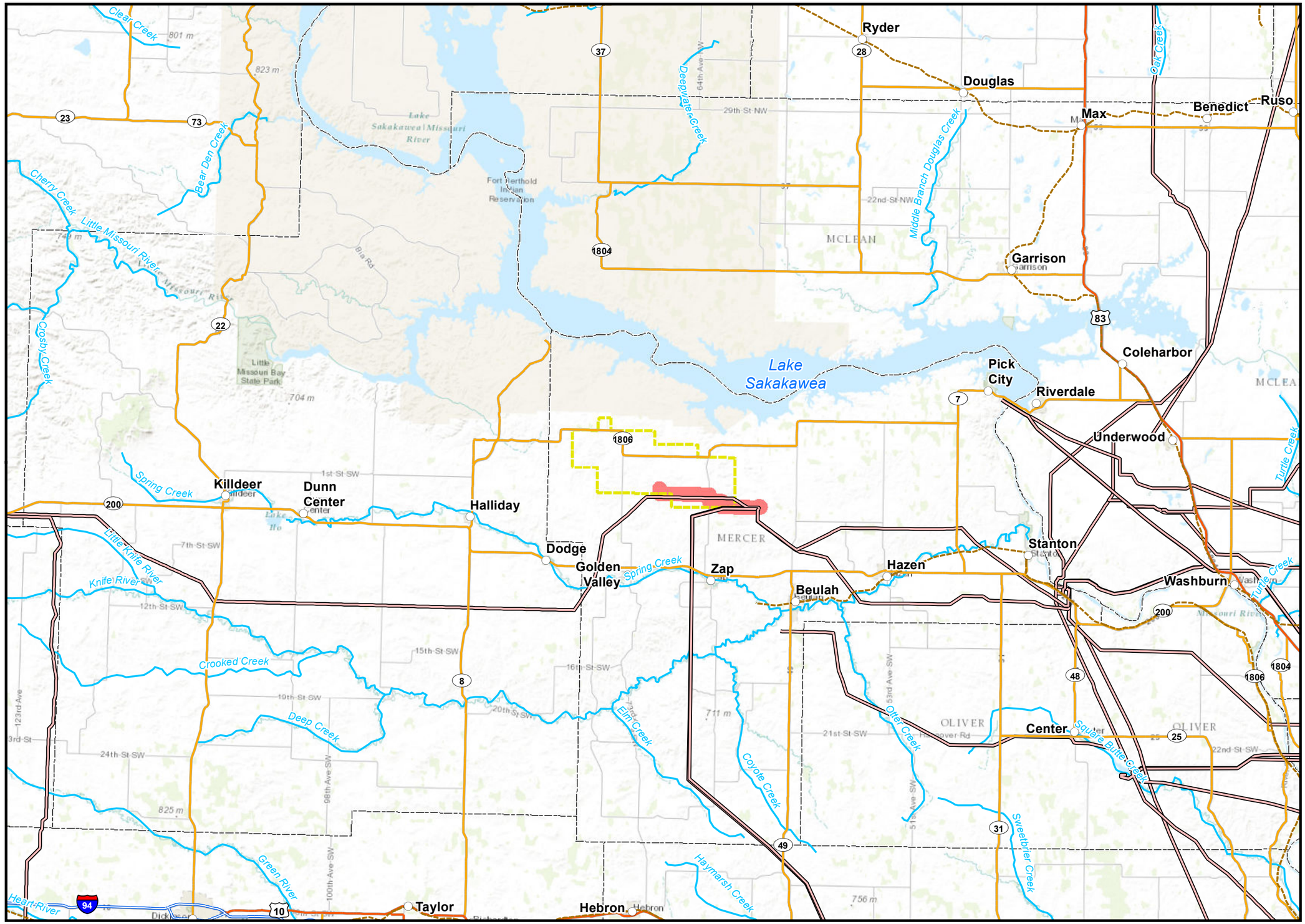
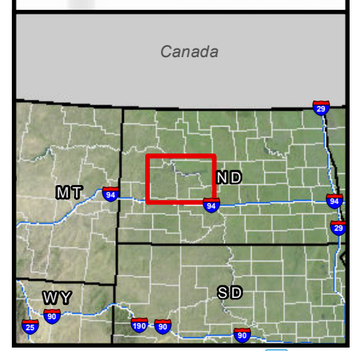
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 1 Proposed Corridor and Route Location

Mercer County, ND
August 2014



- Proposed Corridor
- Wind Energy Facility Project Area
- County Boundary
- Existing Transmission Line (Over 230 kV)
- Railroad
- Interstate Highway
- Federal Highway
- State Highway
- Stream or River
- City/Town



1:480,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 10 20 Miles

TETRA TECH

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Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 2 Project Location by Township, Range, and Section

Mercer County, ND
August 2014

T146N R89W

T146N R88W

T145N R89W

T145N R88W

Planned AVS-Neset Transmission Line

CR-11
CR-13
CR-15
CR-26
CR-28
1806

- Proposed Route ROW
- Proposed Corridor
- Wind Energy Facility Project Area
- Planned AVS-Neset Transmission Line
- Existing Transmission Line (Over 230 kV)
- Participating Landowner
- State Land
- Section
- Township/Range

Canada

MT ND SD WY

1:50,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 1 2 Miles

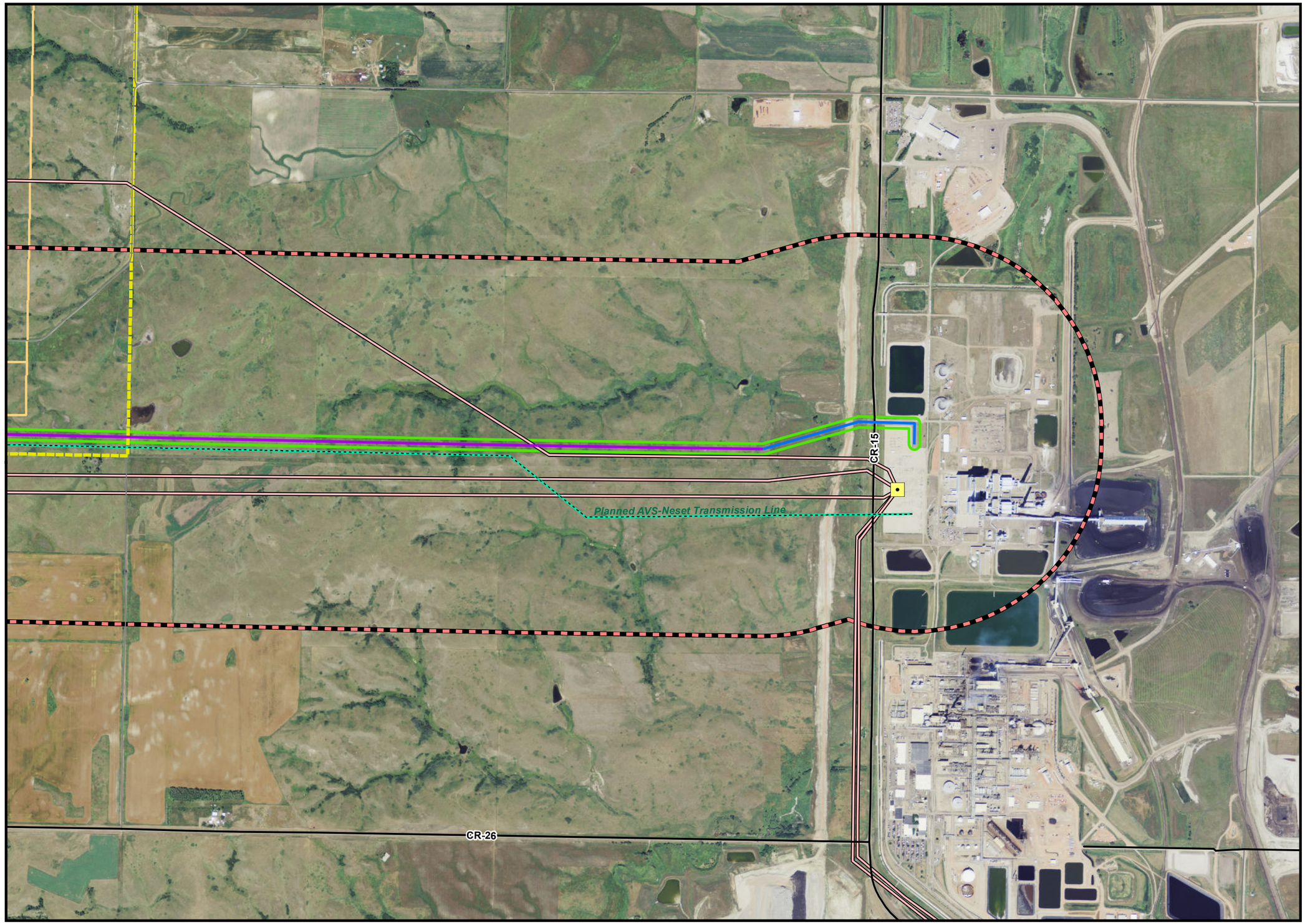
TETRA TECH

P:\GIS_PROJECTS\Infinity_Wind_Power\AntelopeHills_Tline\MXDs\CSC\Infinity_AHTlineCSC_Fig_02_TRS_17i11i_20140807.mxd - Last Saved 8/7/2014

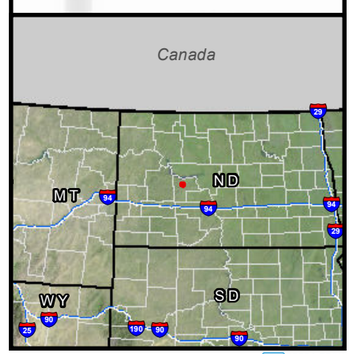
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 3-1 Proposed Corridor and Route Aerial Image Detail Maps

Mercer County, ND
August 2014



- Existing Antelope Valley Station
- Route Centerline
- Rough Rider Underbuild
- Proposed Route ROW
- Proposed Corridor
- Planned AVS-Neset Transmission Line
- Wind Energy Facility Project Area
- Parcel Boundary
- Existing Transmission Line (Over 230 kV)
- Planned AVS-Neset Transmission Line



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TETRA TECH

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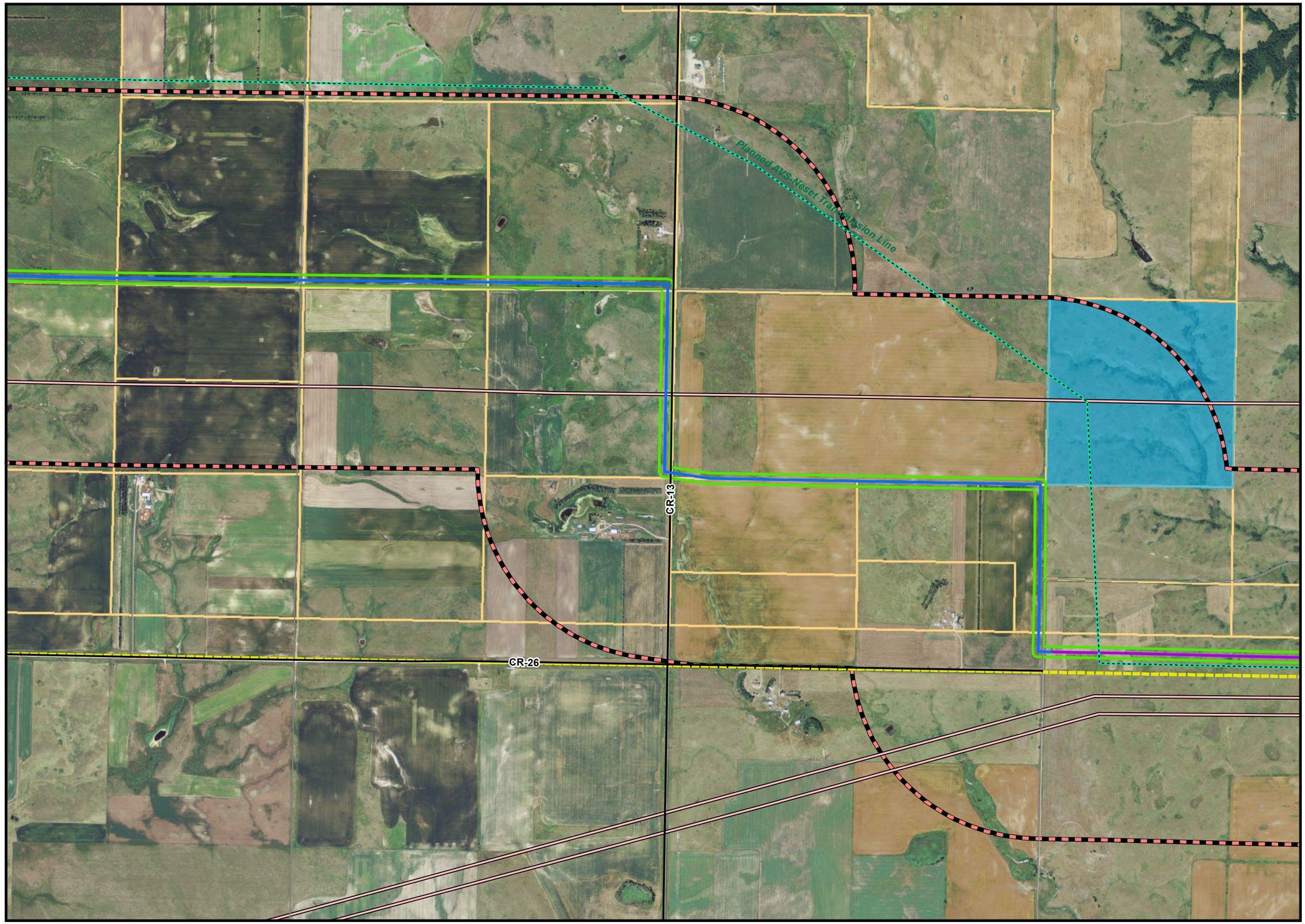
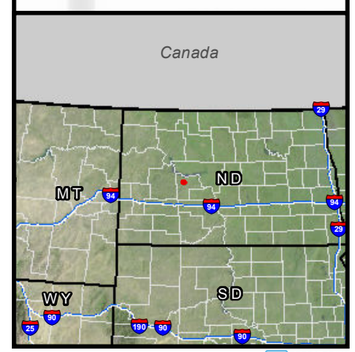
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 3-2 Proposed Corridor and Route Aerial Image Detail Maps

Mercer County, ND
August 2014



- Route Centerline
- Rough Rider Underbuild
- Proposed Route ROW
- Proposed Corridor
- Planned AVS-Neset Transmission Line
- Wind Energy Facility Project Area
- Parcel Boundary
- Existing Transmission Line (Over 230 kV)
- State Land
- Planned AVS-Neset Transmission Line



