



Routing & Siting

Public outreach

We believe it is beneficial to solicit input from individuals who may be impacted by transmission system improvements and additions. As a natural extension of the involvement of transmission system customers in the planning process, we also involve the broader public in our planning process.

Public examination and discussion of transmission plans in advance of the commencement of work enhances awareness of the needs for transmission system improvements, helps eliminate surprises and can improve projects by involving the perspectives of those most familiar with impacted areas. Even for projects subject to public discussion and review as part of a state's formal regulatory process, opportunities for the public to help shape decisions prior to the official start of the regulatory process can be helpful.

By increasing the level of public understanding of the need for a project and by vetting specific solutions to be proposed, time spent in early discussions also can save project time overall.

Our public outreach efforts may involve sharing and exchanging information about specific planned transmission line work with those who may be impacted. Depending on the work to be done, potentially impacted parties may include landowners or other community residents in the vicinity of an existing or a proposed new transmission line, local public officials, utility regulators and natural resource agencies, environmental or conservation groups, customers and other interested members of the public.

Our public outreach efforts with various stakeholders can include a variety of interactions such as one-on-one or small group meetings, public open houses, newsletters and other communication activities. The overall goal is to maintain communication with those who may benefited or be impacted by transmission system plans – with respect to needs, possible alternative solutions, or the tailoring of specific project initiatives as they proceed through the planning, siting and regulatory approval stages leading to construction.

Siting process

When transmission infrastructure improvements or additions require new right-of-way, the job of siting the facilities is a sensitive one. We follow a careful and deliberate process that provides guidance for identifying and analyzing potential options for siting and routing of transmission facilities. Through input received from agencies, the public and other stakeholders, siting criteria are developed that are applicable and appropriate for the location and issues associated with a particular project.

Legislation passed in 2003 (Wisconsin Act 89) outlined priorities for selecting locations for new transmission lines. As outlined in Act 89, Section 1.12 (6), we and the regulatory



agencies are required to “*evaluate, to the greatest extent feasible consistent with economic and engineering considerations, reliability of the electric system and protection of the environment, the following corridors in the following order of priority:*”

1. Primary opportunities
 - Existing transmission lines
 - Pipelines
2. Secondary opportunities
 - Highways
 - Railroads
3. Tertiary opportunities
 - Recreational trails where rights-of-way, environmental considerations and engineering/cost feasibility warrant
4. New corridors
 - Establish new corridors using section lines and/or property boundaries

A copy of Act 89 is available at the state legislature’s Web site:
<http://www.legis.state.wi.us/2003/data/acts/03Act89.pdf>

New right-of-way

In addition, in siting and evaluating potential routes for transmission lines, consideration must be given to sensitive areas, which generally involve public or environmental issues. Information about sensitive areas can be found in Table RS-2.

Figure RS-1 provides an overview of our siting process for identifying new electric transmission corridors and indicates the opportunities for public input.

When new transmission line projects involve new rights-of-way, we gather environmental screening information. The environmental assessments provided in this section are high-level and not nearly the level of investigation that will accompany a permit application to construct transmission facilities.

Table RS-1 lists the new transmission lines requiring new right-of-way and whether high-level environmental screening information is provided in this report or can be found in application materials already filed with the Public Service Commission.

Table RS-2 provides environmental screening information for the lines listed in Table RS-1. Exhibits RS-1 through RS-29 identify the approximate end-points and study areas for each project for which high-level environmental screening information is provided.



10-Year Assessment

An annual report summarizing proposed additions and expansions to the transmission system to ensure electric system reliability.

2006

November 2006 10-Year Assessment
www.atc10yearplan.com

Existing right-of-way

Table RS-3 lists the new, rebuilt or reconductored transmission lines requiring no new right-of-way and whether high-level environmental screening information is provided in this report or can be found in application materials already filed with the Public Service Commission. Table RS-4 provides environmental screening information for the lines listed in Table RS-3.

The projects listed in Tables RS-1 through Table RS-4 do not reflect the entire number of projects included in this assessment that will require some level of environmental assessment. Rather, these projects will require selection of new rights-of-way and are likely to result in new environmental impacts. The environmental screening information highlights some of the environmental concerns that will need to be considered during any route identification process for these projects. Other projects will require environmental assessment, and those assessments will be conducted in the course of finalizing the scope for each of those projects.

Table RS-1
Identified Needs and Transmission Lines Requiring New Right-of-Way

Identified need	Potential solutions	Approx. line mileage		System need year	Projected In-service year	Planning zone	Environmental screening provided?	Comments and/or Corresponding Exhibit Number
		Total	New ROW					
Reduce service limitations, relieve overloads or low voltages under contingency, improve transfer capability & Weston stability	Construct Gardner Park-Stone Lake 345-kV line	140	73.4	1997	2006	1	No	Environmental information included with filing at PSCW - CPCN approved; Exhibit RS-1
T-D interconnection request	Construct new 138-kV line from North Beaver Dam to East Beaver Dam Substation	1.5	1.5	2006	2006	3	No	Environmental information included with filing at PSCW - CPCN approved; Exhibit RS-16
T-D interconnection request	Construct Venus-Metonga 115-kV line	12.5	11.5	2007	2007	1	No	Environmental information included with filing at PSCW - CPCN approved; Exhibit RS-27
Relieve overloads or low voltages under contingency, accommodate new generation	Construct Sprecher-Femrite 138-kV line	2	2	2007	2007	3	No	Environmental information included with filing at PSCW - CPCN approved; Exhibit RS-25
T-D interconnection request, relieve overloads or low voltages under contingency	Construct new 69-kV line from Columbia to Rio to feed the proposed Wyocona Substation	8.16	8.16	2004	2007	3	Yes	Exhibit RS-4
T-D interconnection request	Construct new line from Southwest Delavan to Bristol at 138 kV and operate at 69 kV	3.5	3.5	2007	2007	3	No	Environmental information included with filing at PSCW - CPCN approved; Exhibit RS-24
T-D interconnection request	Construct double circuit 138-kV line from Forest Junction/Howards Grove/Charter Steel to Plymouth #4	1.75	1.75	2007	2007	4	No	Environmental information included with filing at PSCW; Exhibit RS-10
Reduce service limitations, relieve overloads or low voltages under contingency, improve transfer capability & Weston stability	Construct Stone Lake-Arrowhead 345-kV line	70	36.6	1997	2008	1	No	Environmental information included with filing at PSCW - CPCN approved; Exhibit RS-1
Relieve overloads or low voltages under contingency, transfer capability	Construct Cranberry-Conover 115-kV line	14	14	2008	2008	1	No	Environmental information included with filing at PSCW; Exhibit RS-5
T-D interconnection request	Construct Brandon-Fairwater 69-kV line	4	4	2008	2008	1	Yes	Exhibit RS-2
Relieve overloads or low voltages under contingency	Construct a Jefferson-Lake Mills-Stony Brook 138-kV line	12	12	2006	2008	3	No	Environmental information included with filing at PSCW - CPCN approved; Exhibit RS-14
Relieve overloads or low voltages under contingency	Construct a Rubicon-Hustisford 138-kV line	5	5	2008	2008	3	No	Environmental information included with filing at PSCW; Exhibit RS-22
Relieve overloads or low voltages under contingency	Construct a new 138-kV line from North Madison to Huiskamp (was Waunakee)	5	5	2008	2008	3	No	Environmental information included with filing at PSCW; Exhibit RS-18
Relieve overloads or low voltages under contingency	Construct new Oak Ridge-Verona 138-kV line and install a 138/69-kV transformer at Verona Substation	9	3	2009	2009	3	Yes	Exhibit RS-20

Table RS-1
 Identified Needs and Transmission Lines Requiring New Right-of-Way

Identified need	Potential solutions	Approx. line mileage		System need year	Projected In-service year	Planning zone	Environmental screening provided?	Comments and/or Corresponding Exhibit Number
		Total	New ROW					
Relieve overloads or low voltages under contingency, reduce service limitations	String a new 138-kV line from Clintonville-Werner West primarily on Morgan-Werner West 345-kV line structures	16	2	2004	2009	4	No	Environmental information included with filing at PSCW - CPCN approved; Exhibit RS-3
Relieve overloads or low voltages under contingency, reduce service limitations	Construct Morgan-Werner West 345-kV line	47	47	2004	2009	4	No	Environmental information included with filing at PSCW - CPCN approved; Exhibit RS-3
relieve overloads or low voltages under contingency	Construct 345-kV line from Rockdale to West Middleton	35	35	2011	2011	3	Yes	Exhibit RS-21
Relieve overloads or low voltages under contingency	Loop the DeForest to Token Creek 69-kV line into the Yahara River Substation	1	1	2011	2011	3	Yes	Exhibit RS-6
T-D interconnection request	Construct a 69-kV line from SW Ripon Substation to the Ripon-Metomen 69-kV line	1.5	1.5	2012	2012	1	Yes	Exhibit RS-26
T-D interconnection request	Construct a North Lake Geneva-White River 138-kV line	1.4	1.4	2012	2012	3	Yes	Exhibit RS-17
Relieve overloads or low voltages under contingency	Construct 9.94	9.94	9.94	2012	2012	4	Yes	Exhibit RS-23
Relieve overloads or low voltages under contingency	Construct a Lake Delton-Birchwood 138-kV line	5	5	2013	2013	3	Yes	Exhibit RS-15
Accommodate new generation	Construct an Oak Creek-Hale (Brookdale) 345-kV line installing 4 mi. new structures, converting 16.2 mi. of non-operative 230 kV and 5 mi. 138 kV	25.2	4	2013	2013	5	Yes	Exhibit RS-19
Relieve overloads or low voltages under contingency, replace aging facilities	Rebuild/convert Holmes-Chandler 69 kV to 138-kV operation	54	14	2013	2013	2 & 4	Yes	Exhibit RS-12
Relieve overloads or low voltages under contingency	Construct Fairwater-Mackford Prairie 69-kV line	5	5	2014	2014	1	Yes	Exhibit RS-9
Relieve overloads or low voltages under contingency	Construct a Horicon-East Beaver Dam 138-kV line	9	9	2014	2014	3	Yes	Exhibit RS-13
Relieve overloads or low voltages under contingency, T-D interconnection request	Construct new 138-kV line from South Lake Geneva to White River Substation	3	3	TBD	TBD	3	Yes	Exhibit RS-29
Relieve overloads or low voltages under contingency, access initiative	Construct West Middleton-North Madison 345-kV line	20	20	2016	2016	3	Yes	Exhibit RS-28
Relieve overloads or low voltages under contingency	Construct Evansville-Brooklyn 69-kV line	8	8	2016	2016	3	Yes	Exhibit RS-8
Relieve overloads or low voltages under contingency	Construct a second Dunn Road-Egg Harbor 69-kV line	12.66	12.66	2016	2016	4	Yes	Exhibit RS-7

**Table RS-2
Environmental Screening Information for Lines Requiring New Right-of-Way**

Columbia-Rio 69-kV line		Exhibit RS-4
	General Description	New line
	Length (miles)	approximately 9
#1	Screening Area (Sq. mi.- length X width)	approximately 65
#2	Corridor Sharing Opportunities	State highways, railroads, and existing transmission line rights-of-way offer opportunity for corridor sharing.
#3	Public Lands	Wyona County Park, Middle Branch Duck Creek, Duck Creek Campground, local parks associated with Duck Creek, Lake Columbia, Wyona Lake, Jennings Creek, and boat launches associated with area lakes are found in the screening area.
#4	Sensitive Resources	Rock Run Oak Savanna State Natural Area, Jennings Creek State Wildlife Area, Rocky Run Creek State Fishery Area, Duck Creek, Wyona Lake, and Lake Columbia are located in the screening area.
#5	Cultural Resources	The Cultural Map of Wisconsin does not identify any sites within the screening area, however there are several cemeteries known in the screening area.
	Miscellaneous	Several airfields and landing strips are found in the screening area.

Brandon-Fairwater 69-kV line		Exhibit RS-2
	General Description	New line
	Length (miles)	4
#1	Screening Area (Sq. mi.)	17.78
#2	Corridor Sharing Opportunities	Existing road and railroad corridors offer the best corridor sharing opportunities.
#3	Public Lands	Community Park, and WDNR Glacial Habitat Restoration Areas are located within the screening area.
#4	Sensitive Resources	Grand River, W. Branch Rock River, and unnamed streams are located within the study area.
#5	Cultural Resources	The WHS database identifies a number of architectural and historic sites, particularly within the Village of Brandon.
	Miscellaneous	Archaeological sites are identified in proximity to the waterways. There is a low probability of encountering endangered resources.

Table RS-2

Environmental Screening Information for Lines Requiring New Right-of-Way

Oakridge-Verona 138-kV line		Exhibit RS-20
<p>General Description</p> <p>New line - Interconnection with proposed Oakridge distribution substation</p>		
	Length (miles)	approximately 9
#1	Screening Area (Sq. mi.- length X width)	approximately 40
#2	Corridor Sharing Opportunities	Existing transmission line routes and numerous county and local roads offer opportunities for corridor sharing.
#3	Public Lands	U.S. F.W.S Northrup King Wildlife area is located in the project area.
#4	Sensitive Resources	Badger Mill Creek, and other unnamed streams and wetlands are located within the study area.
#5	Cultural Resources	The WHS database has identified architectural and historic sites within the study area.
	Miscellaneous	There is a moderate probability on encountering endangered resources.
Rockdale-West Middleton 345-kV line		Exhibit RS-21
<p>General Description</p> <p>345-kV system tie</p>		
	Length (miles)	approximately 28
#1	Screening Area (Sq. mi.- length X width)	approximately 290
#2	Corridor Sharing Opportunities	New tie from the 345-kV system to relieve system overloads in the Madison area. Additional right-of-way will be required. State and County roads, and existing transmission lines located within the screening area offer the best possibility of corridor sharing.
#3	Public Lands	Numerous city, county, and state parks including Indian Lake, LaFollette, and Festbe County Parks, Governor Nelson and Lake Kegonsa State Parks, portions of the Glacial Drumlin State Trail, and several state fishery and wildlife areas are located within the screening area.
#4	Sensitive Resources	Bean Lake, Red Cedar Lake, and the Hook Lake/Grass Lake state natural areas, and much of the Yahara River drainage basin are found within the screening area
#5	Cultural Resources	The Koshkonong Norwegian Settlement, Bernard-Hoover Boar House, Robert M. LaFollette House, Gilmore House, Olin House, the State Capital, several effigy mound sites, numerous museums, and the Langdon Street, Sherman Avenue, Third Lake Ridge, and University Heights Historic Districts are located within the screening area.
	Miscellaneous	

**Table RS-2
Environmental Screening Information for Lines Requiring New Right-of-Way**

Deforest-Token Creek to Yahara Substation		Exhibit RS-6
	General Description	New line
	Length (miles)	approximately 1.0
#1	Screening Area (Sq. mi.- length X width)	approximately 1.7
#2	Corridor Sharing Opportunities	Highways 19 and 51 are located in the screening area.
#3	Public Lands	Cherokee Marsh fishery area is located near the screening area
#4	Sensitive Resources	Cherokee Marsh and Yahara River are located near the screening area.
#5	Cultural Resources	Cultural Map of Wisconsin does not identify any sites within the screening area.
	Miscellaneous	Commercial and industrial landuses are common/

SW Ripon to the Ripon-Metomen 69-kV line		Exhibit RS-26
	General Description	New line
	Length (miles)	1.5
#1	Screening Area (Sq. mi.)	4
#2	Corridor Sharing Opportunities	County and local roads provide opportunities for corridor sharing.
#3	Public Lands	Barlow Park and Kiwanis Park are within the study area.
#4	Sensitive Resources	Two unnamed streams & associated wetlands are located within the study area.
#5	Cultural Resources	The WHS database identifies numerous architectural and historic sites within the City of Ripon.
	Miscellaneous	There is a low probability of encountering endangered resources.

Table RS-2

Environmental Screening Information for Lines Requiring New Right-of-Way

North Lake Geneva-White River 138-kV line		Exhibit RS-17
New line		
General Description		
Length (miles)	1.4	
Screening Area (Sq. mi.)	2.7	
Corridor Sharing Opportunities		State, county and local roads provide opportunities for corridor sharing. An existing transmission line may offer corridor sharing opportunity for a portion of the line route.
Public Lands		Barlow Park and Kiwanis Park are within the study area.
Sensitive Resources		Como Creek and associated wetlands are located within the project area.
Cultural Resources		The WHS database identifies several archaeological, architectural and historic sites within the project area.
Miscellaneous		There is a low to moderate probability of encountering endangered resources.

Shoto-Custer 138-kV line		Exhibit RS-23
New line		
General Description		
Length (miles)	6.9	
Screening Area (Sq. mi.)	54.3	
Corridor Sharing Opportunities		Existing transmission lines, state, county and local roads provide opportunities for corridor sharing.
Public Lands		Several local parks and the Manitowoc County Airport are located in the project area.
Sensitive Resources		The Manitowoc River, Wet Twin River, several unnamed tributaries and associated wetlands are located in the project area.
Cultural Resources		The WHS database identifies numerous archaeological, architectural and historic sites within the project area.
Miscellaneous		There is a low to moderate probability of encountering endangered resources.

Table RS-2

Environmental Screening Information for Lines Requiring New Right-of-Way

Lake Delton-Birchwood 138-kV line		Exhibit RS-15
New line		
General Description		approximately 5
Length (miles)		approximately 41
#1 Screening Area (Sq. mi.- length X width)		Interstate Highway 90/94, US Highway 12, State Highway 23, several county highways and local electrical distribution lines.
#2 Corridor Sharing Opportunities		
#3 Public Lands		Mirror Lake State Park, Dell Creek wildlife area, Hulburt Creek Woods State Natural Area and Hulburt Creek fishery area.
#4 Sensitive Resources		State Natural Areas and State Parks, Dell Creek, Harrison Creek, Lake Delton, Mirror Lake, Lake Blass, International Crane Foundation are located within the screening area.
#5 Cultural Resources		Cultural Map of Wisconsin identifies Dawn Manor, Seth Peterson cottage, International Crane Foundation, and the H.H. Bennett Studio within the screening area.
Miscellaneous		Ho Chunk tribal lands and the Baraboo Dells Airport are located in the screening area.

Oak Creek-Brookdale 345-kV line		Exhibit RS-19
New transmission line segments along with conversion of 16-mile 138-kV segment to 345 kV.		
General Description		approximately 24 total, 4 of new right-of-way approximately 200
Length (miles)		Several state and county roads and existing 138, 230, and 345 kV line routes exist in the screening area.
#1 Screening Area (Sq. mi.- length X width)		Racine and Milwaukee County Parkland, Root River Parkway, Whitnall Park.
#2 Corridor Sharing Opportunities		Root River and Tributaries, Big Muskego Lake, State Natural Areas (Gravel Pit Woods, Caddy Vista Woods, Stone Woods, County Line Lowland Woods, and a few locally significant areas identified in a SEWRPC report).
#3 Public Lands		The Ben Hunt Cabin is identified in the screening area on the Cultural Map of Wisconsin.
#4 Sensitive Resources		Some additional right-of-way needed, Hales Corners Airport.
#5 Cultural Resources		
Miscellaneous		

Table RS-2

Environmental Screening Information for Lines Requiring New Right-of-Way

Holmes -Chandler 69-kV line		Exhibit RS-12
	General Description	Rebuild/convert to 138-kV operation
	Length (miles)	54
#1	Screening Area (Sq. mi.)	87.54
#2	Corridor Sharing Opportunities	US Hwy 2, numerous county and local roads, and railroad corridors provide opportunities for corridor sharing.
#3	Public Lands	Escanaba River State Forest, and other state owned land along RR corridor.
#4	Sensitive Resources	Numerous wetlands
#5	Cultural Resources	None identified
	Miscellaneous	There is a moderate probability of encountering endangered resources.

Fairwater-Mackford Prairie 69-kV line		Exhibit RS-9
	General Description	New line
	Length (miles)	5
#1	Screening Area (Sq. mi.- length X width)	44.9
#2	Corridor Sharing Opportunities	State and County roads, railroad corridor, and existing electrical distribution lines routes located within the screening corridor offer the potential for corridor sharing.
#3	Public Lands	WDNR owns several parcels of "scattered wildlife" lands along the Grand River corridor.
#4	Sensitive Resources	The Grand river and associated wetlands are located in the project area.
#5	Cultural Resources	The WHS database identifies numerous archaeological, architectural and historic sites within the screening area. Cultural Map of Wisconsin does not identify any sites within the screening area.
	Miscellaneous	There is a moderate probability on encountering endangered resources.

Table RS-2

Environmental Screening Information for Lines Requiring New Right-of-Way

Horicon-East Beaver Dam 138-kV line		Exhibit RS-13
	General Description	New line
	Length (miles)	approximately 9
#1	Screening Area (Sq. mi.- length X width)	approximately 65
#2	Corridor Sharing Opportunities	Highway 33, county highways, and a railroad right-of-way offer possible sharing opportunities.
#3	Public Lands	Portions of Horicon Marsh and Shaw Marsh wildlife areas and the Wild Goose Trail are within the screening area.
#4	Sensitive Resources	Horicon and Shaw Marsh, Rock River, Pratt Creek, Schulz Creek, Crystal Creek, Park Creek and Beaver Dam River are located in the screening area.
#5	Cultural Resources	Cultural Map of Wisconsin does not identify any sites within the screening area.
	Miscellaneous	

South Lake Geneva-White River 138-kV line		Exhibit RS-29
	General Description	New line
	Length (miles)	3
#1	Screening Area (Sq. mi.)	25.94
#2	Corridor Sharing Opportunities	US Hwy 12 and State Hwy 120, along with other roads offer opportunities for corridor sharing, along with the existing transmission line Y-152
#3	Public Lands	Big Foot Beach State Park and other WDNR owned lands are located within the study area.
#4	Sensitive Resources	Lake Geneva, Lake Como, and a number of large wetland complexes are located within the study area.
#5	Cultural Resources	The WHS database identifies archaeological and historic resources in the study area, particularly located near Lake Geneva.
	Miscellaneous	There is a moderate probability on encountering endangered resources.

Table RS-2

Environmental Screening Information for Lines Requiring New Right-of-Way

West Middleton-North Madison 345-kV line		Exhibit RS-28
	General Description	New line
	Length (miles)	approximately 20
#1	Screening Area (Sq. mi.- length X width)	approximately 42
#2	Corridor Sharing Opportunities	U.S. Highways 12 & 14, State Highways 113 & 19, several county highways, and local electrical distribution lines offer possible sharing opportunities.
#3	Public Lands	Lodi Marsh wildlife area, county and local parks.
#4	Sensitive Resources	Pheasant Branch, Black Earth Creek, Halfway Prairie Creek, Six Mile Creek, tributaries to the Yahara River, Brandenburg Lake, Lodi Marsh State Natural Area.
#5	Cultural Resources	Cultural Map of Wisconsin does not identify any sites within the screening area.
	Miscellaneous	Morey Airport

Evansville-Brooklyn 69-kV line		Exhibit RS-8
	General Description	New line
	Length (miles)	8
#1	Screening Area (Sq. mi.)	55.08
#2	Corridor Sharing Opportunities	US Hwy 14, and numerous county and local roads, along with a railroad corridor, offer opportunities for corridor sharing.
#3	Public Lands	Evansville Wildlife Area
#4	Sensitive Resources	Allen Creek and Tributaries, and a tributary of Badfish Creek are located within the study area.
#5	Cultural Resources	The WHS database identifies architectural and historic sites, particularly concentrated within the Village of Brooklyn and the City of Evansville. Two archaeological sites are identified within the study area.
	Miscellaneous	There is a moderate probability of encountering endangered resources.

Table RS-2

Environmental Screening Information for Lines Requiring New Right-of-Way

Dunn Road-Egg Harbor 69-kV line		Exhibit RS-7
Construct a second line		
General Description	12.66	
Length (miles)	82.7	
#1 Screening Area (Sq. mi.)		State Hwy 42 and existing transmission line X-24A provide the best opportunities for corridor sharing, along with county and local roads.
#2 Corridor Sharing Opportunities		None identified
#3 Public Lands		The study area is adjacent to Lake Michigan.
#4 Sensitive Resources		The WHS database identifies several architectural and historic sites within the study area, many are located near State Hwy 42.
#5 Cultural Resources		There is a high probability of encountering endangered resources.
Miscellaneous		

NOTES:

- #1 Screening Area Width: For lines 0-5 miles long, screening area width equals length of segment: for lines 5-15 miles long, screening area width equals 5 miles; for lines > 15 miles long, screening area width equals 30% of line length.
- #2 Corridor Sharing Opportunities: Identify dominant corridor types.
- #3 Public Lands: Identify properties by name.
- #4 Sensitive Resources: List major stream crossings, significant topographic features, designated natural areas, etc.
- #5 Cultural Resources: List resources shown on the statewide cultural resources map.

