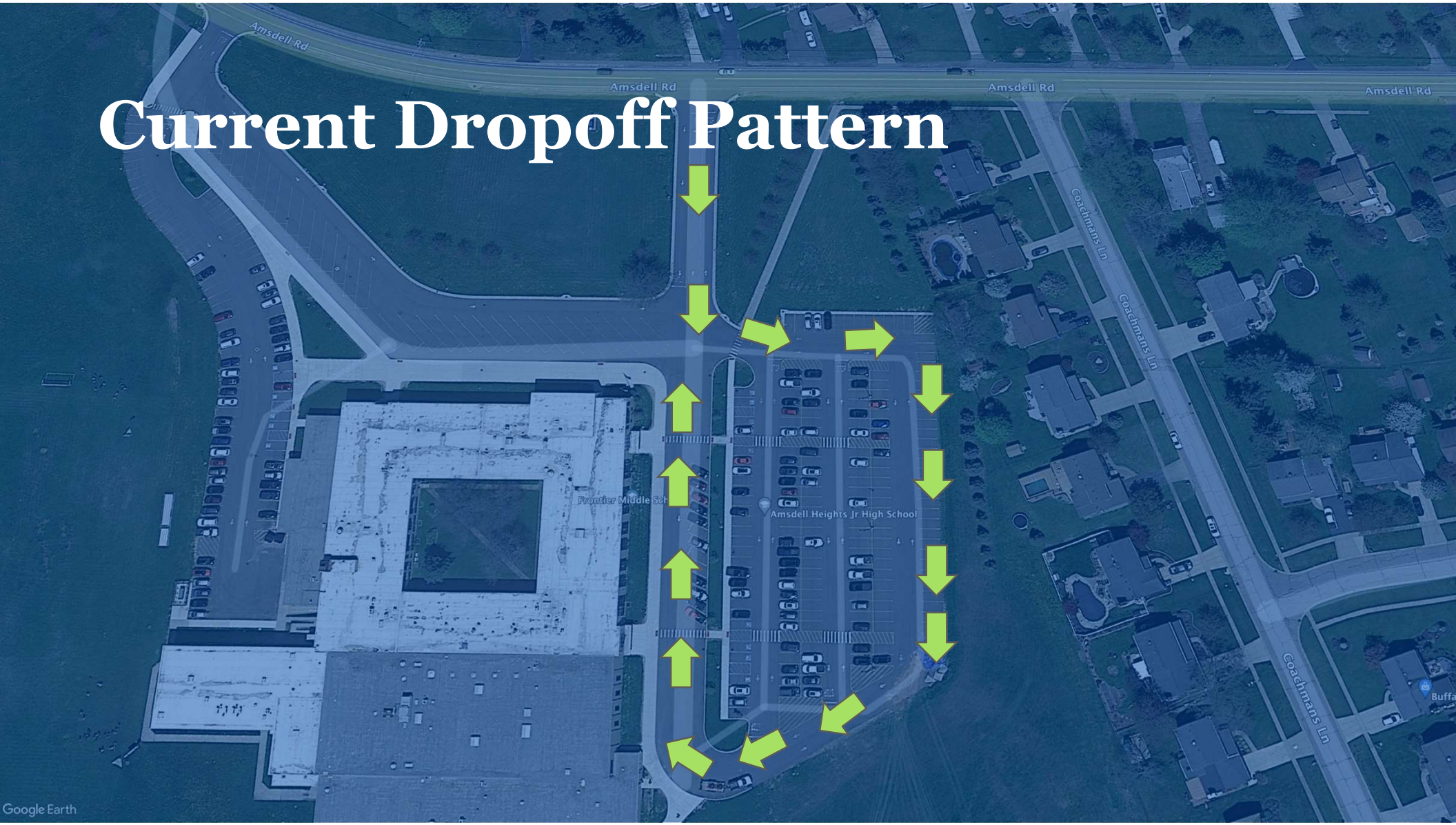
School Campus Drop-off, Pickup Area

Image Source: Todd Clements, Dan Burden and Sarah Bowman, WALC Institute

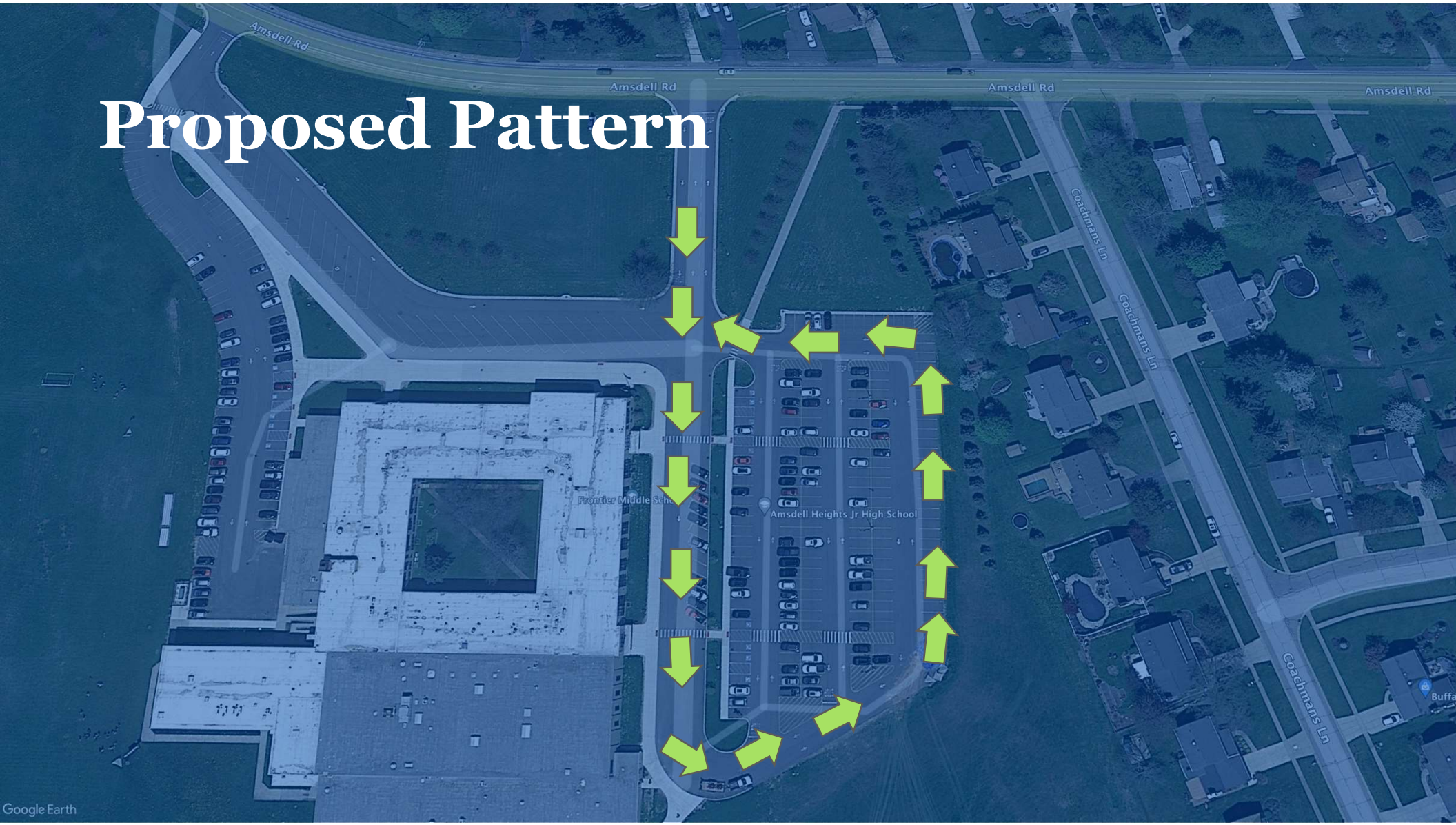
School area Operations/Principles: Maintain low (15-20 mph speeds 24-7), separate all modes (bus, drivers, walking/bike), receive students at earliest campus entry, provide many “eyes” on the street using campus and housing design, provide 8-foot wide sidewalks with setbacks on all approaches to school, keep all intersections compact and low speed, provide adequate lighting, especially at crossings, Design school(s) as community centers, maximize on-street parking, green the streets for added cooling and speed reductions.

PARENT DROPOFF Although this operation is well-managed, the drop-offs and pickups currently force students to walk in front of or behind cars. A reverse traffic flow pattern will eliminate this risk.

Current Dropoff Pattern

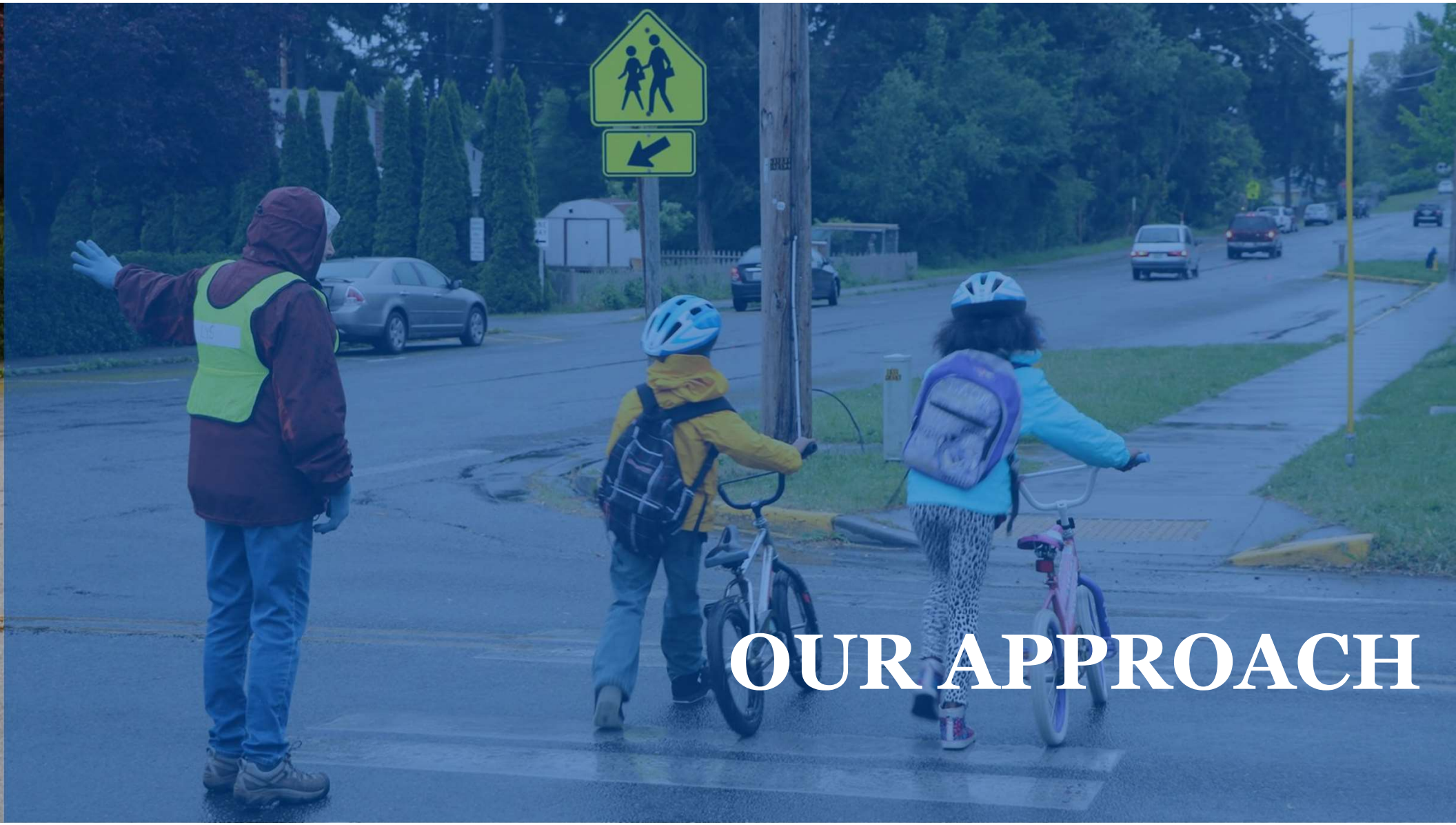


Proposed Pattern




STOP
CENTRAL SCHOOL


STOP
BATTERY



OUR APPROACH

Amsdell Road technical team

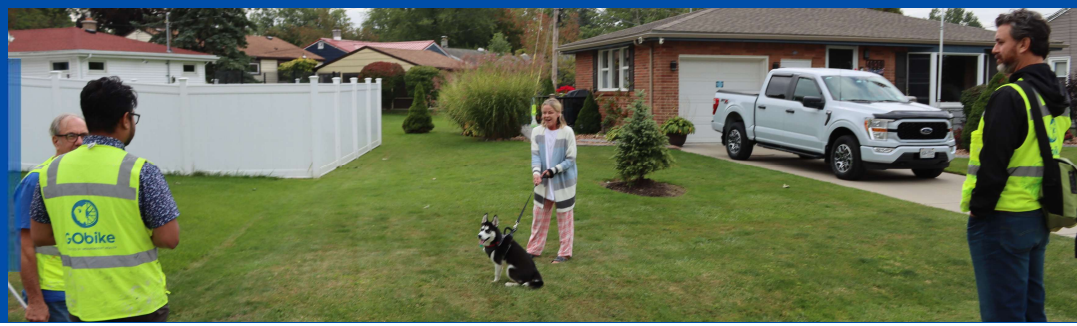

CROSSWALK

Dr. Chris Thuman, Principal of Frontier Middle School

Saturday workshop provided key insights and input

Discussion of problems and solutions

On Monday the Gobike team begins their detailed observations and data to help refine recommendations and designs.




GObike

EXISTING CONDITIONS

Example area lacking sidewalks, unstable walking conditions.

Example area with inadequate width sidewalk, creating unstable walking conditions.

Well marked school crossings and a 12-foot-wide entry walkway.

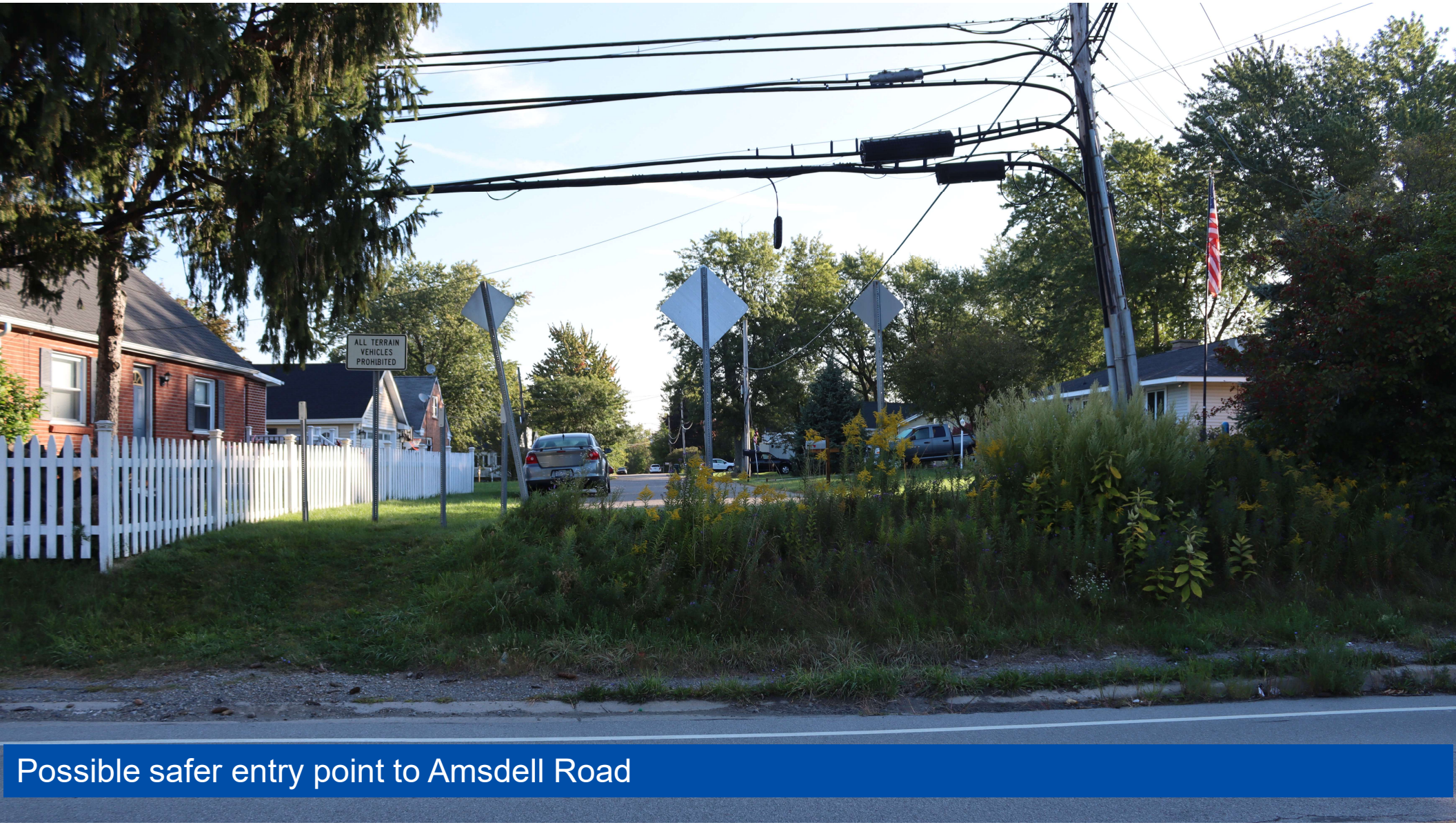
Example area lacking sidewalks, unstable walking conditions.


