

Facts at a Glance: Windsor-Essex Parkway Public Information Open House #3

Ontario and the Windsor Essex Mobility Group are delivering the Windsor-Essex Parkway in partnership with the communities of Windsor and Essex County, the travelling public who rely on the existing transportation infrastructure, and First Nations. The Public Information Open Houses (PIOH) provide people with the opportunity to review new project details, provide input on those details and talk one-on-one with the Project Team. The following *Facts at a Glance* provide an overview of the key subject areas presented at PIOH #3 (July 13, 2011).

Construction will start in August.

- First construction activities include:
 - Advance fill and wick drains installation
 - Construction of Grand Marais Drain (Turkey Creek) crossing
 - Construction of Howard Avenue Diversion
 - Excavation of the roadway
 - Highway 401 widening at the east end
 - Construction of four bridges including North Talbot Road bridge
 - Construction of four tunnels
 - Required drainage works.

The Windsor-Essex Parkway will boost the local and regional economies by directly and indirectly supporting the creation of jobs over the lifespan of the project. Since January 2011, more than 700 jobs have been created.

Remaining buildings will be demolished this summer.

- 130 buildings within the Parkway corridor were removed in 2009 and 2010. The remaining 182 buildings will be removed over the next three months.
- Once again, a partnership has been struck with W.E. Pay it Forward to salvage reusable materials from buildings.



Endangered plant and snake species are being relocated so that we can build the Parkway and protect them.

- We are proceeding in accordance with permits received under Ontario's *Endangered Species Act* (2007), with measures to protect species at risk that would be affected by construction of the Windsor-Essex Parkway. Other permits will be requested from the Ministry of Natural Resources where additional species are discovered.
- Once completed, the Windsor-Essex Parkway will provide a significant level of Carolinian landscape restoration including tallgrass prairie creation and associated re-connections and habitat for species at risk in this area.

Many existing trees will be preserved in specific areas.

- Preserved trees must be native to the area, be in good health, and fit the proposed ecological landscape.
- Removed vegetation will be reused for other parts of the project where possible.

3,900,000 cubic metres of earth will be excavated within the Parkway corridor.

- Roughly half of this excavated earth will be re-used for the project.
- All materials will be transported on agreed upon haul routes. Haul routes will be well maintained to keep the noise and dust of construction traffic to a minimum.

Hundreds of metres of utilities will be removed or relocated to accommodate the below-grade freeway.

- Utilities that will be removed and/or relocated include:
 - o gas mains
 - o power lines
 - o telephone
 - o cable TV
 - o storm and sanitary sewers
 - o watermains.
- Utility relocations will be completed directly by utility companies and their subcontractors. The Windsor Essex Mobility Group will relocate utilities owned by the municipalities.
- Except in a few locations, all utilities will be relocated underground.
- All utility relocations are designed to minimize the impact to the travelling public and customers.

Building tunnels and bridges is a major component of the construction schedule.

- The 11 tunnels and 11 bridges included in the Windsor-Essex Parkway contribute to its overall unique design.

- Bridge construction includes four main steps:
 - o site preparation
 - o excavation and driving of piles
 - o construction of abutments, pile caps, piers, walls and side slopes
 - o casting of concrete bridge deck.



- Tunnel construction includes four main steps:
 - o site preparation
 - o excavation and driving of piles
 - o construction of abutments, pile caps, piers, walls and side slopes
 - o installation of girders and casting of bridge deck
 - o placement of tunnel top.



- Sufficient soil will be placed on top of the tunnels to allow for landscaping.

- To ensure the stability of the tunnels, bridges and other structures, footings (or piles) will need to be driven into the ground to reach bedrock.

A variety of methods will ease construction noise.

- All construction equipment will be in good repair, be fitted with functioning mufflers, and be compliant with the noise emission standards outlined in Ministry of the Environment guidelines.
- The most noisy construction activities will be limited to daytime hours and work will be carried out in accordance with municipal noise by-law requirements.
- We will tell you in advance if any noise by-law exemptions are being sought.

