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Welcome

Holt County–Antelope 345kV Transmission Line Project

Who We Are

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Nebraska Public Power District (NPPD) is the state's largest electric generating utility and has been providing dependable and affordable electricity for more than half a century. NPPD currently serves all or parts of 84 of the state's 93 counties.

- Governed by an elected 11-member Board of Directors
- Serves both retail and wholesale customers
- More than 58% of Nebraska customer-generation resources are carbon-free
- Uses a diverse mix of generation resources, including:


Coal


Wind


Nuclear


Diesel/other


Hydroelectric


Solar

The Path of Electricity

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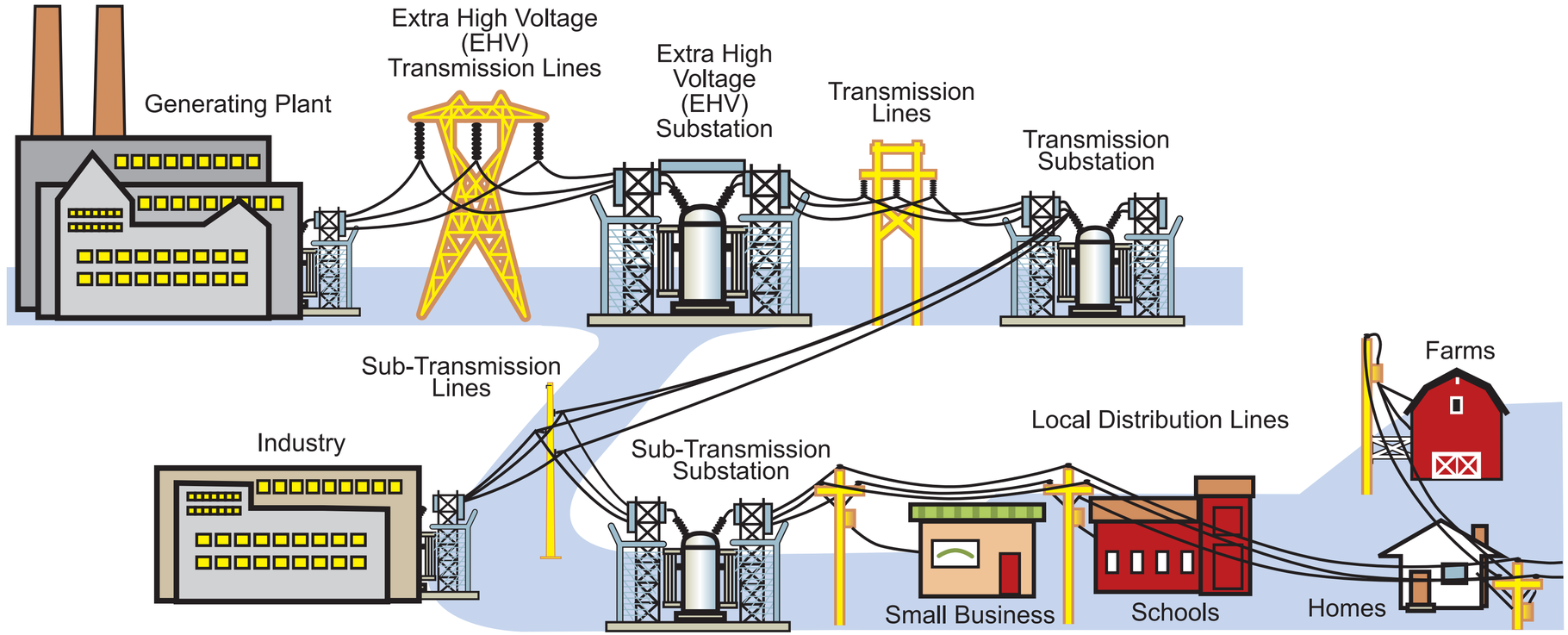
From the power plant, electricity is delivered through a series of lines and substations where the voltage is reduced to the proper level for end-use customers.



Southwest Power Pool

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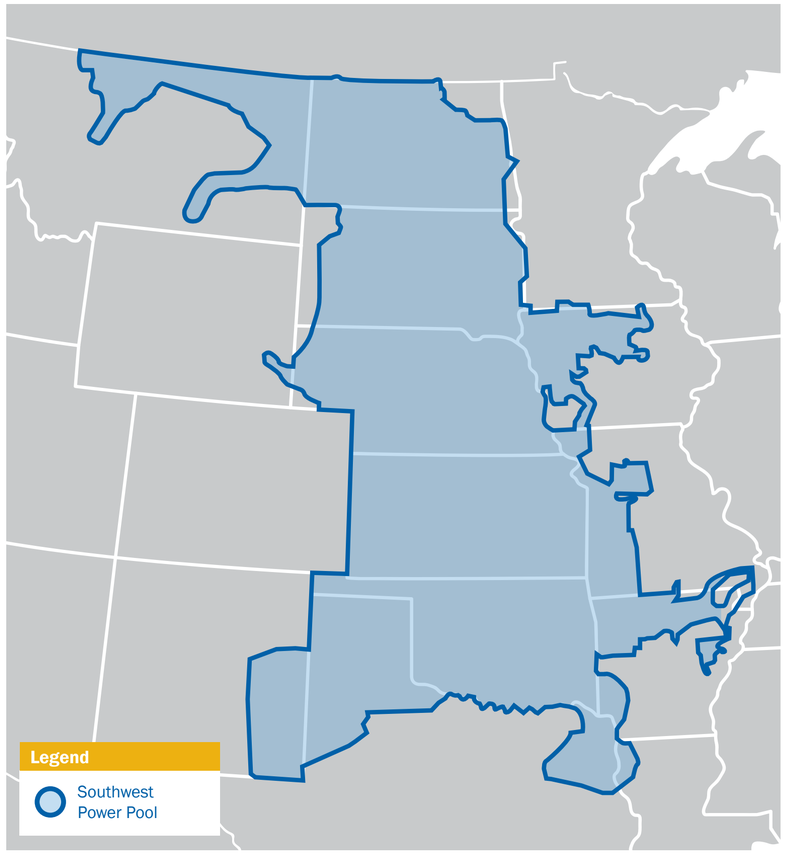
NPPD has been a member of the Southwest Power Pool (SPP) since April 2009. The SPP's primary focus is to ensure reliable power supplies, adequate transmission infrastructure, and competitive wholesale electricity prices.

This project will help strengthen the SPP electric system and to accommodate current and project future loads.



Purpose and Need

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NPPD plans to build approximately 27 miles of 345,000-volt (345-kilovolt [kV]) transmission line to accommodate current and projected future loads and provide additional reliability and enhanced resiliency in the north central Nebraska area.

