

# Duplainville Electric Reliability Project

# UPDATE



## Transmission line route modified to accommodate new substation site

*Segment along Capitol Drive eliminated*

Plans for a one-mile segment of transmission line along Capitol Drive were modified in June following the city of Pewaukee’s approval of the change in location of We Energies’ new Duplainville Substation. Under the

original plan, the substation would have been built on a site just north of Capitol Drive, about one-half mile east of Hwy. 164, and would have required a transmission line along Capitol Drive to connect to the new substation.

session in May. The city of Pewaukee granted a conditional use permit for the new substation site in June, and the Public Service Commission of Wisconsin issued an amended construction order last month.

***“The city of Pewaukee’s concerns about the transmission line along Capitol Drive were addressed with the change in location of the substation.”***

– Jim Vespalec,  
ATC project manager

We Energies and the city of Pewaukee worked to identify an alternative site in Pewaukee along Hwy. 164, north of Green Road. The approval of the new substation site eliminates the need to build a transmission line along Capitol Drive.

Information about the new location for the substation was presented to neighbors at a public information

“The city of Pewaukee’s concerns about the transmission line along Capitol Drive were addressed with the change in the location of the substation,” said Jim Vespalec, ATC project manager. “The PSCW’s approval of the amended proposal allows us to move forward in planning for the construction phase of this project.”

*See inside for route and site map.*

### Project facts

- The electric facilities are needed to keep pace with the increased demand for electricity in several Waukesha County communities, where annual electric usage is increasing at a rate of 11 percent. The project includes two components:
  - A new We Energies’ distribution substation called Duplainville, to be constructed east of Hwy. 164 and north of Green Road in Pewaukee.
  - A nine-mile, 138-kilovolt transmission line between Waukesha and Sussex, primarily along Hwy. 164 and Hwy. 74 that will connect the new substation to the existing Waukesha and Sussex substations.
- Construction of both the substation and transmission lines will begin this fall.

### What’s Inside:

**Project map:** page 3    **Construction work:** page 5    **Timeline:** back page



# Distribution line underbuild maximizes use of corridor



*Looking northeast along Hwy. 164 at I94, the existing distribution lines are shown.*



*This rendering shows how the same area will appear after the construction of the transmission lines and the underbuild placement of the distribution lines.*

The existing We Energies distribution lines along Hwy. 164 and Hwy. 74 will share the poles with ATC's new transmission line. "We refer to this design as underbuild," explains Brian Black, ATC engineer. "This is an efficient and clean way to make the best use of the corridor so the need for additional easements is minimized." According to Black, there are several areas along the route where facilities will be combined on structures, which

reduces the number of distribution poles. "However, the span lengths—the distance between poles—is greater for transmission lines than for distribution, which means a distribution pole will be placed at mid-span (mid-point) between transmission poles," he says. The distribution lines, along with telephone and cable television facilities, will attach to the mid-span structures and to the transmission structures.



*Looking southeast along Hwy. 164 at I94, (American TV in the background) the existing distribution lines are shown.*

