



# SCARSDALE VILLAGE CENTER SRAGUE ROAD REPORT

AN ELEMENT OF THE SCARSDALE STRATEGIC MOBILITY + PLACEMAKING PLAN  
10/28/22

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Prepared by FHI Studio for  
the Village of Scarsdale



## Sprague Road Plan Overview

The Sprague Road component of the Village of Scarsdale's Strategic Mobility + Placemaking Plan focuses on implementing speed reduction strategies that decrease traffic conflict and increase pedestrian safety. As one of many residential streets in Scarsdale, Sprague Road will act as a pilot for similar streets.

This study focuses on the entire length of Sprague Road within Scarsdale. The east-west study corridor runs from Gaylor Road to just east of Clarence Road. It is a little over half a mile. The segments between White Plains Road and Gaylor Road and between Clarence Road and Wilmot Road are outside of Scarsdale's jurisdiction.

## Findings

Sprague Road is approximately 26 feet wide and has a posted speed limit of 30 mph, previously the lowest minimum speed limited permitted by state law except in rare circumstances. At time of this study, a bill to allow lower speeds limits has been signed into law, so 25 mph speed limits are recommended.

All of Sprague Road's cross streets have stop signs. There are two all-way stops on the corridor: at Nelson Road and at Clarence Road. There is no traffic volume data available on Sprague Road, but the 2019 Annual Average Daily Traffic (AADT) estimates from surrounding streets include: 11,1312 vehicles on White Plains Road, 486 vehicles on Madison Road, 242 vehicles on White Road, and 2,238 on Wilmot Road.

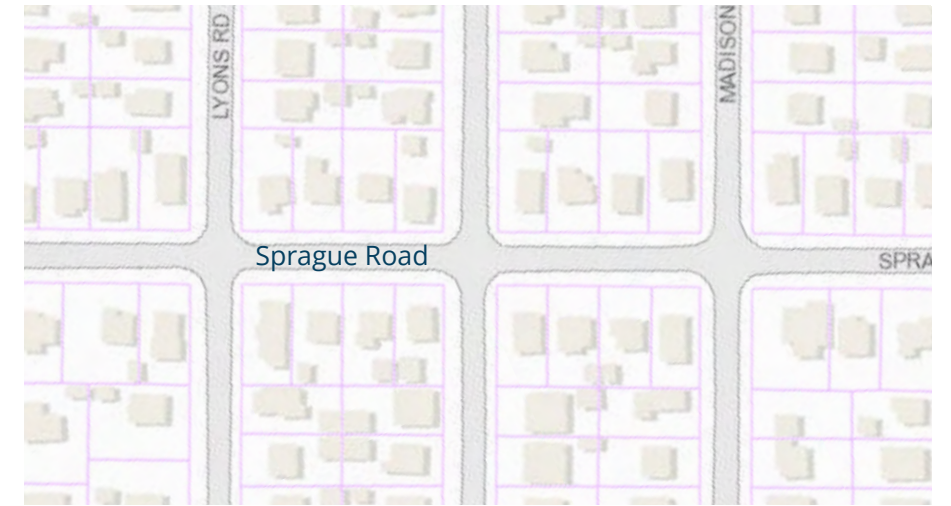
Sprague Road is a residential street zoned for single-family houses that have parcels of at least 5,000 square feet. This lot size is the smallest residential lot size permitted in Scarsdale, so the neighborhood is among

the highest density neighborhoods in Scarsdale. The houses are set back, but there are no sidewalks. The public right of way is wider than the roadbed and appears to be wide enough for sidewalks.

Crashes on Sprague Road occur more frequently than on many of the residential cross streets. The highest crash locations include the intersection at Gaylor Road and between Webster and Nelson Roads. The intersection at Madison Road also has a relatively high number of crashes for the corridor.

The project team collected feedback from the community at a site visit held on March 29, 2022. Members of the public also submitted feedback at the public meetings and via the project website ([www.scarsdalemobility.com](http://www.scarsdalemobility.com)). Members of the public and the Village Board shared the following challenges:

- There is a perception of high vehicle speeds that are inappropriate for residential streets, so speed control measures are requested.
- Drivers frequently roll through stop signs, which has led to crashes and many near misses. Some expressed concern about adding more stop signs given the frequency of rolling stops; others suggested that the all-way stop introduced at Clarence Road reduced speeds at this location.
- Any speed control measures should include consideration for the steep topography.
- Drivers use the on-street parking on the corridor, so infrastructure must consider the parking needs of residents.
- Children use the corridor to walk and bike to schools and parks. There needs to be signage to reflect the presence of children.
- Drivers use Sprague Road as an alternative to other east-west corridors like Scarsdale Boulevard. This creates the impression that it is a cut-through street where drivers can speed to connect to White Plains Road.



The Village right of way on Sprague Road is wider than the roadbed. (Source: Westchester County Municipal Tax Parcel Viewer)



The highest crash locations in the study corridor occur at Gaylor Road and between Webster and Nelson Roads. (Source: Village of Scarsdale)

The project team received many comments requesting traffic calming on other residential streets, such as the cross streets and Scarsdale Boulevard, among others.