The project:

- Provides enhanced reliability and resiliency for NPPD customers
- Provides for a high-capacity feed into the central Nebraska area to serve the future projected load levels in the area
- Reduces congestion to support existing and future generation resources in this area
- Meets the projected reliability needs identified in the Southwest Power Pool Integrated Transmission Plan
- Holt County-Antelope 345kV project is the lowest cost and most effective transmission alternative to meet the North American Electric Reliability Corporation (NERC) reliability standards in this area

Routing, Siting, and Public Involvement

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NPPD uses a thorough and comprehensive public involvement process when siting new transmission lines. Routing a line requires balancing a variety of factors – from proximity to homes, towns, and community amenities to land use, environmental concerns, and construction challenges. When planning new transmission lines, we must consider the most suitable location for the line to be built.

While the shortest, most direct path might seem best, that is not always the case. Public input plays a key role in this process. Routes for a transmission project are typically developed over the course of multiple phases and are then narrowed down to a final route.

PHASE 1

- Identify study area
- Host Public Open House 1

PHASE 2

- Determine preferred and alternative routes using input from the public and considering constraints
- Host Public Open House 2

PHASE 3

- Determine proposed route using input from the public and considering constraints
- Host Public Hearing
- Announce final line route not earlier that 30 days after the Public Hearing

Project Schedule

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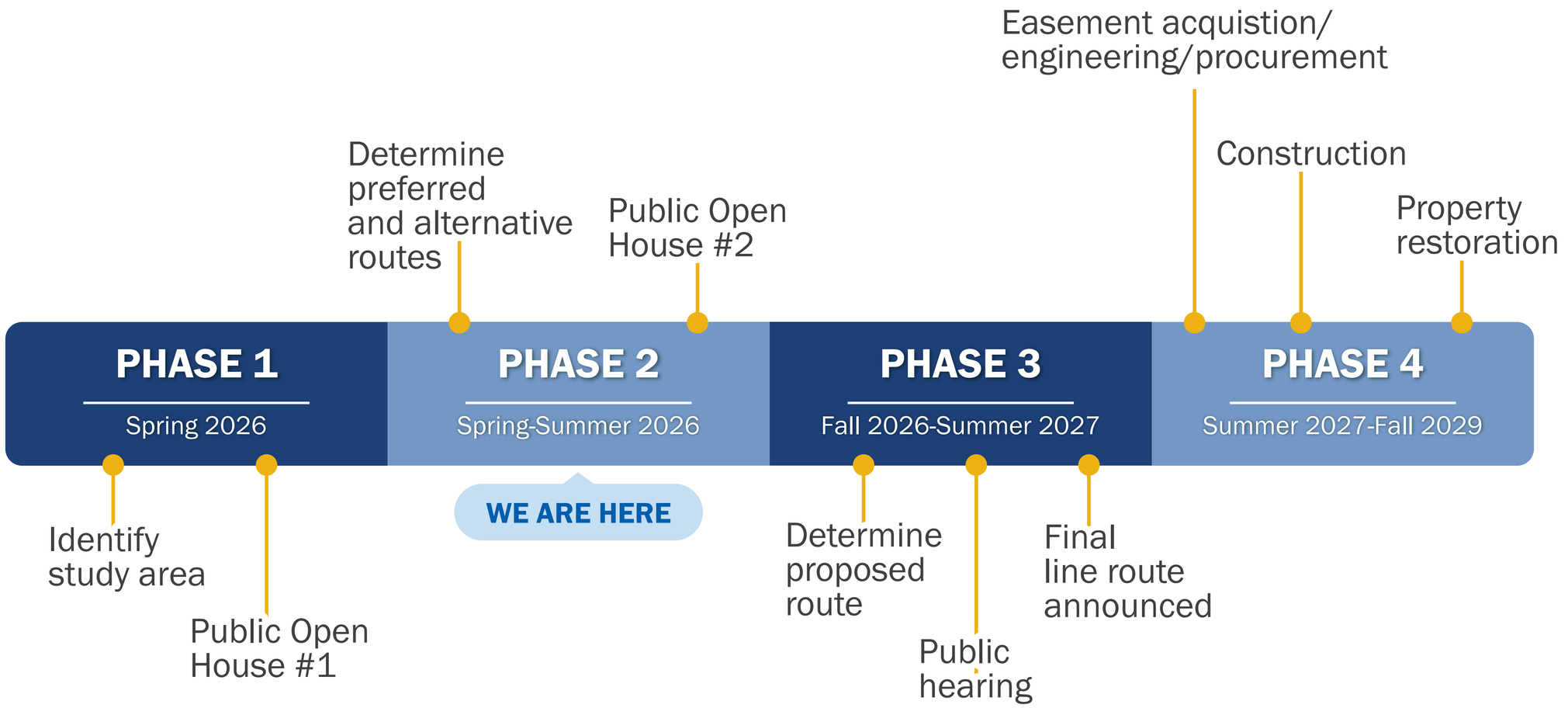

Routing Study Process

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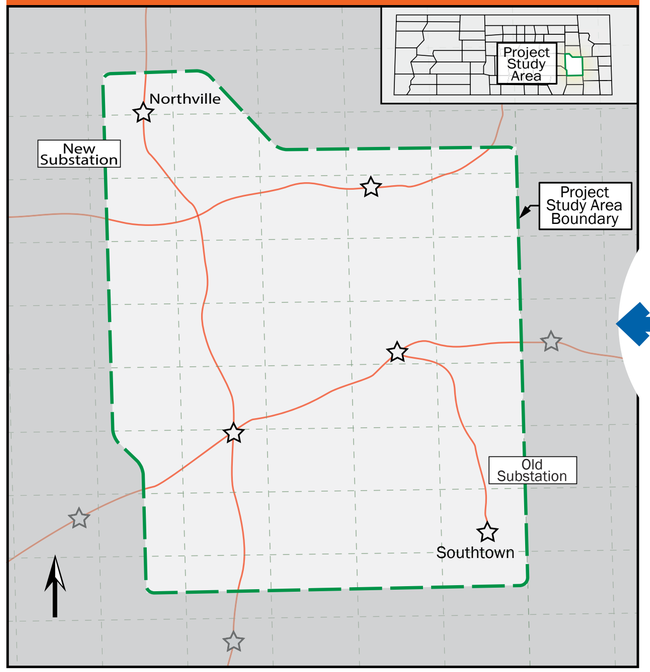
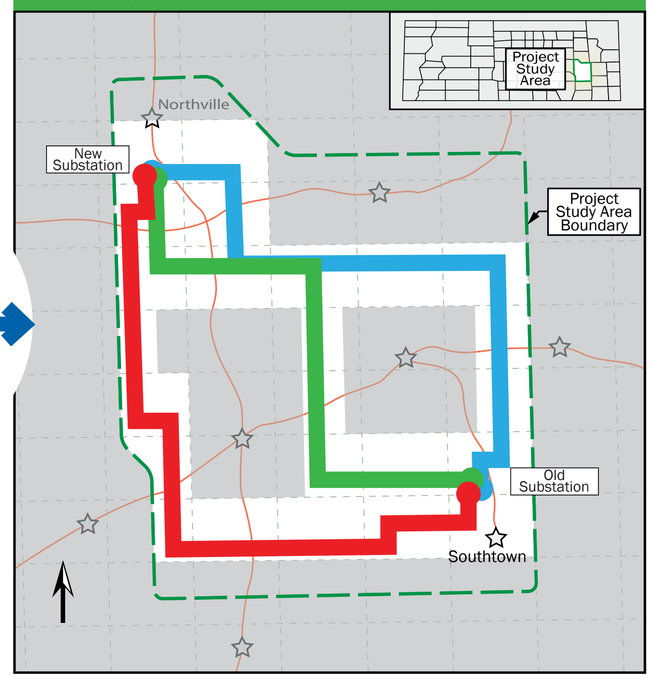
YOU ARE HERE