TETRA TECH

1:16,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 0.5 1 Miles

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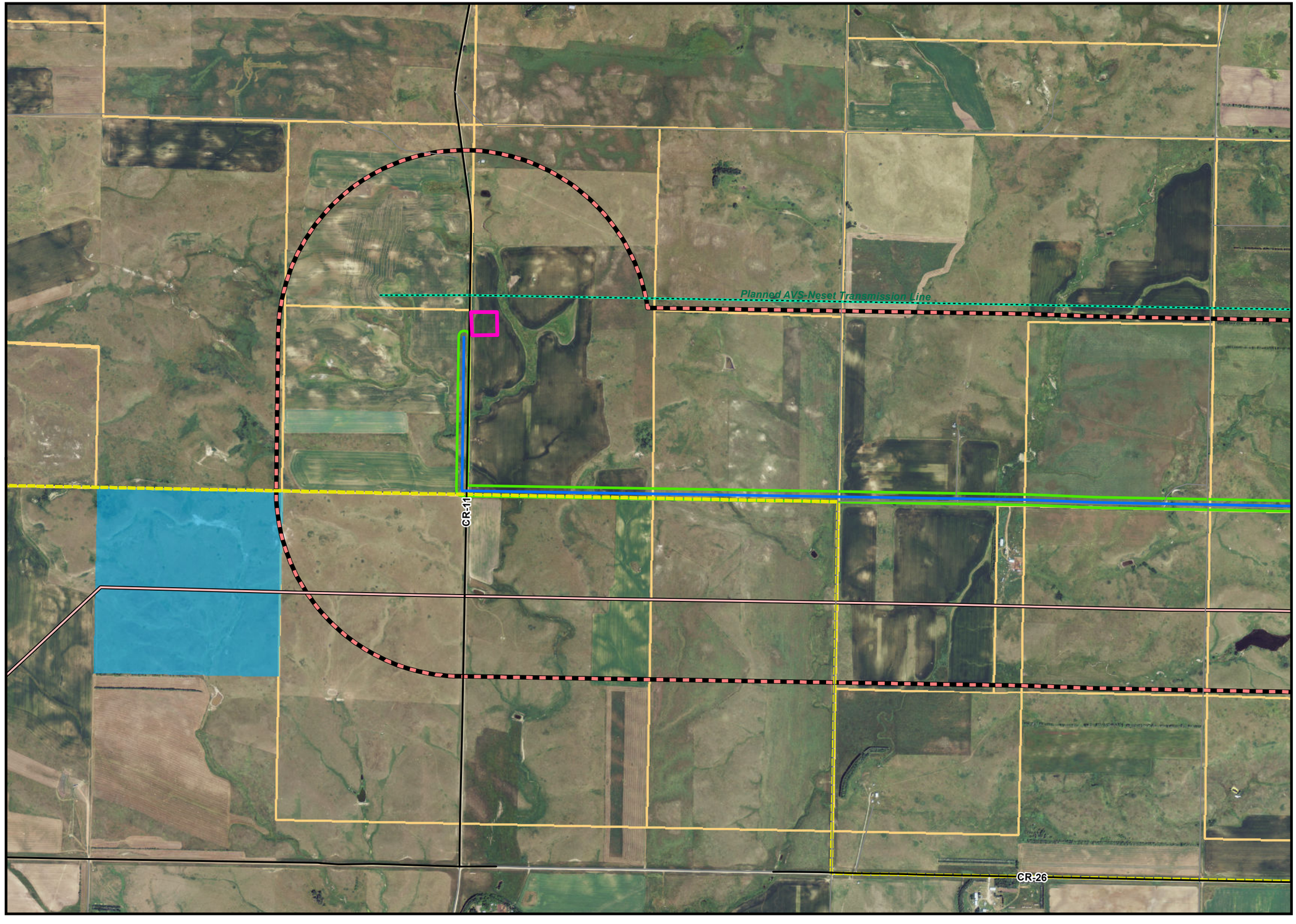
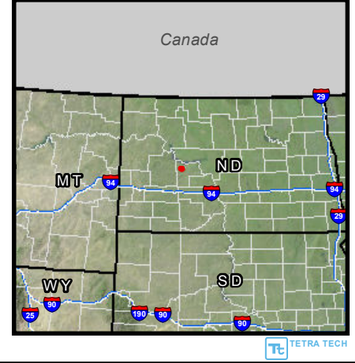
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 3-3 Proposed Corridor and Route Aerial Image Detail Maps

Mercer County, ND
August 2014



- Proposed Substation
- Route Centerline
- Proposed Route ROW
- Proposed Corridor
- Planned AVS-Neset Transmission Line
- Wind Energy Facility Project Area
- Parcel Boundary
- Existing Transmission Line (Over 230 kV)
- State Land
- Planned AVS-Neset Transmission Line



1:16,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 0.5 1 Miles

TETRA TECH

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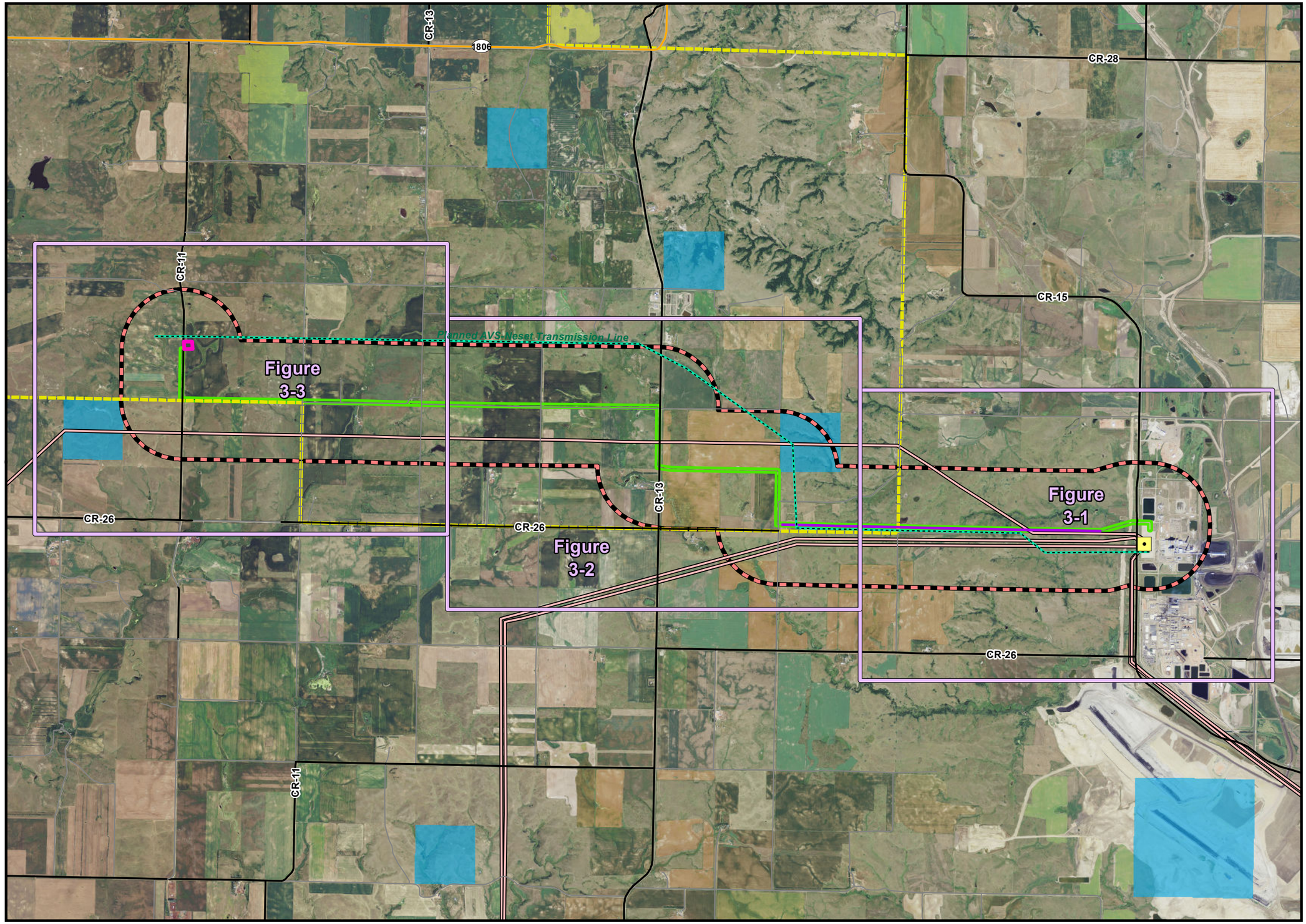
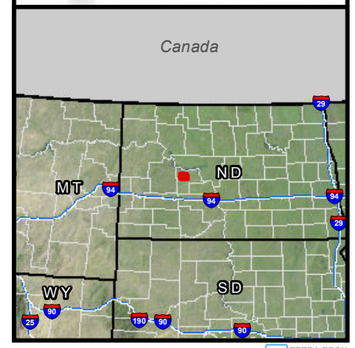
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 3 Proposed Corridor and Route Aerial Image Index Map

Mercer County, ND
August 2014



- Map Grid
- Existing Antelope Valley Station
- Proposed Substation
- Rough Rider Underbuild
- Proposed Route ROW
- Proposed Corridor
- Planned AVS-Neset Transmission Line
- Wind Energy Facility Project Area
- Existing Transmission Line (Over 230 kV)
- State Land



1:50,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 1 2 Miles

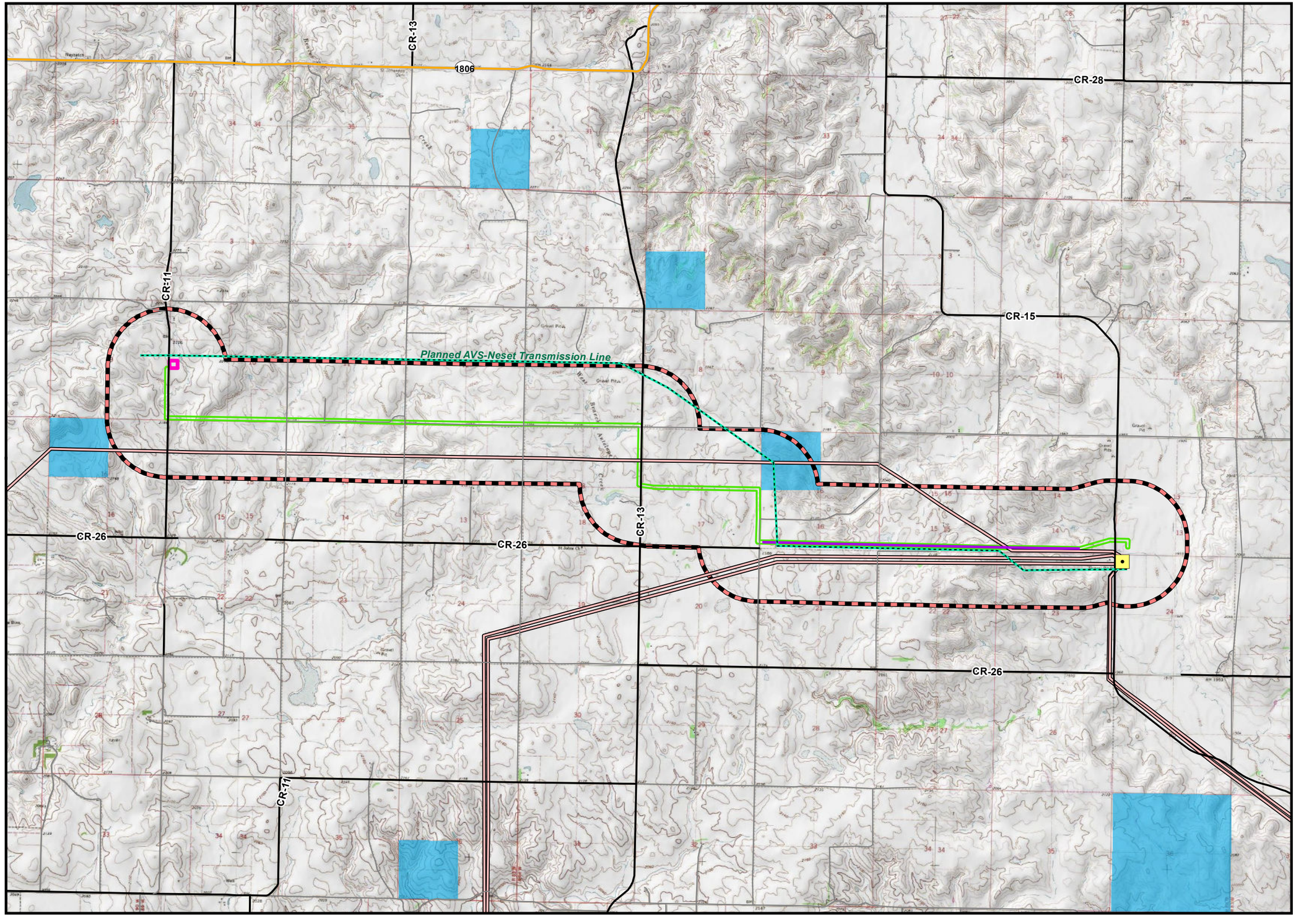
TETRA TECH

P:\GIS_PROJECTS\Infinity_Wind_Power\AntelopeHills_TlineMXDs\CSC\Infinity_AHTlineCSC_Fig_03_AerialIndex_17111i_20140807.mxd - Last Saved 8/7/2014

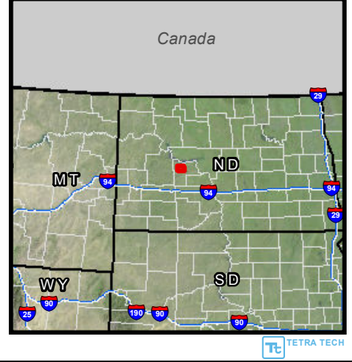
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 4 Proposed Corridor and Route Topographic Image

Mercer County, ND
August 2014



- Existing Antelope Valley Station
- Proposed Substation
- Rough Rider Underbuild
- Proposed Route ROW
- Proposed Corridor
- Planned AVS-Neset Transmission Line
- Existing Transmission Line (Over 230 kV)
- State Land



