Presentation

The Future of the Connected Vehicle

CVTA - International Summit

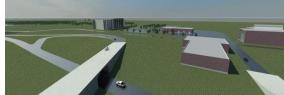
Willow Run – Ypsilanti, MI

Connected Vehicle Research Center



















Presentation Outline



Environment for Connected Vehicle Research

Shared Office & Proving Grounds Concept

Ypsilanti Township Incentives











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Mission Statement



"SPARK will advance the economy of the Ann Arbor Region by establishing the area as a desired place for business expansion and location...by identifying and meeting the needs of business at every stage, from those that are established to those working to successfully commercialize innovations."



Collaboration in action at Menlo Innovations, a software company located in Arm Arbor









Clients

Automotive









Software/IT









Notable Headquarters















History















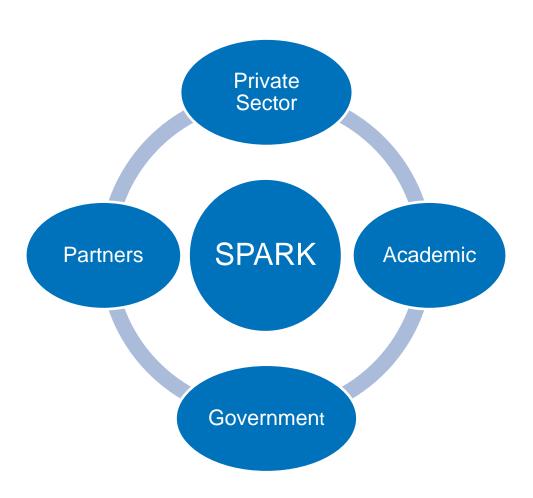






Enabled to Convene













AHEAD BY A CENTURY

The Future of Automotive Technology

The case for developing a world-class test facility for Intelligent Transportation Systems and autonomous vehicles in Southeast Michigan









OPPORTUNITY

A World Class Test Facility Will Position Southeast Michigan's Future in Connected Vehicle Technology

Significant Economic Impact



Investment Jobs

Wages

\$360,400,000 7,800

\$526,000,000



Leadership











NEED FOR INFRASTRUCTURE

Off-road Testing is Required to Ensure Public Safety



Implement precautionary testing before deploying new technology on public streets



Confirm that the automobiles work well with other vehicles on the road



Retain local talent and create jobs through private industry contracts









BUSINESS ATTRACTION & NEW OPPORTUNITIES FOR ENTREPRENEURSHIP

Expand the Technology Landscape of Southeast Michigan

Carmakers will team up with digital partners like Google,
Microsoft, Intel (maybe even Apple) to produce talking vehicles
that don't crash and get you to work on time. Companies like
Ford and Microsoft already collaborate on technology that
lets you bring your music and social media apps into your
vehicle. Now these non-traditional partners will be working
together to solve the difficult challenges of urban mobility on an
overcrowded planet.

- John Lauckner, GM CTO (Forbes)









Attraction & New Entrepreneurship Opportunities





A Friend who works for a major car maker and who has access to its APIs has written an app that texts his wife and lets her know when he's ten minutes from home. He's considering writing an app that will tell him when his wife's gas tank is down to one-quarter full, so he can fill it for her. He has also written an app that texts his teenaged daughter and lets her know when she is ten minutes away from having to leave wherever she is if she is to make it home before her curfew.



-"Google's Trillion Dollar Driverless Car: The Ripple Effects" (Forbes.com)









THE CASE FOR WILLOW RUN AS A PROPOSED DEVELOPMENT AREA

Selecting a Suitable Location for an ITS Testing Facility



Aerotropolis: Poised to conduct business and create partnerships on a global scale



Willow Run's acreage will accommodate the requirements of a world-class test facility



Renaissance Zone: Located in a virtually taxfree area designated for NMDCs



The existing infrastructure for utilities can be easily utilized



Qualified for tax abatements and tax increment financing packages



Two private entrances off US12 will allow for easy access via car, rail, and air



Conveniently and centrally located to key facilities:

- 15 minutes to Detroit-Metro Airport
- 10 minutes to WCC and EMU
- 20 minutes to University of Michigan
 & UMTRI











Walbridge's Locations Across the Globe





Walbridge's Market Experience





AUTOMOTIVE

Assembly & Manufacturing Stamping | Body | Paint Engine | Transmission | Axle R&D | Development | Testing Tier Suppliers | Distribution

AVIATION

Baggage | Freight | GSA Maintenance | Parking | Public Safety | Terminal



COMMERCIAL

Cultural & Entertainment Hospitality | Mission Critical Office | Parking | Residential Retail

EDUCATION

Higher Education | K - 12

WASTE/WATER

Instrumentation | Metering Water | Wastewater



HEALTHCARE

Centers & Clinics | Hospital Medical Office Building | Nursing Pharmaceutical

INDUSTRIAL PROCESS

Automotive | Energy Hazardous Materials | Agriculture Heavy Rigging & Setting Steel & Non-Ferrous