1. Example of a Study Area

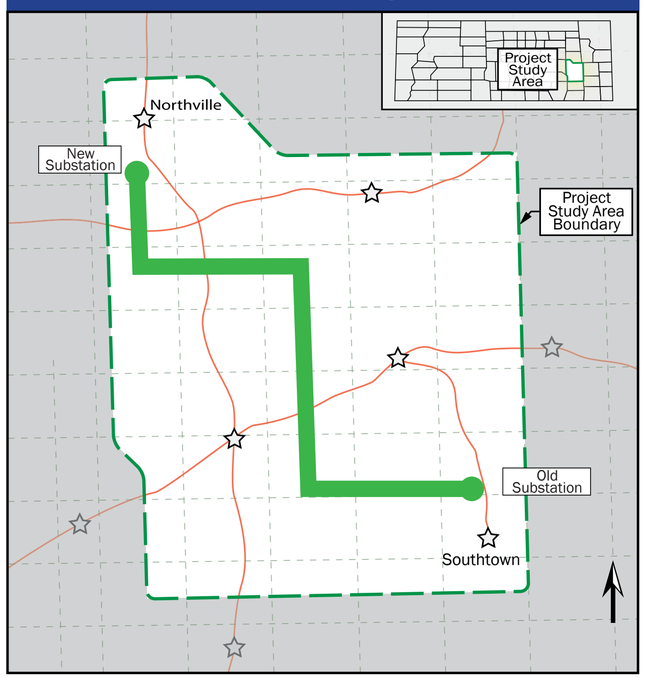


PUBLIC INPUT

2. Example of Alternative Routes



3. Example of a Final Route



Routing and Siting Evaluation Criteria

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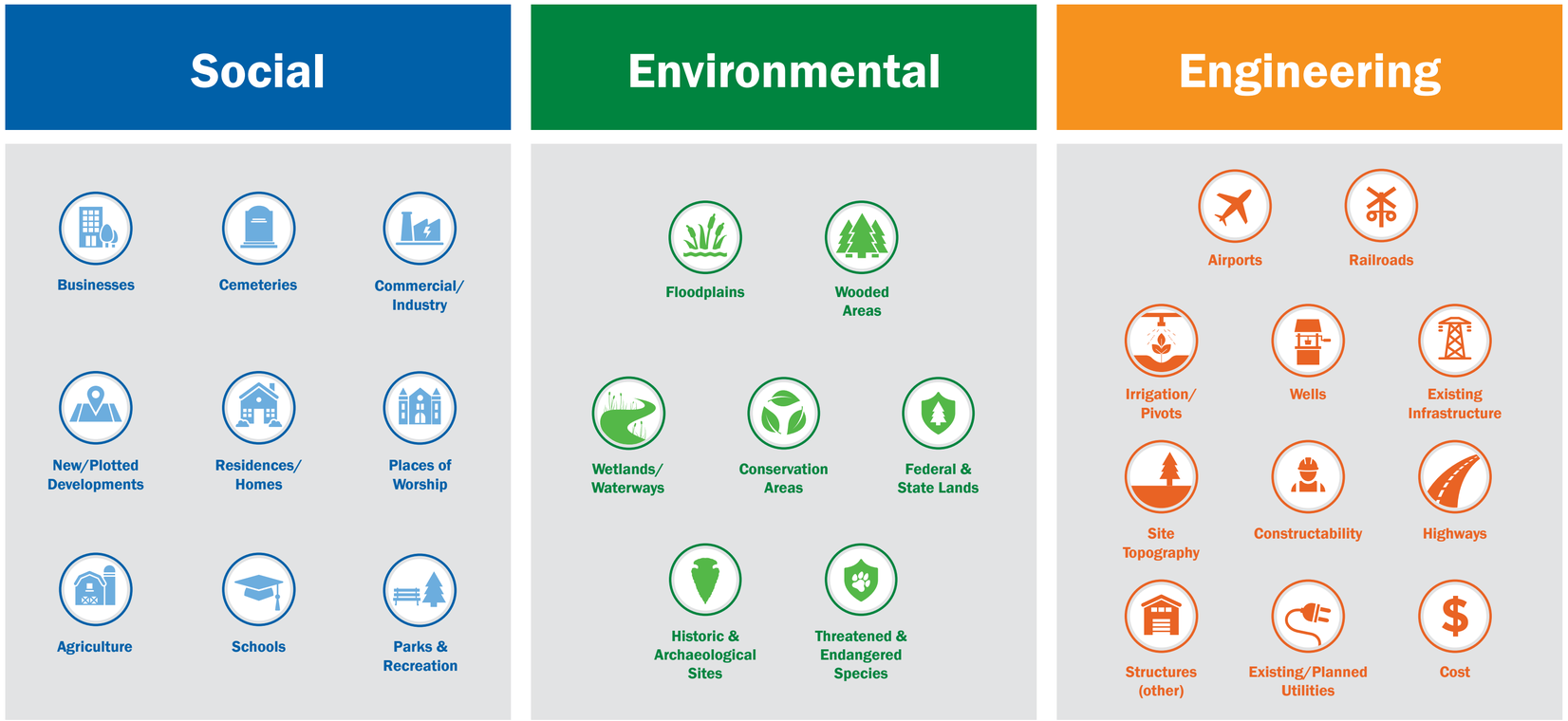
Transmission line routing involves trade-offs among a variety of factors called routing criteria. The most promising route options balance each of the three types of criteria, which are social, environmental, and engineering.



