



American Center
for Mobility

CONNECTED. AUTOMATED. VALIDATED.

Building on a Legacy of
INNOVATION

ACM OFFERS A COMPLETELY CUSTOM TESTING EXPERIENCE

The **American Center for Mobility (ACM)**, a non-profit product development facility for future mobility, is designed to enable testing, safe validation and self-certification of connected and automated vehicle technology.

Located at the historic Willow Run site in Ypsilanti Township, ACM spans more than 500 acres and features many assets and a range of testing capabilities:

- Simulation of virtually any driving conditions (snow, sun, rain, sleet)
- Extensive network infrastructure
- Flexible usage options to contain costs and meet deadlines
- Equipped to enable a combination of simulation, track testing and on-road testing

Applicable technologies include Advanced Driver Assistance Systems (ADAS), Vehicle-to-everything (V2X), as well as advanced behaviors at all levels of SAE automation per SAE J3016.

ACM's professional staff have the combined automotive industry experience, technical knowledge and skills to solve the most complex testing challenges. Team members have lead multiple research and development projects, managed initiatives to accelerate standards setting and contributed to international technical program content for the engineering community.

- Engineering Support
- Test Plan Development
- Test Report Development
- Drivers
- Technicians

ITS NETWORK

ACM has an integrated Intelligent Transportation Systems (ITS) network outfitted with 96-strand fiber-optic backhaul throughout the site.

ADDITIONAL ITS FEATURES INCLUDE:

- Private 4G LTE Cellular Network
- (15) 5.9 Ghz DSRC Road Side Units
- (7) Wifi Access Points
- (5) 480v; 240V xfmr

Through ACM's relationship with the Michigan Department of Transportation (MDOT), ACM is able to leverage the nation's largest ITS enabled roadway to experiment with control algorithms and automated vehicle behaviors to examine impact on traffic flow in public testing settings.

ACM is developing a custom cloud-based Data Management and Analytics Platform tool that will enable users to ingest and share test data securely and with greater efficiency.

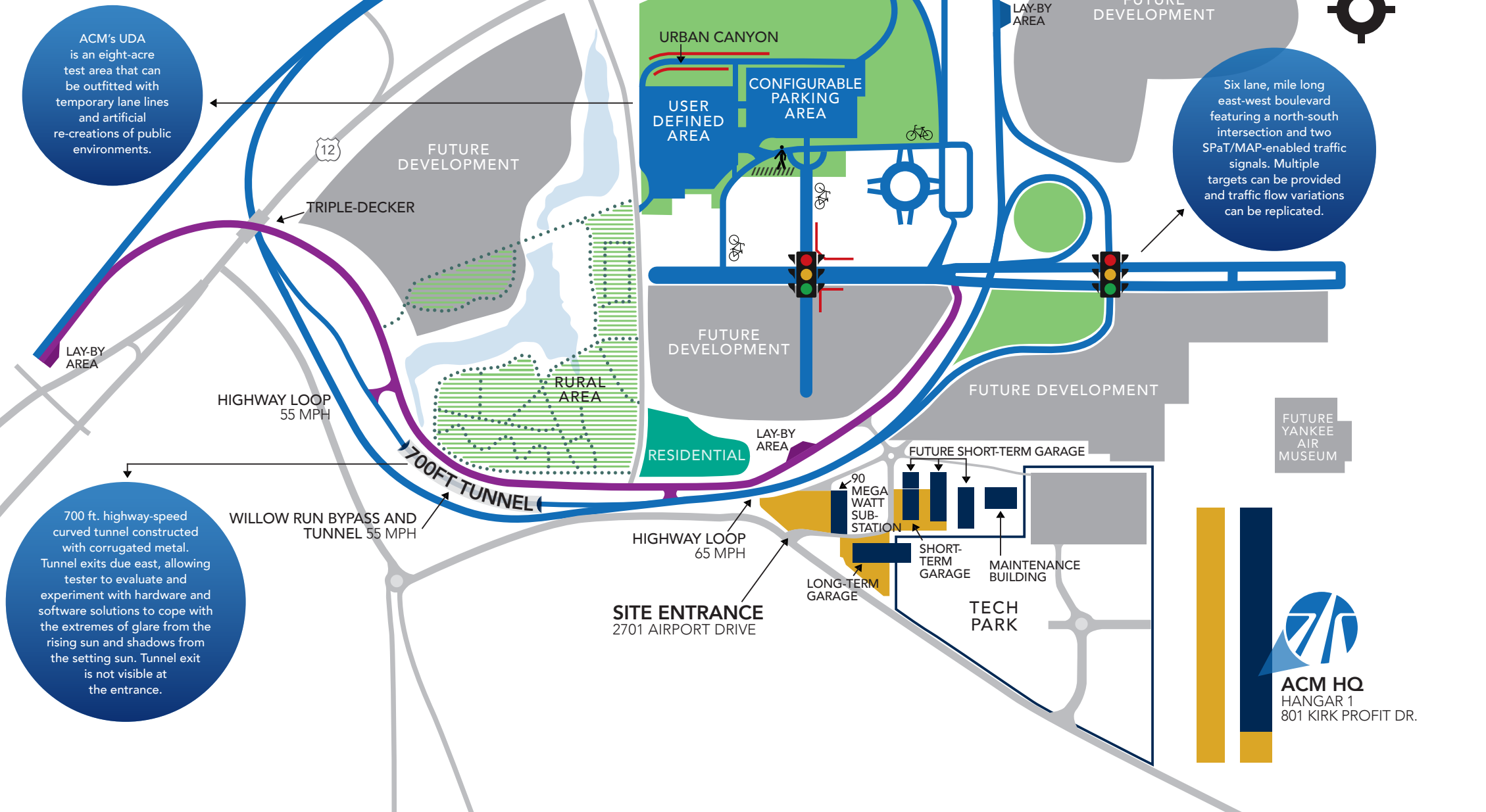
BEYOND ACM'S INFRASTRUCTURE FOR CONTROLLED ON-ROAD TESTING, THE FACILITY ALSO PROVIDES:

