



Fact Sheet

Michigan Connected Corridor Project

The Michigan Connected and Automated Vehicle Corridor Project seeks to catalyze the use of connected and autonomous vehicles (“CAVs”) and supporting infrastructure, as a practical model for safe, efficient, and adaptable mobility options.

The vision for the corridor is intended to create lanes that are purpose-built to accelerate and enhance the full potential of CAVs and move people. To achieve this, Cavnue will work with regional partners to plan, design, and develop the world’s most sophisticated roadway, combining innovations in physical, digital, coordination, and operational infrastructure to help increase the safety, efficiency, resilience and operations of roadways, and improve the mobility experience for users by enabling a faster and more coordinated dedicated autonomous mobility corridor. At its core, the Project is designed to be “future- proofed” and evolve to meet transportation goals, beginning with connected buses and shared mobility vehicles such as vans and shuttles, and expanding to additional types of CAVs such as freight and personal vehicles.

Cavnue, a subsidiary of Sidewalk Infrastructure Partners (SIP), was selected by the state after a competitive RFP to serve as Master Developer for Phase 1 of the corridor Project, in a co-creation process with the Michigan Department of Transportation and other stakeholders. This public-private partnership will explore the opportunity and viability of this Project working with state and local partners, stakeholders, and communities across the corridor from Detroit to Ann Arbor.

Cavnue will draw on an advisory committee of automotive and autonomous mobility companies, including Ford, GM, Argo AI, Arrival, BMW, Honda, Toyota, TuSimple, and Waymo, to develop OEM-neutral standards.

A first-of-its-kind connected corridor can shape the future of transportation.

America is beginning a profound mobility transformation with autonomous vehicles at the forefront. CAVs have the potential to reduce thousands of traffic accidents caused by human error, cut the growing hours commuters spend stuck in traffic, and vastly increase access to personal and shared mobility.

The U.S. automobile industry was born in Michigan, and the state is poised to continue to shape its future, with the leadership of the Michigan Department of Transportation (“MDOT”) as one of the most forward-thinking transportation departments in the world.

The Project offers the potential to envision and implement pathbreaking physical and digital infrastructure that will integrate CAVs into roadways and support the larger cooperative automated transportation landscape. Just as the interstate highway system shaped transportation in the 20th Century, the Project can shape that of the 21st Century, while also seeking solutions that “future-proof” new infrastructure.

SIP solves generational infrastructure challenges and founded Cavnue to build the future of roads.

Sidewalk Infrastructure Partners (SIP) pioneers more sustainable, resilient, and efficient infrastructure using technology. SIP was formed by Alphabet Inc. (“Alphabet”), Google’s parent company and a world leader in technology; Sidewalk Labs, Alphabet’s leading urban innovation platform; and Ontario Teachers’ Pension Plan (“OTPP”), one of the world’s most respected institutional investors in infrastructure. In every project it pursues, SIP seeks to leverage these entities’ deep reservoir of expertise in technology, capital, infrastructure, and urban innovation.

Cavnue’s mission is to pioneer advanced roadway infrastructure and related technology for an autonomous mobility future. Cavnue will provide the technology development and integration to design, build, finance, operate, and maintain a world-class connected corridor in Michigan.

Cavnue’s project partners bring unparalleled capabilities, with compelling management and resources.

Cavnue expects to draw on an unparalleled ecosystem of partner firms (“Project Partners”) that bring global and Michigan-based capabilities in infrastructure and technology, planning and development, design and engineering, research, testing, financing and operations, and policy, legal, and community engagement, as well as other resources relevant to the Project. Initial Project Partners include Ford, which has pioneered mobility innovation in Michigan for more than 100 years and has a shared vision for a CAV corridor; the University of Michigan, the state’s leading public university, with its world-class Mcity Test Facility, Transportation Research Institute (“UMTRI”), and facilities at both ends of the proposed corridor; and the American Center for Mobility (“ACM”), another world-class testing facility.