Routing Criteria Comparison Table

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		Holt County- Antelope 345kV		
		Route A	**Route B**	**Route C**
Land Use Criteria				
Proximity to residences				
Within ROW (200ft corridor)	Number	-	1	1
Edge of ROW to 300 feet	Number	2	3	3
300 feet to 500 feet	Number	3	1	3
Proximity to churches				
Within ROW	Number	-	-	-
ROW Edge to 300 feet	Number	-	-	-
Proximity to schools and licensed day cares				
Within ROW	Number	-	-	-
ROW Edge to 300 feet	Number	-	-	-
Proximity to other buildings				
Within ROW	Number	3	9	11
ROW Edge to 300 feet	Number	7	19	10
Proximity to other amenities				
Cemeteries within 100 feet	Number	-	-	-
Public use airports within 1.5 miles (runway >3,200 feet)	Number	-	-	-
Public use airports within 1.25 miles (runway <3,200 feet)	Number	-	-	-
Private FAA registered airports within 1.25 miles	Number	-	-	-
Private non-FAA registered airports with 0.5 mile	Number	-	-	-
Wellheads within ROW	Number	5	7	4
Agricultural Land				
Irrigated cropland crossed	Acres within ROW	135.1	149.9	217.3
Pasture/rangeland crossed	Acres within ROW	218.4	194.9	164.6
Dry land crops crossed	Acres within ROW	59.2	81.5	69.6
Center pivot conflicts (>800ft)	Number	1	2	1
Other land use				
Parcels crossed by transmission line ROW	Number	116	120	106
Parks and Public recreation areas crossed	Acres in ROW	-	-	-

Environmental Criteria				
NWI wetlands	Acres within ROW	27	53.6	17.7
Tree clearing	Acres within ROW	30.8	25.3	33.4
Shelterbelt crossed	Acres within ROW	56.2	66.8	33.5
State Wildlife Management Areas within ¼ mile	Feet	5241.7	5263.4	-
Distance of centerline within 660-feet of known bald eagle nest	Feet	591.6	-	-
National Register of Historic Places within 0.25 miles	Number	1	-	-
Engineering and Construction Criteria				
Heavy angles (greater than 30 degrees)	Number	9	5	10
Length	Miles	24.8	24.8	26.3
Railroads crossed	Number	-	-	-
Railroads paralleled (adjacent to ROW)	Feet	-	-	-
U.S. or State highways crossed	Number	2	2	2
U.S. or State highways paralleled	Miles	0.5	-	0.7
Other existing roads parallel	Miles	12.5	7.2	2.5
Distance of centerline without established access	Miles	11.8	17.6	23.1
Distance of transmission rebuilt	Miles	3.1	3.1	2
Distance of centerline parallel to existing transmission lines	Miles	0.4	3.9	0.9
Crossings of existing 115kV transmission lines	Number	4	4	4
Crossings of existing 230kV transmission lines	Number	-	-	-
Crossings of existing 345kV transmission lines	Number	1	1	1
Communication towers within 0.25 mile	Number	-	-	-
Wind Turbines within 0.25 mile	Number	4	4	3

Holt County–Antelope Preferred and Alternative Routes

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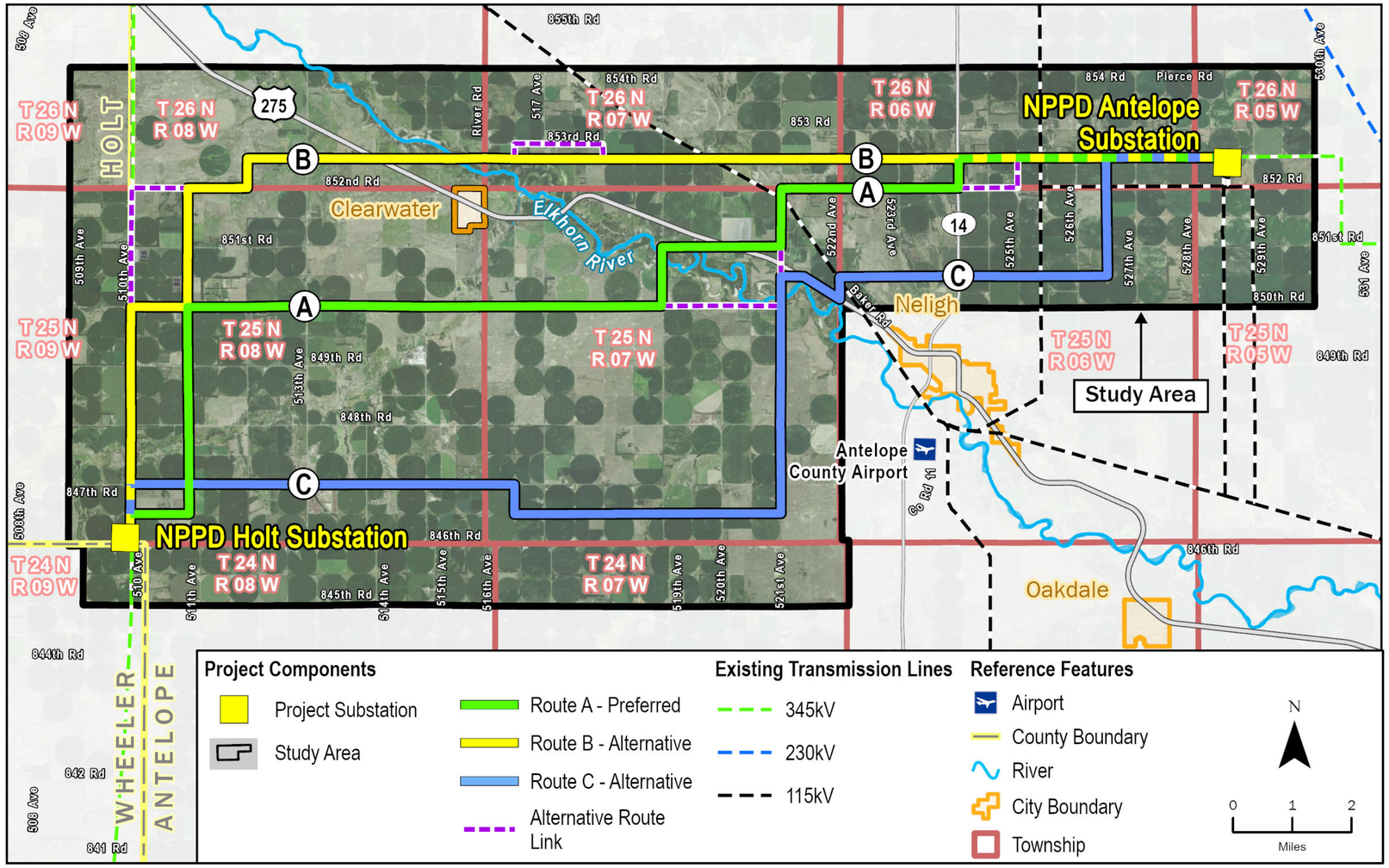

Environmental Resources

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Environmental resources are evaluated as part of the route selection process and may include:

- Agricultural lands
- Recreational areas
- Water resources (lakes, streams, wetlands, and floodplains)
- Wildlife habitat areas
- Sensitive, threatened and endangered species
- Cultural and historical resources
- Visual resources

NPPD coordinates with federal/state/local agencies and organizations such as:

- Federal Aviation Administration
- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers
- Nebraska Department of Water, Energy, and Environment
- Nebraska Game and Parks Commission
- Nebraska Department of Transportation
- Natural Resources Districts
- Nebraska State Historical Society
- Local Airport Authorities
- Private Non-Government Organizations

Transmission Line Structure

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NPPD plans to use a steel single-pole structure for this project.