- DRI Soft Car 360 Global Vehicle Target
- OxTS RT-Base S
- AB Dynamics Guided Soft Target with a self-propelled platform
- AB Dynamics Pedal Robots
- EV Chargers
- Escort and Interaction Vehicles
- Euro NCAP Vehicle Target (EVT) and Pedestrian Targets
- 4 activePS Static Adult and Child Pedestrian Targets and Surfboards
- Moshon Data Foam Core Vehicle Target
- Moshon Data Foam Slab Vehicle Target
- RaceLogic VBOX ADAS Data Acquisition and RTK System

ACM SITE KEY

- Test Road
- Access Road
- Buildings
- ACM Tech Park
- Parking
- Residential Area
- Simulated Buildings
- Grass
- Wooded Area
- Future Rural Network
- Future Development
- Bike & Pedestrian Corridor

ACM's UDA is an eight-acre test area that can be outfitted with temporary lane lines and artificial re-creations of public environments.



700 ft. highway-speed curved tunnel constructed with corrugated metal. Tunnel exits due east, allowing tester to evaluate and experiment with hardware and software solutions to cope with the extremes of glare from the rising sun and shadows from the setting sun. Tunnel exit is not visible at the entrance.

Unique to ACM, the two triple-decker overpasses allow for z-axis testing and experimentation with V2X applications or control algorithms. The middle level of each triple-decker is occupied by a public roadway.

Six lane, mile long east-west boulevard featuring a north-south intersection and two SPaT/MAP-enabled traffic signals. Multiple targets can be provided and traffic flow variations can be replicated.



CURRENT ENVIRONMENTS AND FEATURES:

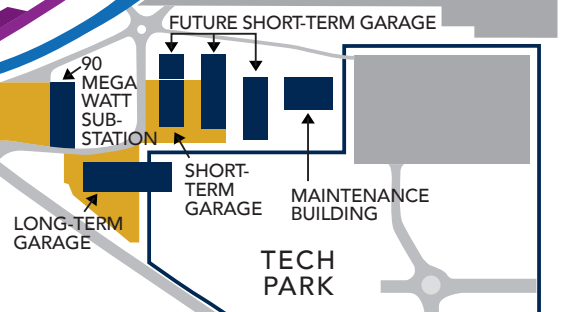
- 2.5 Mile Highway Loop
 - 2+ Lanes, 50-65 mph
 - Exit and Entrance Ramps
 - Triple-decker Bridges
- 700 ft. Curved Tunnel
- 1.5 Mile Urban Arterial Road, 2 Lanes, 55 mph
- 6-lane Boulevard, 55 mph
- 6 x 6 Lane Reconfigurable Intersection
- User-defined Area, 8+ Acres
- Urban Canyon
- Parking Environment
- 2 Lane Roundabout
- Bicycle Lane and Pedestrian Corridor
- Network:
 - DSRC
 - 4G LTE (Private)
 - Cloud (Data Management and Analytics Platform)
- Garages – Short & Long Term
- 41 Intersecting Points

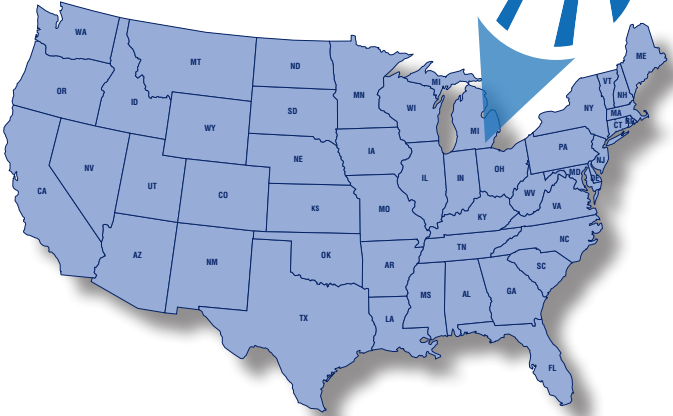


FUTURE ENVIRONMENTS AND FEATURES:

- Guided Soft Targets
- Braking/Steering Robots
- Weather Simulator, Cold Chamber, Low Mu Pad
- Signalized Corridor (Urban Canyon/Intersections)
- Cybersecurity Lab
- xFC Station, Wireless Static and Dynamic Charging
- Rural and Residential Test Environments
- Multi-mode: Air and Rail; In Addition to Car and Commercial Trucks
- 5G Network

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