Design and Construction Reports (DCR) will demonstrate how environmental assessment commitments are being incorporated into the Parkway.

- Most highway projects require one DCR. The Parkway is unique. To meet the aggressive construction schedule, the Parkway project has been divided into components so parts of the project can proceed to construction while other parts are still being designed.
- Information from the eight DCRs needed for the Parkway will be presented at PIOHs and the DCRs will be available for a 30-day review period. Look for public notices advising of the start of review periods.

Two stormwater management ponds have been enlarged to accommodate updated provincial standards.

- The stormwater management pond at Todd Lane and Huron Church Line will have relocated overhead hydro lines. The wetland associated with this pond provides an important ecological benefit for the project.
- The stormwater management pond west of Matchette Road will be increased slightly in size to provide better drainage.



Four lanes of traffic will be maintained along Highway 3/Huron Church Road during core travelling hours for the duration of construction of the Parkway.

- Diversions (on-site temporary roads built to move traffic around construction activities), temporary road closures and lane reductions during late night hours will assist in accomplishing this.
- Core travelling hours are from 5:00 a.m. to midnight.
- Emergency Services Providers (ESP) are participating in design meetings and will continue to be involved throughout construction to coordinate/discuss the different traffic configurations during the construction phase. During construction ESP will be able to travel throughout the entire corridor in the event of an emergency.

Feedback from PIOH 1 and 2 has been incorporated in or is being considered for the Parkway design and construction mitigation.

- Items to be included or under consideration include:
 - o public parking and access points for the trail system
 - o urban access to natural areas
 - o use of plants native to the Windsor-Essex area in landscaping
 - o connecting the Windsor-Essex Parkway trails to existing trail networks and municipal Trail Master Plans.

There are many ways that you can find information, ask questions or submit comments.

- Call the Windsor Essex Mobility Group's Public Liaison Office at 1-877-WE-PKWAY or visit the office located at 2187 Huron Church Road, Suite 340A, during regular business hours.
- Visit www.weparkway.ca for updates on activities going on in the corridor and new information. Use the feedback form available on the "Stay Informed" tab to submit a comment or ask a question. While you are there, sign-up to join the project email list to receive project information in your inbox.
- Sign-up for an upcoming Neighbourhood or Business Meeting at the PIOH, by calling the Public Liaison Office or through the project website.
- Follow the project on Twitter at www.twitter.com/weparkway for real-time updates and to talk with the project team.
- At www.youtube.com/user/weparkway and www.flickr.com/photos/weparkway you can watch project-related videos and view photos.

The Windsor-Essex Parkway is a once-in-a-generation undertaking. It is unprecedented in its community enhancement features for any highway, anywhere in Ontario. Upon completion, the 11 kilometre Parkway will ease the movement of goods and people to and from the Windsor-Detroit border, separate local and international traffic, and eliminate stop-and-go traffic in residential areas. With more than 300 acres of green space, 20 kilometres of recreational trails and new community connections, residents in Windsor-Essex will enjoy an improved quality of life.

What's Coming Next in 2011

August will mark the start of an aggressive construction schedule for the Windsor-Essex Parkway. To reduce the duration of construction and to have the Parkway open to traffic in late 2014, the Windsor Essex Mobility Group will:

- organize the construction sequencing in the best possible manner
- use prefabricated components for structures where possible
- build traffic diversions to allow for unlimited access to construction areas while maintaining traffic flow through the Highway 3/Huron Church Road corridor.

Parkway construction will start in August 2011. In an effort to minimize the length of time that the project takes, construction will be ongoing simultaneously throughout the project area. In short, construction will not start at one end and finish at the other but rather will be occurring at a number of locations within the project area at any given point in time.