- 345kV Single-pole steel structure

Typical Right-of-Way Width

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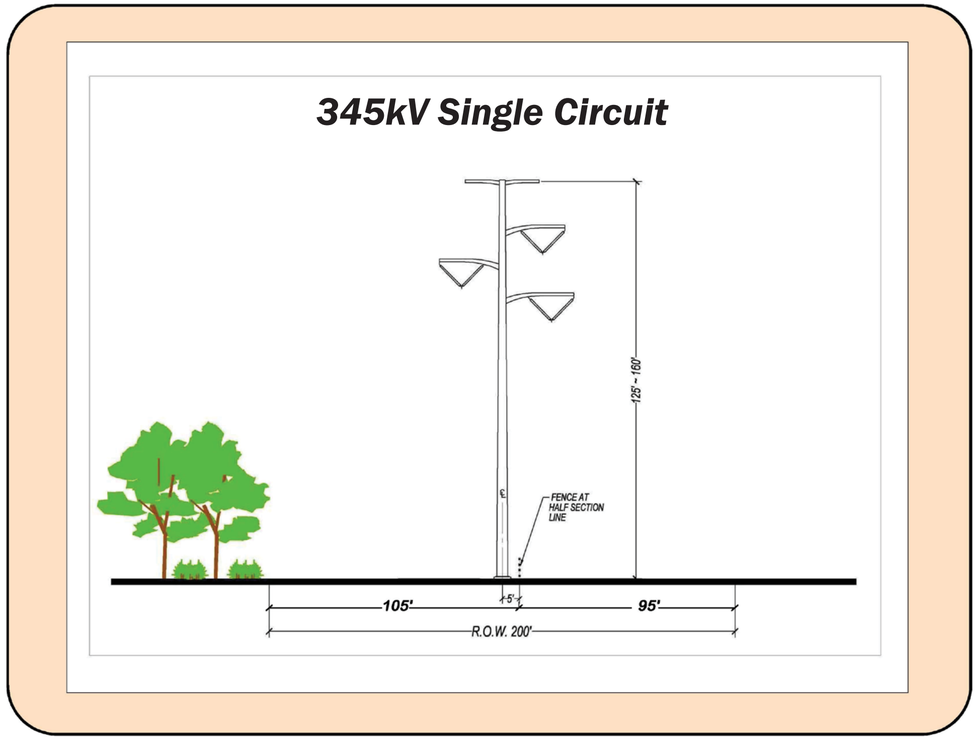

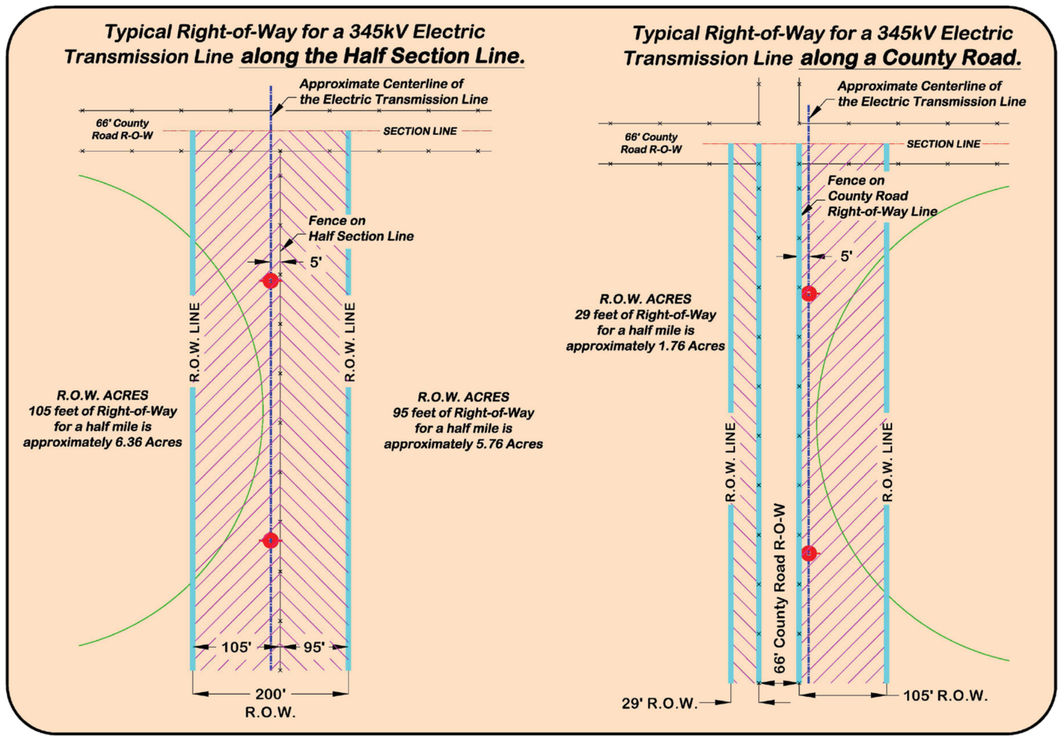

Typical examples of the right-of-way required for a 345kV electric transmission line

Height of structure and right-of-way (R.O.W.) width can vary based on special circumstances.