## Alternatives Considered

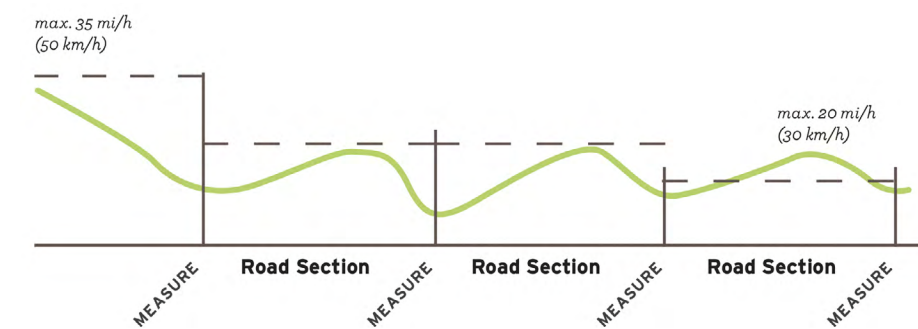
The project team considered a range of Federal Highway Administration's (FHWA) Proven Safety Countermeasures. The following are most appropriate on low-traffic residential streets like Sprague Road:

- All-way stops
- Speed bumps
- Neighborhood traffic circles
- Mini-roundabouts
- Chokers
- Chicanes (eliminated)
- Traffic diverters – half closure
- Traffic diverters – full closure

Of these, chicanes was the only option eliminated due to the limited width of Sprague Road.

According to the FHWA's Small Town and Rural Multimodal Networks guidance document, spacing for speed reduction infrastructure should

**Figure 1. Speed Management Device Spacing**



Source: Federal Highway Administration. Small Town and Rural Multimodal Networks

occur every 300 to 400 feet on roads like Sprague Road. With only two stop signs on the study corridor, the current spacing exceeds what is recommended. This spacing allows drivers to accelerate beyond the posted speed limit between stops (Figure 1).

The project team developed three alternatives, which are outlined in Table 1 and discussed in more detail below. The concepts presented in the following section placed speed reduction infrastructure roughly every 300 to 400 feet, which is about every block and half.

**Table 1. Sprague Road Alternatives - Infrastructure Considered**

Alternative 1: Traditional Approach	Alternative 2: Innovative Approach	Alternative 3: Innovative Approach with traffic diversion
<ul style="list-style-type: none"> <li>• All-way stop</li> <li>• Decorative speed bumps</li> </ul>	<ul style="list-style-type: none"> <li>• Mountable, decorative neighborhood traffic circles</li> <li>• Curb radii reduction</li> <li>• Choker</li> </ul>	<ul style="list-style-type: none"> <li>• Mountable, decorative neighborhood traffic Circles</li> <li>• Curb radii reduction</li> <li>• Traffic diversion with half closure</li> </ul>

## Alternative 1: Traditional Approach

The traditional approach (see Figure 2) adds new all-way stops at the intersections with Gaylor Road and Madison Road. According to the FHWA's Manual on Uniform Traffic Control Devices (MUTCD), all-way stops are permitted at intersections of two residential streets of similar design and operating characteristics where an all-way stop would improve traffic operations of the intersection. This alternative also includes speed bumps between Bell Road and Webster Road; Lyons Road and Bradley Road; and Johnson Road and White Road.

This alternative would complement the existing all-way stop configuration on Scarsdale Boulevard and mitigate speeding in the vicinity of Immaculate Heart of Mary School (see Figure 3 on page 8).