LAND-ON
998-3978
Green Meadow

Nearly 400 feet of missing sidewalk on Kennison, near the Cloverbank Elementary school.

Near Orchard Road Intersection, Amsdell Road, 3-foot-wide aging asphalt attached path

Near Orchard Road Intersection, Amsdell Road, 3-foot-wide aging asphalt attached path



Possible safer entry point to Amsdell Road

Near Orchard Road Intersection, Amsdell Road, 3-4 foot-wide aging asphalt attached path

An area under the railroad tunnel has not been maintained for decades.


RECOMMENDATION:
Repost all local streets to 20-25 mph
AREA
SPEED
LIMIT
30

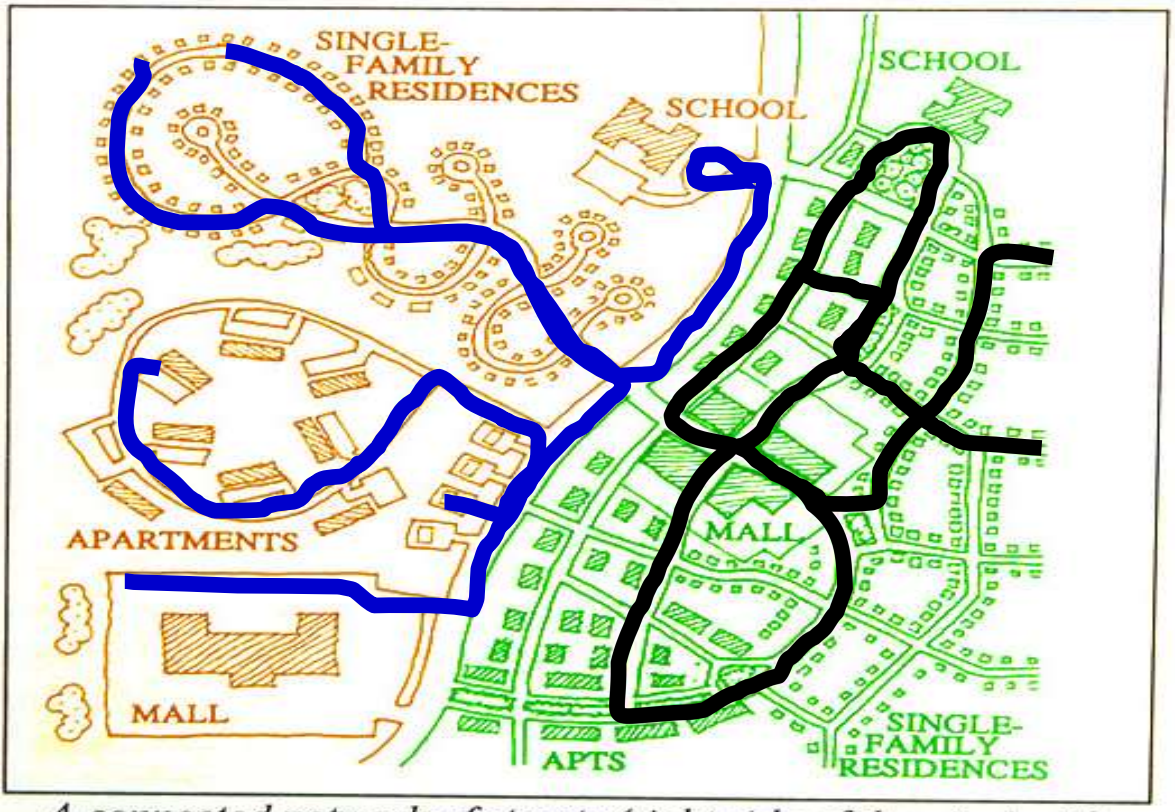

RECOMMENDATION:
Require that all sidewalks across driveways be a 6” depth concrete with rebar reinforced design

Rebuilt sidewalk across this driveway

RECOMMENDATION:
Provide an annual inspection and replacement of non-accessible sidewalks. Consider an on-call construction contract to keep home-owners replacement costs low.

Observed: most runners on local streets prefer to remain in the street. Instead of dealing with narrow 4-foot-wide sidewalks, cars parked across sidewalks, most people with a disability, will remain in the street.

Conventional Versus Tradtitional Pattern



A connected network of streets (right side of drawing) with sidewalks cuts walking distances between housing, shopping, work and school.

(Source: A. Duany/E. Plater-Zyberk)

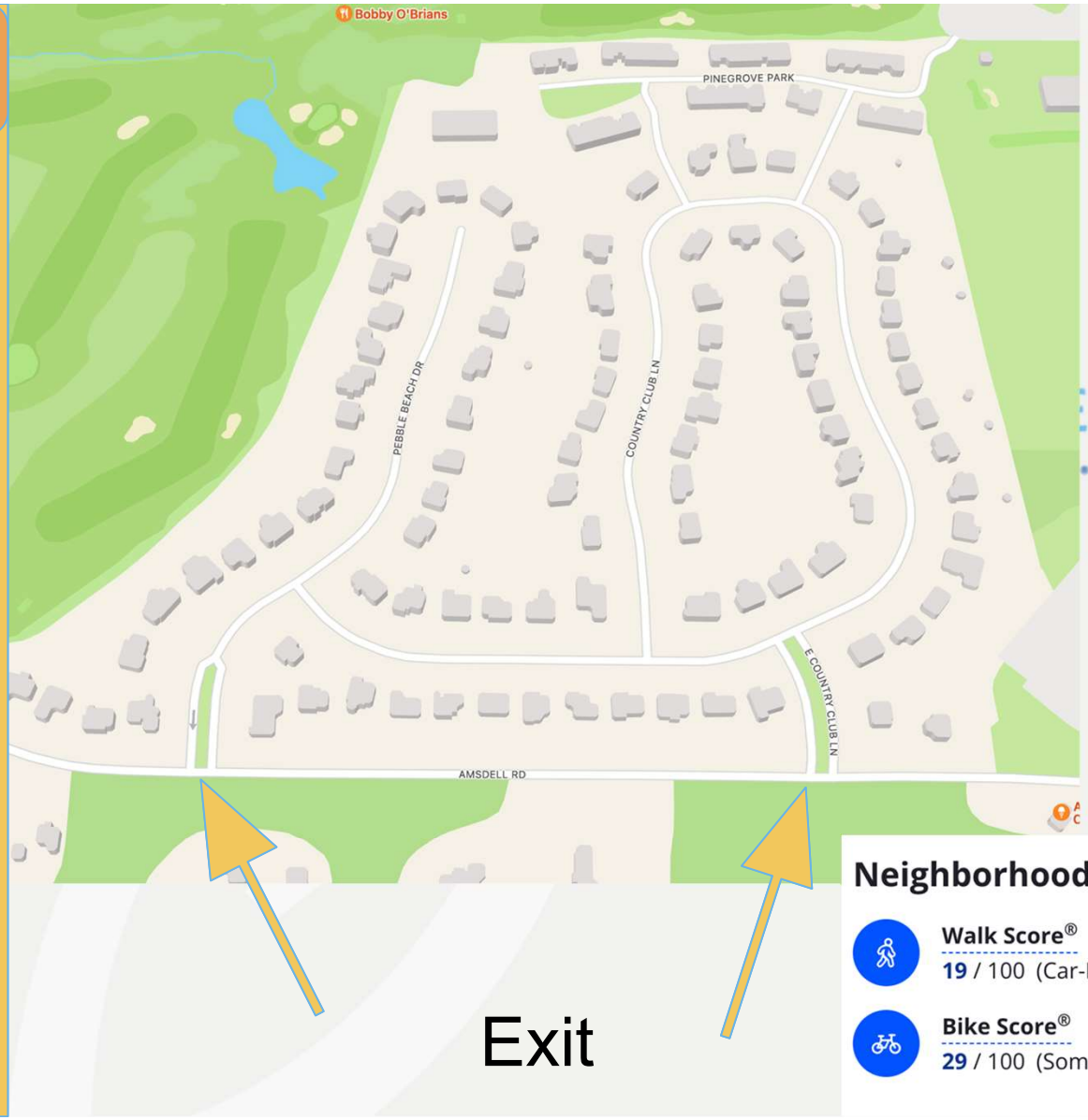
The neighborhoods surrounding the Frontier Middle School are disconnected, driving more parents to drive their children to school. By requiring future neighborhoods to follow a traditional pattern, requiring future neighborhoods to be linked, will improve walking, bicycling and even driving.

Existing Condition

Project Community

(Amsdell Rd and County Club LN)

- **This community has roughly 110 households**
- **Majority of the houses are single family homes**
- **According to Zillow for this neighborhood the walk score really low shows the car-Dependant culture.**
- **The Neighborhood only has two exits to the Amsdell Rd**



https://www.zillow.com/homedetails/5433-Country-Club-Ln-Hamburg-NY-14075/30347558_zpid/

Neighborhood: 14075

Walk Score®
19 / 100 (Car-Dependent)

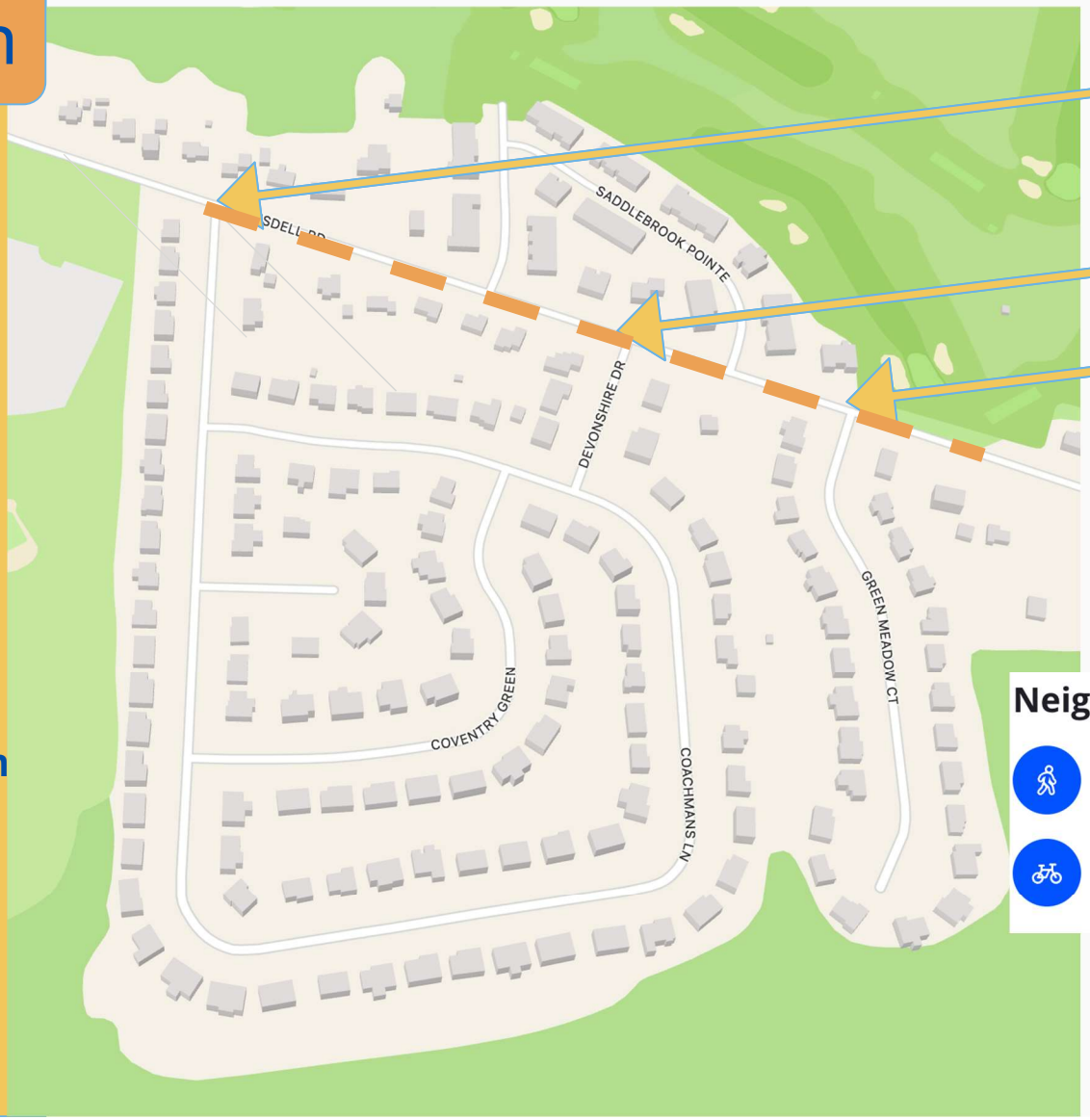
Bike Score®
29 / 100 (Somewhat Bikeable)

Existing Condition

Project Community

(Amsdell Rd and County Club LN)

- **This community has roughly 170 households**
- **Majority of the houses are single family homes**
- **According to Zillow for this neighborhood the walk score really low shows the car-Dependan culture.**
- **The Neighborhood only has three exits to the Amsdell Rd**



Neighborhood: 14075

Walk Score®
11 / 100 (Car-Dependent)

Bike Score®
27 / 100 (Somewhat Bikeable)

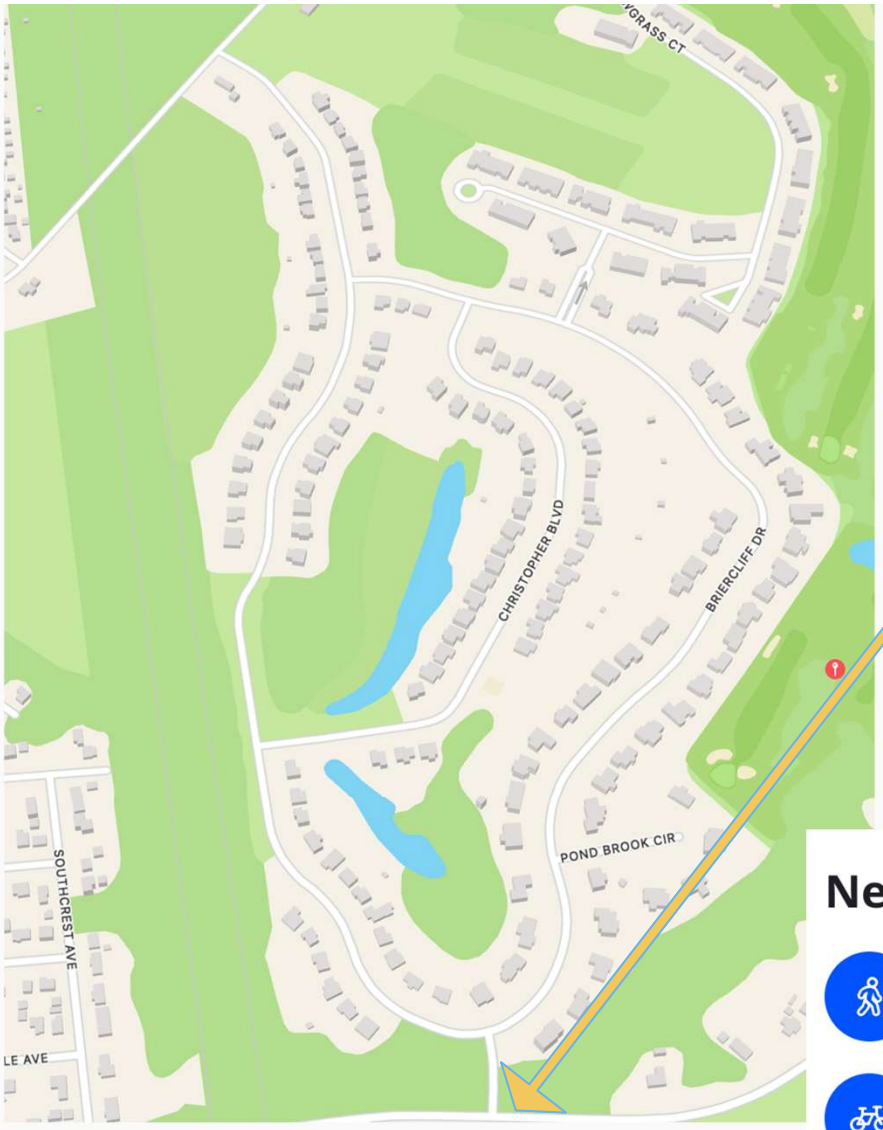
https://www.zillow.com/homes/5632-Green-Meadow-Ct-Hamburg,-NY-14075_rb/30347679_zpi

Existing Condition

Project Community

(Amsdell Rd and Bierclif Dr)

- **This community has roughly 100 households**
- **Majority of the houses are single family homes**
- **According to Zillow for this neighborhood the walk score really low shows the car-Dependant culture.**
- **The Neighborhood only has one exit to Amsdell Rd**