Table RS-3
Transmission Line Rebuilds/Reconductors, New Circuits and Voltage Conversions on Existing Right-of-Way

Identified need	Lines to be rebuilt/reconstructed on existing ROW	Approx. mileage of rebuilt, reconstructed or uprated lines	System need year	Projected In-service year	Planning zone	Environmental screening provided?	Comments and/or Exhibit Number
Relieve overloads or low voltages under contingency	Reconductor Stratford-McMillan 115-kV line (MEWD portion)	10	2006	2006	1	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency, reduce service limitations, replace aging facilities	Rebuild Stiles-Amberg double circuit 138-kV line	45	1996	2006	2 & 4	No	Detailed environmental information contained in filing at PSCW
Accommodate new generation, relieve overloads or low voltages under contingency	Rebuild Weston-Sherman St. and Sherman St.-Hilltop 115-kV lines as double circuits with a new Gardner Park-Hilltop 115-kV line	9.5	2007	2007	1	No	Detailed environmental information contained in filing at PSCW
Achieve transfer capability associated with Arrowhead-Gardner Park, relieve overloads or low voltages under contingency, accommodate new generation	Reconductor Weston-Northpoint 115-kV line	24	2007	2007	1	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency, accommodate new generation	Convert Kegonsa-McFarland-Femrite 69-kV line to 138 kV	5.9	2007	2007	3	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency	Convert Sycamore-Reiner-Sprecher from 69 kV to 138 kV	6.5	2007	2007	3	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency	String a new Elinwood-Sunset Point 138-kV line on existing structures	3.58	2007	2007	4	Yes	Uprate/Reconductor
Relieve overloads or low voltages under contingency	Uprate North Appleton-Lawn Road-White Clay 138-kV line	29.8	2007	2007	4	No	Uprate/Reconductor
Achieve transfer capability associated with Arrowhead-Gardner Park	Upgrade Kelly-Whitcomb 115-kV line conductor clearances to 300F	24	2008	2008	1	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency, replace aging facilities	Rebuild Atlantic-Oscola 69-kV line (Laurium #1)	13.7	2006	2008	2	Yes	
Relieve overloads or low voltages under contingency	Increase ground clearance of M38-Atlantic 69-kV line from 120 to 167 degrees F	22	2008	TBD	2	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency	Rebuild Hustisford-Horicon 69 kV to 138 kV	8	2008	2008	3	Yes	Exhibit RS-22
Relieve overloads or low voltages under contingency	Rebuild the Verona to Oregon 69-kV line Y119	11	2008	2008	3	Yes	
Generation interconnection, relieve overloads or low voltages under contingency	Rebuild Brodhead to South Monroe 69-kV line	18	2008	2008	3	Yes	
Relieve overloads or low voltages under contingency	Rebuild Crivitz-High Falls 69-kV double circuit line	14.5	2008	2008	4	Yes	
Relieve overloads or low voltages under contingency, reduce service limitations	Uprate North Appleton-Mason Street 138-kV line	21	2008	2008	4	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency, reduce service limitations	Uprate North Appleton-Lost Dauphin 138-kV line	12	2008	2008	4	No	Uprate/Reconductor
Accommodate new generation	Reconductor Pleasant Valley-Saukville 138-kV line	12	2008	2008	5	Yes	

Table RS-3
Transmission Line Rebuilds/Reconductors, New Circuits and Voltage Conversions on Existing Right-of-Way

Identified need	Lines to be rebuilt/reconstructed on existing ROW	Approx. mileage of rebuilt, reconducted or uprated lines	System need year	Projected In-service year	Planning zone	Environmental screening provided?	Comments and/or Exhibit Number
Accommodate new generation	Reconductor Pleasant Valley-St Lawrence 138-kV line	7	2008	2008	5	Yes	
Reduce service limitations, relieve overloads or low voltages under contingency, improve transfer capability and Weston stability	Construct Gardner Park-Central Wisconsin 345-kV line	47	2009	2009	1	No	Detailed environmental information contained in filing at PSCW; Exhibit RS-11
Maintenance	Rebuild Hiawatha-Pine River 69-kV line ESE_6908	48.28	2009	2009	2	Yes	
Relieve overloads or low voltages under contingency, transfer capability	Rebuild/convert Conover-Plains 69-kV line to 138 kV	73	2009	2009	2	No	Detailed environmental information contained in filing at PSCW; Exhibit RS-5
Relieve overloads or low voltages under contingency	Convert Rock River to Elkhorn 138-kV operation; rebuild Bristol with a new 138 kV bus	27.74	2008	2009	3	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency	Rebuild 2.37 miles of 69 kV from Sunset Point to Pearl Ave with 477 ACSR	2.37	2009	2009	4	Yes	
Accommodate new generation	Reconductor Oak Creek-Ramsey 138-kV line	8.5	2009	2009	5	No	Uprate/Reconductor
Accommodate new generation	Reconductor Oak Creek-Allerton 138-kV line	5.41	2009	2009	5	No	Uprate/Reconductor
Accommodate new generation	Loop Ramsey5-Harbor 138-kV line into Norwich and Kansas to form new Ramsey-Norwich and Harbor-Kansas 138-kV lines	5.72	2009	2009	5	No	Uprate/Reconductor
Access initiative, relieve overloads or low voltages under contingency	Construct Monroe County-Council Creek 161-kV line	20	2010	2010	1	Yes	
Access initiative, relieve overloads or low voltages under contingency	Uprate Council Creek-Petenwell 138-kV line	32	2010	2010	1	No	Uprate/Reconductor
Access initiative, relieve overloads or low voltages under contingency	Rebuild/reconductor Petenwell-Saratoga 138-kV line	23	2010	2010	1	Yes	
Relieve overloads or low voltages under contingency	Convert Indian Lake-Hiawatha 69-kV line to double-circuit 138-kV operation, construct new Hiawatha 138-kV Substation	40	2010	TBD	2	No	Conversion only - no construction
Access initiative	Construct second Paddock-Rockdale 345-kV line	35	2010	2010	3	Yes	
Relieve overloads or low voltages under contingency	Rebuild/reconductor Town Line Road-Bass Creek 138-kV line	9	2010	2010	3	Yes	
Accommodate new generation	Uprate Oak Creek-Nicholson 138-kV line A second distribution transformer at Somers Substation requires a rebuild of the Racine-Somers-Albers 138-kV line; extend Albers 138-kV bus to permit connecting the Racine-Somers-Albers radial line to the Albers 138-kV bus	6.8	2010	2010	5	No	Uprate/Reconductor
T-D interconnection request		8	2011	2011	5		
Relieve overloads or low voltages under contingency, replace aging facilities	Rebuild Blaney Park-Munising 69 kV to 138 kV	50	2012	2012	2	Yes	
Relieve overloads or low voltages under contingency	Construct Huiskamp-Blount 138-kV line	5	2012	2012	3	Yes	

Table RS-3
Transmission Line Rebuilds/Reconductors, New Circuits and Voltage Conversions on Existing Right-of-Way

Identified need	Lines to be rebuilt/reconstructed on existing ROW	Approx. mileage of rebuilt, reconducted or uprated lines	System need year	Projected In-service year	Planning zone	Environmental screening provided?	Comments and/or Exhibit Number
Relieve overloads or low voltages under contingency	Construct Canal-Dunn Road 138-kV line	7.64	2012	2012	4	Yes	
Accommodate new generation	Construct Oak Creek-St. Martins 138-kV circuit #2 installing 16.6 mi. conductor on existing towers	16.6	2013	2013	5	Yes	
Accommodate new generation	Construct a Hale (Brookdale)-Granville 345-kV line converting/reconducting 5.6 mi. 138 kV, rebuilding 7 mi. 138 kV double circuit tower line and converting/reconducting 3 mi. 138 kV on existing 345 kV structures	15.6	2013	2013	5	Yes	
Accommodate new generation	Restring Bluemound-Butler 138-kV line (KK5051) on new 345-kV structures installed with Hale (Brookdale)-Granville line	5.41	2013	2013	5	No	Included in Hale - Granville
Accommodate new generation	String Butler-Tamarack 138-kV line on new 345-kV structures installed with Hale (Brookdale)-Granville line	4.12	2013	2013	5	No	Included in Hale - Granville
Relieve overloads or low voltages under contingency	Reconfigure the North Randolph-Ripon 69-kV line to form a second Ripon-Metomen 69-kV line and retire the circuit between Metomen and the Mackford Prairie tap	5	2014	2014	1	No	No construction on right-of-way
Accommodate new generation	Reconductor Cornell-Range Line 138-kV line	2.43	2014	2014	5	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency	Reconductor Pulliam-Danz 69-kV line	3	2015	2015	4	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency	Reconductor Danz-Henry Street 69-kV line	1.5	2015	2015	4	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency	Reconductor Pulliam-Van Buren 69-kV line	2	2015	2015	4	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency	Construct West Middleton-Blount 138-kV line	5	2016	2016	3	Yes	
Relieve overloads or low voltages under contingency	Uprate the Royster to Sycamore 69-kV line to 115 MVA	3.35	2016	2016	3	No	Uprate/Reconductor
Relieve overloads or low voltages under contingency	Construct a Northside-City Limits 138-kV line	3.16	2016	2016	4	Yes	
Relieve overloads or low voltages under contingency, replace aging facilities	Rebuild/Convert Bayport-Suamico-Sobieski-Pioneer 69-kV line to 138 kV	21.5	2016	2016	4	Yes	

Table RS-4

Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

Ellinwood-Sunset Point 138-kV line	
General Description	String a new line on existing structures
Length (miles)	3.58
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	None identified
Sensitive Resources	Fox River Crossing
Cultural Resources	The Cultural Map of Wisconsin identifies no historic resources in the vicinity of the existing line.
Miscellaneous	
Atlantic-Osceola 69-kV line (Laurium #1) rebuild	
General Description	Rebuild
Length (miles)	13.7
Screening Area (Sq. mi.- length X width)	Existing Corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	None identified
Sensitive Resources	Extensive wetlands and forested lands are located along the route.
Cultural Resources	Cultural resources may be found in the area due to the proximity to the shore of Lake Superior and the Portage River & Ship Canal.
Miscellaneous	Much of the route follows existing road and railroad corridors.
Hustisford-Horicon 69-kV line rebuild	
Exhibit RS-22	
General Description	Rebuild to 138 kV
Length (miles)	8
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	Existing line is adjacent to 40 acres of Wisconsin DNR public hunting grounds.
Sensitive Resources	The existing line crosses extensive wetland areas and requires crossing Wildcat Creek and the Rock River.
Cultural Resources	The Cultural Map of Wisconsin identifies no historic resources in the vicinity of the existing line
Miscellaneous	

Table RS-4

Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

Verona-Oregon 69-kV line rebuild	
General Description	Rebuild
Length (miles)	11
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A-Existing transmission line corridor.
Public Lands	Hook Lake and Grass Lake Wildlife Area and Natural Area, USFWS land
Sensitive Resources	Potential crossing of a few unnamed streams, limited wetlands, low potential to encounter threatened and endangered species.
Cultural Resources	The Cultural Map of Wisconsin identifies no historic resources in the vicinity of the existing line
Miscellaneous	The Muck Farms Airport, Tesmer Field, and Ha-Rail Field are located in the screening area.

Brodhead-South Monroe 69-kV line rebuild	
General Description	Rebuild
Length (miles)	18
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	None identified
Sensitive Resources	The existing line crosses a number of streams.
Cultural Resources	The Cultural Map of Wisconsin identifies a number of historic sites in and around the City of Monroe.
Miscellaneous	There is a low potential for encountering endangered resources.

Crivitz-High Falls 69-kV line rebuild	
General Description	Rebuild double-circuit line
Length (miles)	14.5
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	Line passes through more than 1 mile of DNR land.
Sensitive Resources	The existing line nears and crosses the Peshtigo River (designated as an Outstanding Resource Water) multiple times, crosses approximately 4 other streams, and passes through several wetland areas.
Cultural Resources	The Cultural Map of Wisconsin identifies the High Falls Hydroelectric Plant as a historic resource.
Miscellaneous	This route passes primarily thorough undeveloped forested areas.

Table RS-4
 Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

Pleasant Valley-Saukville 138-kV line rebuild	
General Description	Rebuild 138-kV line
Length (miles)	12
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	No state-owned lands are crossed along the route.
Sensitive Resources	Cedarburg Bog Natural Area and Jackson Marsh Wildlife Area are located near this line. Several streams and wetlands are found along this route.
Cultural Resources	The Village of Saukville is located near the eastern end of the line route.
Miscellaneous	Due to the proximity of this route to Jackson Marsh and Cedarburg Bog, there is a moderate to high likelihood of encountering rare species on this route.

Pleasant Valley-St. Lawrence 138-kV line rebuild	
General Description	Rebuild 138-kV line
Length (miles)	7
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	No state-owned lands are crossed along the route.
Sensitive Resources	Cedar Creek and various unnamed creeks, and associated wetland areas are found along this route.
Cultural Resources	The Cultural Map of Wisconsin identifies no historic resources along the existing corridor.
Miscellaneous	Due to the primarily agricultural setting of this line, there is a moderate likelihood of encountering rare species on this route.

Table RS-4

Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

Hiawatha-Pine River 69-kV line rebuild	
General Description	Rebuild 69-kV line
Length (miles)	48
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	The majority of the existing line passes through the Hiawatha National Forest and the Lake Superior State Forest.
Sensitive Resources	Numerous wetlands and streams.
Cultural Resources	Due to the undeveloped nature of much of the lands along this line route, there is a moderate to high probability of identifying archaeological and historic sites in the vicinity of the corridor.
Miscellaneous	There is a high probability of encountering rare species. This line passes through primarily undeveloped forested areas.

Sunset Point-Pearl Avenue 69-kV line rebuild	
General Description	Rebuild a portion of the line
Length (miles)	2.37
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	Riverside Cemetery
Sensitive Resources	The existing line is adjacent to the Fox River, and passes through a few wetland areas.
Cultural Resources	The Cultural Map of Wisconsin identifies several historic sites located in the vicinity of the existing corridor along the Fox River.
Miscellaneous	The existing line passes through primarily urbanized areas.

Monroe County-Council Creek 161-kV line	
General Description	Construct line
Length (miles)	20
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	Eiroy-Sparta State Trail, Fort McCoy Barrens State Natural Area
Sensitive Resources	The existing line crosses a number of waterways and associated wetland areas, including: Farmers Valley Creek, Silver Creek, Chub Creek, Council Creek, South Fork Lemon weir River, and some unnamed streams.
Cultural Resources	The Cultural Map of Wisconsin identifies historic sites within the cities of Tomah and Sparta, along with the Eiroy-Sparta state trail.
Miscellaneous	There is a moderate probability of encountering endangered resources.

Table RS-4
 Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

Petenwell-Saratoga 138-kV line rebuild	
General Description	Rebuild
Length (miles)	23
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	None identified
Sensitive Resources	Portions of the existing line are adjacent to Petenwell Lake, and cross the Wisconsin River at the base of the lake. The line also crosses numerous wetlands associated with Petenwell Lake and the Wisconsin River. Sevenmile Creek, Tenmile Creek, Fourteenmile Creek, and their associated wetlands also must be crossed.
#5 Cultural Resources	The Cultural Map of Wisconsin identifies no historic resources along the existing corridor.
Miscellaneous	

Paddock-Rockdale 345-kV line	
General Description	Construct 345-kV line along existing right-of-way
Length (miles)	35
Screening Area (Sq. mi.- length X width)	Existing transmission line corridors
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	No significant public lands were identified along the route of the existing 345 kV transmission line. Several county parks, and other public lands are scattered throughout the screening area.
#4 Sensitive Resources	The Rock River, Bass and Saunders Creeks, along with their tributaries, and tributaries to Koshkonong Creek, several wetlands, and remnant prairies are located within the screening area.
#5 Cultural Resources	The Cultural Map of Wisconsin identifies several cultural resources in the screening area. The potential for encountering cultural and historic resources is moderate in the screening area with higher potential at the crossings of the Rock River and Bass Creek
Miscellaneous	The project area lies within the Southeast Glacial Plain ecological landscape. The majority of the existing line route crosses lands that are predominately in agricultural usage. There is a low to moderate probability of encountering endangered resources.

Table RS-4

Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

Town Line Road-Bass Creek 138-kV line rebuild	
General Description	Rebuild 138-kV line
Length (miles)	9
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	WDNR owns lands along the existing line.
Sensitive Resources	The existing line crosses Bass Creek, and a few streams and associated wetlands. Much of the existing line is adjacent to Bass Creek. Ressler Railroad Prairie is located along the line route. The Cultural Map of Wisconsin identifies no cultural resources in the project area. The route does pass near several known archaeological sites.
Cultural Resources	There is a moderate to high likelihood of encountering rare species on this route.
Miscellaneous	

Racine-Somers-Albers 138-kV line rebuild	
General Description	Rebuild 138-kV line
Length (miles)	8
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	No state-owned lands were identified along the route.
Sensitive Resources	The Pike River, several unnamed tributaries, and associated wetlands are located along the line route.
Cultural Resources	There are several known archaeological sites located along the line route. There is a moderate to high likelihood of encountering archaeological resources on this route.
Miscellaneous	There is a moderate to high likelihood of encountering rare species on this route.

Table RS-4

Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

Blaney Park-Munising 69-kV line conversion to 138 kV	
General Description	Rebuild to 138 kV
Length (miles)	50
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	Hiawatha National Forest, Escanaba River State Forest, Lake Superior State Forest, and Seney National Wildlife Refuge.
Sensitive Resources	The existing line passes through numerous wetlands.
Cultural Resources	None identified
Miscellaneous	There is high potential for encountering rare species.

Huiskamp-Blount 138-kV line	
General Description	Construct 138-kV line
Length (miles)	5
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	Stae owned lands include the Cherokee Marsh access and the Castle Marsh Fishery Area.
Sensitive Resources	The existing line crosses The Yahara River, Cherokee Marsh, and the Castle Marsh Fishery Area and associated wetlands and passes near Lake Mendota and Monona.
Cultural Resources	Due to the proximity of this route to the Yahara River and the City of Madison, there is a moderate to high likelihood of encountering archaeological resources near this route.
Miscellaneous	Due to the primarily urban setting of this line, there is a moderate likelihood of encountering rare species on this route.

Canal-Dunn Road 69-kV line	
General Description	Construct line
Length (miles)	7.64
Screening Area (Sq. mi.- length X width)	Existing corridor
Corridor Sharing Opportunities	N/A – existing transmission line corridor.
Public Lands	None identified
Sensitive Resources	The existing line crosses Sturgeon Bay and one unnamed stream.
Cultural Resources	There is low probability of encountering endangered resources.
Miscellaneous	

Table RS-4

Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

Oak Creek-St. Martins 138-kV line	
General Description	Add new conductor to existing structures
Length (miles)	16.6
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	No state-owned lands or major parklands are crossed on this route.
#4 Sensitive Resources	The Root River , Ryan Creek and associated wetland areas are crossed on this route.
#5 Cultural Resources	The Cultural Map of Wisconsin identifies no cultural resources in the project area. The route does pass near several known archaeological sites.
Miscellaneous	There is a moderate potential of encountering endangered resources.

Hale (Brookdale)-Granville 345-kV line	
General Description	Convert/reconductor on existing structures
Length (miles)	15.6
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	No state owned lands identified, route crosses several local and county owned parks and parkways.
#4 Sensitive Resources	Route crosses the Root River, Underwood Creek, and the Little Menomonee Rivers.
#5 Cultural Resources	Route passes through or adjacent to 3 archaeological sites
Miscellaneous	Much of the existing line runs through urbanized areas. There is a low-moderate probability of encountering rare species.

Table RS-4
 Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

West Middleton-Blount 138-kV line	
General Description	Construct 138-kV line
Length (miles)	5
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	The existing line parallels a recreational trail and golf course.
#4 Sensitive Resources	This line is primarily through a highly urbanized area, much of the existing line is underground. There are a few small wetlands and unnamed streams near the existing overhead portions east of West Middleton.
#5 Cultural Resources	The Cultural Map of Wisconsin identifies a number of historic resources in the vicinity of the existing corridor.
Miscellaneous	

Northside-City Limits 138-kV line	
General Description	Construct 138-kV line
Length (miles)	3.16
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	None identified
#4 Sensitive Resources	The existing line crosses two streams and one wetland.
#5 Cultural Resources	The Cultural Map of Wisconsin identifies no resources in the project area.
Miscellaneous	There is low potential for encountering rare species. The existing line passes through a highly urbanized area.

Table RS-4

Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

Bayport-Suamico-Sobieski-Pioneer rebuild/conversion	
General Description	Rebuild/Convert to 138 kV
Length (miles)	21.5
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	None identified
#4 Sensitive Resources	The existing line crosses numerous wetlands and streams, including the Fox, Oconto, Pensaukee, Suamico, and Little Suamico Rivers; Duck, Haller, Spring, Brookside, and Kirchner Creeks, and several unnamed streams.
#5 Cultural Resources	Due to the proximity of this route to Green Bay near the mouth of the Fox River, there is a moderate to high likelihood of encountering archaeological resources on this route. The Cultural Resources Map of Wisconsin identifies one historic site within the Town of Suamico. Due to the proximity of this route to Green Bay and the Fox River, there is a moderate to high likelihood of encountering rare species on this route.
Miscellaneous	

NOTES:

- #1 Screening Area Width: For projects on existing rights-of-way the screening area consists of the current location and lands immediately adjacent.
- #2 Corridor Sharing Opportunities: Identify dominant corridor types.
- #3 Public Lands: Identify properties by name.
- #4 Sensitive Resources: List major stream crossings, significant topographic features, designated natural areas, etc.
- #5 Cultural Resources: List resources shown on the statewide cultural resources map.

Siting Process for Identifying New Electric Transmission Corridors

Define Project Study Area

ATC first round
of open houses

Define opportunities within project study area

Define and map sensitivities within project study area

Develop composite map of opportunities and sensitivities

Define potential siting corridors based on
opportunities and sensitivities

ATC second round
of open houses

Analyze and refine corridors

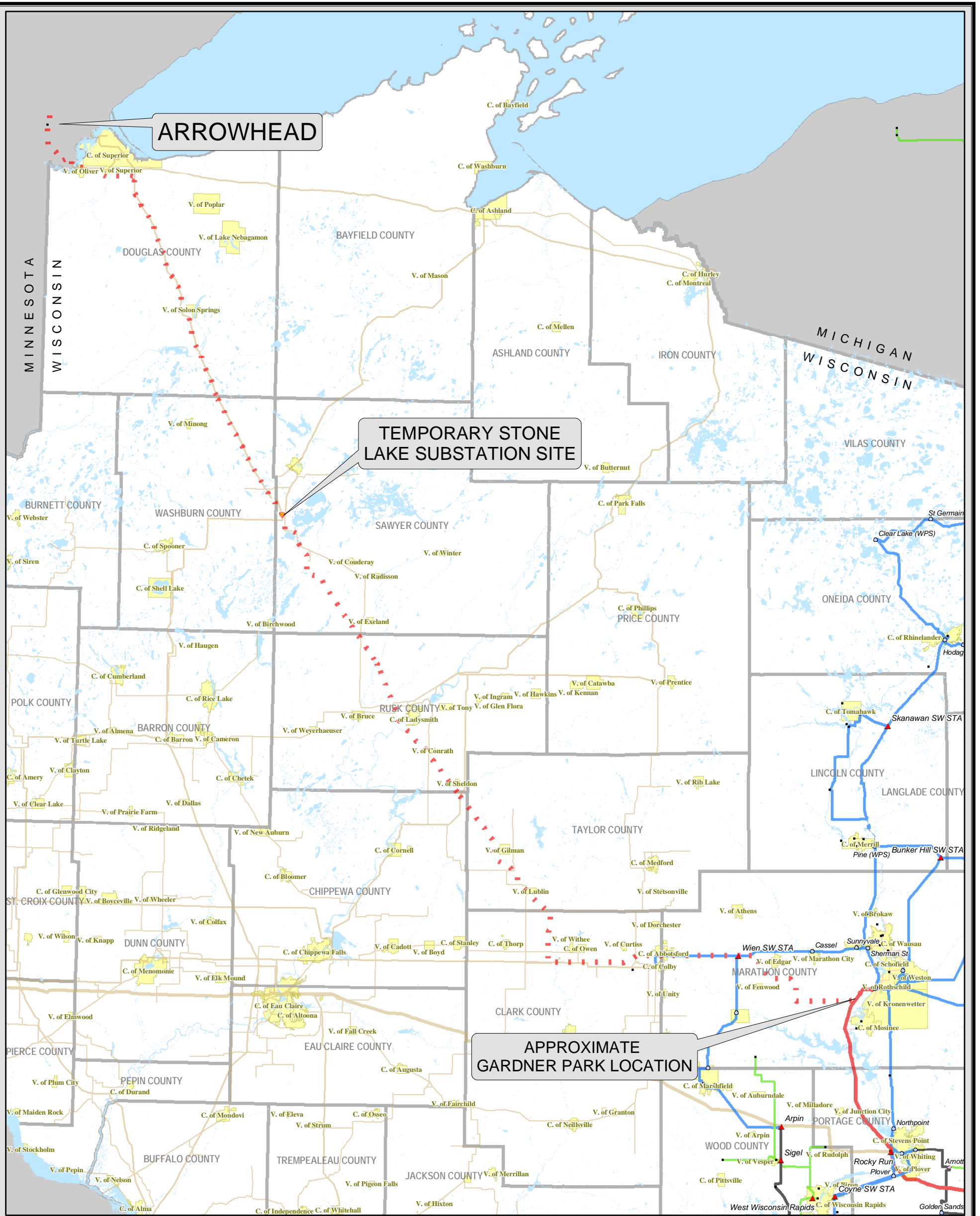
Select preliminary routes

ATC third round
of open houses

Evaluate preliminary routes

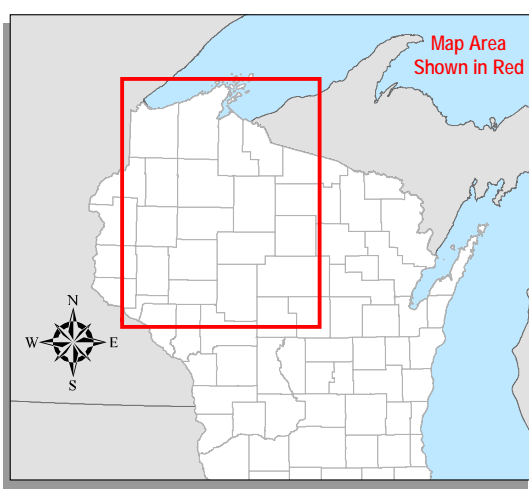
Select and map preferred and alternate routes

Conduct environmental characterization of routes

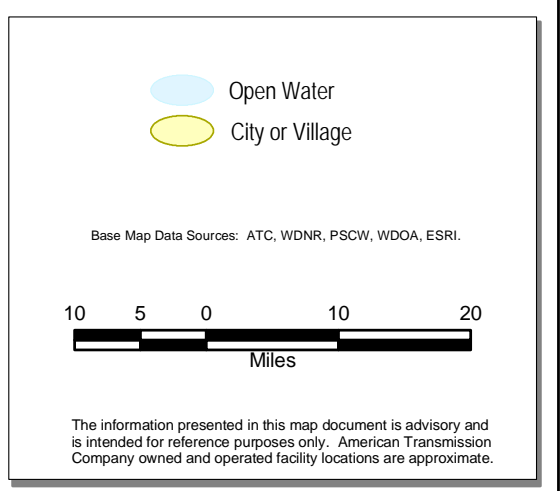


ATC
AMERICAN TRANSMISSION COMPANY
 THE ENERGY ACCESS COMPANY

PLANNED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
 Construct Gardner Park-Stone Lake 345 kV Line and
 Construct Stone Lake-Arrowhead 345 kV Line