Structure Spotting/Line Design

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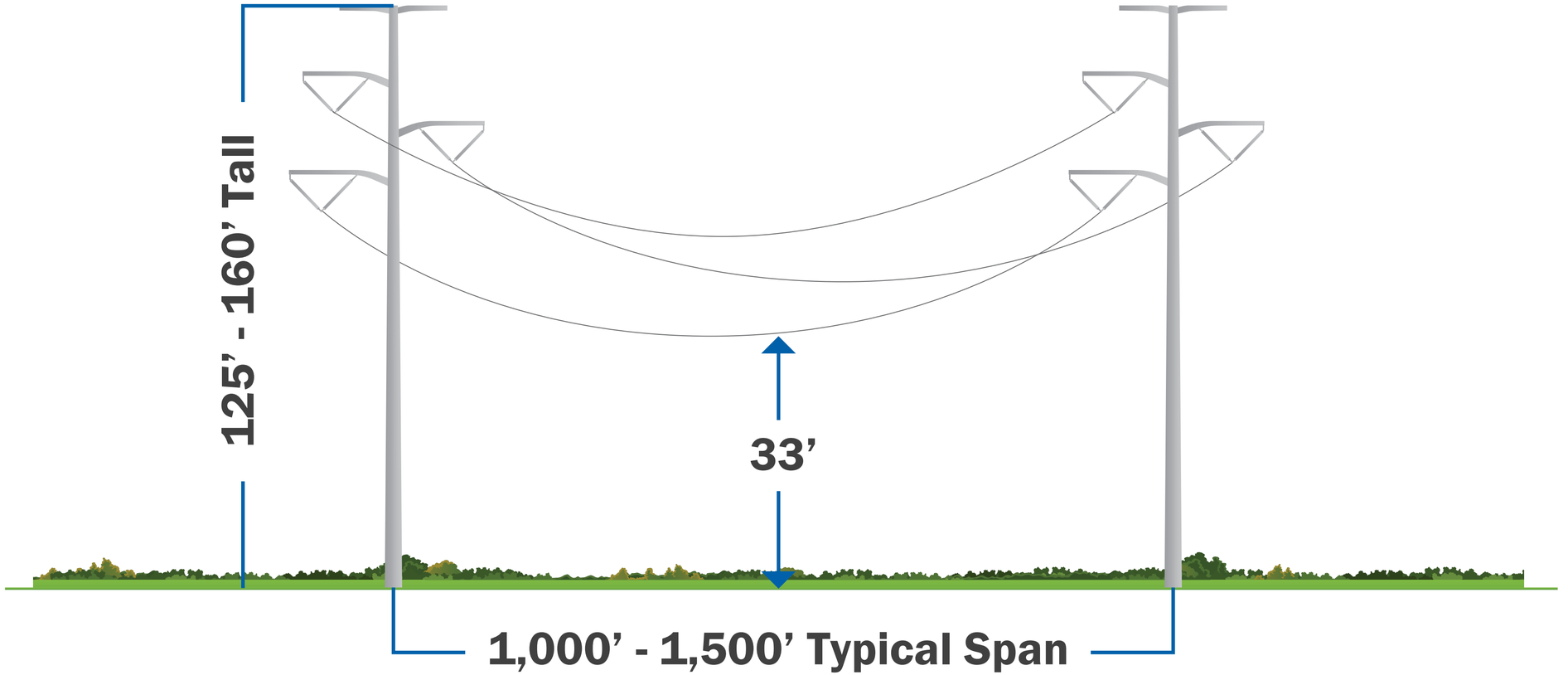
345kV Single-pole steel structure



Typical spans can vary based on special circumstances.

Vegetation Management in Right-of-Way

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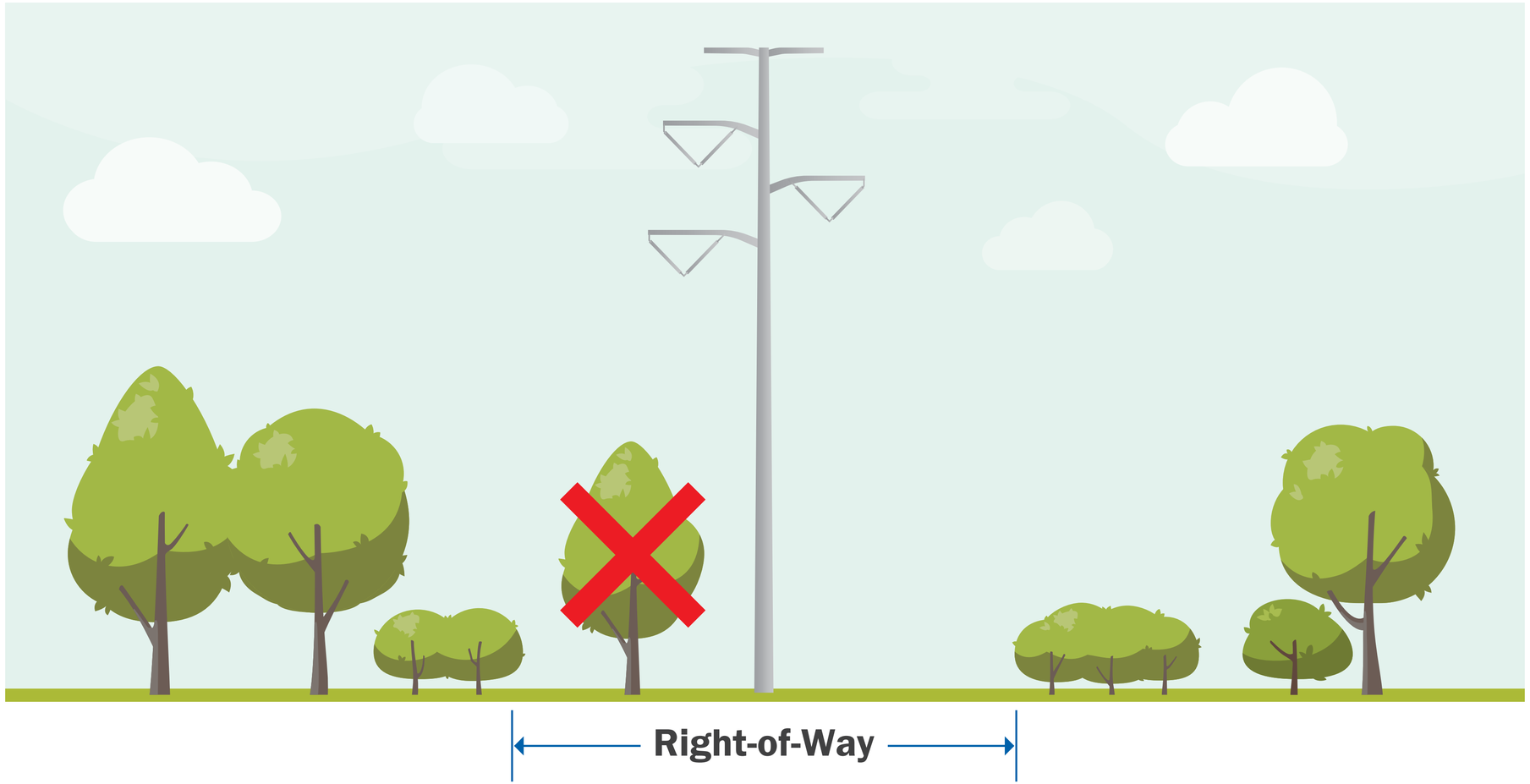

Trees or other vegetation that could grow into or fall across the transmission line will be trimmed or removed.