Exit

https://www.zillow.com/homes/5302-Briercliff-Dr-Hamburg,-NY-14075_rb/54463622_zpid/

Neighborhood: 14075

Walk Score®
10 / 100 (Car-Dependent)

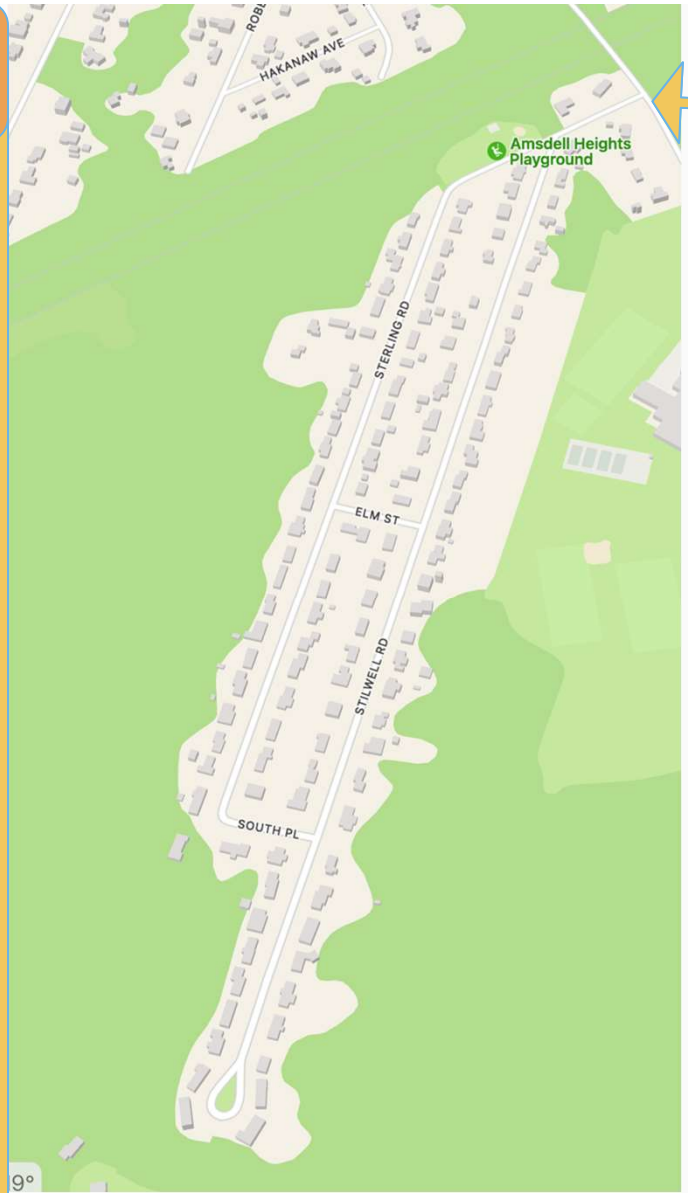
Bike Score®
20 / 100 (Somewhat Bikeable)

Existing Condition

Project Community

(Amsdell Rd and Brundage St)

- **This community has roughly 105 households**
- **Majority of the houses are single family homes**
- **According to Zillow for this neighborhood the walk score really low shows the car-Dependant culture.**
- **The Neighborhood only has one exit to Amsdell Rd**



Exit

https://www.zillow.com/homes/5581-Stilwell-Rd-Hamburg,-NY-14075_rb/30347354_zpid/

Neighborhood: 14075

Walk Score®
13 / 100 (Car-Dependent)

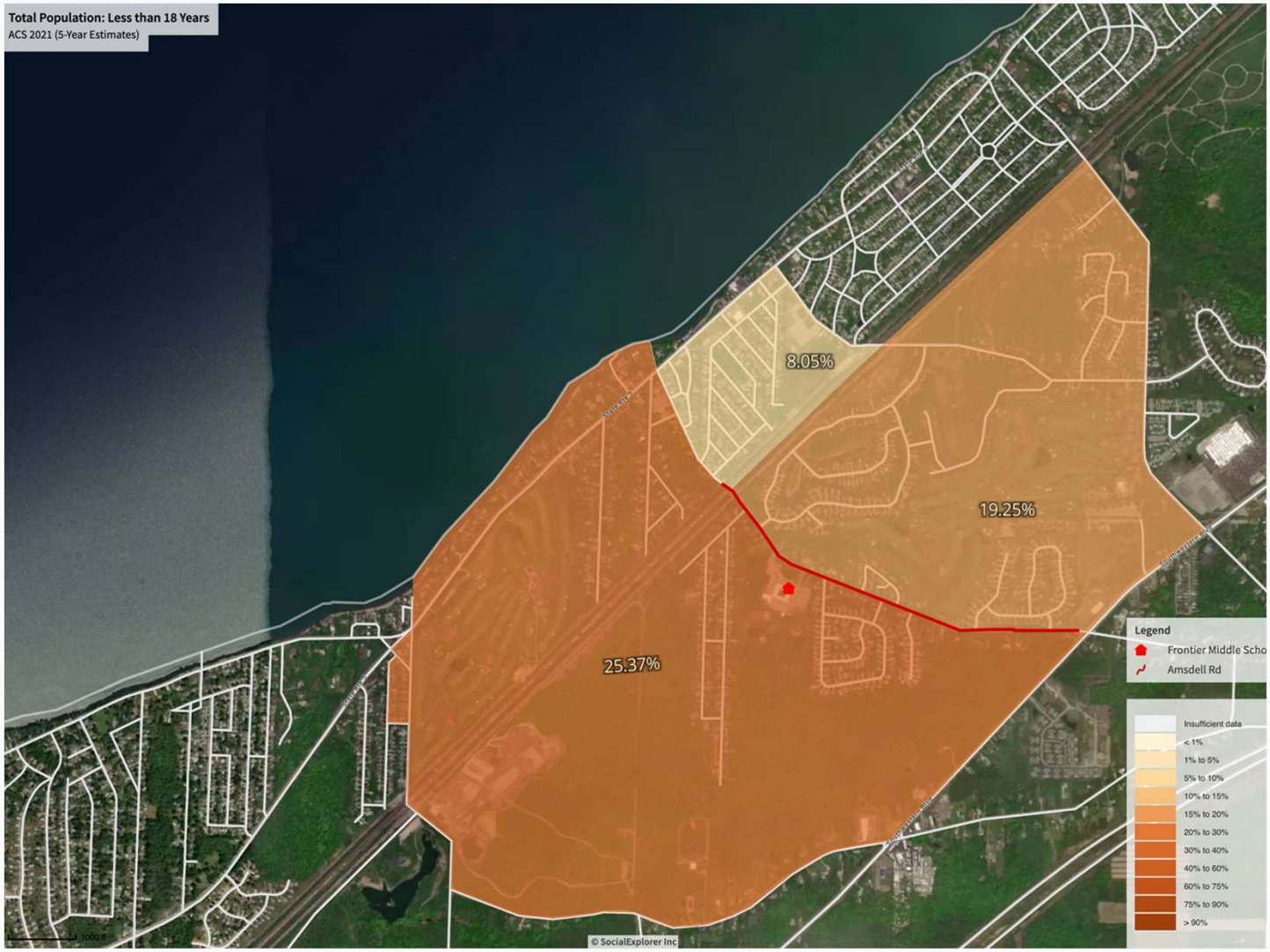
Bike Score®
25 / 100 (Somewhat Bikeable)

Existing Condition

Demographic

Population under 18 years old

- The study area has a significant amount of population under 18.
- Their physical limitations result in reduced mobility, leaving them in a vulnerable position.

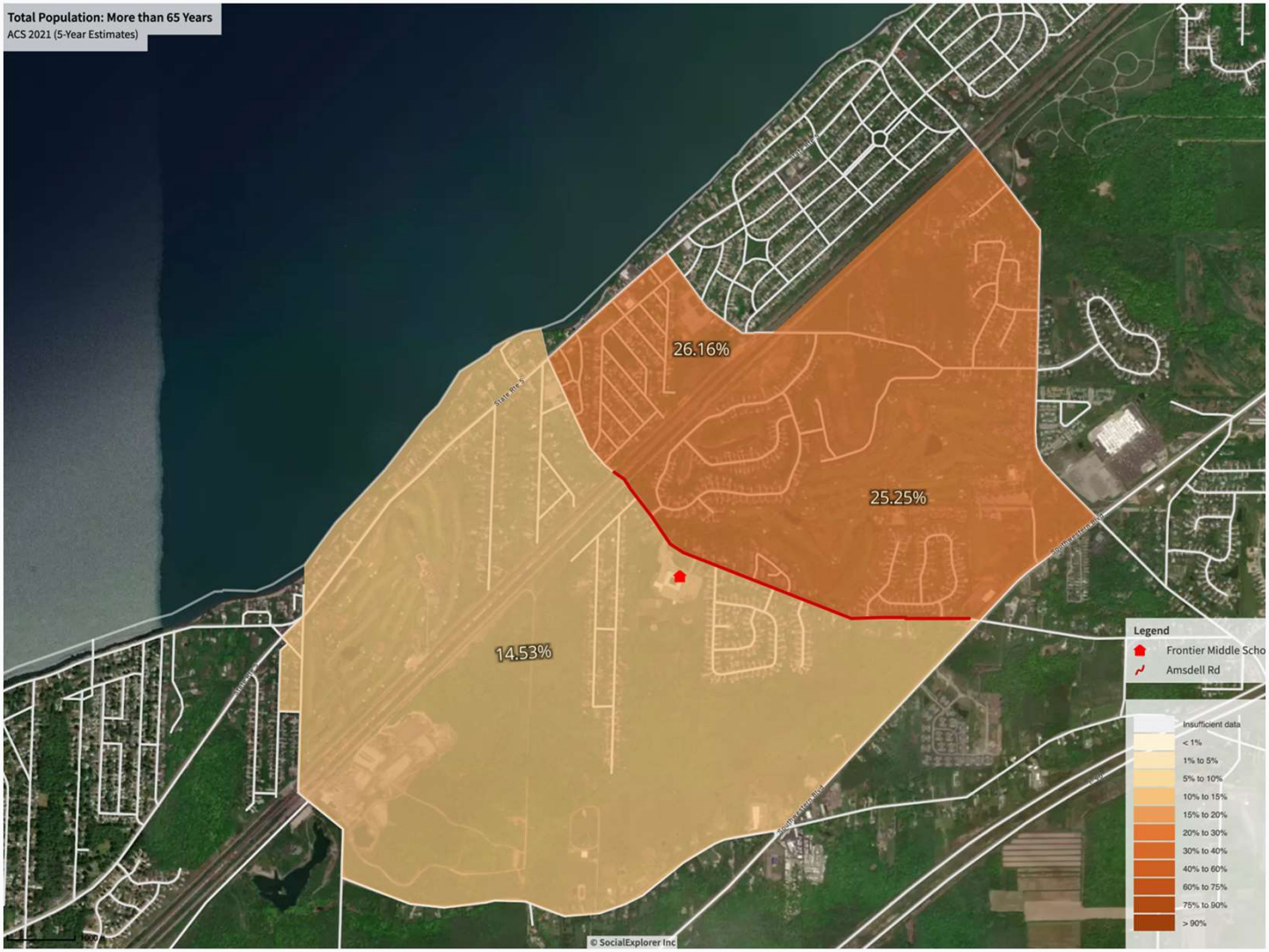


Existing Condition

Demographic

Population over 65 years old

- The study area also holds a decent amount of population 65 and over.
- Their physical limitations result in reduced mobility, leaving them in a vulnerable position.

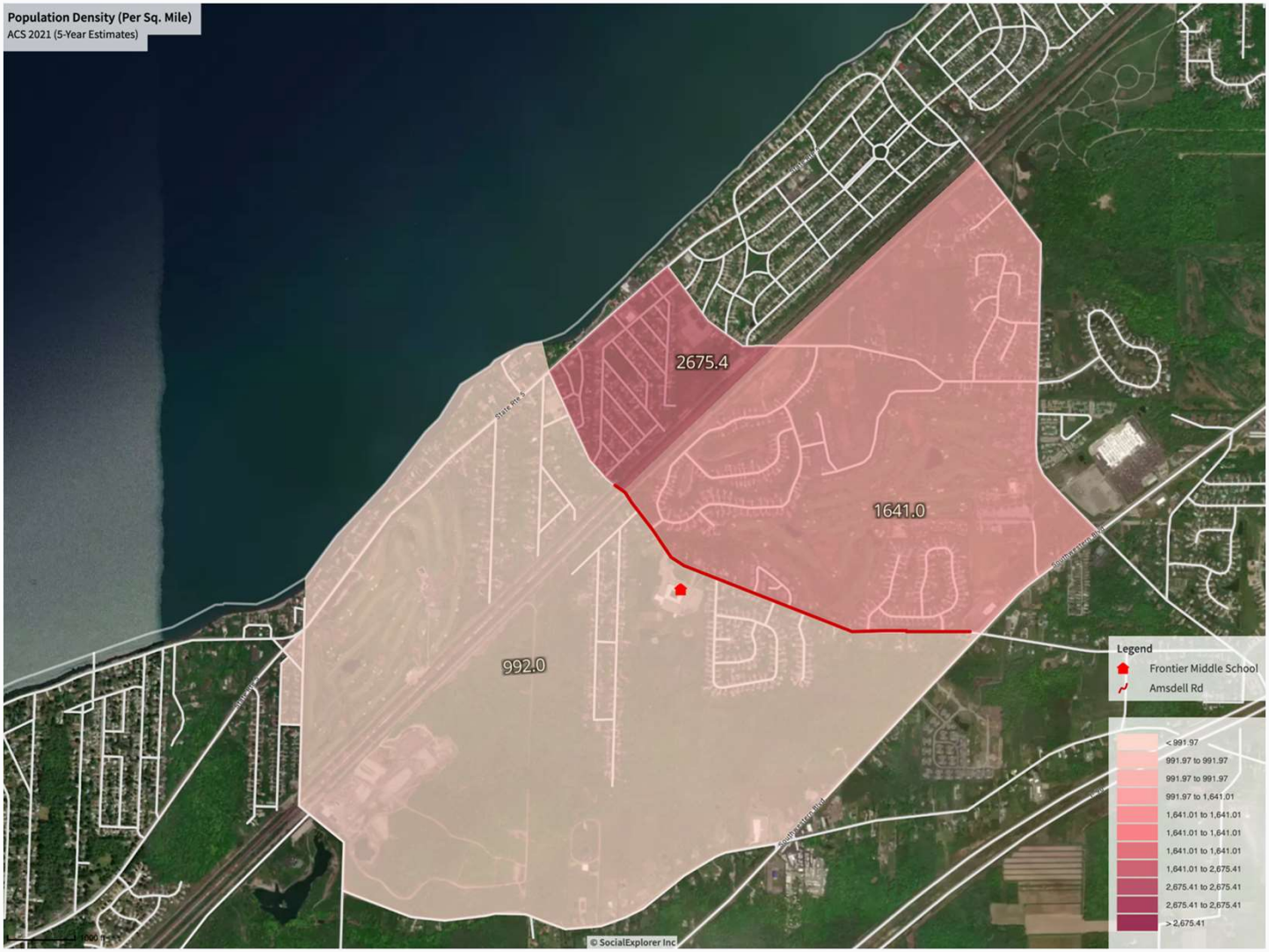


Existing Condition

Demographic

Population density per Sq Mile

- Even though the study area does not have a high population density, it still accommodates a considerable number of residents per square mile.