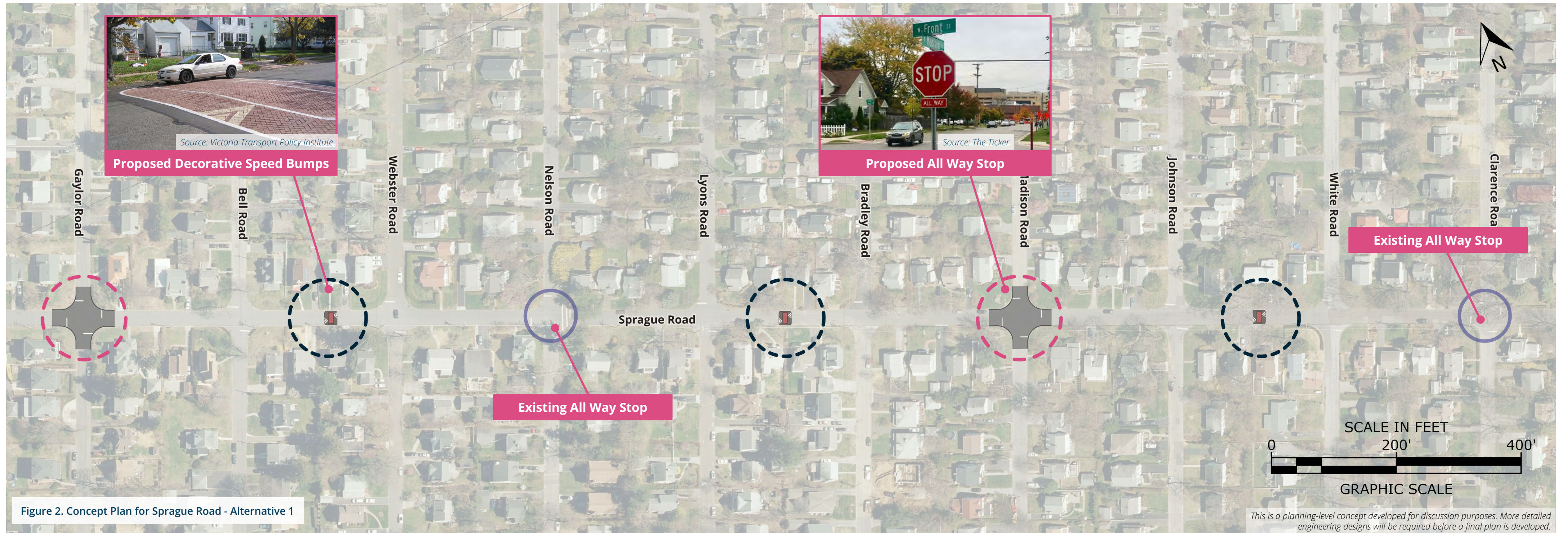
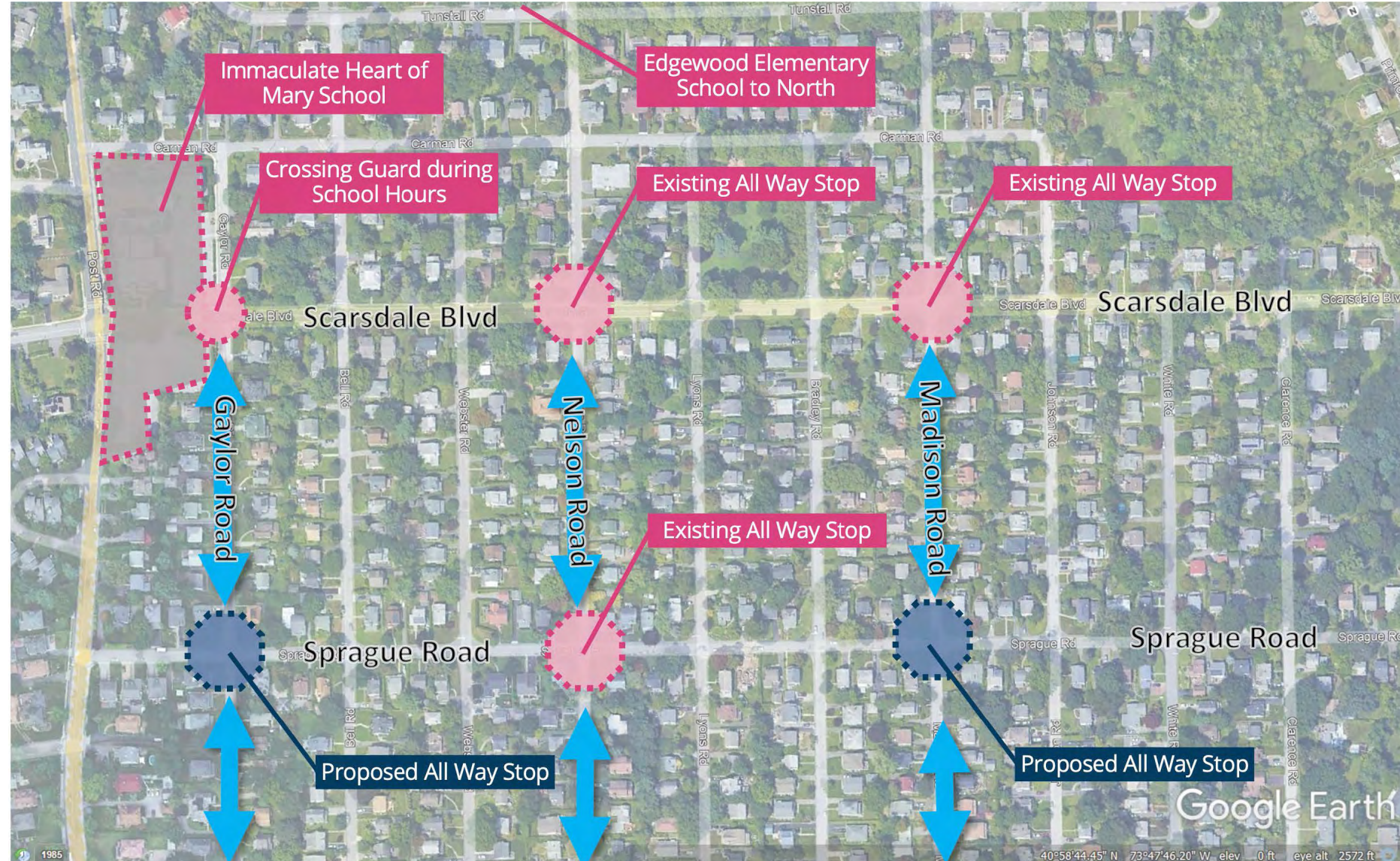


Figure 3. All-way Stops in Vicinity of Sprague Road - Alternative 1



## Alternative 2: Innovative Approach

Alternative 2 uses three innovative traffic calming devices: neighborhood traffic circles, chokers, and curb radii reductions. The neighborhood traffic circles would be placed at Gaylor Road, Nelson Road, and White Road. Chokers would be placed adjacent to Bell Road and Madison Road. Curb radii reductions would be added where feasible.

