



**Village of
Marvin**

Enriched by Nature

**Wayfinding Master Plan for
Marvin, North Carolina**

May 2023

Prepared by:



**ARNETT MULDROW
& ASSOCIATES**

Table of Contents

1. INTRODUCTION	4		
Purpose	5		
Planning Process	5		
2. PRELIMINARY ANALYSIS	6		
Stakeholder Input	7		
Existing Conditions	8		
System Infrastructure.	12		
System Destinations	13		
3. SYSTEM DESIGN	17		
Directional Arrows.	20		
4. SIGN SCHEDULE	27		
New Town Rd. & Marvin School Rd.	29		
New Town Rd. & Marvin Rd.	30		
New Town Rd. & Providence Rd. S.	31		
Waxhaw-Marvin Rd. & Crane Rd..	32		
Waxhaw-Marvin Rd. & Henry Nesbit Rd.	33		
		Waxhaw-Marvin Rd. & Stacy Howie Rd..	34
		New Town Rd. & Crane Rd.	35
		Marvin School Rd. & Joe Kerr Rd.	36
		Marvin Rd. & Joe Kerr Rd.	37
		Waxhaw-Marvin Rd. & Bonds Grove Church Rd.. . .	38
		Monument Gateways	39
		Pole Mounted Gateways	40
		Heritage District Gateways.	41
		5. SIGN INVENTORY.	42
		6. IMPLEMENTATION	46
		Administration & Management	47
		Permitting and Installation.	48
		Cost Estimates	49
		Project Phasing	50
		Potential Funding	51
		Strategy Board.	53

1. INTRODUCTION

Purpose

This wayfinding plan is an important tool for the Village of Marvin, by providing a comprehensive and organized system of signage and information to guide residents and visitors alike. The purpose of this plan is to enhance navigation, improve accessibility, and promote a sense of community within the Village. By strategically placing signs and markers at key intersections, landmarks, and public facilities, the plan ensures that individuals can easily find their way around the Village, reducing confusion and enhancing safety. Moreover, the plan incorporates clear and concise information about local attractions, amenities, and services, fostering a positive experience for visitors and encouraging them to explore all that the Village of Marvin has to offer.

With its picturesque surroundings, beautiful parks, and incredible schools, the Village seeks to curate the experience for visitors and residents alike. A well-executed wayfinding plan not only assists in navigating the area efficiently but also showcases the village's unique character and highlights its local assets. This wayfinding plan is intended to boost tourism and economic growth within the community. Furthermore, the plan benefits residents by fostering a sense of pride and identity while facilitating transportation and promoting a vibrant and connected community around the Village of Marvin.

The focus of this comprehensive wayfinding strategy is to:

- bring awareness to the civic, recreation, visitor, and cultural destinations within the community;
- encourage effective circulation patterns throughout the community;
- strengthen the Village's community identity with strategic gateway entrances and signage systems;
- design a platform for a signage system that can grow as new destinations are added;
- provide a framework for phased implementation that can be conducted in the most efficient manner.

Planning Process

In July of 2022, the Village of Marvin secured Arnett Muldrow & Associates of Greenville, South Carolina to develop their new brand and design their wayfinding master plan. The wayfinding project began during the branding process with a reconnaissance site visit to document existing signage and circulation routes, as well as engage a steering committee in project goals and outcomes. Working with the Village, the team created a draft plan that included destination mapping, route planning, design concepts, and finally sign locations. The draft plan was revised based on input from the Village.

The recommendations in this document follow the guidance of the Manual of Uniform Traffic Control Devices (MUTCD) for size, content, design, placement, etc.

2. PRELIMINARY ANALYSIS

Stakeholder Input

Reconnaissance began with a meeting of the steering committee to establish the framework for the project and define wayfinding needs. The discussions also provided Arnett Muldrow with guidance on the following:

- Circulation patterns and routes
- Incorporating the new Village of Marvin Brand identity into a visually-unified signage system
- Update signage along the greenway to promote walkability
- Improving local awareness and pride of amenities and assets
- Implementation capabilities of the Village of Marvin
- Management responsibilities for the system and its implementation

Steering Committee

A special thanks to the members of the steering committee that assisted with the development of this plan:

Kristyna Culp, *Committee Member*

Derek Durst, *Committee Member*

Melinda Nielsen, *Committee Member*

Bob Nunnenkamp, *Committee Member*

Will Owens, *Committee Member*

Kim Vandenberg, *Council Liaison*

Austin W. Yow, *Project Manager*

Existing Conditions

Arnett Muldrow conducted an assessment of the existing signage within the village and the surrounding area. This included looking at highway signage, public and private gateways, destination signage, directional and specialty signage. Based on our assessment:

- There is limited directional signage currently pointing to any destinations.
- The existing gateway signs for the community and Marvin Efirid Park are new and well designed.
- There are very few gateway signs to establish a sense of arrival at the character boundaries of the Village.
- The existing signage at municipal limits and key locations lacks the Village's new branding.
- Some of the existing pedestrian oriented signs are relatively new and in good condition, but need to be updated to stay consistent as this new system is implemented.

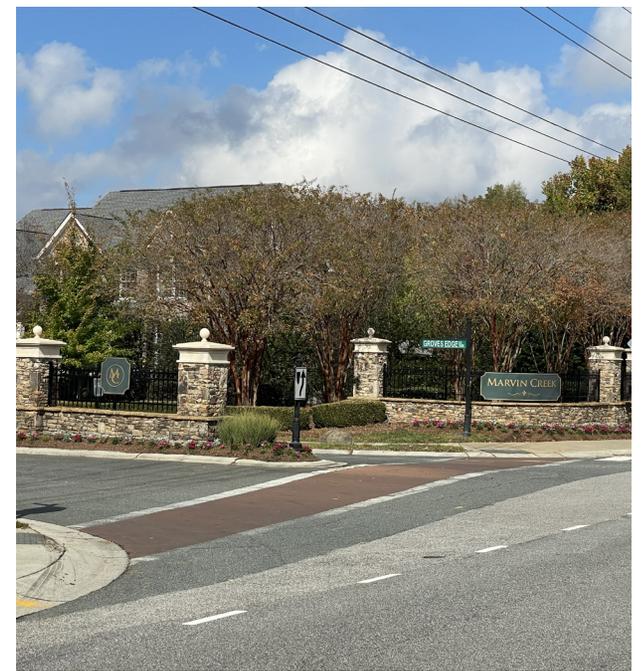
Vehicular & Pedestrian Wayfinding



Highway Signage



Gateway Signage



Types of Qualifying Destinations

To be considered for inclusion into the community wayfinding system for the Village of Marvin, a destination or attraction must clearly conform to one of the following categories:

- *Architectural & Historical:* Historic Sites, Historic Districts;
- *Commercial:* Farmers Markets, Shopping Districts, Industrial Parks, Zoos, Botanical Gardens;
- *Districts:* Character Districts such as Downtowns, Entertainment Districts, etc;
- *Cultural & Institutional:* Arenas, Colleges and Universities, Convention Centers, Courthouses, Government Buildings, Health Care Centers, Libraries, Museums, Schools, Theaters;
- *Recreational:* Boating Access, Campgrounds, Golf Courses, Hiking/Biking Trails and Routes, Equestrian Facilities, National/State/Regional Parks/Forests, Parks and Recreational Facilities, Sports Facilities;
- *Transportation:* Airports, Historic Routes, Parking Resources, and Transit Centers; or
- *Visitor Services:* Hospitals, Visitor Information Centers.

If a destination or attraction fails to conform to one of the above categories, it should be excluded for consideration as a qualifying destination. The list above is for planning purposes to map out and rank destinations. Not all of these destinations currently exist in the Village of Marvin.

Similarly, **not all** of these destinations would be represented on directional signage. Many of these destinations may require a gateway entry sign (neighborhoods, schools) or monument sign (certain government buildings). Others may be incorporated into a system with street sign toppers (historic districts) or simply included in visitor mapping collateral and brochures. Similarly, many of these destinations (libraries, visitor center, hospitals, airports) would be included by using standard icon signage.

Scoring Criteria for Qualifying Destinations

If a destination conforms to one of the qualifying categories, it will be considered for inclusion into the Village of Marvin wayfinding system. A qualifying destination shall then be rated according to the scoring matrix below. Once all destinations are ranked, they will split into various tiers in order to classify which ones will be included in the final signage system.

Size of Attraction: Number of full-time employees.

- 10 or fewer 1
- 11-49 2
- 50 or more 3

Access to Attraction: Ease of access via roads and entrances.

- Unmarked and unpaved/no entrance 0
- Entrance poorly marked and/or unpaved entrance/access . . . 1
- Clearly marked entrance with paved entrance/access 2

Parking Resources: Access to parking resources.

- No on-site or nearby on-street parking. 0
- Nearby on-street parking only. 1
- Dedicated parking lot with 10 or fewer spaces 2
- Dedicated parking lot with 11 or more spaces. 3

Seasonality: Availability or access to destination on an annual basis.

- 6 months or less. 1
- 6-9 months 2
- 9-12 months 3

Hours of Operation: Weekly availability or access.

- 0-20 hours/week 1
- 20-40 hours/week. 2
- 40 or more hours/week. 3

Significance of Attraction: Local, regional, or national importance.

- Local significance 1
- Regional significance 2
- National significance 3

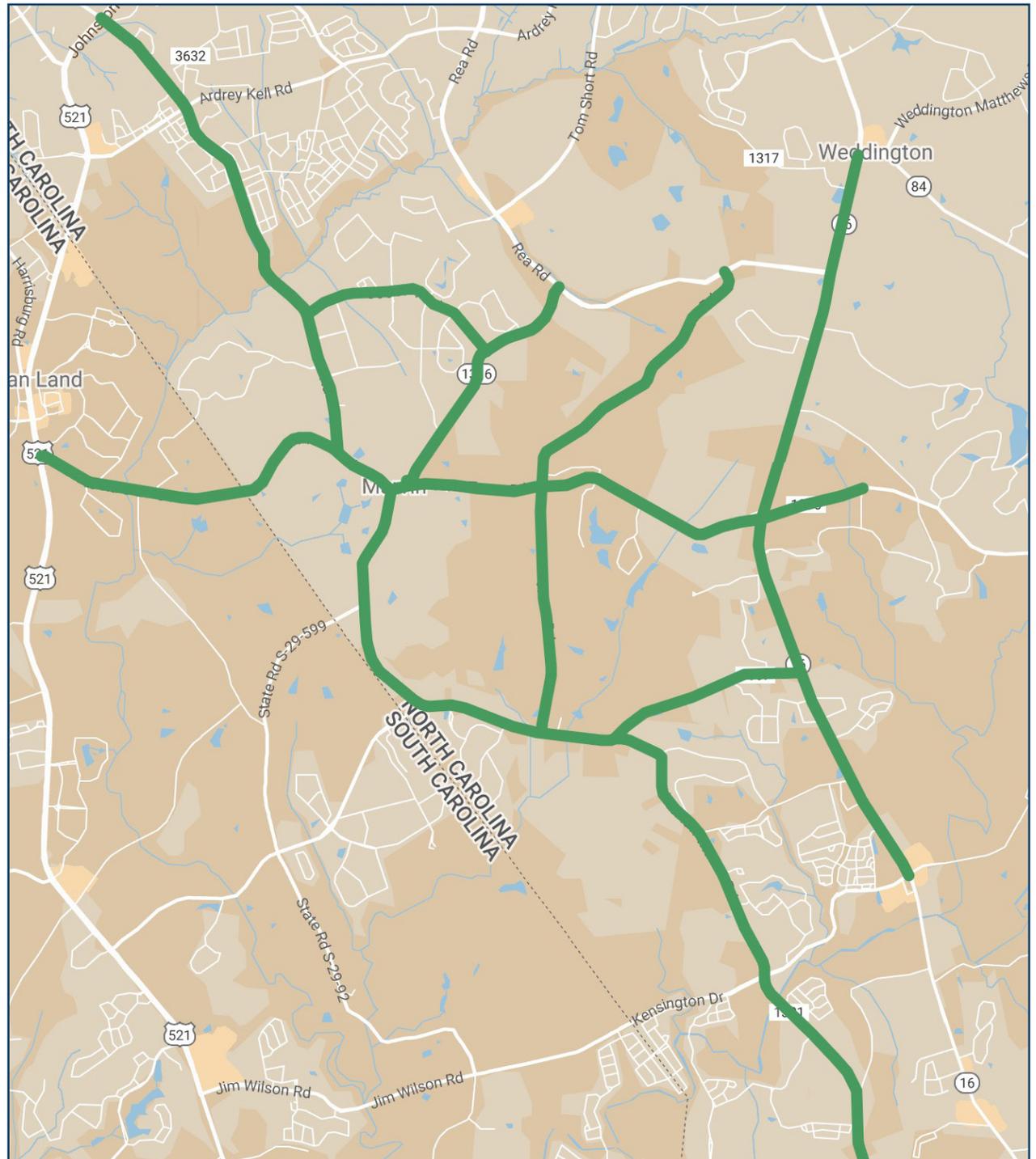
System Infrastructure

Primary Routes

The map to the right shows the Primary Routes that form the major network of roads and connect destinations throughout Marvin.

The Primary Routes include:

- Bonds Grove Church Road
- Crane Road
- Joe Kerr Road
- Marvin Road
- Marvin School Road
- New Town Road
- Waxhaw-Marvin Road
- Providence Road



System Destinations

The next step was to complete destination mapping based on the qualifying criteria. Arnett Muldrow worked with the steering committee to edit, refine, and finalize the destinations to be included in the wayfinding system. These destinations are divided into three Tiers based on their overall significance.