1:50,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 1 2 Miles

TETRA TECH

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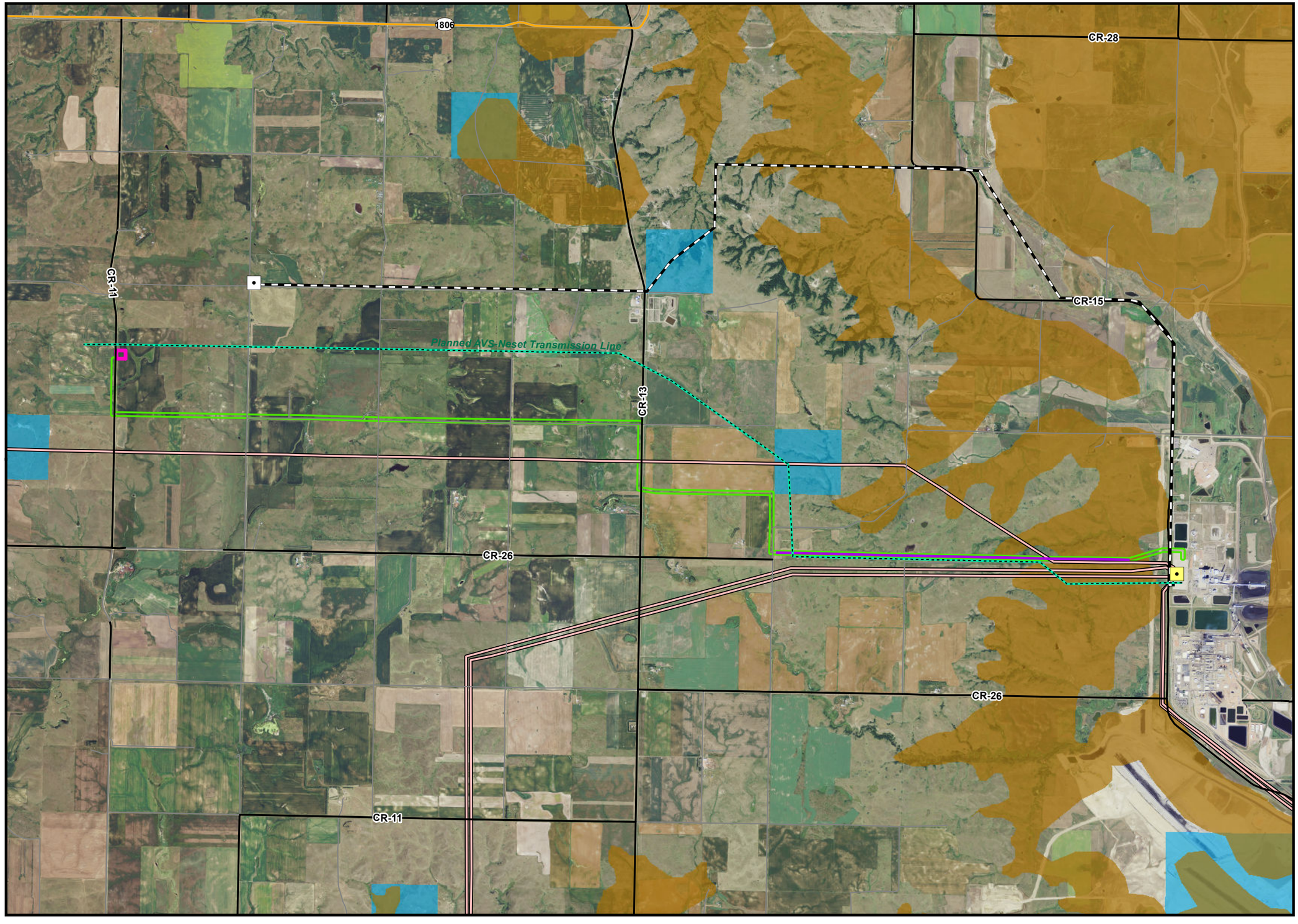
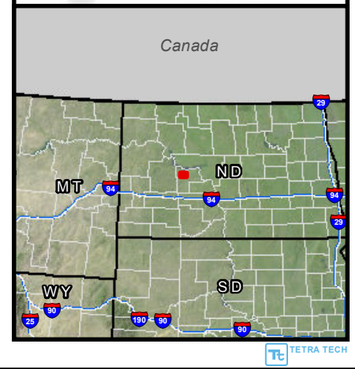
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 5
Alternative Routes Considered and Eliminated

Mercer County, ND
August 2014



- Existing Antelope Valley Station
- Eliminated Substation Location
- Proposed Substation
- Rough Rider Underbuild
- Proposed Route ROW
- Eliminated Route Location
- Planned AVS-Neset Transmission Line
- Existing Transmission Line (Over 230 kV)
- Econimic Coal Deposit
- State Land



1:45,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 1 2 Miles

TETRA TECH

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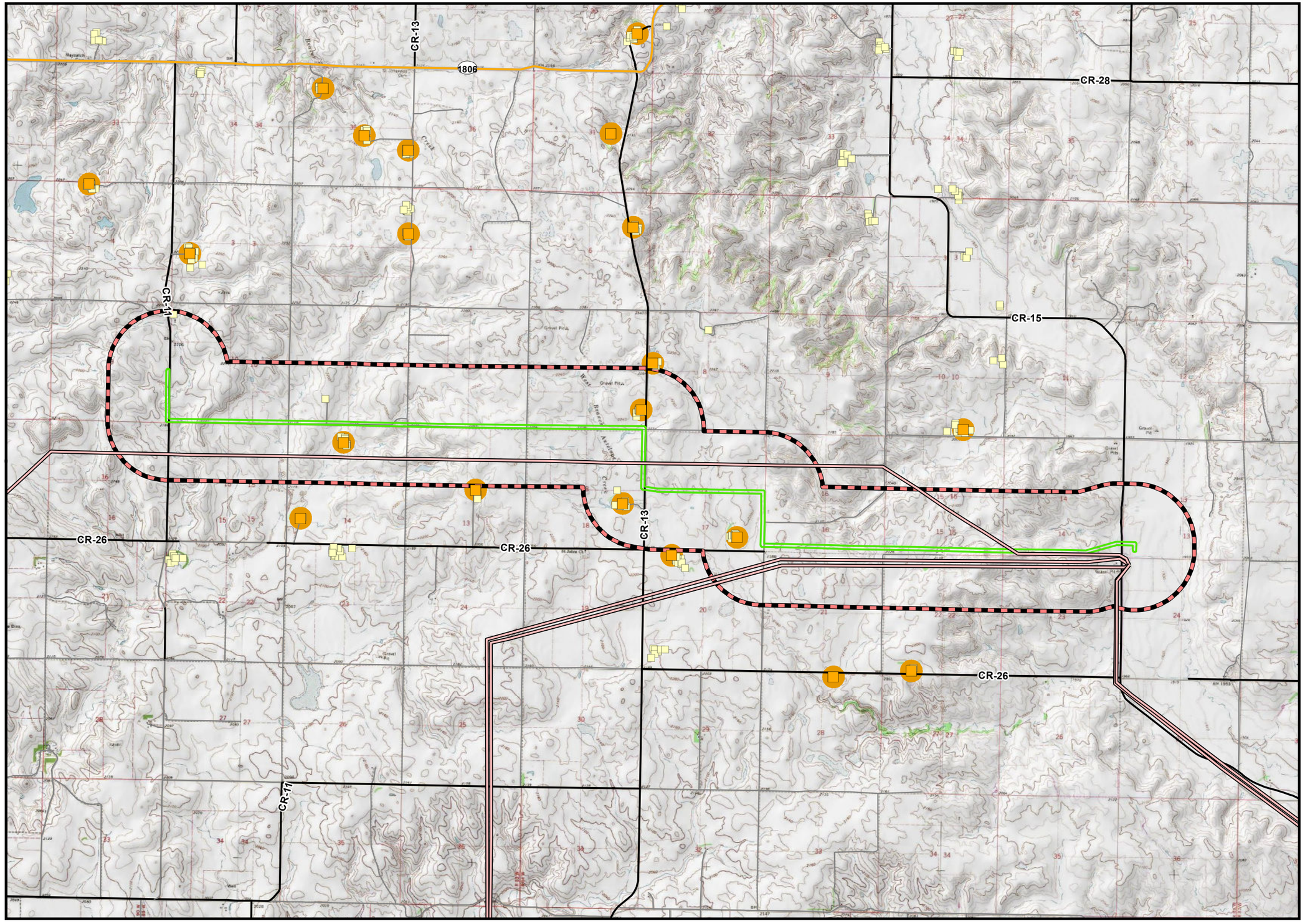
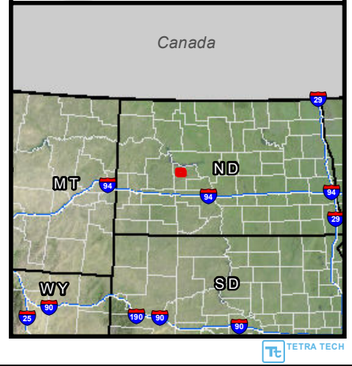
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 6 Exclusion and Avoidance Areas

Mercer County, ND
August 2014

- Proposed Route ROW
- Proposed Corridor
- Residence
- Other Structure
- 500 foot Avoidance Buffer
- Existing Transmission Line (Over 230 kV)





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1:50,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 1 2 Miles

TETRA TECH

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Figure 7

Conceptual Design Structures

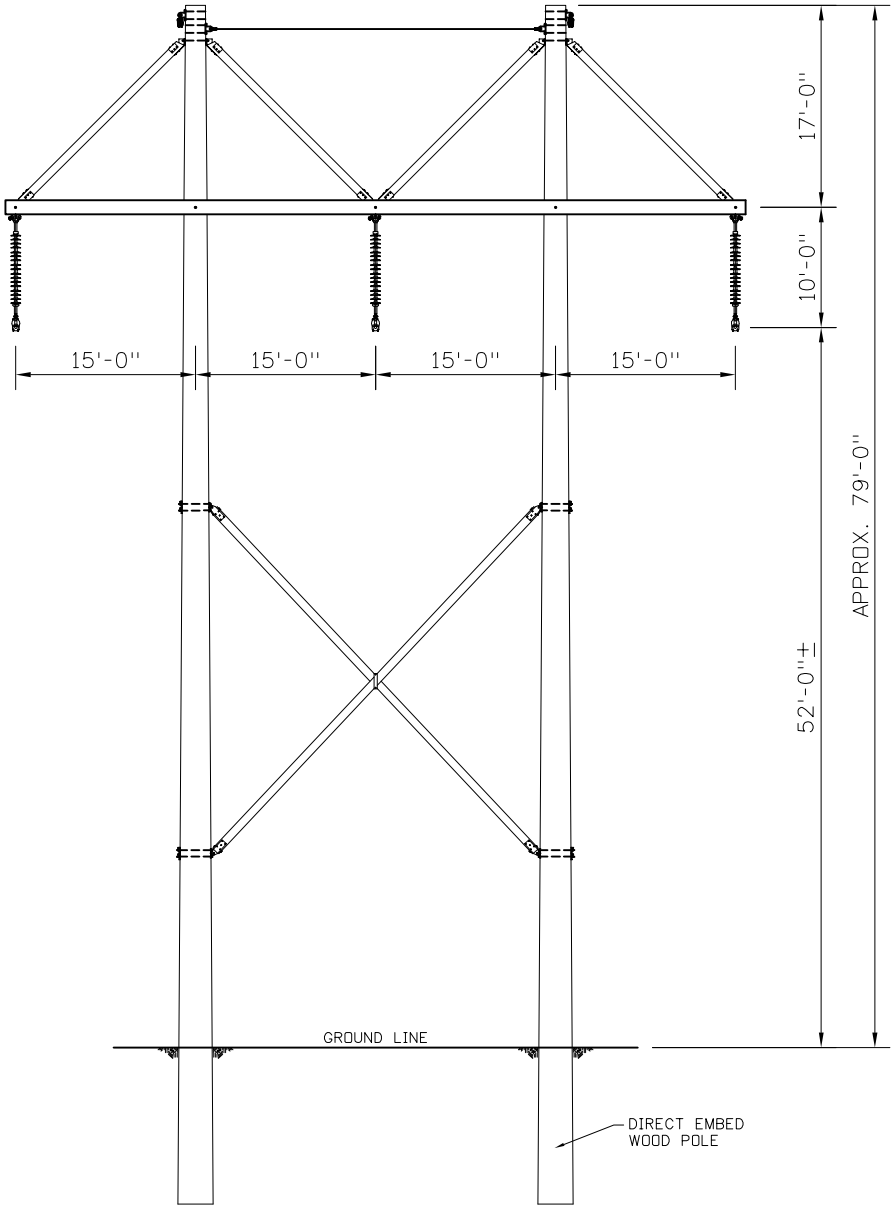
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 700 FT

SHIELDWIRE:
AFL DNO-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 700 FT
DESIGN TENSION: 5600 LBS

3/8" EHS 7-STRAND
DIAM=0.360", WT=0.273 #/FT
RULING SPAN: 700 FT
DESIGN TENSION: 4300 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 700 FT
DESIGN TENSION: 9900 LBS /PER WIRE



PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV SINGLE CKT
H-FRAME TANGENT
WOOD DIRECT EMBED
CONCEPTUAL DESIGN

TYPE 1 STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

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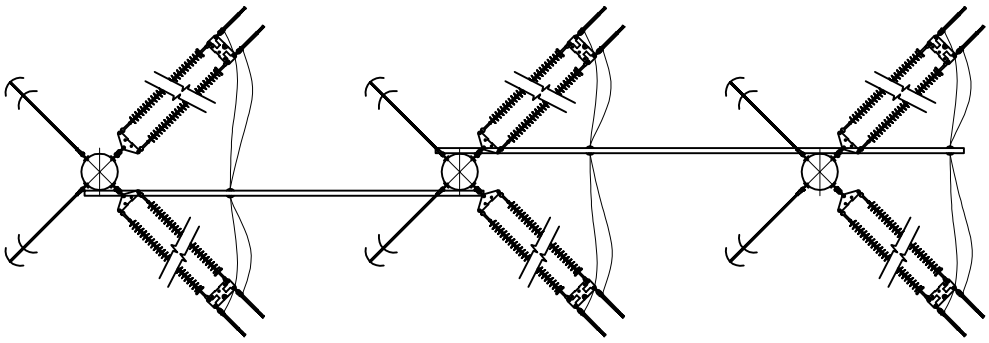
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 700 FT

