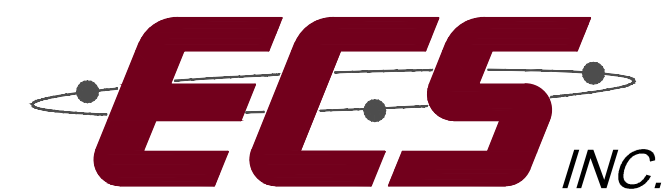


**WBI ENERGY TRANSMISSION, INC.
NORTH BAKKEN EXPANSION PROJECT**

**Resource Report 1
Revised Appendix 1B
Aerial Photo-based Alignment Sheets Mapping Supplement**

WBI ENERGY TRANSMISSION, INC
NORTH BAKKEN EXPANSION
GAS PIPELINE
TIOGA-ELKHORN CREEK LINE

Surveying & Drafting Services By:



ERICKSON CONTRACT SURVEYING
333 10th Ave. SE Sidney, Montana
Office 406-482-6606 / Fax 406-482-6600



NORTH BAKKEN EXPANSION
GAS PIPELINE
TIOGA-ELKHORN CREEK LINE

Horizontal Project Length	Revision
331,342' / 62.75 mi	R3

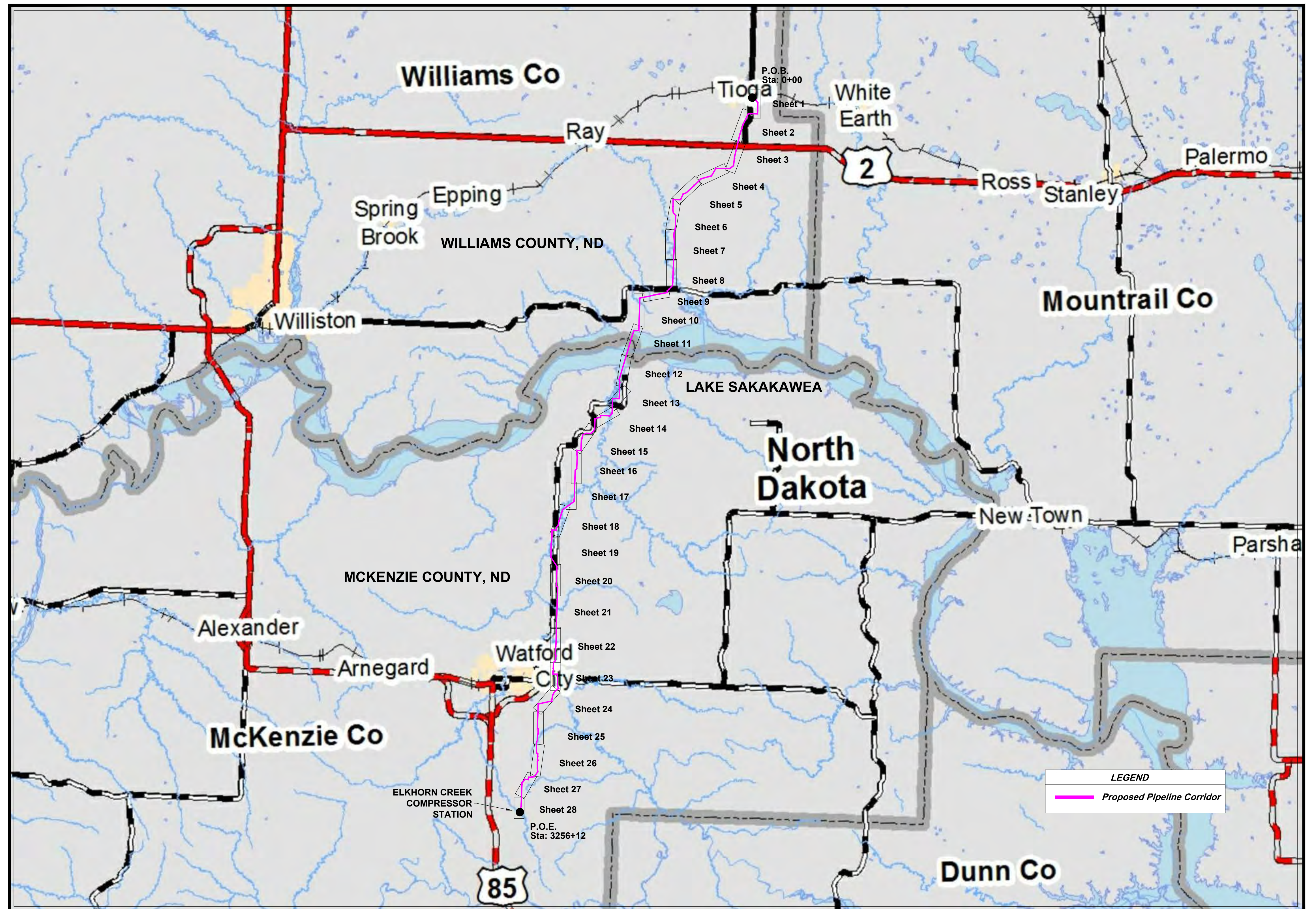
**NORTH BAKKEN EXPANSION
GAS PIPELINE**

TIOGA-ELKHORN CREEK LINE

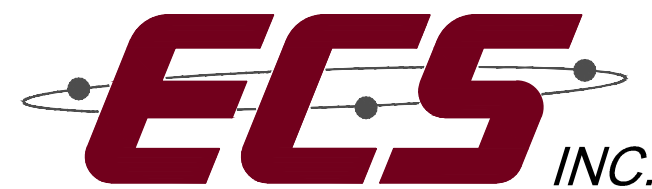
Williams county, North Dakota
Mckenzie county, North Dakota

TIOGA-ELKHORN CREEK LINE

Sheet Index	
Sheet 1	Sta 1+00 - 100+00
Sheet 2	Sta 100+00 - 220+00
Sheet 3	Sta 220+00 - 340+00