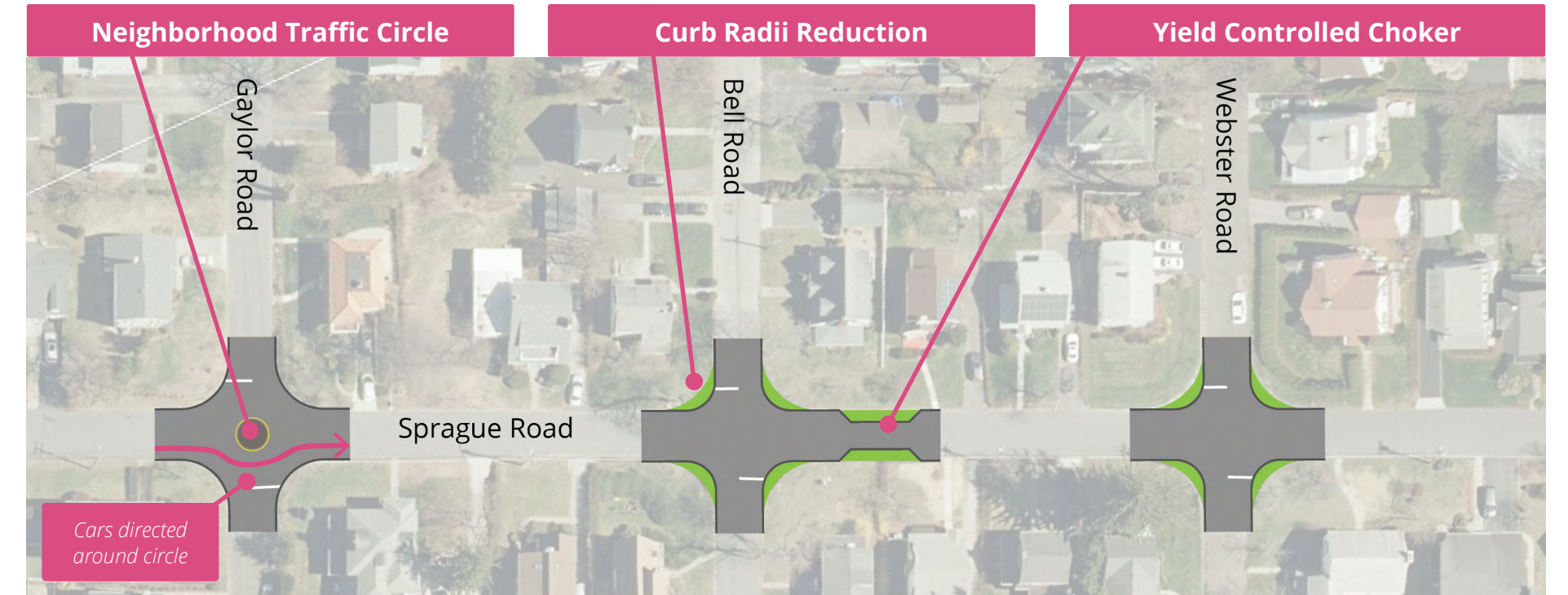
A variety of materials could be used for the neighborhood traffic circles to match the neighborhood aesthetics. Some communities put attract plantings in the neighborhood traffic circles. Depending on the preferences of the Village and residents, the traffic circles could be mountable to better accommodate larger vehicles or plows. Although not required for small traffic circles, signage could be added to provide direction to drivers on how to navigate around the circle. Chokers can expand the greenspace in a neighborhood and can be an opportunity for a rain garden to help manage stormwater. If the chokers contain plantings, an agreement with the abutting property owners for maintenance of the plantings may be considered. Salt-tolerant plantings are recommended. Chokers will reduce the amount of on-street parking and may need curb markers for plowing.

Figure 4. Concept Plan for Sprague Road - Alternative 2 Inset

A decorative mountable service is recommended for the neighborhood traffic circle.

Curb radii reduction reduces intersection space and requires turning vehicles to slow.

Yield controlled choker requires drivers to give way to approaching vehicles.



*This is a planning-level concept developed for discussion purposes. More detailed engineering designs will be required before a final plan is developed.*

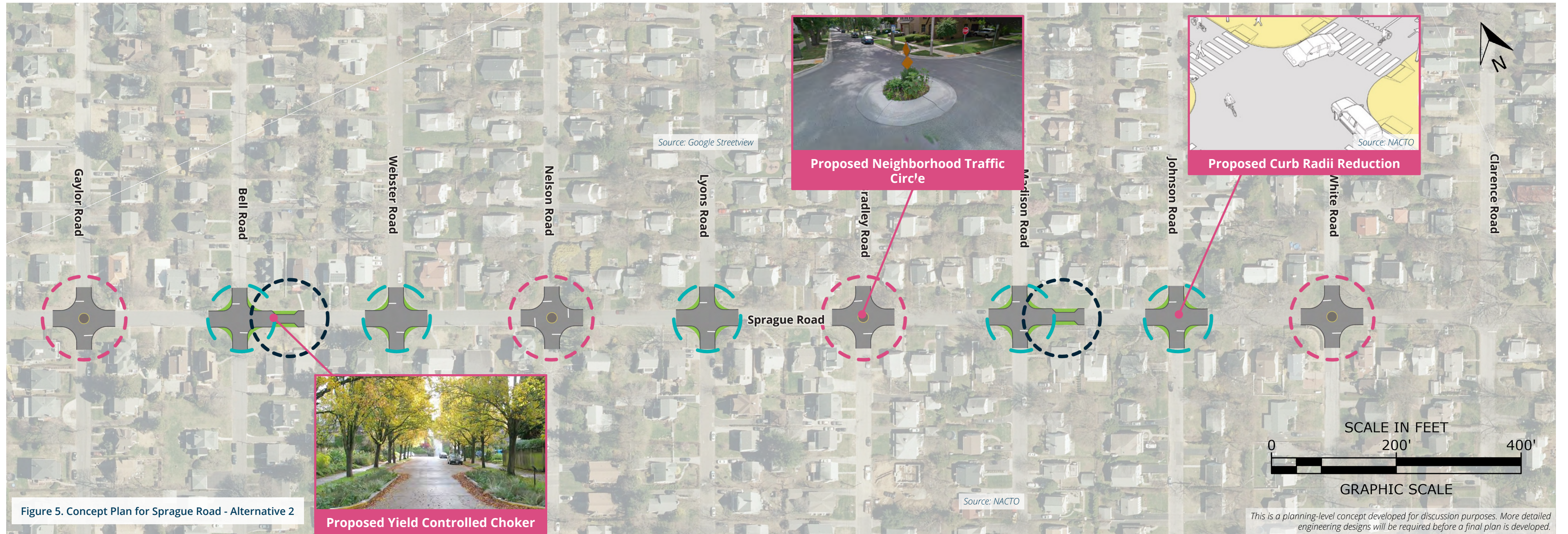


Figure 5. Concept Plan for Sprague Road - Alternative 2

Proposed Yield Controlled Choker

This is a planning-level concept developed for discussion purposes. More detailed engineering designs will be required before a final plan is developed.