Tier One Destinations

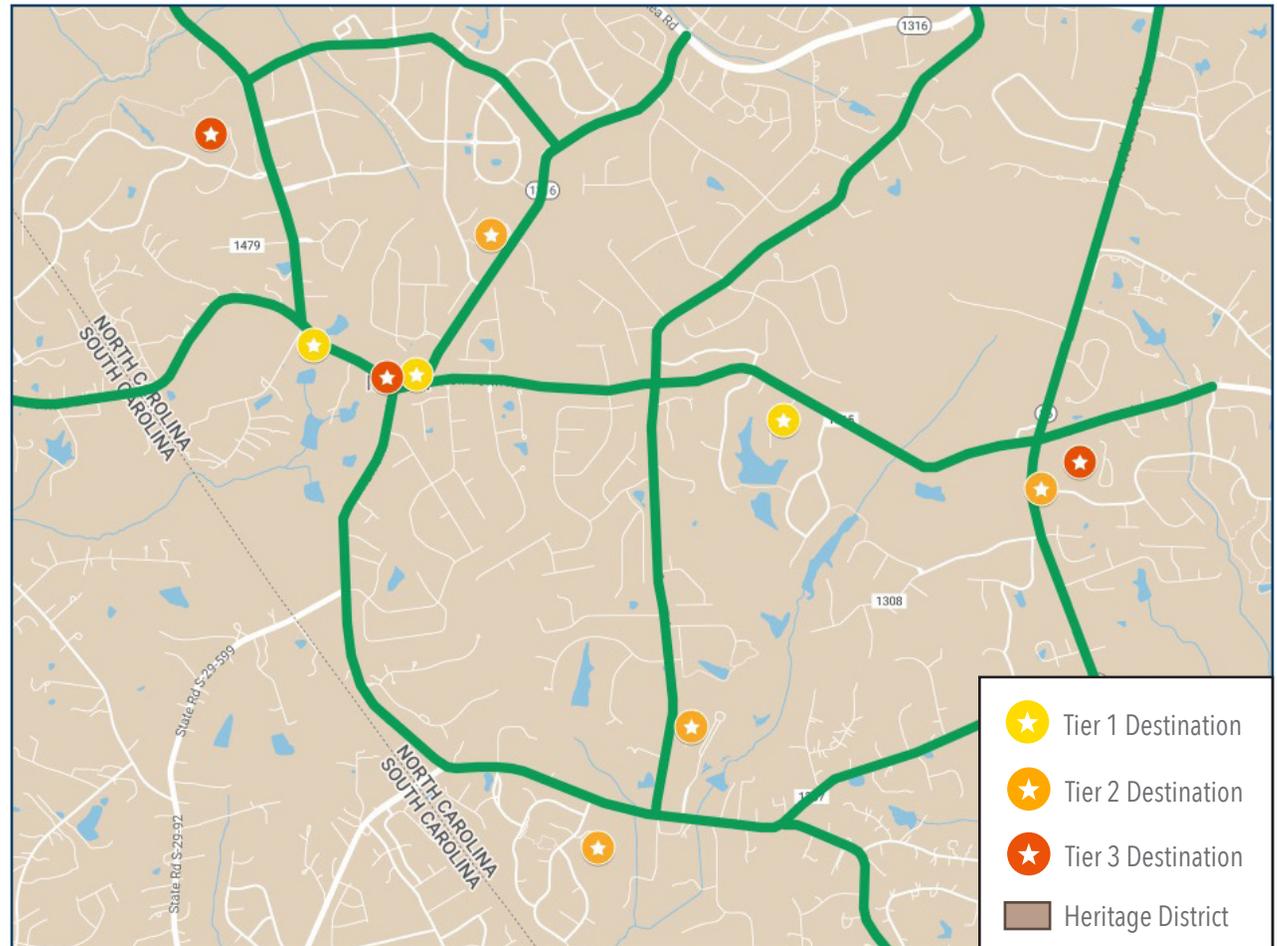
Tier One destinations meet all requirements of scoring criteria for eligible destinations or attractions and should be included in motorist directional signage. Tier One destinations will require directional trailblazer signage from primary routes to direct visitors to the destination.

Tier Two Destinations

Tier Two destinations are eligible destinations or attractions and should be included in motorist directional signage when a turn is necessary and may be included in a directional trailblazer when a directional trailblazer is required because of a Tier One destination and panel space is available.

Tier Three Destinations

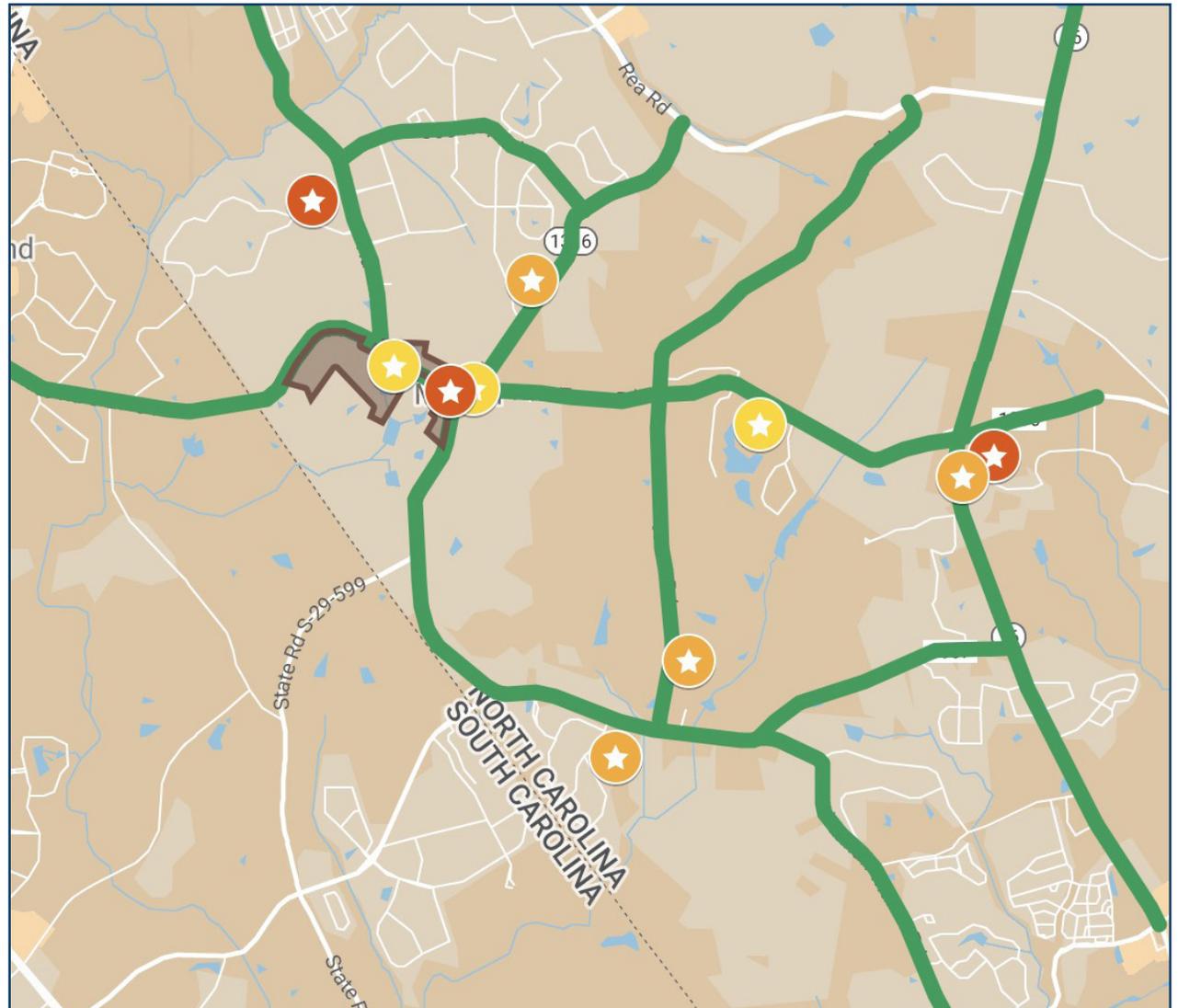
Tier three destinations may not meet all eligibility requirements. These destinations are listed in the report as they are important to the community, but they may not have enough access or meet the appropriate DOT standards to be included on the community wayfinding signs.



Destination	Panel Text	Address	Tier
Marvin Village Hall	Village Hall	10006 Marvin School Rd.	1
Marvin Efirid Park	Marvin Efirid Park	8909 New Town Rd.	1
Marvin Heritage District	Heritage District		1
Marvin Ridge High School	Marvin Ridge Schools	2825 Crane Rd.	2
Marvin Elementary School	Marvin Elementary	9700 Marvin School Rd.	2
Sandy Ridge Elementary School	Sandy Ridge Elementary	10101 Waxhaw Manor Dr.	2
Publix Super Market at Marvin Gardens	Shopping & Dining	1615 Providence Rd S	3
Firethorne Country Club	Golf Course	1108 Firethorne Club Dr	3
Historic Store	Historic Store	9904 New Town Rd	3

Wayfinding Route Network

By combining all of the routes with the Tier 1 & Tier 2 destinations, the full network is used to determine decision points. These points where a motorist will either change direction or benefit from directional reassurances are where most trailblazers will be located.



- Routes
- Heritage District
- Tier 1 Destination
- Tier 2 Destination
- Tier 3 Destination

3. SYSTEM DESIGN

The Consultants worked with the wayfinding project steering committee to edit, refine, and finalize artwork for the wayfinding system. Important considerations included color palette, form, materials, and other design elements.

Brand

The Village of Marvin recently adopted a new destination brand logo prior to the wayfinding plan, including iconography, typefaces, and color palettes. The design of the new brand and the overwhelming input that the Village wanted to retain it's rural character were inspiration for the wayfinding signs illustrated on the following pages. The elements of the brand for Marvin have been included in the system.



Marvin Logo with Tagline



Marvin Heritage District Logo

Typefaces

The wayfinding system for Marvin features two typefaces which are described and illustrated below. The first typeface is FHWA Series C2000EX, which is an approved font for vehicular directional signage based on MUTCD standards. This typeface should be utilized for vehicular signage intended for viewing by people in motorized vehicles along public roadways. The cap height for sign copy must be six inches for signs in speed zones above twenty-five miles-per-hour. The cap height must be four inches for speed zones twenty-five miles-per-hour and lower.

The second typeface is Sagona Medium, which is the adopted primary typeface for the Marvin brand system. This font should be utilized for pedestrian and parking signage, as well as for when the Marvin brand or logo is used. This typeface is intended for viewing by people on foot or non-motorized vehicles outside the public right-of-way, so the cap height is not subject to MUTCD regulations and can vary based on use. In addition, the Marvin brand is generally used as the top of vehicular trailblazers, as well as on monument and pole-mounted gateway signage.

All fonts intended to be view by vehicular traffic shall be in accordance with section 2D.05 of MUTCD. Lettering size shall be in accordance with section 2D.06 of MUTCD.

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLMNOPQRSTUVWXYZ
 1234567890-=!@#\$%^&*()_+

FHWA Series C2000EX

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLMNOPQRSTUVWXYZ
 1234567890-=!@#\$%^&*()_+

Color Palette

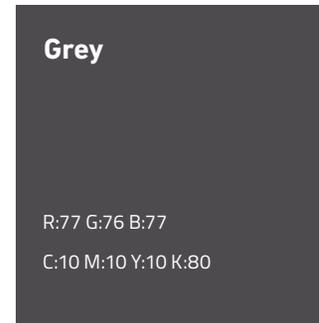
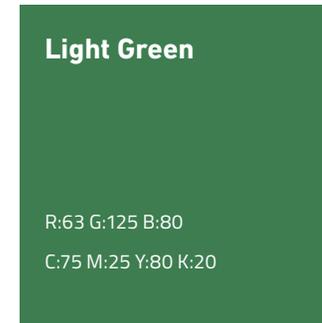
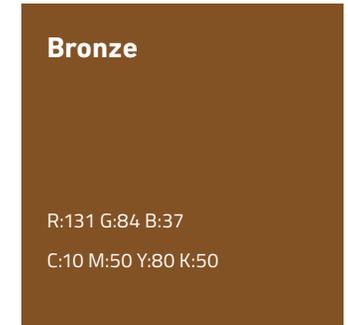
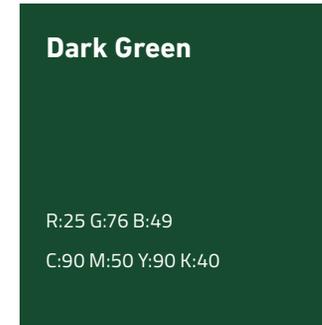
The color palette for Marvin wayfinding comes directly from the adopted brand palette for the Village of Marvin. It is important to note that shades of red, yellow, orange, purple, fluorescent yellow-green or pink may not be used as vehicular sign backgrounds, as these colors may resemble regulatory signage and may confuse and endanger motorists. (MUTCD 2D.50:18)

In particular, the Dark Blue is being used for the destination panels of the trailblazer signage, while the Gold is used for accent panels.

Directional Arrows

MUTCD Standards for vehicular directional signage require destinations be listed in order of direction first:

- Straight ahead
- Left (veer)
- Left (turn)
- Right (veer)
- Right (turn)
- Destinations sharing the same directional arrows should be listed from top to bottom in order of distance from the sign locations. (MUTCD 2D.37)
- These rules are not required of pedestrian wayfinding signs but are recommended for consistency within the larger system.



Color Palette



Directional Arrows

Design

Signs installed in public rights-of-way intended to be read by persons in motor vehicles must conform to the requirements of MUTCD and NCDOT. Final planning, design, and construction documentation will be determined during permitting and implementation. General guidance is shown below.

Pole-Mounted Signage

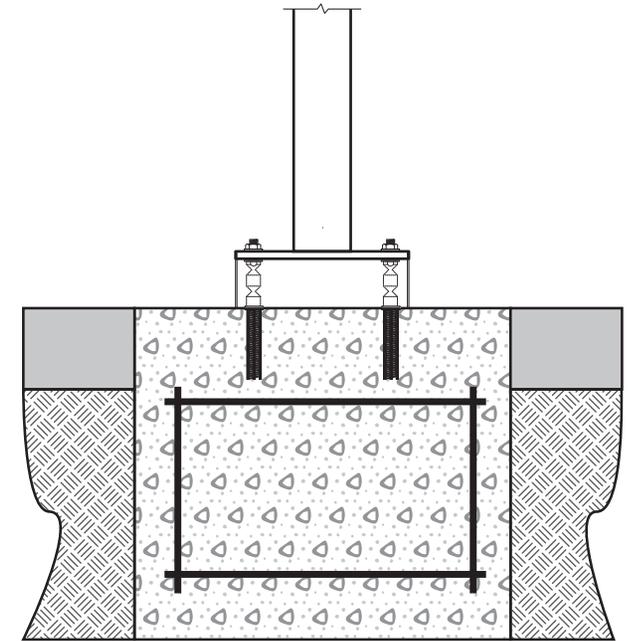
- Sign panels are required to be fabricated with a reflective sign sheeting that meets or exceeds reflectivity standards. (MUTCD 2D.50:20)
- Breakaway posts and decorative post features should be constructed of MUTCD-specified, NCDOT-approved materials including decorative slip jacket, if used.
- All installed signs should meet federal and state requirements for minimum height and breakaway features. Minimum height for trailblazers and parking signs is seven feet above grade. (MUTCD 2A.18:05)
- Pedestrian signage is not allowed to be retroreflective. (MUTCD 2D.50:11)

Sign Supports for Pole-Mounted Signage

- Signs shall be mounted on support poles, and poles will be ground mounted according to the manufacturer's instructions and conditions of applicable permits.
- Shop drawings for sign construction, pole support construction, and mounting instructions will be required from the manufacturer. The installation contractor shall follow the manufacturer's instructions in the installation of the wayfinding signs so that they stay properly in place.
- Depending on style of sign supports, a cover plate may be used to hide the bolts at the base, which may be part of the decorative style of the support.