INTERNATIONAL

Asia | Canada | Mexico | Middle East South America

MANUFACTURING

Agriculture | Aviation | Defense Materials | Pharmaceutical | Solar Transportation | Warehousing

GOVERNMENT

Local | State | Federal









Raleigh Michigan Studios LLC Motion Picture Studio Pontiac, Michigan













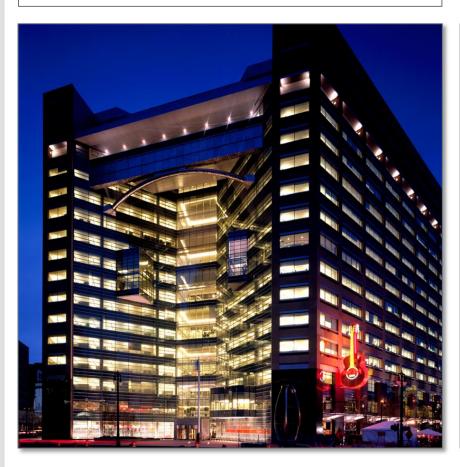






Compuware Corporation

Corporate Headquarters Detroit, Michigan

















General Motors

Proving Grounds & Vehicle Performance Integration Center Milford, Michigan







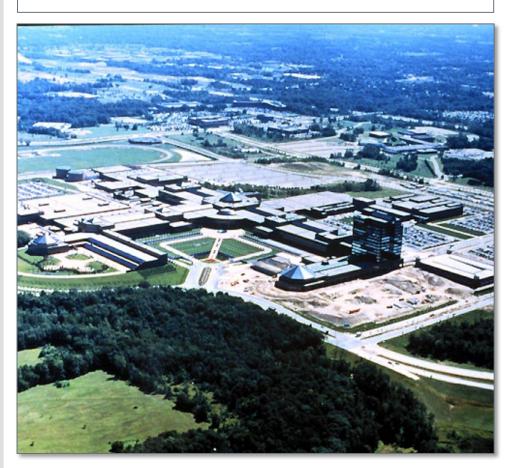








Chrysler Group LLC Chrysler Technology Center Auburn Hills, Michigan





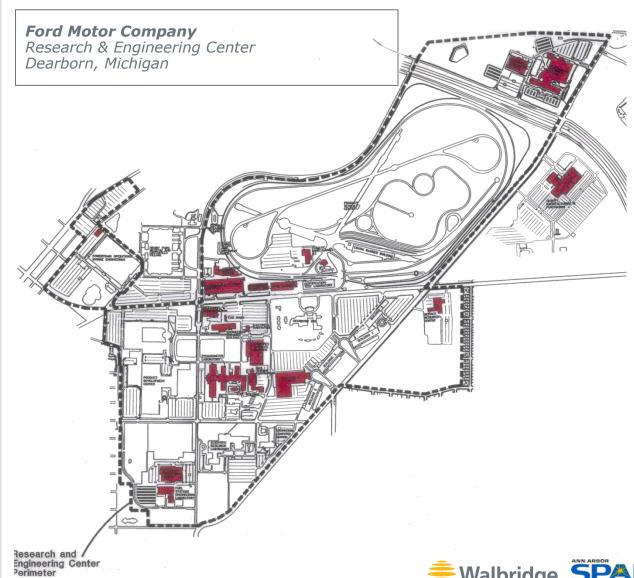


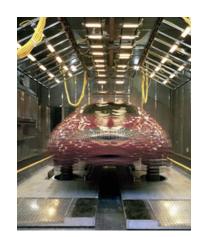




















Project Phasing



Phase 1 Full Construction

Test Track City Scape Control Tower

50,000 sf Multi-purpose facility (additional 300,000 sf of expansion capabilities



Phase 2-5 <u>Tenant Space</u>

300,000 sf of tenant space
Flexible / Modular Space
Multi-Tenant R&D Space
Build-to-Suit Singe Tenant
Owner Occupied Tech Campus



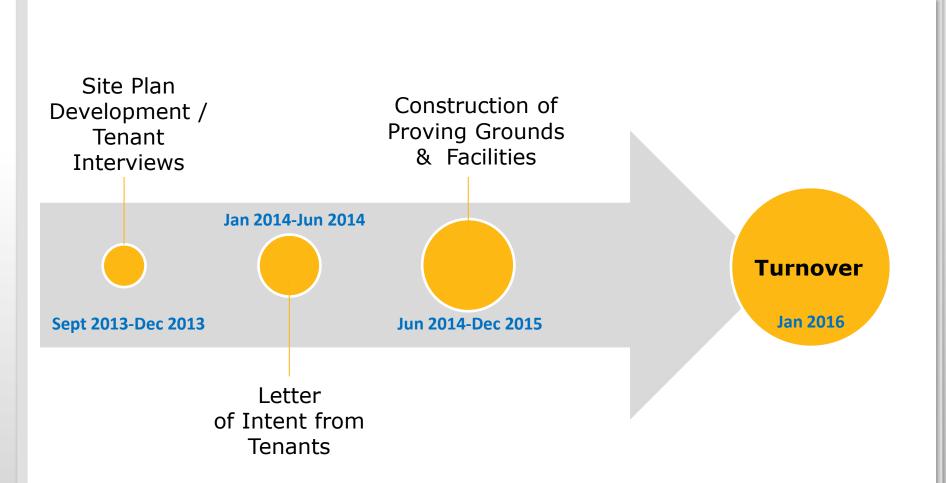






Project Timeline













Test Track/Proving Grounds Capabilities

- Simulated tunnels
- Buildings of varying scale
- Reflection areas
- Roundabouts
- Rail Crossings
- Center for virtually simulated tests
- Multi-block neighborhood and downtown street grids
- Downtown streetscapes
- Suburban streetscapes