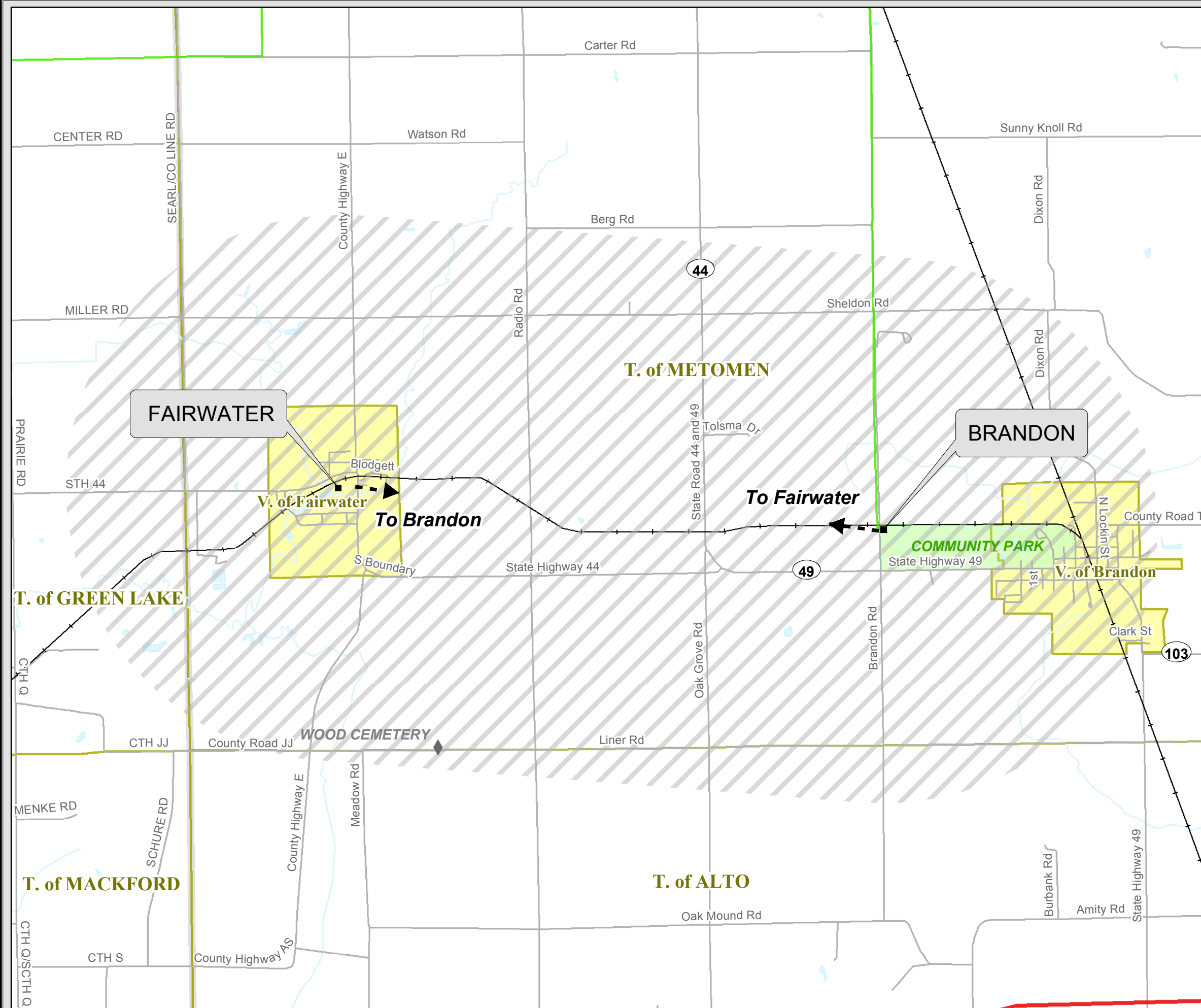
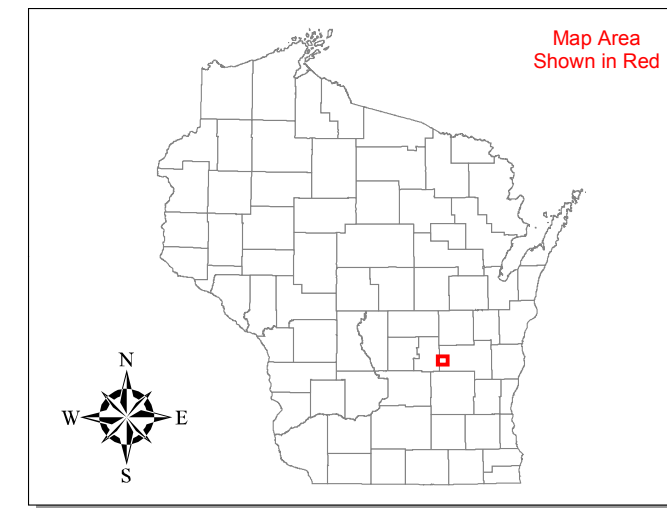


- Transmission Facilities**
- | | |
|---------------------------|----------------------------------|
| Transmission Sites | Transmission Lines |
| ▲ ATC Owned | — Proposed 345 kV Single Circuit |
| ◆ Joint Owned - Conveyed | — 345 kV Single Circuit |
| ● Joint Owned - Retained | — 115 kV Single Circuit |
| ☐ Generation | — 69 kV Single Circuit |
| ■ Muni or Distribution | — Non-ATC Transmission Line |
| ■ Design or Construction | |



**PROVISIONAL TRANSMISSION LINE
REQUIRING NEW RIGHT-OF-WAY**

Construct Brandon-Fairwater 69 kV Line



Transmission Facilities

- | | |
|-----------------------------|---------------------------|
| Transmission Lines * | Transmission Sites |
| 69 kV | ▲ ATC Owned |
| Single Circuit | ◆ Joint Owned - Conveyed |
| Double Circuit | ● Joint Owned - Retained |
| 138 kV | ■ Generation |
| Single Circuit | ■ Muni or Distribution |
| Double Circuit | ■ Design or Construction |

◆ Public Sites	○ Open Water
○ Park Areas	○ City or Village
○ Preliminary Screening Area	○ Town Boundary

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

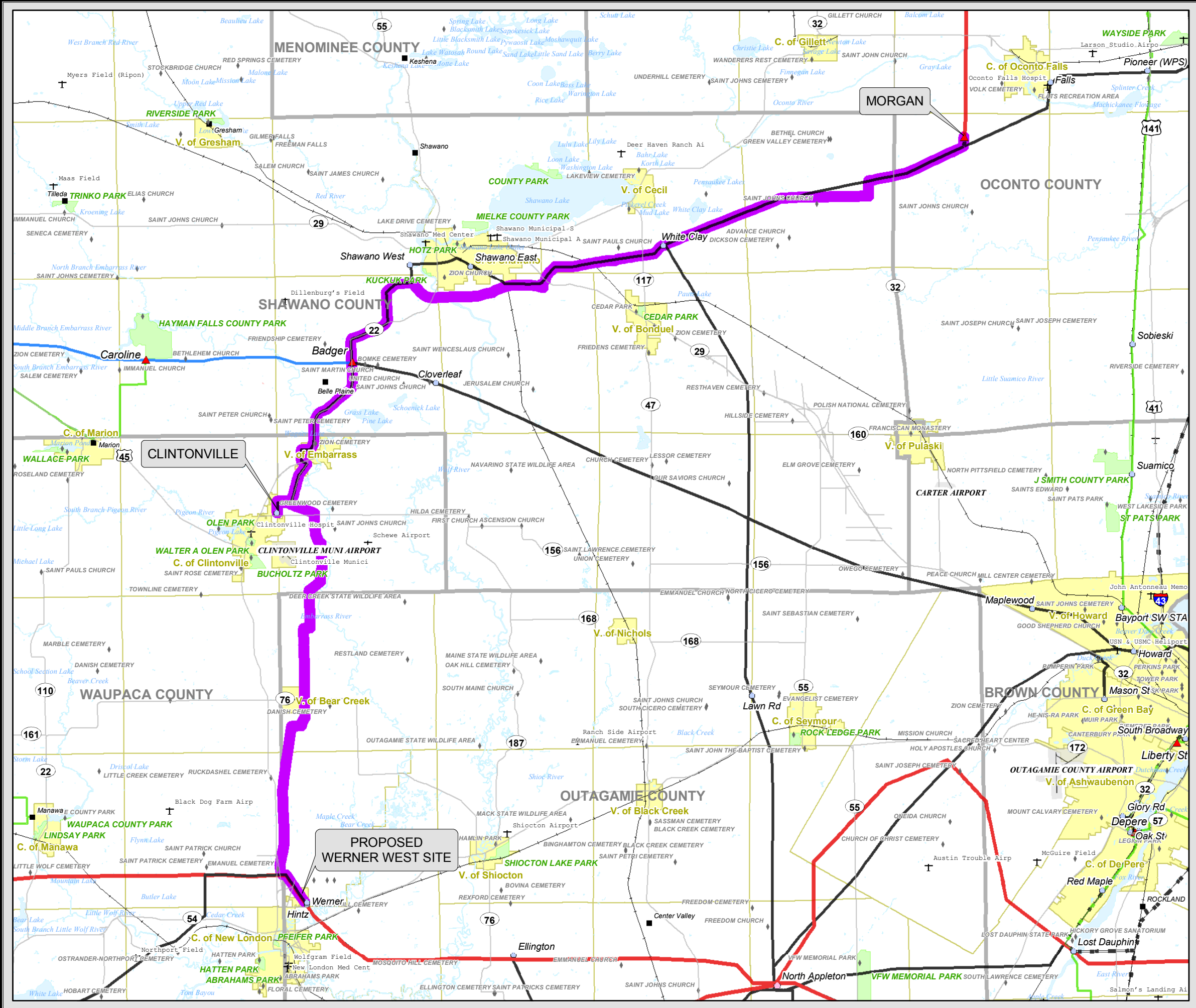
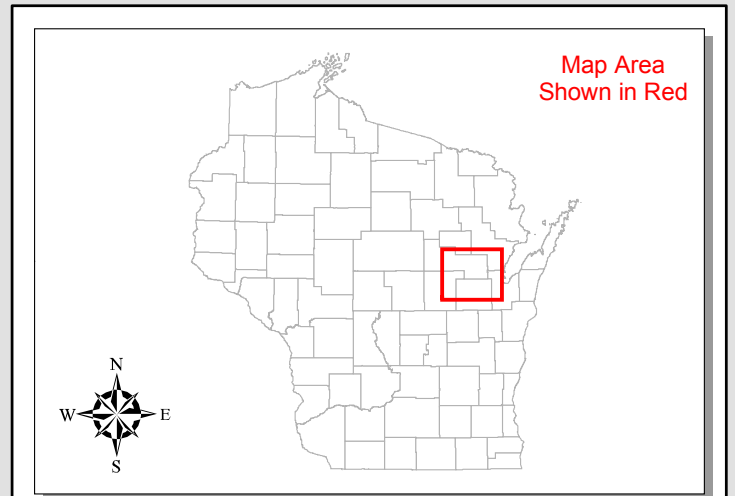


The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.

* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



PLANNED TRANSMISSION LINES REQUIRING NEW RIGHT-OF-WAY
 Construct Morgan to Werner West 345 kV Line and
 String Clintonville to Werner West 138 kV Line
 Primarily on Morgan to Werner West 345 kV Line



Transmission Facilities

Transmission Sites

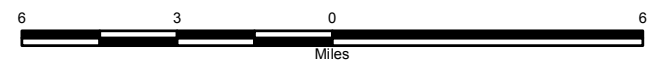
- ▲ ATC Owned
- ◆ Joint Owned - Conveyed
- Joint Owned - Retained
- Muni or Distribution
- Design or Construction
- Proposed Distribution Substation

Transmission Lines

- 69 kV**
 - Single Circuit
 - Double Circuit
 - Underground
- 115 kV**
 - Single Circuit
 - Double Circuit
- 138 kV**
 - Single Circuit
 - Double Circuit
 - Underground
- 345 kV**
 - Single Circuit
 - Double Circuit

PSC Approved Route
 Approved June 2006

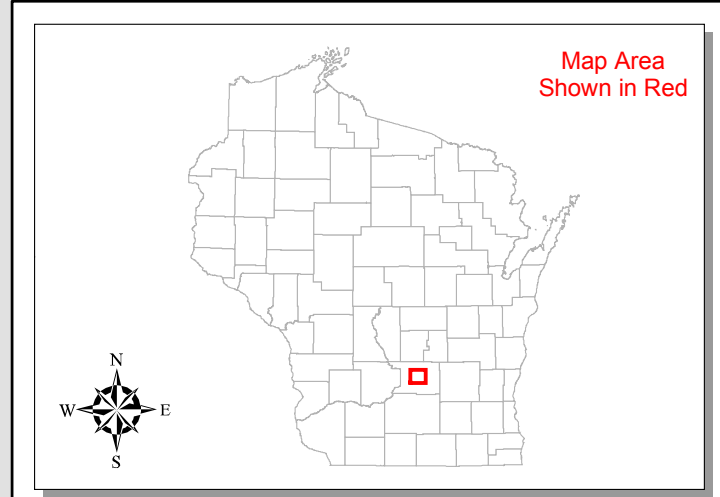
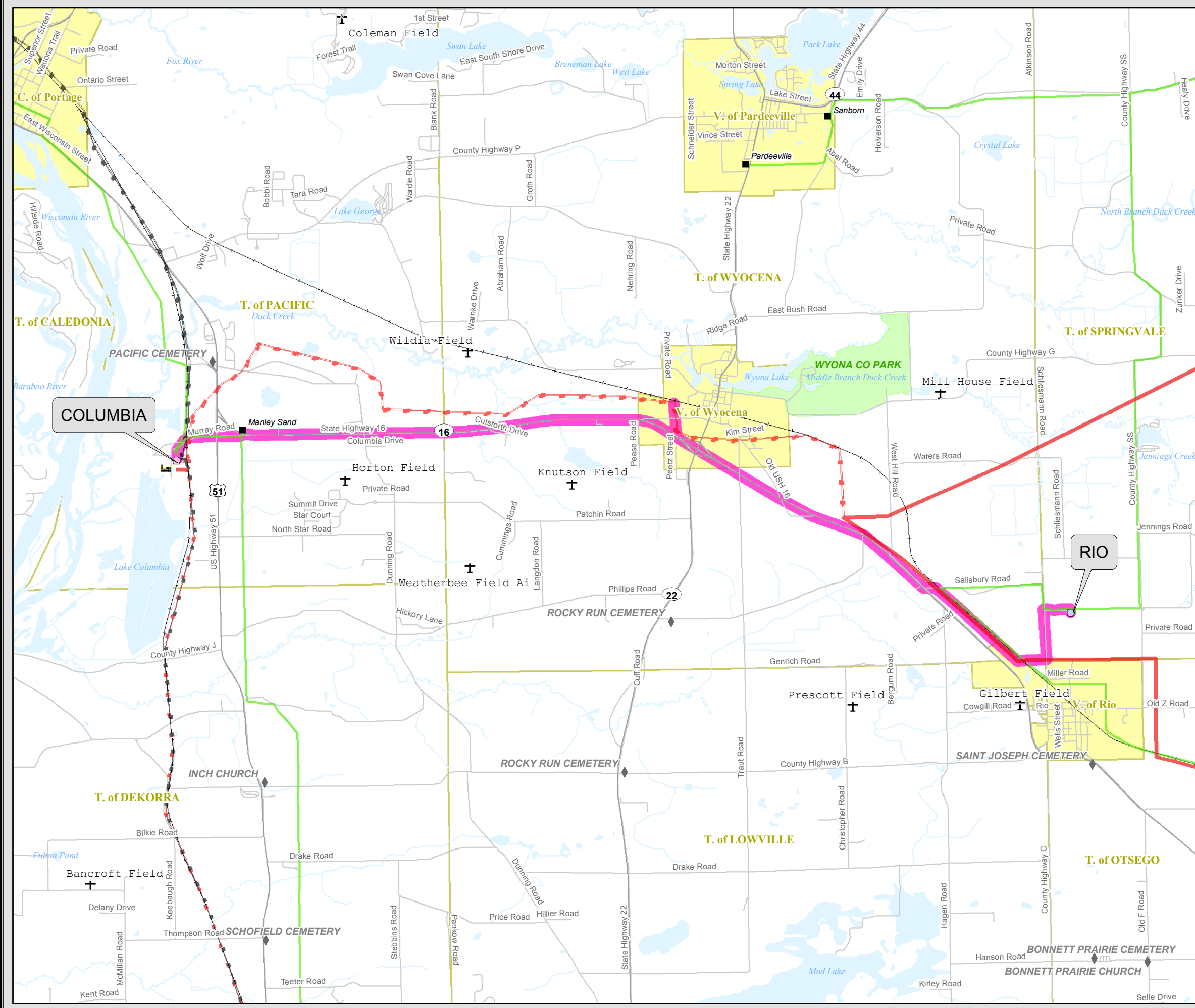
- ◆ Public Sites
- Park Areas
- Open Water
- City or Village
- Town Boundary



The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.
 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



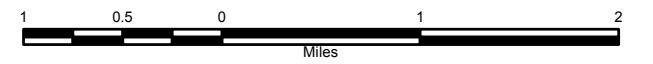
PLANNED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
 Construct Columbia to Rio 69 kV Line



- Transmission Facilities**
- | | |
|-----------------------------|---------------------------|
| Transmission Lines * | Transmission Sites |
| 69 kV | ▲ ATC Owned |
| Single Circuit | ◆ Joint Owned - Conveyed |
| Double Circuit | ● Joint Owned - Retained |
| Underground | ☐ Generation |
| 138 kV | ■ Muni or Distribution |
| Single Circuit | ■ Design or Construction |
| Double Circuit | |
| Underground | |
| 345 kV | |
| Single Circuit | |
| Double Circuit | |

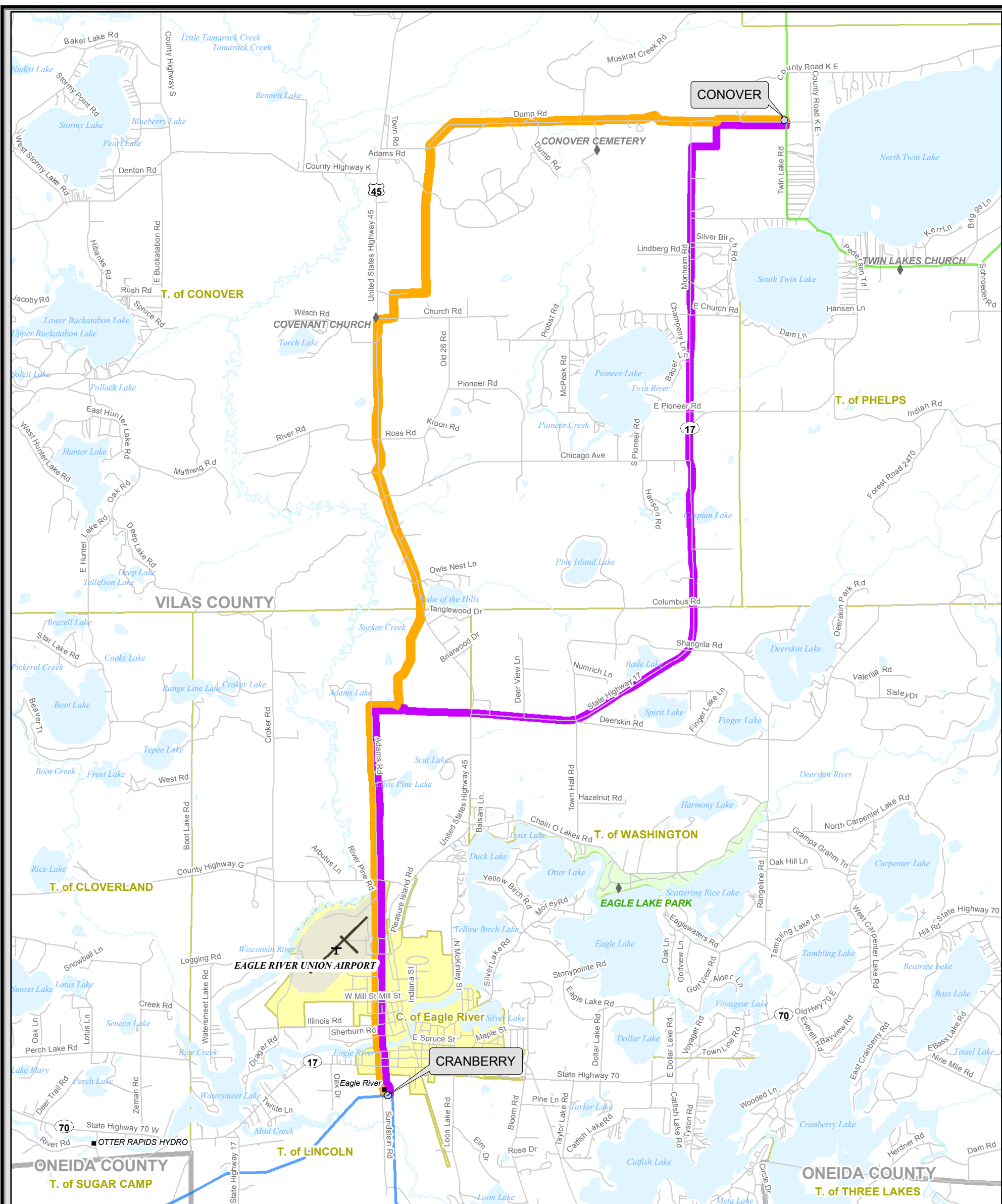
Approved Route by Columbia County for Conditional Use Permit
 Approved August 1, 2006

- | | |
|----------------|-------------------|
| ◆ Public Sites | ○ City or Village |
| ○ Park Areas | ○ Town Boundary |
| ○ Open Water | |
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.



The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.
 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.





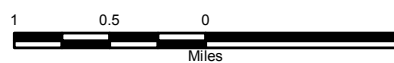
PROPOSED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
Construct Cranberry to Conover 115 kV Line

Transmission Facilities

- | | |
|---------------------------|---------------------------|
| Transmission Lines | Transmission Sites |
| 69 kV | ▲ ATC Owned |
| Single Circuit | ◊ Joint Owned - Conveyed |
| Double Circuit | ◊ Joint Owned - Retained |
| 115 kV | ■ Generation |
| Single Circuit | ■ Muni or Distribution |
| Double Circuit | ■ Design or Construction |

- | | |
|----------------|-------------------|
| ◆ Public Sites | ○ City or Village |
| ● Park Areas | ○ Town Boundary |
| ○ Open Water | |

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

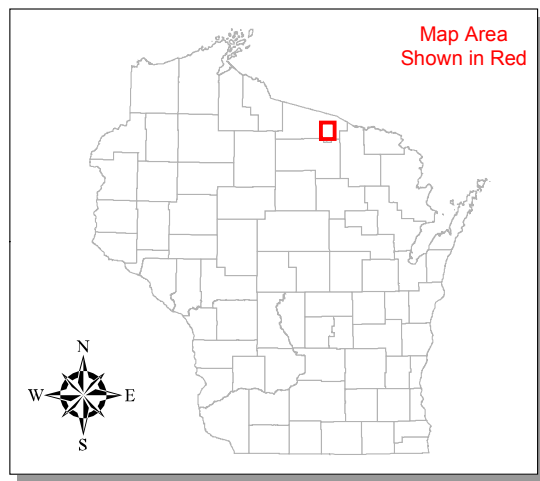


The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.

