

January 11, 2016

Executive Secretary
ND Public Service Commission
State Capitol Building
Bismarck, ND 58505

Re: Case No. PU-10-164
Post Construction Inspection

Montana-Dakota Utilities Co. (Montana-Dakota), a Division of MDU Resources Group, Inc., herewith submits the original and two (2) copies of its responses to the list of actions recommended in the post construction inspection report issued by Wenck Associates, Inc. and staff questions submitted on September 18, 2015.

Certification Point 3 - Confirmation that bird deterrents were placed along the route in areas corresponding to wetland habitats.

Response:

Please see Attachment A for the invoice of the installation of bird devices.

Certification Points 3 and 4 - Aeronautic Commission requests: search of private airports, FAA consultation completed under Form 7460 (receipt of study results needed).

Response:

Because of the number of Aeronautical Studies performed, please see the PDF File named "FAA" on the disc provided.

Certification Points 3, 6, and 17 - Final restoration/reseeding according to NRCS guideline on any areas distributed by construction activities.

Response:

Any required reclamation has been negotiated with the landowner and typically the landowner will be responsible for reclamation. In the few instances where the landowner wanted MDU to perform the reclamation the work has been done. Please refer to the PDF file "Release of Damages" forms for reclamation details.

Certification Points 3, 4, and 25 - Compensation for landowners for crops and impacts to CRP status.

Response:

All documentation for compensation are located on the disc provided in the file labeled "Release of Damages".

Certification Point 8 - Compliance with National Electric Safety Code.

Response:

Please refer to the file labeled "Design Criteria" on the disc provided.

Certification Point 9 - No Reports filed as to the presence or lack thereof of threatened or endangered species or bald or golden eagles during construction and operation or mortality monitoring.

Response:

No critical habitat or threatened species, endangered species, bald eagles, or golden eagles were observed. Therefore, no report was made.

Certification Point 11 - Reports of any additional cultural, archeological, historical resources found, if applicable.

Response:

No cultural resource, paleontological site, archeological site, historical site, or grave site was discovered during construction. Therefore, no report was made.

Certification Point 20 - Mitigation of television and radio interference.

Response:

No landowners or residents have commented on television or radio interference so no mitigation has been required. If any landowner or resident does, Montana-Dakota will work with the landowner or resident to mitigate the interference.

Certification Points 27 and 28 - Reports of failure, injury, threatened and endangered, bird and bat death.

Response:

No extraordinary events took place at the site of the transmission facility, including injuries to any person, or the death of any threatened. In addition, there was no discovery of a large number of dead birds or bats on the site, therefore no report was made.

Certification Point 32 - Provision of the final hardcopy, electronic copy and GIS file as-built drawings.

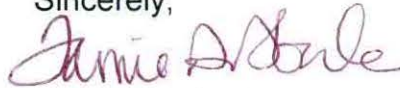
Response:

Please see Attachment B for the final hardcopies of the as-built drawings. Please refer to the disc for the electronic copies of the as-built drawings filed labeled as "MDU Merricourt Substation As-Built Drawings", "MDU Merricourt Substation As-Built Grading Plans", MDU Merricourt Substation As-Built Grading Plans", "Merricourt to Ellendale Plan & Profiles 8-14-2012" and the folder labeled "Shape files – 8-16-12" for the GIS as-built drawings. The GIS information is referenced in North Dakota Coordinate System in 1983, South Zone.

The Tree and Shrub reports will be submitted separately. Please contact me at 701-222-7856 or at tamie.aberle@mdu.com with additional questions or follow up necessary.

Please acknowledge receipt by stamping or initialing the duplicate copy of this letter, attached hereto, and returning the same in the enclosed self-addressed, stamped envelope.

Sincerely,



Tamie A. Aberle
Director of Regulatory Affairs

cc. Rob Frank

Attachment A

Attachment A



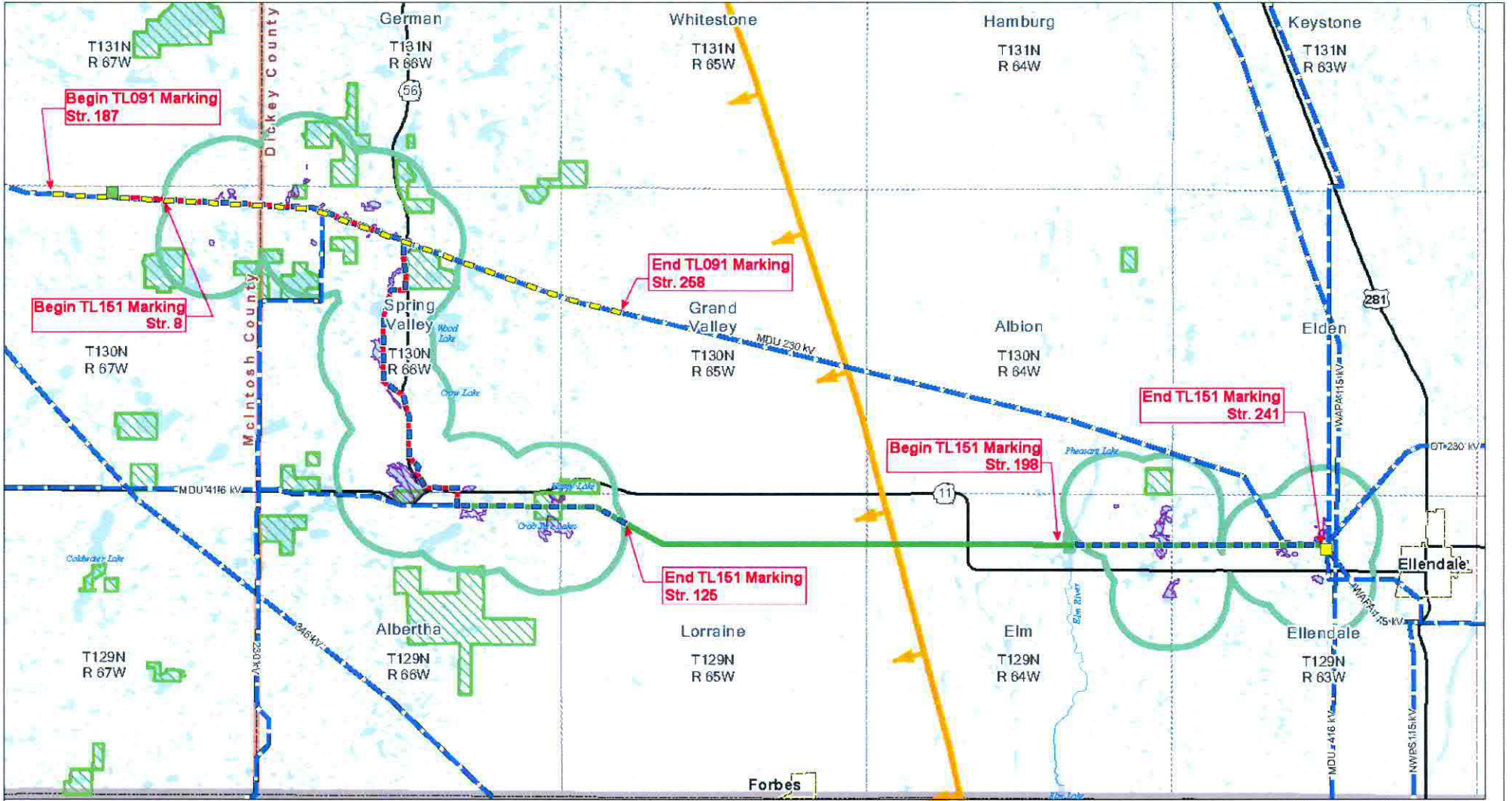
4101 Southwest 47th Avenue, Suite 106
 Ft. Lauderdale, Florida 33314
 Phone: (954) 584-7000
 Fax: (954) 584-7004
 e-mail: energize@usaairmobile.com
 web site: www.usairmobile.com