Existing Condition

This site holds a physical therapy facility with a large area of parking lot. ROW width 66’

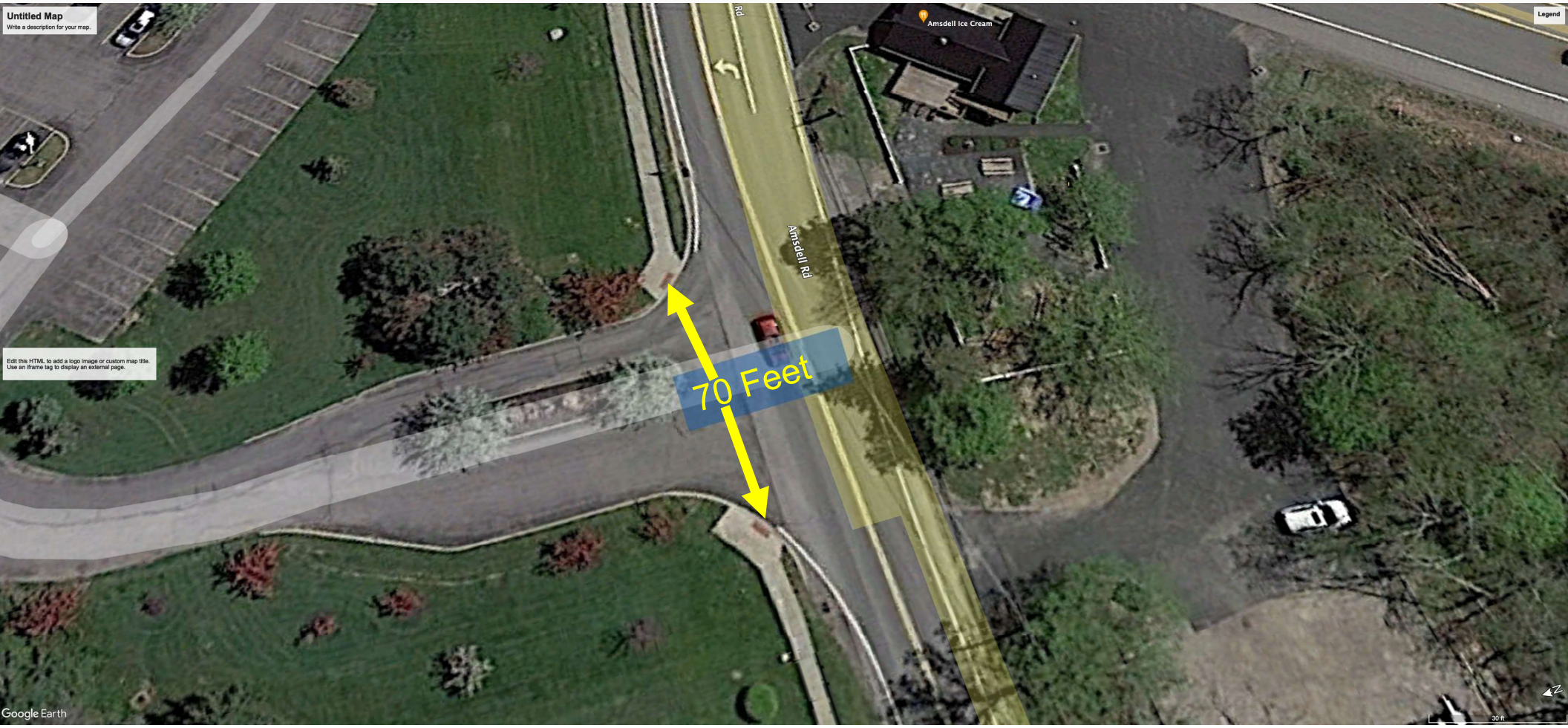
- **AADT 5122** (2019)
- Posted speed limit is 35MPH
- 85th% is 45 MPH
- 71’ entrance
- 4’ sidewalks are sub-standard and only present on the North side of the street

Recommendation:

- Widen sidewalks to a minimum of 5’ or add a 8’-12’ sidepath
- Add pedestrian refuge islands at crossings by extending medians.

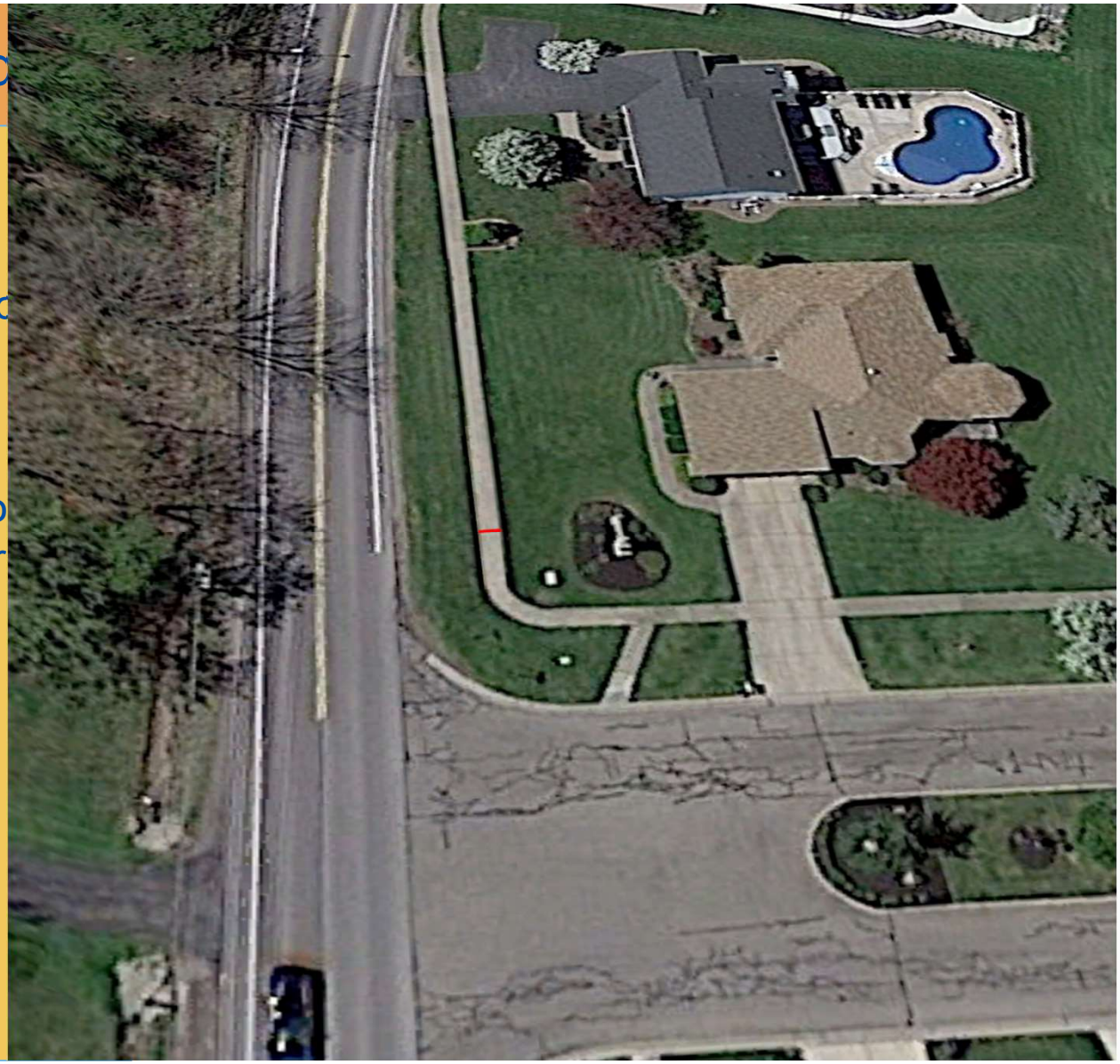
Amsdell Road

Amsdell Road



Existing Conc

The sidewalks are c
feet wide, which is
insufficient for
pedestrians to use
comfortably. Additio
this narrow width cr
inconvenience for
individuals using
wheelchairs and
strollers.

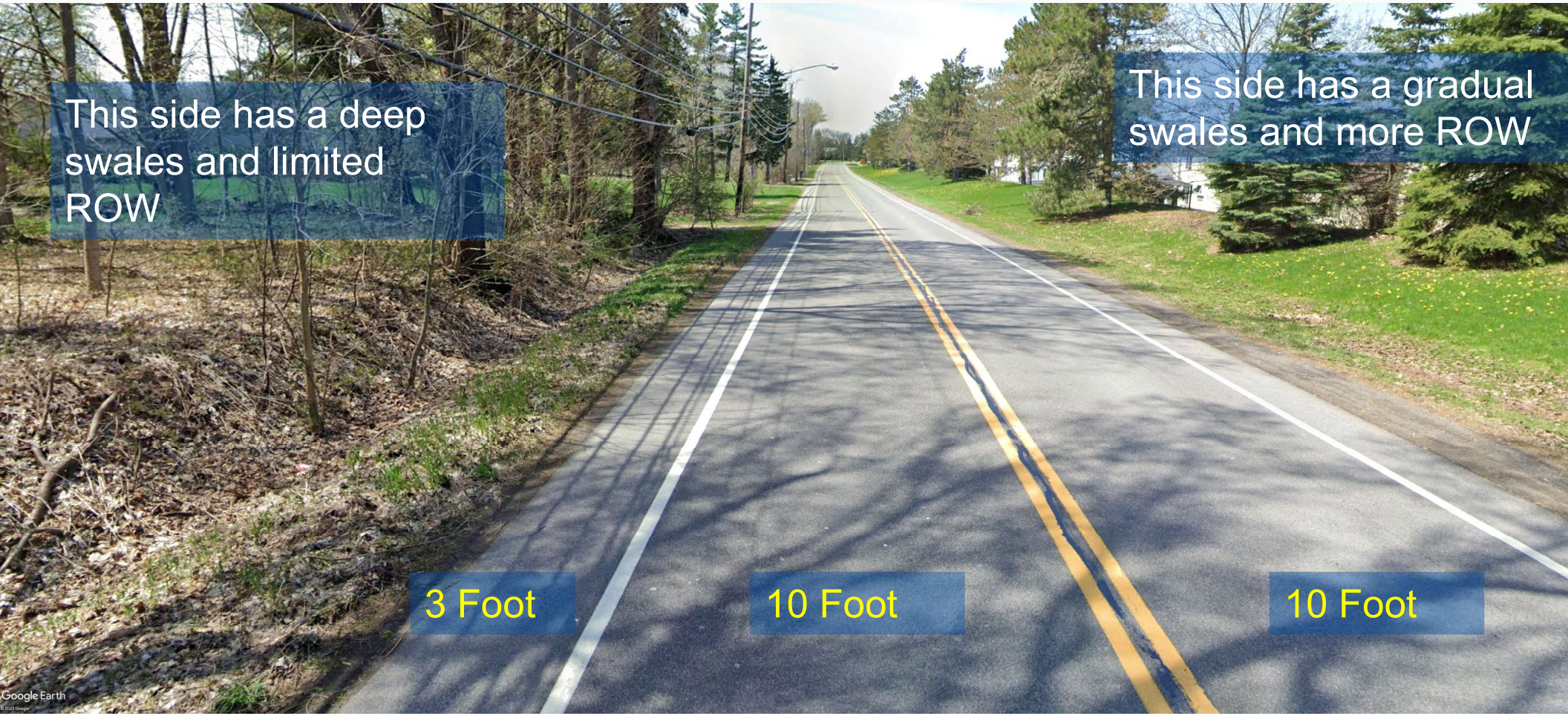


Amsdell Road

Existing Condition

Certain sections of the street feature raised mounds on one side and dense vegetation on the other. This could potentially pose challenges when it comes to implementing a new sidewalk in these areas.

Amsdell Road



Existing Condition

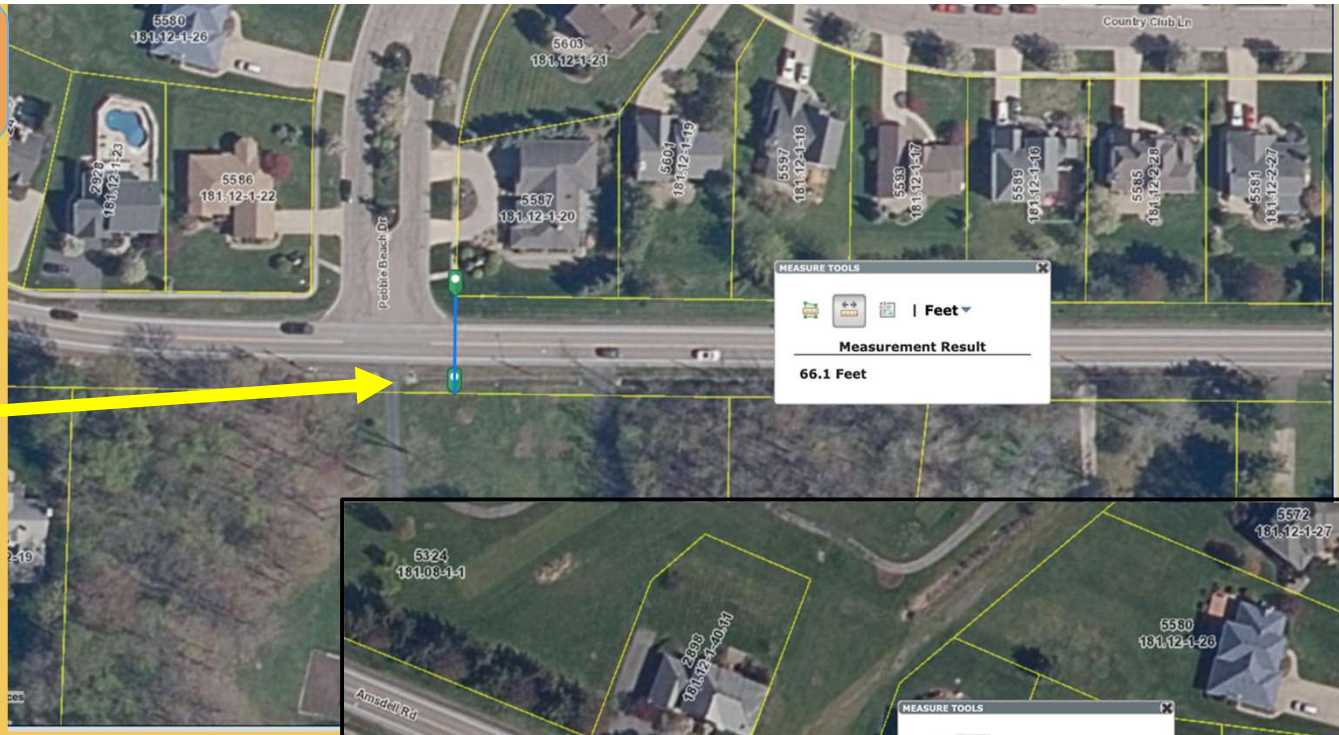
According to NYSDOT

- Minimum sidewalk width 48 inch or 4 feet
- Exclude curbside
- If pedestrians pass through is less than 5 ft a 5ft x 5ft passing space is required every 200 ft.

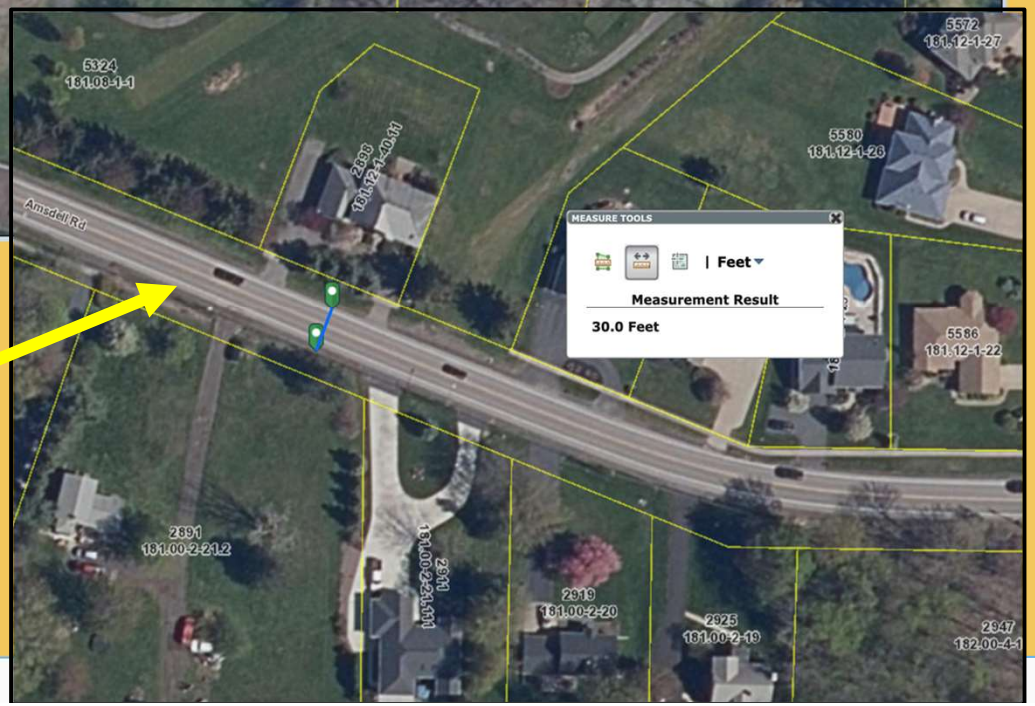
- U.S. Access Board
- Construction Inspection of Pedestrian Facilities - NYSDOT

Existing Condition

The public Right of Way (ROW) for Amsdell Road is roughly 66 feet



The paved road of Amsdell road is roughly 26-30 feet



Existing Condition

The sidewalk in this location is not continuous; instead, it is divided into multiple segments. The total linear length of the sidewalk measures approximately 2,549 feet. The longest segment spans about 457 feet, while the shortest one covers 54 feet.