Sheet 4	Sta 340+00 - 460+00
Sheet 5	Sta 460+00 - 580+00
Sheet 6	Sta 580+00 - 700+00
Sheet 7	Sta 700+00 - 820+00
Sheet 8	Sta 820+00 - 930+00
Sheet 9	Sta 930+00 - 1040+00
Sheet 10	Sta 1040+00 - 1160+00
Sheet 11	Sta 1160+00 - 1280+00
Sheet 12	Sta 1280+00 - 1380+00
Sheet 13	Sta 1380+00 - 1505+00
Sheet 14	Sta 1505+00 - 1640+00
Sheet 15	Sta 1640+00 - 1760+00
Sheet 16	Sta 1760+00 - 1880+00
Sheet 17	Sta 1880+00 - 1980+00
Sheet 18	Sta 1980+00 - 2100+00
Sheet 19	Sta 2100+00 - 2220+00
Sheet 20	Sta 2220+00 - 2340+00
Sheet 21	Sta 2340+00 - 2460+00
Sheet 22	Sta 2460+00 - 2590+00
Sheet 23	Sta 2590+00 - 2710+00
Sheet 24	Sta 2710+00 - 2830+00
Sheet 25	Sta 2830+00 - 2950+00
Sheet 26	Sta 2950+00 - 3070+00
Sheet 27	Sta 3070+00 - 3180+00
Sheet 28	Sta 3180+00 - 3256+12



Surveying & Drafting Services By:



ERICKSON CONTRACT SURVEYING
333 10th Ave. SE Sidney, Montana
Office 406-482-6606 / Fax 406-482-6600