INVOICE Bill to: Montana Dakota Utilities Install Bird Devices 05/14 to 05/22/2012	Contract P.O.: 1394440P Dated May 25, 2012 Inv.No.MDU 052512-1 Bird Diverter Install/Safety/Repair
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INSTALL BIRD DEVICES ON OHGW/OPGW

ITEM No.	Quantity	LINE NO.	Line Name Description	Unit Rate	TOTAL
1	2081	L091&L151-1	Bird Flight diverters Installed on 05/14 -05/22	\$ 39.00	\$ 81,159.00
2	943	L151-1	Bird flight diverters installed on OPGW 05/14-05/22	\$ 39.00	\$ 36,777.00
3	662	L091	Installed Rope Safety at shield wire connection 05/18-22	\$ 49.00	\$ 32,438.00
4	4.5	n/a	Charges for Mob - DeMob and Delays- Misc Standby time for clearance TL 091 05/20 3 hrs TL 091 05/21 1.5 hrs	\$ 1,495.00	\$ 6,727.50
5	1		MOB-DeMob North Dakota 05/14-22	\$ 7,640.00	\$ 7,640.00
6	1		Material purchased for shield wire rope safety rope, tape, utility knives, blades, torch and propane	\$ 466.20	\$ 466.20
7	1		Ferry charges to Wisheck and drive time to relocate on old line to Merricourt sub.	NC	
8	1	n/a	05/14 Pre-Installation meeting at Harvest Inn and pickup Material at staging area on Hwy 56	NC	
Total	3690.5		Total this Invoice		\$ 165,207.70

Tom Croy 5/30/12
 $\downarrow 172396.0211.72 = *138,884.70$
 $TL091-1.5211.15710 = *26,323.00$

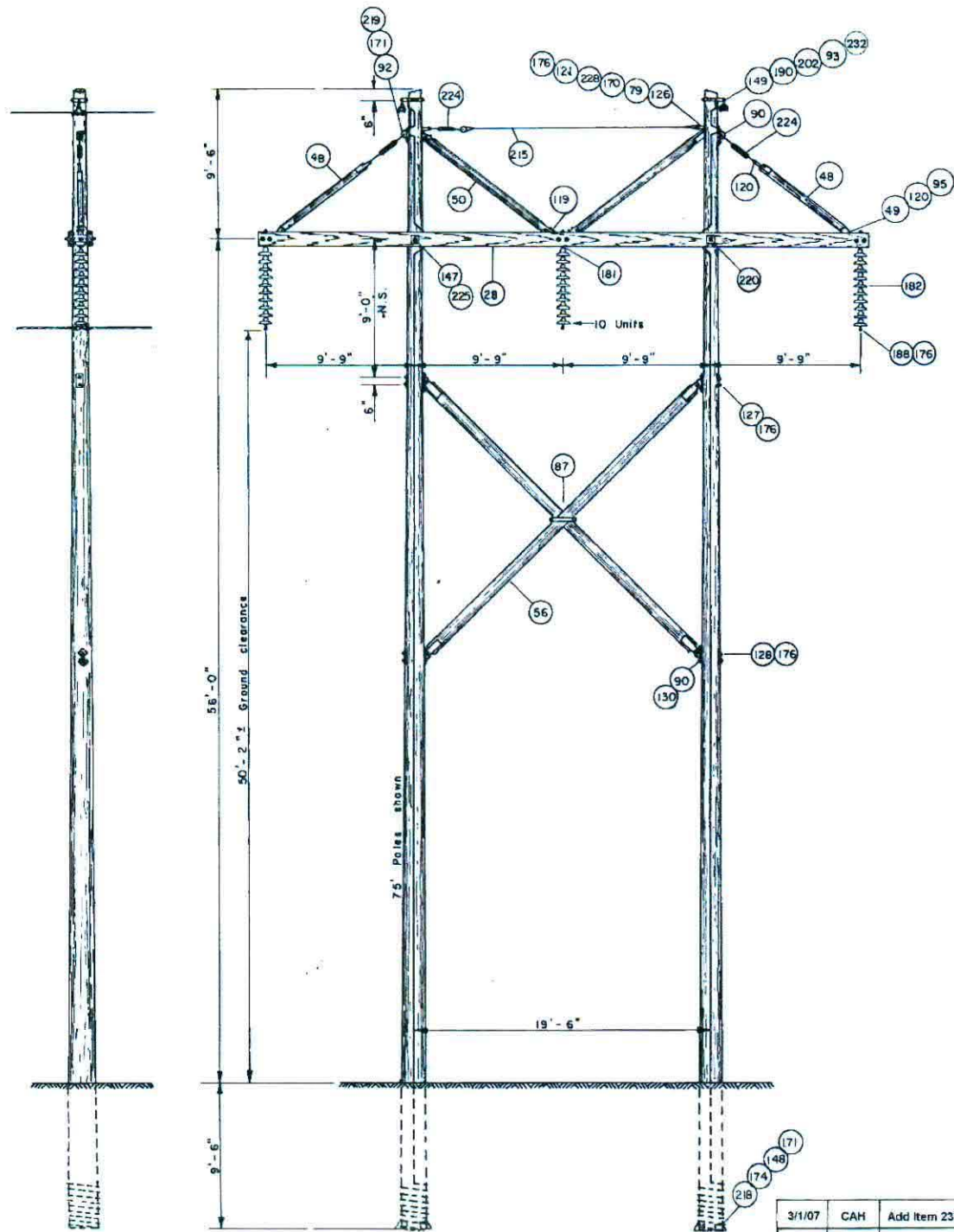


- | | | | |
|--------------------------|--------------------------------------|--|-------------------|
| Compensatory Marked Line | Whooping Crane Habitat Wetlands | Proposed Interconnect Substation | Incorporated Area |
| Marked Line | 1 Mile Buffer of Suitable Habitat | Existing MDU Ellendale Jct. Substation | Highway |
| Upgraded Line | 95% Whooping Crane Sighting Corridor | Existing Transmission Line | Stream |
| New Line | USFWS WPA or WDA | Wetland | |