CPCN PROPOSED ROUTES

Submitted to the PSC in November 2005

- ATC Proposed Route
- ATC Alternate Route

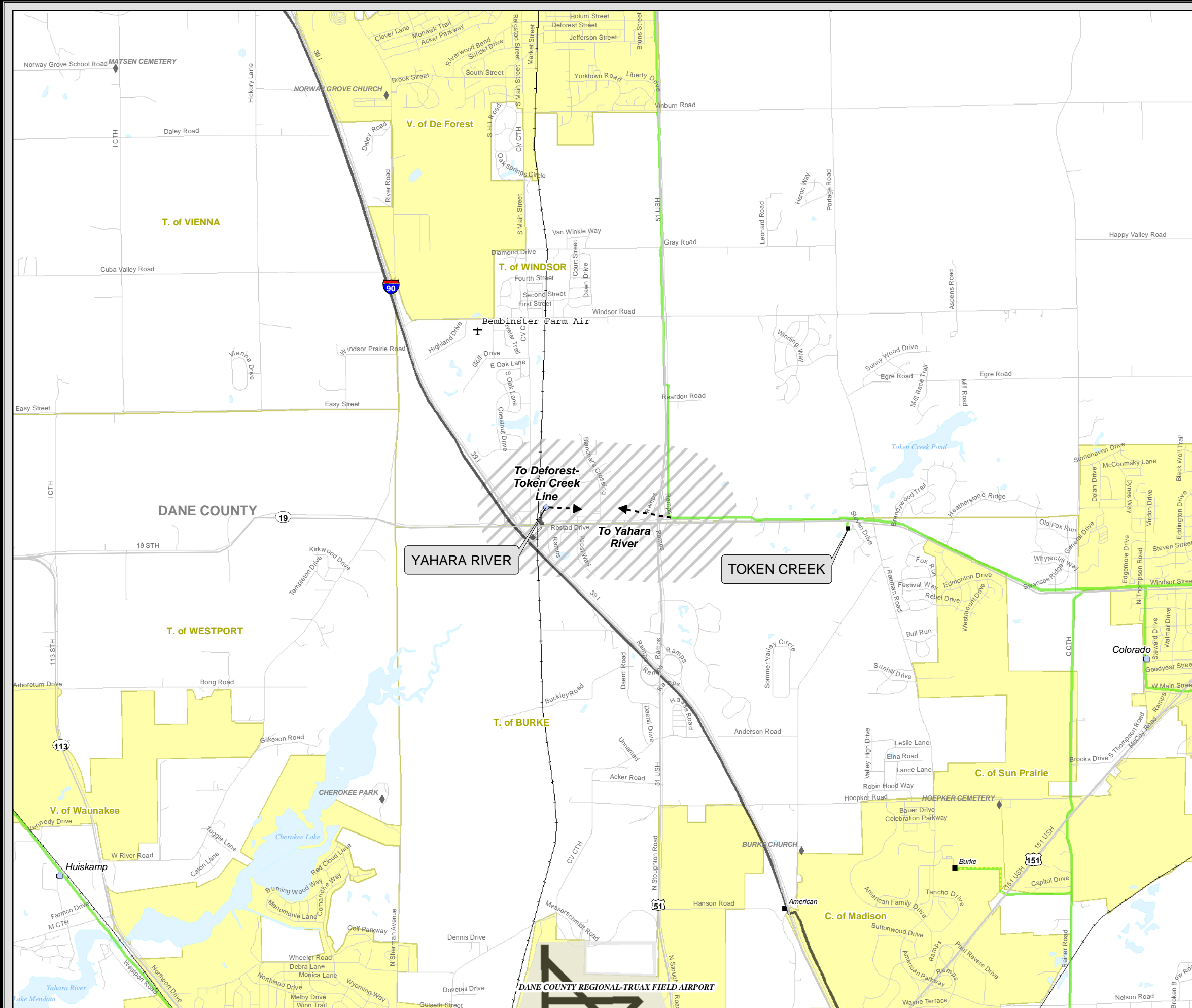
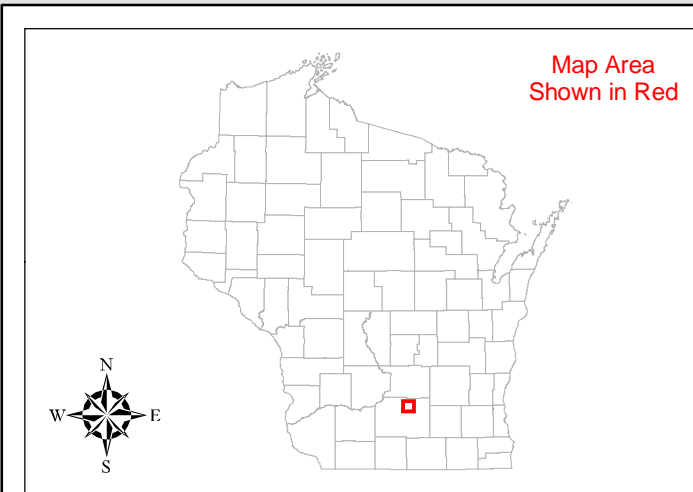


Map Area Shown in Red



PROVISIONAL TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY

Loop the Deforest to Token Creek 69 kV Line into Yahara River



Transmission Facilities

Transmission Sites

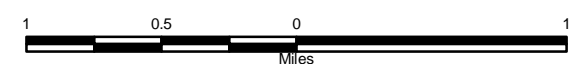
- ▲ ATC Owned
- ◆ Joint Owned - Conveyed
- Joint Owned - Retained
- Muni or Distribution
- Design or Construction
- Proposed Distribution Substation

Transmission Lines

- 69 kV**
- Single Circuit
- Double Circuit
- Underground
- 138 kV**
- Single Circuit
- Double Circuit
- Underground

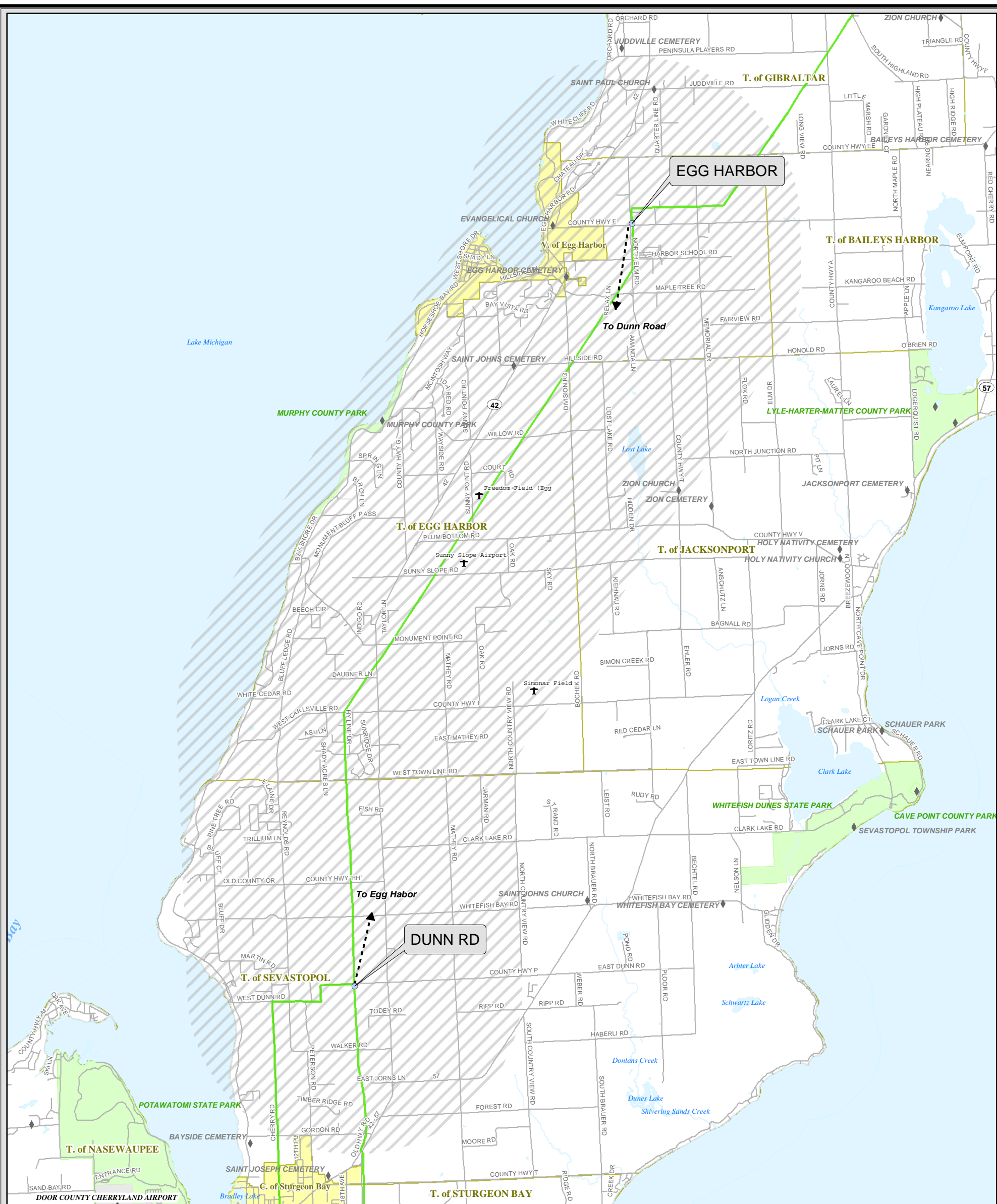
- ◆ Public Sites
- Park Areas
- ▨ Preliminary Screening Area
- Open Water
- City or Village
- Town Boundary

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

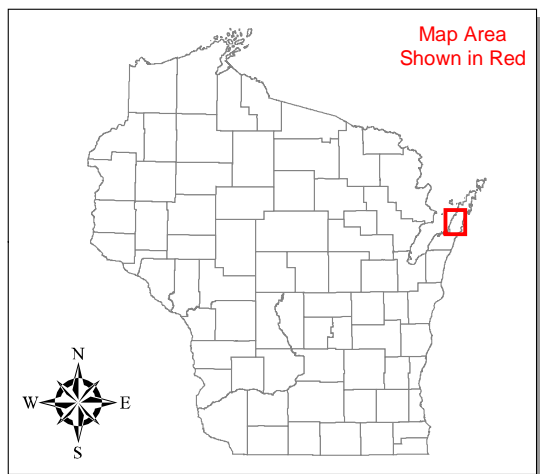


The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.
*Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.





PROPOSED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
Construct a Second Dunn Rd-Egg Harbor 69 kV Line



Transmission Facilities

- | | |
|-----------------------------|---------------------------|
| Transmission Lines * | Transmission Sites |
| 69 kV | ▲ ATC Owned |
| — Single Circuit | ◆ Joint Owned - Conveyed |
| — Double Circuit | ● Joint Owned - Retained |
| 138 kV | ■ Generation |
| — Single Circuit | ■ Muni or Distribution |
| — Double Circuit | ■ Design or Construction |

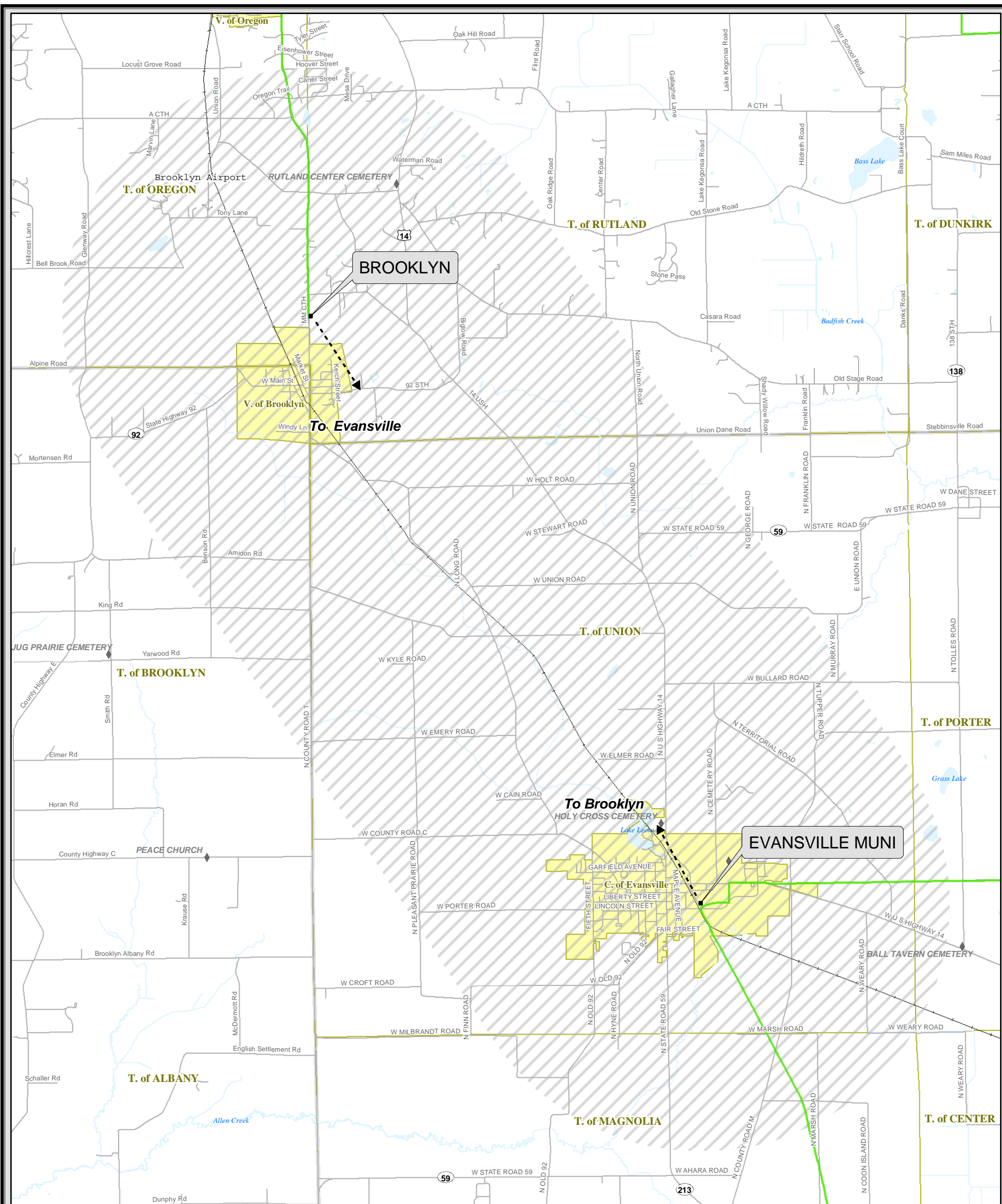
- | | |
|------------------------------|-------------------|
| ◆ Public Sites | ○ Open Water |
| ● Park Areas | ● City or Village |
| ▨ Preliminary Screening Area | ○ Town Boundary |

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

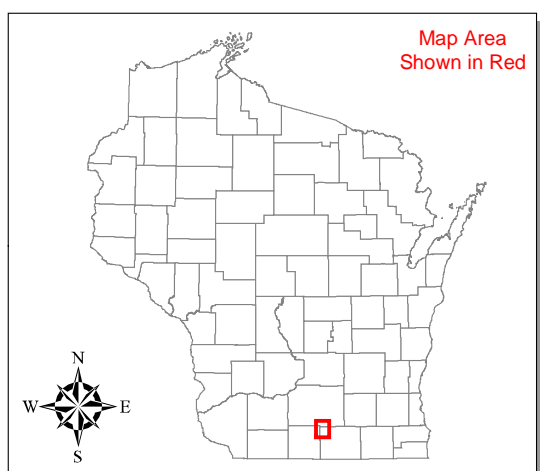


The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.

* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



PROVISIONAL TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
Construct Evansville-Brooklyn 69 kV Line

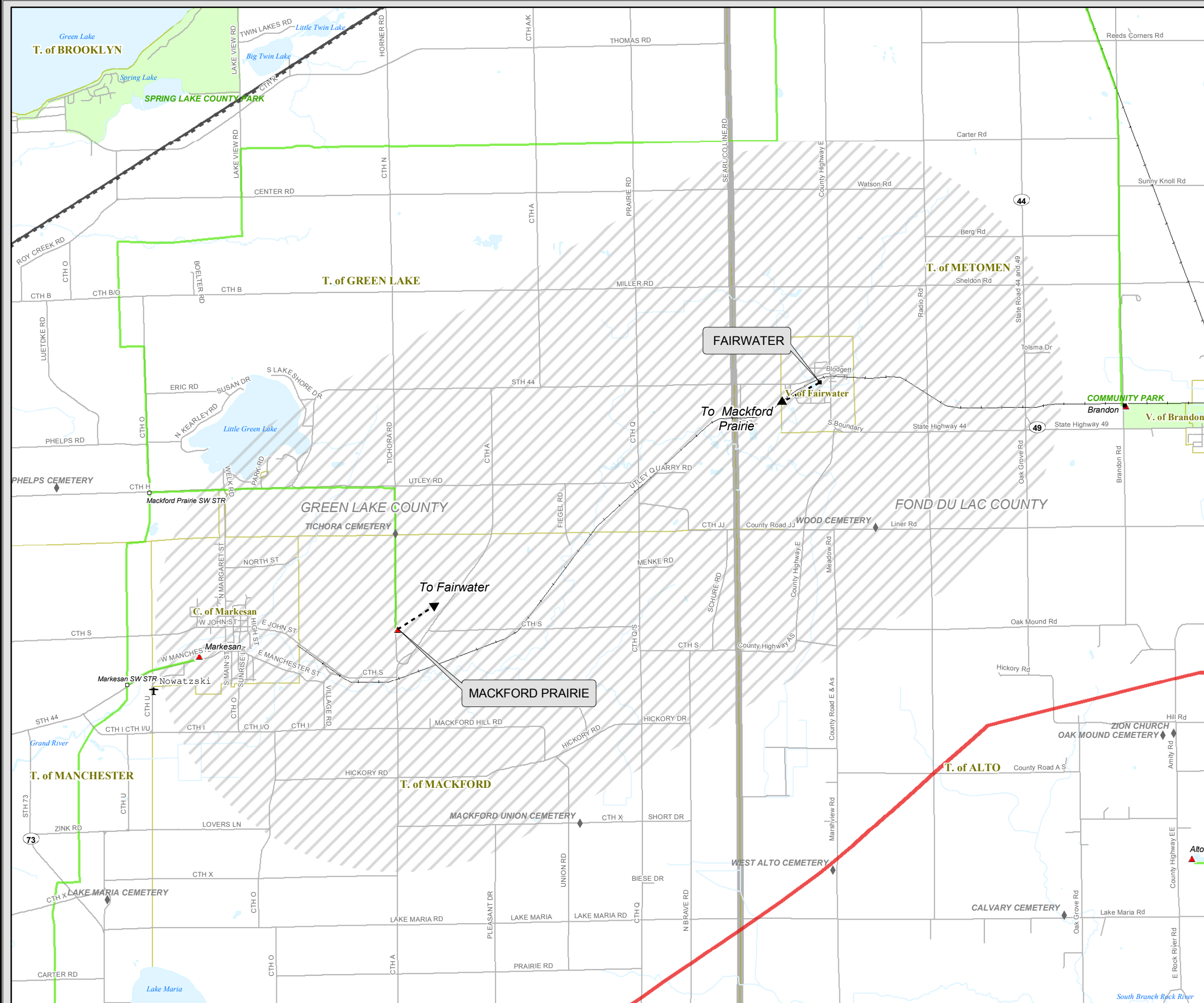
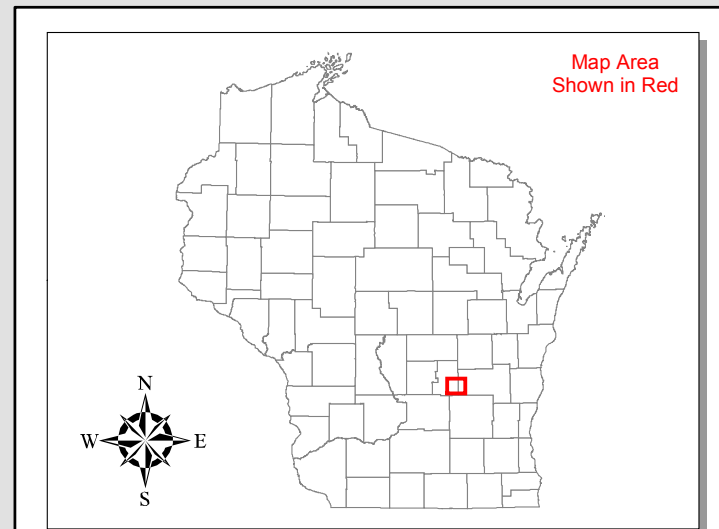


- Transmission Facilities**
- Transmission Lines ***
- 69 kV
 - Single Circuit
 - Double Circuit
 - 138 kV
 - Single Circuit
 - Double Circuit
- Transmission Sites**
- ATC Owned
 - Joint Owned - Conveyed
 - Joint Owned - Retained
 - Generation
 - Muni or Distribution
 - Design or Construction

- Public Sites
 - Park Areas
 - Preliminary Screening Area
 - Open Water
 - City or Village
 - Town Boundary
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.
- 0 0.5 1 2
Miles
- The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.

* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.

**PROVISIONAL TRANSMISSION LINE
REQUIRING NEW RIGHT-OF-WAY**
*Construct Fairwater to Mackford Prairie
69 kV Line*



- Transmission Facilities**
- | | |
|-----------------------------|-----------------------------|
| Transmission Lines * | Transmission Sites |
| 69 kV | ▲ Substation/Switching Yard |
| Single Circuit | □ Switching Structure/Tap |
| Double Circuit | 🏭 Generation |
| 138 kV | |
| Single Circuit | |
| Double Circuit | |
| 345 kV | |
| Single Circuit | |

- | | |
|------------------------------|-------------------|
| ◆ Public Sites | 🌊 Open Water |
| 🌳 Park Areas | 🏘 City or Village |
| 🚧 Preliminary Screening Area | 🗺 Town Boundary |
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

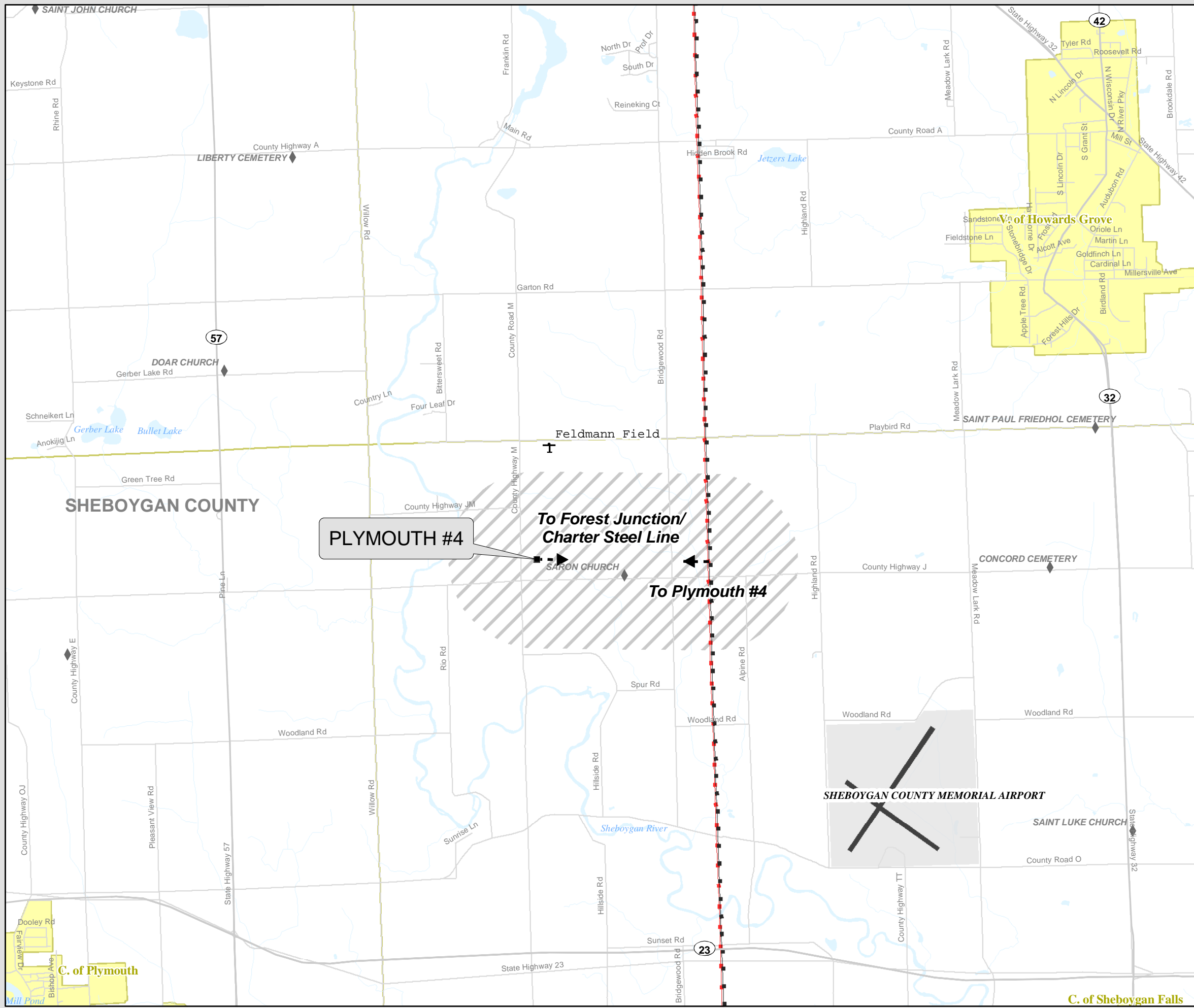
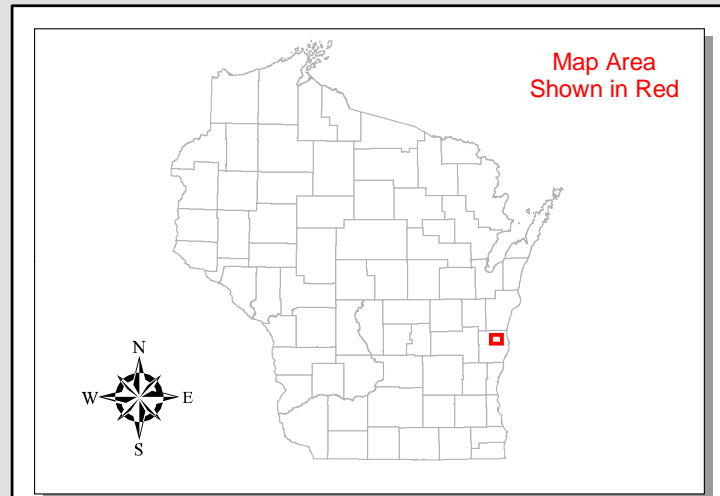


The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.

* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



PLANNED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
 Construct Double Circuit 138 kV Line from Forest Junction / Charter Steel to Plymouth #4

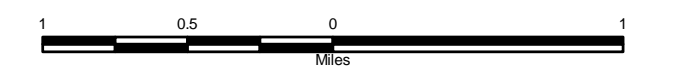


Transmission Facilities

- Transmission Sites**
- ▲ ATC Owned
 - ◊ Joint Owned - Conveyed
 - Joint Owned - Retained
 - Muni or Distribution
 - Design or Construction
 - Proposed Distribution Substation
- Transmission Lines**
- 69 kV
 - Single Circuit
 - Double Circuit
 - Underground
 - 138 kV
 - Single Circuit
 - Double Circuit
 - Underground
 - 345 kV
 - Single Circuit
 - Double Circuit

- ◆ Public Sites
- Park Areas
- ▨ Preliminary Screening Area
- Open Water
- City or Village
- Town Boundary

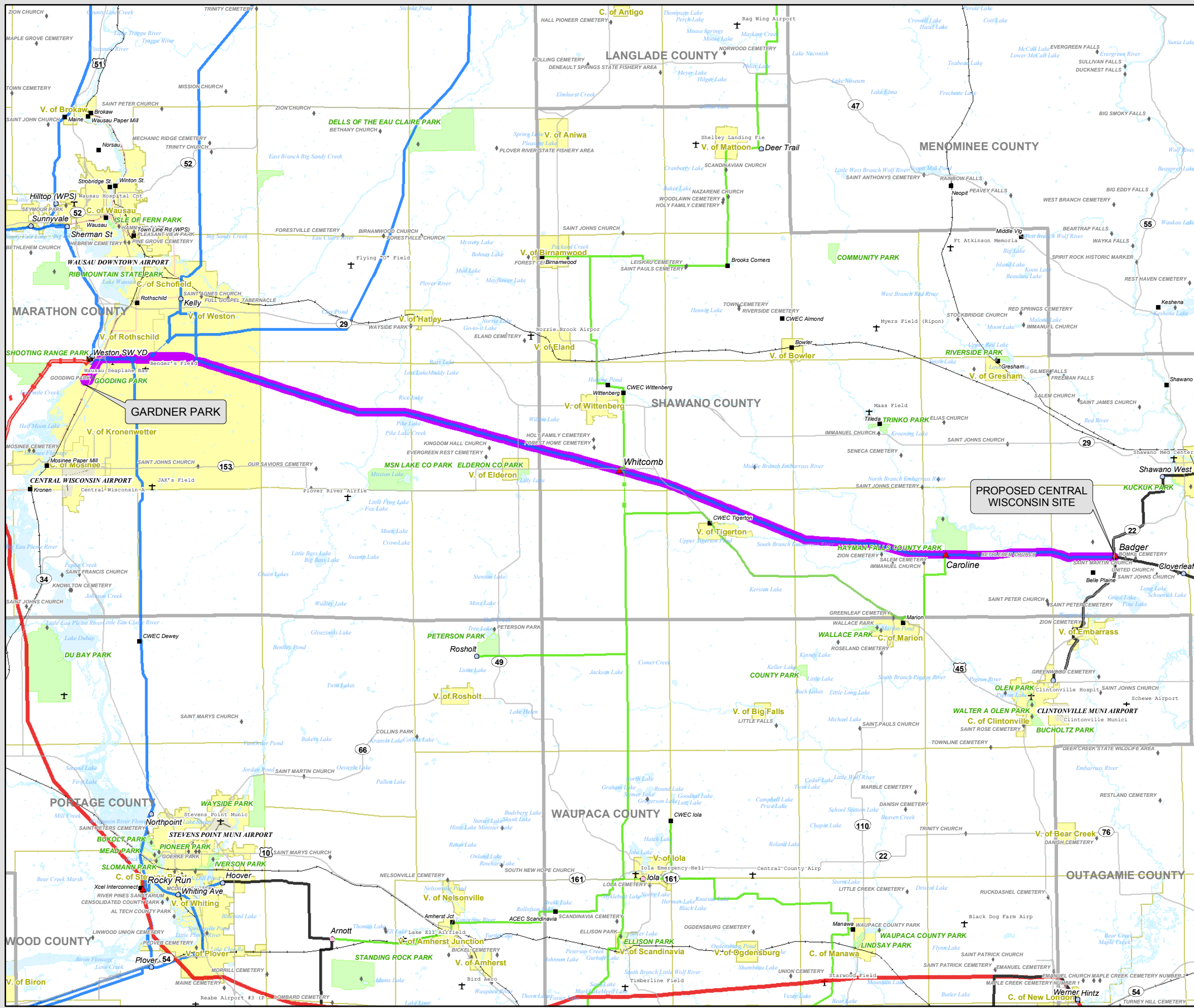
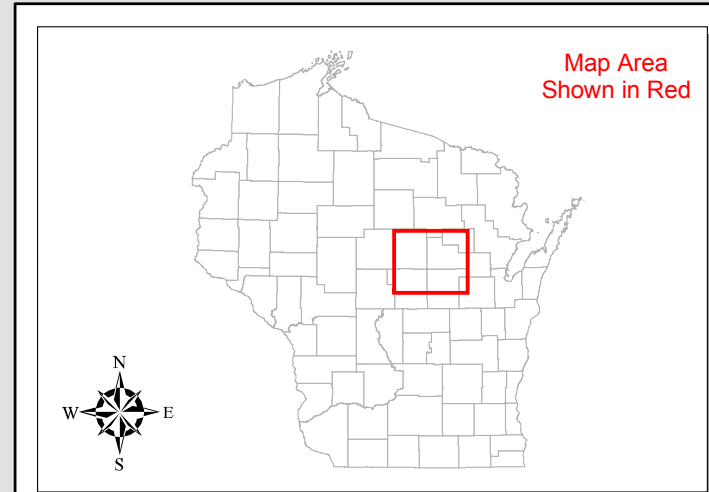
Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.



The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.
 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



PLANNED TRANSMISSION LINES REQUIRING NEW RIGHT-OF-WAY
 Construct Gardner Park-Central Wisconsin 345 kV Line



Transmission Facilities

Transmission Sites

- ▲ ATC Owned
- ◆ Joint Owned - Conveyed
- Joint Owned - Retained
- Muni or Distribution
- Design or Construction
- Proposed Distribution Substation

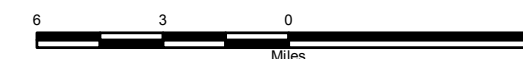
Transmission Lines

- 69 kV
 - Single Circuit
 - Double Circuit
 - Underground
- 115 kV
 - Single Circuit
 - Double Circuit
- 138 kV
 - Single Circuit
 - Double Circuit
 - Underground
- 345 kV
 - Single Circuit
 - Double Circuit

PSC Approved Route
 Approved June 2006

- ◆ Public Sites
- Park Areas
- Open Water
- City or Village
- Town Boundary

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

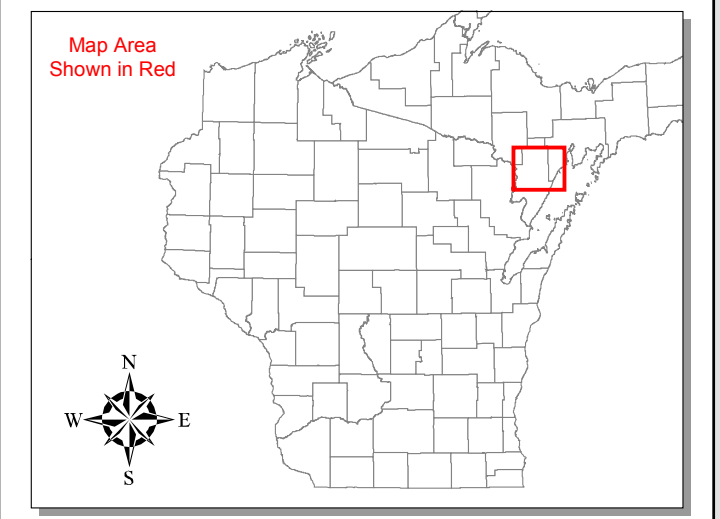
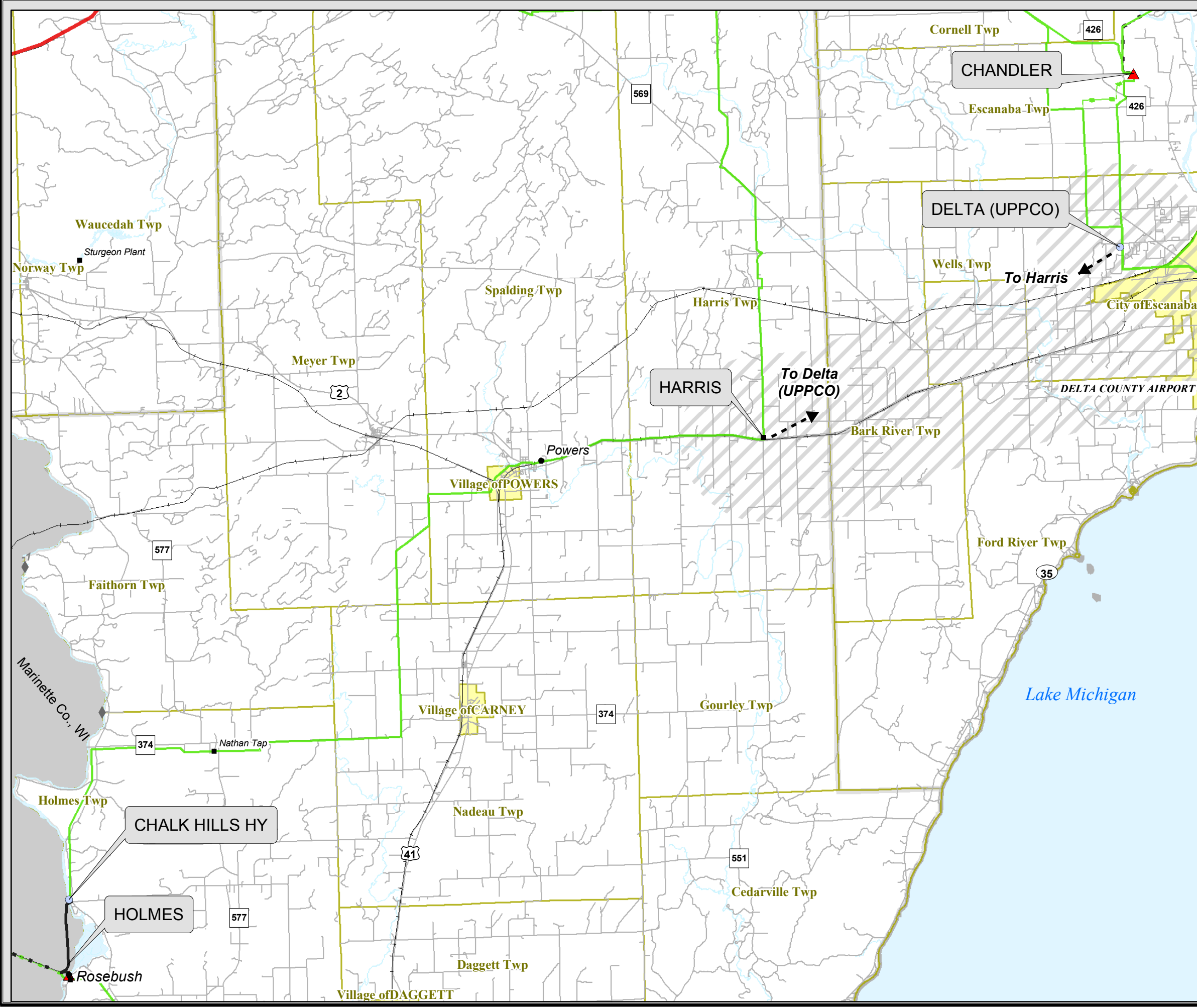


The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.
 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



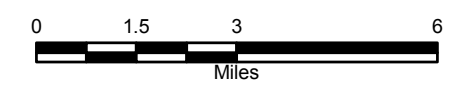
**PROVISIONAL TRANSMISSION LINE
REQUIRING NEW RIGHT-OF-WAY**

*Rebuild/Convert Holmes-Chandler
69 kV to 138 kV Operation*



- Transmission Facilities**
- | | |
|-----------------------------|---------------------------|
| Transmission Lines * | Transmission Sites |
| 69 kV | ▲ ATC Owned |
| Single Circuit | ◆ Joint Owned - Conveyed |
| Double Circuit | ● Joint Owned - Retained |
| 138 kV | ☐ Generation |
| Single Circuit | ■ Muni or Distribution |
| Double Circuit | ■ Design or Construction |

- | | |
|------------------------------|-------------------|
| ◆ Public Sites | ○ Open Water |
| ○ Park Areas | ○ City or Village |
| ▨ Preliminary Screening Area | ○ Town Boundary |
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

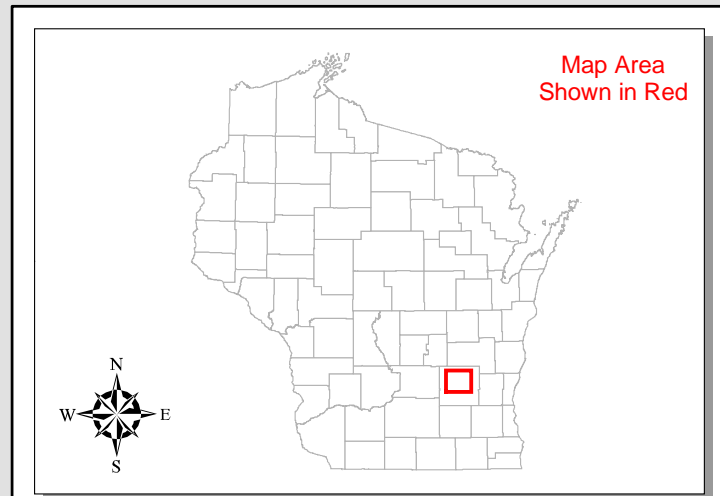
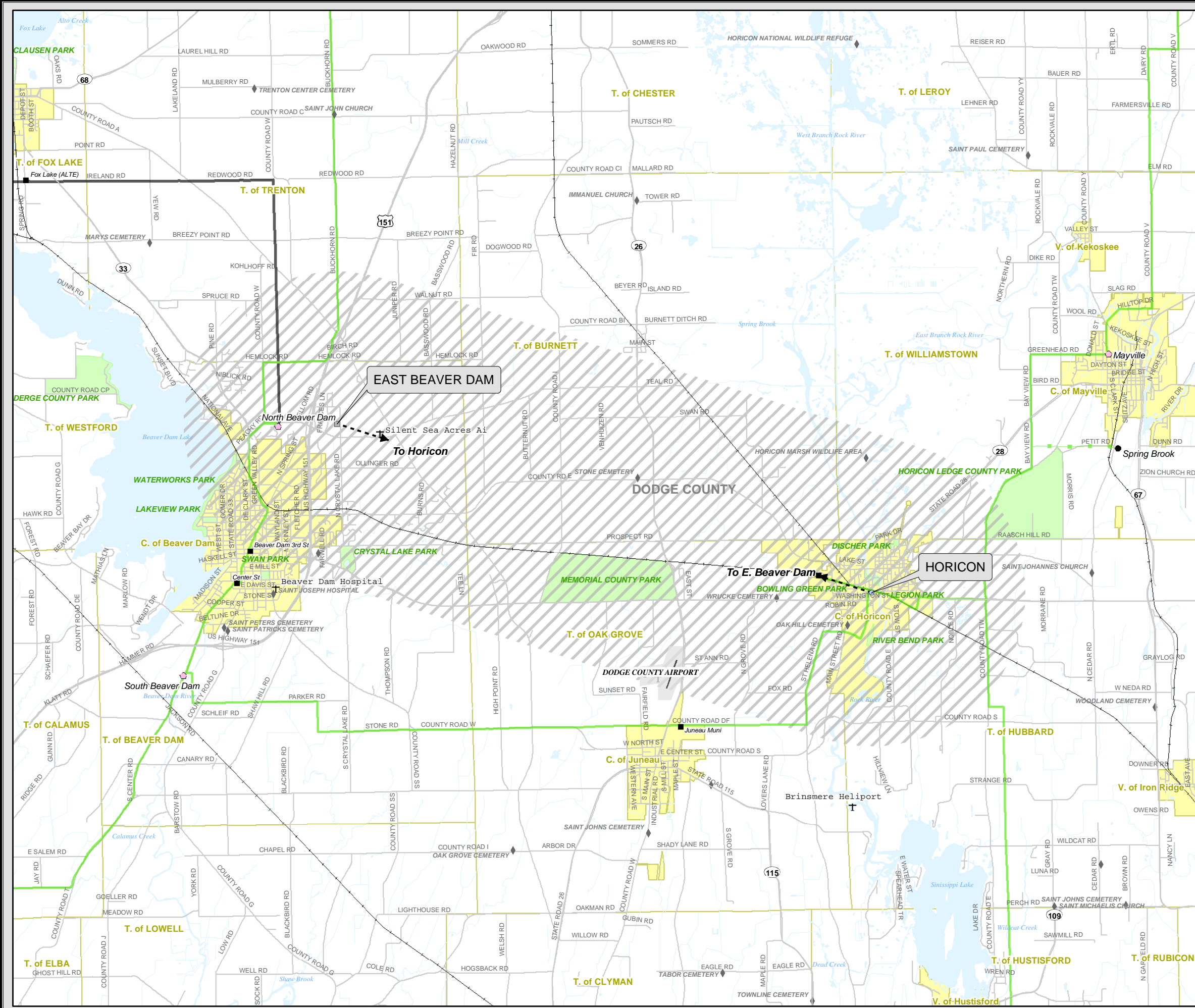


The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.

* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



PROVISIONAL TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
Construct Horicon to East Beaver Dam 138 kV Line



Transmission Facilities

Transmission Sites

- ▲ ATC Owned
- ◆ Joint Owned - Conveyed
- Joint Owned - Retained
- Muni or Distribution
- Design or Construction
- Proposed Distribution Substation

Transmission Lines

69 kV

- Single Circuit
- Double Circuit
- Underground

138 kV

- Single Circuit
- Double Circuit
- Underground

Legend:

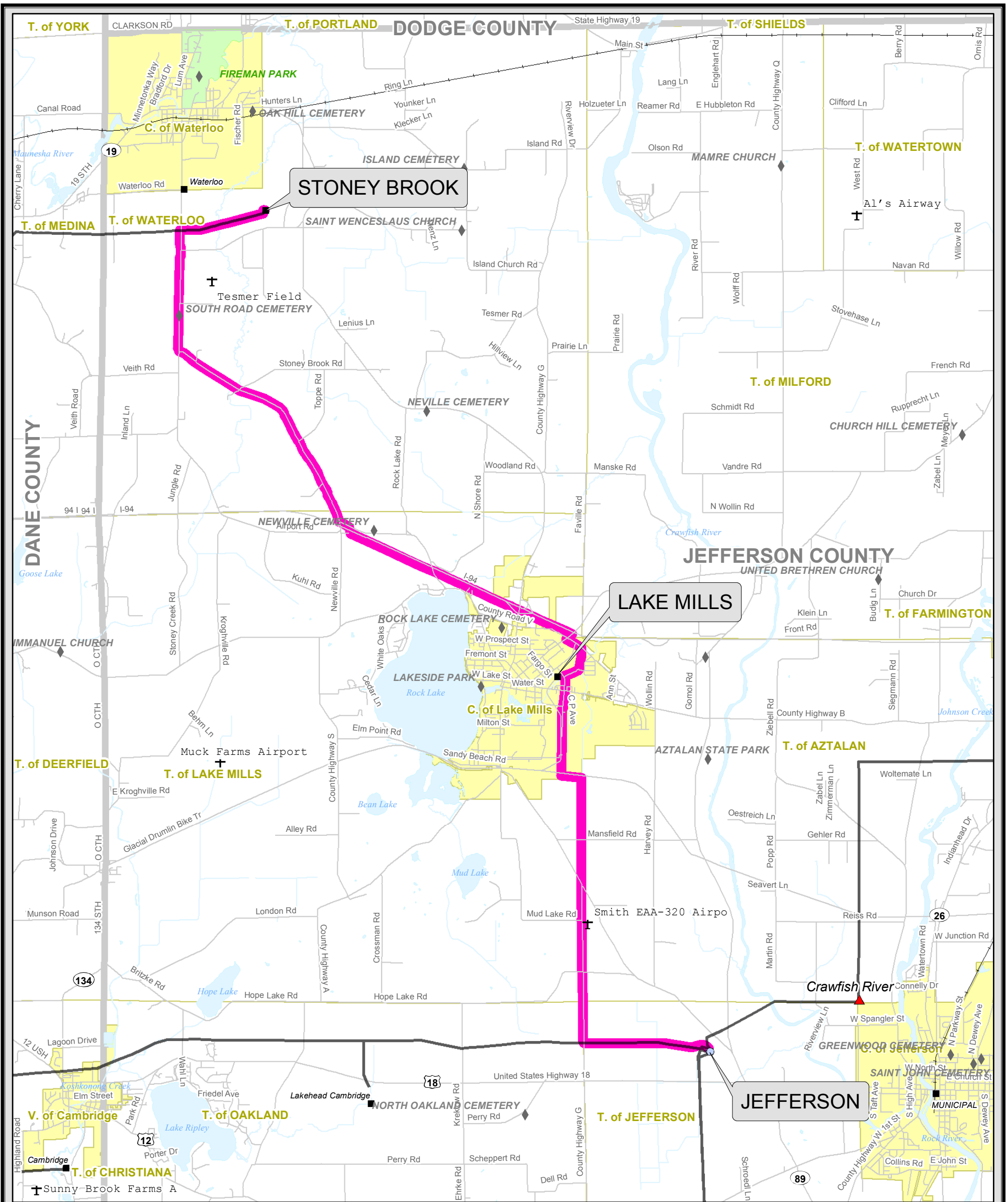
- ◆ Public Sites
- Park Areas
- ▨ Preliminary Screening Area
- Open Water
- City or Village
- Town Boundary

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

2 1 0 2
Miles

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 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.





PLANNED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY

Construct Jefferson to Stoney Brook 138 kV Line

Transmission Facilities

- | | |
|---|---|
| Transmission Lines * | Transmission Sites |
| <ul style="list-style-type: none"> 138 kV Single Circuit Double Circuit Underground 345 kV Single Circuit Double Circuit | <ul style="list-style-type: none"> ATC Owned Joint Owned - Conveyed Joint Owned - Retained Generation Muni or Distribution Design or Construction |

* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.

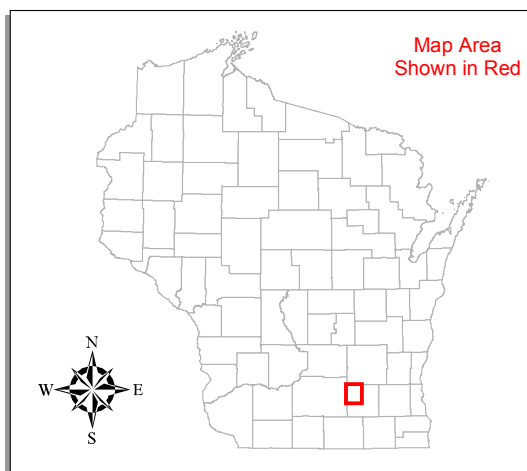
PSC Approved Route
Approved July 2006

- Public Sites
- City or Village
- Park Areas
- Town Boundary
- Open Water

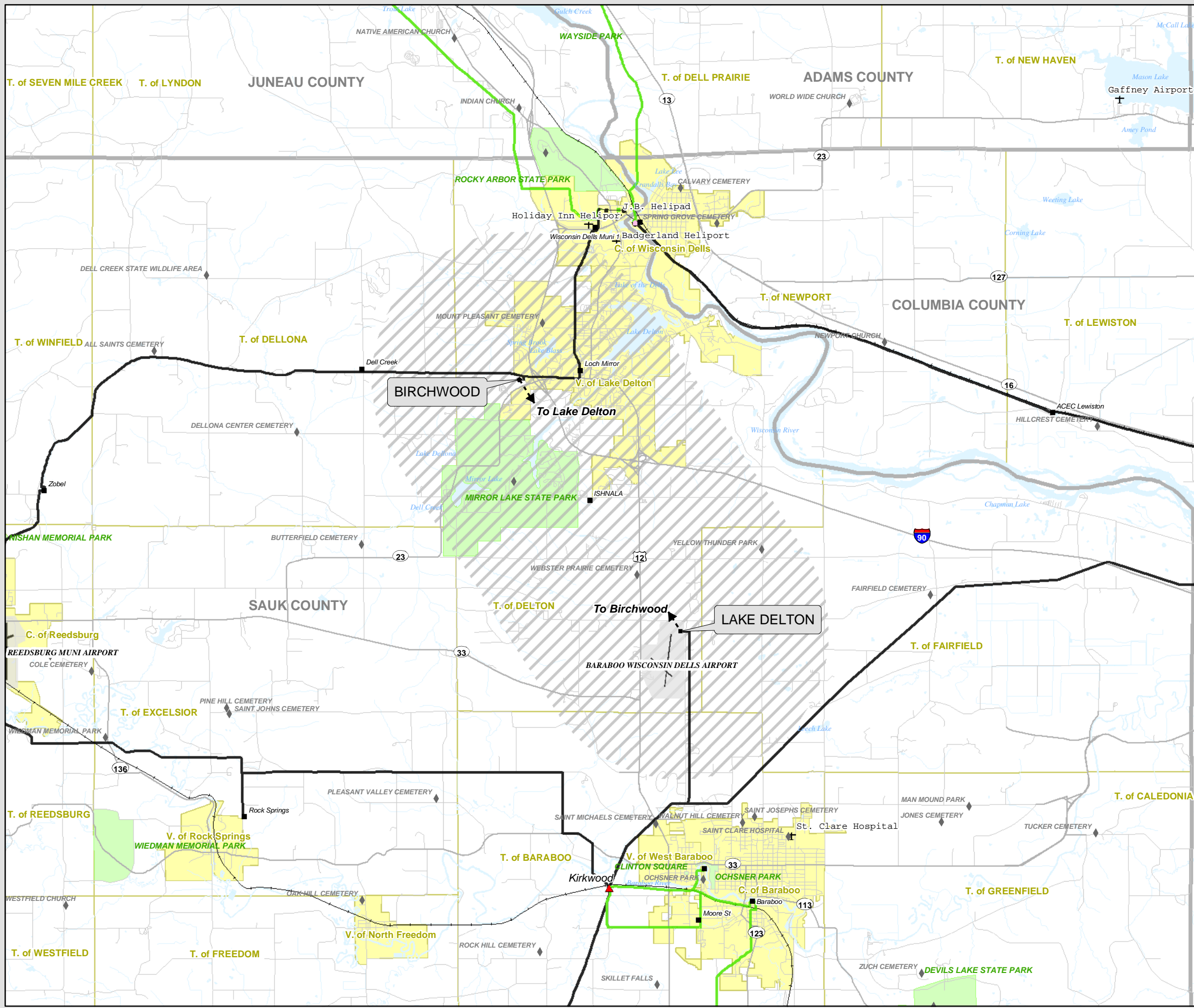
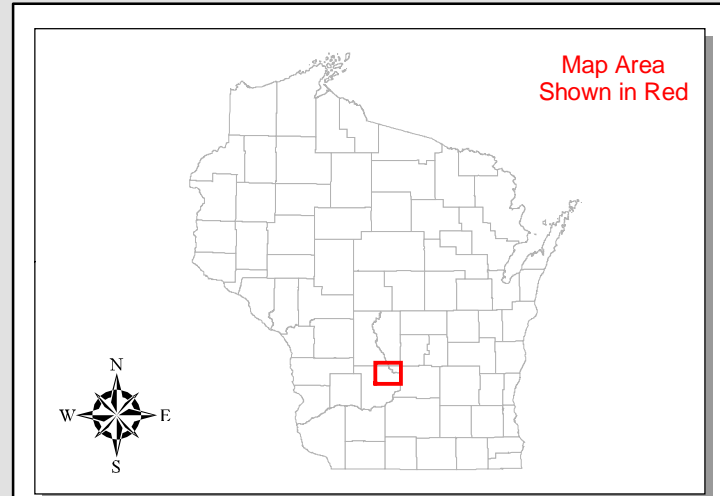
Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI, Dane County LIO, Jefferson County LIO.



The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.