Monument-Style Signage

- All monument signage must meet any relevant standards of NCDOT and MUTCD, including location, materials, lighting, construction, and breakaway, if required.
- It is recommended that gateway signage be installed outside the public street right-of-way. If they are in the right-of-way, they must be approved through NCDOT, be crashworthy, and be deemed safe by NCDOT.



MUTCD requires that pole-mounted signage be constructed to breakaway standards. The illustration above shows a section of generic breakaway footer. Ultimately, final designs of footers, pole-mounting, and signs will be determined during the permitting and construction phase, based on the requirements of NC DOT and sign manufacturer's specifications.

Sign Typology

The wayfinding system is composed of several unique sign types which serve different functions. The signs illustrated below should be considered “typical” for each sign type. Trailblazers must meet federal and state requirements for breakaway features.

Gateway Signs

The illustrations below show variations of both monument and pole-mounted gateway signage. Gateway signs are used at entrances to the Village of Marvin as well as at the entrance to the Heritage District, at the locations identified on the sign schedule. The large gateway should be used at the most heavily trafficked entryways to the community where physical space and rights-of-way permits. The pole-mounted options can be installed on less traveled ingress roads or where space is limited. Monumental signs are more expensive than pole-mounted options as well, so budgetary considerations should always be taken into account when considering which type of sign should be placed at specified locations.

Some gateway locations illustrated in this report are in unincorporated areas, particularly along Rea Road and Providence Road. These locations provide incredible visibility to the daily traffic along these corridors. This will establish a sense of arrival at the “character boundary” which in many communities often extends beyond their municipal boundary.

Final gateways would be site specific in terms of size and design with specifications including construction documentation prepared during the permitting and implementation phase.



Pole-Mounted Gateways

Small Monumental Gateways

Updated Park Sign

Monumental Gateways

Vehicular Directional Trailblazers

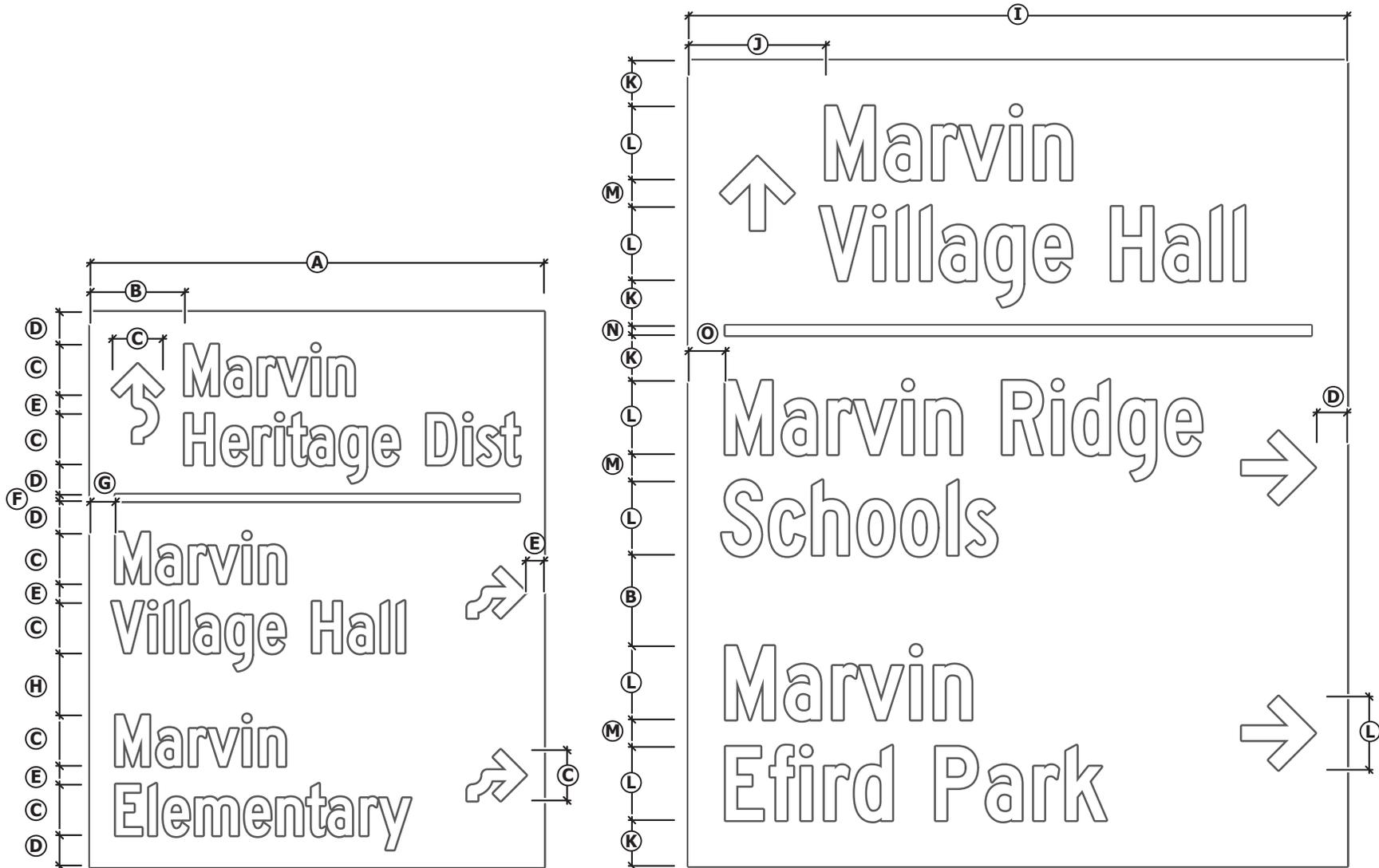
- 6" capital letters for speed limits above 25 mph. (MUTCD 2D.06:03)
- 4" capital letters for speed limits 25 mph and under. (MUTCD 2D.06:03)
- Panel height will vary based on number of destinations, directional changes, and parking information.
- The base of the sign should be no less than 7' from ground level. (MUTCD 2A.18:07)



Example of High Speed Vehicular Directional Trailblazer

Example of Low Speed Vehicular Directional Trailblazers

Vehicular Directional Trailblazer Dimensions



A	36"
B	7.5"
C	4"
D	2.5"
E	1.5"
F	0.5"
G	2"
H	5"
I	54"
J	11.25"
K	3.75"
L	6"
M	2.25"
N	0.75"
O	3"

Typical Low Speed Vehicular Directional Trailblazer Dimensions

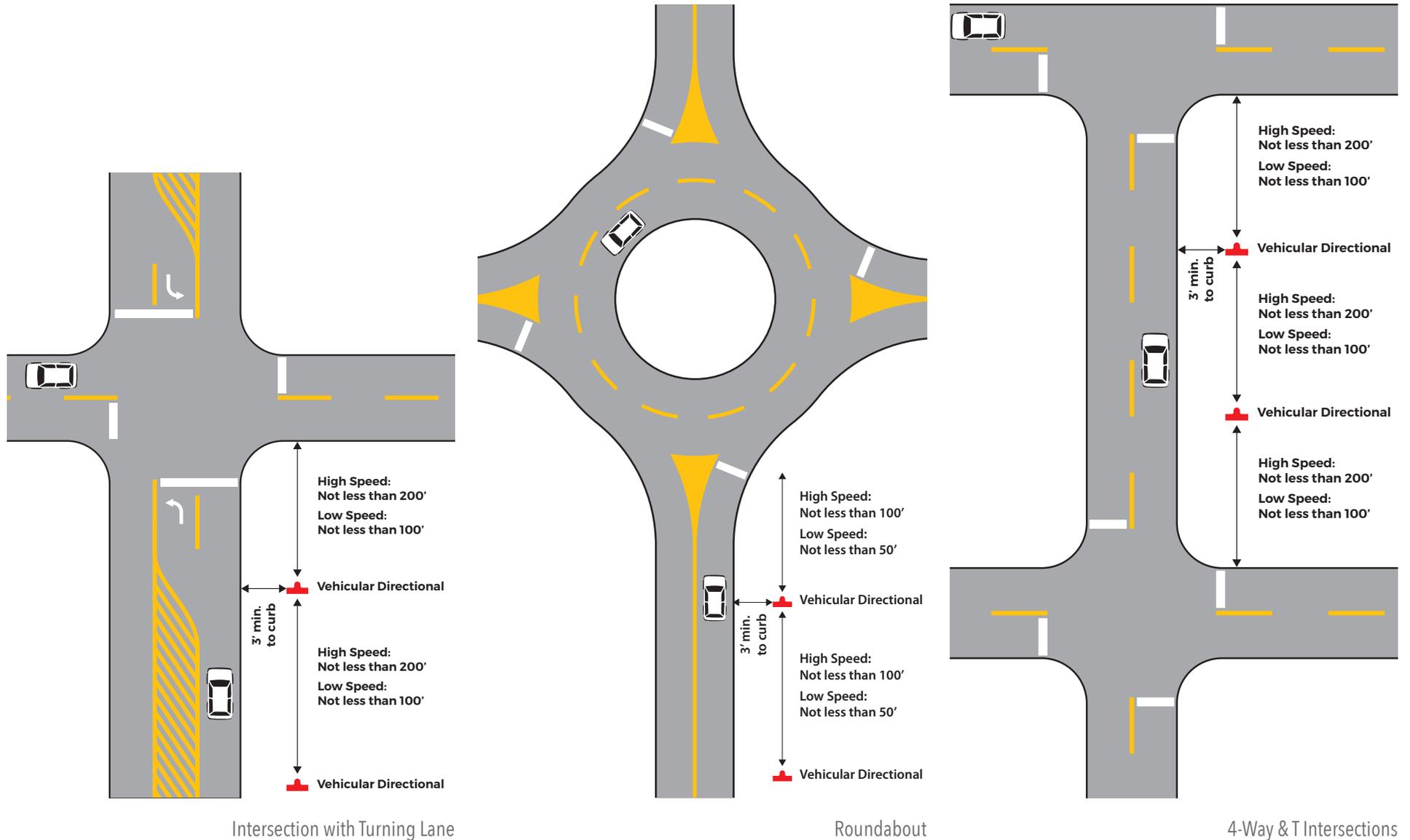
Typical High Speed Vehicular Directional Trailblazer Dimensions

Intersection Types

Sign location diagrams for “typical” intersections in Marvin are displayed on the facing pages. Exact locations of signs will be determined during the permitting process according to NCDOT requirements and MUTCD standards. Additional guidance to the following diagrams includes:

- All other official signage has priority for location over community wayfinding.
- Try to avoid placing vehicular wayfinding signage next to or within 25’ of other official signage.
- For approach speeds or speed limits of 20 mph to 35 mph, or stem of “T” approaches where right angle and right turns are required (likely a “stop condition”), sign spacings of 25’ to 50’ are ideal.
- For 45 mph speeds, advance and separation distances of 100’ are desirable.
- For 55mph and above speeds, advance and separation distances of 250’ are desirable.
- The desirable distances do not override the minimum requirements, and other factors such as the presence of other signs and utilities may mean that a sign needs to be placed the minimum 25’ from an intersection when 250’ is ideal.

The illustrations show suggested distances from intersections, roadways, and additional signs for community wayfinding signage. Ultimately, final locations will be determined during the permitting and construction phase, based on the requirements of NC DOT and MUTCD standards.



4. SIGN SCHEDULE

Sign Schedule Overview

The sign schedule for Marvin combines the key routes, decision points, and destinations into signage content, location, and type. The sign schedule for Marvin is detailed throughout this chapter as a series of exhibits that combine maps and tables to detail relevant information in an easy-to-comprehend format.

The sign schedule tables and maps on the following pages detail the system Directional Trailblazers and Gateways. Each sign schedule table provides a unique code for each sign, additional details regarding the sign typology, the general location of the sign.

The tables for Directional Trailblazers also include the content of each sign panel. This content includes the names of one, two, or three destinations (no more than three destinations are permitted), the direction each sign panel faces, directional arrows for each destination, and additional notes.

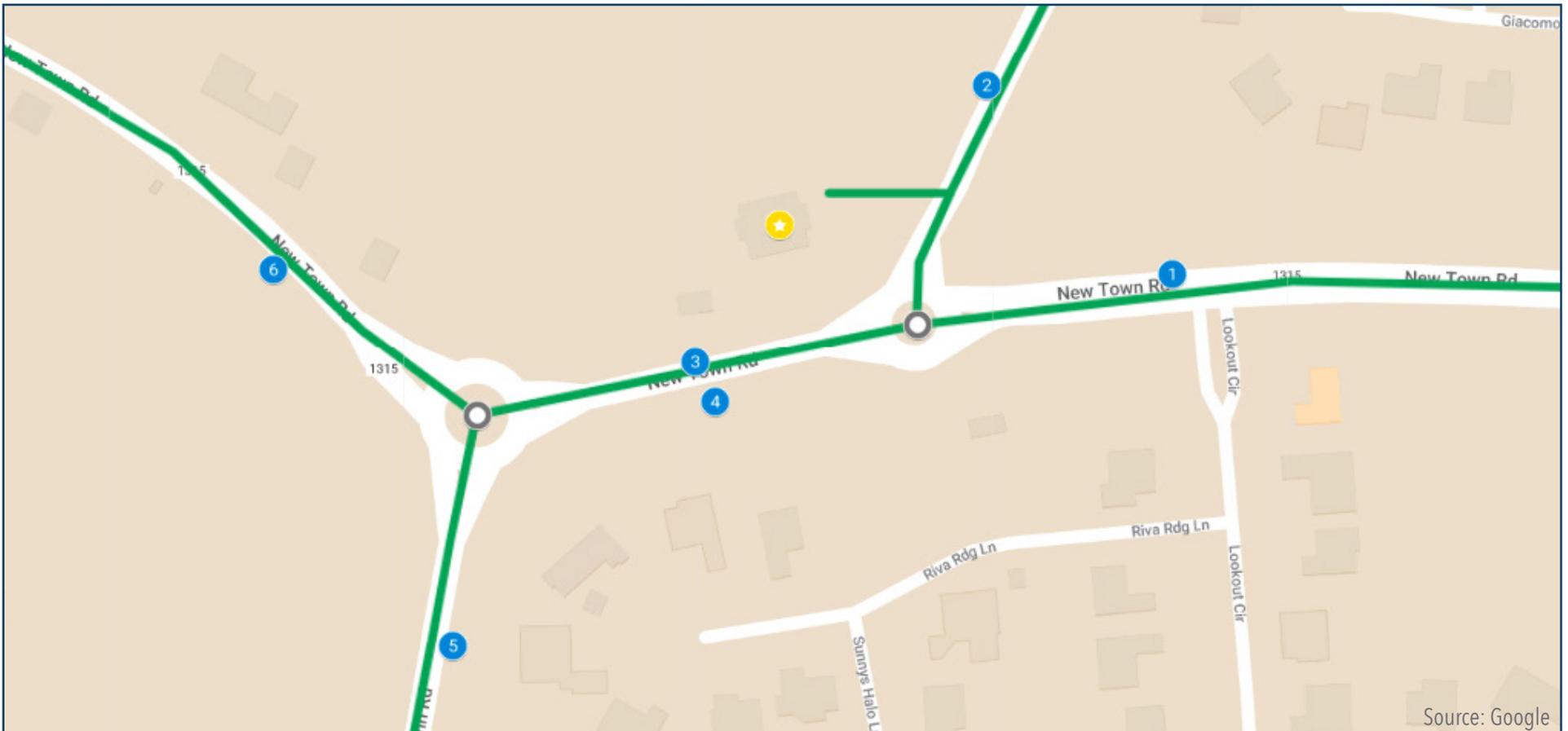
- Vehicular Trailblazers
 - HS: High-Speed
 - LS: Low-Speed
 - EB: East Bound
 - WB: West Bound
 - NB: North Bound
 - SB: South Bound
- Phase & Sign #: Each sign is assigned to a Phase that will help streamline implementation.
- Destination 1, 2, 3 content on each sign
- Directional Arrows for each destination
- G: Gateways
 - Monumental
 - Pole-Mounted
 - Heritage District

The locations identified for each sign is approximate. Precise locations will be determined during the permitting and installation process by the sign installer. Sign locations must meet the MUTCD standards as well as be permitted through the NCDOT encroachment permitting process. This would include the determination of any underground utilities.