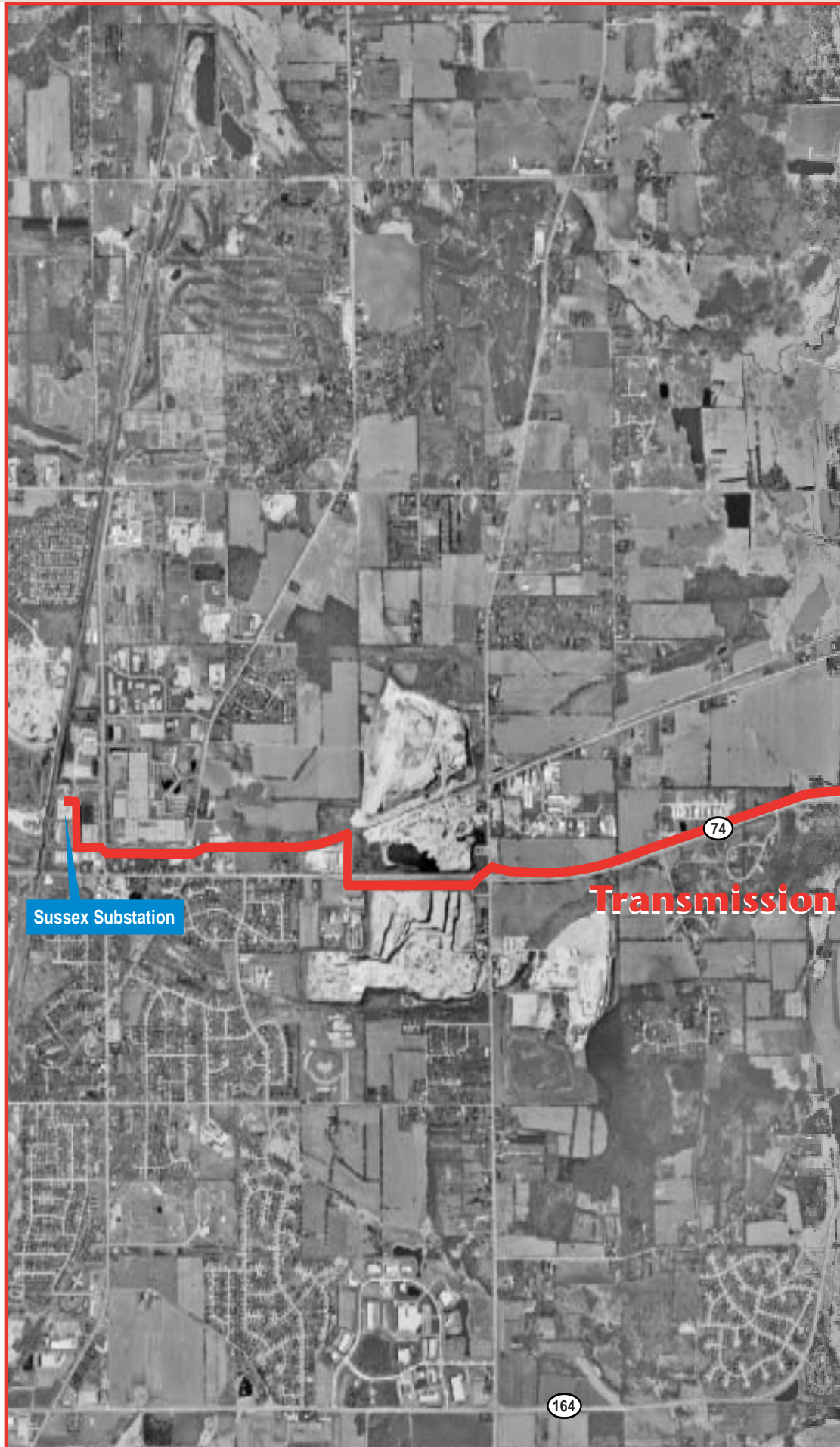


*This rendering shows how the same area will appear after the construction of the transmission lines and the underbuild placement of the distribution lines.*

# PSC OKs revised plan

The PSC last month approved a revised plan for the Duplainville Electric Reliability Project, including a modified transmission line route to serve We Energies' new Duplainville Substation to be built on the east side of Hwy. 164, north of Green Road. The nine-mile route for the 138-kilovolt line runs mostly along Hwy. 164 and Hwy. 74, and will connect the We Energies existing Waukesha and Sussex substations to the new Duplainville Substation. The original route, which placed a segment of the transmission line along Capitol Drive, was modified to accommodate the new substation site.

The transmission line will begin on the south end at Waukesha Substation and run along Hwy. 164 to the new Duplainville substation. North of the substation, the line continues north toward Capitol Drive, where the transmission line follows Hwy. 74 until it approaches Sussex. In Sussex, it will turn east and cross the Wisconsin Canadian National Railroad (a.k.a. Central Railroad) tracks. Once over the railroad tracks, it will turn north, paralleling the tracks until it turns east on Quad Graphics' property to reach the Sussex Substation.



# Project area



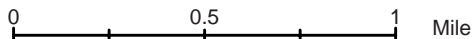
Transmission Line Route



we energies  
today, tomorrow, together.