Date Surveyed: Dec-Mar 2018 & 19

Surveyed By: AH, GP, JW, TW

Drawing Date: Jan, 2019

Drawn By: D. Smith

Checked By: J. Hamed

Revision No.: R3

Revision Date: 9/3/20

ECS Project #

2018-23-0200

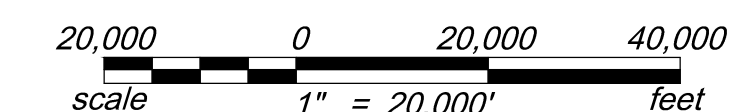
Coversheet



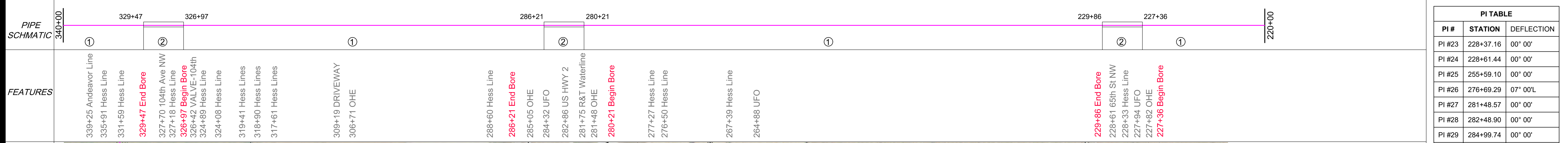
Know what's below
Call before you dig.
MT - 1-800-424-5555
ND - 1-800-795-0555



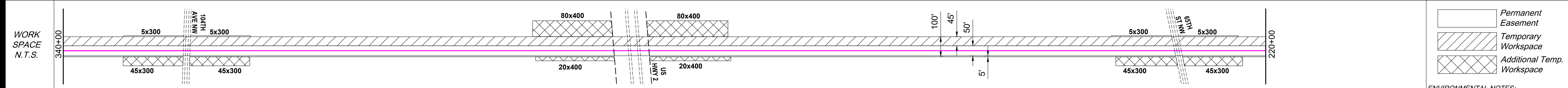
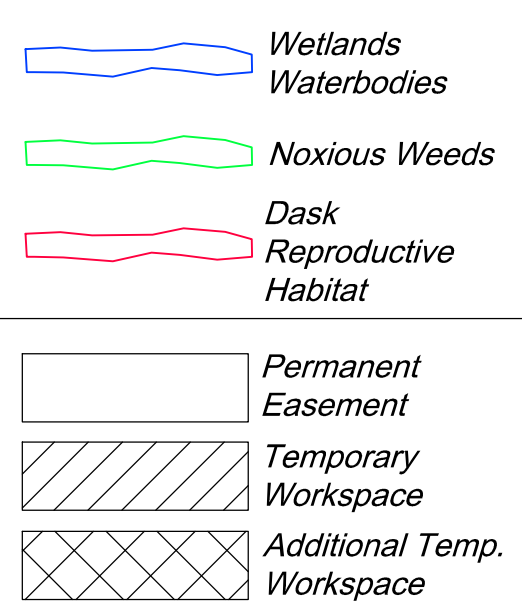
NORTH BAKKEN EXPANSION
GAS PIPELINE
TIOGA-ELKHORN CREEK LINE



Co, State	SECTIONS 5, 8, 17, 18, T156N, R95W, WILLIAMS COUNTY, NORTH DAKOTA																	
OWNER	156-95-18-021 SE1/4 SEC. 18, T156N, R95W		156-95-17-020 SW1/4 SEC. 17, T156N, R95W		156-95-17-019 E1/2 NW1/4 EX ST SEC. 17, T156N, R95W		156-95-17-018 HWY. ROW IN SEC. 17, T156N, R95W		156-95-08-017 HWY. ROW IN SEC. 8, T156N, R95W		156-95-08-016 SW1/4 EX ST & DD PTS SEC. 8, T156N, R95W		156-95-08-015 NW1/4 EX ST & DD PTS SEC. 8, T156N, R95W		156-95-05-014 MS16-0021 IN E1/2 SW1/4 SEC. 5, T156N, R95W		156-95-05-013 SE1/4 EX. OUTLOT 1 SEC. 5, T156N, R95W	
RODDAGE	2639.31' / 159.96 Rods		1876.81' / 113.75 Rods		2393.32' / 145.05 Rods		250.84' / 15.20 Rods		100.33' / 6.08 Rods		2589.47' / 156.94 Rods		2697.66' / 163.49 Rods		24.28' / 1.47 Rods		2672.87' / 161.99 Rods	