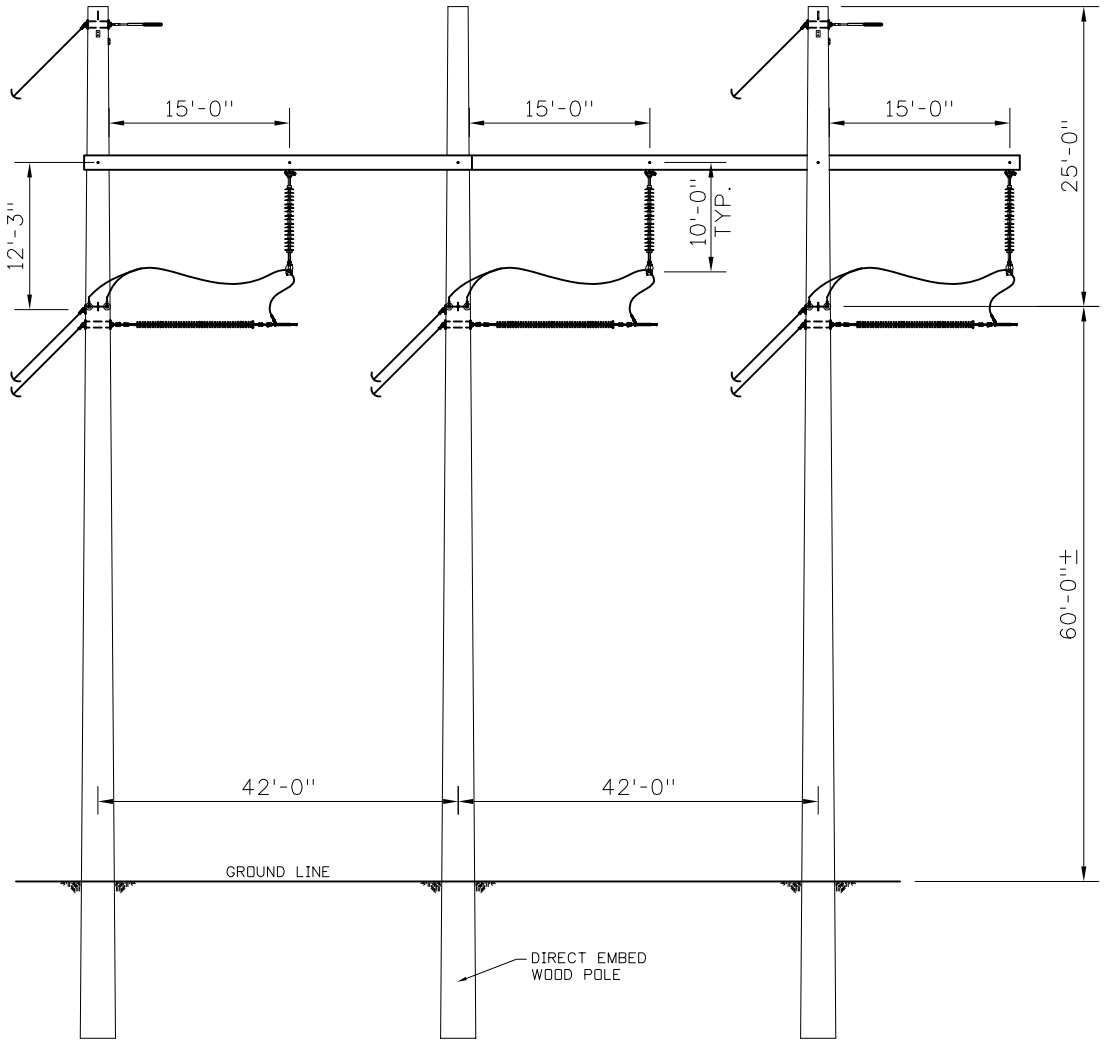
SHIELDWIRE:
AFL DNO-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 700 FT
DESIGN TENSION: 5600 LBS

3/8" EHS 7-STRAND
DIAM=0.360", WT=0.273 #/FT
RULING SPAN: 700 FT
DESIGN TENSION: 4300 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 700 FT
DESIGN TENSION: 9900 LBS
/PER WIRE



345KV PLAN VIEW



PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV SINGLE CKT
3-POLE DEADEND GUYED
WOOD DIRECT EMBED
CONCEPTUAL DESIGN

TYPE 2 STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

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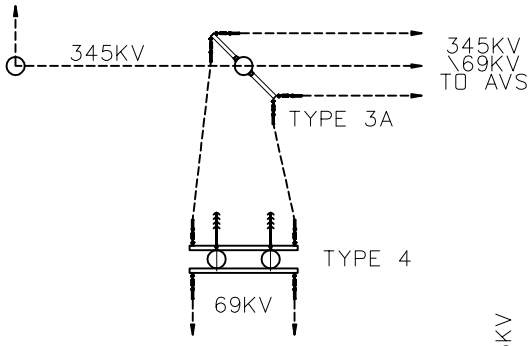
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 300 FT

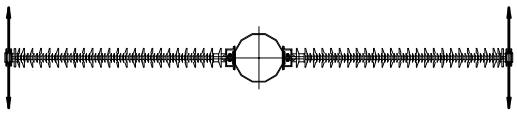
SHIELDWIRE:
AFL DNO-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 3900 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 7600 LBS
/PER WIRE

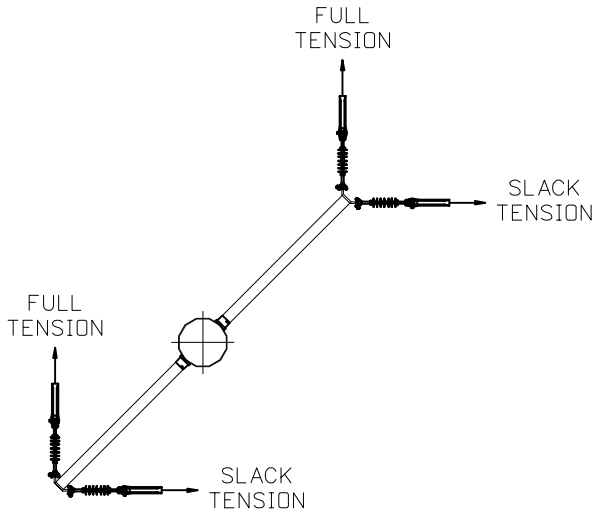
69KV CONDUCTOR:
HAWK ACSR 26/7
DIAM=0.858", WT=0.656 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 5400 LBS



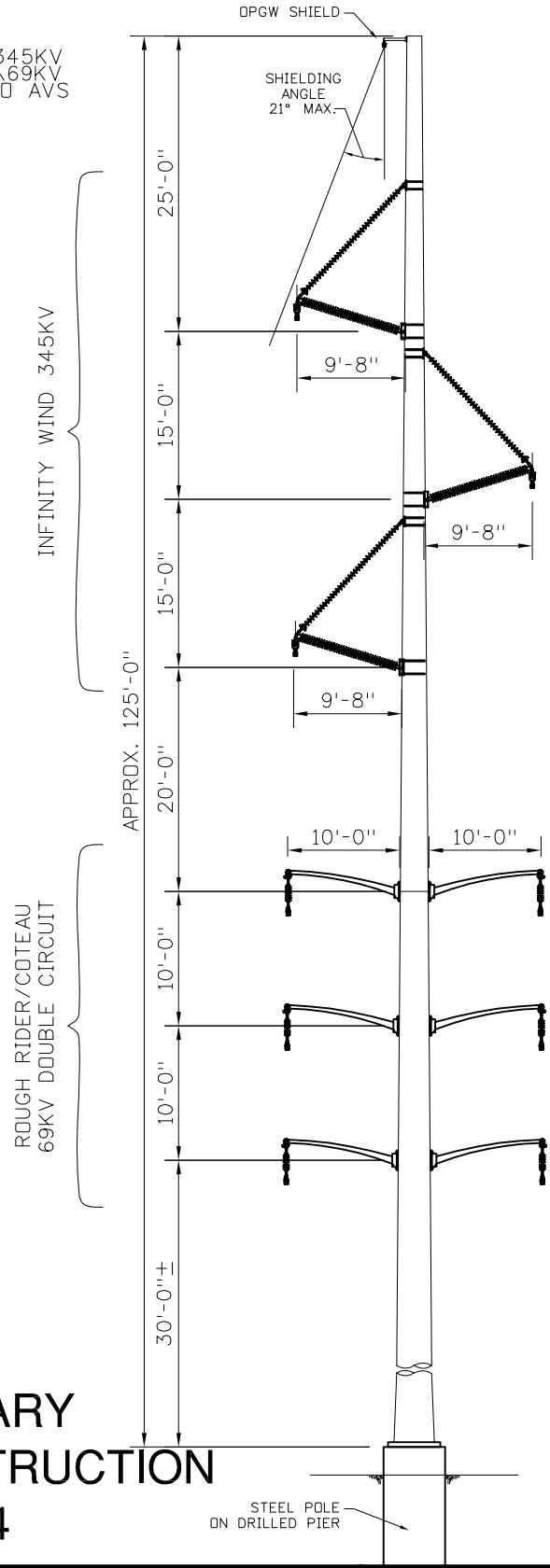
AREA PLAN VIEW



345KV PLAN VIEW



69KV PLAN VIEW



NOTE:
ROUGH RIDER 69KV INSULATED AT 161KV FOR RELIABILITY.

PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV/69KV DBL CKT
TANGENT AND DEADEND
STEEL ON DRILLED PIER
CONCEPTUAL DESIGN

TYPE 3A STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

O:\Projects\2014\14.01005\Transmission\DWG\STRUCTURE\STR DRAWINGS.dwg

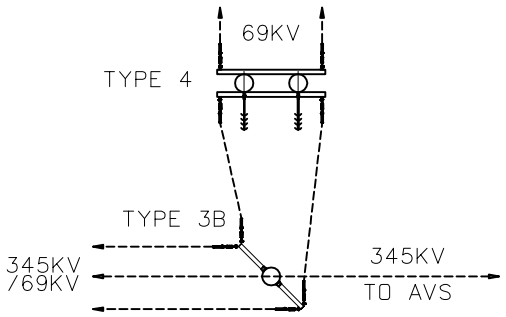
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 300 FT

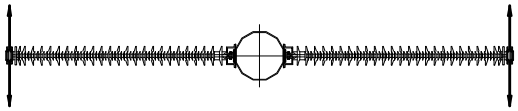
SHIELDWIRE:
AFL DND-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 3900 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 7600 LBS /PER WIRE

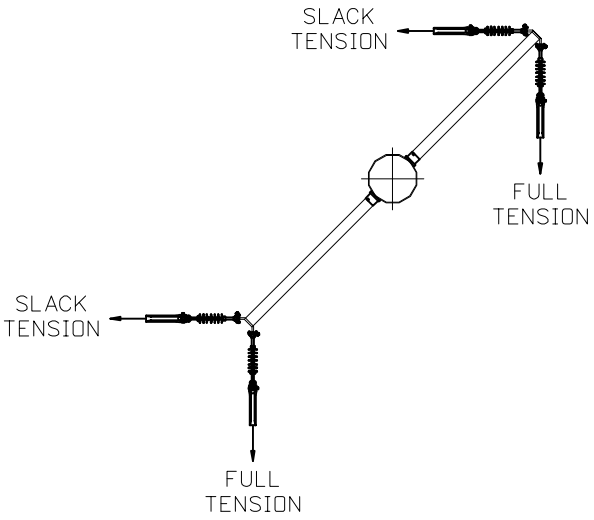
69KV CONDUCTOR:
HAWK ACSR 26/7
DIAM=0.858", WT=0.656 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 5400 LBS



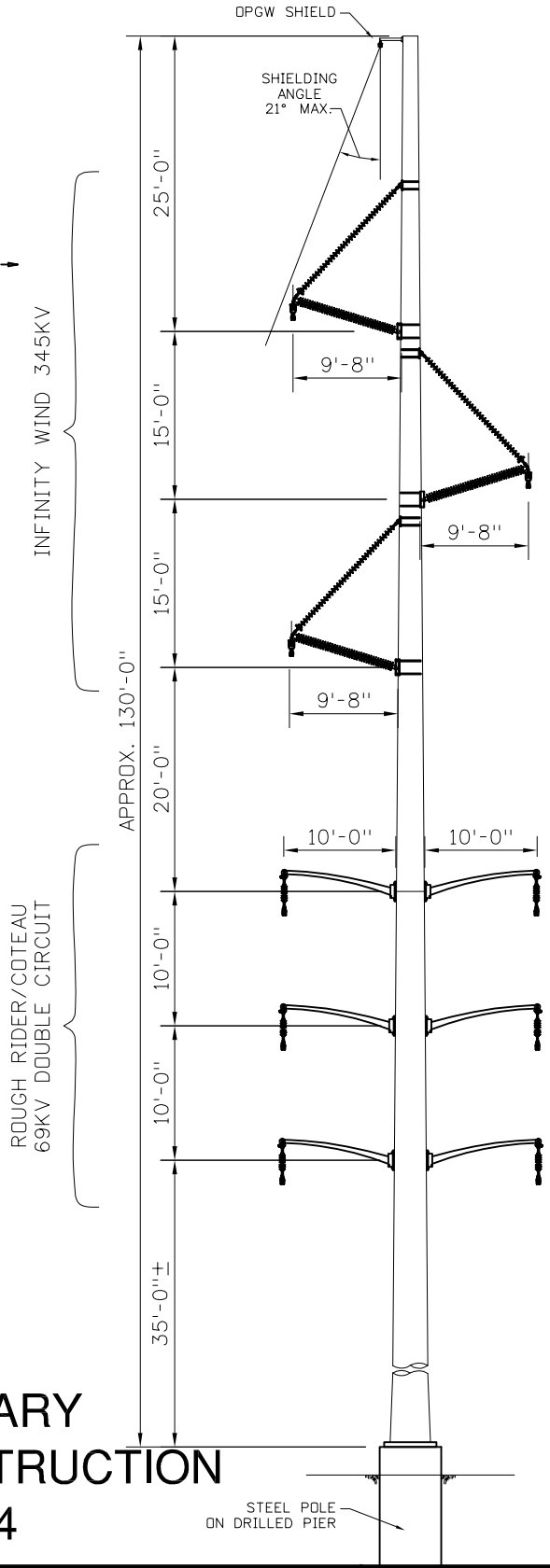
AREA PLAN VIEW



345KV PLAN VIEW



69KV PLAN VIEW



NOTE:
ROUGH RIDER 69KV INSULATED AT 161KV FOR RELIABILITY.

PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV/69KV DBL CKT
TANGENT AND DEADEND
STEEL ON DRILLED PIER
CONCEPTUAL DESIGN

TYPE 3B STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

O:\Projects\2014\14.01005\Transmission\DWG\STRUCTURE\STR DRAWINGS.dwg

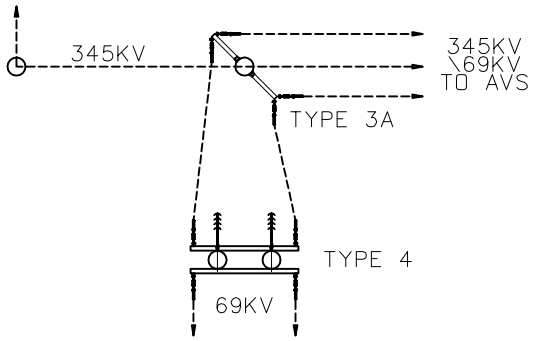
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 300 FT