- Realistic Traffic Infrastructure
- Proper Roadway vegetation
- Dirt, asphalt, concrete, etc.
- Weather simulation
- Introduction of variables (scooters, skateboards, etc.)

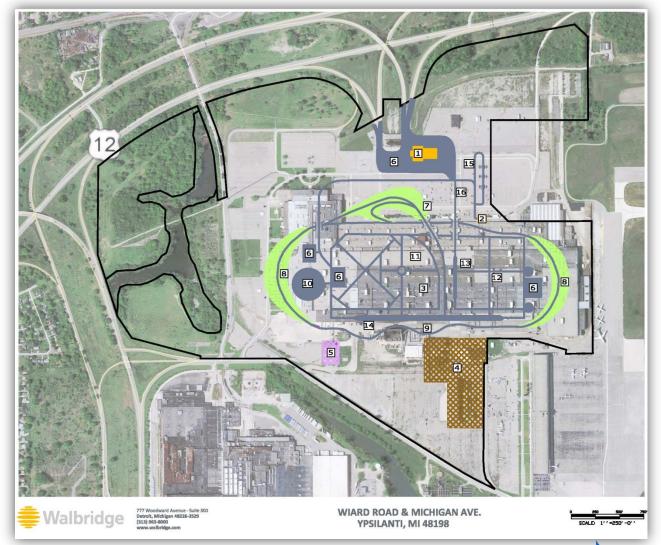








Phase 1 Site Plan















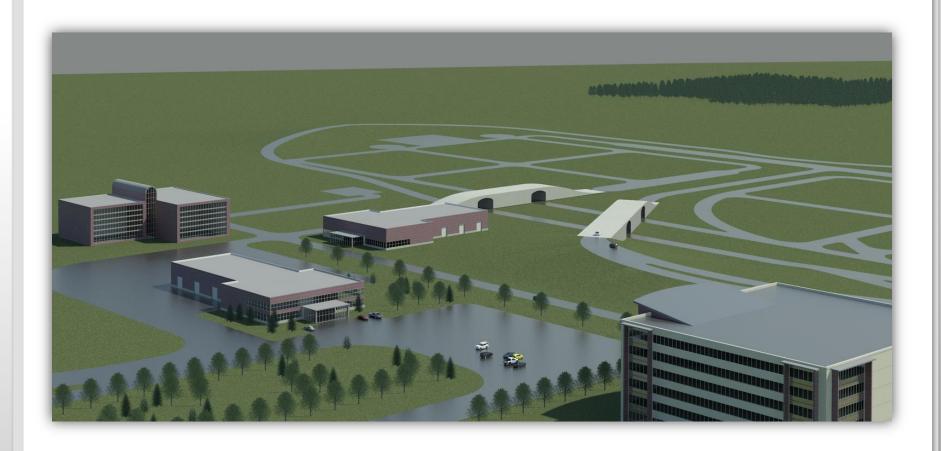












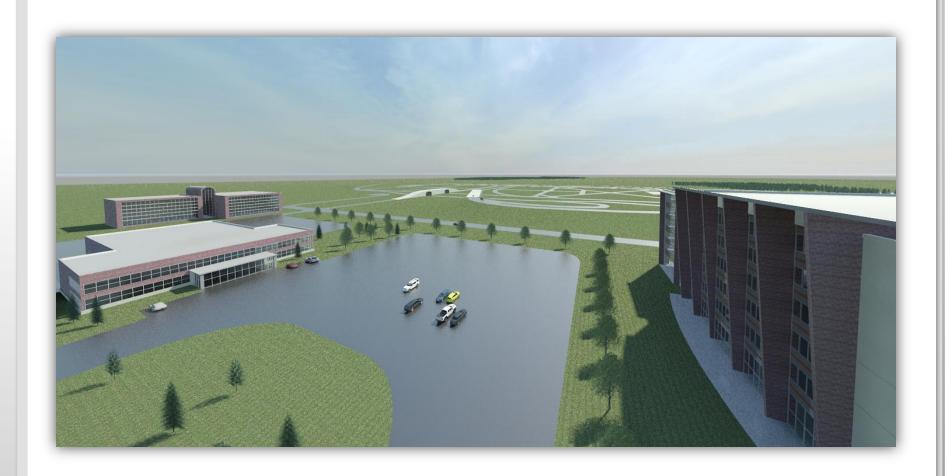






















































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