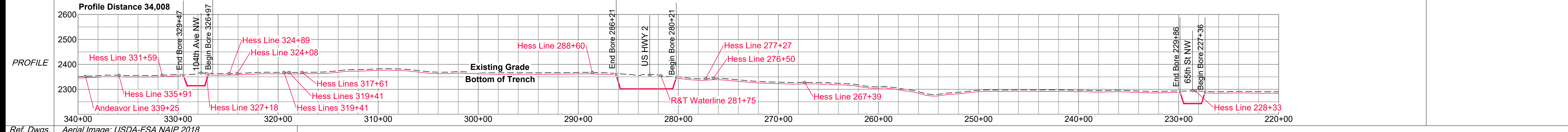


PI TABLE		
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PI #23	228+37.16	00° 00'
PI #24	228+61.44	00° 00'
PI #25	255+59.10	00° 00'
PI #26	276+69.29	07° 00'L
PI #27	281+48.57	00° 00'
PI #28	282+48.90	00° 00'
PI #29	284+99.74	00° 00'
PI #30	308+93.06	00° 00'
PI #31	309+84.77	45° 00'R
PI #32	326+97.16	39° 00'R
PI #33	327+69.87	00° 00'



ENVIRO	Name	Crossing Method	x-wm-eb-001		o-wm-eb-001	
			309+09	308+93	259+60	Wetland
Water Crossing	Bridge					
Wetland Crossing	Survey Extent					
Environmental Feature			Noxious weed			
Miscellaneous/Comments						
Seeding Mix						

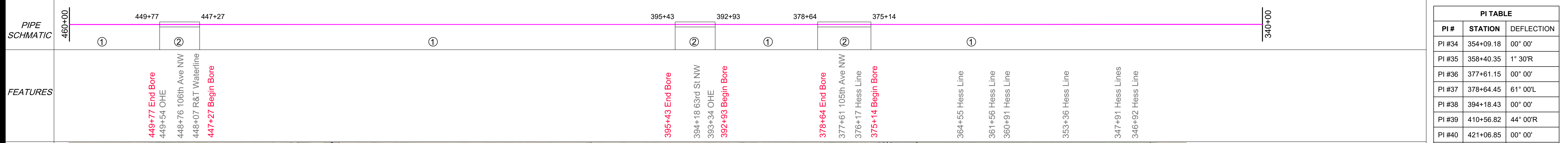
ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