PROVISIONAL TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
Construct Lake Delton to Birchwood 138 kV Line



Transmission Facilities

Transmission Sites

- ▲ ATC Owned
- ◊ Joint Owned - Conveyed
- Joint Owned - Retained
- Muni or Distribution
- Design or Construction
- Proposed Distribution Substation

Transmission Lines

69 kV

- Single Circuit
- Double Circuit
- Underground

138 kV

- Single Circuit
- Double Circuit
- Underground

Legend

- ◆ Public Sites
- Park Areas
- ▨ Preliminary Screening Area
- Open Water
- City or Village
- Town Boundary

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

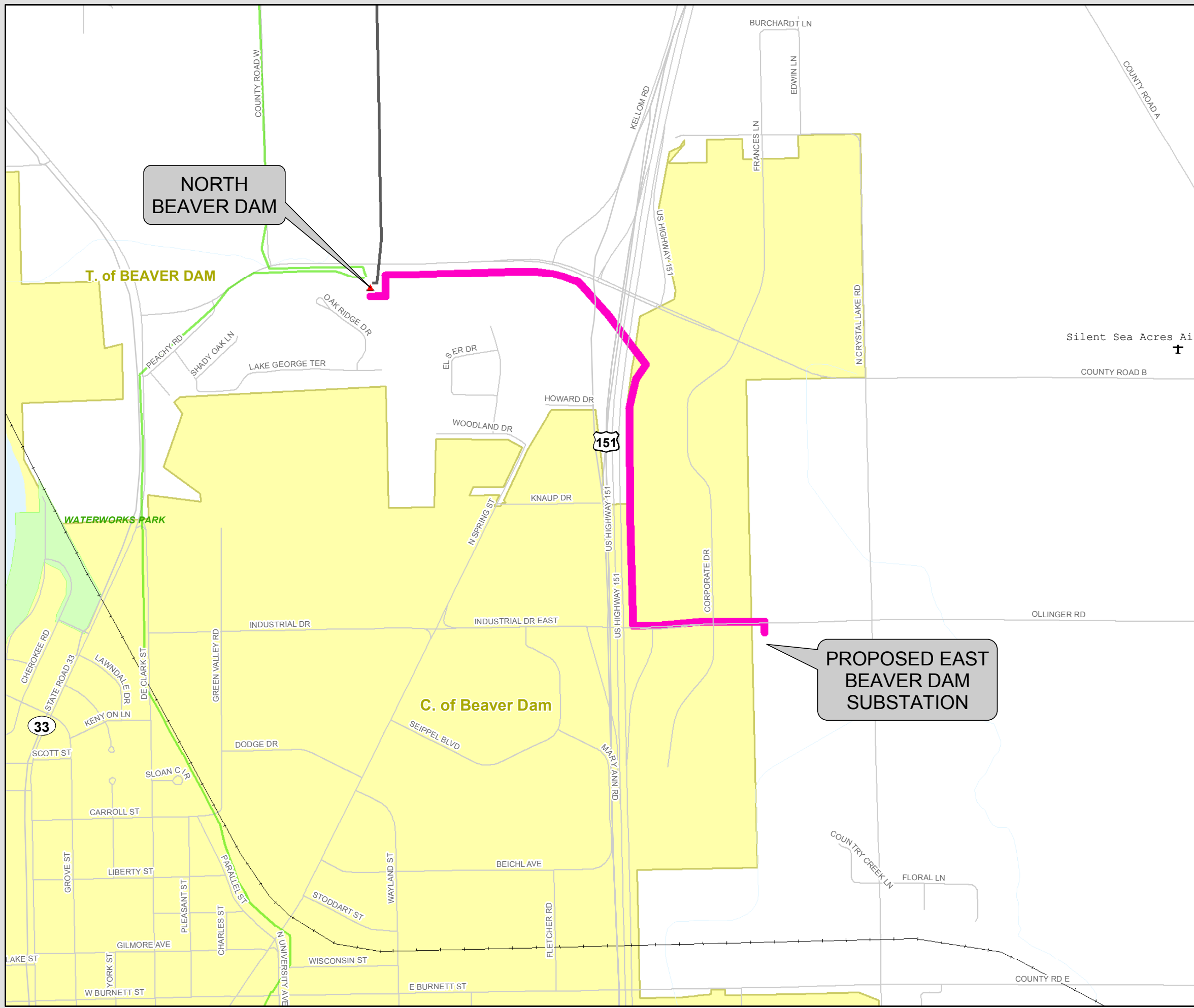
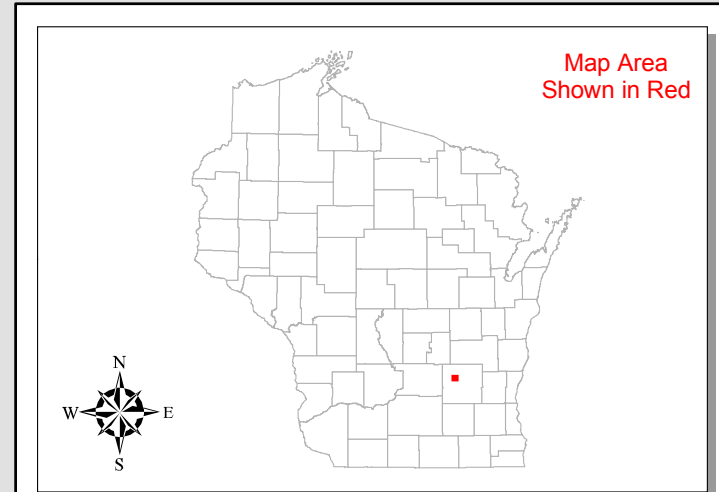
2 1 0 2
Miles

The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.
 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



UNDER CONSTRUCTION - TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY

Construct New 138 kV Line from North Beaver Dam to East Beaver Dam



Transmission Facilities

- Transmission Sites**
- ▲ Substation/Switching Yard
- Switching Structure/Tap
- ⚡ Generation

- Transmission Lines**
- 69 kV
Single Circuit
- 138 kV
Single Circuit

PSC Approved Route
Approved September 2005

◆ Public Sites	○ City or Village
● Park Areas	○ Town Boundary
○ Open Water	

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI, Dodge County LIO.

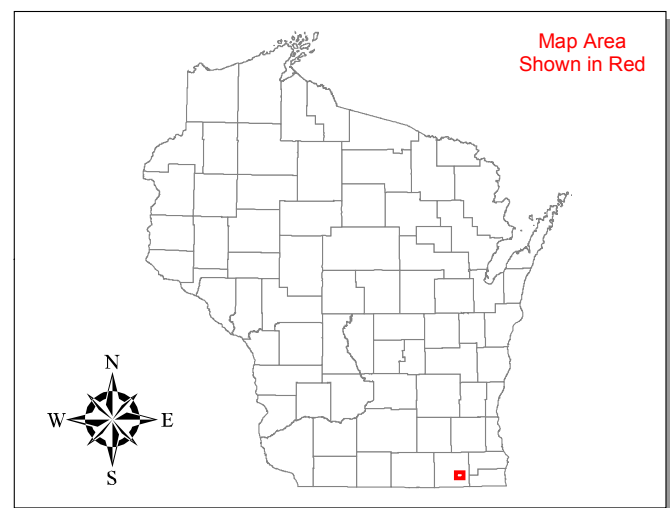
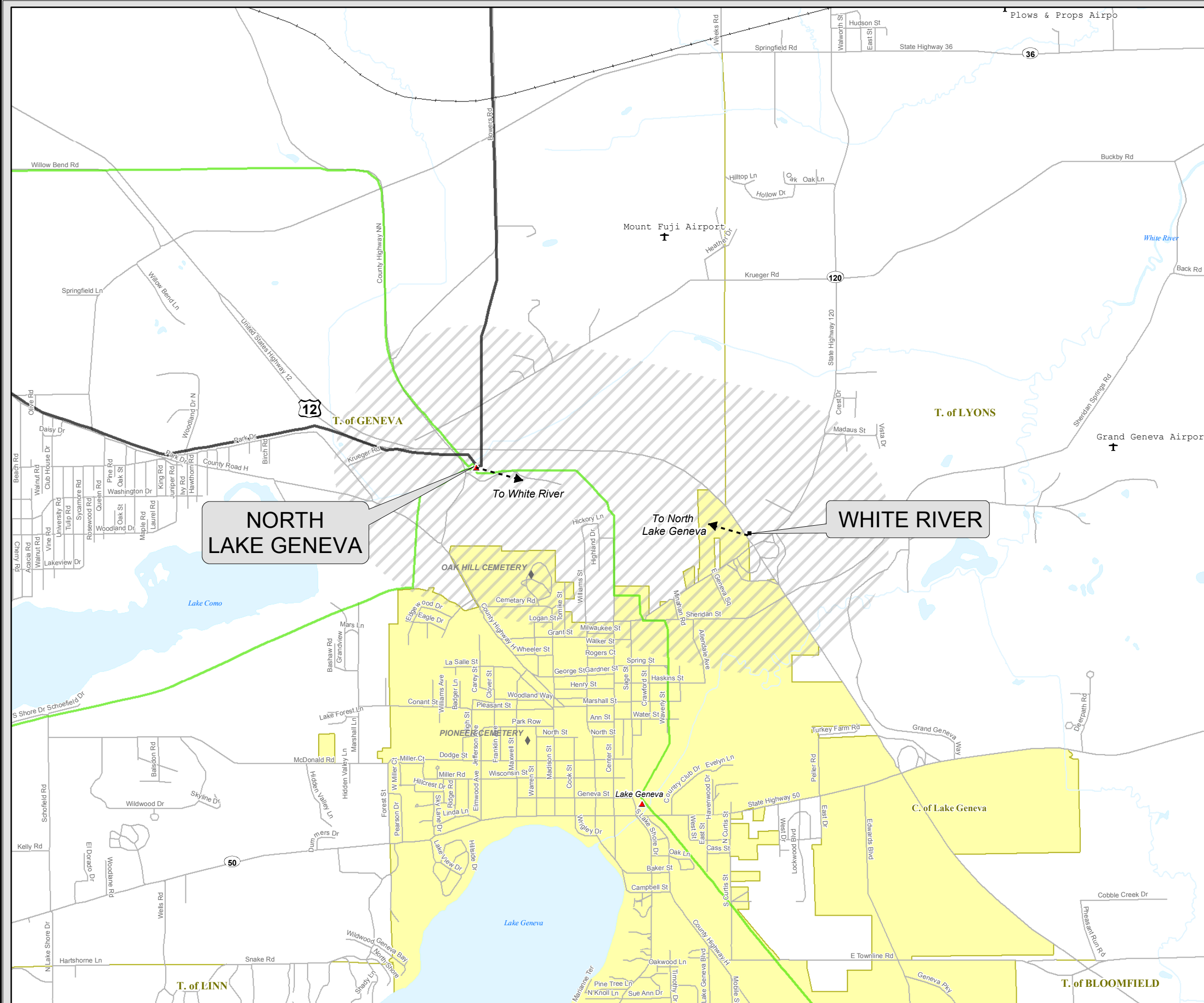


The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.

*Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.

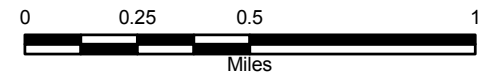


**PROVISIONAL TRANSMISSION LINE
REQUIRING NEW RIGHT-OF-WAY**
Construct North Lake Geneva-White River
138 kV Line



- Transmission Facilities**
- | | |
|-----------------------------|-----------------------------|
| Transmission Lines * | Transmission Sites |
| 69 kV | ▲ Substation/Switching Yard |
| Single Circuit | □ Switching Structure/Tap |
| Double Circuit | 🏭 Generation |
| 138 kV | |
| Single Circuit | |
| Double Circuit | |

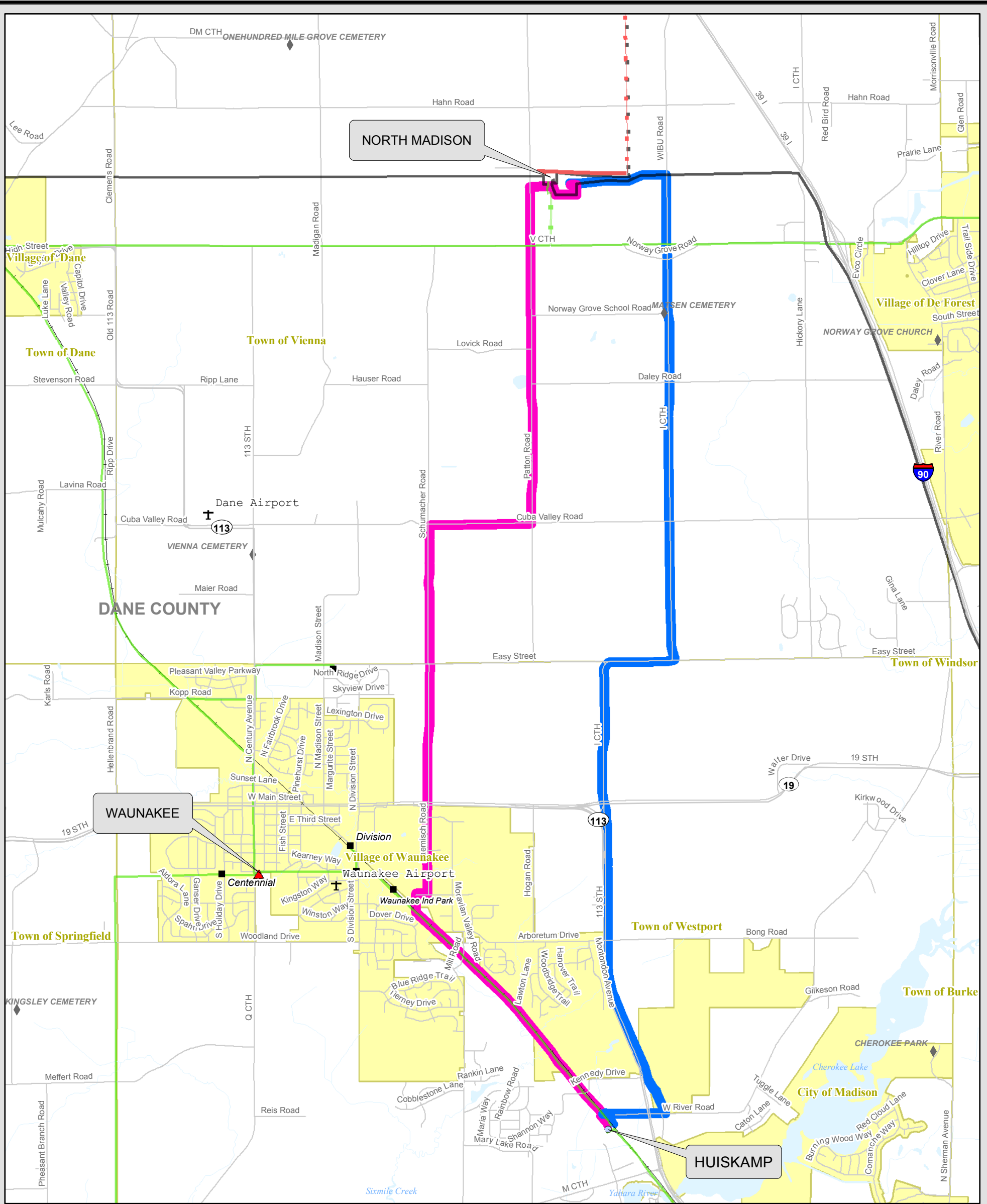
- | | |
|------------------------------|-------------------|
| ◆ Public Sites | 🌊 Open Water |
| 🌳 Park Areas | 🏘 City or Village |
| 🚧 Preliminary Screening Area | 🗺 Town Boundary |
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.



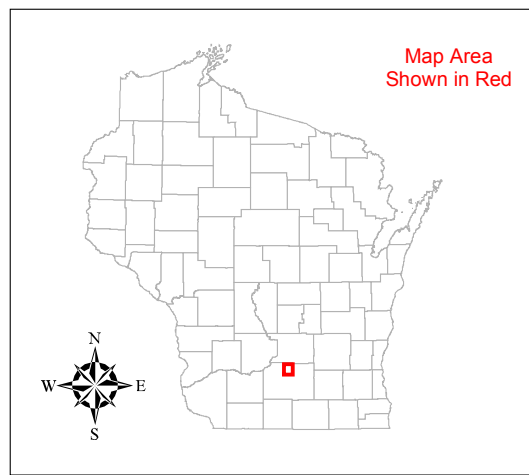
The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.

* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.





PROPOSED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
Construct North Madison to Huiskamp 138 kV Line



- ### Transmission Facilities
- | | |
|--|---|
| <p>Transmission Lines *</p> <ul style="list-style-type: none"> — 69 kV Single Circuit — 69 kV Double Circuit — 69 kV Underground — 138 kV Single Circuit — 138 kV Double Circuit — 138 kV Underground — 345 kV Single Circuit — 345 kV Double Circuit | <p>Transmission Sites</p> <ul style="list-style-type: none"> ▲ ATC Owned ◆ Joint Owned - Conveyed ● Joint Owned - Retained ■ Muni or Distribution ■ Design or Construction |
|--|---|
- CPCN PROPOSED ROUTES**
 Submitted to the PSC February 2006

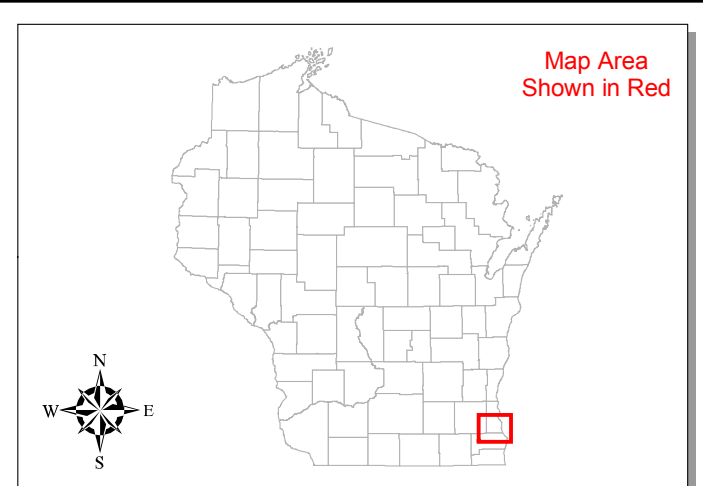
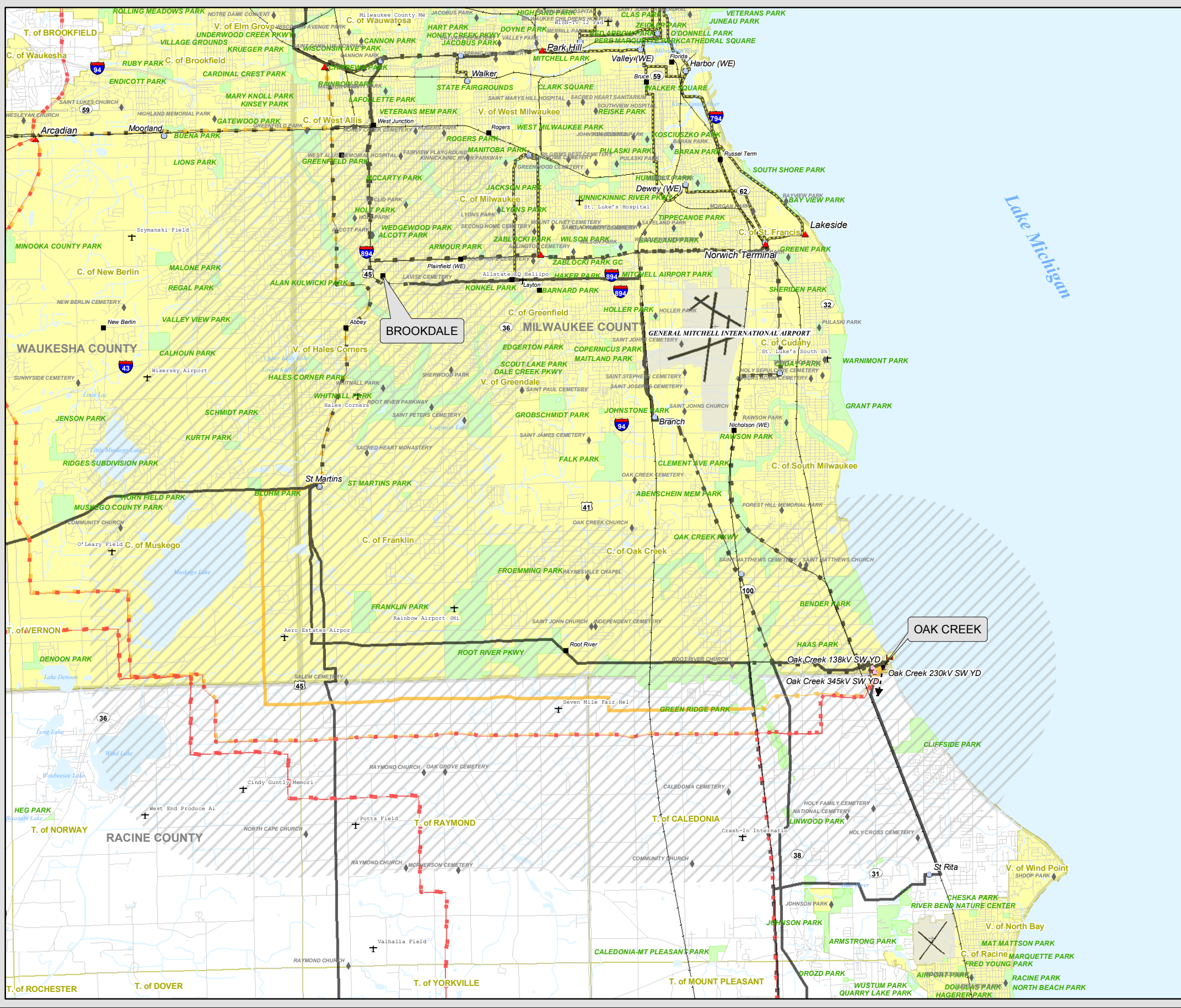
 - ATC Preferred Route
 - ATC Alternate Route
- * Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.

◆ Public Sites	 City or Village
 Park Areas	 Town Boundary
 Open Water	

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI, Dane County.

The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.

PROVISIONAL TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
 Construct Oak Creek to Brookdale 345 kV Line



Transmission Facilities

- | | |
|---|---|
| Transmission Lines * | Transmission Sites |
| <ul style="list-style-type: none"> 138 kV Single Circuit Double Circuit Underground 230 kV Single Circuit Double Circuit 345 kV Single Circuit Double Circuit | <ul style="list-style-type: none"> ATC Owned Joint Owned - Conveyed Joint Owned - Retained Generation Muni or Distribution Design or Construction |

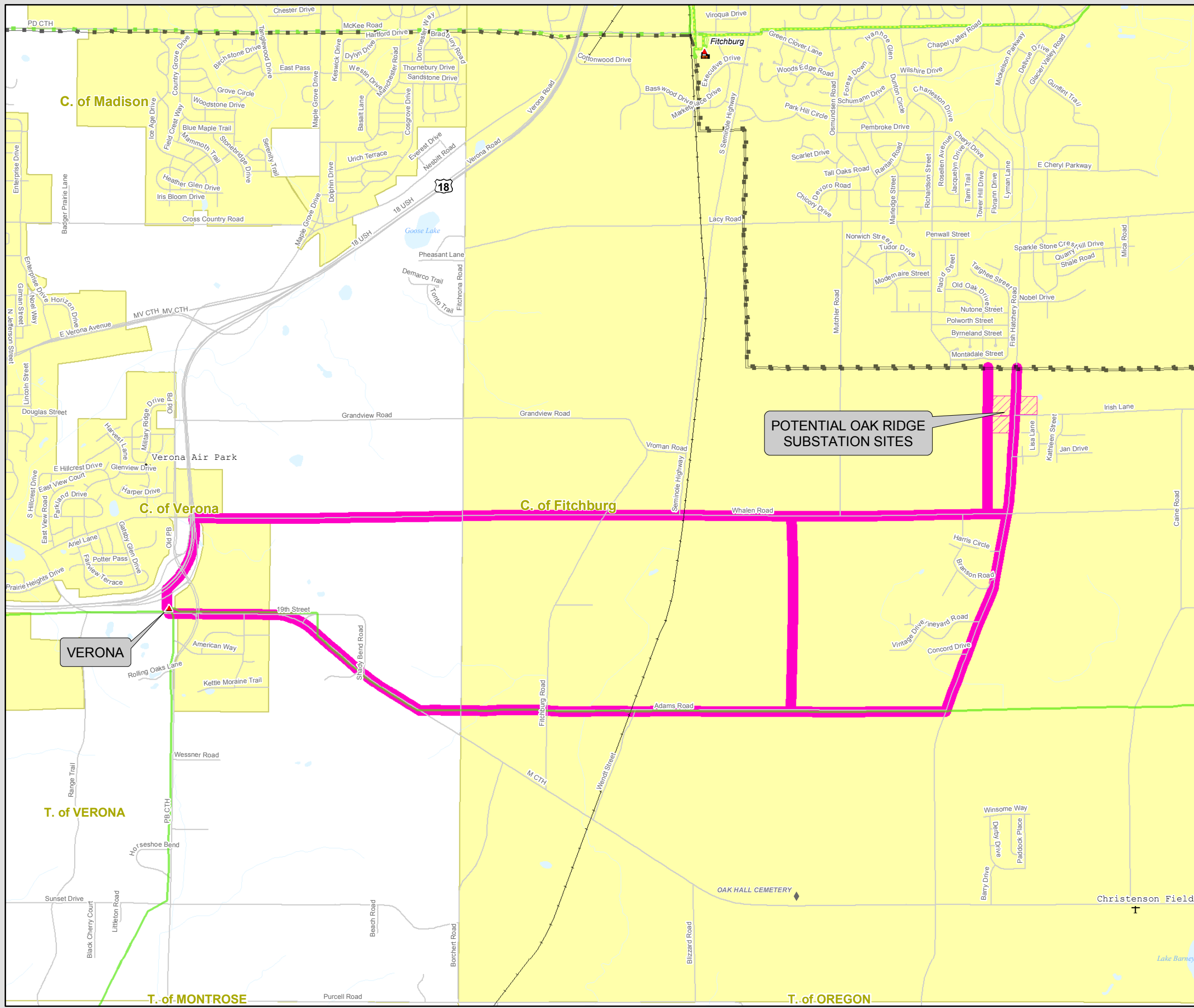
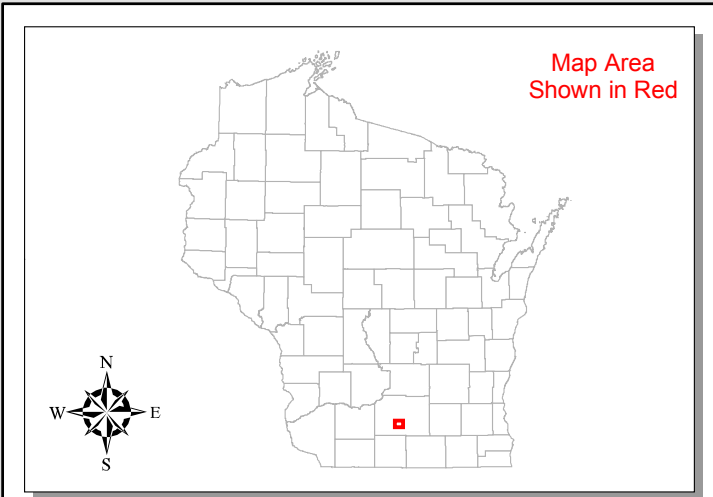
- | | |
|----------------------------|-----------------|
| Public Sites | Open Water |
| Park Areas | City or Village |
| Preliminary Screening Area | Town Boundary |
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.