Figure 1
Overall Line Marking Plan
Montana-Dakota Utilities Co.
Merricourt Wind Farm to Ellendale Project

Map Document: D:\merricourt\GIS\Projects\101140114\map_data\MapData\USFWS\3\areas\WFE_1\TL_USFWS_Locate\fig1.mxd 1/2/2011 11:28:28 AM





MATERIAL LIST

ITEM No.	QUANTITY	REFERENCE CAT. No.	DESCRIPTION
28	1	10-2350-0	Crossarm Assembly Consisting Of:
	2		Side Arm 5 1/8" X 7 1/2" X 40'-0"
	3		Spacer Fitting Adjustable
	12		W.H. Bolt 3/4" X 6 1/2"
	6		W.H. Bolt 5/8" X 8 1/2"
	1		Spacer Fitting Top Plate, 3/8" thick
	2		Spacer Fitting Bent Clip, 3/8" plate
95	1		Bent Bolt S.W.T., N. & L.N., 7/8"
119	2		Machine Bolt, N & L.N., 7/8" X 2 1/2"
147	2	12-0842-8	Threaded Rod, 2N., 7/8" X 26"
225	4		Tapped Lip Washer, 7/8"
220	4	12-1180-6	Shim, 1/4"
56	1 pr		X-Brace 19'-6" P.S.
87	1		Center Clamp
90	4		Deadend Tee
130	4		Machine Bolt, N. & L.N., 1" X 3"
127	4	12-0766-0	Machine Bolt, N. & L.N., 7/8" X 16"
128	4	12-0768-8	Machine Bolt, N. & L.N., 7/8" X 18"
176	8	02-1075-6	Curved Washer 4" X 4" X 1/4", 15/16" hole
50	2		Knee Brace 3 3/8" X 5 3/8" X 11'-7"
48	2		Strain Brace 3 3/8" X 4 3/8" X 9'-1-1/2"
95	2		Bent Bolt, S.W.T., N & L.N., 7/8"
49	2		Twisted Clip
120	4		Machine Bolt, N. & L.N., 7/8" X 3"
90	2		Deadend Tee
92	2		Bonding Plate
171	2		Bonding Clip and Bolt
219	2		Nut, 7/8"
126	4	12-0764-2	Machine Bolt, N & L.N., 7/8" X 14"
176	2		Curved Washer 4" X 4" X 1/4", 15/16" hole
79	2		Clevis
170	2	12-2310-7	Guy Roller
121	2	12-0753-5	Machine Bolt, N. & L.N., 7/8" X 4"
228	2	02-1465-4	Guy Grip 7/16" strand
215	25 ft	12-1406-4	Guy Wire, Utilities Grade, 7/16"
224	3		Turnbuckle, Clevis-Eye, 7/8" X 12"
49	2		Shield Wire Support Band
93	2		Ground Wire Bolt, N. & L.N.
181	3	15-0130-6	Ball Hook
182	30	14-1340-1	Insulator Suspension 9"-15,000 lbs.
188	3	14-2562-0	Armor-Grip Suspension Unit
194	(3)		Suspension Clamp, socket, cast alum.
200	(3)		Armor Rod, preformed
179	3	15-0173-4	Socket Eye
190	2	15-0510-6	Suspension Clamp, malleable iron
202	2 sets	14-2230-2	Armor Rod, preformed, galv. steel
218	4	12-3550-4	Pole Bearing Plate
174	8		Lag Screw, 5/8" X 5"
148	2		Threaded Rod, 2 N & 2 L.N., 7/8" X 30"
171	4		Bonding Clip and Bolt 1/2" X 1 1/2"
232	*2	14-3310-3	Vibration Damper, spiral, 3/8"

() = Alternate Items

*Note: 4 spiral vibration dampers required on spans over 800 ft.

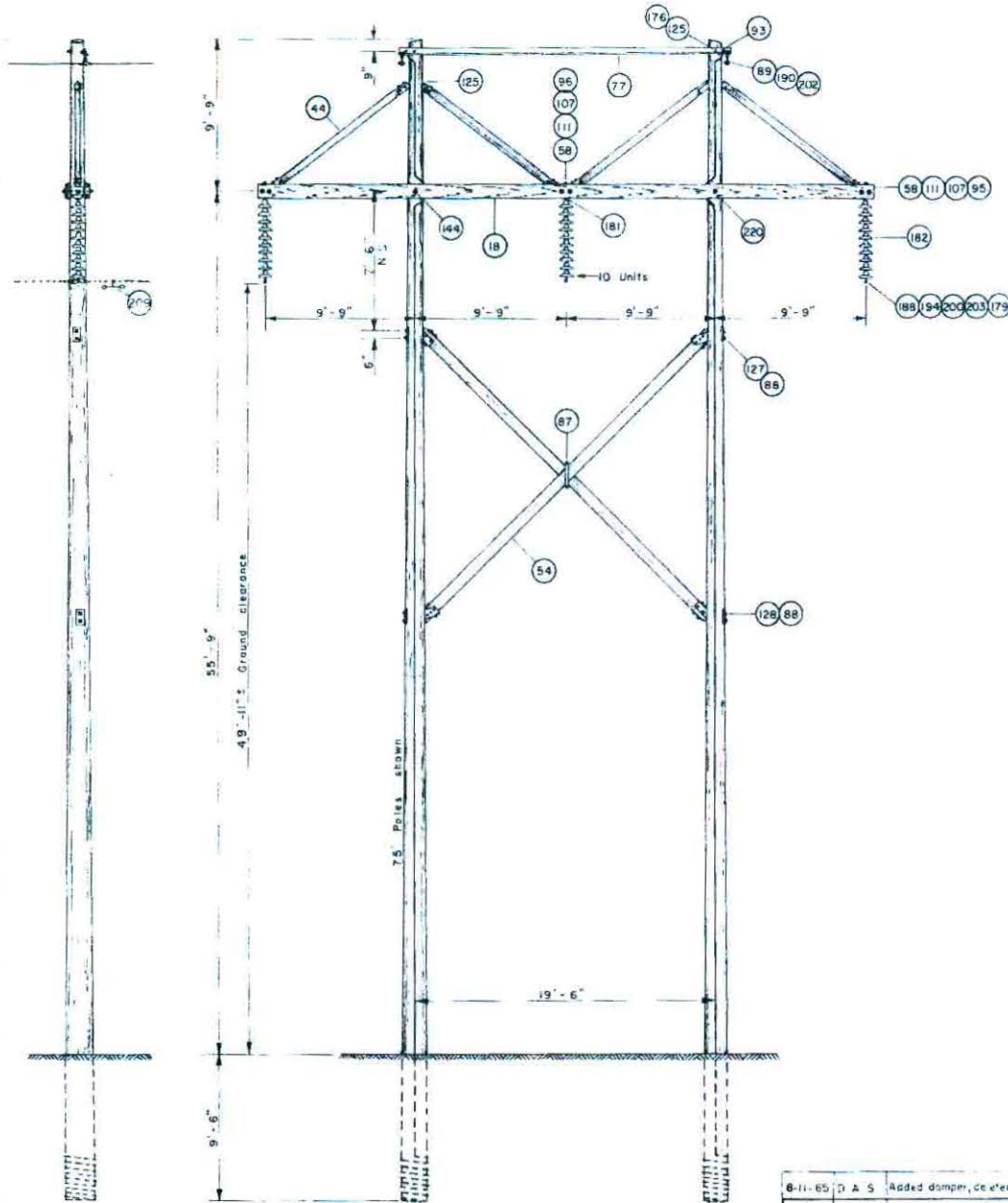
REFERENCE DRAWING:

T- 230 MC1, DETAIL-A1, A2, N1
T- 230 MC4, DETAIL-VS

TANGENT STRUCTURE 230 KV CONSTRUCTION

DRAWN	W. D.	MONTANA-DAKOTA UTILITIES CO.	DATE	2-11-81
APPROVED	<i>[Signature]</i>		DRG. No.	T-230-A
DATE	BY	REVISION	APPROVED	
3/1/07	CAH	Add Item 232		

TRANSMISSION STANDARDS



MATERIAL LIST

ITEM No.	QUANTITY	REFERENCE CAT. No.	DESCRIPTION
	1	T-230-A	Crossarm, double, assembly consisting of:
18	2	T-230-A	Side arm 3 3/4" x 9 1/2" x 40'-0"
58	3	Hughes 28804-FNH	Spacer fitting 11' arm separation
111		Hughes W8 75	W.H. bolt 3/4" x 5"
107	6	Hughes W8 610 1/2	W.H. bolt 5/8" x 10 1/2"
144	2	Hughes TR 823-4	Threaded rod, 2 WN B 2 N 7/8" x 23"
220	4	Hughes 2844...N	Shim size as req'd
	1	Hughes 2056	X-Brace assembly consisting of:
54	1 pr	Hughes 2056	X-Brace 19'-6" P.S.
87	1	Hughes 2840-G	Center clamp
127	4	Hughes B 816	Machine bolt, N.B.L.N. 7/8" x 16"
128	4	Hughes B 818	Machine bolt, N.B.L.N. 7/8" x 18"
88	4	Hughes 2056.3 B	Pole washer
44	4	Hughes 2025.5	vee brace, 11'-6 3/4" c-c hole
95	2	Hughes 2722.1 B	Bent bolt, SWT, N.B.L.N. 7/8"
96	1	Hughes 2722.1 D	Bent stud, 2 SWT, 2 N.B. 2 L.N. 7/8"
125	2	Hughes B 812	Machine bolt, N.B.L.N. 7/8" x 12"
	1	T-230-A	Shield wire support assembly consisting of:
77	1	Hughes C-3438.1B-1	Support angle 3" x 5" x 1/4" x 21'-6"
89	2	Hughes 1329.6	U-bolt and chain link 5/8"
93	2	Hughes GWS 51 1/2	Ground wire bolt, N.B.L.N. 1/2" x 1 1/2"
125	2	Hughes B 812	Machine bolt, N.B.L.N. 7/8" x 12"
176	2	Hughes CW 80	Curved washer 4" x 4" x 1/4", (5/16" hole)
181	3	Lapp 7055	Bolt hook
182	30	Lapp 9000	Insulator suspension 9" - 15000 lbs.
188	3	PLP AGS...	Armor - Grip suspension unit
194	(3)	Anderson HAS...-5	Suspension clamp, socket, cast alum.
200	(3)	Alcoa	Armor rod, tapered
203	(6)	Alcoa	Armor rod clamp
179	3	Lapp 7882	Socket eye
209	6	Alcoa 170...	Stackbridge damper
190	2	O.B. 83074	Suspension clamp, malleable iron
202	2 sets	PLP AR-130	Armor rod, preformed, galv. steel

() - Alternate items

REFERENCE DRAWING:

T-230-MC1, DETAIL - MI, NI, SI
T-230-MC4, DETAIL - VS

TANGENT STRUCTURE 230 KV CONSTRUCTION

DATE	BY	REVISION	APPROVED	DATE
6-11-65	D. A. S.	Added damper, deleted nine insul. units	<i>[Signature]</i>	2-11-65
			APPROVED	

**MONTANA-DAKOTA
UTILITIES CO.**
TRANSMISSION STANDARDS

DATE 2-11-65
DRG. No. T-230-A

MONTANA-DAKOTA UTILITIES CO.

Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anch		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
												Voltage: Design 230KV; Oper.230KV	
												Size & Type Conductor: 954 MCM ACSR - Rail	
												Size & Type Shield Wire: 3/8" EHS Steel, 7 Strand	
												OPGW: CC-57/465, 24 Fibers	
												WO: J172396	
												Year Constructed: 2011/2012	
	0+00											Merricourt Sub	
1	2+33	233	T-230-JP	90-H1	3		87°54' Lt.	20	TG-46b	20	TA-32		
2	9+14	681	T-230-A	105-1	2								
3	18+10	896	T-230-A	85-2	2								
4	23+55	545	T-230-A	80-2	2								
5	30+86	731	T-230-A	85-2	2								
6	39+55	869	T-230-A	90-2	2								
7	46+48	693	T-230-A	95-2	2								
8	55+12	864	T-230-A	95-2	2							Begin 2012 Bird Marker Installation - 100' on-center per shield wire, 50' on-center for the line. Cross section line	
9	62+33	721	T-230-A	90-2	2								
10	69+26	693	T-230-A	95-2	2								
11	76+88	762	T-230-A	90-2	2								
12	83+89	701	T-230-A	85-2	2								
13	91+09	720	T-230-A	95-2	2								
14	98+75	766	T-230-A	90-2	2								
15	107+58	883	T-230-A	85-2	2							Cross road, section line, and distribution line	
16	112+88	529	T-230-A	95-2	2								
17	121+54	866	T-230-A	85-2	2								
18	129+42	788	T-230-A	85-2	2								
19	137+33	792	T-230-A	95-2	2								

MONTANA-DAKOTA UTILITIES CO.

Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anch		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
20	146+65	931	T-230-A	95-2	2								
21	155+33	868	T-230-A	90-2	2								
22	162+35	702	T-230-A	80-2	2								Cross section line
23	167+81	546	T-230-A	80-2	2								
24	174+57	676	T-230-A	85-2	2								
25	181+30	673	T-230-A	90-2	2								
26	189+57	827	T-230-A	90-2	2								
27	197+21	764	T-230-A	90-2	2								
28	205+55	834	T-230-A	100-2	2								
29	213+19	764	T-230-F	90-2	3			16°09' Rt.	8	TG-46b	6	TA-32	Offset 10'-0". Cross road, section line, and distribution line
30	217+76	457	T-230-A	90-2	2								OPGW Splice
31	221+97	420	T-230-A	110-1	2								
32	232+57	1060	T-230-A	110-1	2								
33	237+41	485	T-230-A	95-2	2								
34	246+72	931	T-230-A	90-2	2								
35	254+65	792	T-230-A	100-1	2								
36	263+45	880	T-230-A	85-2	2								Cross section line
37	269+49	604	T-230-A	90-2	2								
38	277+34	785	T-230-A	90-2	2								
39	284+93	759	T-230-A	90-2	2								
40	293+99	907	T-230-A	85-2	2								
41	301+50	750	T-230-A	105-1	2								
42	311+56	1007	T-230-A	110-2	2								Cross road and section line
43	314+20	264	T-230-JP	120-H1	3			72°04' Rt.	20	TG-46b	20	TA-32	Add X-Brace
44	316+97	276	T-230-A	115-2	2								Cross Wishek 230kV line
45	323+54	657	T-230-A	85-2	2								
46	328+15	462	T-230-A	80-2	2								

MONTANA-DAKOTA UTILITIES CO.

Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anch		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
47	333+20	504	T-230-E	90-1	3			8°50' Lt.	4	TG-46b	4	TA-32	Offset 10'-0"
48	337+84	465	T-230-A	80-2	2								
49	342+63	479	T-230-A	95-2	2								
50	349+73	710	T-230-E	90-1	3			7°55' Rt.	4	TG-46b	4	TA-32	Offset 10'-0"
51	353+82	409	T-230-A	80-2	2								
52	358+97	515	T-230-A	100-2	2								
53	365+62	664	T-230-JP	100-H1	3			88°40' Rt.	20	TG-46b	20	TA-32	Cross section line
54	371+79	618	T-230-A	90-2	2								
55	380+21	841	T-230-JP	95-H1	3			72°54' Lt.	20	TG-46b	20	TA-32	OPGW Splice
56	387+12	691	T-230-A	80-2	2								
57	394+96	783	T-230-A	85-2	2								
58	402+44	748	T-230-A	85-2	2								
59	410+14	770	T-230-F	90-2	3			16°23' Lt.	8	TG-46b	6	TA-32	Offset 10'-0"
60	418+35	821	T-230-A	95-2	2								
61	426+94	859	T-230-A	90-2	2								
62	436+25	931	T-230-A	90-2	2								Cross section line
63	444+65	840	T-230-A	90-2	2								
64	452+86	821	T-230-A	90-2	2								
65	461+40	854	T-230-A	95-2	2								
66	469+40	800	T-230-A	95-2	2								
67	477+47	807	T-230-JP	90-H1	3			49°10' Lt.	20	TG-46b	20	TA-32	
68	483+24	577	T-230-A	100-2	2								
69	491+75	851	T-230-A	95-2	2								Cross road and section line
70	498+93	718	T-230-A	90-2	2								
71	506+35	741	T-230-G	90-1	3			32°44' Rt.	8	TG-46b	8	TA-32	Offset 8'-0". Cross road
72	514+12	778	T-230-A	100-2	2								
73	521+10	697	T-230-F	90-2	3			15°08' Rt.	8	TG-46b	6	TA-32	Offset 10'-0". Cross section line
74	527+82	673	T-230-A	85-2	2								

MONTANA-DAKOTA UTILITIES CO.

Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anch		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
75	535+42	760	T-230-A	85-2	2								
76	541+93	651	T-230-A	95-2	2								
77	549+94	801	T-230-A	95-2	2								Cross section line
78	556+12	619	T-230-A	90-2	2								
79	561+57	544	T-230-A	75-2	2								
80	566+15	458	T-230-G	80-1	3			40°12' Lt.	8	TG-46b	8	TA-32	Offset 8'-0", OPGW Splice
81	569+92	379	T-230-A	80-2	2								
82	575+02	510	T-230-A	75-2	2								
83	579+88	487	T-230-JP	90-H1	3			55°58' Rt.	20	TG-46b	20	TA-32	Cross section line
84	586+01	613	T-230-G	90-1	3			43°18' Lt.	8	TG-46b	8	TA-32	Offset 8'-0"
85	591+01	500	T-230-A	90-2	2								
86	597+56	655	T-230-A	80-2	2								
87	603+81	625	T-230-JP	90-H1	3			59°35' Lt.	20	TG-46b	20	TA-32	
88	610+62	682	T-230-A	90-2	2								
89	617+51	689	T-230-A	90-2	2								
90	623+07	556	T-230-A	90-2	2								
91	630+40	733	T-230-A	80-2	2								
92	634+46	406	T-230-JP	90-H1	3			79°09' Rt.	20	TG-46b	20	TA-32	
93	640+72	626	T-230-A	80-2	2								Cross road, section line, and distribution line
94	646+92	619	T-230-A	85-2	2								
95	653+35	643	T-230-J DBL	95-H1	3			80°10' Lt.	8 6	TG-51a TG-46b	8 6	TG-32 TA-32	Double circuit begins, OPGW Splice
96	658+51	517	T-230-A DBL	100-1	2								Cross road and distribution line.
97	663+69	518	T-230-A DBL	100-1	2								
98	669+95	626	T-230-A DBL	100-1	2								
99	674+22	427	T-230-A DBL	100-1	2								
100	680+00	578	T-230-A DBL	95-1	2								

MONTANA-DAKOTA UTILITIES CO.

Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anch		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
101	687+20	720	T-230-A DBL	95-1	2								
102	692+57	537	T-230-A DBL	100-1	2								
103	698+89	632	T-230-A DBL	90-1	2								
104	704+60	571	T-230-A DBL	90-1	2								
105	710+06	546	T-230-A DBL	95-1	2							Cross section line	
106	714+65	460	T-230-A DBL	95-1	2								
107	721+34	668	T-230-A DBL	100-1	2								
108	726+87	553	T-230-A DBL	105-1	2								
109	733+28	641	T-230-A DBL	90-1	2								
110	738+65	537	T-230-A DBL	90-1	2								
111	742+82	417	T-230-A DBL	95-1	2								
112	749+66	685	T-230-A DBL	100-1	2								
113	754+70	504	T-230-A DBL	90-1	2								
114	760+92	622	T-230-A DBL	95-1	2							Cross section line, Cross from McIntosh to Dickey	
115	767+09	617	T-230-A DBL	105-1	2								
116	772+62	553	T-230-A DBL	100-1	2								
117	778+71	609	T-230-A DBL	100-1	2								
118	785+48	676	T-230-A DBL	100-1	2								
119	790+97	549	T-230-A DBL	100-1	2								
120	797+29	632	T-230-G DBL	100-1	3			28°48' Rt.	8 6	TG-46a TG-46b	8 6	TA-32 TA-32	Offset 8'-0"
121	802+34	505	T-230-A DBL	95-1	2								
122	807+63	529	T-230-A DBL	90-1	2								
123	813+89	625	T-230-A DBL	110-1	2								
124	820+07	618	T-230-A DBL	105-1	2								Cross section line
125	826+14	607	T-230-A DBL	95-1	2								End 2012 Bird Marker Installation - 100' on-center per shield wire, 50' on-center for the line.

MONTANA-DAKOTA UTILITIES CO.

Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anch		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
126	832+12	598	T-230-A DBL	95-1	2								
127	838+12	599	T-230-A DBL	95-1	2								
128	844+30	617	T-230-A DBL	95-1	2								
129	850+50	620	T-230-A DBL	95-1	2								
130	856+71	621	T-230-A DBL	95-1	2								
131	862+76	605	T-230-A DBL	95-1	2								
132	868+98	622	T-230-A DBL	95-1	2								
133	875+11	613	T-230-G DBL	95-1	3			28°59' Lt.	8 6	TG-46a TG-46b	8 6	TA-32 TA-32	Offset 8'-0", OPGW Splice
134	881+39	627	T-230-A DBL	100-1	2								Cross road and section line,
135	888+13	674	T-230-A DBL	100-1	2								
136	894+83	670	T-230-A DBL	95-1	2								
137	901+42	659	T-230-A DBL	100-1	2								
138	907+89	648	T-230-A DBL	95-1	2								
139	914+08	619	T-230-A DBL	95-1	2								
140	920+31	623	T-230-A DBL	95-1	2								
141	926+42	611	T-230-A DBL	95-1	2			0°18' Lt.					
142	932+80	638	T-230-A DBL	100-1	2								Cross section line
143	939+18	638	T-230-A DBL	95-1	2								
144	945+72	654	T-230-A DBL	100-1	2								
145	952+22	651	T-230-A DBL	100-1	2								
146	957+88	566	T-230-A DBL	95-1	2								
147	964+43	655	T-230-A DBL	95-1	2								
148	970+54	611	T-230-A DBL	95-1	2								
149	976+62	608	T-230-A DBL	105-1	2								
150	983+00	637	T-230-A DBL	110-1	2			0°27' Rt.					Cross section line, cross distribution line
151	989+81	681	T-230-A DBL	100-1	2								
152	996+16	635	T-230-A DBL	95-1	2								

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Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anch		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
153	1002+18	602	T-230-A DBL	95-1	2								
154	1008+32	614	T-230-A DBL	100-1	2								
155	1014+79	647	T-230-A DBL	95-1	2								
156	1021+34	655	T-230-A DBL	100-1	2								
157	1027+80	646	T-230-A DBL	95-1	2								
158	1033+98	619	T-230-A DBL	100-1	2			0°53' Lt.				OPGW Splice	
159	1040+64	666	T-230-A DBL	95-1	2							Cross road and section line	
160	1046+74	609	T-230-A DBL	95-1	2								
161	1053+00	626	T-230-A DBL	100-1	2								
162	1059+93	694	T-230-A DBL	90-1	2								
163	1065+86	593	T-230-H DBL	100/80-1	2/3				16	TG-46a	16	TA-32	
164	1070+86	500	T-230-A DBL	90-1	2								
165	1076+92	606	T-230-A DBL	100-1	2								
166	1082+34	542	T-230-A DBL	105-1	2								
167	1088+94	660	T-230-A DBL	95-1	2			0°14' Rt.					
168	1095+26	632	T-230-A DBL	95-1	2								
169	1102+00	674	T-230-A DBL	95-1	2								
170	1108+37	637	T-230-A DBL	100-1	2								
171	1114+64	627	T-230-A DBL	95-1	2								
172	1121+12	648	T-230-A DBL	100-1	2								
173	1127+74	662	T-230-A DBL	90-1	2								
174	1134+56	683	T-230-A DBL	105-1	2								
175	1141+58	702	T-230-A DBL	100-1	2							Cross section line	
176	1147+79	621	T-230-A DBL	100-1	2								
177	1155+42	763	T-230-A DBL	105-1	2			0°13' Rt.					
178	1162+64	723	T-230-A DBL	95-1	2								
179	1168+96	632	T-230-A DBL	95-1	2								
180	1175+39	643	T-230-A DBL	90-1	2								

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Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anch		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
181	1182+22	682	T-230-A DBL	90-1	2								
182	1188+59	637	T-230-A DBL	95-1	2								
183	1194+43	585	T-230-A DBL	95-1	2							Cross road and section line	
184	1199+94	550	T-230-A DBL	95-1	2								
185	1206+30	636	T-230-A DBL	95-1	2								
186	1211+70	540	T-230-A DBL	100-1	2								
187	1218+39	670	T-230-A DBL	95-1	2							OPGW Splice	
188	1225+47	708	T-230-A DBL	95-1	2								
189	1232+45	698	T-230-A DBL	95-1	2								
190	1238+56	611	T-230-A DBL	95-1	2								
191	1244+57	601	T-230-A DBL	95-1	2			0°29' Lt.					
192	1250+91	634	T-230-A DBL	90-1	2							Cross road and section line	
193	1257+07	616	T-230-A DBL	90-1	2								
194	1263+44	637	T-230-A DBL	100-1	2								
195	1269+56	612	T-230-A DBL	100-1	2								
196	1275+96	640	T-230-A DBL	90-1	2			0°07' Lt.					
197	1282+43	647	T-230-A DBL	100-1	2								
198	1289+19	676	T-230-A DBL	95-1	2							Begin 2012 Bird Marker Installation - 100' on-center per shield wire, 50' on-center for the line.	
199	1295+27	608	T-230-E DBL	100-1	3			7°11' Lt.	4 3	TG-46a TG-46b	4 3	TA-32 TA-32	Offset 10'-0"
200	1304+02	875	T-230-F DBL	110-1	3			17°47' Rt.	8 6	TG-46a TG-46b	8 6	TA-32 TA-32	Cross Pheasant Lake, Offset 8'-0"
201	1310+38	636	T-230-Fspl DBL	103-LAM	3			10°15' Lt.					Offset 8'-0". Cross road
202	1313+73	334	T-230-A DBL	95-1	2								
203	1318+21	448	T-230-A DBL	100-1	2								