Typical Structure Locations

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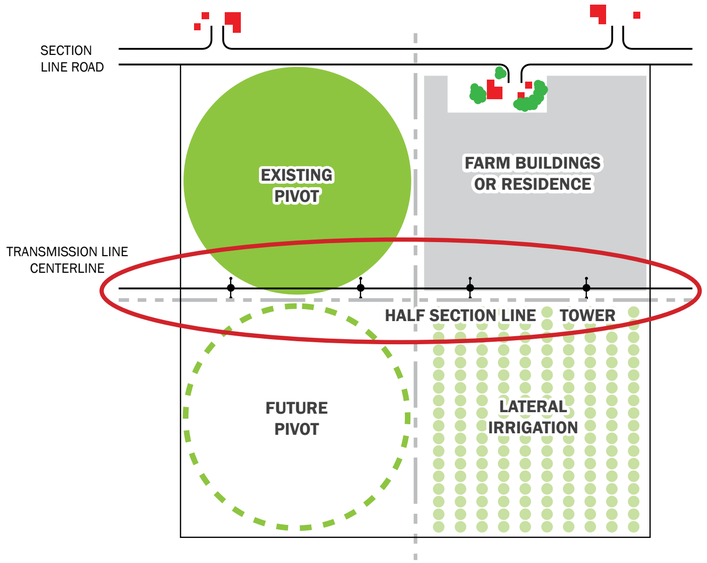
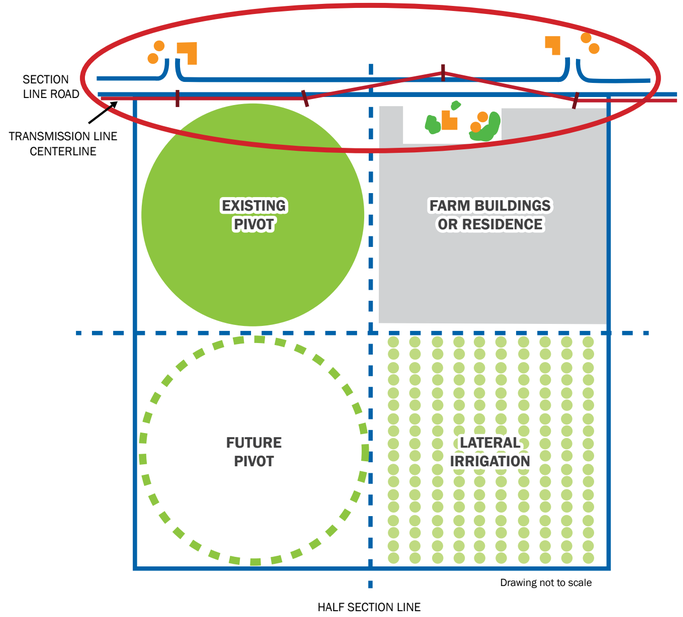
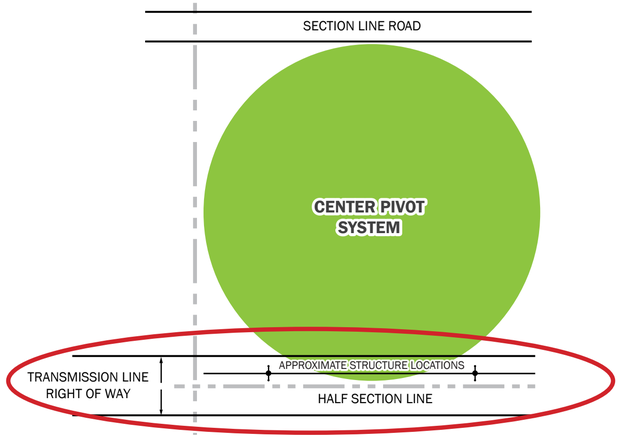
When poles are not placed along the section line road, the location of the line along the half section maximizes avoidance of homes and farm buildings typically located along section line roads.







Structure placement and design will account for the existing pivot system to minimize potential impacts.

Construction Sequence

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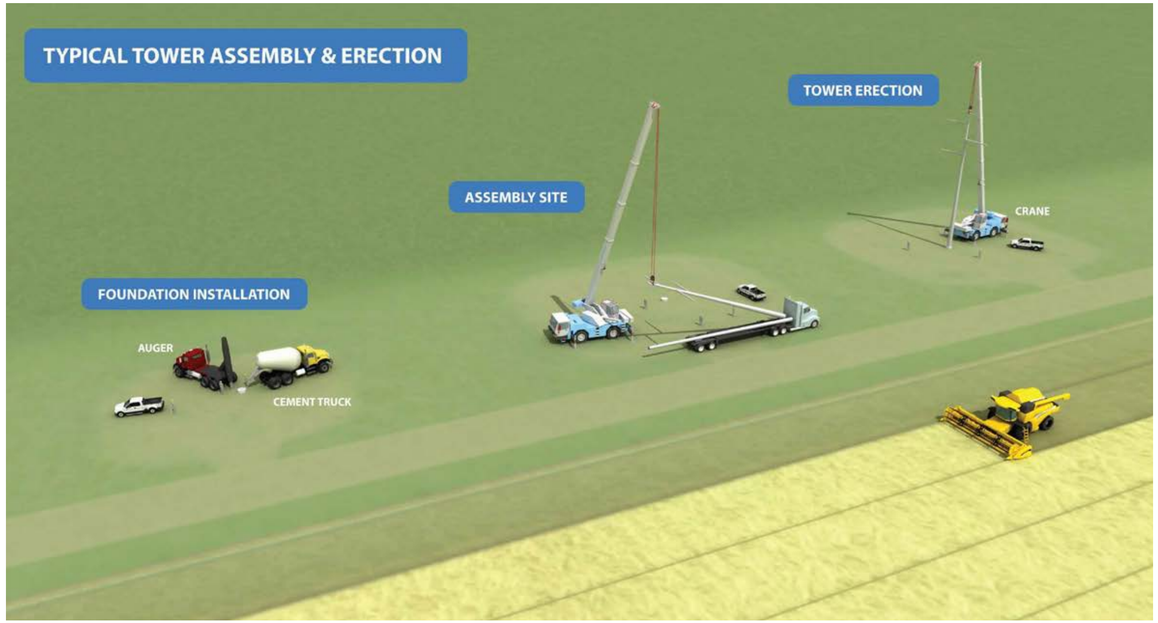