The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.
 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



PROPOSED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
Construct New Oak Ridge to Verona 138 kV Line



Transmission Facilities

- Transmission Sites**
- ▲ Substation/Switching Yard
- Switching Structure/Tap
- Generation

Transmission Lines

- 69 kV**
- Single Circuit
- 138 kV**
- Single Circuit

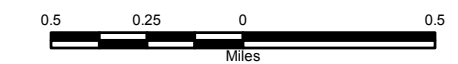
Proposed Routes

As of July 2006

Anticipated CPCN Application - November 2006

◆ Public Sites	○ City or Village
● Park Areas	○ Town Boundary
● Open Water	

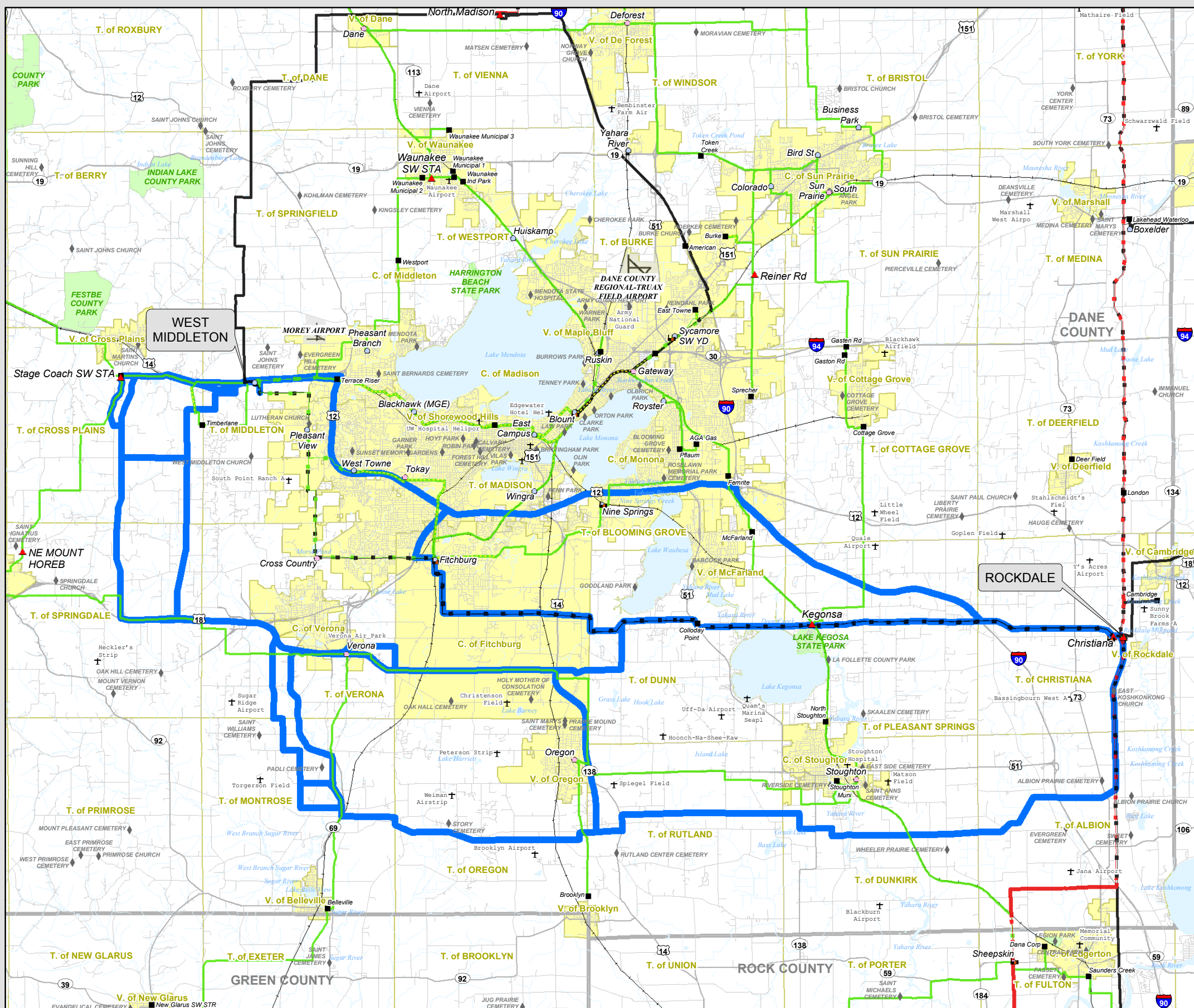
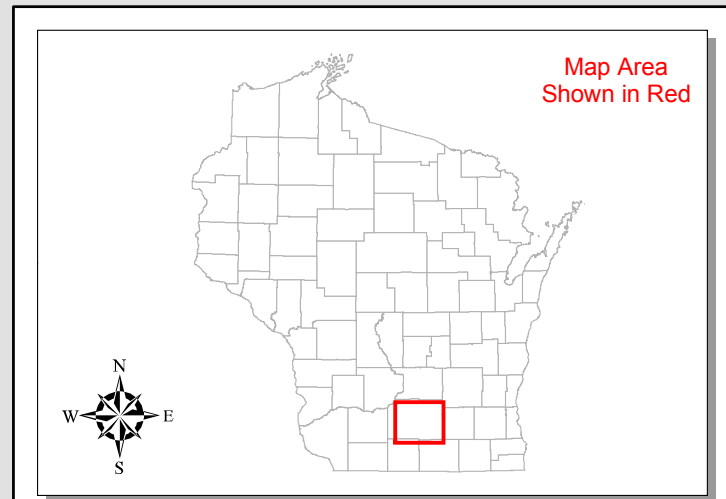
Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI, Dane County LIO.



The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.
 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



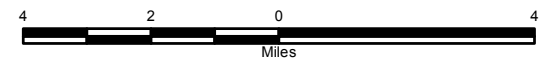
PROPOSED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
 Construct Rockdale to West Middleton
 345 kV Line



- Transmission Facilities**
- | | |
|-----------------------------|---------------------------|
| Transmission Lines * | Transmission Sites |
| 69 kV | ▲ ATC Owned |
| Single Circuit | ◆ Joint Owned - Conveyed |
| Double Circuit | ● Joint Owned - Retained |
| Underground | ■ Generation |
| 138 kV | ■ Muni or Distribution |
| Single Circuit | ■ Design or Construction |
| Double Circuit | |
| Underground | |
| 345 kV | |
| Single Circuit | |
| Double Circuit | |

Proposed Routes
 As of July 2006
 Anticipated CPCN Application - Early 2007

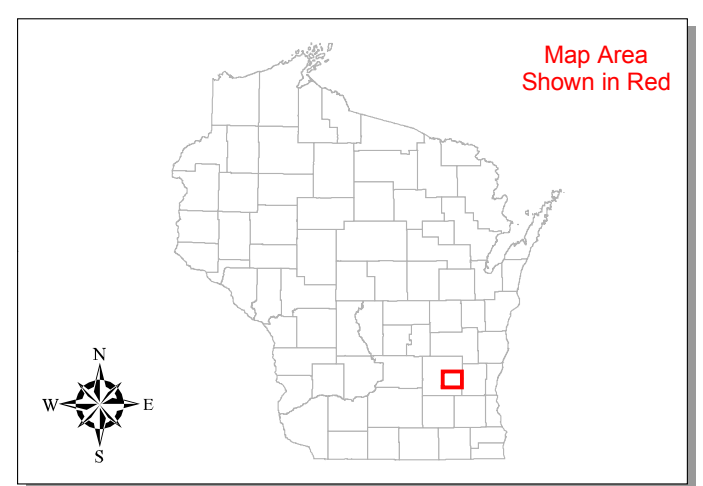
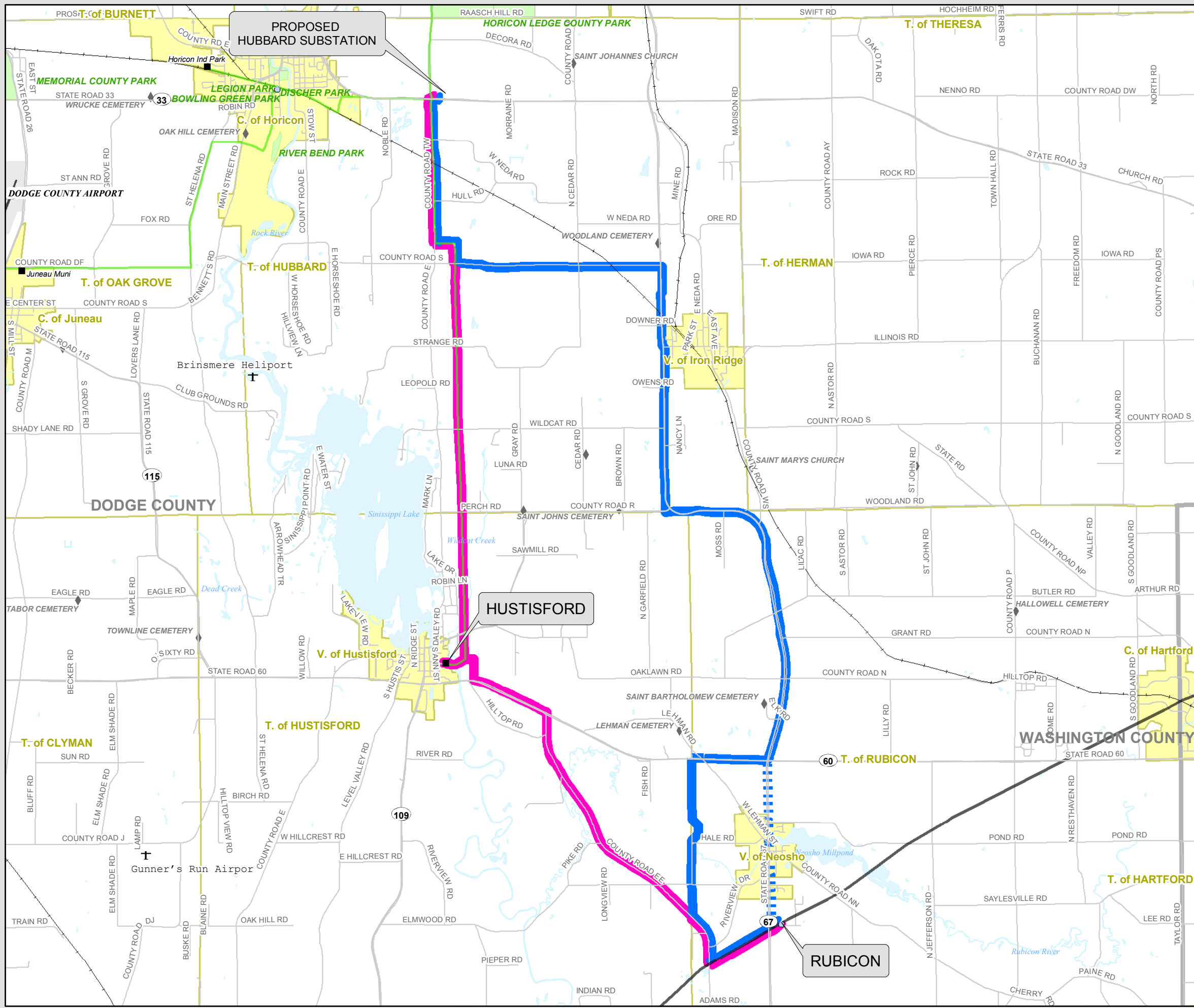
- | | |
|----------------|-------------------|
| ◆ Public Sites | ○ City or Village |
| ○ Park Areas | ○ Town Boundary |
| ○ Open Water | |
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI, Dane County I.O.



The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.
 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



PROPOSED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
 Construct Rubicon to Hustisford to Hubbard
 138 kV Line

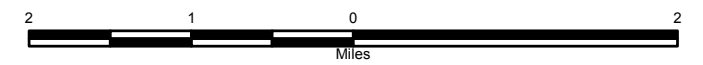


- Transmission Facilities**
- Transmission Sites**
- ▲ ATC Owned
 - ◆ Joint Owned - Conveyed
 - Joint Owned - Retained
 - Muni or Distribution
 - Design or Construction
- Transmission Lines**
- 69 kV**
 - Single Circuit
 - Double Circuit
 - Underground
 - 138 kV**
 - Single Circuit
 - Double Circuit
 - Underground

CPCN PROPOSED ROUTES
 Submitted to the PSC in January 2006

- ATC Preferred Route
- ATC Alternate Route
- Other Segments

- ◆ Public Sites
 - Park Areas
 - Open Water
 - City or Village
 - Town Boundary
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

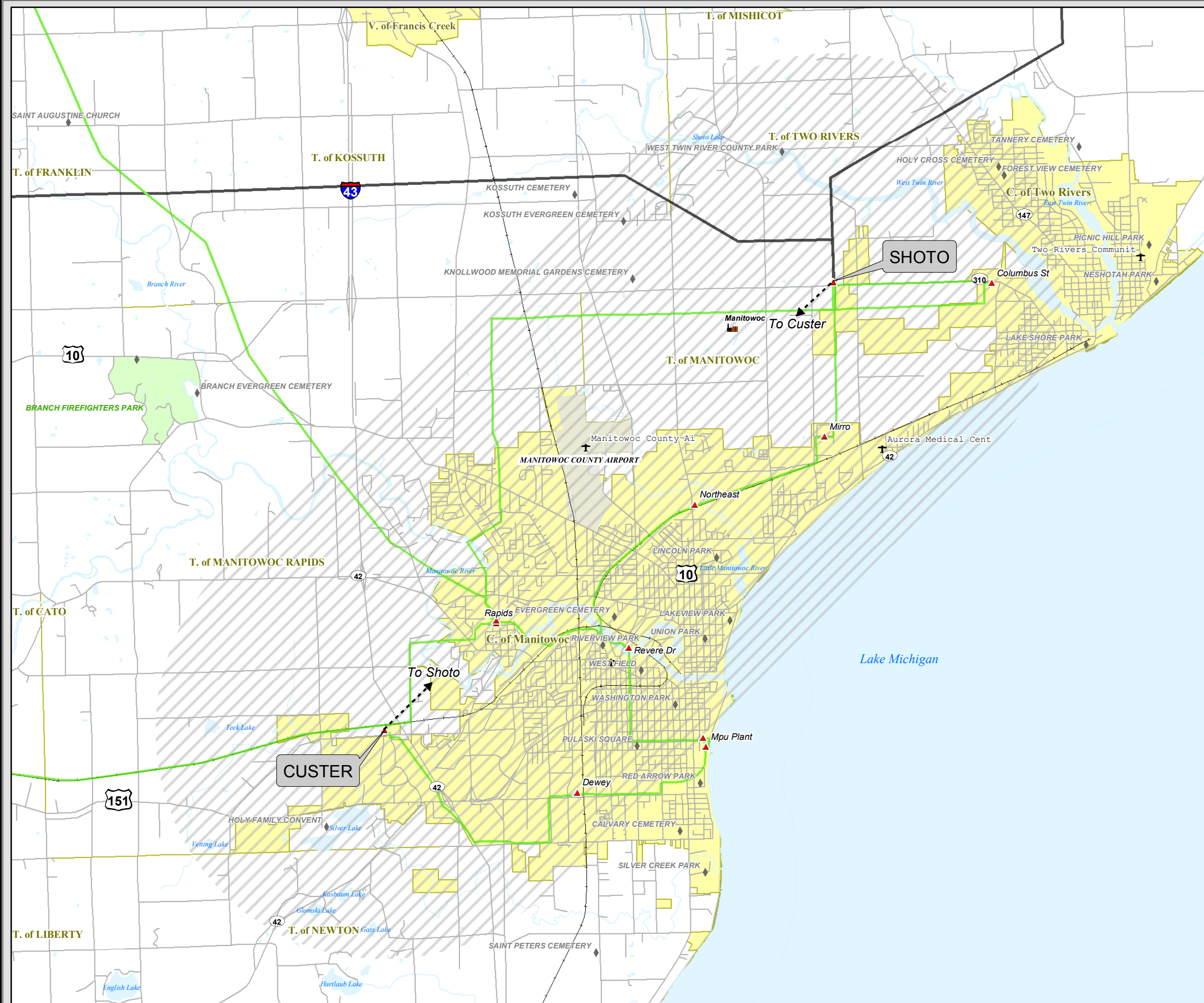
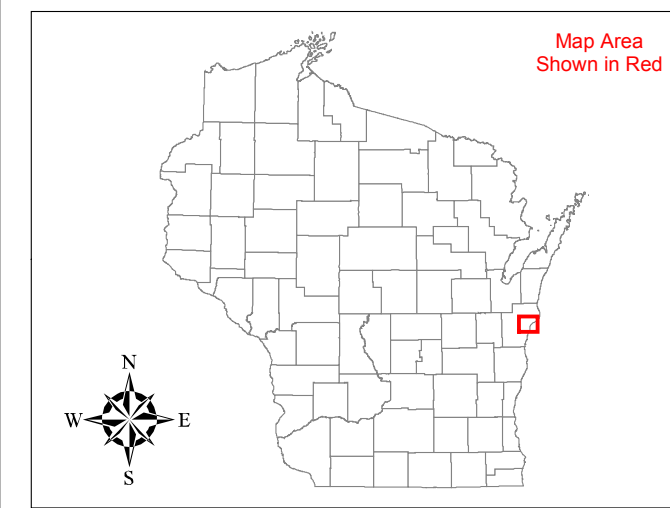


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 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



**PROVISIONAL TRANSMISSION LINE
REQUIRING NEW RIGHT-OF-WAY**

*Construct Shoto to Custer
138 kV Line*



Transmission Facilities

- | | |
|-----------------------------|-----------------------------|
| Transmission Lines * | Transmission Sites |
| 69 kV | ▲ Substation/Switching Yard |
| Single Circuit | □ Switching Structure/Tap |
| Double Circuit | 🏭 Generation |
| 138 kV | |
| Single Circuit | |
| Double Circuit | |

- | | |
|------------------------------|-------------------|
| ◆ Public Sites | 🌊 Open Water |
| 🌳 Park Areas | 🏘 City or Village |
| 🚧 Preliminary Screening Area | 🗺 Town Boundary |
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

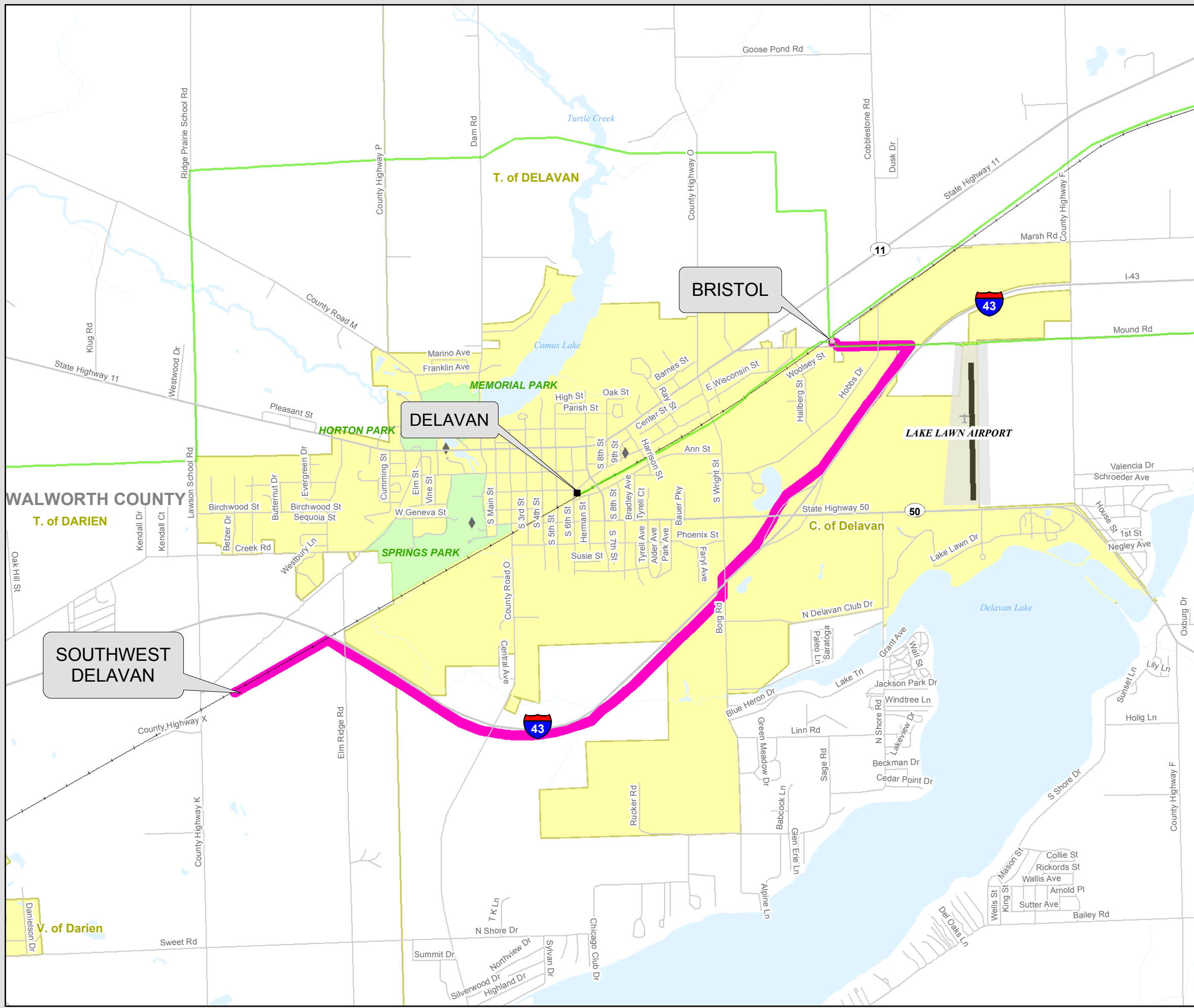
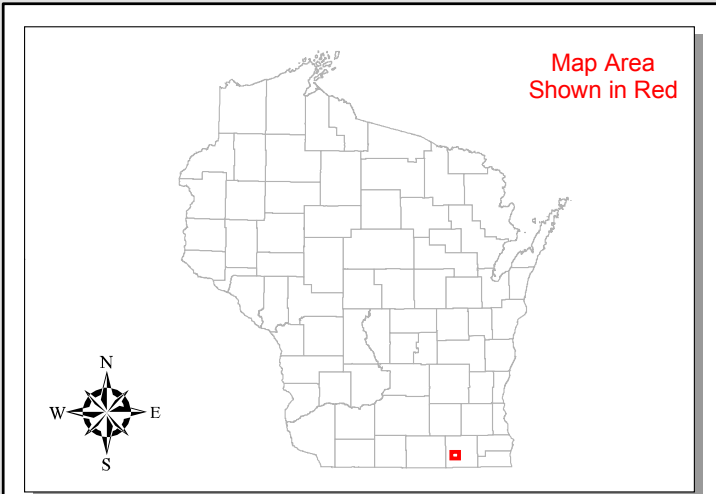


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* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



PROPOSED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
 Construct Southwest Delavan to Bristol
 138 kV Line (Operate at 69 kV)



Transmission Facilities

Transmission Sites

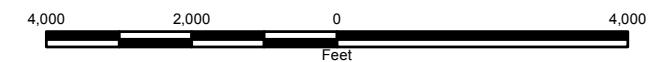
- ▲ ATC Owned
- ◆ Joint Owned - Conveyed
- Joint Owned - Retained
- Muni or Distribution
- Design or Construction
- Proposed Distribution Substation

Transmission Lines

- | | | |
|------------------|------------------|------------------|
| 69 kV | 138 kV | 345 kV |
| — Single Circuit | — Single Circuit | — Single Circuit |
| — Double Circuit | — Double Circuit | — Double Circuit |
| — Underground | — Underground | — |

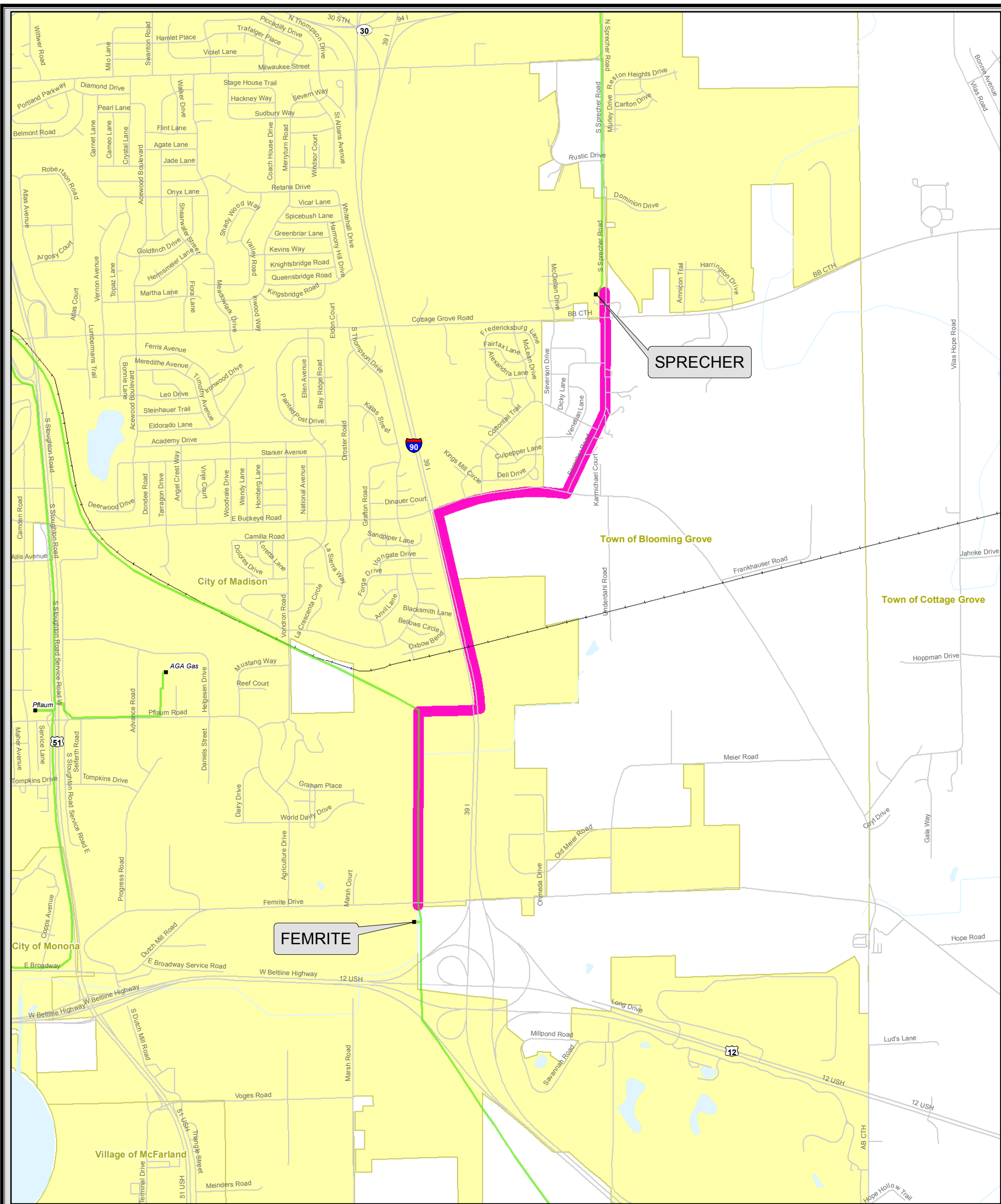
PSC Approved Route
 Approved March 2006

- ◆ Public Sites
 - Park Areas
 - Open Water
 - City or Village
 - Town Boundary
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.