RECOMMENDATIONS

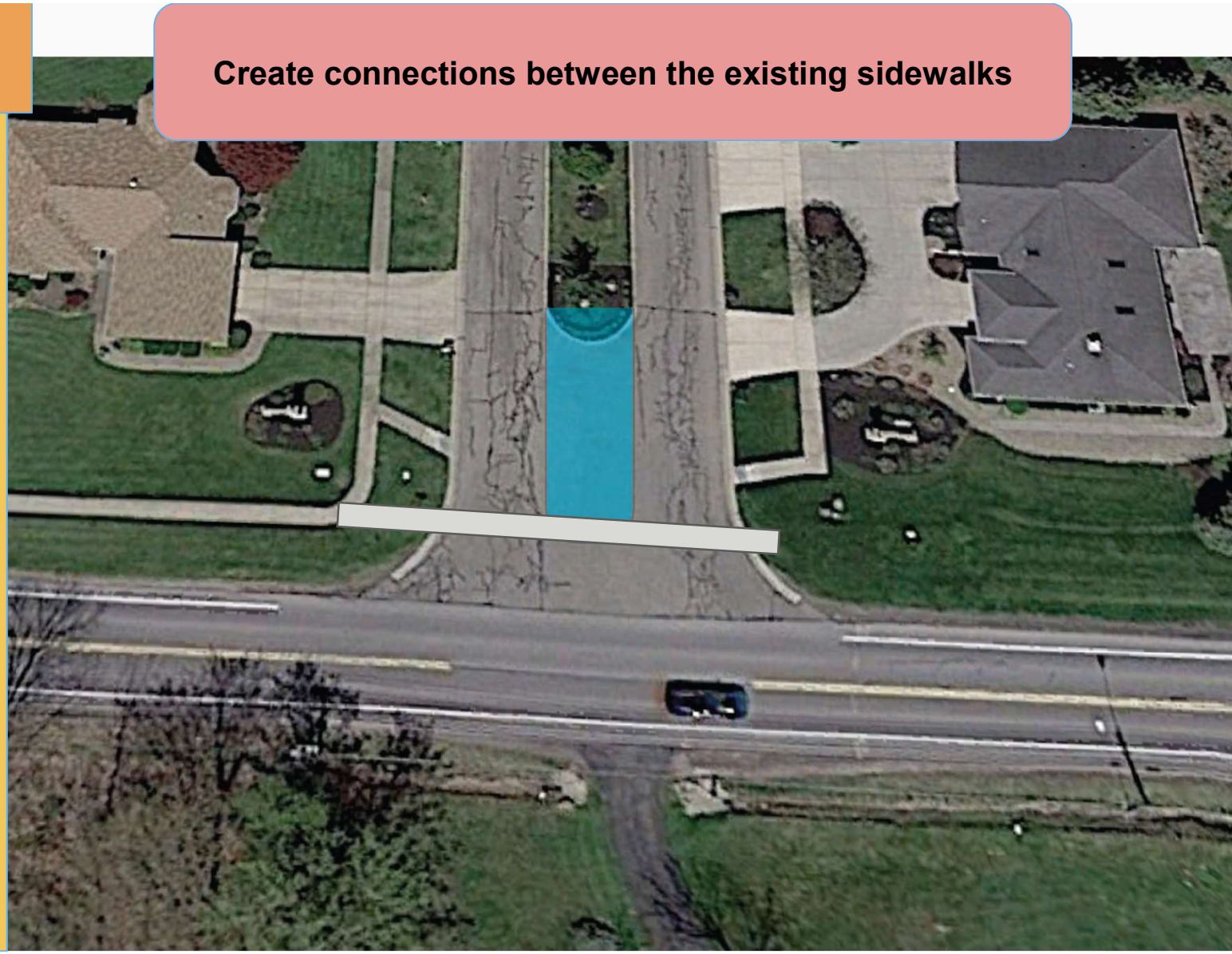
Recommendation

Create connections between the existing sidewalks

- The green line represents a potential linkage to fill the gaps between the existing sidewalks.
- The total linear length of this new addition is estimated to be approximately 2,960 feet.

Recommendation

The current median nose is set back quite far within the entryway. By extending the median nose, it reduces car speeds, thereby enhancing pedestrian safety.



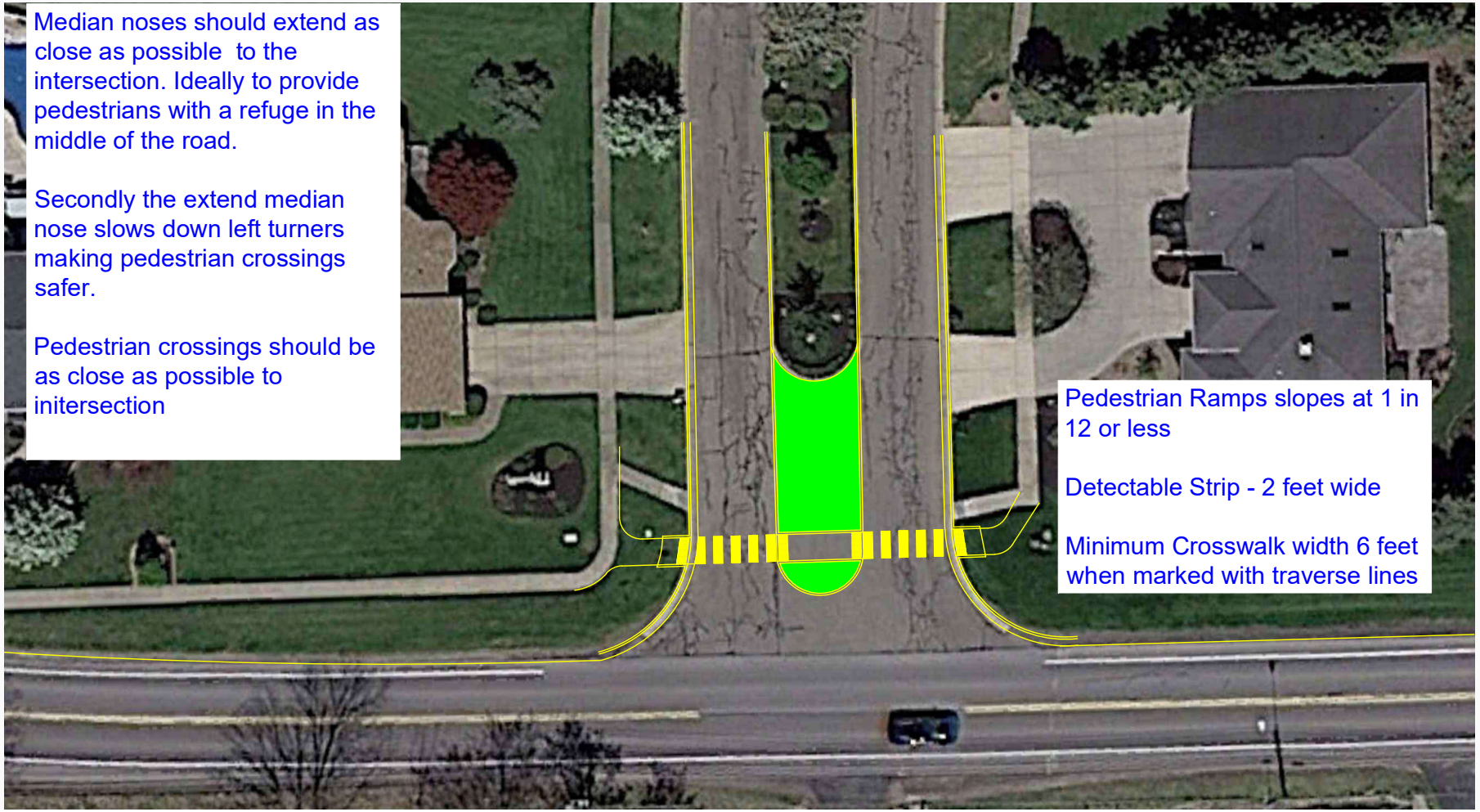
Country Club Pebble Beach

Recommendation

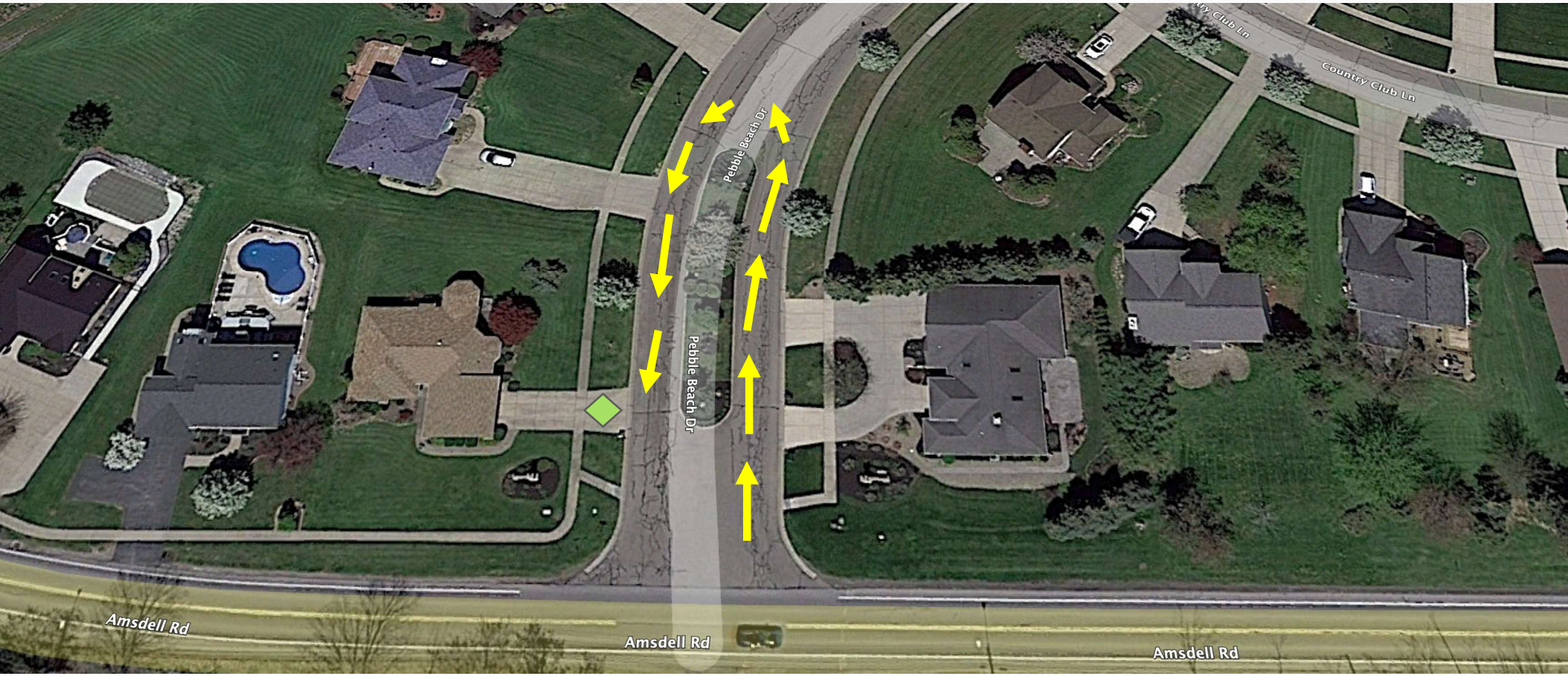
- In various locations throughout the study area, wide entryways create a gap of 71 feet between the sidewalks.
- Installing crosswalks at these points will serve as clear indicators of where pedestrians should cross.

Install crosswalks near the wide driveways

Country Club Pebble Beach Corrected



Country Club Pebble Beach Corrected



Recommendation

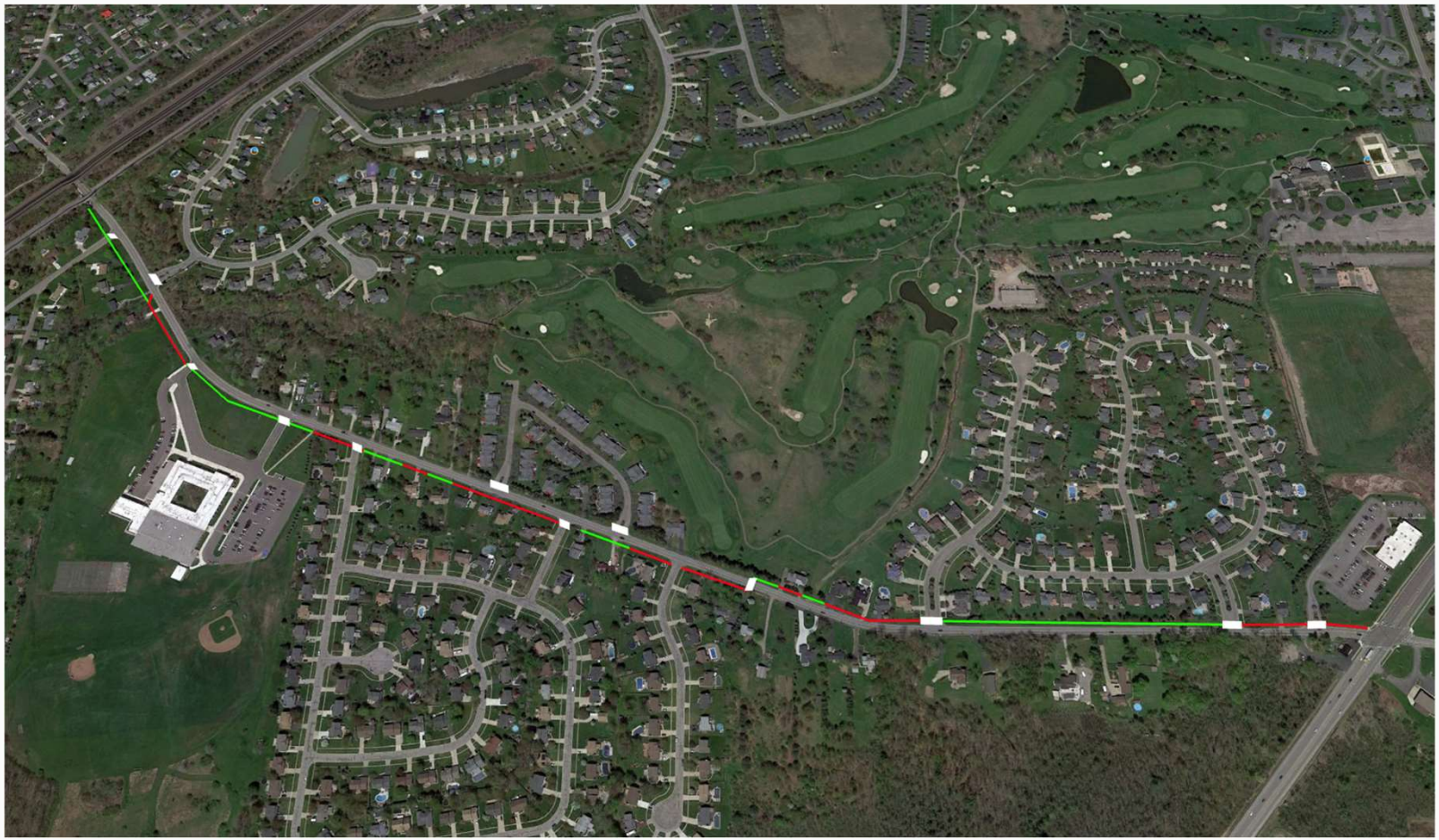
- Utilize raised crosswalks to bot5h slow ntraffic, and bridge the gaps between the existing sidewalk and the proposed sidewalk
- ensure a continuous walking experience
- Enhance safety

Use crosswalks to connect the sidewalks

Recommendation

- There are a total of 11 potential locations within the study area where crosswalks could be implemented

Crosswalk locations



Recommendation

- Implement two raised crosswalks in front of the Frontier Middle School.
- These crosswalks will enhance student safety while also reducing the speed of approaching vehicles, thus improving overall safety.