### Alternative 3: Innovative Approach with Traffic Diversion

Alternative 3 builds on the elements from Alternative 2. Curb radii reductions would be added where feasible. Neighborhood traffic circles are proposed at the intersections with Gaylor Road and White Road. Additionally, this alternative includes half-closures at Nelson Road and Madison Road. In these locations pedestrians and people on bicycles would be able to go through the intersections, but vehicles would be diverted onto the cross streets. This would eliminate Sprague Road as a cut-through street between Wilmot Road and White Plains Road. Figure 6 indicates the traffic pattern if the half closures were implemented, and Figure 7 shows the concept plan.

Figure 6. Traffic Pattern with Half-Closures

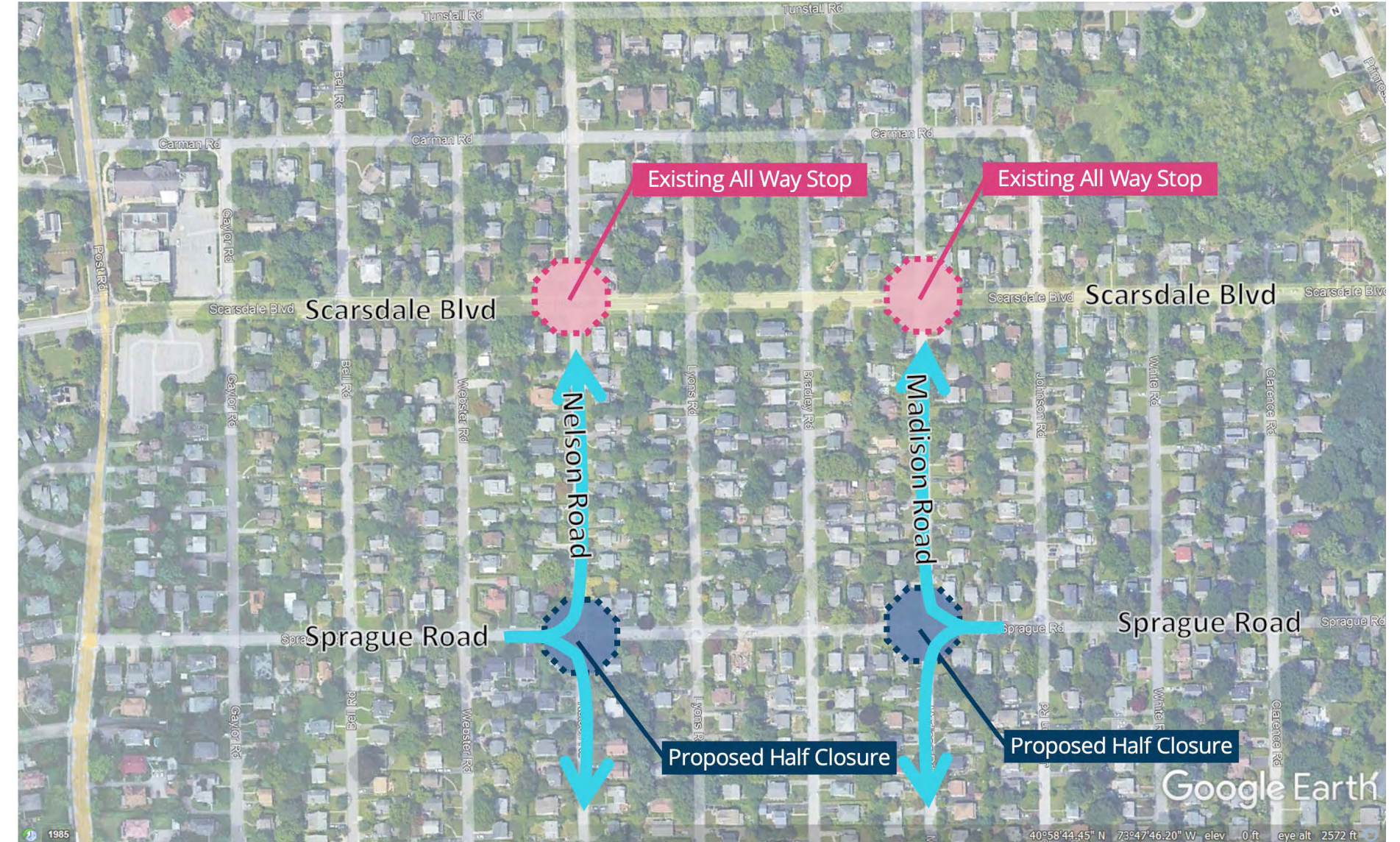






Figure 7. Concept Plan for Sprague Road - Alternative 3

This is a planning-level concept developed for discussion purposes. More detailed engineering designs will be required before a final plan is developed.



## Alternatives Selection

The project team presented these alternatives at the virtual public meeting in June and September 2022. Comments shared both during and following the meetings via the project website and email.

Although some residents expressed support for stop signs, others noted that vehicles frequently roll through the stop signs. Additional conversations with the Village raised concerns about the usefulness of stop signs and the potential to increase crashes. Stop signs are typically not recommended as a traffic calming because studies have shown they have limited effectiveness in slowing vehicle speeds. Drivers frequently do not stop, particularly in locations where the stop is not perceived as needed. This can result in an increase in crashes. In rare circumstances such as locations with visibility constraints, stop signs have been implemented in locations that otherwise do not meet traffic volume requirements.

This alternative was eliminated because the location does not appear to have the visibility concerns or overall traffic environment that would warrant an exception. Additional conversations with community members on this subject are encouraged.