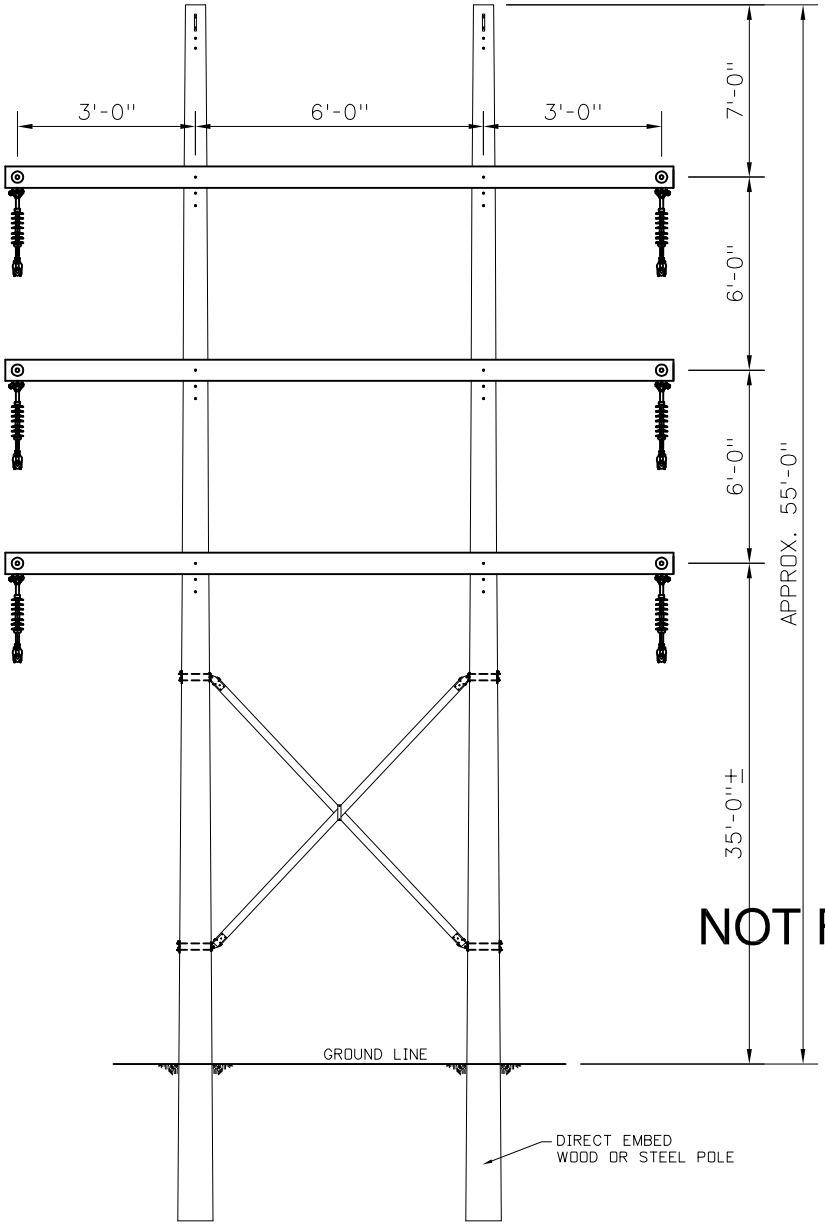
SHIELDWIRE:
AFL DNO-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 3900 LBS

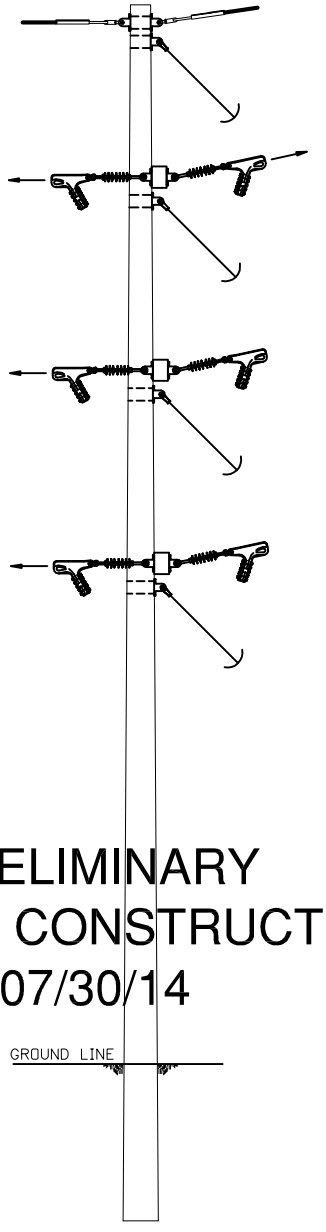
3/8" EHS 7-STRAND
DIAM=0.360", WT=0.273 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 2900 LBS

69KV CONDUCTOR:
HAWK ACSR 26/7
DIAM=0.858", WT=0.656 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 5400 LBS



AREA PLAN VIEW





PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
69KV DBL CKT
H-FRAME DEADEND GUYED
WOOD/STEEL DIRECT EMBED
CONCEPTUAL DESIGN

TYPE 4 STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

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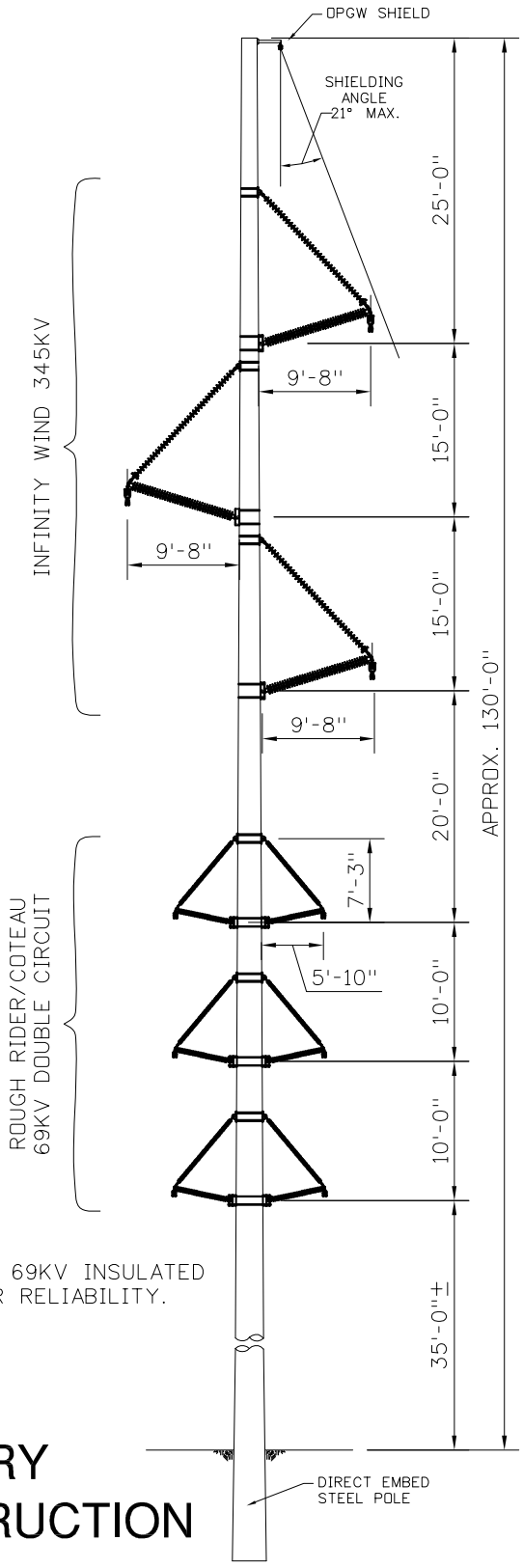
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 300 FT

SHIELDWIRE:
AFL DNO-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 3900 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 7600 LBS
/PER WIRE

69KV CONDUCTOR:
HAWK ACSR 26/7
DIAM=0.858", WT=0.656 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 5400 LBS



NOTE:
ROUGH RIDER 69KV INSULATED AT 161KV FOR RELIABILITY.

PRELIMINARY
NOT FOR CONSTRUCTION
07/31/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV/69KV DBL CKT
BRACED POST TANGENT
STEEL DIRECT EMBED
CONCEPTUAL DESIGN

TYPE 5A STR

Project Number:	14.01005
Date:	07/31/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

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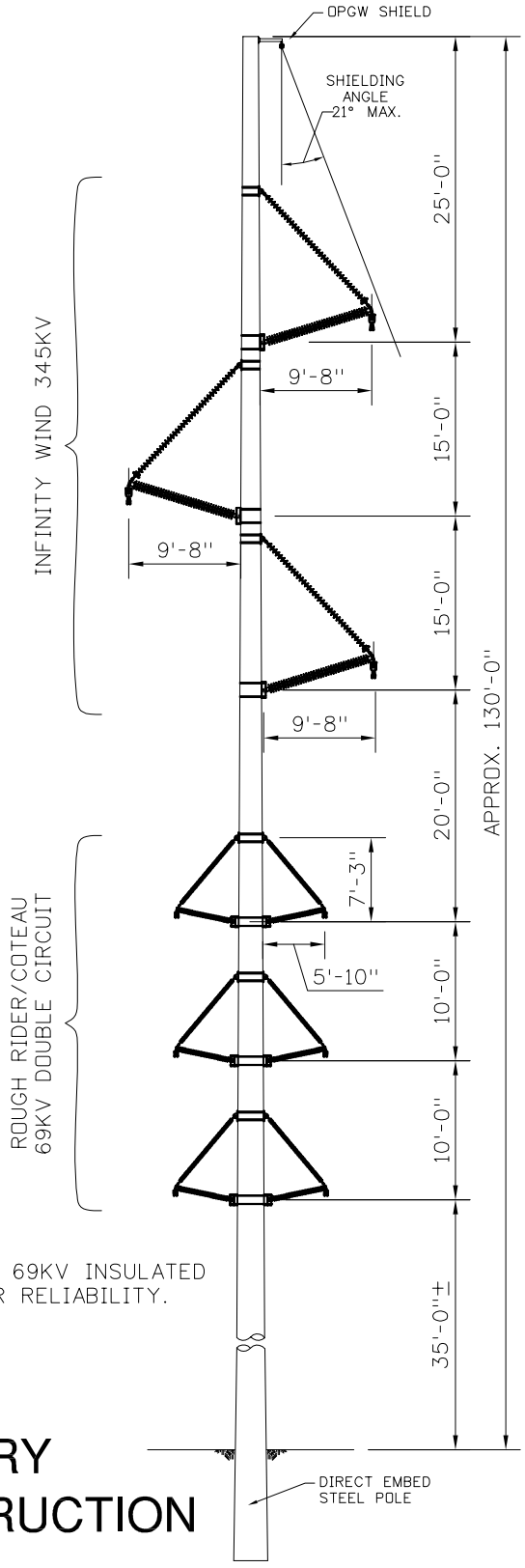
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 300 FT

SHIELDWIRE:
AFL DNO-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 3900 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 7600 LBS
/PER WIRE

69KV CONDUCTOR:
HAWK ACSR 26/7
DIAM=0.858", WT=0.656 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 5400 LBS



ACTUAL HEIGHT MAY VARY PENDING ELEVATION INPUT FROM BASIN ELECTRIC REGARDING THEIR PROPOSED 345KV OHTL.

NOTE:
ROUGH RIDER 69KV INSULATED AT 161KV FOR RELIABILITY.

PRELIMINARY
NOT FOR CONSTRUCTION
07/31/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV/69KV DBL CKT
BRACED POST TANGENT
STEEL DIRECT EMBED
CONCEPTUAL DESIGN

TYPE 5B STR

Project Number:	14.01005
Date:	07/31/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

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WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

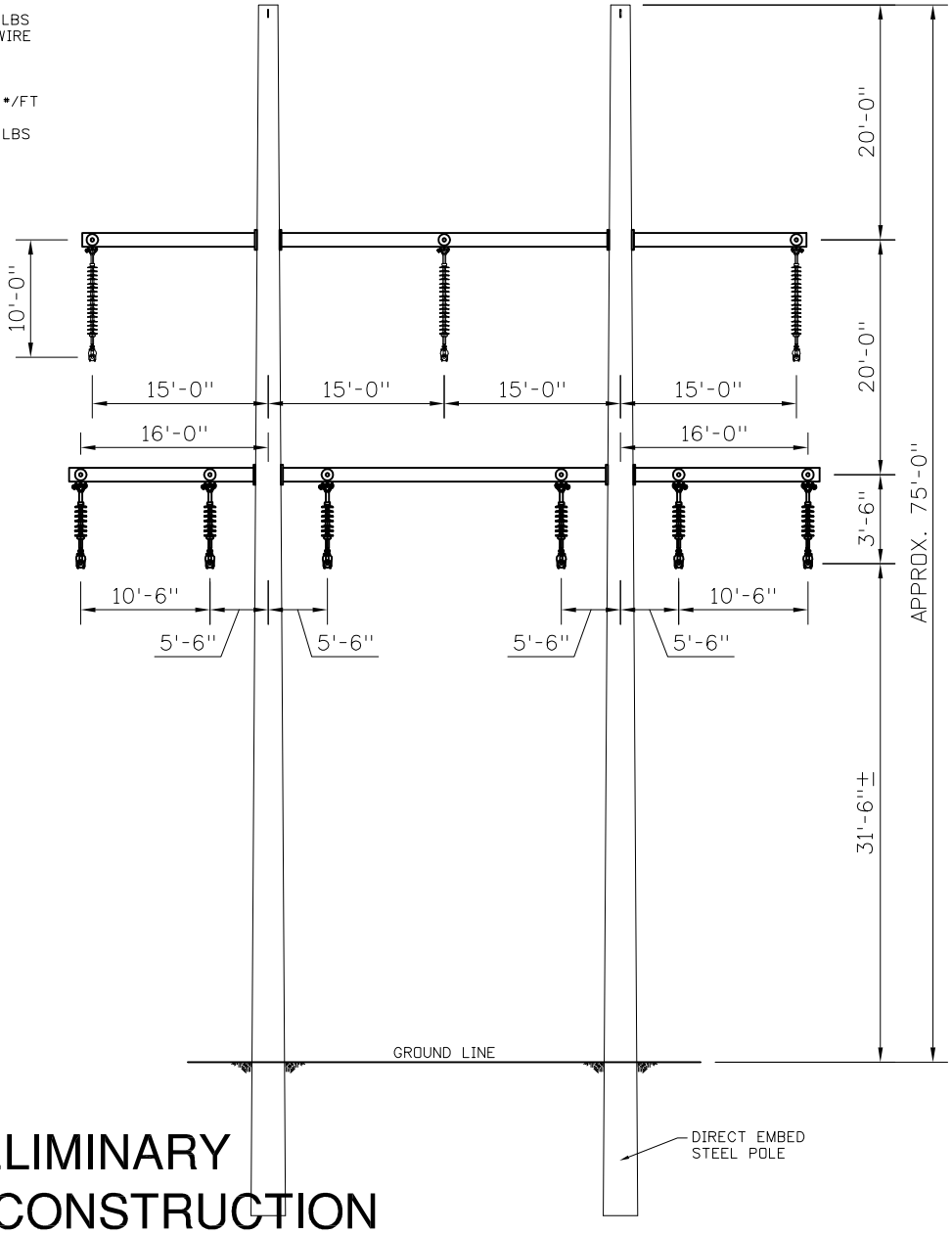
AVERAGE SPAN: 300 FT

SHIELDWIRE:
AFL DND-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 3900 LBS

3/8" EHS 7-STRAND
DIAM=0.360", WT=0.273 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 2900 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 7600 LBS
/PER WIRE

69KV CONDUCTOR:
HAWK ACSR 26/7
DIAM=0.858", WT=0.656 #/FT
RULING SPAN: 300 FT
DESIGN TENSION: 5400 LBS



PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV/69KV DBL CKT
H-FRAME IN-LINE DEADEND
STEEL DIRECT EMBED
CONCEPTUAL DESIGN

