

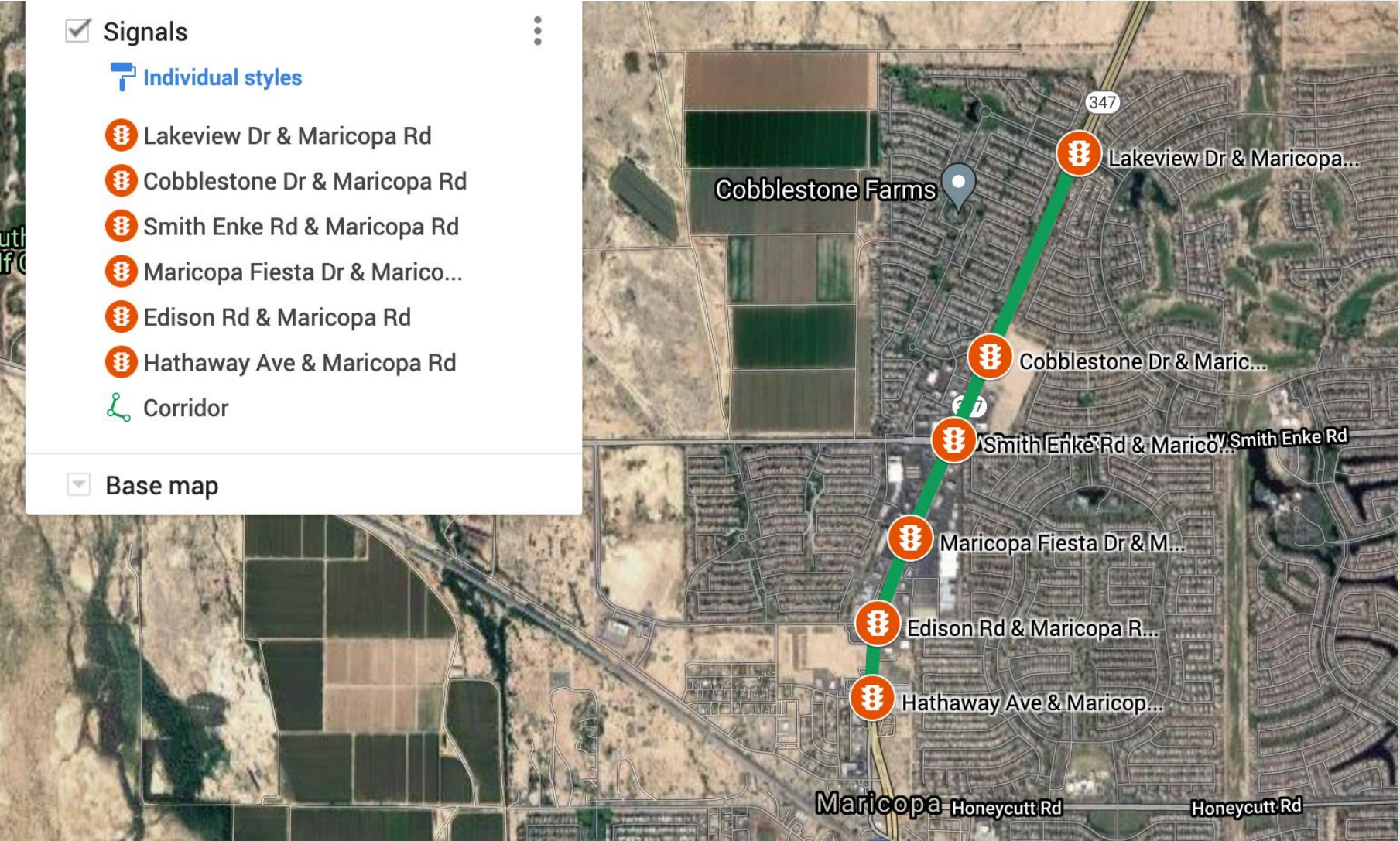
# MAG Emerging Technologies Pilot

Code | Green

# AUTOMATED SIGNAL TIMING PLAN GENERATOR



# State Route 347 John Wayne Parkway Project Area



# Project Partners

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- Prime contractor: Rick Engineering (Project management, evaluation)
- Rhythm Engineering: Developer of Code | Green (Configuration)
- Contractor West: Installation
- ADOT: owner/operator



# Project Scope

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- Duration May 10, 2021- January 31, 2022
- Task 1 Installation:
- Task 2 Evaluation:
  - Part 1: Signal timing evaluation
    - Floating car study using TranSync device
    - Bluetooth reader travel time
  - Part 2: Qualitative feedback from ADOT and City of Maricopa

# Schedule

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- Kick-off Meeting – May 2021
- Technology installation and personnel training – May and June 2021
- Data collection, system training & timing plan reviews – June, July, August, and September 2021
- Technology evaluation – September and October 2021
- Draft Study Report – December 2021
- Final Study Report – January 2022

What is emerging ...

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What is this technology?

A blurred background image showing a modern building interior with a prominent yellow stripe running horizontally across the middle. The image is out of focus, creating a sense of motion or depth.

# Challenges in Retiming Traffic Signals

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1. Collect typically one-day traffic counts
2. Develop new signal timing plans using Synchro (signal timing optimization tool)
3. Review and adjust timing plans
4. Manually create new timing plans in the traffic management system (e.g., ADOT TransSuite) to execute the plans

# Solution from Code-Green System

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- AI-based cameras that count traffic continuously (Turning Movement Counts)
- Module to generate Time-of-Day signal timing plans (e.g., AM, mid-day, PM, night)
- Module to execute the signal timing plans

One Click Traffic Signal  
Optimization Program



# Code Green Hardware

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# Green-Code Software

(Object Recognition, Traffic Detection, Movement Tracking)

- Store continuous traffic counts
- Timing plan generator
- Connect to signal controller to automatically implement the timing plans
- ADOT can remote into the unit from Traffic Operations Center (TOC)