Regarding Alternatives 2 and 3, members of the public suggested that the curb radii are generally not the problem; north-south through traffic rolling through stop signs is the bigger issue. Other participants suggested that chokers would create a challenge due to parking loss. Traffic diversions and neighborhood traffic circles are new infrastructure elements for the neighborhood, and the community would need time to become accustomed to them. Traffic diversion in particular was viewed negatively due to the inconvenience it would cause some residents.

## A Note on Sidewalks

Feedback from the community on sidewalks was mixed. Some participants raised concern about impacts to the neighborhood, and others wanted the street to be calm enough so pedestrians could walk comfortably in the street. To achieve the latter, innovative traffic calming measures (e.g., Alternatives 2 and 3) are needed. The project team recommends the Village continue to collect feedback on the potential for sidewalks on the corridor. Without traffic diversion, Sprague Road may need to have separate spaces to accommodate pedestrians in the long term.



Source: City of Orlando

With this feedback in mind, the project team recommends Alternative 2 as the best option. Although there would be some parking lost with the chokers, the need for safety and speed reduction is a higher priority for this corridor. Given only two chokers are proposed on the corridor, the impact to parking would be small. To best accommodate EMS vehicles, mountable curbs are recommended for the neighborhood traffic circles. The Village is encouraged to work with residents on the materials and aesthetics (e.g., whether to permit plantings) of the neighborhood traffic circles. The Village will also need to coordinate maintenance of any decorative or landscaping elements that are added.

## Implementation

The implementation steps and planning-level cost estimates are shared below. The cost estimates are planning-level estimates. ROW impacts, drainage, earthworks, traffic protection or potential utility relocation costs are not included. These planning-level estimates are primarily based off New York State Department of Transportation (NYSDOT) resources<sup>1</sup>. Demonstration projects are not included in the estimates. Smaller demonstration projects (e.g., curb extensions) are estimated to cost about \$10,000 per Sprague Road intersection. A section noting funding resources can be found in the Implementation chapter of the Strategic Mobility Plan.

<sup>1</sup> NYSDOT Engineering Division Office of Design. Chapter 21 Contract Plans, Specifications, and Estimates. <https://www.dot.ny.gov/divisions/engineering/design/dqab/hdm/chapter-21>

Timeline	Implementation Steps	Planning-level Cost Estimate
Immediate-term	<p><b>Demonstration / Pilot – Speed Feedback Signage</b></p> <ul style="list-style-type: none"> <li>Sprague west of Johnson – EB (down hill)</li> <li>Sprague east of Bell – WB</li> </ul> <p><b>Demonstration / Pilot – Bumpouts</b></p> <ul style="list-style-type: none"> <li>Sprague / Bell</li> <li>Sprague / Webster</li> <li>Sprague / Lyons</li> <li>Sprague / Madison</li> <li>Sprague / Johnson</li> </ul> <p><b>Demonstration / Pilot – Yield Controlled Choker</b></p> <ul style="list-style-type: none"> <li>Sprague east of Bell Road</li> <li>Sprague east of Madison Road</li> </ul> <p><b>Demonstration / Pilot – Neighborhood Traffic Circle</b></p> <ul style="list-style-type: none"> <li>Sprague / Gaylor</li> <li>Sprague / Nelson</li> <li>Sprague / Bradley</li> <li>Sprague / White</li> </ul>	N/A – Demonstration Projects not included in cost estimates
Short-term (0-2 years)	<p><b>Signage – Speed Limit</b></p> <ul style="list-style-type: none"> <li>Change legal speed limit to 25 and install signage</li> <li>Develop detailed design and cost estimates of each measure to be reviewed by the Department of Public Works</li> </ul> <p><b>Bumpouts</b></p> <ul style="list-style-type: none"> <li>Sprague / Bell</li> <li>Sprague / Webster</li> <li>Sprague / Lyons</li> <li>Sprague / Madison</li> <li>Sprague / Johnson</li> </ul> <p><b>Yield Controlled Choker</b></p> <ul style="list-style-type: none"> <li>Sprague east of Bell Road</li> <li>Sprague east of Madison Road</li> </ul> <p><b>Neighborhood Traffic Circle</b></p> <ul style="list-style-type: none"> <li>Sprague / Gaylor</li> <li>Sprague / Nelson</li> <li>Sprague / Bradley</li> <li>Sprague / White</li> </ul>	\$501,000

\* Estimates do not include ROW Impacts, drainage, traffic protection or potential utility relocation costs.

## Conclusion

As a low-traffic, residential street with a 30 mph speed limit, Sprague Road is well suited for innovative infrastructure to address the community's safety concerns. The infrastructure solutions identified in the recommended alternative use effective safety infrastructure found in communities nationwide. As the Village continues to explore options for other streets, they may use Sprague Road as a pilot for traffic calming. Monitoring the effectiveness of these measures from both a technical data collection and community feedback standpoint is critical. By testing out infrastructure and adapting it as needed, the Village will help create safer residential streets with lasting benefits.