TYPE 6 STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

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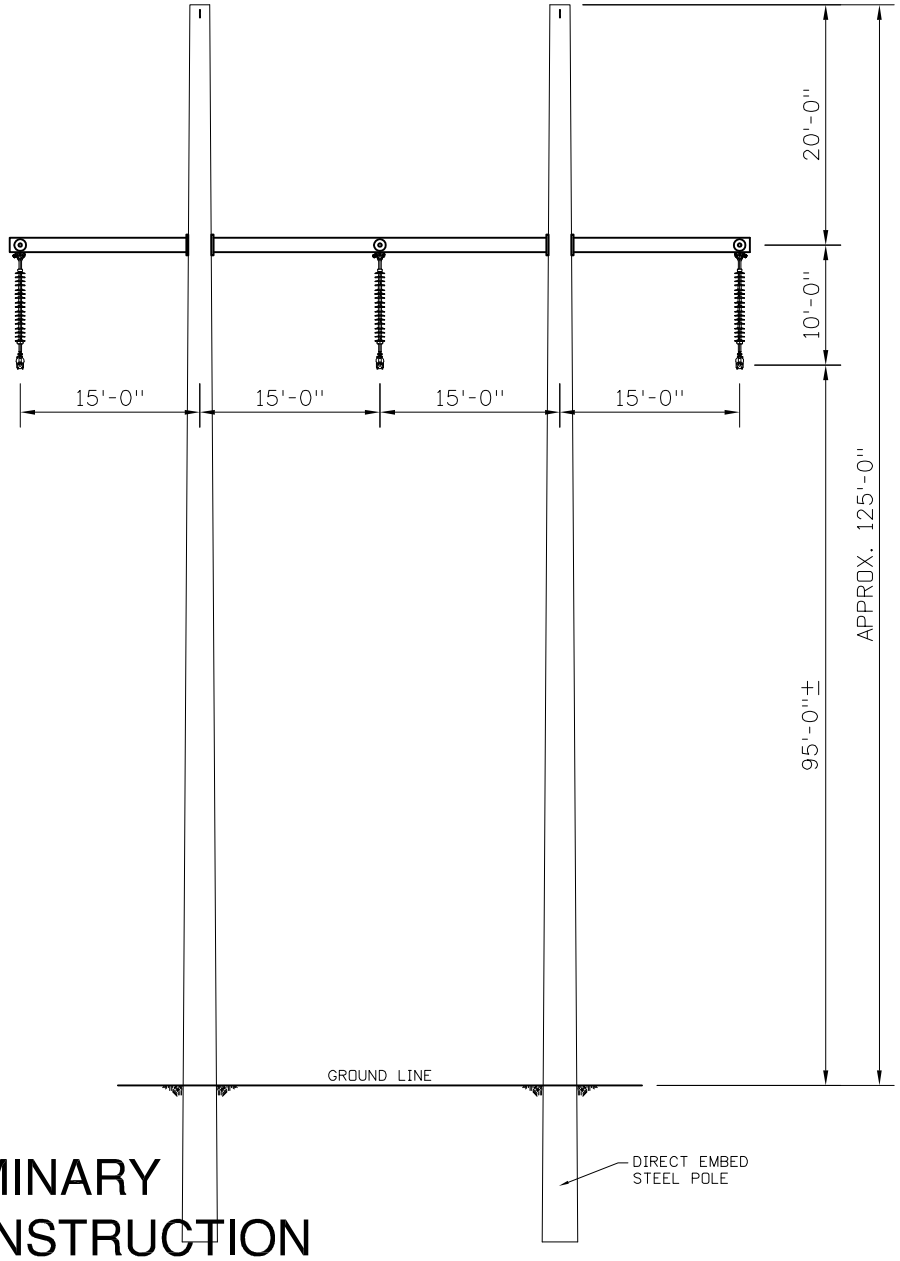
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 450 FT

SHIELDWIRE:
AFL DNO-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 450 FT
DESIGN TENSION: 4400 LBS

3/8" EHS 7-STRAND
DIAM=0.360", WT=0.273 #/FT
RULING SPAN: 450 FT
DESIGN TENSION: 3300 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 450 FT
DESIGN TENSION: 8600 LBS /PER WIRE



PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV SINGLE CKT
H-FRAME DEADEND HAUL RD X-ING STR
STEEL DIRECT EMBED
CONCEPTUAL DESIGN

TYPE 7 STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

O:\Projects\2014\14.01005\Transmission\DWG\STRUCTURE\STR DRAWINGS.dwg

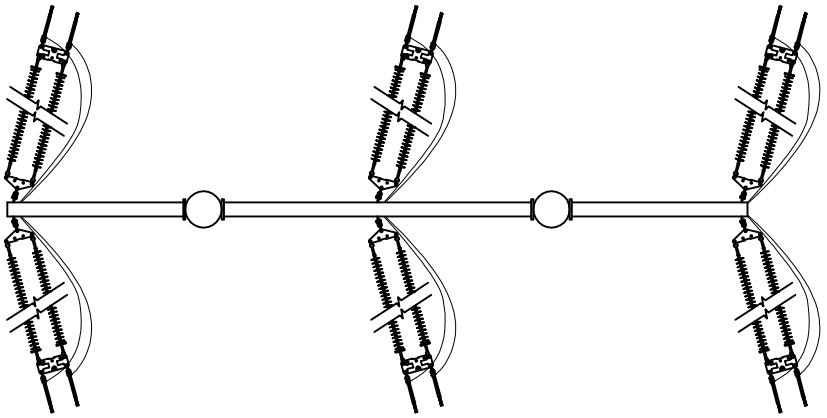
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 800 FT

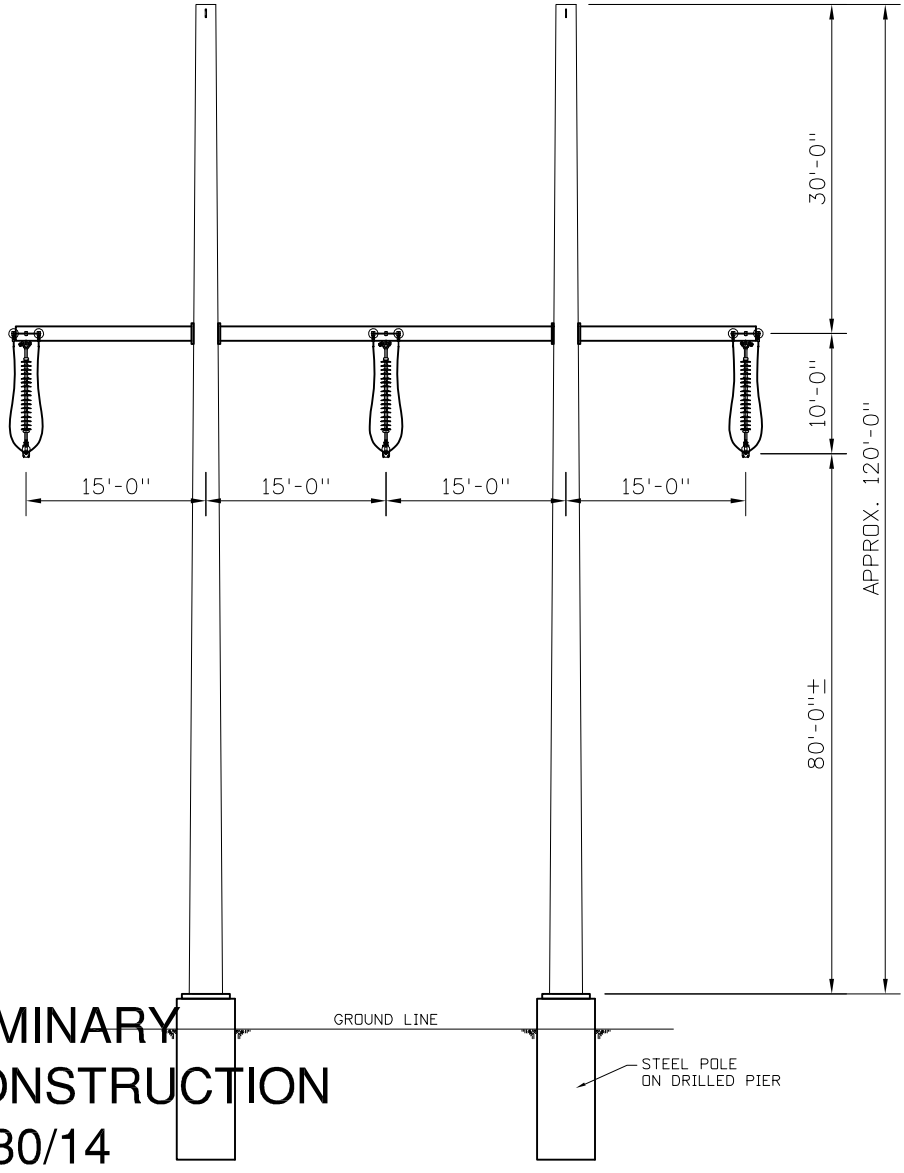
SHIELDWIRE:
AFL DNO-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 800 FT
DESIGN TENSION: 5800 LBS

3/8" EHS 7-STRAND
DIAM=0.360", WT=0.273 #/FT
RULING SPAN: 800 FT
DESIGN TENSION: 4500 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 800 FT
DESIGN TENSION: 10200 LBS
/PER WIRE



PLAN VIEW



PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV SINGLE CKT
H-FRAME DEADEND 30° ANGLE
STEEL ON DRILLED PIER
CONCEPTUAL DESIGN

TYPE 8 STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

O:\Projects\2014\14.01005\Transmission\DWG\STRUCTURE\STR DRAWINGS.dwg

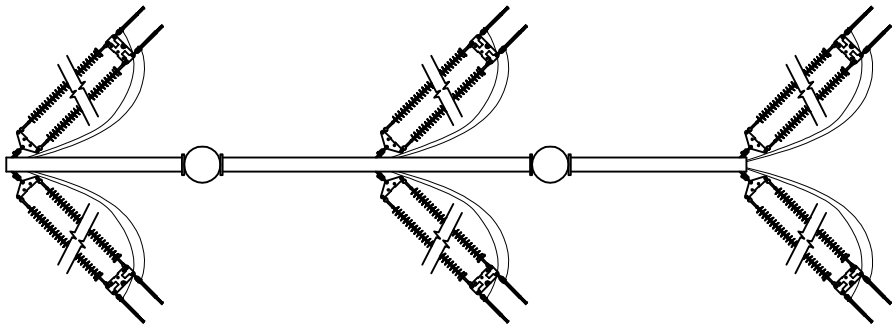
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 500 FT

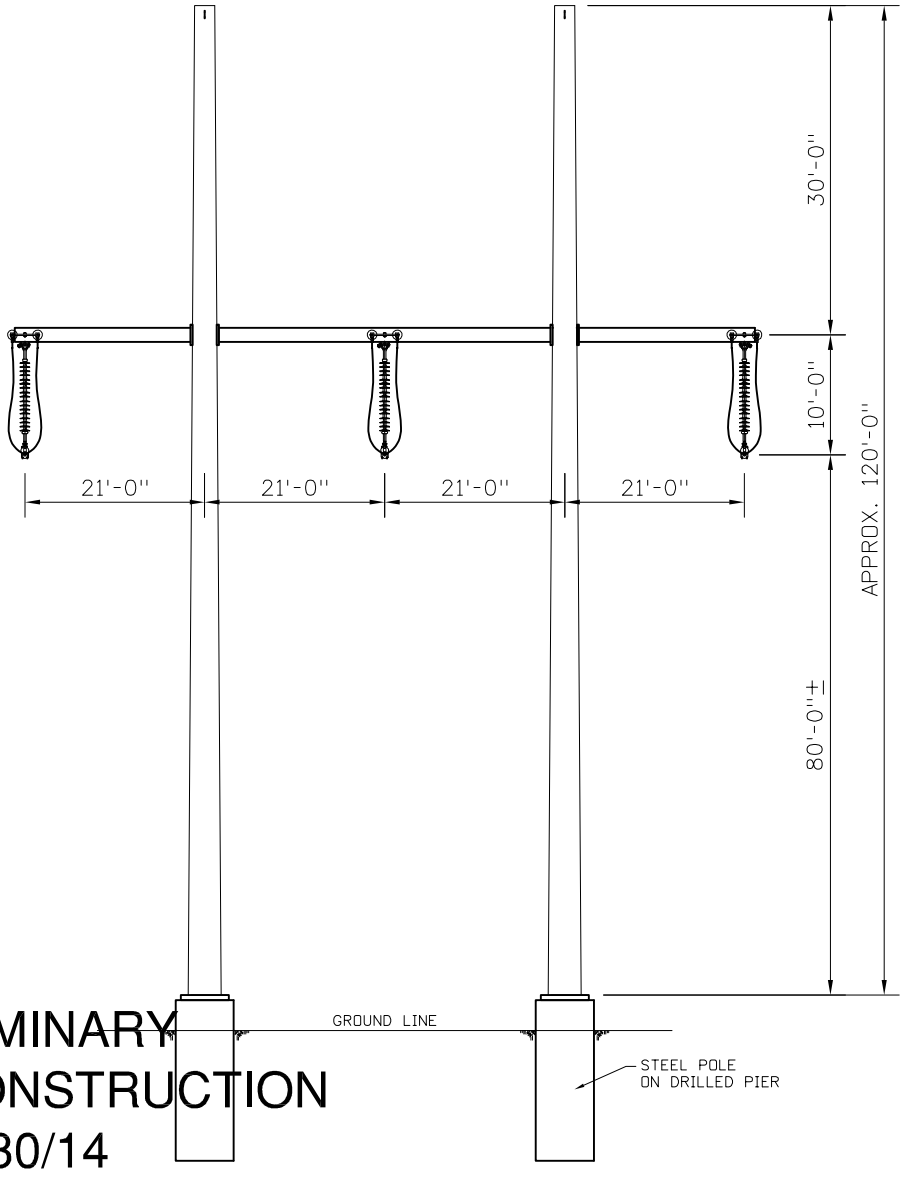
SHIELDWIRE:
AFL DND-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 500 FT
DESIGN TENSION: 4400 LBS

3/8" EHS 7-STRAND
DIAM=0.360", WT=0.273 #/FT
RULING SPAN: 500 FT
DESIGN TENSION: 3300 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 500 FT
DESIGN TENSION: 8600 LBS
/PER WIRE



PLAN VIEW



PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV SINGLE CKT
H-FRAME DEADEND 90° ANGLE
STEEL ON DRILLED PIER
CONCEPTUAL DESIGN

TYPE 9 STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

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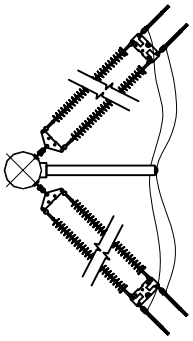
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 700 FT

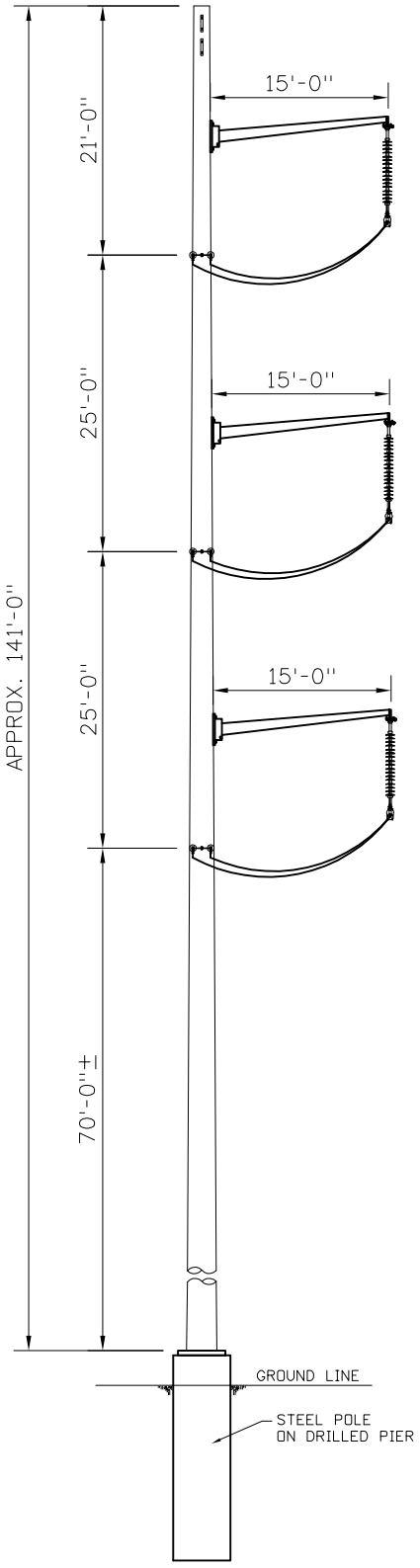
SHIELDWIRE:
AFL DNO-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 700 FT
DESIGN TENSION: 5600 LBS

3/8" EHS 7-STRAND
DIAM=0.360", WT=0.273 #/FT
RULING SPAN: 700 FT
DESIGN TENSION: 4300 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 700 FT
DESIGN TENSION: 9900 LBS
/PER WIRE



PLAN VIEW



PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV SINGLE CKT
VERTICAL DEADEND
STEEL ON DRILLED PIER
CONCEPTUAL DESIGN

TYPE 10A STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

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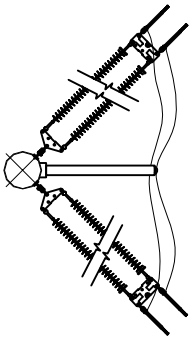
WIRE DETAILS:
ALL TENSIONS AT NESC HEAVY
0°F, .5" ICE, 4 PSF WIND.