The sign schedule is also provided as a spreadsheet tool for implementation, as well as a Google Earth .kmz map file.

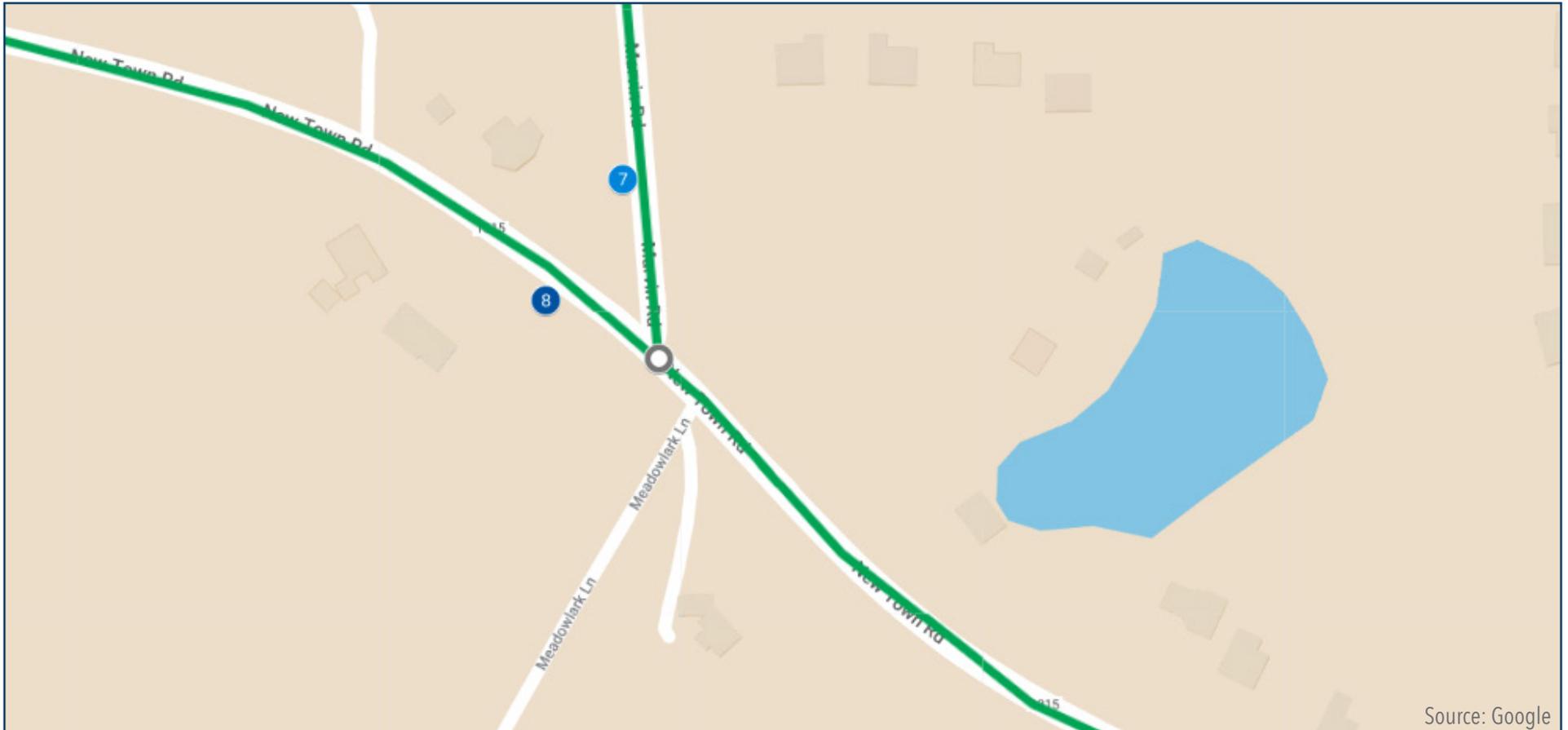
New Town Rd. & Marvin School Rd. & Waxhaw-Marvin Rd.

Phase & Sign #	Sign Type	Destination 1	Dir.	Destination 2	Dir.	Destination 3	Dir.
1-1	LS-WB	Marvin Heritage District	↶	Marvin Village Hall	↷	Marvin Elementary	↷
1-2	LS-SB	Marvin Efird Park	↶	Marvin Heritage District	↷		
1-3	LS-WB	Marvin Ridge Schools	↶	Marvin Heritage District	↷		
1-4	LS-EB	Marvin Efird Park	↶	Marvin Village Hall	↶	Marvin Elementary	↶
1-5	LS-NB	Marvin Heritage District	↶	Marvin Village Hall	↷	Marvin Efird Park	↷
1-6	LS-EB	Marvin Village Hall	↶	Marvin Efird Park	↶	Marvin Ridge Schools	↷



New Town Rd. & Marvin Rd.

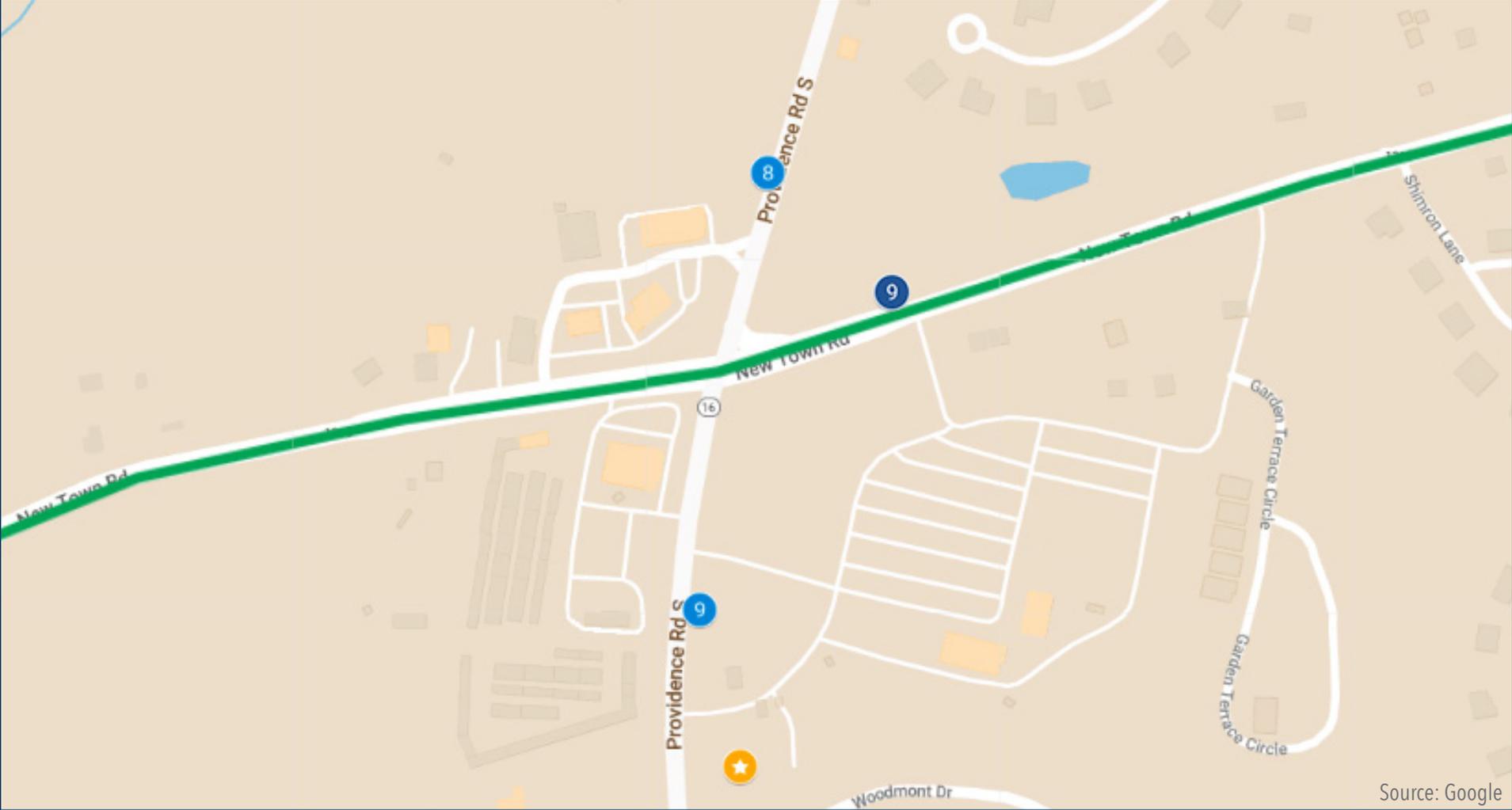
Phase & Sign #	Sign Type	Destination 1	Dir.	Destination 2	Dir.	Destination 3	Dir.	Destination 4	Dir.
1-7	LS-SB	Marvin Heritage District	↩	Marvin Village Hall	↩	Marvin Efird Park	↩	Marvin Elementary	↩
2-8	HS-EB	Marvin Village Hall	↗	Marvin Efird Park	↗				



Source: Google

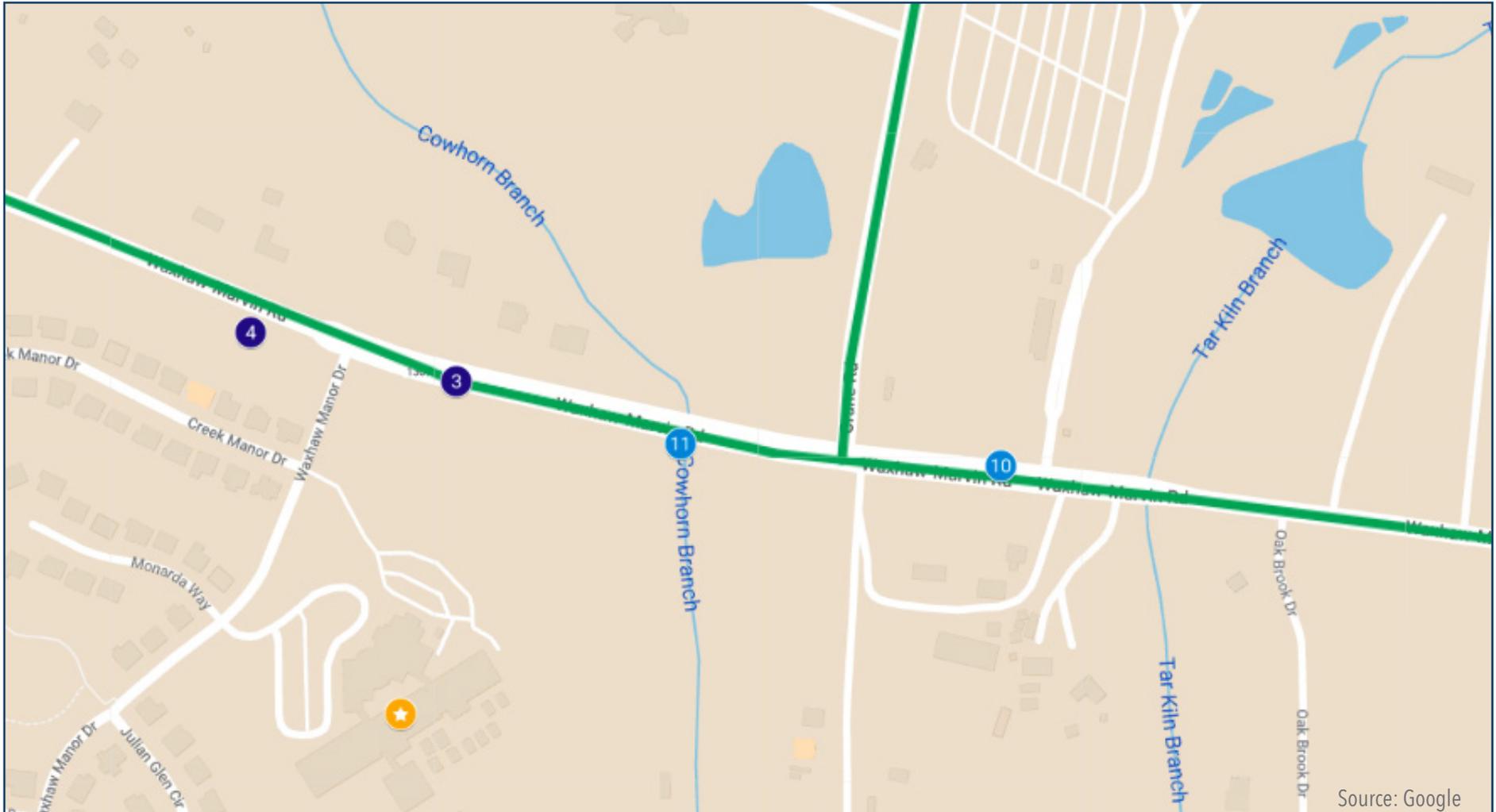
New Town Rd. & Providence Rd. S

Phase & Sign #	Sign Type	Destination 1	Dir.	Destination 2	Dir.	Destination 3	Dir.
1-8	HS-SB	Marvin Efird Park	→	Marvin Village Hall	→	Marvin Heritage District	→
1-9	HS-NB	Marvin Efird Park	←	Marvin Village Hall	←	Marvin Heritage District	←
2-9	LS-WB	Marvin Efird Park	↑	Marvin Village Hall	↑	Marvin Heritage District	↑