CAV infrastructure has unique challenges that require the specific expertise that Cavnue possesses.

Despite \$80 billion invested in AV solutions, full autonomy is years away. However, this investment dwarfs the amount spent on supportive infrastructure that could accelerate the adoption of CAVs and allow them to operate even better than uncoordinated AVs. Cavnue was founded to close this gap, by developing and implementing infrastructure for CAVs. Implementing the Project requires capabilities that Cavnue is uniquely established to address: a holistic approach to the systems integration challenge of combining digital, physical, coordination, and operational infrastructure, as well as the advisors, investors, partners, and resources to apply digital innovation to large-scale roadway infrastructure.

The Project can achieve transformational outcomes aligned with stakeholder goals.

The Project can achieve key principles and policy goals, including improving safety, achieving neutrality among vehicle OEMs, enhancing accessibility, and aligning with regional planning, thus encouraging innovation, R&D, economic development, open data access and shared learnings, cybersecurity, and replicability. In particular, a route from Detroit to Ann Arbor, connectivity to the airports and other key anchor destinations, represents a compelling potential location for the Project, given longstanding transit gaps, traffic congestion, and the ability to create replicable models.

Indicative potential routes.

The Project plans to focus initially in Phase 1 on a route from Detroit to Ann Arbor. This corridor is a compelling location for the Project. Both Michigan Avenue and Interstate 94 could serve as key routes. The corridor includes up to a dozen Opportunity Zones, where expanded mobility and economic development opportunities would connect individuals and small businesses to Michigan's most important industrial, technological, and academic clusters. The corridor provides the ability to leverage the existing resources of leading test tracks, universities, automotive companies, and key economic anchors.



Technology and infrastructure components:

The Project is expected to integrate physical, digital, coordination, and operational infrastructure:

Example Components of Integrated Infrastructure Technology Framework for CAV Corridors

<p>The illustration shows a multi-lane highway with various CAVs (cars, buses, vans) and infrastructure elements. Three numbered callouts are present: 1 points to a road sensor on the shoulder, 2 points to a communication tower, and 3 points to a road sign.</p>	<p>Highway</p> <ol style="list-style-type: none"> 1. PHYSICAL INFRASTRUCTURE Well-maintained roadways Separation barriers to ensure efficiency and safety Enhanced, machine-readable markings, digital signage and signaling Enhanced maintenance to maximize pavement life, including levels of prediction and automation 2. DIGITAL INFRASTRUCTURE Ubiquitous, highly reliable connectivity High-definition ("HD") maps High accuracy ground-based GPS Road sensors for traffic, weather, road conditions 3. COORDINATION INFRASTRUCTURE System to manage vehicle coordination and interoperability Ability for transportation authorities to set policy goals to maximize mobility and accessibility, and track their impact
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<p>The illustration shows a city boulevard with CAVs, pedestrians, and various infrastructure elements. Six numbered callouts are present: 1 points to a traffic light, 2 to a smart curb, 3 to a bus stop, 4 to a communication tower, 5 to a smart curb, and 6 to a bus stop.</p>	<p>Boulevard (Principal Arterials)</p> <ol style="list-style-type: none"> 1. PHYSICAL INFRASTRUCTURE Adaptive traffic signals with intersection priority, particularly for transit and emergency services Intersection designs optimized for pedestrian safety 2. SUPPORT INFRASTRUCTURE High-speed EV chargers High-speed wireless or tether vehicle data download Maintenance and cleaning 3. SMART CURBS / STOPS Smart curbs at milestones able to identify available time/space reservations Consoles at smart curb locations for mobility functions Dynamic, digital signage 4. COMPATIBLE CAVS Vehicles with certified AV / ADAS systems Ability to share information with other vehicles and infrastructure for navigation and safety 5. RIDE SHARING Passenger app integration with superior booking and boarding experience 6. PUBLIC TRANSPORTATION Buses operating autonomously on loops Frequent stops using smart curbs and/or bus stops
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