Install raised crosswalk

Recommendation

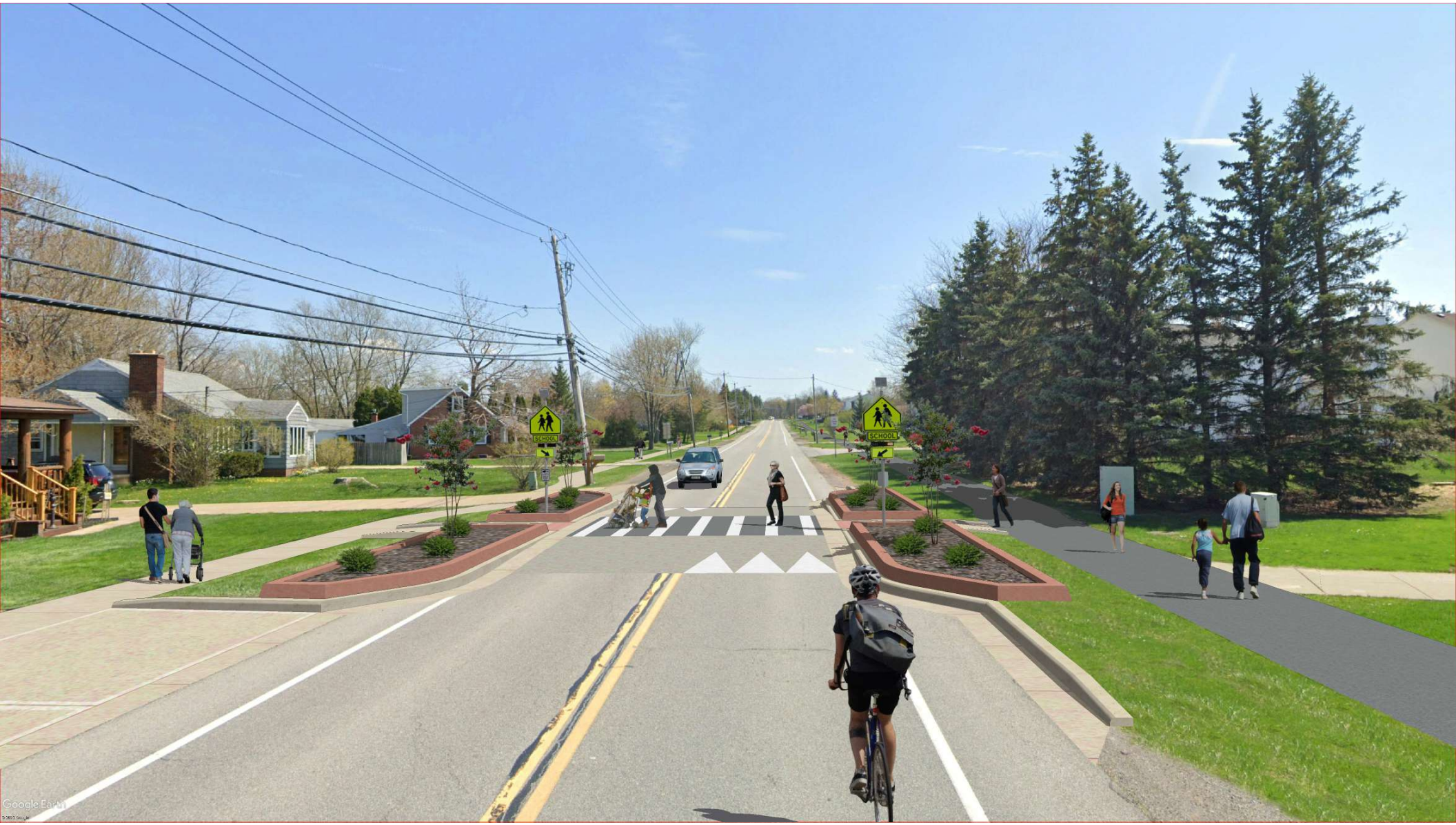
Install raised crosswalks

- Raised crosswalks are ramped speed tables that span across the width of the roadway and typically 3 to 6 inches above road grade.
- Raised crosswalks are marked as a pedestrian crossing.
- Raised crosswalks make the pedestrian more visible in a driver's field of vision and allows the pedestrian to cross at the same level as the sidewalk.
- Raised crosswalks reduce vehicle speeds and enhance pedestrian crossing experience.

https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.virginiadot.org%2Fprograms%2Fresources%2FBikePed%2FRaised_Crosswalk_Brochure-acc11012021.pdf&psig=AOvVaw044ep-XRD0w_k4HZa0zhMh&ust=1695417056206000&source=images&cd=vfe&opi=89978449&ved=0CBIQ3YkBahcKEwjo7YftzryBAxUAAAAAHQAAAAAQCQ

Benefits

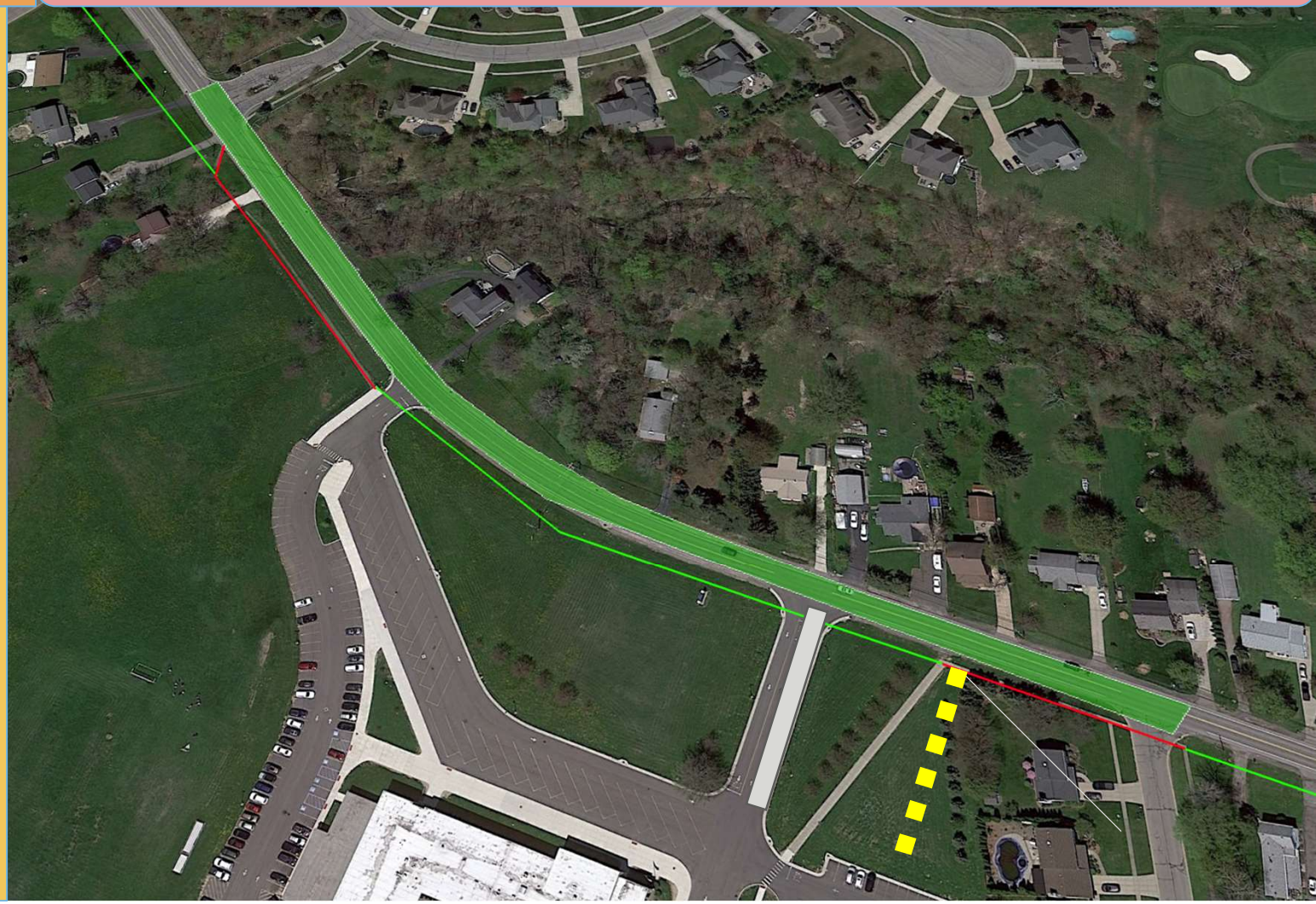
- Compels drivers to travel at speeds no higher than the street's design speed
- Improves drivers' awareness of presence of pedestrian crossing, particularly at mid-block crossing locations
- Used at street gateways, can alert drivers that they are entering a slower-speed, pedestrian-oriented street environment
- Allows convenient pedestrian circulation between high foot traffic destinations on opposite sides of a street (NY state DOT)


SCHOOL
SCHOOL
Google Earth

Recommendation

Reduce Speed Limit

- In the vicinity of Frontier Middle School, from Briercliff Drive to Devonshire Drive, lower the speed limit and design speed to 20 mph
- Ensure better safety of the Children
- Add a new single-lane school entry as shown, then reduce the width of the exit road to 14-16 feet.



TOOLS

UNIVERSAL ACCESS (ADA)

PRINCIPLES

- **KEEP CROSSINGS COMPACT AND SHORT**
  - MINIMIZE CONLICTS (NUMBER AND SPEED)
  - MAXIMIZE VIEW OF PEDESTRIANS AND MOTORISTS
  - MAXIMIZE THE USE OF CURB EXTENSIONS
  - ALIGN RAMPS TO BE PARALLEL WITH CROSSWALKS
  - CONNECT ALL RAMPS
  - MINIMIZE NUMBER AND WIDTH OF TRAVEL LANES
- **CONTROL TURNS, LOW ENTRY/EXIT SPEEDS**
  - TIGHT CURB RADII WITH 2 RAMPS PER CORNER (A FEW EXCEPTIONS)
  - ADA RAMPS SHOULD BE AS WIDE AS THE CROSSWALK
  - TRY TO AVOID UNNECESSARY FLARES IN RAMPS (LANDSCAPING AND DEPRESSED RAMPS)

IDEAL: Use Landscaping to permit curbing. Use two ramps per corner, and c
pedestrians to the receiving ramp.

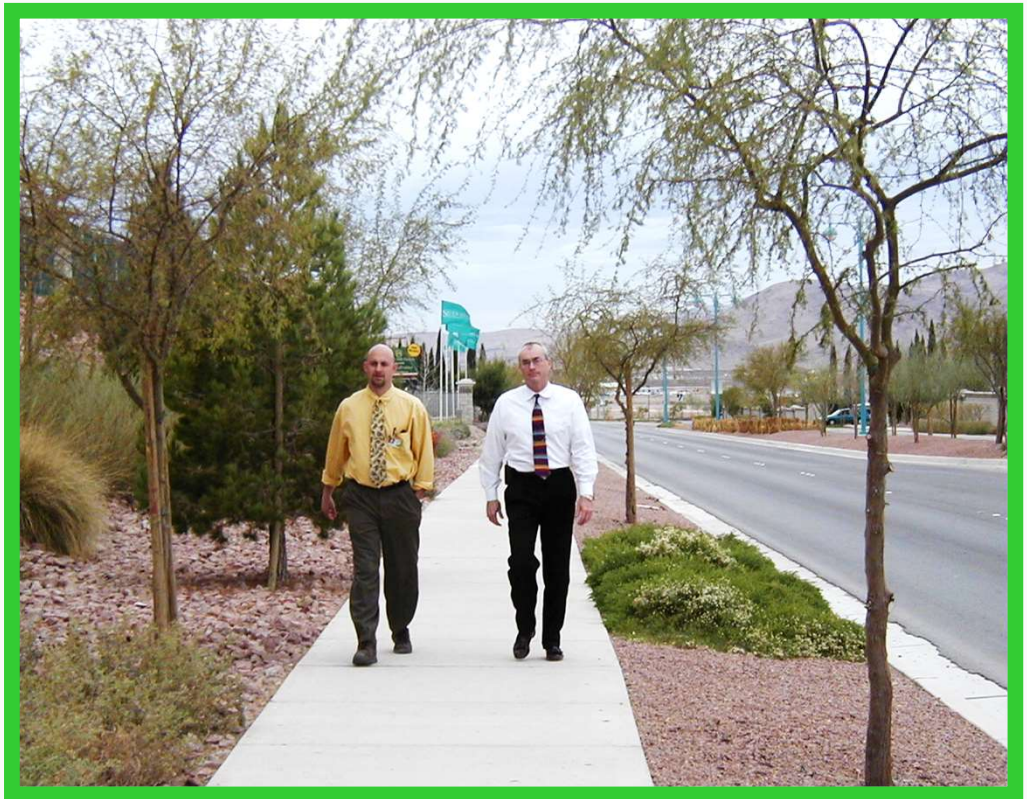
ADA RAMPS WITH CONCRETE CONTRAST AND TRUNCATED DOMES -- NOTE STRAIGHT ALIGNMENT, NARROW ALL CORNER RADII TO 25 FEET

SIDEWALKS OR PATHS

Sidewalks should support social engagement

We all have choices

People report that they would not walk in the lower photo unless forced to by circumstance



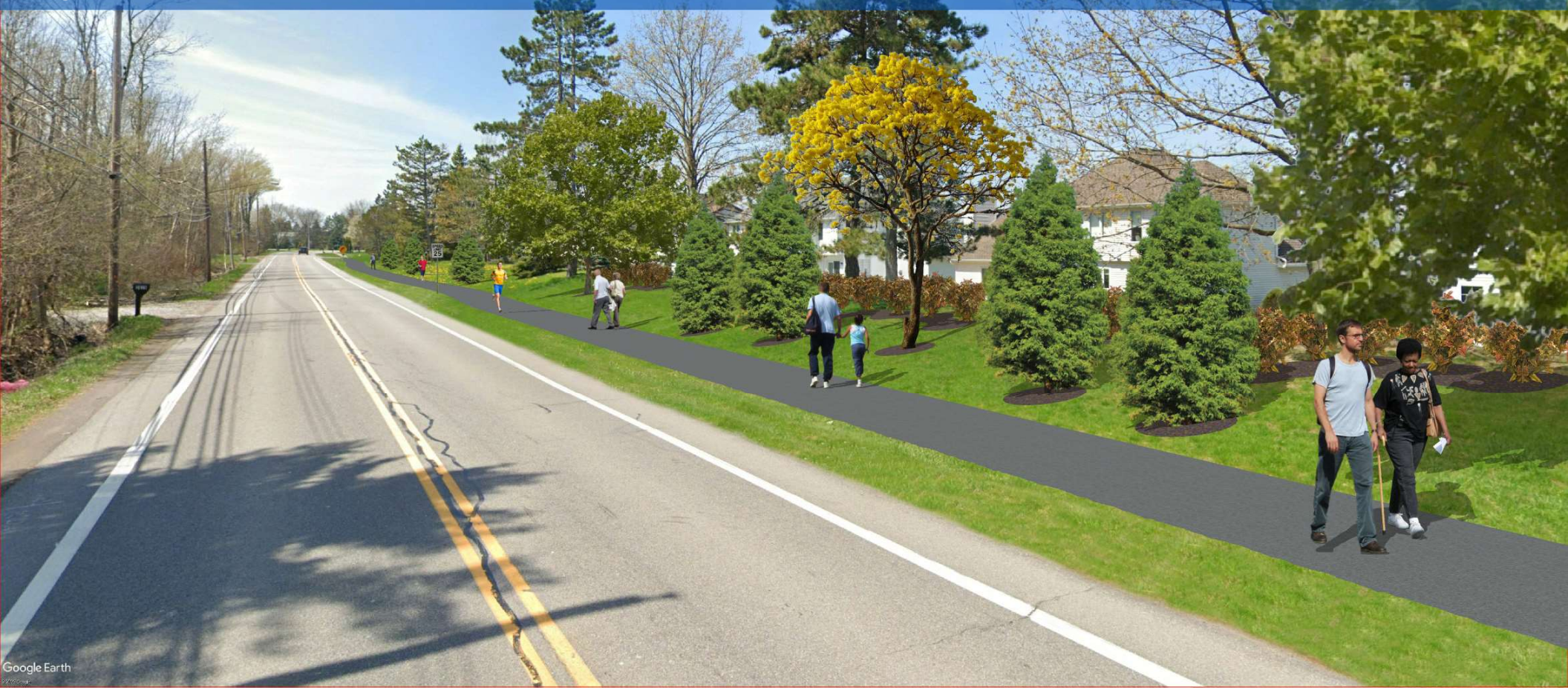
Provide wide enough sidewalks

- Recommended minimum: 5’
- Preferred min: 6’
- At schools: 8’-10’

Some sections of the sidewalk and trail may require specialized curbing that allows water to flow off of the road and provide a positive separator.

MULTI-USE PATH (8 Feet Wide)

Recommended for new sections, where space and conditions permit. Paths provide greater service, are ADA compliant, and are easier to maintain. Long term, the entire segment of Amsdell Road will be provided with this level of support.

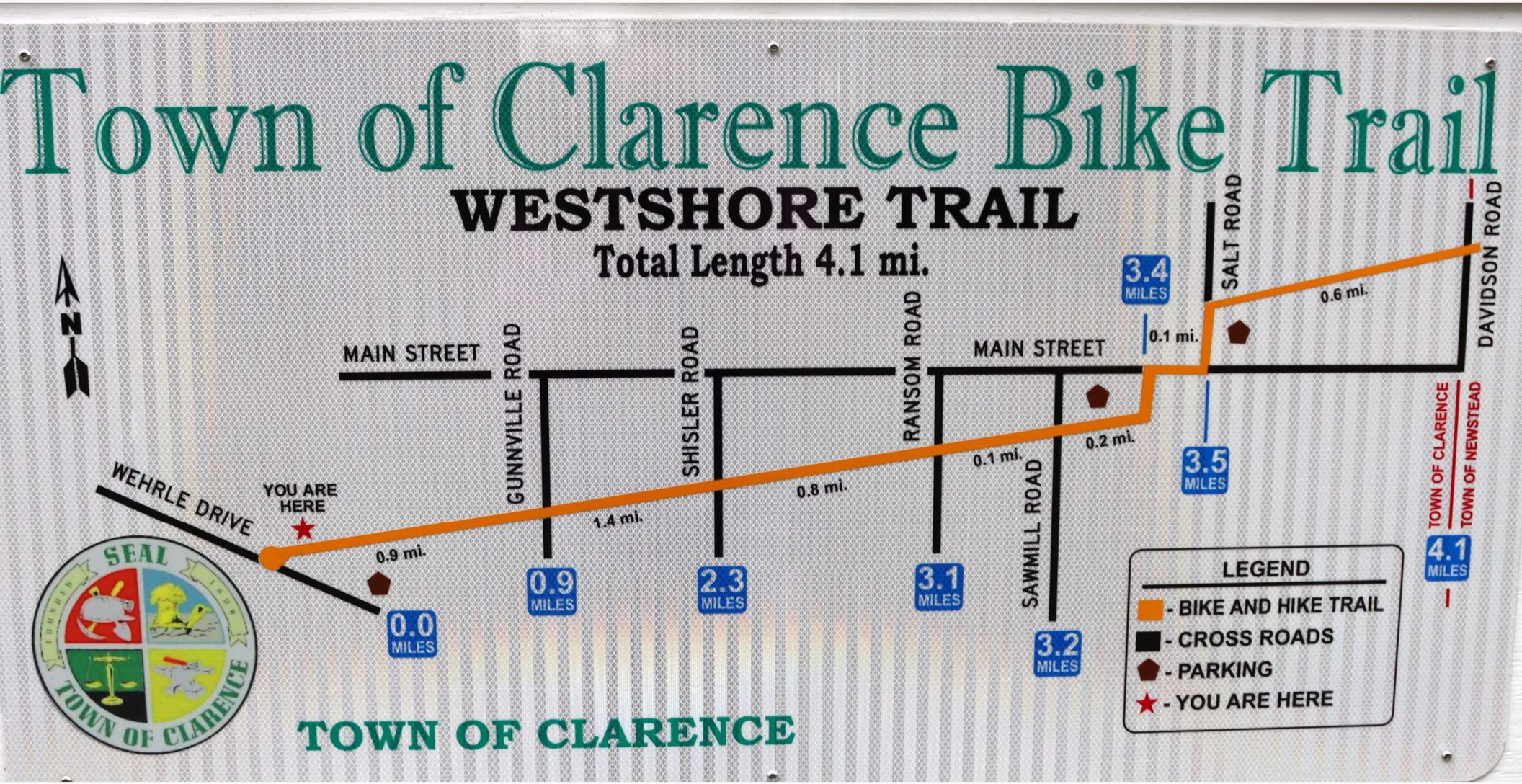


MULTI-USE PATH (8 Feet Wide) Nearby Clarence, NY has completed a comparable multi-use path, providing us regional pricing and engineering details.