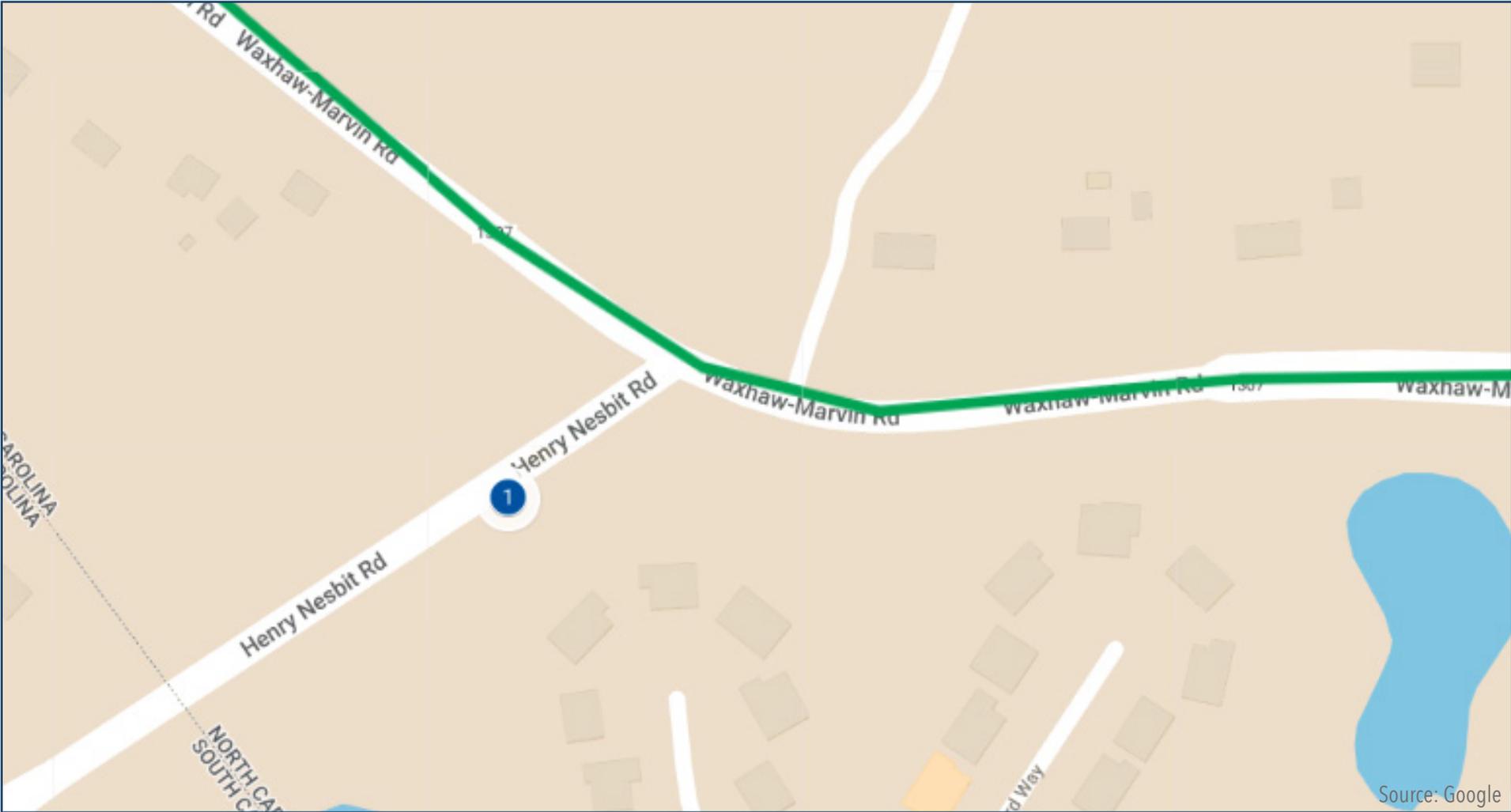
Waxhaw-Marvin Rd. & Crane Rd.

Phase & Sign #	Sign Type	Destination 1	Dir.	Destination 2	Dir.	Destination 3	Dir.
1-10	HS-WB	Marvin Village Hall	↑	Marvin Ridge Schools	→	Marvin Efird Park	→
1-11	HS-EB	Marvin Ridge Schools	←	Marvin Efird Park	←	Marvin Village Hall	←
3-3	HS-WB	Sandy Ridge Elementary	←				
3-4	HS-EB	Sandy Ridge Elementary	→				



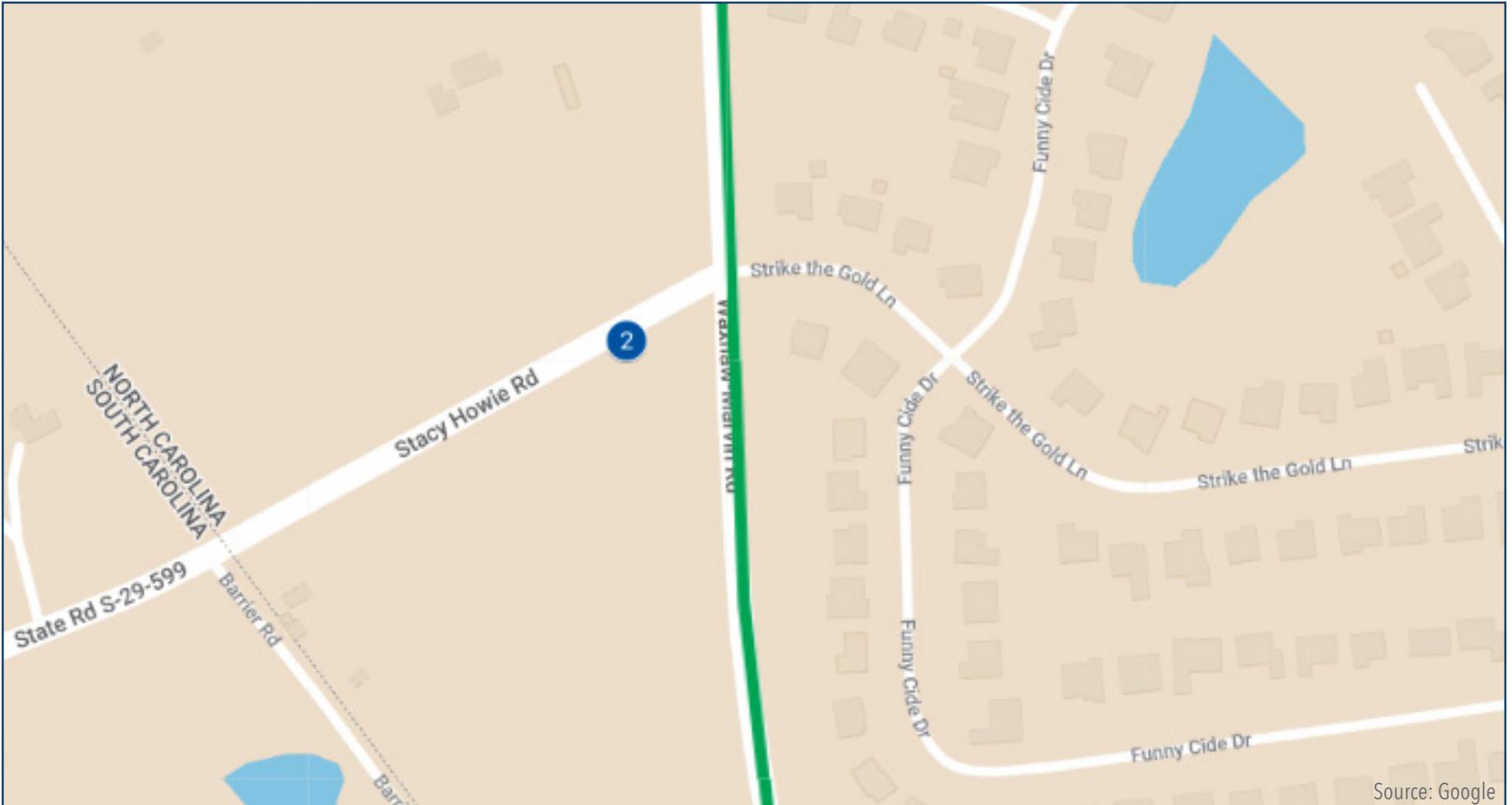
Waxhaw-Marvin Rd. & Henry Nesbit Rd.

Phase & Sign #	Sign Type	Destination 1	Dir.	Destination 2	Dir.	Destination 3	Dir.
2-1	LS-NEB	Marvin Village Hall	←	Marvin Heritage District	←	Marvin Ridge Schools	→



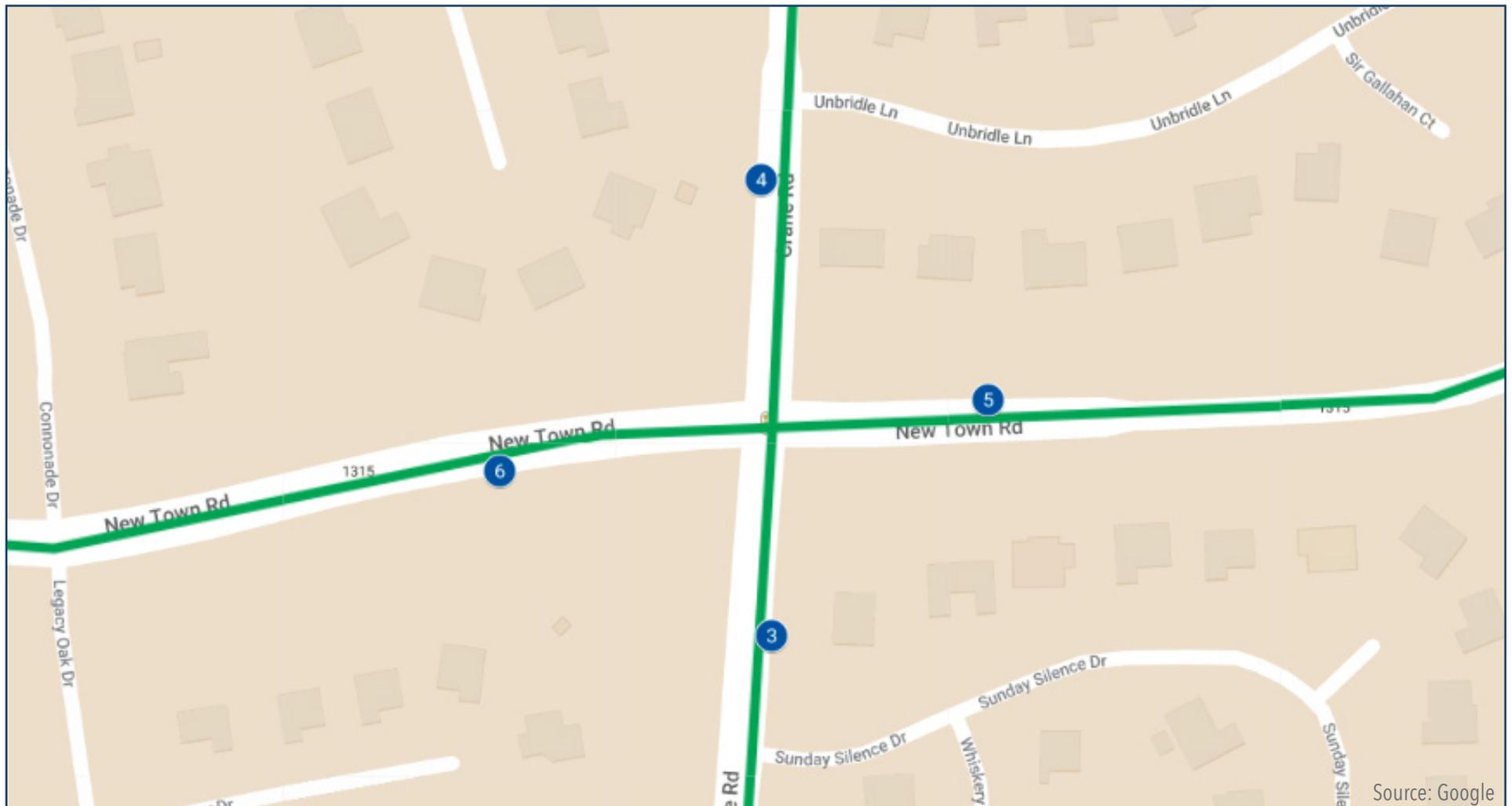
Waxhaw-Marvin Rd. & Stacy Howie Rd.

Phase & Sign #	Sign Type	Destination 1	Dir.	Destination 2	Dir.	Destination 3	Dir.
2-2	LS-EB	Marvin Village Hall	←	Marvin Heritage District	←	Marvin Ridge Schools	→



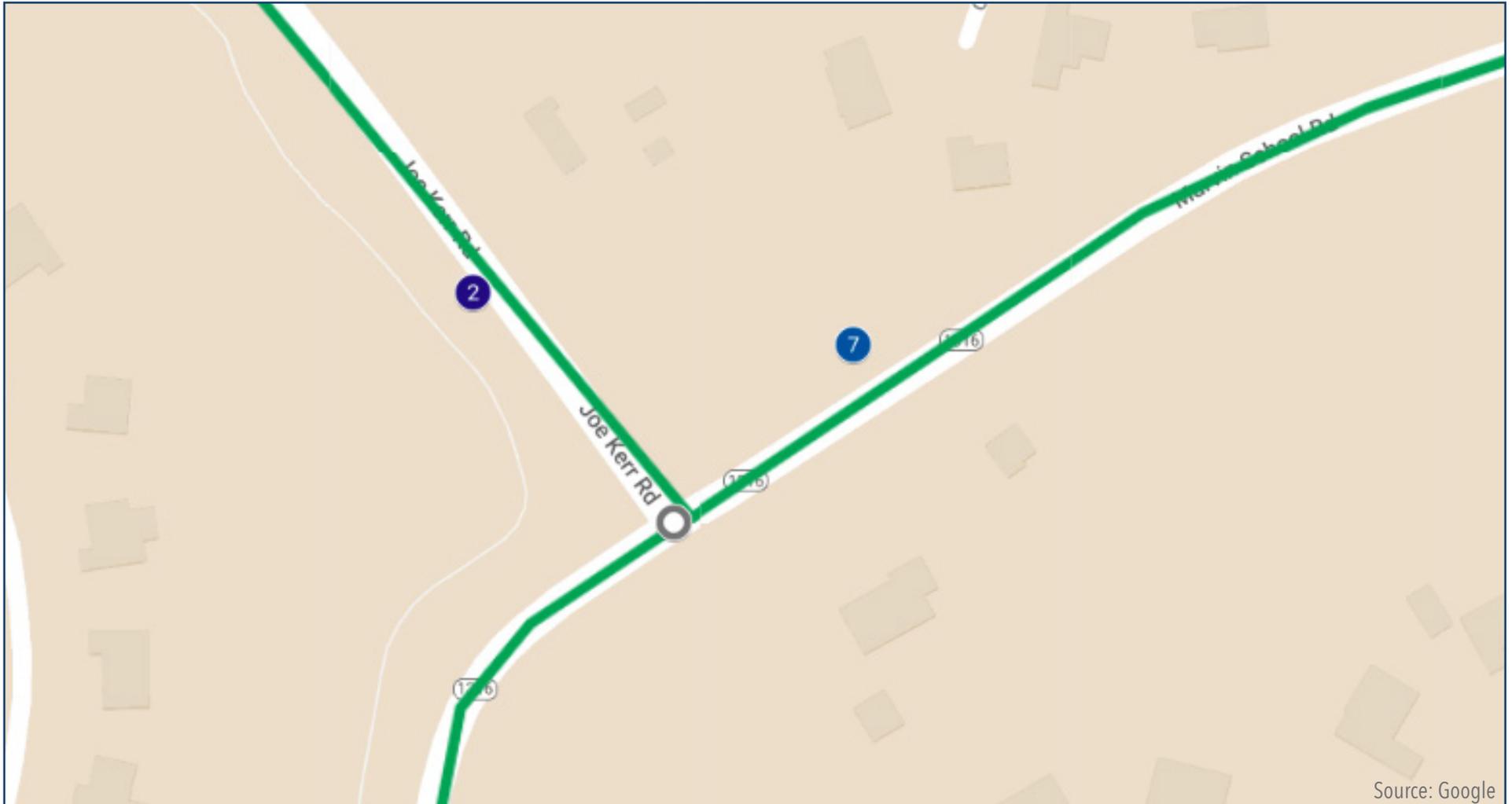
New Town Rd. & Crane Rd.