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Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anch		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
204	1323+76	555	T-230-A DBL	95-1	2								
205	1330+56	680	T-230-A DBL	100-1	2								
206	1337+14	659	T-230-A DBL	100-1	2								
207	1342+76	562	T-230-A DBL	95-1	2			1°07' Rt.					
208	1349+98	721	T-230-A DBL	105-1	2								
209	1356+82	684	T-230-A DBL	95-1	2							Cross road and section line	
210	1363+51	670	T-230-A DBL	110-1	2								
211	1371+39	788	T-230-A DBL	115-H1	2								
212	1380+28	888	T-230-A DBL	110-H1	2			0°23' Rt.					
213	1387+04	677	T-230-A DBL	115-H1	2								
214	1395+37	833	T-230-A DBL	100-1	2								
215	1403+23	786	T-230-A DBL	105-H1	2			0°56' Lt.					
216	1408+75	552	T-230-A DBL	100-1	2			0°22' Lt.				OPGW Splice. Cross road and section line	
217	1415+40	665	T-230-A DBL	100-1	2			1°09' Rt.					
218	1421+63	622	T-230-A DBL	95-1	2								
219	1428+03	641	T-230-A DBL	90-1	2								
220	1434+18	615	T-230-A DBL	100-1	2								
221	1440+84	666	T-230-A DBL	90-1	2			0°56' Rt.					
222	1446+04	521	T-230-A DBL	90-1	2								
223	1451+58	554	T-230-A DBL	90-1	2								
224	1457+15	556	T-230-A DBL	95-1	2								
225	1464+00	685	T-230-A DBL	100-1	2							Cross road and section line	
226	1468+51	451	T-230-A DBL	100-1	2								
227	1473+89	538	T-230-A DBL	95-1	2								
228	1479+97	608	T-230-A DBL	90-1	2								
229	1485+16	519	T-230-A DBL	95-1	2								
230	1491+83	667	T-230-A DBL	95-1	2			0°26' Rt.					
231	1498+33	650	T-230-A DBL	100-1	2								

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Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anch		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
232	1504+82	650	T-230-A DBL	95-1	2								
233	1511+64	682	T-230-A DBL	95-1	2							Cross section line	
234	1517+84	620	T-230-A DBL	95-1	2								
235	1524+00	617	T-230-A DBL	95-1	2								
236	1531+09	709	T-230-A DBL	95-1	2								
237	1537+22	613	T-230-A DBL	90-1	2			0°18' Rt.					
238	1542+59	536	T-230-A DBL	90-1	2								
239	1547+88	529	T-230-A DBL	95-1	2								
240	1554+44	656	T-230-A DBL	95-1	2								
241	1560+89	645	T-230-H DBL	100-1 80-1	2 3			6°13' Lt.	16	TG-46a	16	TA-32	End 2012 Bird Marker Installation - 100' on-center per shield wire, 50' on-center for the line.
242	1564+18	357	T-230-DA	105-H4	1								Cross section line, cross distribution line
243	1566+05	188	T-230-PE	100-1	1			96°26' Rt.	8	TG-46b	8	TA-32	Cross existing transmission line
244	1567+40	135	-	-									Ellendale Sub

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Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anchors		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
													Voltage: Design 230 KV; Oper. 230 KV
													Size & Type Conductor: 795 MCM ACSR
													Size & Type Shield Wire: 3/8" EHS
													WO: 71-121-2623 Rev. 2
													Auth: 2352 Rev. 2
													Year Constructed: 1966/67
179	1440+00	865	T-230-A	75-2	2								Cross Section Line, Sec. 5-130-67
180	1445+80	580	T-230-A	80-2	2								
181	1453+85	805	T-230-F	80-1	2		14°23' Lt.	9	TG-21	5 2	TA-51 TA-52		Offset 9'-6"
182	1459+85	600	T-230-A	75-2	2								
183	1471+70	1185	T-230-A	80-2	2								
184	1477+00	530	T-230-A	75-2	2								
185	1484+45	745	T-230-A	85-2	2								
186	1492+15	770	T-230-A	75-2	2								Cross 1Ø REA, Road & Section Line, Sec. 4-130-67
187	1499+10	695	T-230-H	60-1 80-1	3 2			16	TG-21	16	TA-51		Begin 2012 Bird Marker Installation - 100' on-center per shield wire, 50' on-center for the line
188	1507+35	825	T-230-A	90-1	2								
189	1517+15	980	T-230-A	80-1	2								
190	1525+25	810	T-230-A	90-1	2								
191	1534+75	950	T-230-A	*85-1	2								*Raise 10' w/ Phase Raiser #PRH9-22L, 2005, WO J151126. Dbl X-Brace
191A	1537+78	303	T-230-JP	90-H1	3		90°02' Lt.	14	TG-46b	14	TA-32		Begin 2012 Construction, Merricourt Taps
191B	1540+93	315	T-230-DB	90-H3	1								
191C	1543+87	294	T-230-PE	90-1	1		90°00' Rt.	8	TG-46b	8	TA-32		
	1546+12	225	Sub Steel										Merricourt Substation
EQ:	1546+25	BK=	1537+43	AH.									