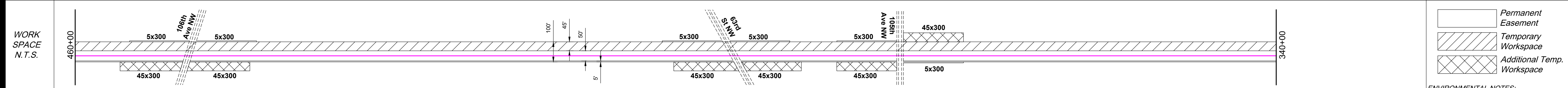
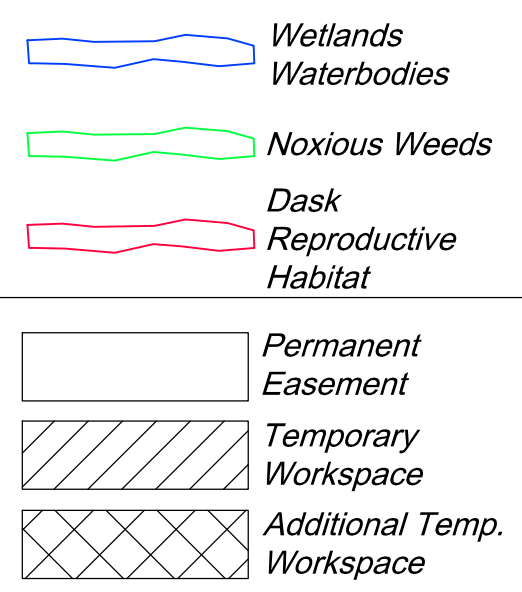
Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By: ERICKSON CONTRACT SURVEYING 333 10th Ave. SE Sidney, Montana Office 406-482-6606 / Fax 406-482-6600 ECS Project # 2018-23-0200	SURVEY DATUM North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist. Drawing Date: 01-31-2019 Drawn By: D. Smith Checked by: J. Harned	LEGEND: ☒ Proposed Block Valve ▲ Proposed Bore ● CTP test station ● Alignment PI ○ Utility Pole ⊙ Well ⊗ Valve — Alignment - - - Section Line - - - Quarter Line - - - Fence Line - - - UFO UG Fiber Optic - - - UGE UG Electric - - - OHE Overhead Elec - - - Existing Pipeline - - - Dirt Road	SUMMARY of MATERIALS <table border="1"> <thead> <tr> <th>Mark</th> <th>Quantity</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10,900</td> <td>24" 0.312" W.T., API 5L-X65, ERW, w/FBE</td> </tr> <tr> <td>2</td> <td>1,100</td> <td>24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO</td> </tr> </tbody> </table>	Mark	Quantity	Description	1	10,900	24" 0.312" W.T., API 5L-X65, ERW, w/FBE	2	1,100	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO	REVISIONS <table border="1"> <thead> <tr> <th>No.</th> <th>Date</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1/17/20</td> <td>Cultural / Dask Re-routes</td> </tr> <tr> <td>2</td> <td>5/22/20</td> <td>Re-routes</td> </tr> <tr> <td>3</td> <td>9/3/20</td> <td>Re-routes</td> </tr> </tbody> </table>	No.	Date	Description	1	1/17/20	Cultural / Dask Re-routes	2	5/22/20	Re-routes	3	9/3/20	Re-routes	NORTH BAKKEN EXPANSION PIPELINE TIOGA-ELKHORN CREEK LINE 1" = 500' HORIZ. 1" = 200' VERT.	 An MDU Resources Group company Sec. 5, 8, 17, 18, T156N, R95W, 5th P.M., Williams Co., North Dakota Sheet 3 R3
	Mark	Quantity	Description																								
1	10,900	24" 0.312" W.T., API 5L-X65, ERW, w/FBE																									
2	1,100	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO																									
No.	Date	Description																									
1	1/17/20	Cultural / Dask Re-routes																									
2	5/22/20	Re-routes																									
3	9/3/20	Re-routes																									

Co, State	SECTION 18, T156N, R95W, SECTIONS 13, 23, 24, T156N, R96W, WILLIAMS COUNTY, NORTH DAKOTA							
OWNER	156-96-23-027 SE1/4 EX DD PTS SEC. 23, T156N, R96W 3533' Cultivated - 98' Uncultivated	156-96-23-026 NE1/4 SEC. 23, T156N, R96W 84' Cultivated - 96' Uncultivated	156-96-24-025 NW1/4 SEC. 24, T156N, R96W 2736' Cultivated - 33' Uncultivated	156-96-24-024 NE1/4 EX DD PTS SEC. 24, T156N, R96W 2614' Cultivated - 74' Uncultivated	156-96-13-023 SE1/4 SEC. 13, T156N, R96W 1472' Cultivated - 185' Uncultivated	156-95-18-022 SE1/4 NW1/4, NE1/4 SW1/4, LOTS 2-3 SEC. 18, T156N, R95W 2283' Cultivated - 69' Uncultivated	156-95-18-021 SE1/4 SEC. 18, T156N, R95W 2606' Cultivated - 33' Uncultivated	
RODDAGE	450+15 3630.84' / 220.05 Rods	448+76 139.62' / 8.46 Rods	448+76 2768.77' / 167.80 Rods	421+07 2688.42' / 162.93 Rods	394+18 1657.28' / 100.44 Rods	377+61 2351.97' / 142.54 Rods	354+09 2639.31' / 159.96 Rods	

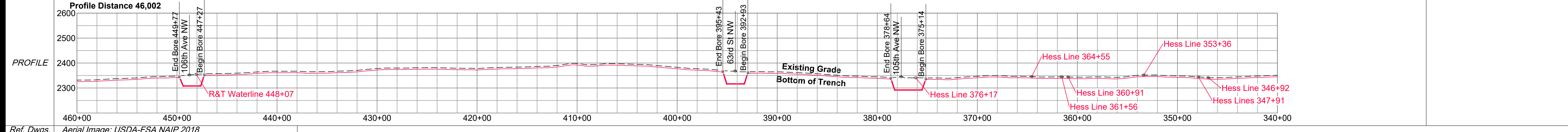


PI TABLE		
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PI #34	354+09.18	00° 00'
PI #35	358+40.35	1° 30'R
PI #36	377+61.15	00° 00'
PI #37	378+64.45	61° 00'L
PI #38	394+18.43	00° 00'
PI #39	410+56.82	44° 00'R
PI #40	421+06.85	00° 00'
PI #41	448+75.62	00° 00'
PI #42	449+76.55	29° 00'L
PI #43	450+15.24	00° 00'