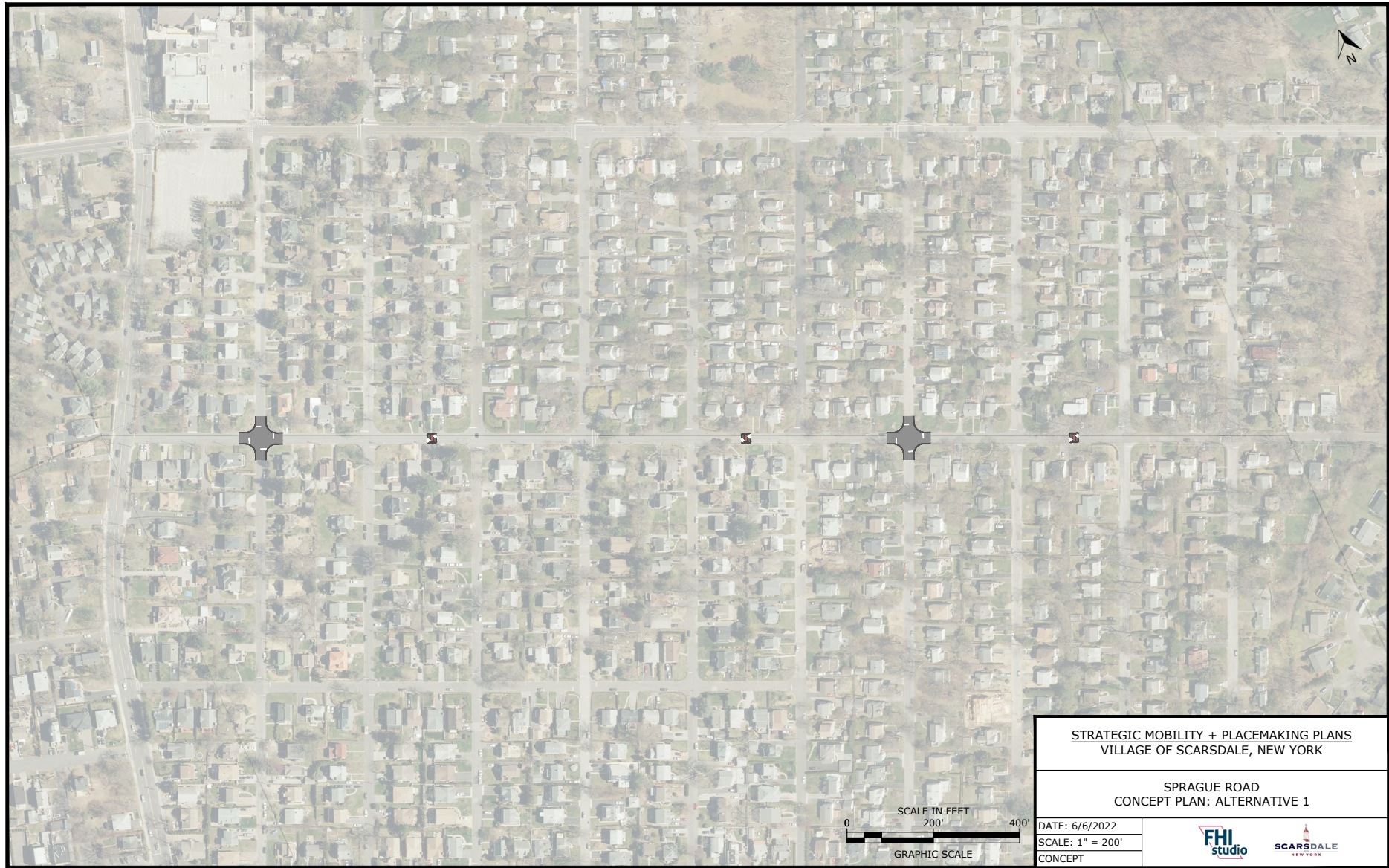
The conclusions of this report are advisory and intended for general planning purposes to help identify transportation safety needs that encourage slow speeds and pedestrian and cyclist safety. The contents of this report are not intended to be legally binding but rather offer recommendations to improve safety in the study area.

### A Note on Landscaped Infrastructure

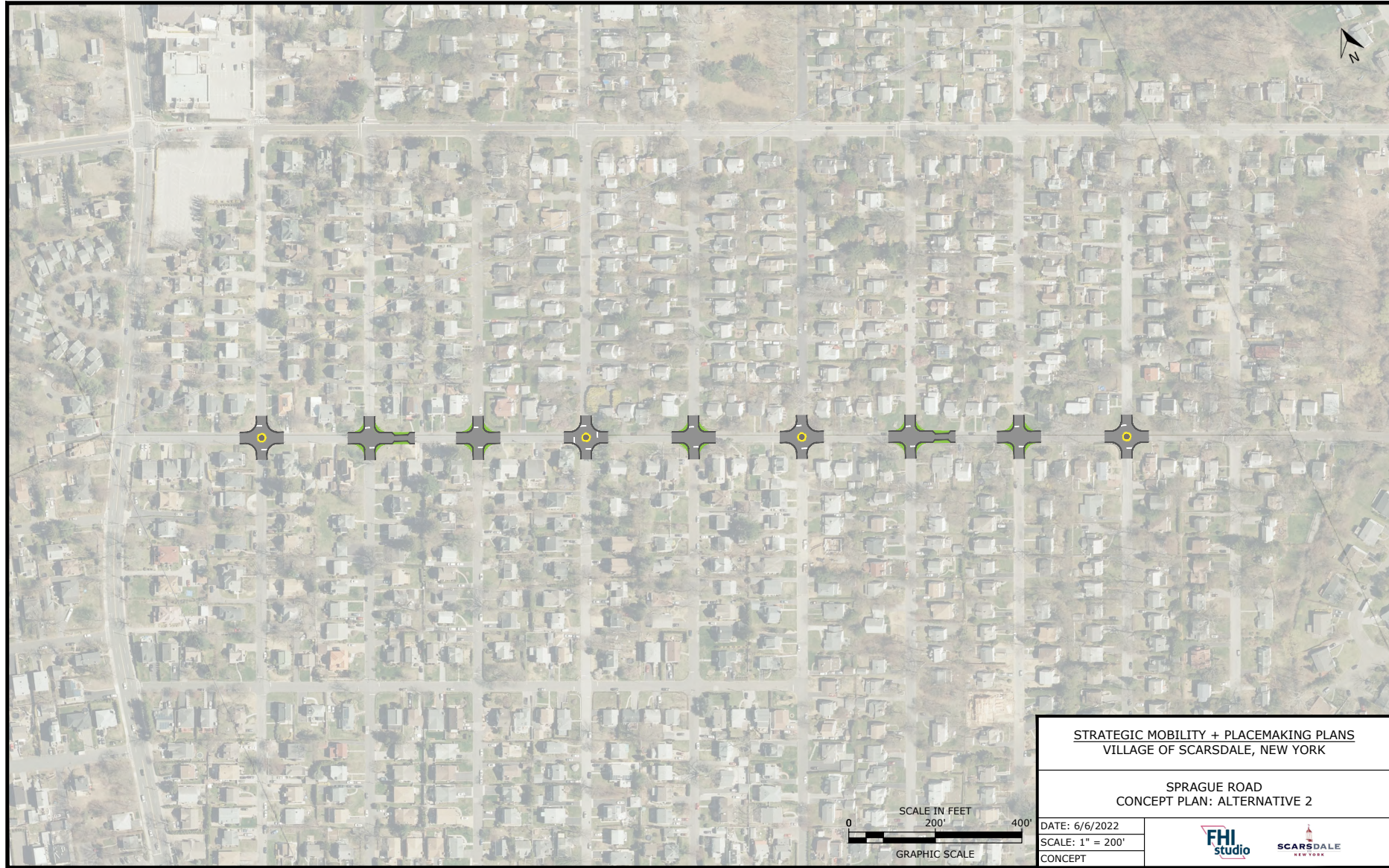
If the Village chooses to implement landscaped infrastructure, maintenance agreements with abutting property owners may be considered. A plan for salt-tolerant landscaping may also be developed and shared with property owners.