Substation Location



Data Sources: SEWRPC 2000 Orthophotography Waukesha County Land Information Office City of Waukesha Engineering

Capitol Drive  
Airport

190

Green Road

Substation Location

94

164

Line Route

Waukesha Substation

Waukesha  
County Airport

16

16

# Construction to begin this fall

Minimize disruption. That's the goal of the crews that will work on the new transmission and distribution lines this fall starting on the south end of the route (see map). Here are some of the activities that neighbors and motorists might observe:

What you might see:	What we'll be doing:
Drill rigs	Boring holes for angle and corner pole sites that require concrete foundations for support
Concrete trucks	Pouring concrete foundations
Crane	Erecting 90-foot steel poles
Reels of cable	Stringing wire on the new structures
Utility vehicles	Transporting crews and equipment
Guard poles	Temporary wood poles at road crossings for stringing new wire

Coordination is the key to a smooth construction phase according to Jim Vespalec, ATC project manager. This project is adding transmission infrastructure in the existing right-of-way, where cable, telephone and electric distribution lines already are located.

"Our goal is to avoid unplanned interruptions of electric service while the work is being done," says Vespalec. The work may require periodic traffic diversion to allow vehicles and equipment to get into the right-of-way. "Since most of our work is adjacent to the roadway, rather than on private property, our

main access to the right-of-way will be from the road," says Vespalec. "In areas where we can't get in from the road, we'll work with property owners to gain access through their property."

**"Our goal is to avoid unplanned interruptions of electric service while the work is being done."**

– Jim Vespalec,  
ATC project manager

We Energies and ATC will work closely together to reduce the impact to local residents and business owners. Noise, dust and traffic is expected to be minimal during the construction period, which should wrap up at the north end in Sussex in summer 2005.

Watch for information about a pre-construction open house in the fall for property owners located along the route.



Soiling boring tests being conducted along Hwy. 164 and Hwy. 74 help to determine soil characteristics. The data is used to determine the placement and design of poles that are best suited for the soil conditions.

## About ATC

Everything we do at ATC is designed to ensure and improve the reliability of the electric transmission system. Formed in 2001, ATC is a transmission-only utility that owns, plans, builds, monitors and maintains more than 8,900 miles of transmission lines and approximately 450 substations in portions of Wisconsin, Upper Michigan and Illinois.

[www.atcllc.com](http://www.atcllc.com)

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Information about the project also is available at [www.atcllc.com](http://www.atcllc.com)



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# TIMELINE

## Duplainville Electric Reliability Project

- |                                    |   |
|------------------------------------|---|
| <b>October 2003</b>                | The PSC granted approval for the project and selected a transmission line route and substation site.  |
| <b>Fall 2003</b>                   | Preliminary land survey work was done to identify potential locations for transmission structures.  |
| <b>November/<br/>December 2003</b> | We Energies explored alternative substation sites at the request of the community and city of Pewaukee.   |
| <b>March 2004</b>                  | We Energies identified a potential substation site on Highway 164. ATC revised the transmission line route in anticipation of an alternate substation location.   |
| <b>May 2004</b>                    | ATC began soil boring work and staking along route. We Energies applied to the city of Pewaukee for a conditional use permit for the new substation site and held an information session for neighbors.         |
| <b>June 2004</b>                   | The city of Pewaukee granted a conditional use permit to We Energies for the new substation site. ATC and We Energies filed an amended application to the PSC for the new site and modified transmission route. |
| <b>July 2004</b>                   | The PSC approved the modified plans.  |
| <b>Summer 2004</b>                 | ATC is contacting property owners for easement rights.  |
| <b>Late Fall 2004</b>              | ATC will begin construction of transmission lines and We Energies will begin construction of the Duplainville Substation.   |
| <b>Spring 2005</b>                 | Construction work will continue.  |
| <b>June 2005</b>                   | The transmission line will go into service along with the first transformer at the Duplainville Substation.   |
| <b>April 2007</b>                  | The second transformer at the Duplainville Substation will go into service.   |