Town of Clarence Bike Trail

WESTSHORE TRAIL

Total Length 4.1 mi.



TOWN OF CLARENCE


CROSSINGS

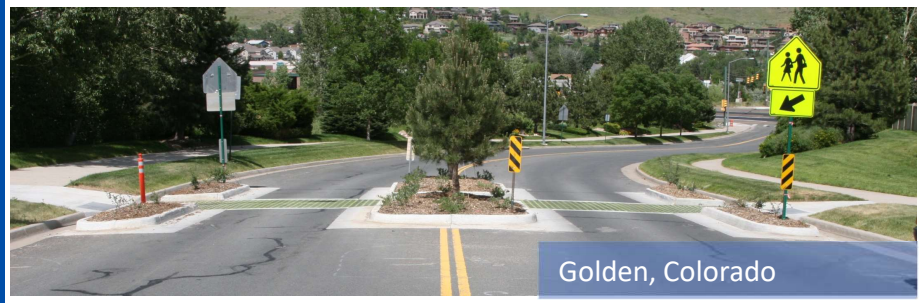
RRFB

Rectangular Rapid Flash Beacons have been shown to increase yielding to pedestrians. Although this self actuated tool is is not considered a first choice for design, proper geometrics and other operations should be adequate, the sign and RRFB can be added at a later time, if warranted.

OPTIONAL: PEDESTRIAN ACTIVATED RRFB GIG HARBOR, WA

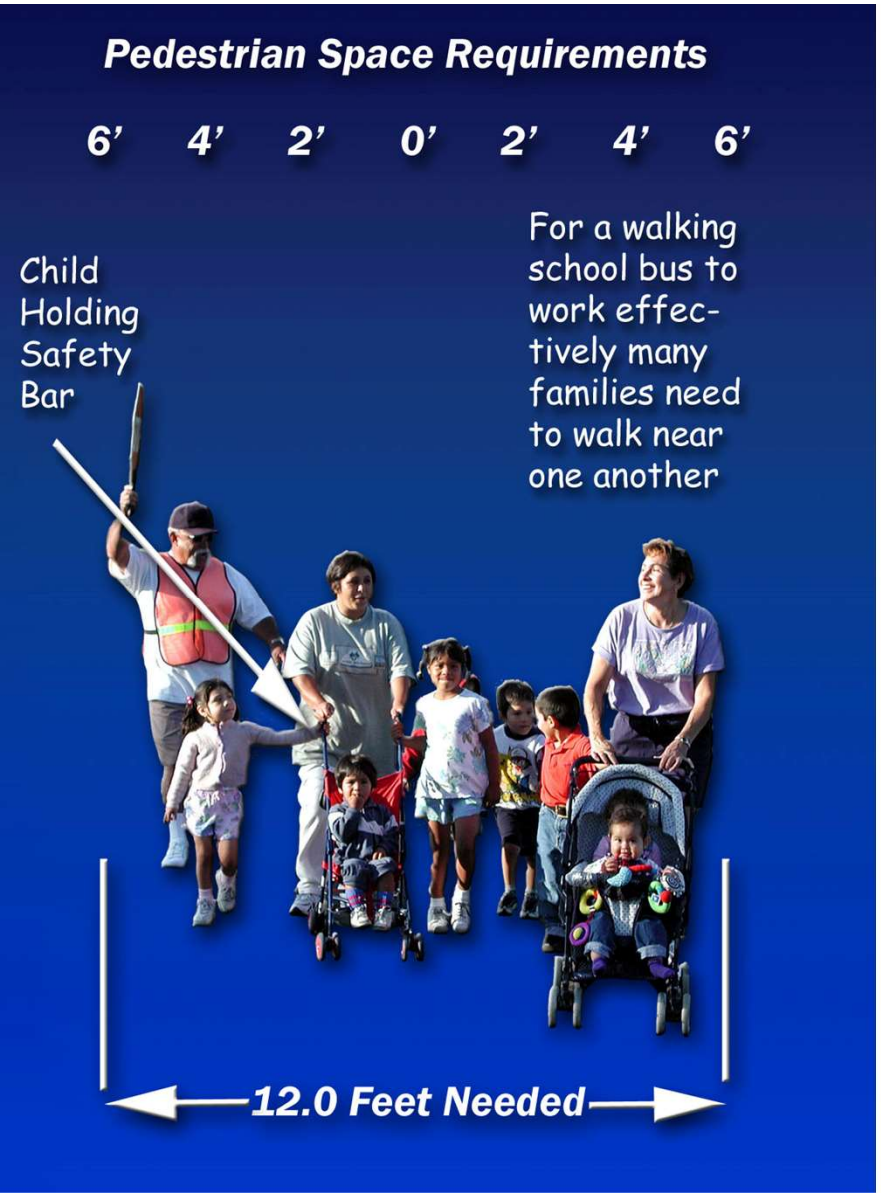
Solutions– Forest Middle School

Use all crossings as speed control points for Amsdell Road. School area traffic speeds should be 20 mph 24/7. The remaining portions of Amsdell should be designed and posted for 30 mph. Apply a combination of the following tools to slow traffic and to create safer crossing points: 12’ wide minimum raised crossings, median islands, curb extensions, landscaping with trees and ground cover (as shown), double signing and other treatments to slow traffic at all crossings 24 hours a day.


Golden, Colorado


Golden, Colorado


Lake Oswego, Oregon

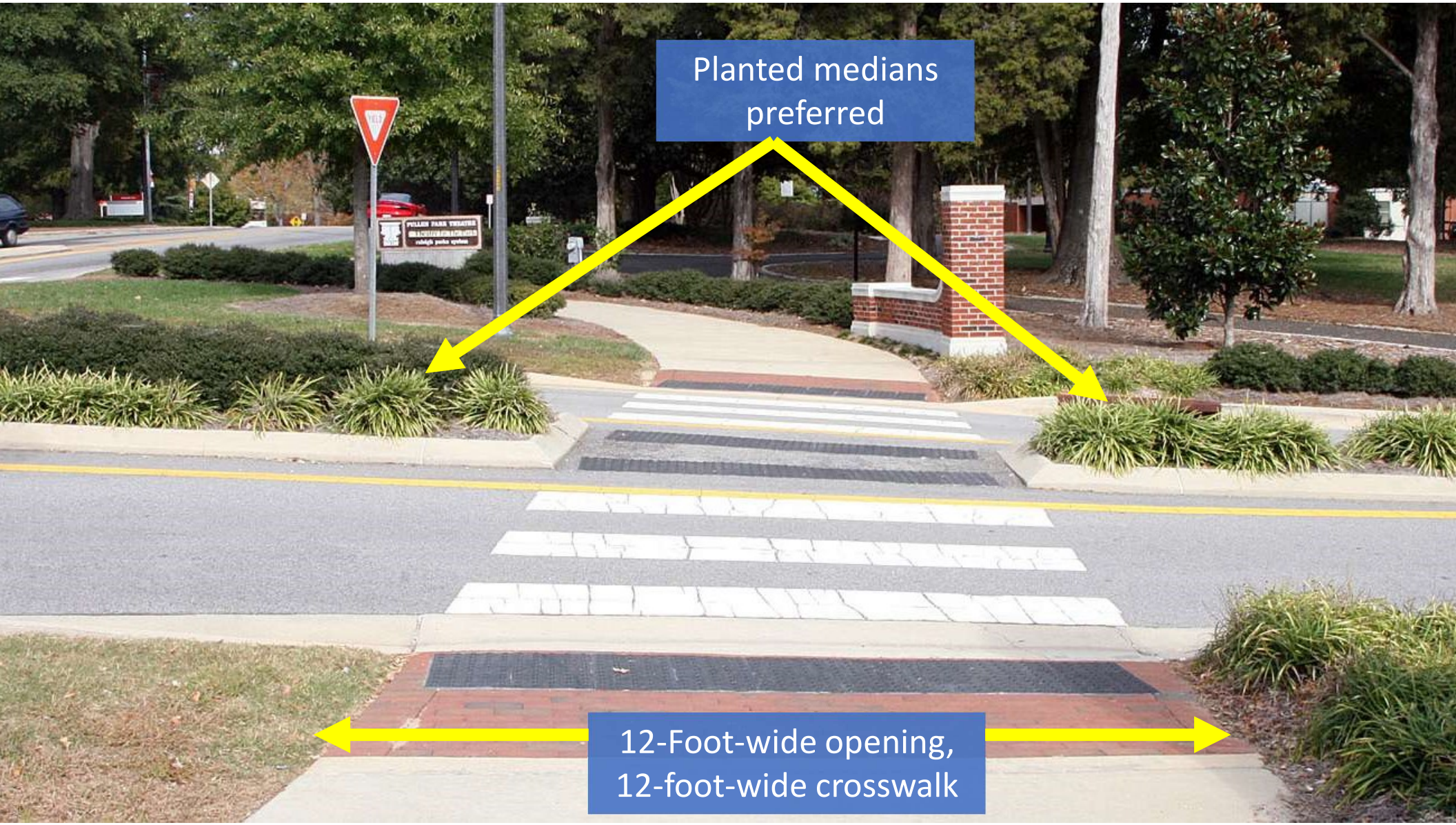


Walking Basics

Crosswalk Widths

When people cross the street, they want to get in and out of the street efficiently. The recommended minimum width for a crosswalk, especially near schools, in downtowns, on a campus where breaks may occur, or where other platooning occurs is 12-feet.

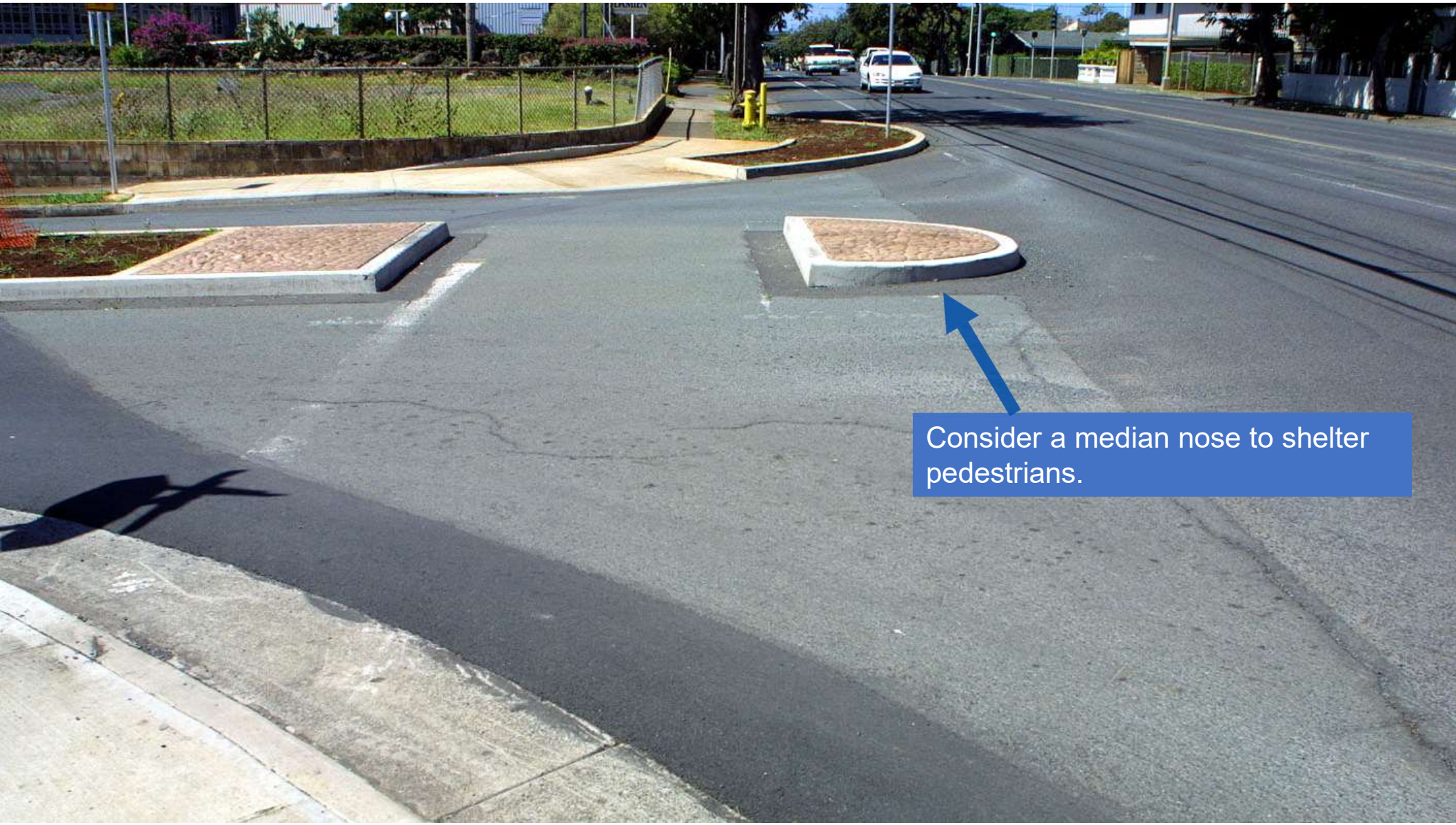
The other advantage of 12+ crosswalk markings is that motorists see and respond to better marked crossings. Use international high visibility, reflectorized markings (glass beads) for all primary street crossings.


Planted medians preferred
12-Foot-wide opening, 12-foot-wide crosswalk


11
8F
95
96

OVERLY-WIDE ENTRYWAYS


With overly wide side streets, to create safer, more comfortable and accessible conditions it is best to offer a median.


Consider a median nose to shelter pedestrians.

Typical Right-In, Right Out Crossing

Clearwater, Florida

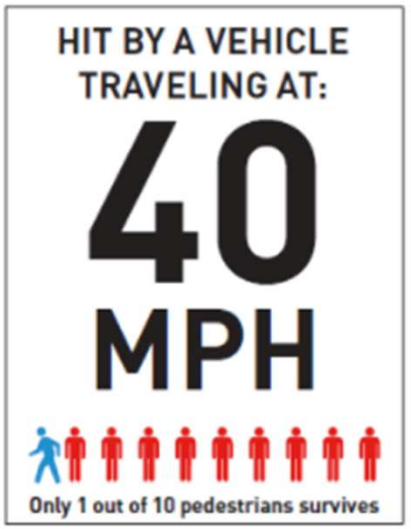
Minimize the Threat posed by driveways

Driveways are necessary, but they interrupt walking. Driveways should be designed to slow traffic speeds and separate potential conflicts with people on foot. Note the raised median island, giving the pedestrian a safe harbor while they shift their focus from the threats from one location and then from another.