Phase & Sign #	Sign Type	Destination 1	Dir.	Destination 2	Dir.	Destination 3	Dir.	Destination 4	Dir.
2-3	LS-NB	Marvin Village Hall	←	Marvin Heritage District	←	Marvin Efird Park	→		
2-4	LS-SB	Marvin Ridge Schools	↑	Marvin Village Hall	→	Marvin Heritage District	→	Marvin Efird Park	←
2-5	HS-WB	Marvin Village Hall	↑	Marvin Heritage District	↑	Marvin Ridge Schools	←		
2-6	HS-EB	Marvin Efird Park	↑	Marvin Ridge Schools	→				



Marvin School Rd. & Joe Kerr Rd.

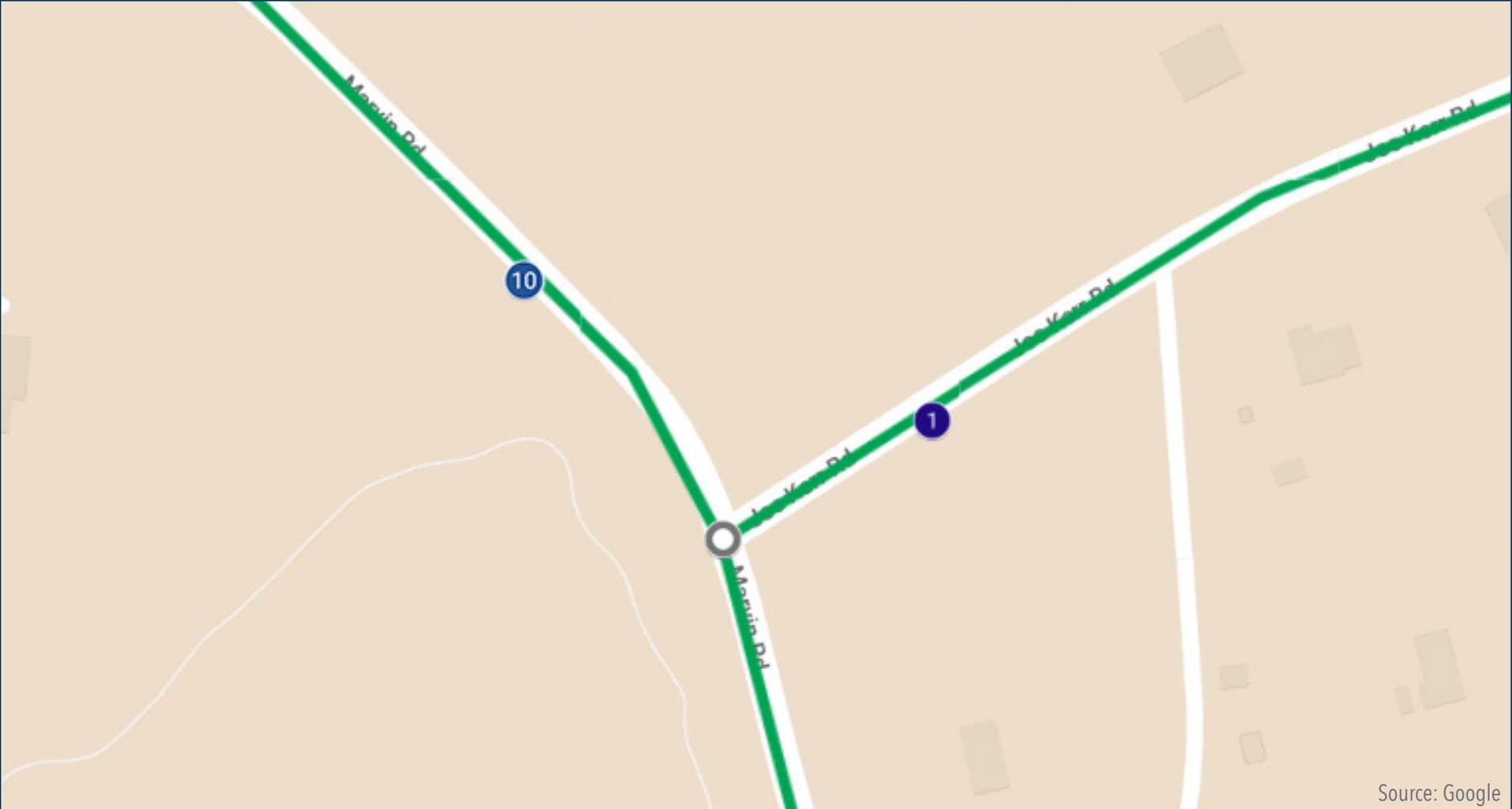
Phase & Sign #	Sign Type	Destination 1	Dir.	Destination 2	Dir.	Destination 3	Dir.
2-7	HS-SWB	Marvin Village Hall	↑	Marvin Heritage District	↑	Marvin Elementary School	↑
3-2	LS-EB	Marvin Village Hall	→	Marvin Heritage District	→	Marvin Efird Park	→



Source: Google

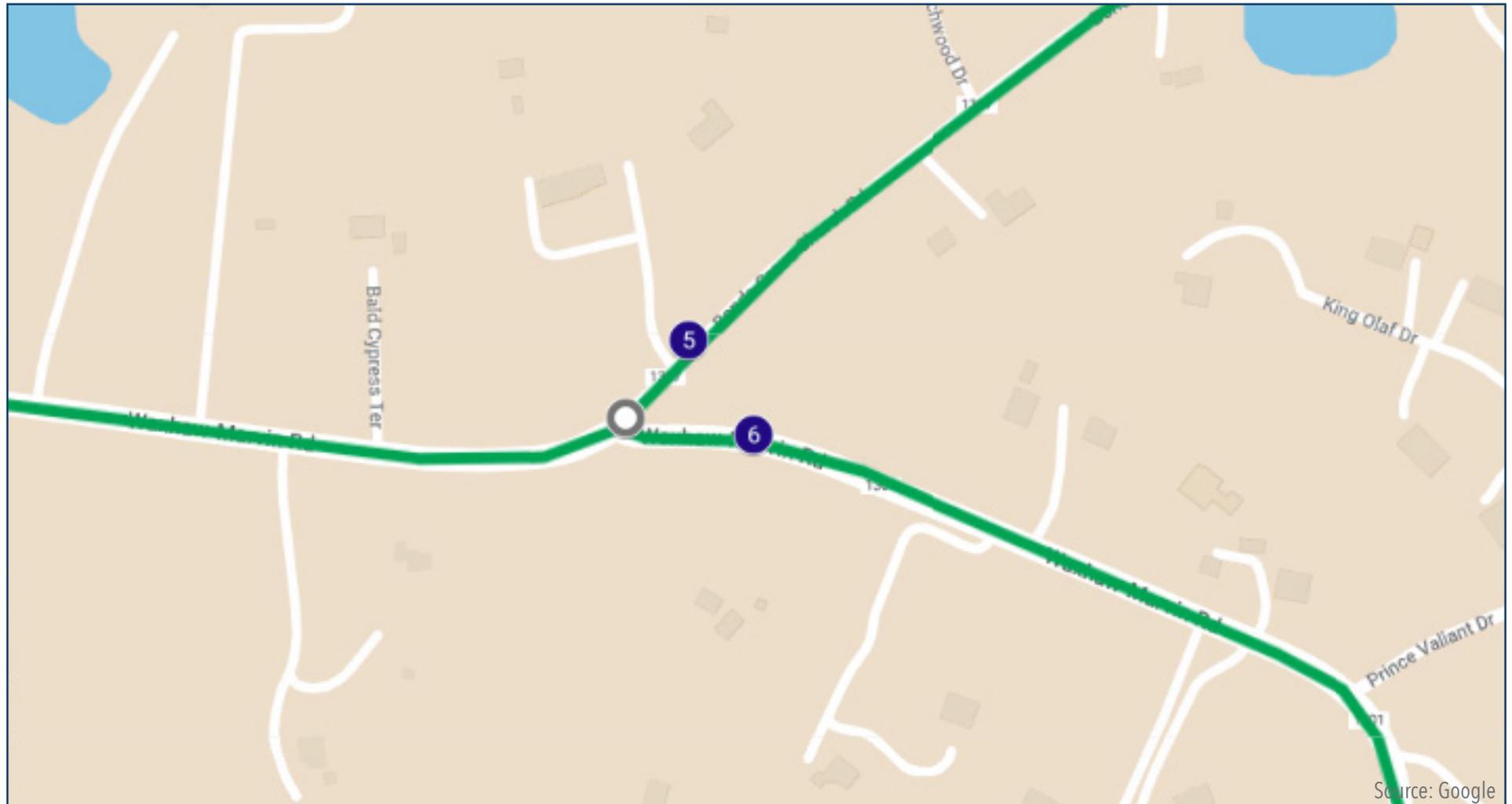
Marvin Rd. & Joe Kerr Rd.

Phase & Sign #	Sign Type	Destination 1	Dir.	Destination 2	Dir.	Destination 3	Dir.
2-10	HS-SB	Marvin Heritage District	↑	Marvin Village Hall	↑	Marvin Efird Park	↑
3-1	LS-WB	Marvin Heritage District	←	Marvin Village Hall	←		



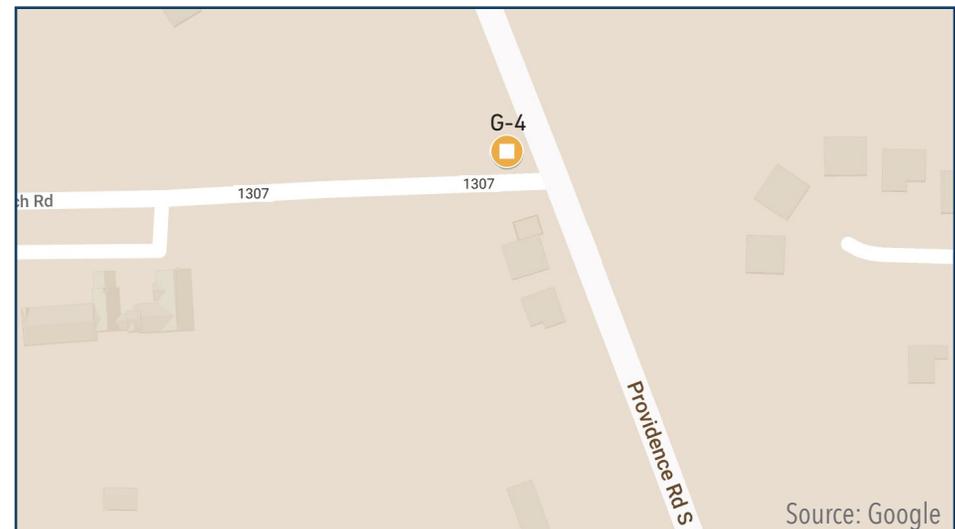
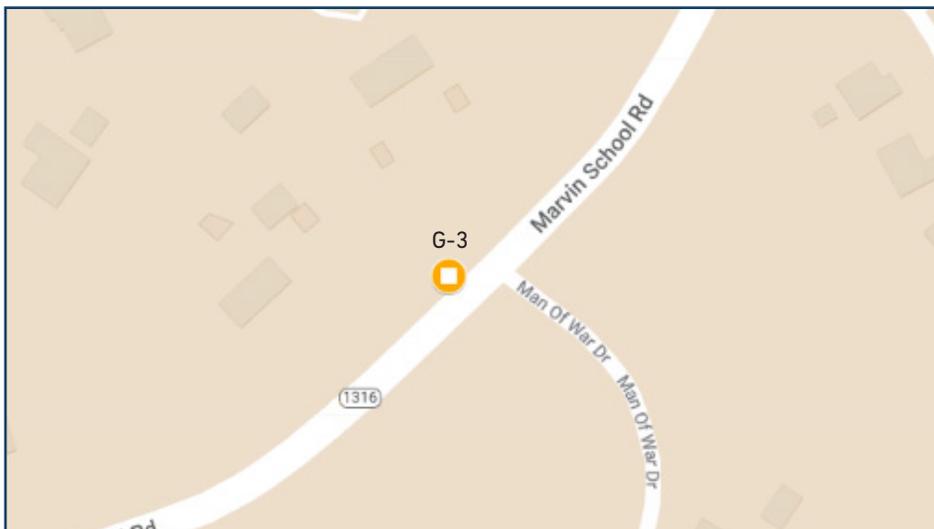
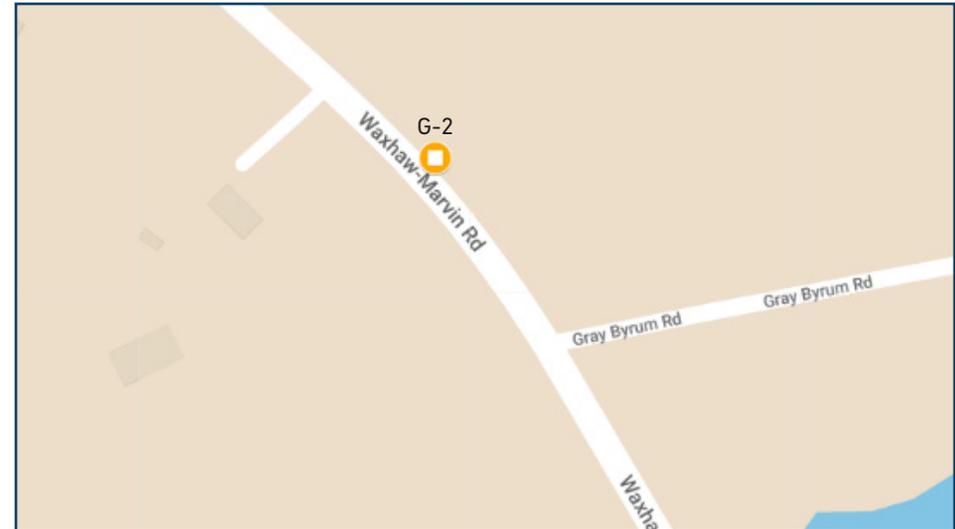
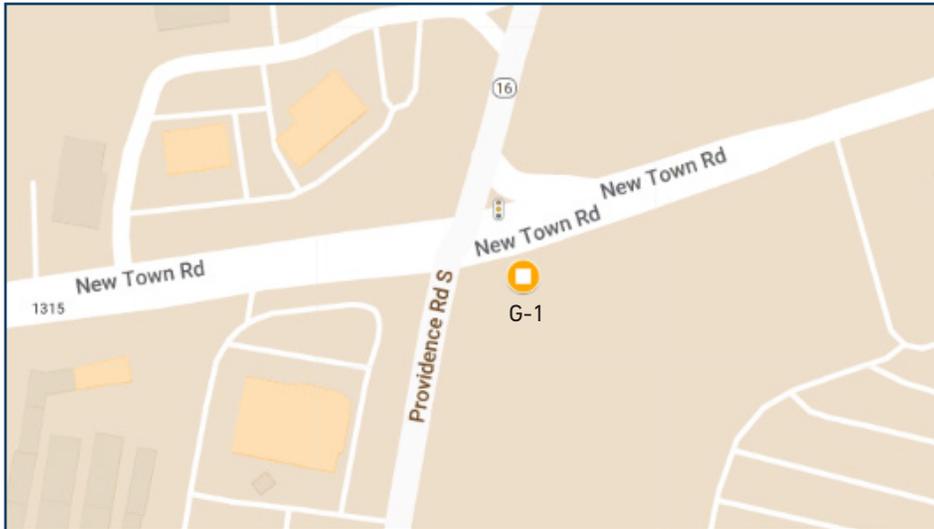
Waxhaw-Marvin Rd. & Bonds Grove Church Rd.

