SMART TRANSPORTATION

Technological advancement is changing the way we live. We need only look at the impact of the smartphone over the past 10 years to imagine how much new technologies may continue to shape our world in the near future. This change brings economic opportunities in new and existing industries, and the transportation sector specifically is on the cusp of a major shift, presenting new ways to move people, goods, and services through our city.

THE CITY PLAN Building Blocks

The City Plan considers what our city will look like at 2 million people. To get there, new information will be gathered over the next two years. But it will also rely on much of the work and policies that have recently been completed or are currently advancing. These important pieces of work will form the building blocks of the City Plan, the foundation to support us as we move towards a new view of our city.

AUTOMATED VEHICLES

Also known as driverless cars, self-driving cars or autonomous vehicles, automated vehicles are capable of sensing their environment and navigating without human input.

CONNECTED VEHICLES

Using wireless mobile devices, connected vehicles exchange information in real time with roadside equipment like traffic lights or message signs, and with other vehicles.

ELECTRIC VEHICLES

Playing an important role in reducing environmental impacts from personal transportation, electric vehicles have electric motors that draw their energy from a rechargeable battery.

SHARED MOBILITY

Shared mobility involves the shared use of transportation options, such as a car or bike, allowing different users to have access on an as-needed basis.

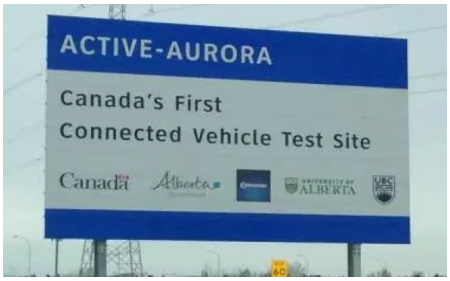
While the City does not plan to be on the bleeding edge of technology testing and development, the goal is to be at the forefront for policy changes and development strategies so we can be considered a leader in the implementation of new technologies.

SMART TRANSPORTATION ACTION PLAN

The City of Edmonton is developing a Smart Transportation Action Plan that identifies priority actions the City should take in the next two years to prepare for these new and emerging vehicle technologies. The City is already taking action on Smart Transportation by partnering on and leading a number of projects.

ACTIVE-AURORA

ACTIVE-AURORA is the first connected vehicle test network in Canada. There are currently three on-road test sites in Edmonton being used to explore the potential of connected vehicle technology by evaluating its ability to improve safety, manage traffic demand, increase roadway capacity during peak periods and smooth traffic flow on busy roads. The project has served as a catalyst for connected vehicle research in Canada.

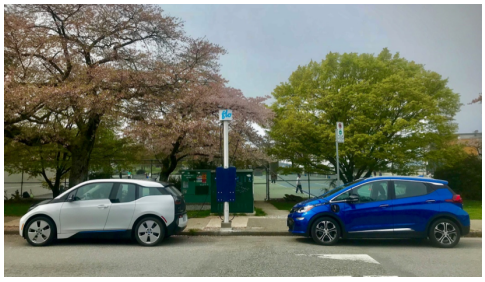


SMART STREETLIGHTS

The Smart Streetlights program initially began as a pilot project in 2013 with the original intent of reducing energy consumption by dimming lights during periods of decreased pedestrian and vehicular traffic. As the program has expanded, further functions have been added, including traffic data collection, parking availability and occupancy monitoring, and air quality detection. To date, a total of 400 streetlight units have been converted to smart streetlights across the city.

CURBSIDE EV CHARGING PILOT

In addition to enabling a fast-charging corridor between Edmonton and Calgary, ATCO Electric is working with the City on a pilot to bring curbside Electric Vehicle (EV) charging services to public roads. This five-year project will see up to 10 charging stations installed at curbside parking spaces around the cities. Locations for the chargers are still being finalized, but the stations are expected to be in operation before the end of 2018.

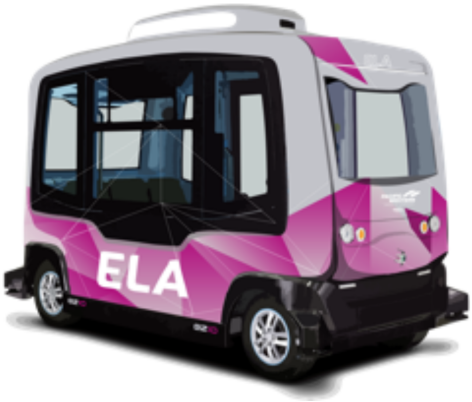


WHITEMUD DRIVE VARIABLE SPEED PILOT STUDY

In 2015, The City of Edmonton partnered with University of Alberta to undertake a variable speed pilot with the purpose of easing congestion and possibly reducing collisions. The City installed vehicle detection systems every kilometer beneath Whitemud Drive and entry ramps for the pilot study area to gain an understanding of real time traffic volumes. This allows for calculation of optimum speeds for smooth traffic flow and variable speed signs would be set accordingly. During periods of high congestion, the City was aiming to avoid 'shock waves' that travel backward from vehicles so that there would still be room for other vehicles on merge onto the freeway from entry ramps. The pilot was deemed a success with lowered congestion rates and travel times.

ELA AV SHUTTLE PILOT

The City of Edmonton is partnering with PWT (Pacific Western Transportation) for a month-long automated vehicle (AV) pilot in October 2018. The pilot project, named ELA, will feature a shuttle operated at slow speed on a test route. The shuttle, which carries up to 12 passengers at a time, moves at 12 km/h and has an operator on-board to oversee the vehicle and provide back-up response. This pilot is intended to help Edmontonians become more familiar with the technology by experiencing it first hand. The City will collect feedback from citizens to help inform further study of AVs.



I'M INNOVATIVE

I operate 100% driverless and am powered by electricity.

I'M FRIENDLY

I can carry up to 12 passengers.

I'M ACCESSIBLE TO EVERYONE

With my built-in access ramp for mobility challenged passengers

I'M VERSATILE

I can operate on fixed or on-demand routes

I'M ADAPTABLE

I can operate on existing roadways with no additional infrastructure required

I'VE GOT BACKUP

I'm supervised by Pacific Western Transportation