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Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anchors		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
	1537+43		Sub Steel									Merricourt Substation	
191D	1538+99	156	T-230-DB	90-H1	1								
191E	1540+74	175	T-320-JP	90-H1	3			87°56' Lt.	14	TG-46b	14	TA-32	End 2012 Construction, Merricourt Taps
192	1543+60	286	T-230-A	85-1	2								Cross Section Line, Sec. 3-130-67
193	1551+35	775	T-230-A	80-1	2								
194	1561+25	990	T-230-I	90-2	4								
195	1570+25	900	T-230-A	90-1	2								
196	1578+85	860	T-230-A	80-2	2								
197	1585+70	685	T-230-I	90-2	4				8*	TG-36b	8*	TA-42	
198	1598+00	1230	T-230-I	90-2 85-2 80-1 80-2	1 1 1 1				4	TG-36b	4	TA-42	Cross Section Line, Sec. 2-130-67
199	1605+55	755	T-230-A	85-2	2								
200	1612+70	715	T-230-A	85-2	2								
201	1620+25	755	T-230-A	85-2	2								
202	1628+10	785	T-230-A	85-1	2								
203	1637+60	950	T-230-A	85-1	2				2	TG-21	2	TA-51	
204	1646+25	865	T-230-A	80-2	2								Cross Phone, Rd & 1Ø REA. Sec 1-130-67
205	1653+90	765	T-230-A	75-2	2								
206	1660+60	670	T-230-A	75-2	2								
207	1668+00	740	T-230-A	85-1	2				2	TG-21	2	TA-51	
208	1677+15	915	T-230-A	*85-1	2								*Raise 5' w/ Phase Raiser #PRH11-17L, 2004, W.O. J144245
209	1686+70	955	T-230-A	85-1	2				2	TG-21	2	TA-51	
210	1695+55	885	T-230-A	85-1	2								Cross Section Line, Sec. 6-130-66
211	1704+15	860	T-230-A	85-1	2								
212	1712+70	855	T-230-A	80-2	2								
213	1720+60	790	T-230-A	80-2	2								

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Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anchors		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
214	1728+35	775	T-230-A	80-2	2								
215	1735+75	740	T-230-A	80-2	2				2	TG-21	2	TA-51	
216	1745+45	970	T-230-A	85-1	2								
217	1753+17	772	T-230-F	80-1	3			16°08' Rt.	9	TG-21	5 2	TA-51 TA-52	Offset 9'-6". Cross Rd & 1Ø REA, Sec Line, Sec 5-130-66. Begin 2007 WO J157232 Const
218	1760+38.2	721.2	T-230-F	85-1	3			20°54' Rt.	8	TG-46b	6	TA-32	
218A	1765+12	473.8	T-230-J	60-1	3			50°24' Rt.	17	TG-46b	15	TA-52	
	1766+22	110	Sub Steel										Tatanka Wind Farm Interconnect Sub
EQ:	1768+08	BK=	1764+36	AH.									
	1764+36		Sub Steel										Tatanka Wind Farm Interconnect Sub
219	1765+46	110	T-230-J	60-1	3			90°24' Lt.	17	TG-46b	15	TA-52	
219A	1769+87	441	T-230-F	80-1	3			18°24' Lt.	8	TG-46b	6	TA-32	
220	1776+30	643	T-230-A	*80-2	2								End 2007 WO J157232 Const. *Raise 10' w/ Phase Raiser #PRH9-22L, 2004, WO J144245
221	1786+80	1050	T-230-A	85-1	2								
222	1795+35	855	T-230-A	90-1	2								
223	1804+40	905	T-230-A	85-1	2								Cross 1Ø REA, Road, Phone, Sec. 4-130-66
224	1813+50	910	T-230-A	90-1	2				2	TG-21	2	TA-51	
225	1822+10	860	T-230-A	80-2	2								
226	1830+40	830	T-230-A	90-2	2								
227	1837+40	700	T-230-A	85-1	2								
228	1846+90	950	T-230-A	90-1	2				2	TG-21	2	TA-51	Cross phone & Road. Sec. 9-130-66
229	1854+75	785	T-230-E	75-1	3			11°30' Lt.	4	TG-21	4	TA-51	
230	1862+45	770	T-230-A	*85-2	2								Cross Hwy #56. Sec 10-130-66. *Raise 10' w/ Phase Raiser #PRH10-22L, 2004, WO J144245
231	1871+00	855	T-230-A	75-2	2								
231A	1879+70	870	T-230-A	90-1	2								

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Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anchors		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
232	1884+38	468	T-230-F	65-2	3			25°28' Rt.	9	TG-21	2 5	TA-52 TA-51	Offset 10'-0".
233	1891+15	677	T-230-A	80-2	2								
234	1900+00	885	T-230-A	70-2	2								
EQ:	1908+83	BK=	1907+50	AH									
235	1907+50	883	T-230-F	80-1	2			13°58' Lt.	9	TG-21	5 2	TA-51 TA-52	Offset 9'-6".
236	1914+75	725	T-230-A	80-2	2								Cross 1Ø REA & Road. Sec. 11-130-66
237	1922+75	800	T-230-A	85-2	2								
238	1929+00	625	T-230-B1	50-1 70-1	1 2				14	TG-21	14	TA-51	
239	1935+50	650	T-230-A	70-1	2								
240	1944+00	850	T-230-A	80-2	2								
241	1951+80	780	T-230-A	70-2	2								Raise 5', w/phase raiser, WO J153576
242	1959+65	785	T-230-A	80-2	2								
243	1967+80	815	T-230-A	85-2	2								
244	1974+85	705	T-230-A	85-2	2								Cross 1Ø REA & Road. Sec. 12-130-66
245	1983+10	825	T-230-A	75-2	2								
246	1991+35	825	T-230-A	80-2	2								?Cross Section Line, Sec. 7-130-65?
247	1999+45	810	T-230-A	80-2	2								
248	2007+85	840	T-230-A	85-1	2								
249	2017+20	935	T-230-A	85-2	2								
250	2023+75	655	T-230-A	80-2	2								
251	2033+00	925	T-230-A	75-2	2								Cross Road & Section Line, Sec. 18-130-65
252	2041+73	873	T-230-E	*65-1	3			5°47' Lt.	6	TG-21	6	TA-51	Offset 9'6". *Raise Str 9' w/ Hughes Reframing Kit, WO J100763, 2001.
253	2052+00	1027	T-230-A	85-2	2								
254	2057+85	585	T-230-A	75-2	2								

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Struct. No.	Station No.	Back Span Ft.	Structure Type	Poles				Line Angle	Guys		Anchors		REMARKS
				Length & Class	No. Req'd	Spec. & Treat.	Vint.		No. Req'd	Type	No. Req'd	Type	
255	2065+55	770	T-230-A	85-1	2								
256	2074+40	885	T-230-A	75-2	2								
257	2083+70	930	T-230-A	80-2	2								Cross Section Line, Sec. 17-130-65
258	2090+90	720	T-230-A	70-2	2								End 2012 Bird Marker Installation - 100' on-center per shield wire, 50' on-center for the line
259	2097+80	690	T-230-A	85-1	2								
260	2108+20	1040	T-230-A	80-1	2								
261	2116+35	815	T-230-A	85-2	2								Cross Section Line, Sec. 16-130-65
262	2122+55	620	T-230-A	85-2	2								
263	2132+35	980	T-230-A	90-1	2				2 4	TG-21 TG-21	2 4	TA-51 TA-51	Double X-Brace