Phase & Sign #	Sign Type	Destination 1	Dir.	Destination 2	Dir.	Destination 3	Dir.
3-5	LS-SWB	Marvin Ridge Schools	➔	Marvin Village Hall	➔	Marvin Heritage District	➔
3-6	LS-WB	Marvin Ridge Schools	⤴	Marvin Village Hall	⤴	Marvin Heritage District	⤴



Monument Gateways

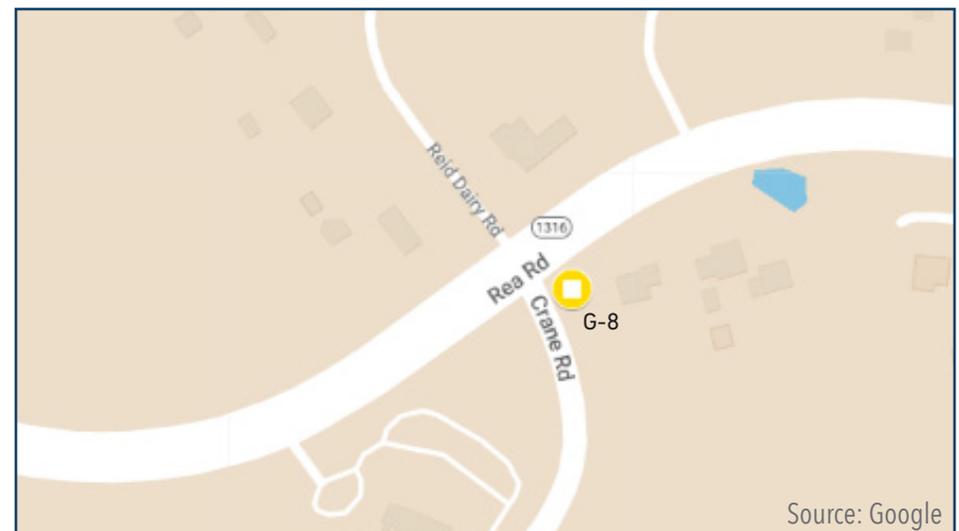
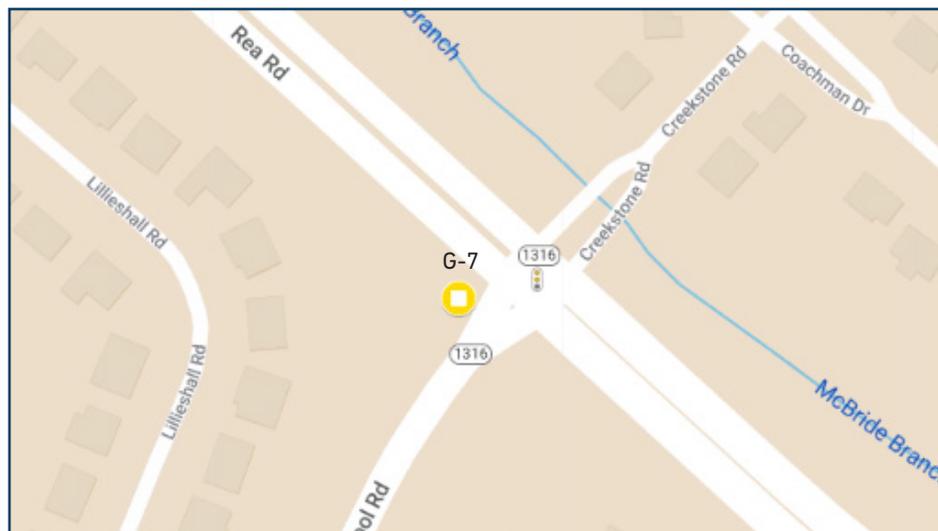
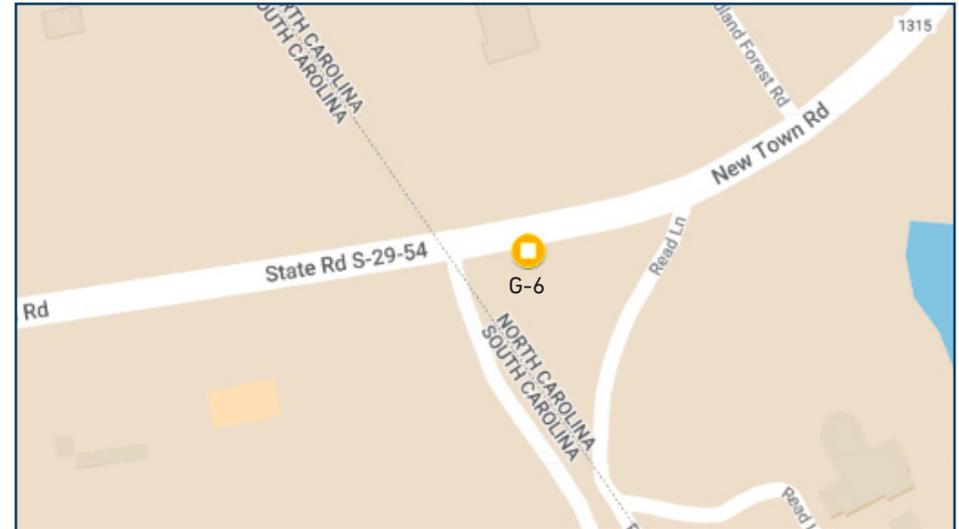
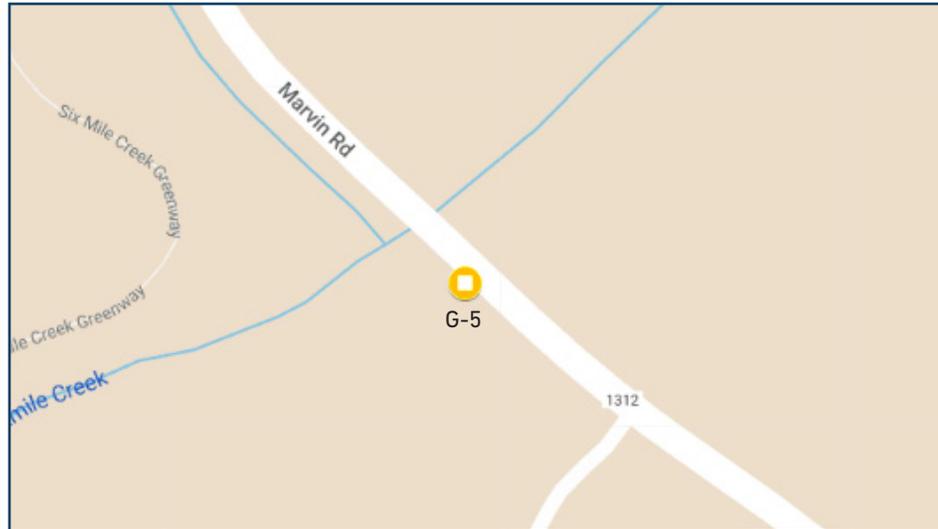
Sign #	Sign Type	Location	Notes
G-1	Monument	New Town Rd at Providence Rd S	
G-2	Monument	Waxhaw-Marvin Rd north of Gray Burnum Rd.	
G-3	Monument	Marvin School Rd. at Man of War Dr.	
G-4	Monument	Bonds Grove Church Rd. at Providence Rd. S	



Source: Google

Pole Mounted Gateways

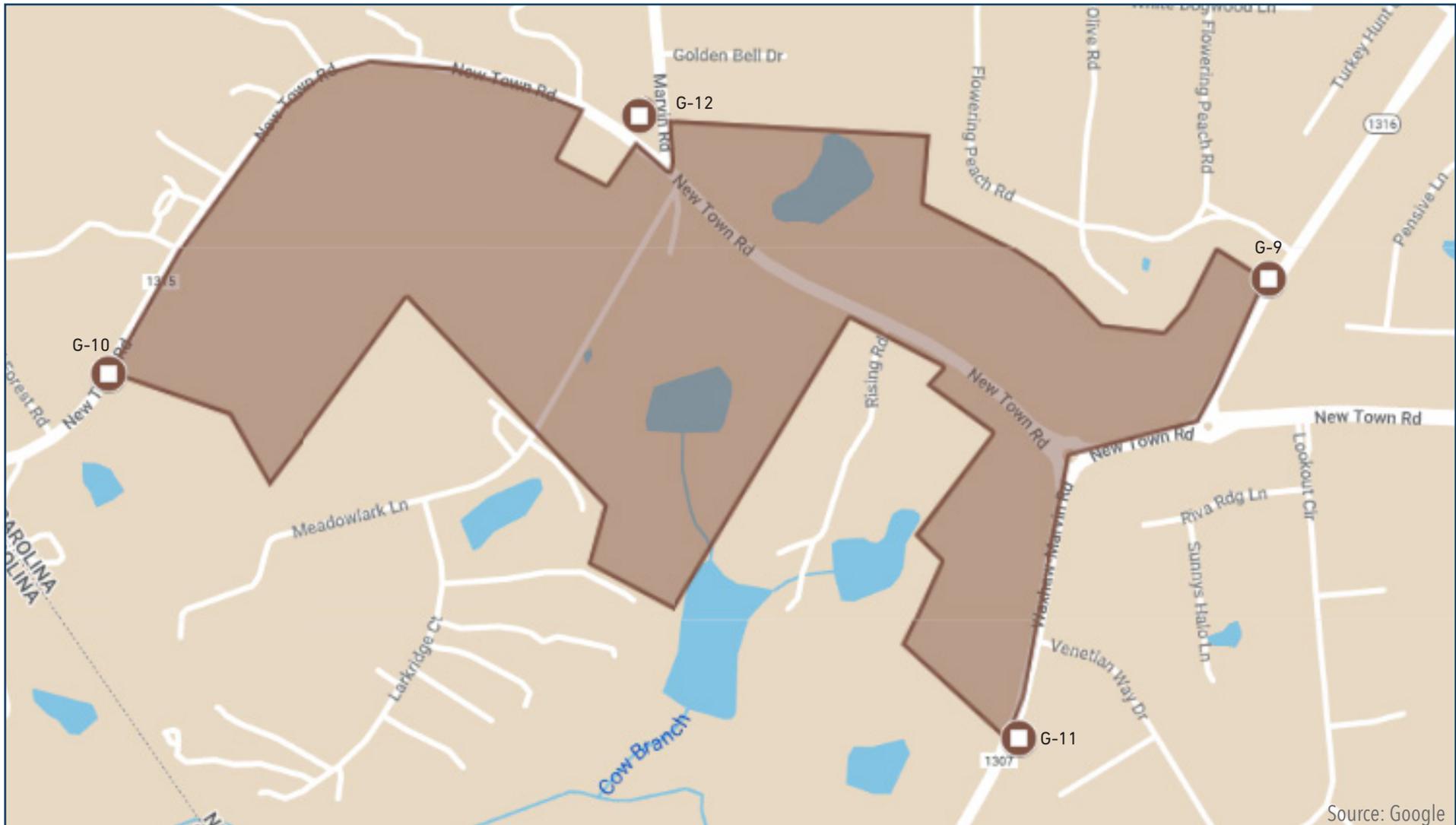
Sign #	Sign Type	Location	Notes
G-5	Monument	Marvin Rd. at Town Limits	
G-6	Monument	New Town Rd. at Town Limits, west of Read Ln.	
G-7	Pole Mounted	Marvin School Rd. at Rea Rd.	
G-8	Pole Mounted	Crane Rd. at Rea Rd.	