AVERAGE SPAN: 400 FT

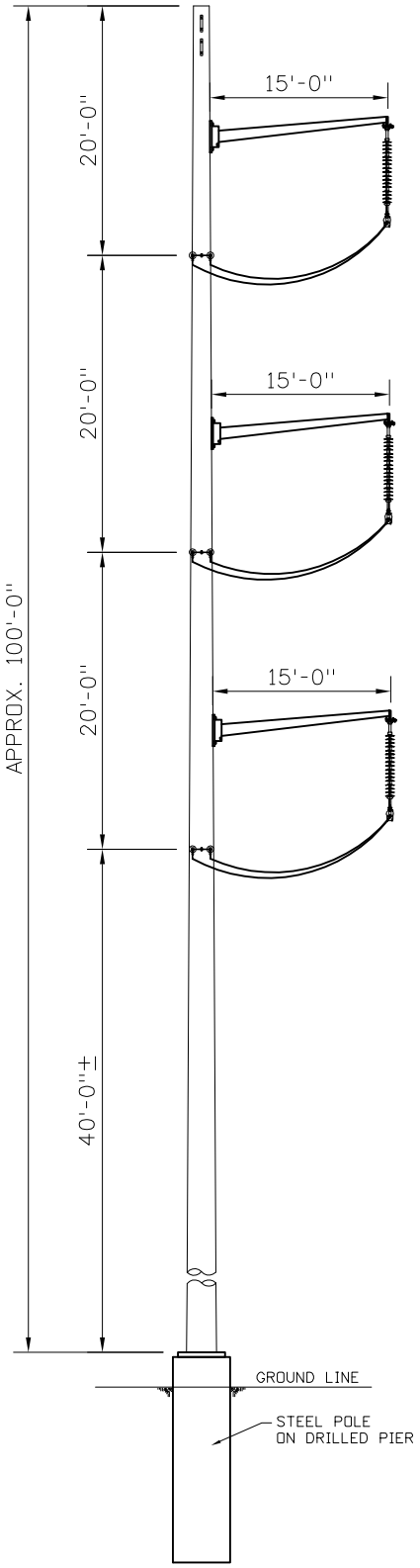
SHIELDWIRE:
AFL DNO-6071 OPGW
DIAM=0.555", WT=0.383 #/FT
RULING SPAN: 400 FT
DESIGN TENSION: 4000 LBS

3/8" EHS 7-STRAND
DIAM=0.360", WT=0.273 #/FT
RULING SPAN: 400 FT
DESIGN TENSION: 4000 LBS

345KV CONDUCTOR:
2-BUNDLE DRAKE ACSR 26/7
DIAM=1.108", WT=1.093 #/FT
RULING SPAN: 400 FT
DESIGN TENSION: 7800 LBS
/PER WIRE



PLAN VIEW



PRELIMINARY
NOT FOR CONSTRUCTION
07/30/14

Ulteig

INFINITY WIND POWER

ND ANTELOPE HILLS
345KV SINGLE CKT
VERTICAL DEADEND
STEEL ON DRILLED PIER
CONCEPTUAL DESIGN

TYPE 10B STR

Project Number:	14.01005
Date:	07/30/14
Drawn By:	UEI-GLS
Approved By:	UEI-SPT
Sheets:	1 of 1

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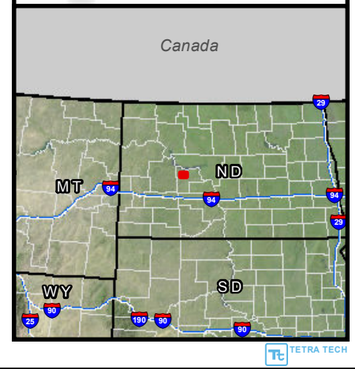
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 8 Geology and Mineral Resources

Mercer County, ND
August 2014

- Proposed Route ROW
- Proposed Corridor
- Econimic Coal Deposit
- Well Site
- Gravel Pit
- Oil/Gas Well



1:45,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 1 2 Miles

TETRA TECH

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Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 9
Farmland Soils

Mercer County, ND
August 2014

Proposed Route ROW
Proposed Corridor
Planned AVS-Neset Transmission Line

Farmland Classification

All areas are prime farmland
Farmland of statewide importance
Not prime farmland

Planned AVS-Neset Transmission Line

CR-11
CR-13
CR-15
CR-26
CR-28
1806

Canada

MT
ND
SD
WY

1:45,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 1 2 Miles

TETRA TECH

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Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 10-1 Wetlands and Surface Waters

Mercer County, ND
August 2014

Proposed Route ROW
Proposed Corridor
NWI Wetland

Canada

ND
MT
WY
SD

TETRA TECH

1:16,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 0.5 1 Miles

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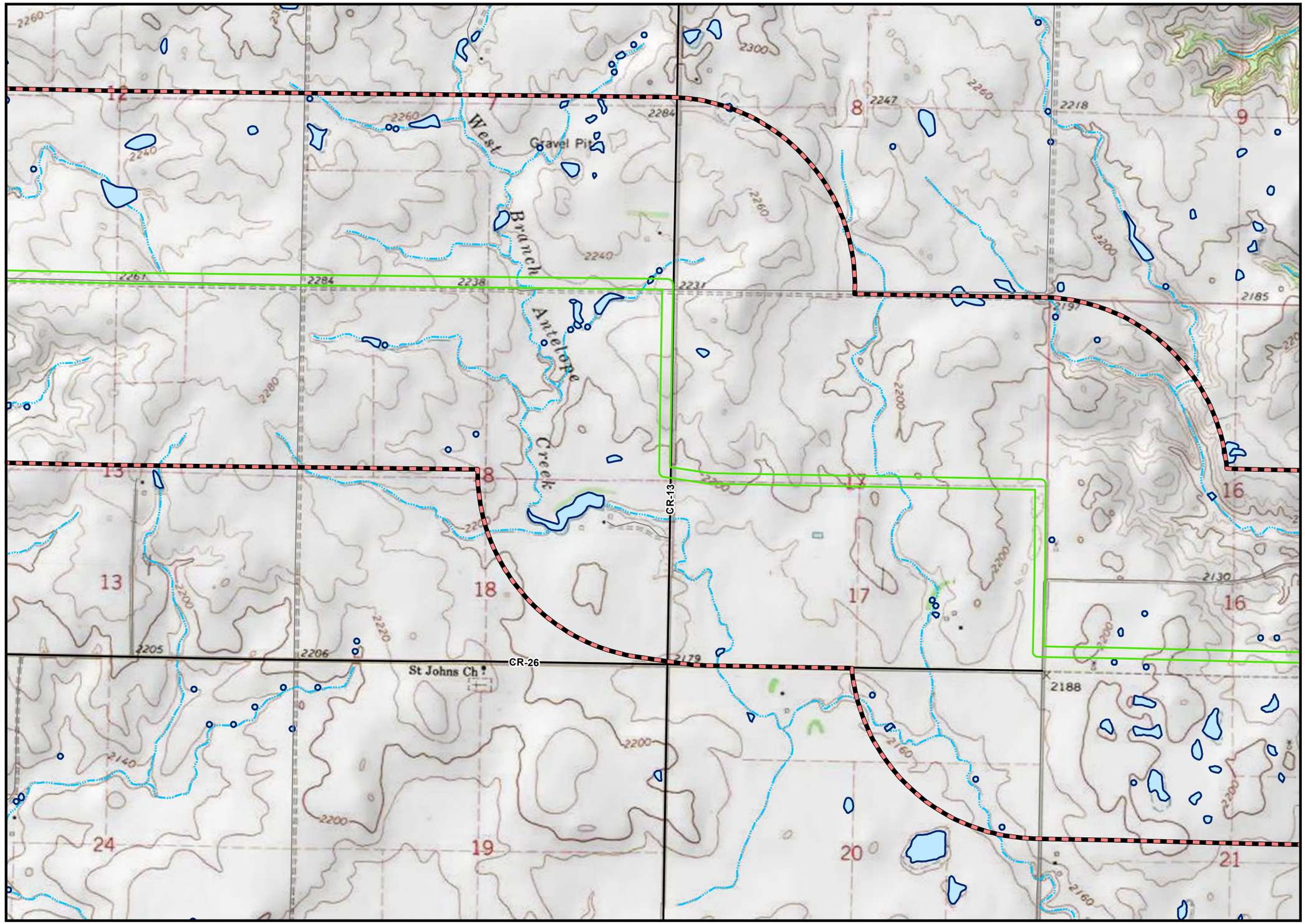
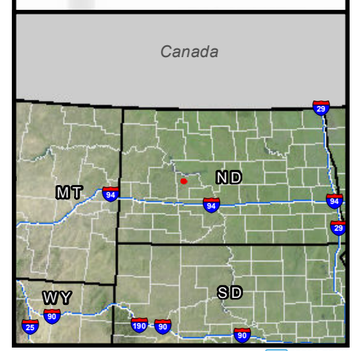
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 10-2 Wetlands and Surface Waters

Mercer County, ND
August 2014

- Proposed Route ROW
- Proposed Corridor
- NWI Wetland
- Intermittent Stream





1:16,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 0.5 1 Miles

TETRA TECH

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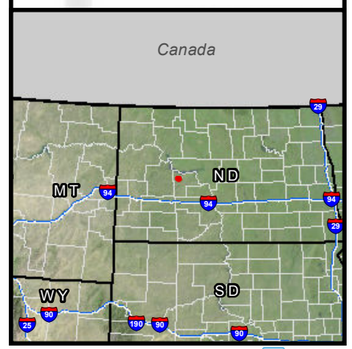
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 10-3 Wetlands and Surface Waters

Mercer County, ND
August 2014

- Proposed Route ROW
- Proposed Corridor
- NWI Wetland



TETRA TECH

1:16,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 0.5 1 Miles

CR-11

CR-26

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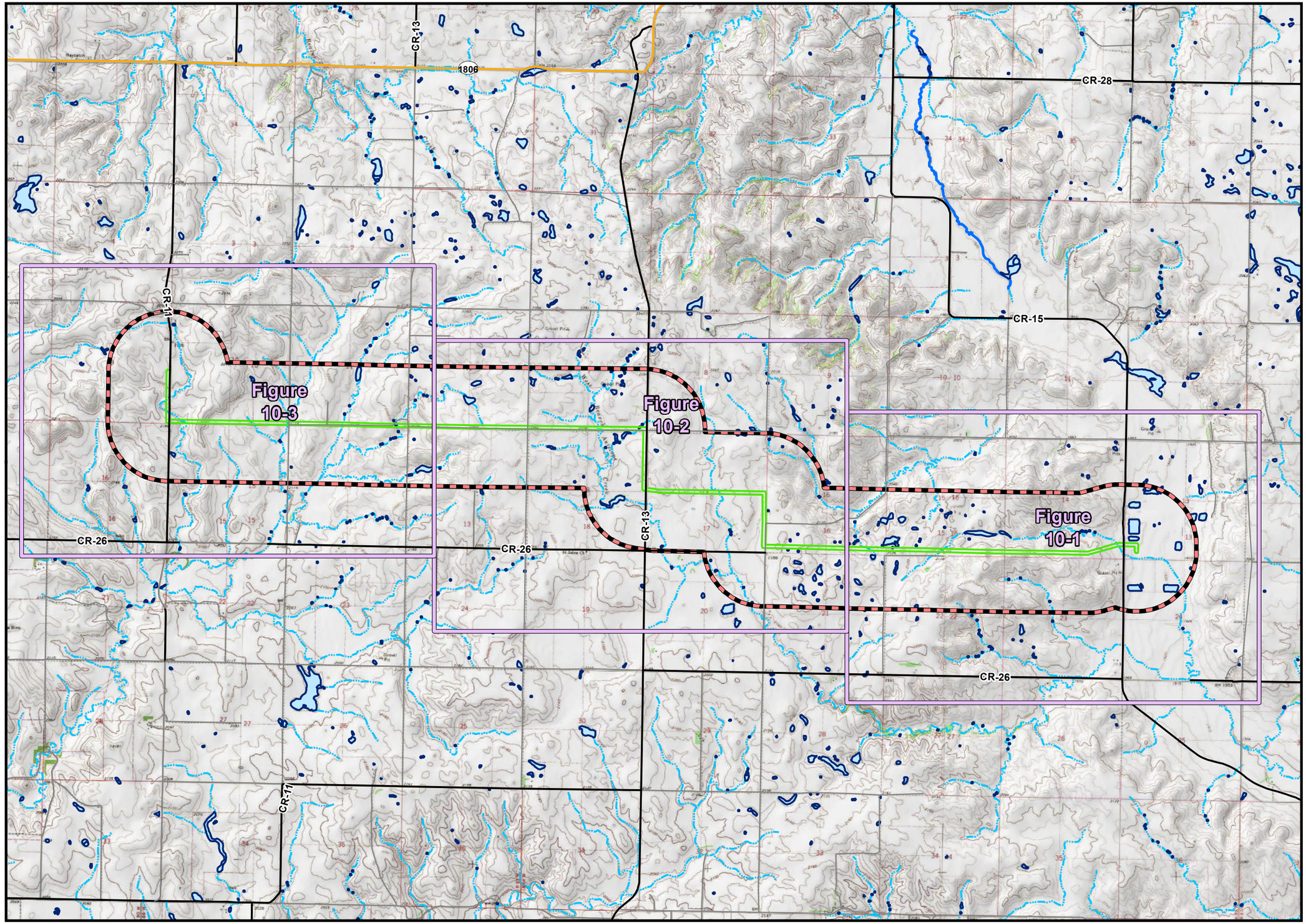
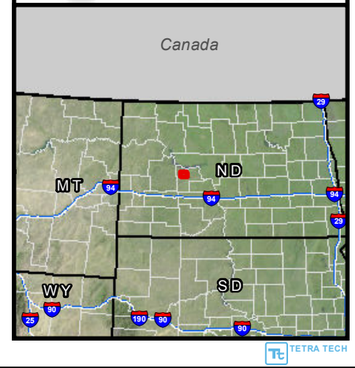
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 10 Wetlands and Surface Waters Index Map