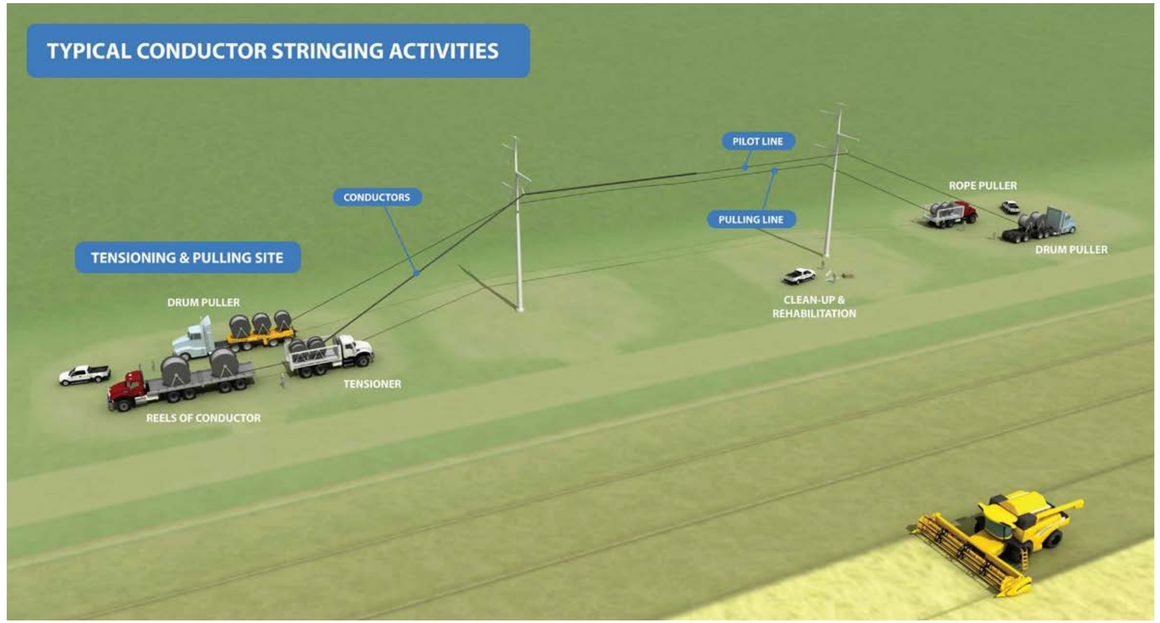

Building Relationships

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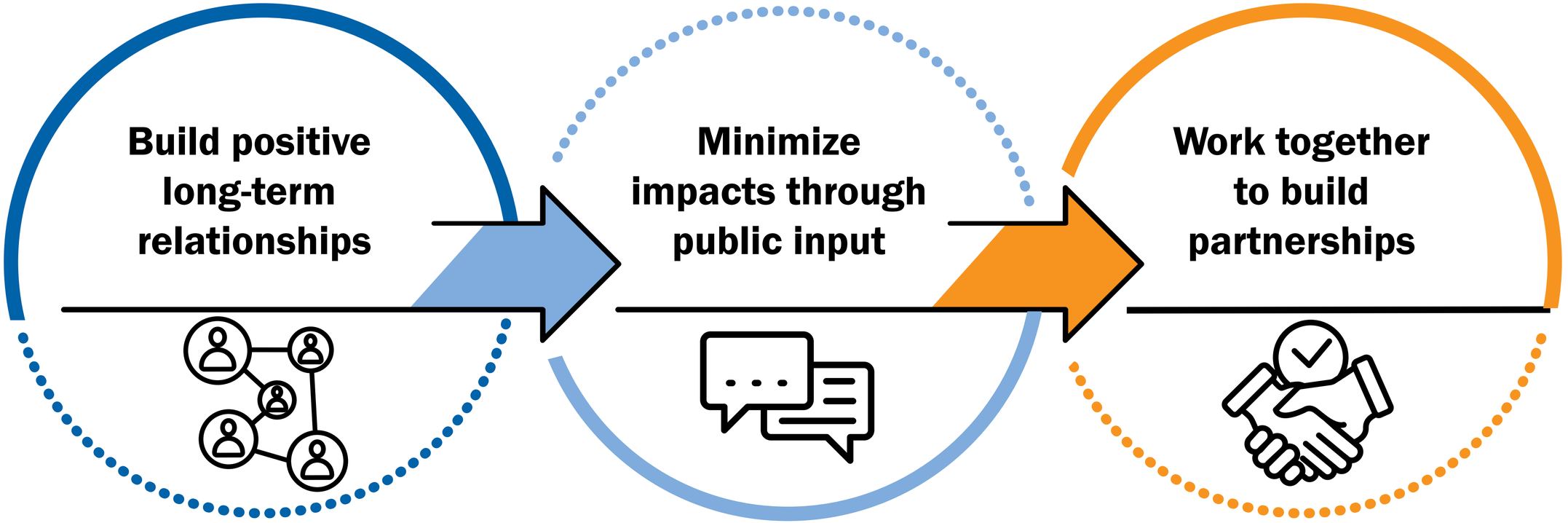

Right-of-Way Activities

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We strive to build positive, long-term relationships with landowners and tenants during right-of-way activities.

Right-of-Entry Agreement – if needed, will provide access for:

- Environmental assessments
- Appraisal work
- Survey activities
- Cultural and historical resource assessments

Easement Acquisition:

- Compensation
- Terms and conditions
- Right-of-way width

Post Construction:

- Construction damage compensation
- Property restoration

Land Value Determination

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Determination of land value

Land Market Valuations

- Independent appraisers will conduct real estate market study and analysis

Market study will be focused on the area of the proposed line route

- Market study and analysis based on comparable sales and the highest and best use of property
- Each parcel will be viewed and its value determined

Easement Compensation

After land valuations are completed, and prior to actual negotiations, NPPD will establish easement payment amounts for each parcel based on:

- Land valuation
- Limited rights obtained by NPPD
- Impacts on structures on farming or land operations
- Any other special considerations

Easement Compensation

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Easement Compensation
- 80% of the fee value of the easement area

Easement Compensation
- Single Pole - Payment equal to the fee of ½ acre of property per structure

Payment for any special consideration on a case-by-case basis.

Construction Damages
After construction of the transmission line is completed, the property owner or tenant will be compensated for any damages to crops, fences or other property that may occur during construction or when maintenance is required in the future.

Input Needed!

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Help us identify constraints and opportunities regarding:

- Residences
- Grain bins and outbuildings
- Planned (permitted) housing units
- Platted subdivisions
- Well locations
- Gravity flow irrigation and flow direction
- Terraces and drain tiles
- Planned pivots and water permits
- Underground facilities
- Future land use
- Cemeteries, churches, and schools
- Commercial and industrial development
- Communication towers
- Cultural and historic resources
- Environmental areas

What should we know about your property?

Stay Involved

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Thank you for attending! You can stay involved with the Holt County–Antelope 345kV Transmission Line Project by following project news in NPPD newsletters, newspapers, and on social media, or by visiting our website at **nppd.com/HoltCounty-Antelope**

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