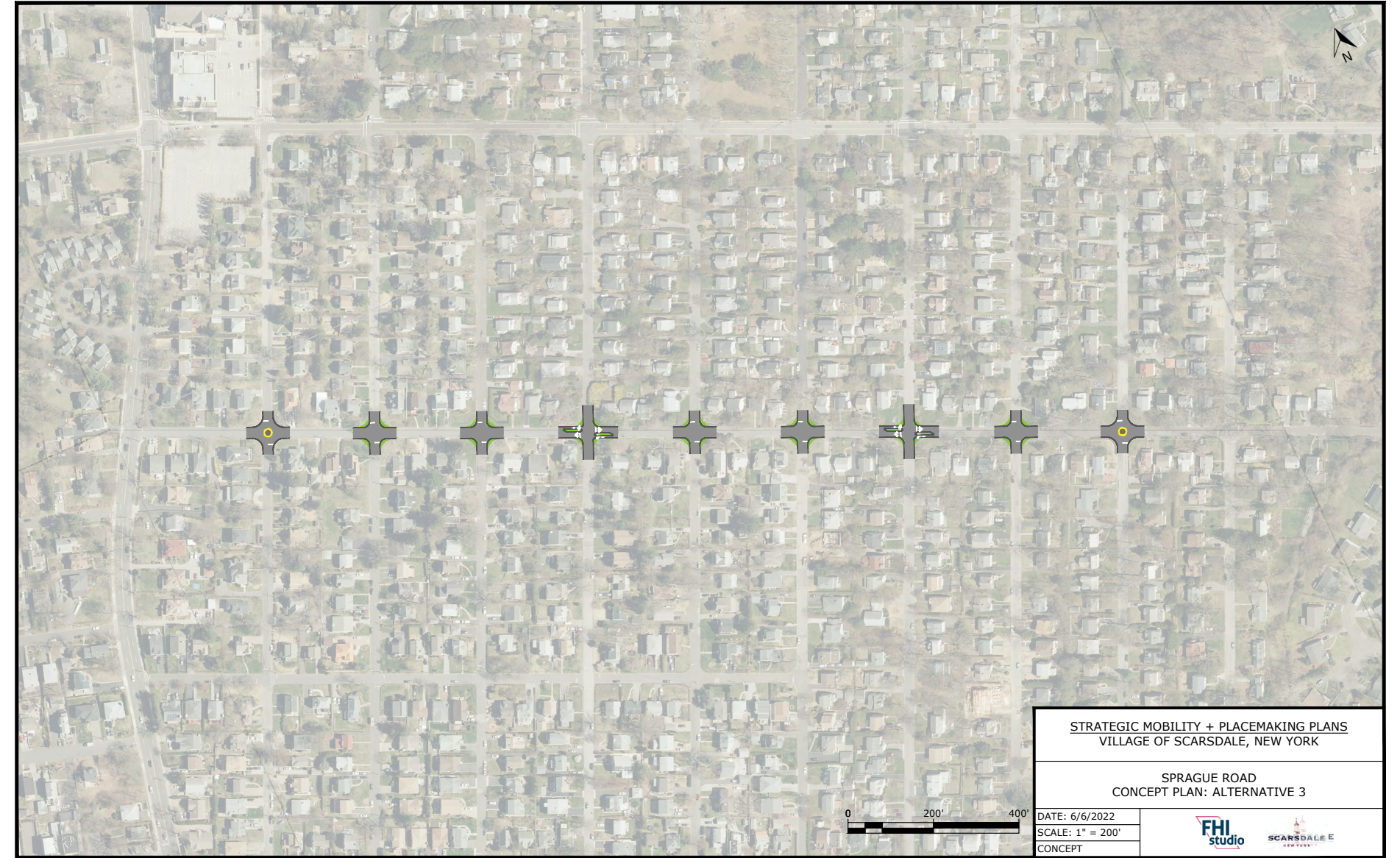
# Appendix A: Concept Plans



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