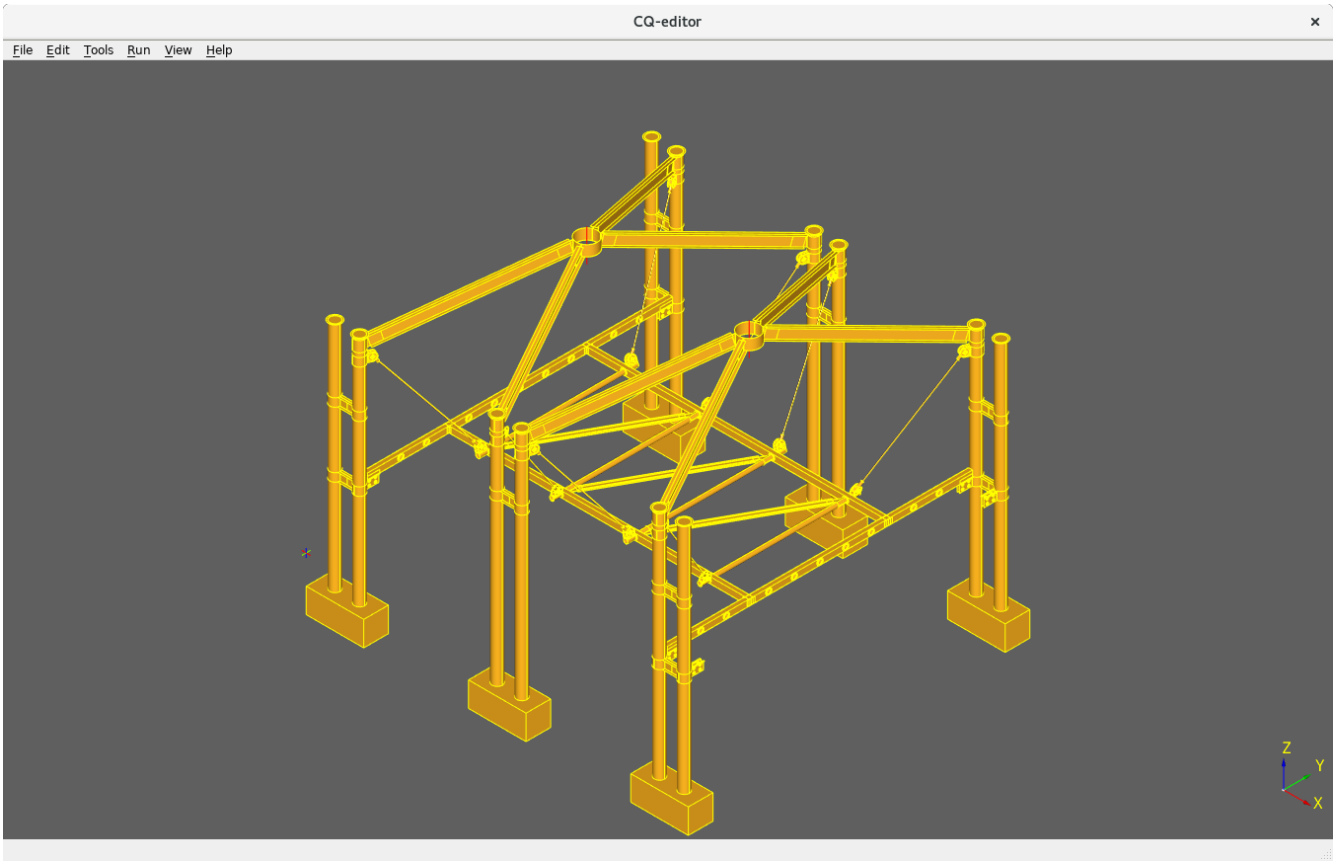
# Elevated Bicycle Expressway (bikeway)
# (A.S. Petrie)

## Bikeway Graphic




This graphic shows the bikeway structure, without: (1) the concrete track on which the bike tires roll, (2) the curved roof above the track, and (3) the transparent sidewalls.

The concrete track (not shown) rests on the two (2) long steel beams that stretch between the cross-beams at each end of each structural section. The underside of the track structure is elevated above the roadway providing sufficient clearance for vehicles below, just like any other bridge structure above the roadway.

The large rectangular foundation blocks at the lower ends of the vertical support poles are located underground. The vertical support poles are located at each side of the roadway, clear of motor vehicle lanes and parking spaces.

The thin lines running from the vertical poles to the track support beams, are steel suspension cables helping to hold up the track.

This graceful bikeway structure replaces the forest of utility poles presently cluttering the margins of major roadways in Toronto.

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## The Bicycle -- A Brilliant Invention

**The bicycle is a brilliant invention.** Enabling its rider to travel at up to four (4) times walking speed for hours at a time. Using only leg muscle power. Providing healthy exercise. Mentally connecting bike rider to their surroundings. Requiring very little parking space.

Occupying a small fraction of the road space required by a car or light truck. Eliminating emissions from fossil fuels. Eliminating motor vehicle noise pollution.