The first construction activities you will see are:

Advance fill and wick drains installation:

Wick drains are man-made drainage paths to allow faster settling of certain types of soils. They also provide greater strength in areas where a significant amount of fill will be placed. Once the wick drains are installed, fill will be placed to build up embankments and the area will be ready for road construction and paving.

North of Chappus Street and west of Matchette, trial construction of wick drains and the embankment over them will take place to ensure construction techniques will achieve acceptable results.

Construction of Grand Marais Drain (Turkey Creek) crossing:

The existing crossing will be improved through the installation of a culvert. It is anticipated that this work will commence by November, once the Fish Habitat Compensation Plan is approved.

Howard Avenue Diversion:

The Howard Avenue Diversion involves construction of a new permanent four-lane road that will connect Howard Avenue, Highway 401 and Highway 3. The new road will be to the east of existing Howard Avenue and will have roadside ditches and a multi-use path. A roundabout will be constructed to connect Highway 3, Highway 401 on and off ramps, and the Howard Avenue Diversion. A carpool lot will also be constructed in this area.

Excavation of the roadway:

Excavation and movement of materials will happen throughout construction. You will begin to see trucks moving earth to the west end of the Parkway for wick drains installation in September 2011.

Highway 401 widening at the east end:

It is proposed to widen Highway 401 from four to six lanes by constructing one additional eastbound lane and one additional westbound lane. The construction would commence 60 metres east of North Talbot Road and continue westerly for approximately 700 metres.

Construction of four bridges, including North Talbot Road bridge:

Construction of four of the Parkway's 11 bridges will begin this year. Work will start on:

- Bridge 9 - located near Cabana Road West, this structure will carry an eastbound ramp from future Highway 3 to the below-grade freeway
- Bridge 10 - located west of St. Clair College, this bridge will take Highway 3 over the Parkway
- Bridge 11 - located just west of Howard Avenue, this structure will carry both eastbound and westbound lanes of Highway 3 over the below-grade freeway
- Bridge 15 - carries North Talbot Road over Highway 401 at the east limits of the Parkway.

The North Talbot Road bridge needs to be replaced to accommodate widening of Highway 401 from four to six lanes. It is anticipated that work on the North Talbot Road bridge will begin in August 2011 and last up to nine months.

Construction of four tunnels:

Tunnel tops will be landscaped open green space that is fully integrated with the surrounding ecological areas and the Parkway trail system. Several of the tunnel tops are proposed to have designed landscape treatments that support community use, and function as ecopassages. There are 11 tunnels in the Parkway design. Work will start on the following four this year:

- Tunnel 2 - will carry Labelle Street intersecting with future Highway 3 over the below-grade freeway
- Tunnel 7 - will carry future Highway 3 exit ramp and intersection with Huron Church Line over the below-grade freeway
- Tunnel 10B - will carry pedestrian trails over the below-grade freeway
- Tunnel 11 - will carry pedestrian trails over the below-grade freeway.

Required drainage works:

Drainage control, including temporary drainage works and temporary stormwater ponds, will be provided where needed to ensure drainage standards for all roads and private property is maintained throughout construction.

For more information on the Windsor-Essex Parkway, visit www.weparkway.ca. Follow the project on Twitter at www.twitter.com/WEParkway.

Construction Equipment

Building the Windsor-Essex Parkway will require a number of construction vehicles and heavy machinery. Residents may have already seen some of this equipment in use related to pre-construction activities and also in other construction projects in Windsor and Essex County.

In many cases, this equipment is new and has been built using green technologies. The Windsor Essex Mobility Group is committed to ensuring all equipment meets environmental and technical standards expected of all contractors conducting work for the Ontario Ministry of Transportation.