Minimize the width of school driveway crossings, ideally only one lane is needed, and driveways should honor students first, not traffic flow

SPEED CONTROL

Use 15-20 mph Target Speeds in Downtowns and Neighborhoods

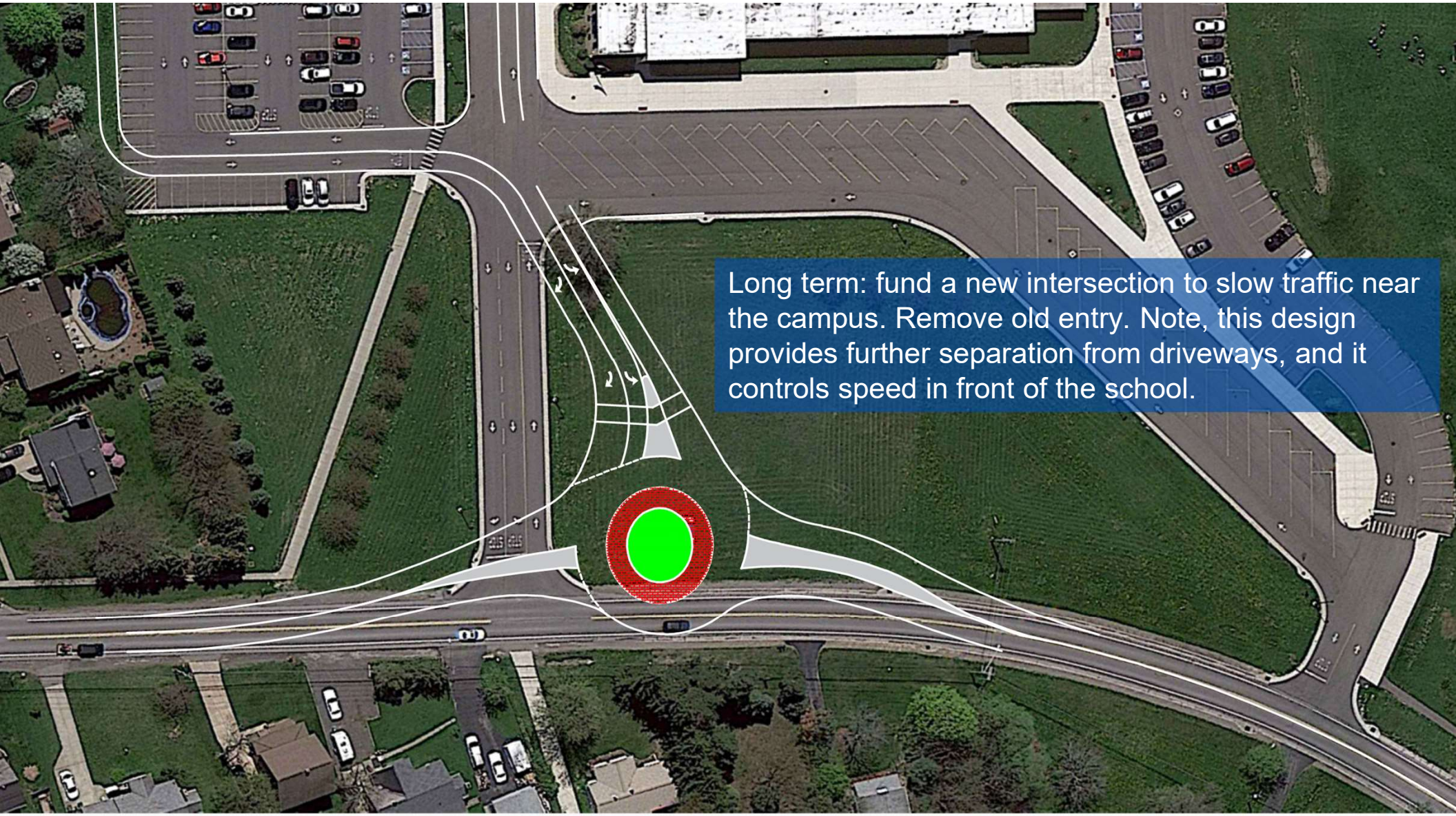


Higher speeds increase the likelihood and severity of crashes while lower speeds improve safety and comfort for everyone.

Recommendation

Reduce Speed Limit

Reduce the Amsdell Rd speed limit from 35 to 25-30 mph.

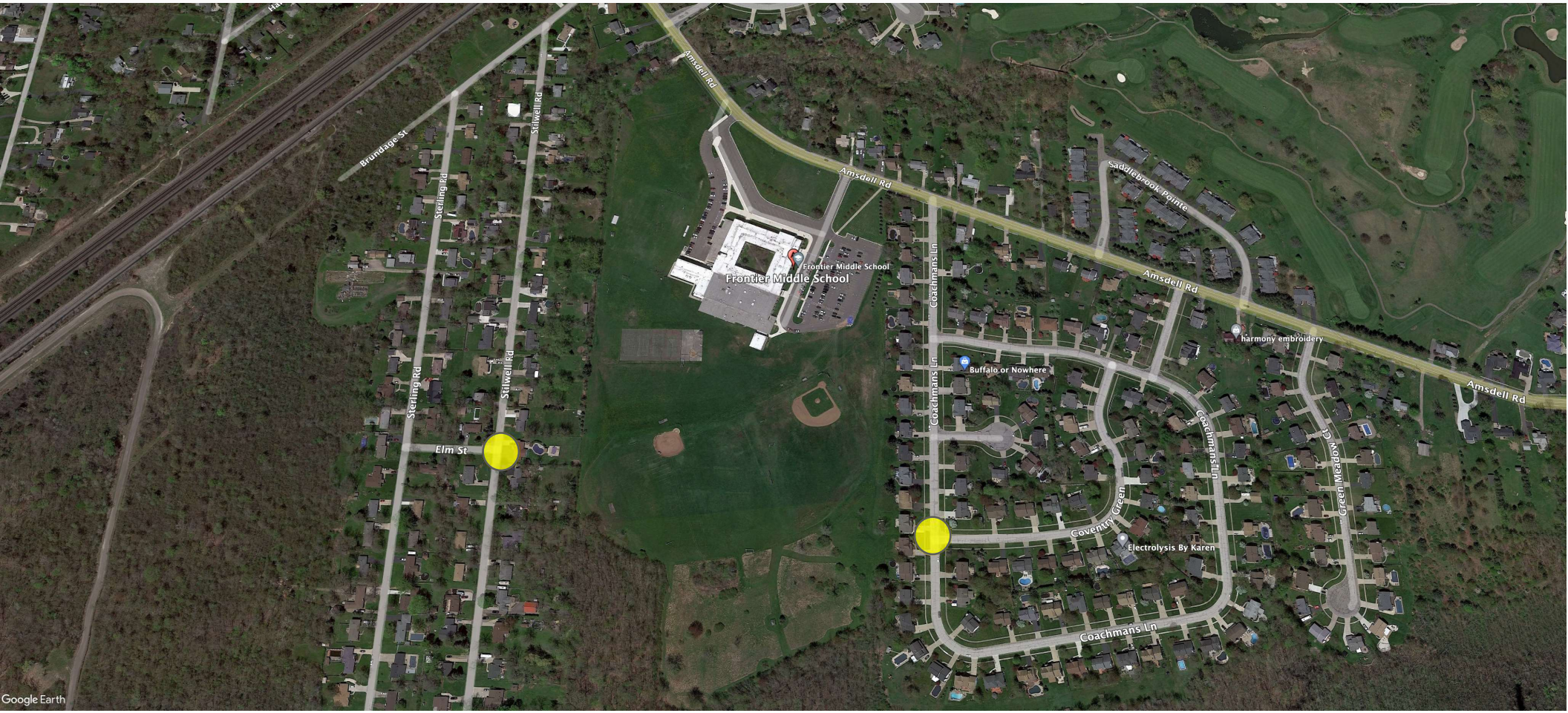

Long term: fund a new intersection to slow traffic near the campus. Remove old entry. Note, this design provides further separation from driveways, and it controls speed in front of the school.

LINKS AND NETWORK

OUR CANVAS

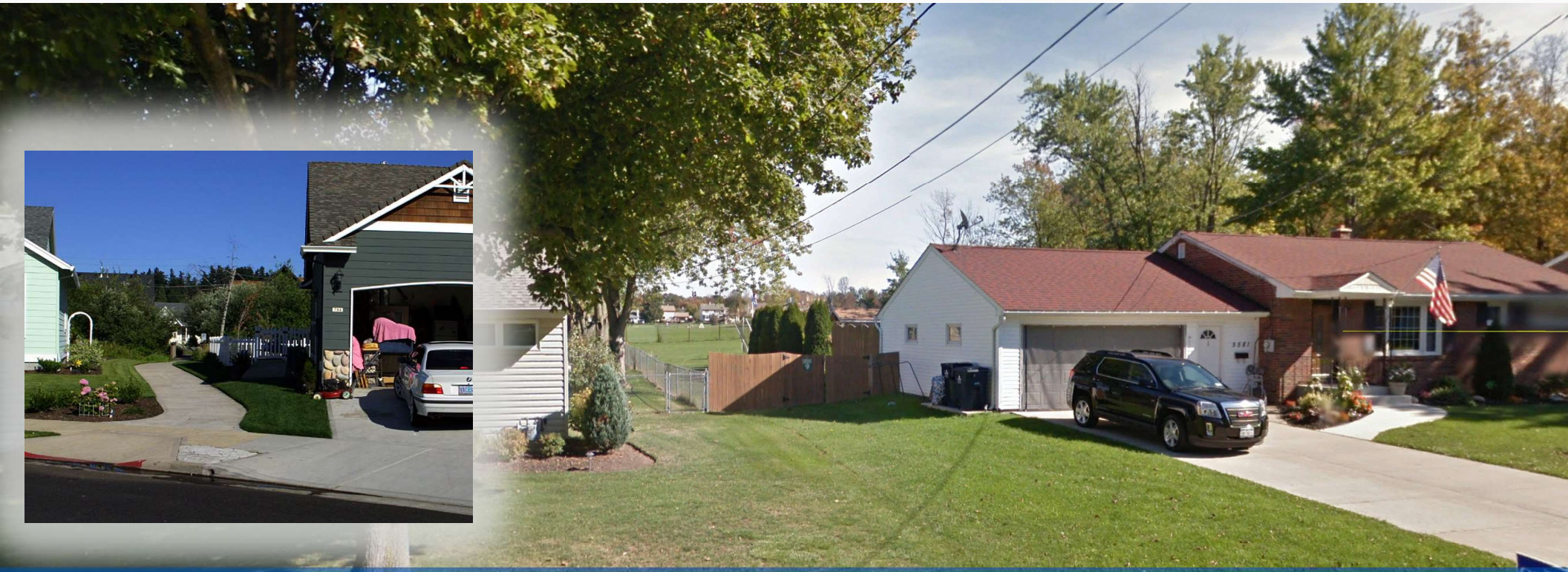

Possible link?
Possible link?
Wanakah
Clover Bank
Cloverbank Rd
Stewart Pkwy
Cain Dr
Orchard Ave
Ferndale Ave
Roberts Rd
Columbia Ave
Amsdell Rd
Briercliff
Brierwood Ln
William D. Williams Park
Overlook Pt
Rogers Rd
Woodway Ct
Fairfax Park
Walmart Supercenter
Abel St
Cloverbank Country Club
Southwestern Blvd
Brookfie
Brundage St
Sterling Rd
Stilwell Rd
Amsdell Rd
Amsdell Rd
Amsdell Rd
Rogers Rd
Pleasant Ave
A-
5
20

Possible LINK Connectors



LINKS are recommended to allow people on foot to stay off of higher speed primary roads. This link off of Coachman already exists, offering students safer and more direct access to their campus. (12-foot-width)

Possible LINK Connectors



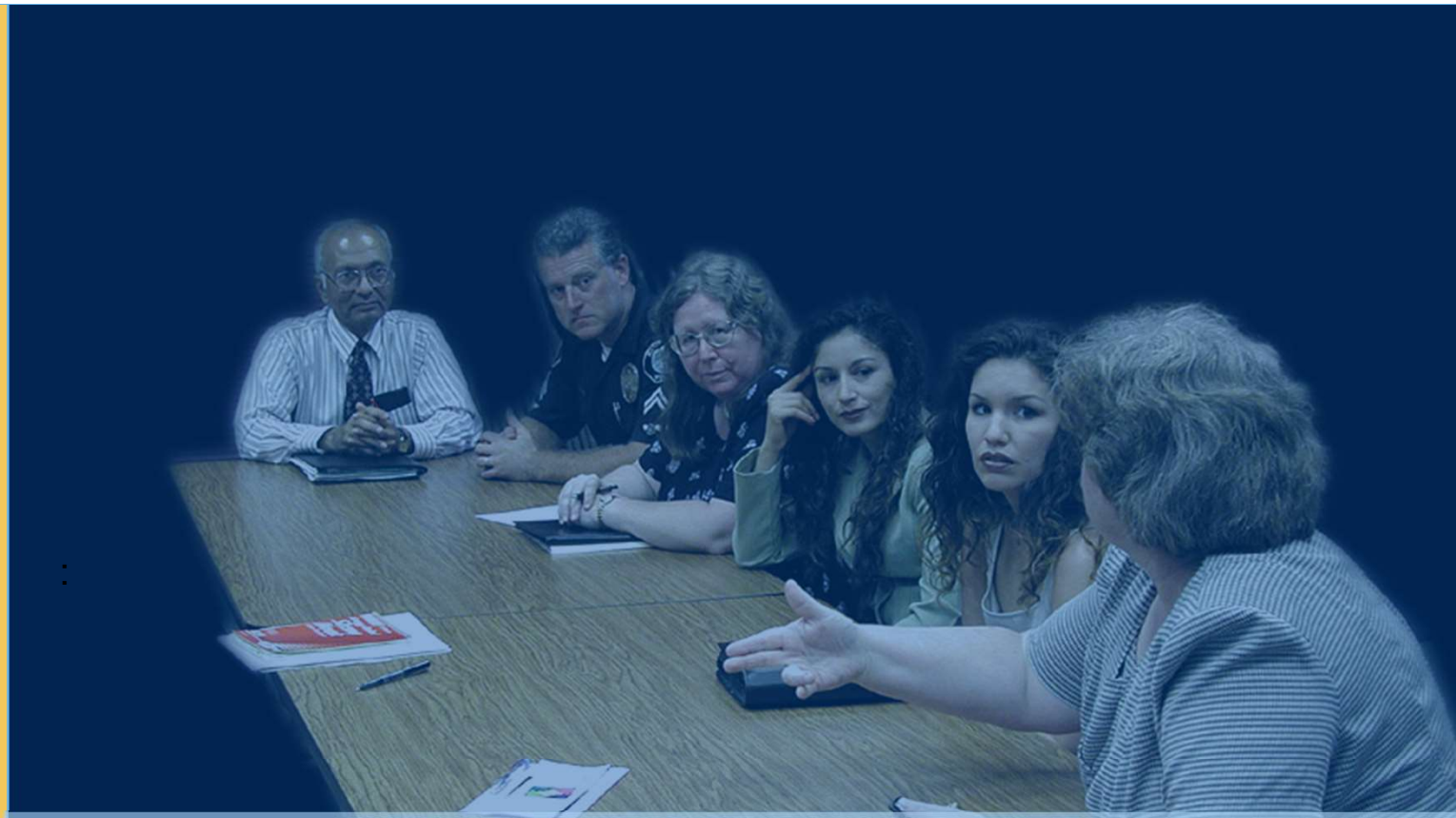
This is an example potential future link. Since properties historically did not require links, a future opportunity of neighborhood associations should include such discussions. Town codes of the future should require new development to include links.


Example links


Example links


Example links

Table Recommendation

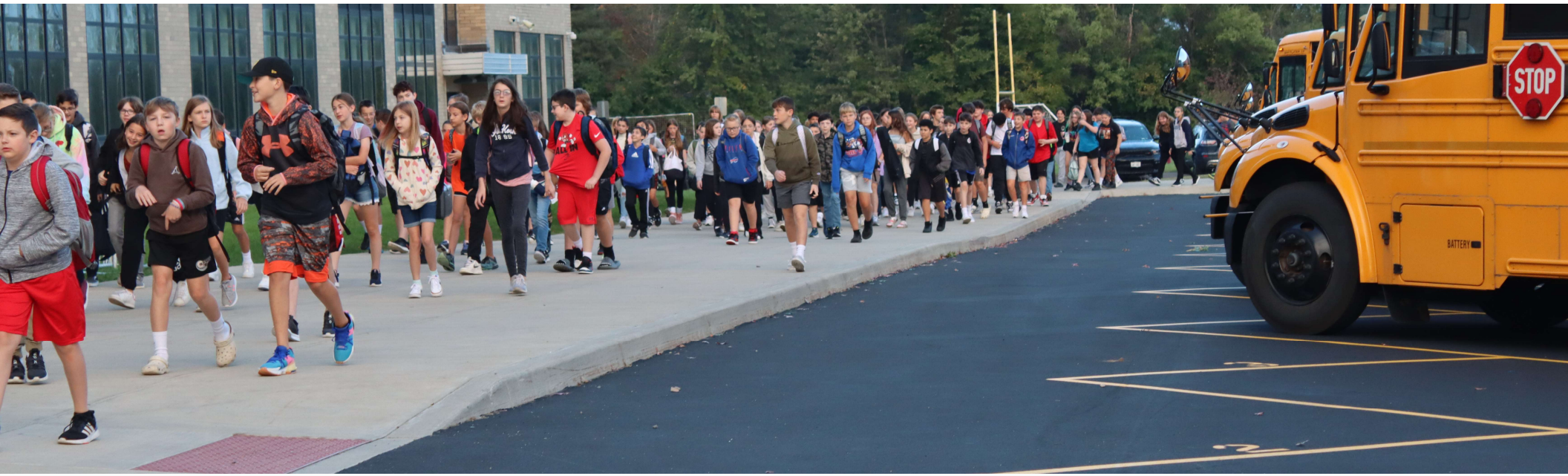


1. What are your ideas for short term solutions?
2. For Stage 2, longer term solutions what would you like to prioritize
3. Will links work to connect your neighborhoods?
4. Other?

Try Walking School Buses

In the Beach Cities Blue Zones Project, in school children dropped by 50% using to implement Safe Routes to School wa routes and walking school buses.

Image: School Children, Kauai, Hawaii
Source: http://bchd.org/docs/bchd/BCHD-AnnualReport-2016.pdf



FOR FURTHER INFORMATION

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