**Bicycles are potentially a huge economic boon, costing a tiny fraction of the price of a motor vehicle.**

Requiring much less maintenance than a motor vehicle. Avoiding outrageous annual premiums charged by rapacious motor vehicle insurance companies.

## The Bicycle -- Sadly Sidelined

What's not to like about the bicycle **??** Today, bikes have far too many downsides, preventing hundreds of thousands of car commuters from switching to two-wheeled leg-powered transport.

Everyone on Toronto roadways loses because of this tragic situation.

**There is a fundamental problem with cyclist safety, caused by mixing bicycles with motor vehicles on surface level routes. Even with provision of bicycle lanes, carved out of motor road lane and parking space, the mixing of these two incompatible transport modes inevitably results in cyclist injuries and deaths in collisions with motor vehicles.**

Toronto's long cold wet snowy icy windy winter discourages too many commuters from switching from private autos onto bicycle seats. Even hot summer sunshine can make a bike ride to and from work, an unpleasantly hot ordeal. Summer rainfall is no fun for a bike rider.

**These negatives, condemn the bicycle to fall far short of fulfilling its potentially revolutionary contribution to Toronto's personal transportation mix.**

## Bicycle Infrastructure -- Elevated Bicycle Expressway (bikeway)

**There is a simple solution to bring 100,000s of Toronto car commuters onto brand new bicycle seats for their daily commute -- the Elevated Bicycle Expressway (bikeway).**

Located in air space above major motor roadways, the four (4) lane elevated bikeway completely separates cyclists from motor vehicle and pedestrian traffic at surface level below.

A steel roof protects bike riders from rain, snow, hail and direct sunshine. Partial transparent side walls block high winds but pass cooling breezes.

The elevated bikeway network is integrated with public transit at multi-mode hubs.

Plenty of free elevated bike parking is especially useful in downtown areas, where bike commuters complete their commute on foot from the bikeway to work place.

A modest toll of $2 per business day (weekends and holidays free) pays for elevated bikeway infrastructure. Many thousands of former car owners will happily pay their bikeway toll, while still saving big money by ending car ownership.

The elevated bikeway network will earn substantial secondary revenues, providing (on the underside of the bikeway track) fully serviced and maintained weather-sheltered conduits for hydro-electric power supply cables and telephone and telecommunications lines.

Toronto Hydro will save a huge portion of its annual maintenance budget, thanks to removal of thousands of hydro poles and their attached power cables.

Likewise telephone and telecommunication line maintenance costs will plunge dramatically.

Along Toronto Transit Commission (TTC) streetcar routes, the bikeway underside will provide mounting points for electrical power supply lines for contact with streetcar trolley pole contacts.

This sheltered location will extend operating life of streetcar power supply lines. And will eliminate all the current TTC poles and their guy wires located along the sides of the roadway. Other TTC electrical equipment will also be relocated to mounting provisions on the bikeway structure.

Roadway (and sidewalk) illumination lighting could also be relocated to the bikeway structure, further reducing maintenance cost for associated lighting poles and wiring.

Forward-thinking commercial property owners and developers, will gladly pay fees to construct sheltered pedestrian walkways between elevated bikeway and their buildings. These sheltered walkways will be a big draw for employees working in the connected buildings.

Precipitation falling on the bikeway roof will be collected in cisterns for watering City trees and gardens. Space on the bikeway will be provided for tree seedling nurseries.

## Bikeway Politics

What's not to like about the Elevated Bicycle Expressway (bikeway) **??**

The Elevated Bicycle Expressway (bikeway) is BOTH bicycle-friendly AND car-friendly. It provides a dedicated four (4)-lane expressway for exclusive use by cyclists.

The bikeway also removes almost all bicycle traffic from motor roadways that are located below the elevated bikeway. So motor vehicle drivers no longer have to deal with bike riders sharing motor roadway space.

This is a classic win-win situation. Bike riders enjoy safe, fast, weather-sheltered bike rides. Motor vehicle drivers regain exclusive use of motor roadway lanes, and motor vehicle drivers no longer harm bike riders in terrible collisions.

Unfortunately, there are transportation zealots in many cities, who hate the private automobile way more than they love the bicycle. Instead of welcoming the elevated bikeway as boon for both cyclists and car drivers, these zealots fiercely reject the idea of the elevated bikeway, simply because it makes life better for BOTH bike riders AND car drivers.

This short-sighted immature reactionary opposition towards the idea of the elevated bikeway, can be overcome through political action.

The way past these reactionary elements will be powered by recruiting hundreds of thousands of Toronto commuters (who are also voters and taxpayers). This motivated grass-roots movement will demand to see implementation of the bikeway. Nay-sayers and opposing vested interests will either get on board the bikeway juggernaut, or will be steamrollered.

Every innovation needs a public-facing champion with the reputation, tenacity and vision to shepherd it past barriers thrown up by nay-sayers and opposing vested interests.

The elected leader who champions Toronto's elevated bikeway will be celebrated in history books. Torontonians will erect a statue in their honour.

Elevated bikeways will blossom all around the world, as millions of grateful people finally are able to enjoy the compelling advantages of two-wheeled muscle-powered transport in separated safety from motor vehicles and weather-sheltered comfort.

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