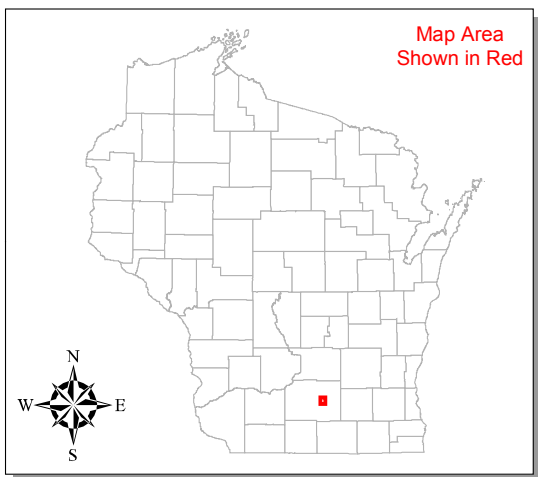
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 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.





UNDER CONSTRUCTION - TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY

Construct Sprecher to Femrite 138 kV Line



Map Area Shown in Red

Transmission Facilities

Transmission Lines *

- 69 kV
- Single Circuit
- Double Circuit
- Underground

* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.

Transmission Sites

- ▲ ATC Owned
- ◆ Joint Owned - Conveyed
- Joint Owned - Retained
- Generation
- Muni or Distribution
- Design or Construction

Under Construction - Sprecher to Femrite New 138 kV

- ◆ Public Sites
- Park Areas
- ▨ Preliminary Screening Area
- Open Water
- City or Village
- Town Boundary

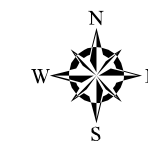
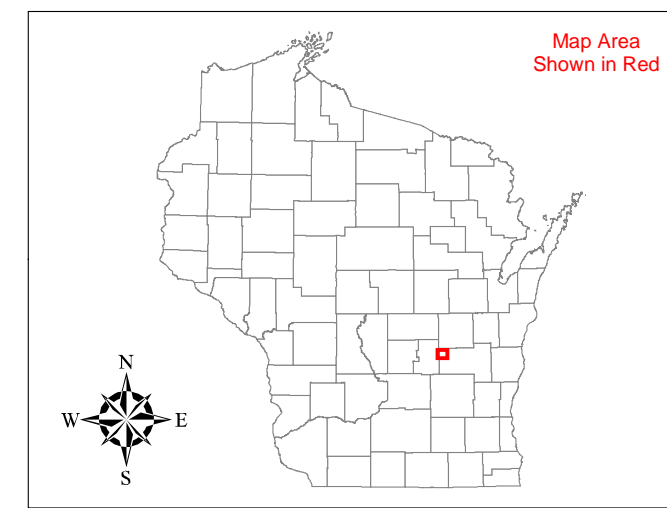
Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI, Dane County.



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**PROVISIONAL TRANSMISSION LINE
REQUIRING NEW RIGHT-OF-WAY**

*Construct 69 kV Line from SW Ripon to the
Ripon - Metomen 69 kV Line*

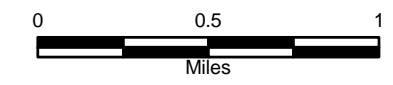


Transmission Facilities

- | | |
|-----------------------------|---------------------------|
| Transmission Lines * | Transmission Sites |
| 69 kV | ▲ ATC Owned |
| Single Circuit | ◆ Joint Owned - Conveyed |
| Double Circuit | ● Joint Owned - Retained |
| 138 kV | ☐ Generation |
| Single Circuit | ■ Muni or Distribution |
| Double Circuit | ■ Design or Construction |

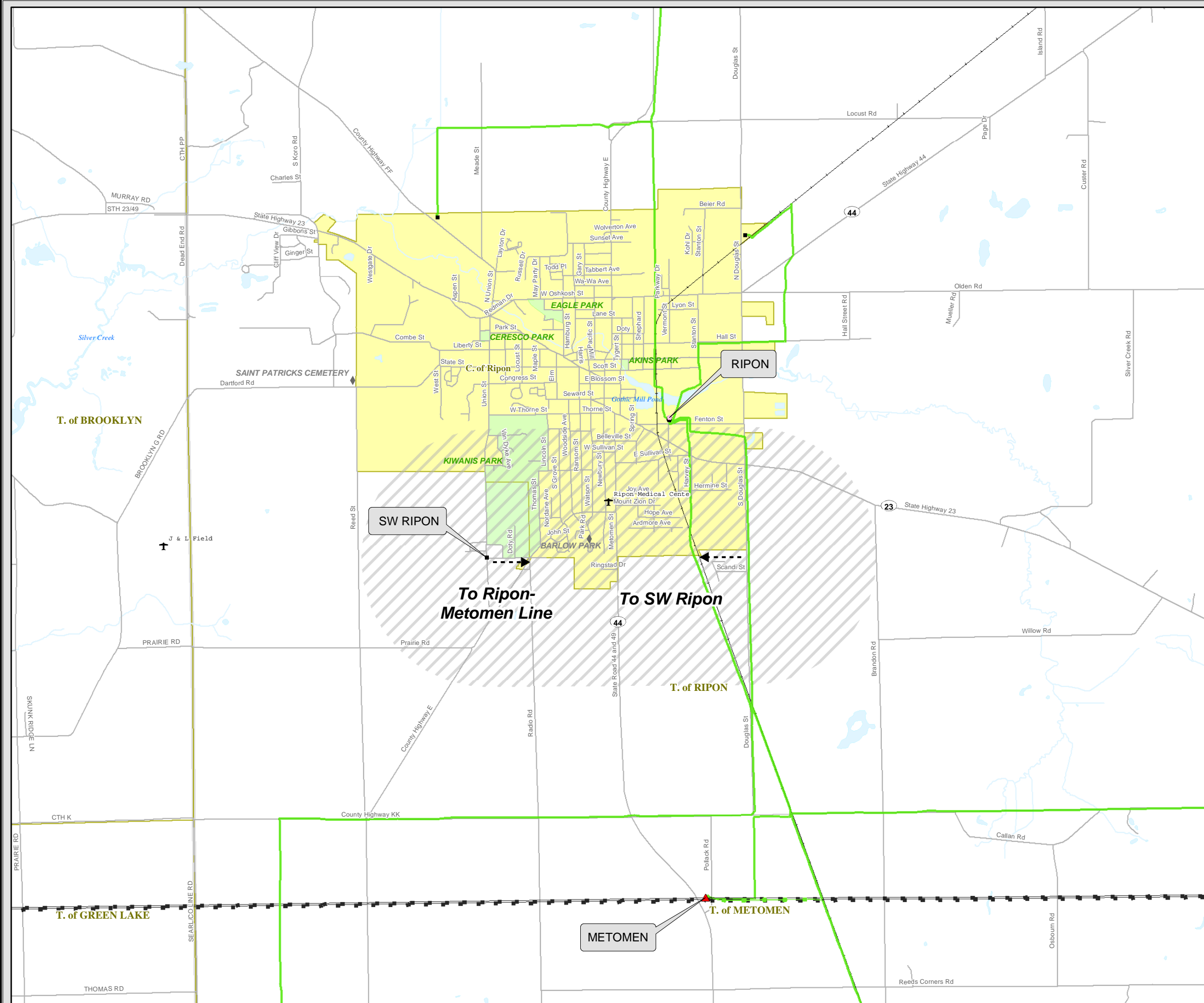
◆ Public Sites	● Open Water
● Park Areas	● City or Village
▨ Preliminary Screening Area	○ Town Boundary

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

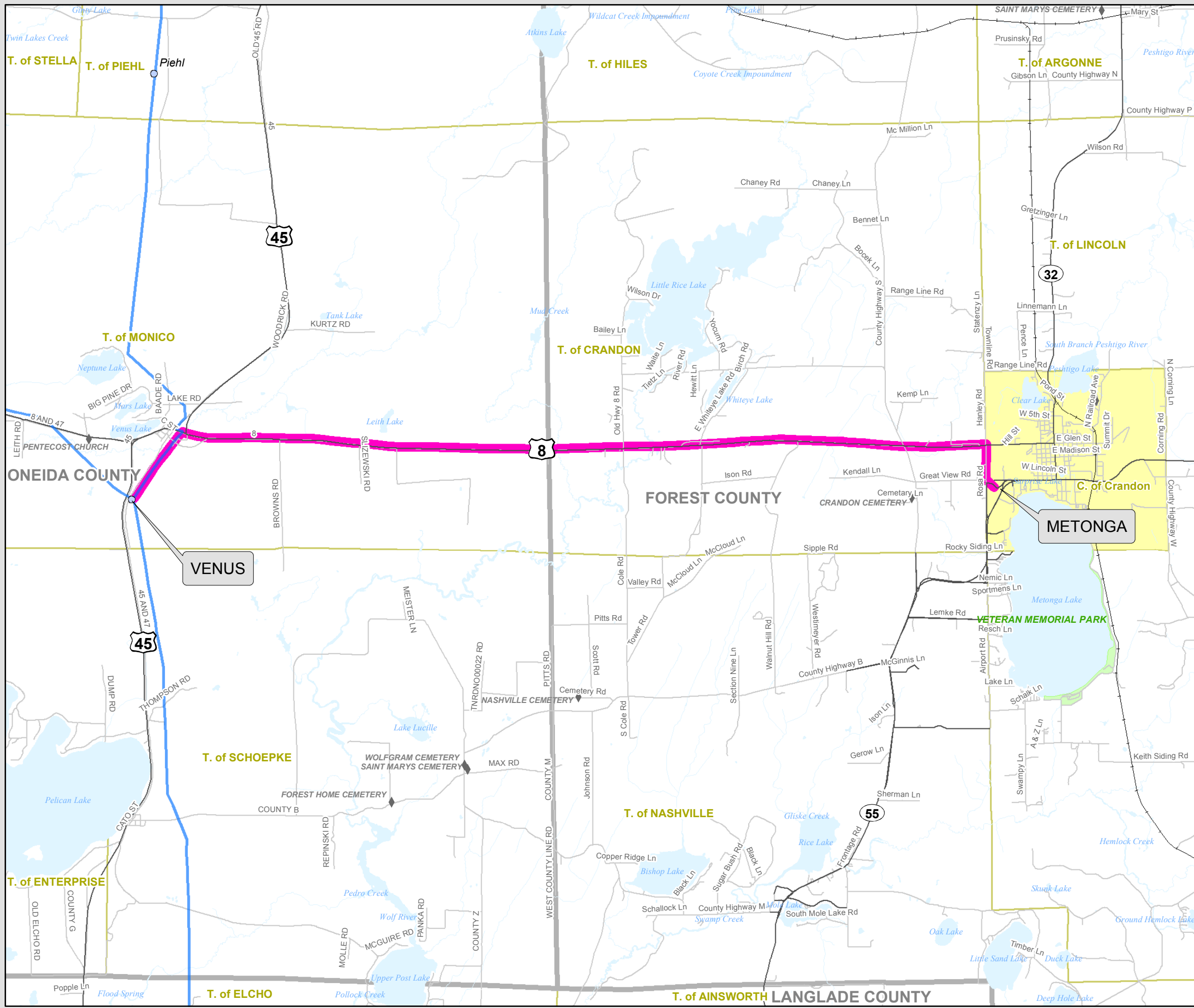
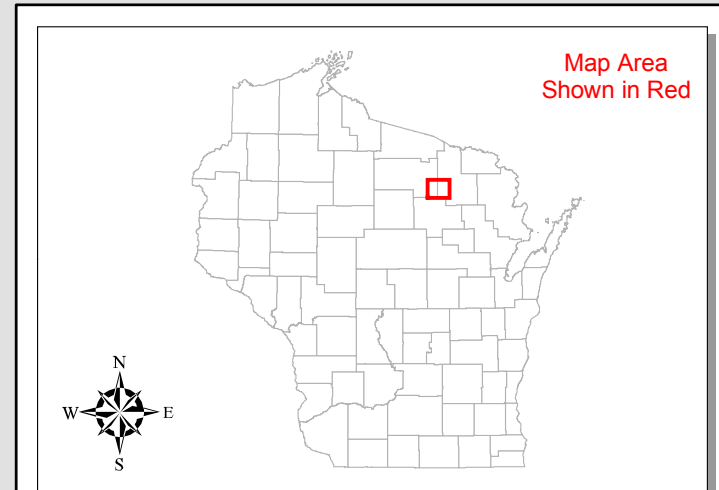


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* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



UNDER CONSTRUCTION - TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
Construct Venus to Metonga 115 kV Line



Transmission Facilities

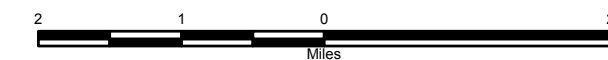
- Transmission Sites**
- ▲ ATC Owned
 - ◊ Joint Owned - Conveyed
 - Joint Owned - Retained
 - Muni or Distribution
 - Design or Construction
 - Proposed Distribution Substation

Transmission Lines

- 115 kV**
- Single Circuit
 - Double Circuit

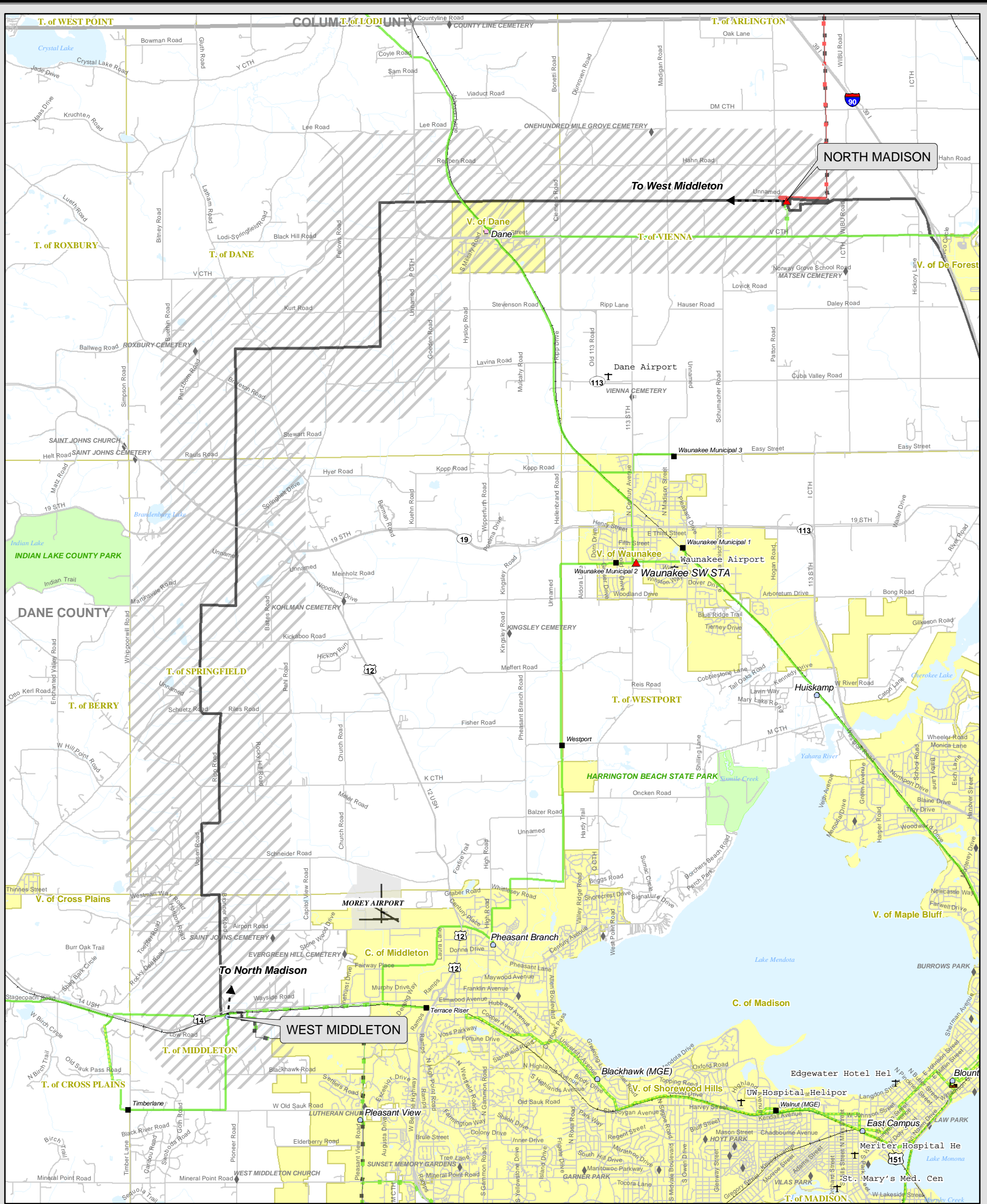
Under Construction - Venus to Metonga 115 kV

- ◆ Public Sites
 - Park Areas
 - Open Water
 - City or Village
 - Town Boundary
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

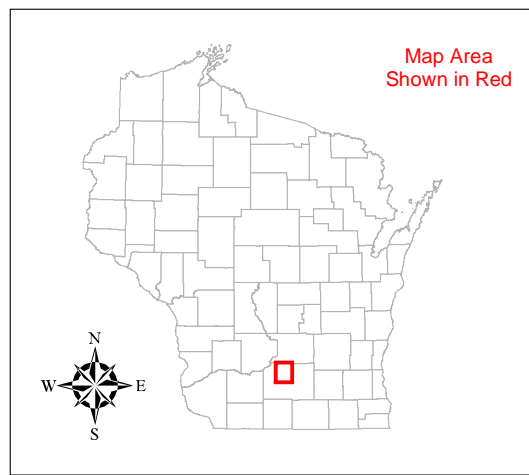


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 *Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.



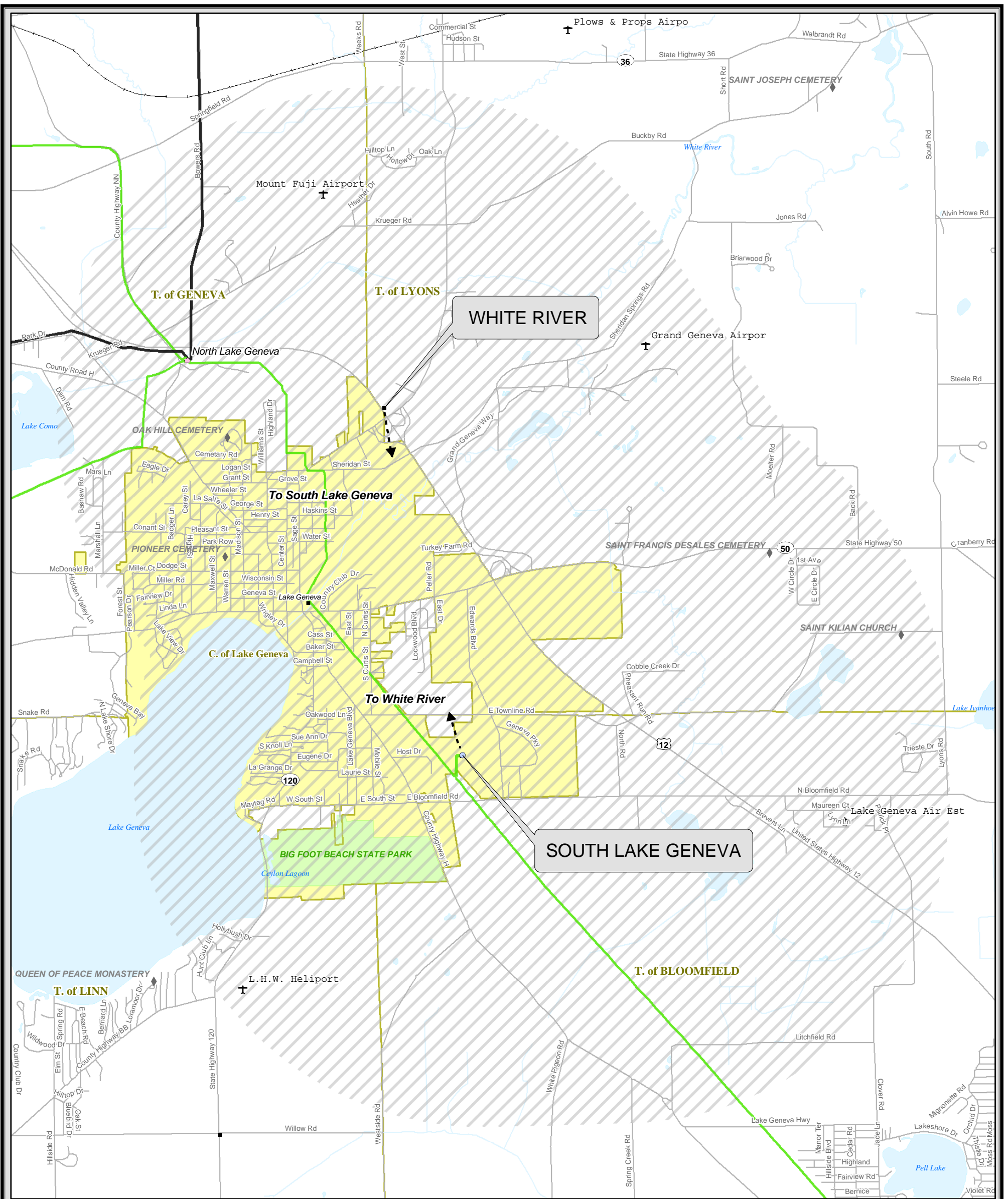


PROPOSED TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
Construct West Middleton to North Madison
345 kV Line

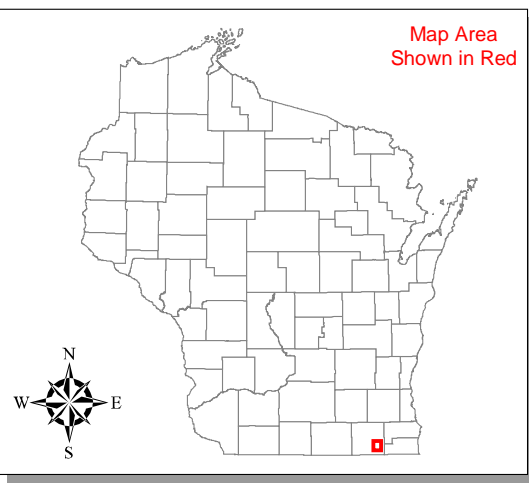


- ### Transmission Facilities
- | | |
|---|---|
| <p>Transmission Lines *</p> <ul style="list-style-type: none"> — 69 kV Single Circuit = 69 kV Double Circuit — 69 kV Underground — 138 kV Single Circuit = 138 kV Double Circuit — 138 kV Underground — 345 kV Single Circuit = 345 kV Double Circuit <p><small>* Mixed voltage double circuit lines drawn showing each line color corresponding to voltage.</small></p> | <p>Transmission Sites</p> <ul style="list-style-type: none"> ▲ ATC Owned ◆ Joint Owned - Conveyed ● Joint Owned - Retained ■ Muni or Distribution ■ Design or Construction ■ Proposed Distribution Substation |
|---|---|

- | | |
|--|--|
| <ul style="list-style-type: none"> ◆ Public Sites ● Park Areas ▨ Preliminary Screening Area | <ul style="list-style-type: none"> ○ Open Water ■ City or Village ○ Town Boundary |
|--|--|
- Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.
- Miles
- The information presented in this map document is advisory and is intended for reference purposes only. American Transmission Company owned and operated facility locations are approximate.



PROVISIONAL TRANSMISSION LINE REQUIRING NEW RIGHT-OF-WAY
Construct New 138 kV Line from South Lake Geneva to White River



- ### Transmission Facilities
- | | |
|-----------------------------|---------------------------|
| Transmission Lines * | Transmission Sites |
| 69 kV | ▲ ATC Owned |
| — Single Circuit | ◆ Joint Owned - Conveyed |
| — Double Circuit | ● Joint Owned - Retained |
| 138 kV | ☐ Generation |
| — Single Circuit | ■ Muni or Distribution |
| — Double Circuit | ■ Design or Construction |

◆ Public Sites	○ Open Water
● Park Areas	■ City or Village
▨ Preliminary Screening Area	○ Town Boundary

Base Map Data Sources: ATC, WDNR, PSCW, WDOA, ESRI.

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