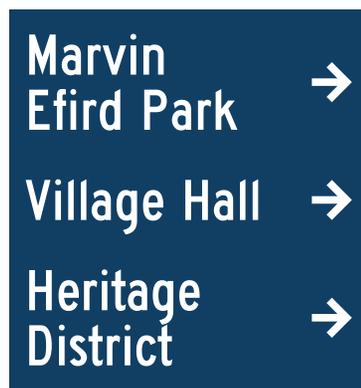
Source: Google

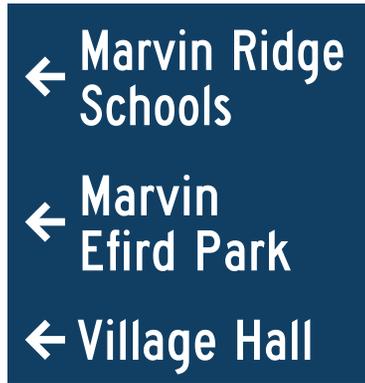
Heritage District Gateways

Sign #	Sign Type	Location	Notes
G-9	Heritage District, Monument	Marvin School Rd. north of New Town Rd.	
G-10	Heritage District, Monument	New Town Rd. east of Woodland Forest Rd.	
G-11	Heritage District, Monument	Waxhaw-Marvin Rd. south of New Town Rd.	
G-12	Heritage District, Monument	Marvin Rd. at New Town Rd.	



5. SIGN INVENTORY





1-11-HS



2-01-LS



2-02-LS



2-03-LS



2-04-LS



2-05-HS



2-06-HS



2-07-HS



2-08-HS-R



2-08-HS

 Marvin Efirid Park
 Village Hall
 Heritage District

2-10-LS

 Heritage District
 Village Hall
 Marvin Efirid Park

2-11-HS

 Heritage District
 Village Hall

3-01-LS

 Village Hall
 Heritage District
 Marvin Efirid Park

3-02-LS

 Sandy Ridge Elementary

3-03-HS

 Sandy Ridge Elementary

3-04-HS

 Marvin Ridge Schools
 Village Hall
 Heritage District

3-05-LS-R

 Marvin Ridge Schools
 Village Hall
 Heritage District

3-05-LS

 Marvin Ridge Schools
 Village Hall
 Heritage District

3-06-LS-R

 Marvin Ridge Schools
 Village Hall
 Heritage District

3-06-LS

6. IMPLEMENTATION

Implementation of this wayfinding system will require additional work beyond the adoption of this plan. Partner roles will need to be clearly identified and funding streams must be considered for fabrication, installation and maintenance. Other considerations will include ongoing costs for maintenance and replacement, as well as thoughtful approaches to potential revisions regarding new destinations, system elements, and new signage.

It is recommended that the Village of Marvin lead the implementation of the wayfinding program. The Village will direct grants and other outside funding efforts.

Administration & Management

A community wide wayfinding system will necessitate cooperation and active administration. The day-to-day and long-term management of the wayfinding system will require the following partners:

- Village of Marvin
- Union County Tourism Development Authority
- Union County
- Depending on local resources, other stakeholders and destinations could be engaged for future planning and funding.

As the Village begins the implementation process, it should convene its partners to determine roles and responsibilities related to planning, maintenance, and funding. This includes determining costs and financing strategies, which are estimated later in this section.

Day-to-Day System Management

The Village of Marvin should manage the wayfinding system and be responsible for scheduled system maintenance including cleaning and repair to minor damage of system components. This would include assessing the Village's capacity to perform initial or ongoing installation, should an outside vendor not be required. Ultimately, Village staff would routinely review system status, address maintenance or repair issues, and determine actions to alter, modify, or expand the existing system. Future design services can be managed by the Village of Marvin or through an as-needed services contract with a qualified firm.

A first step will be to assign a project manager for the implementation phase of the project. This person will be responsible for the execution of this plan, and should be given the appropriate staff time, resources, and procurement responsibilities. Ultimately, the Village should establish policies for inspections, repairs and sign replacement, including engaging with sign fabricators. It is critical that the project manager understand all instructions from the fabricator in order to protect all warranties related to materials, reflective sign sheet, and installation. The manager should also be familiar with all manufacturer's instructions for installation including hardware. It is recommended that the project manager inventory all signage that is included in the system, recording location, sign content, date of installation of sign supports, as well as of panel placement on supports.

Long-Term System Management

The Village of Marvin will need to manage and allocate additional funds to an ongoing wayfinding management program. This plan recommends that five percent of the capital cost outlay be programmed each year for the cost of maintaining supplies for supports, mounting hardware and damaged signs. This budget, including staff time allocated to ongoing management, can be adjusted over time as the Village has a better understanding of costs for long-term maintenance.

The Village of Marvin, in conjunction with its partners, may be required on occasion to contribute additional funds to ensure the system is adequately maintained. Ultimately, a replacement budget based on a ten to twelve-year life span of signs dependent on manufacturers standards should be incorporated into the long-term budgeting of system management. This budget is often established as a reserve fund to be used for replacing damaged signs or those who have run their life cycle.

MUTCD requires agencies to have a retroreflectivity maintenance program for signs it maintains. It is recommended that the Village conduct an annual sign inspection that meets these requirements, as well as general inspection of conditions and maintenance issues. Inspections would include a night time drive-by to ensure the sign's reflectivity is still functional, as well as a day-time inspection of installation hardware, condition, and orientation.

As signs from the wayfinding system are installed, it is recommended that an asset sticker be applied to each sign, based on the town's existing asset management policy. These stickers often would include "Property of the Village of Marvin" and have date of installation in a printed or scannable format. This can be completed by Village public works staff or through an outside contractor, which could be the installation contractor. The sign schedule spreadsheet included in this document can be expanded as an ongoing inventory to include asset number, installation date, warranty expiration date, and inspection date. This database should be updated on inspection, as well as any when sign damage occurs that requires replacement or maintenance. The installation contractor should keep a copy of this plan on hand, so that replacements signage can be produced quickly when needed.

Permitting and Installation

This wayfinding system design is based on MUTCD standards and approximate locations are identified in the sign schedule. It is recommended that the Village of Marvin utilize private vendors for sign fabrication and installation work, including final permitting from NCDOT. It is also suggested that the Village engage a single company that will both fabricate and install the signs. Using an individual contractor will not only help with final costs, but also limit responsibility of damage that may occur in transportation, handling, and installation to a single firm.

The selected fabricator/installer would be required to seek permits through the NCDOT encroachment permitting process to ensure precise final sign locations and that final sign schematics meet all applicable MUTCD and NCDOT standards. This will include the need to clear all sign support locations with NC 811 or other underground locating service as used by the Village of Marvin. It is recommended that the selected sign fabricator/installer guarantee meeting the specifications required by NCDOT.

Clear roles should be established between the local project manager and sign installer, and contracts should specify that no work will begin without a notice to proceed from the Village of Marvin. No sign installation should commence until NCDOT has approved the encroachment agreement and the required utility location clearances have been conducted. It is highly recommended that the Village assess the previous work of the selected installer, including any work for NCDOT projects, if applicable. All signage must be installed to the manufacturer's and fabricator's specifications. General sign locations are identified in this report, but final locations should be chosen that do not block views of motorists or intrude into pedestrian travel ways.

Cost Estimates

Ultimately, final costs for the fabrication, installation, and maintenance of the signage system will be determined during the construction phase. A comprehensive signage system such as this may require installation to occur over multiple phases. While costs may vary during the implementation period, estimates for construction and implementation are shown below. This is followed by recommendations for project phasing and implementation timeline. The Village of Marvin and its partners should use this information for planning and budgeting purposes.

Because costs may fluctuate depending on location, vendor, and timeframe, two cost estimate scenarios are shown below. The cost ranges are based on average costs and industry standards from similar programs that have been implemented in other communities. The range is purely for planning purposes.

The low estimates are based on other systems that were implemented, including costs of installation, posts, sign fabrication, etc. The high estimate is based on higher-end systems recently implemented in other communities, including more ornate design elements.

Costs of monument gateway signs can vary widely, and will ultimately depend on final design dimensions, materials, and construction. Monument signs such as these can range from \$10,000 to \$50,000 per unit, depending on a wide variety of variables, and are not included in the estimates to the right.

Count	Type	Fabrication		Installation		Total Est. Cost
		Unit Cost	Total Unit Cost	Unit Cost	Total Unit Cost	
11	Vehicular - High Speed	\$3,500.00	\$38,500.00	\$1,200.00	\$13,200.00	\$51,700.00
16	Vehicular - Low Speed	\$1,500.00	\$24,000.00	\$800.00	\$12,800.00	\$36,800.00
27	Low Estimate Total		\$62,500.00		\$26,000.00	\$88,500.00

Cost Estimates: Low

Count	Type	Fabrication		Installation		Total Est. Cost
		Unit Cost	Total Unit Cost	Unit Cost	Total Unit Cost	
11	Vehicular - High Speed	\$8,000.00	\$88,000.00	\$2,000.00	\$22,000.00	\$110,000.00
16	Vehicular - Low Speed	\$3,000.00	\$48,000.00	\$1,500.00	\$24,000.00	\$72,000.00
27	High Estimate Total		\$136,000.00		\$46,000.00	\$182,000.00

Cost Estimates: High

Project Phasing

It is not necessary to install an entire wayfinding system at once for it to be effective. Project phasing will dependent entirely on budgeting for the Village and its funding partners, including identification of potential funding tools. In fact, most system’s phasing is determined by how much money can be appropriated in the initial implementation. At that point, a determination is made on the number of signs and strategic location of signage that can be accomplished in that initial budget.

Generally speaking, initial phases would include directional trailblazers and parking directional signage located along the primary routes and directing traffic to Tier One destinations, while future phases would include Tier Three-specific signage and specialty signs. Ultimately, these phases will be completed over the course of multiple years. Monument gateways are not shown in phasing.

The Project Phasing here is based on sign type and overall system components rather than actual timing. On the sign schedule, many signs are identified as “later phases”, either because a particular destination is not yet developed, or the signs are specifically for Tier Three destinations and not critical to the larger system. As mentioned above, final phasing will depend on budgeting, particularly in the initial year.

Project phasing should be seen as dynamic, as priorities and opportunities may change over time resulting in adjustments to the overall implementation schedule. The “early phase” and “late phase” can be broken down over two or more budget years. In addition, it should be noted that with a robust signage system as this, NCDOT will need the appropriate time to properly review individual signs and locations through the permitting process.

Count	Type	Fabrication	Installation	High Estimate	Fabrication	Installation	Low Estimate
4	Vehicular - High	\$32,000.00	\$8,000.00	\$40,000.00	\$14,000.00	\$4,800.00	\$18,800.00
7	Vehicular - Low	\$21,000.00	\$10,500.00	\$31,500.00	\$10,500.00	\$5,600.00	\$16,100.00
First Phase Estimate				\$71,500.00	\$34,900.00		

Cost Estimates: First Phase

Count	Type	Fabrication	Installation	High Estimate	Fabrication	Installation	Low Estimate
5	Vehicular - High	\$40,000.00	\$10,000.00	\$50,000.00	\$17,500.00	\$6,000.00	\$23,500.00
5	Vehicular - Low	\$15,000.00	\$7,500.00	\$22,500.00	\$7,500.00	\$4,000.00	\$11,500.00
Second Phase Estimate				\$72,500.00	\$35,000.00		

Cost Estimates: Second Phase

Count	Type	Fabrication	Installation	High Estimate	Fabrication	Installation	Low Estimate
2	Vehicular - High	\$16,000.00	\$4,000.00	\$20,000.00	\$7,000.00	\$2,400.00	\$9,400.00
4	Vehicular - Low	\$12,000.00	\$6,000.00	\$18,000.00	\$6,000.00	\$3,200.00	\$9,200.00
Third Phase Estimate				\$38,000.00	\$18,600.00		

Cost Estimates: Third Phase

Potential Funding

Wayfinding projects can be funded through a variety of sources and mechanisms. Potential funding options for implementing the Village of Marvin Wayfinding Master Plan are outlined below.

- *General Funds:* Many communities appropriate an annual budget in their capital improvement plan to pay for phased wayfinding implementation.
- *Partner Funding:* The signs in this plan direct people to City, County, State, and private destinations. These partners can be approached to determine their potential to fund portions of implementation.
 - Intergovernmental agreements – There is the potential to solicit funding from local government partners such as Union County, or even nearby communities. This may require an expanded program to propose signage in unincorporated portions of the county, or adjacent cities.
 - Contributions from local destination partners such as the Union County Tourism Development Authority.
- *Hotel & Meals taxes:* While the funds below are likely appropriated to existing projects, future revenues could be used to fund phasing in the wayfinding plan.
 - *Prepared Food & Beverage Tax:* NC counties and communities can leverage a sales tax specifically for prepared meals.
 - *Local Sales Tax or Option Sales Tax:* Union County currently levies an additional 2% sales tax above the state tax. Counties in NC have the option to increase sales tax by up to one-quarter of a penny by referendum. Both of these monies have been used in other communities to help fund wayfinding implementation.

Wayfinding Funding Precedents

- **General Fund:** The City of Statesville installed 23 signs in their downtown area utilizing \$101,373 from general funds.
- **Occupancy Tax:** Many of the wayfinding programs in NC are funded in part through these monies. For example, in 2017, Hendersonville TDA utilized \$420,000 in occupancy tax monies to help design, fabricate and install 73 signs.
- **Preserve America Grant:** In 2013, Fayetteville used \$150,000 in Preserve America Grant monies to fund portions of their wayfinding. City capital funding and occupancy taxes were also used.
- **Golden Leaf Grant:** The Yadkin Valley Heritage Corridor Wayfinding project utilized \$159,028 in Golden Leaf Grants.
- **USDA Grant:** In 2018, Wilson utilized \$199,656 in USDA Rural Business Development Grants to help fund its wayfinding.
- **Transportation Alternatives Grant:** The City of Frankfort, Kentucky was awarded \$290,000 from the Transportation Alternatives Grant to fabricate and install wayfinding signage in its downtown.
- **NCDOT Planning Funds:** Goldsboro recently utilized \$92,000 of NCDOT planning grant monies to fund its wayfinding study.
- **Congestion Mitigation and Air Quality Improvement Program:** The City of Charlotte utilized \$3.2 million in federal grants to design and install its wayfinding and parking guidance system in 2007.

- *Grants:* A number of grants can be used to provide funding for wayfinding projects. These grant monies can be added to any additional funding to pay for portions of phased wayfinding.
 - *Community Development Block Grants:* The Department of Housing and Urban Development's Community Development Block Grants can be used for streetscape improvements including wayfinding signage implementation.
 - *Transportation Alternative Program Grant:* The federally-funded transportation alternative program provides grants streetscape projects as well as improvements to pedestrian and bicycle facilities. The grants pay up to 80% of eligible project costs and require a 20% or more local match.
 - *Federal Highway Association (FHA) or NC Department of Transportation (NCDOT) grants:* Grants for specific projects, such as the recently completed Queens Street improvements, can be used to fund portions of wayfinding, particularly for signs that may be in that project area.

It is likely that funding for the Village of Marvin's wayfinding implementation would come from multiple sources, including many mentioned above. One of the first steps of implementation will be to identify potential funding streams and pull together an initial Phase 1 budget. That budget figure will determine the number and location of signs to be implemented in that early phase.