The equipment used to construct the Parkway will include: front-end loaders/backhoes, bulldozers, excavators, pile drivers, tri-axel dump trucks, cranes, demolition hammers, rollers, graders, and concrete pumper trucks.



concrete pumping truck

Equipment for demolition:

It is anticipated that demolition of the North Talbot Road bridge over the existing Highway 401 will begin in August 2011. The equipment required for this work includes an excavator. The excavator is a large shovel type machine with "teeth" that grabs pieces of a structure and pulls it apart. It is capable of pulling apart large buildings and concrete pillars. Demolition hammers will be used to break up concrete for removal and cranes will be used to lift each piece. Dump trucks will haul materials offsite for recycling and reuse in other areas of the Parkway.

Excavators and dump trucks will also be used to remove the remaining buildings in the corridor. Once the materials are removed from the sites, dump trucks will fill the areas to level while it is waiting for road/tunnel/bridge construction. Fencing and safety equipment will be in place in areas under construction.

Equipment for road removal and site preparation:

Excavators will be used to break up the road surface and transfer the materials into dump trucks. The shovel is lowered to the road surface quickly and forcefully to break up the pavement and scoop it out of the way. Once this is complete, the materials are loaded into a dump truck and hauled offsite for recycling.

Bulldozers will "clear and grub" road areas for construction. Grubbing is a term used for the removal of all materials from the construction zone. This includes trees, grass and asphalt. The materials are taken off-site for recycling or disposal.

For the Parkway, 3.9 million cubic metres of soil and fill will be removed to construct the lowered roadway. This fill will be removed by bulldozers and excavators and hauled to a specific site by dump trucks.

Equipment for bridge and tunnel construction:

Pile driving rigs are used to drive metal piles into the ground to support bridge, tunnel and wall structures. Metal piles are like a foundation of a building. They support the structure and prevent it from falling down. Because of this region's soil conditions, approximately 5,600 steel piles are needed to support all three of these structure types.

The pile driver hammers the metal pile into the ground until it hits bedrock. Once this is complete, the structure can be built on top of it. The equipment for bridge and tunnel construction will include concrete trucks, front-end loaders, excavators, cranes, pile drivers and concrete pumper trucks.



pile driving rig



excavator

Equipment for noise barrier construction:

Noise barriers will consist of concrete pilings in the ground and pre-constructed panels built on top. Excavators and bulldozers will be used to prepare the area where the walls will be built and concrete pumper trucks will be used to build the footings into the ground. For some noise barriers, piles will be driven into the ground. Once the footings are in place, flatbed trucks will bring the panels to the site and a crane will lift the panels into place.



grader

Road material and construction:

Once bridge structures are in place, road construction will begin. Materials used to construct roadbeds are called aggregates. Making a road is like making a cake and requires a “road recipe.” Several ingredients are required to create road material that is then placed in the corridor. Because of this, road materials can be recycled to be re-mixed into the roadbed recipe. Recycling road materials is an interesting and unique process. The asphalt and cement removed from the old roadbed are taken to an aggregate site for processing. Processing of the road materials includes breaking up the asphalt/concrete with a grinder, sorting the materials into like piles, and then mixing the different materials to create the road.

Windsor-Essex is unique in temperature and vehicle use. The length of summer and the volume of trucks in the area require the roadbed to be made of a heavy concrete mix to prevent melting during hot summer months with heavy vehicles on it. Roadbed materials are different throughout the province. Northern roads have a different aggregate mix than southern roads. The construction of the roadbed will require a mix of concrete and asphalt. To build a roadbed like this, the old aggregates will be remixed to the proper consistency and then placed by the equipment. This equipment includes dump trucks, front-end loaders, excavators, bulldozers, rollers and road graders.



crane

Learn More:

Residents and travellers can expect to see a lot of heavy equipment as construction begins this year. Please visit www.weparkway.ca to learn more about the Windsor-Essex Parkway. Updates will be posted on Twitter (www.twitter.com/WEParkway) and photos and videos will be posted on our Flickr (www.flickr.com/photos/weparkway) and YouTube pages (www.youtube.com/user/weparkway).



front-end loader