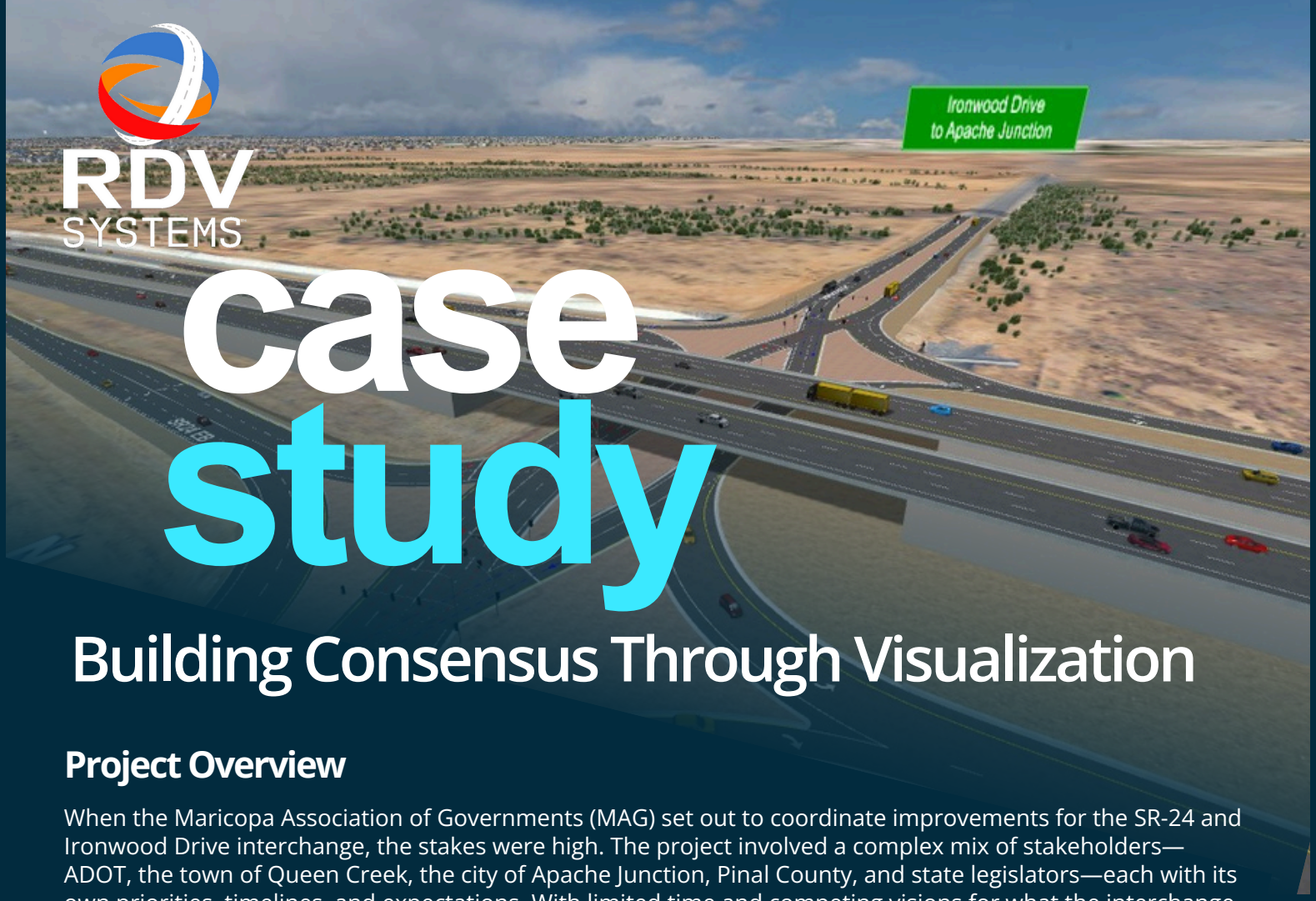

RDV SYSTEMS

case study

Building Consensus Through Visualization

Project Overview

When the Maricopa Association of Governments (MAG) set out to coordinate improvements for the SR-24 and Ironwood Drive interchange, the stakes were high. The project involved a complex mix of stakeholders—ADOT, the town of Queen Creek, the city of Apache Junction, Pinal County, and state legislators—each with its own priorities, timelines, and expectations. With limited time and competing visions for what the interchange should be, MAG turned to RDV Systems for a solution that could bridge technical gaps and unite all parties behind a shared vision.

Challenges: A Tangle of Stakeholders and Tight Timelines

This project touched so many different agencies and jurisdictions," said Arminta Syed, Transportation Planner at MAG. "Everyone had their own expectations—especially since the funding was a legislative appropriation—and we needed to land on a solution that could be delivered quickly enough to tie into ADOT's existing widening project."

While some stakeholders envisioned a large, elevated interchange—mirroring designs from other parts of the valley—MAG's analysis showed such a structure would be expensive, unnecessary, and impractical. But explaining that to non-technical audiences proved challenging.

"We had tried sketches, talking through examples, everything," said Syed. "But it wasn't getting through. The concept of a 'bridge to nowhere' was abstract—until we showed them exactly what that would look like in a 3D visualization."

Visualizing The Path Forward

MAG brought in RDV Systems to develop an interactive 3D model that clearly communicated what a structure at the current stage of development would actually mean—and what a smarter, phased approach could look like instead.

"RDV's visualization was the turning point," said Syed. "We showed stakeholders what the interim design looked like from a driver's perspective, and how it could be easily upgraded in the future. That's when the lightbulbs went off. It gave them confidence in a plan they weren't familiar with and helped them see that it was both logical and future-proof."

With little existing design data available, RDV delivered an accurate and compelling model on a tight timeline, translating conceptual plans into something stakeholders could understand and support. "They worked quickly and flexibly with minimal input—just layouts and concepts—and still delivered a powerful visualization," she said.

From Deadlock to Green Light

The visualization proved critical in gaining buy-in, especially from state legislators who were ultimately responsible for the funding. When local representatives struggled to convey the plan, they turned to MAG for help. "We were asked to join a last-minute meeting with the legislators," Syed recalled. "We had already been working with RDV behind the scenes, and that morning we walked in with the video they were hoping for. It was exactly what they needed to see."

That meeting resulted in final approval to use the funding for the recommended design—just in time for it to be included in ADOT's larger freeway project.

"Without RDV's visualization, we wouldn't have secured consensus in time," said Syed. "That would've meant delays, higher costs, and a major missed opportunity to address a growing traffic bottleneck."

A Model for Future Projects

The success of the SR-24 interchange has set a new standard for how MAG approaches early planning and stakeholder engagement. "This was one of the first times we used visualization at the scoping level, and it made such a difference that our executive director showcased it during a public meeting with our regional council," said Syed. "It showed our member agencies a new way MAG can support them."

As MAG looks ahead to defining scopes for 20 years of future freeway projects, visualization will be a key part of their toolkit. "We're expecting similar stakeholder dynamics across dozens of projects," she said. "This tool helps people understand what's being proposed. And it builds trust."

Ready to enhance public engagement and bring your projects to life?

Contact RDV Systems today to discover how our cutting-edge visualization solutions can transform your next transportation initiative.

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