Mercer County, ND
August 2014



- Map Grid
- Proposed Route ROW
- Proposed Corridor
- NWI Wetland
- Perennial Stream
- Intermittent Stream



N

1:50,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 1 2 Miles

TETRA TECH

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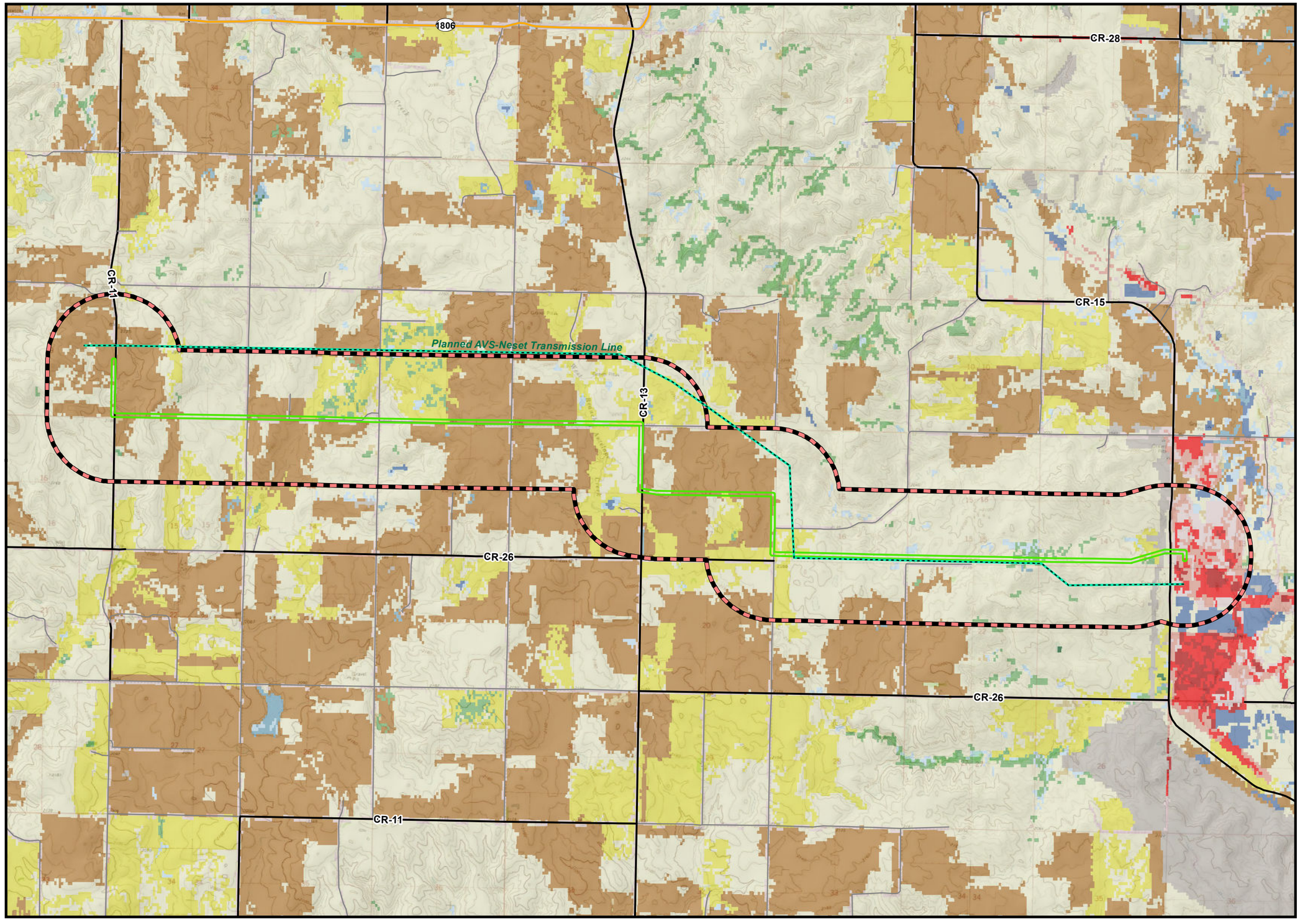
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 11 Land Cover Map

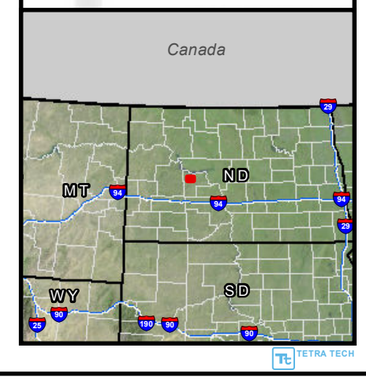
Mercer County, ND
August 2014



- Proposed Route ROW
- Proposed Corridor
- Planned AVS-Neset Transmission Line

NLCD Land Cover Class

- Woody Wetlands
- Shrub/Scrub
- Open Water
- Mixed Forest
- Hay/Pasture
- Grassland/Herbaceous
- Evergreen Forest
- Emergent Herbaceous Wetlands
- Developed, Open Space
- Developed, Medium Intensity
- Developed, Low Intensity
- Developed, High Intensity
- Deciduous Forest
- Cultivated Crops
- Barren Land



TETRA TECH

1:45,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 1 2 Miles

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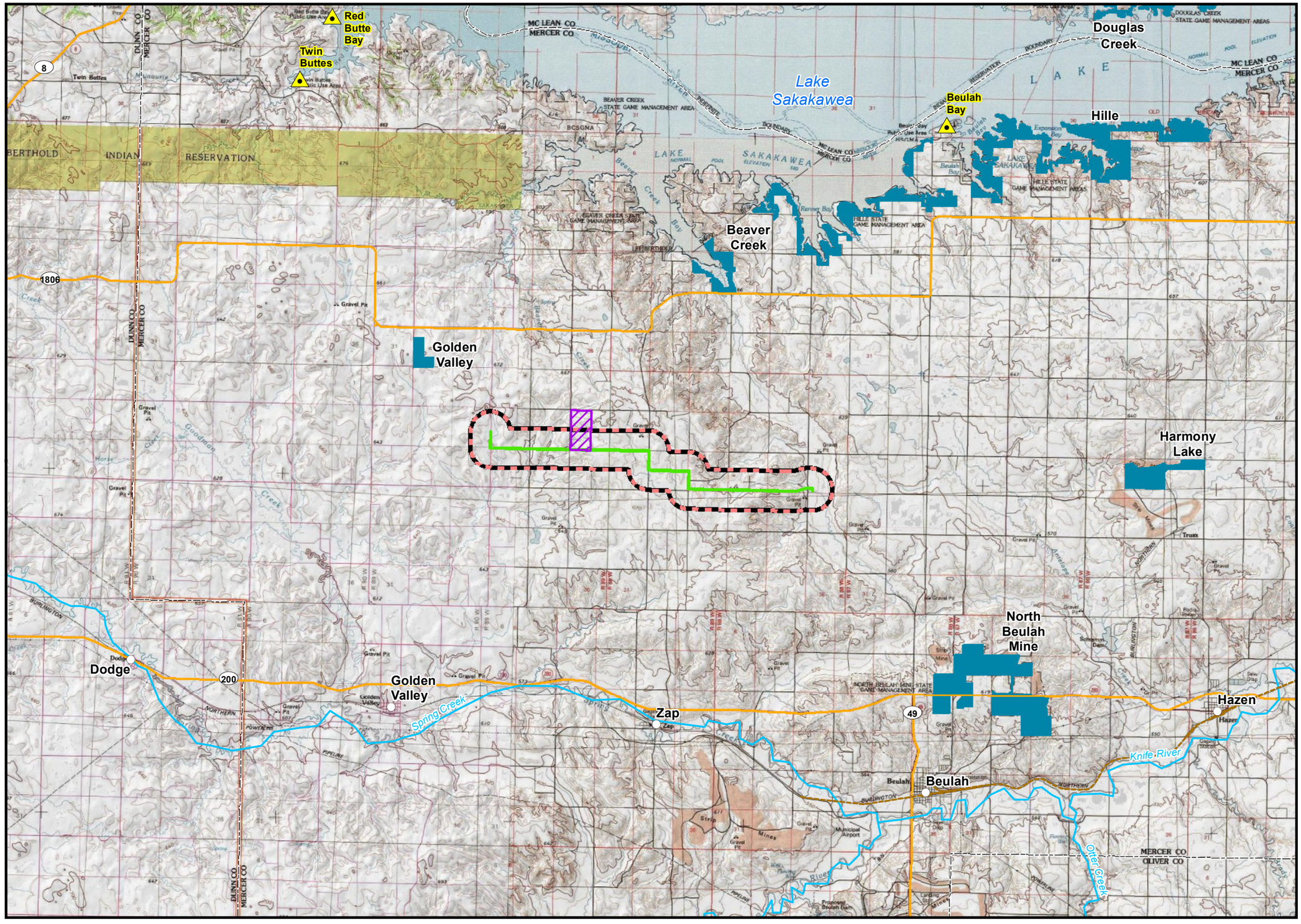
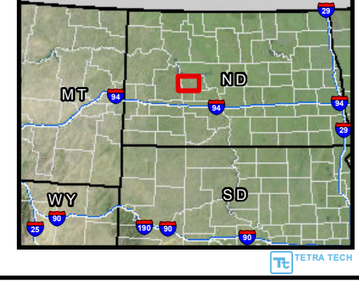
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility

Figure 12 Area Recreation Resources

Mercer County, ND
August 2014



Canada



1:150,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet

0 5 10 Miles

- Proposed Route ROW
- Proposed Corridor
- PLOTS Land
- Wildlife Management Area
- Public Use Area
- County Boundary
- Railroad
- Stream or River
- City/Town

TETRA TECH

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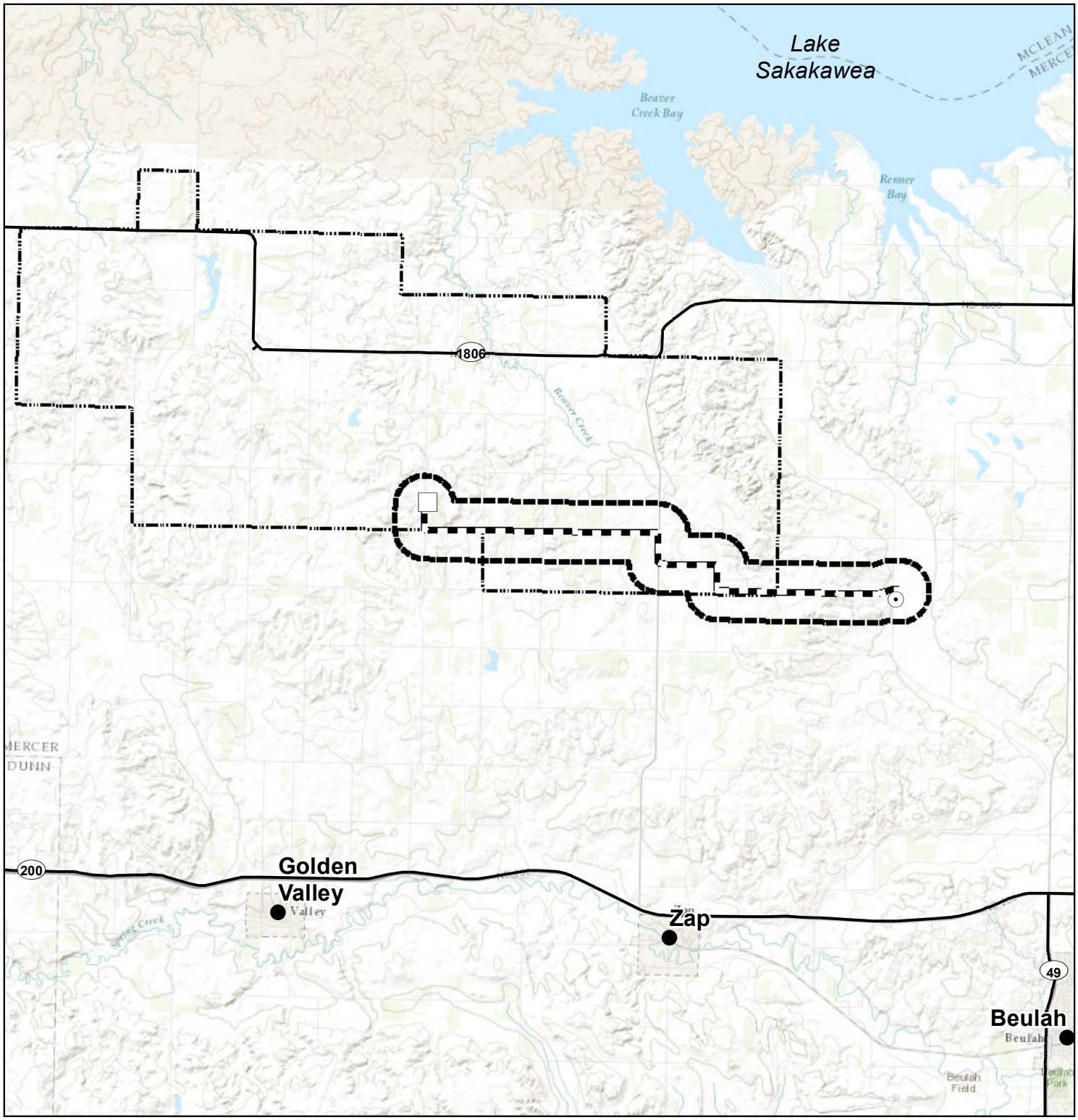

Figure 13	1:150,000 NAD_1983_StatePlane_North_Dakota_South_FIPS_3302_Feet	0 1 2 3 Miles
Antelope Hills Transmission Line Application for North Dakota Certificate of Site Compatibility **Project Map** Mercer County, ND August 2014	Proposed Substation Project Area Proposed Route Wind Energy Facility Project Area Existing Antelope Valley Station Existing Transmission Line State Highway	Canada PROJECT AREA ND MT SD WY

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