ENVIRO	Water Crossing	Name	
		Crossing Method	Bridge
	Wetland Crossing	Name	w-wm-eb-003e
		Survey Extent	409+34
	Environmental Feature		Wetland
	Miscellaneous/Comments		
	Seeding Mix		

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
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 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

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ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2018-23-0200

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	01-31-2019
Drawn By:	D. Smith
Checked by:	J. Harned

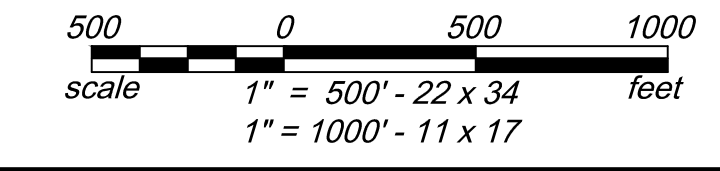
LEGEND:	
⊠	Proposed Block Valve
⊙	Proposed Bore
⊙	CTP test station
●	Alignment PI
○	Utility Pole
⊙	Well
⊠	Valve
—	Proposed Block Valve
—	Alignment
---	Section Line
---	Quarter Line
-x-x-x-	Fence Line
---	UG Fiber Optic
---	UG Electric
---	Overhead Elec
---	Existing Pipeline
---	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	11,150	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	850	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

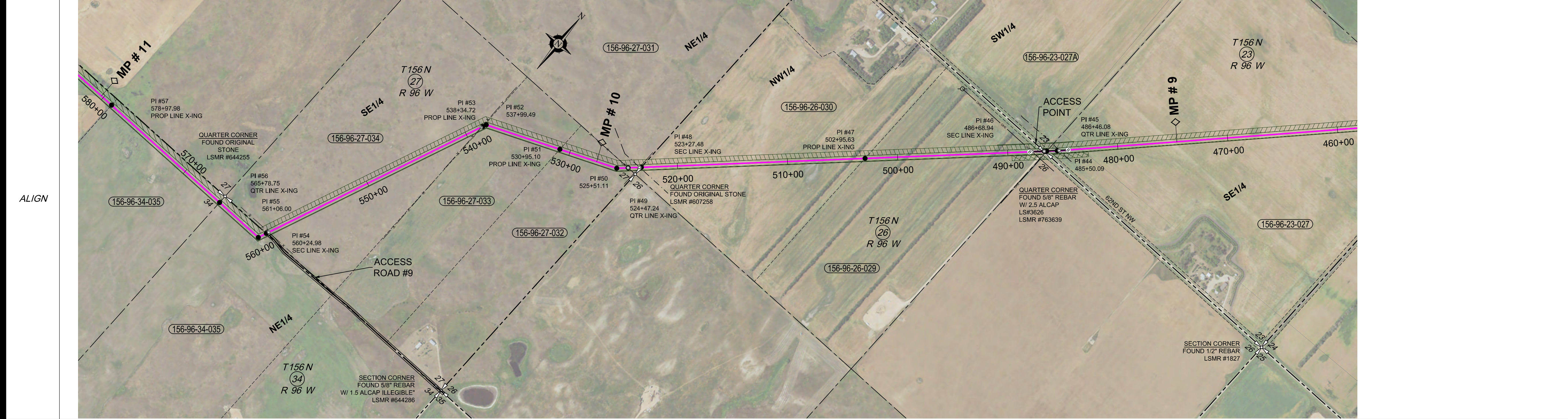
REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

NORTH BAKKEN
 EXPANSION
 PIPELINE
 TIOGA-ELKHORN CREEK LINE

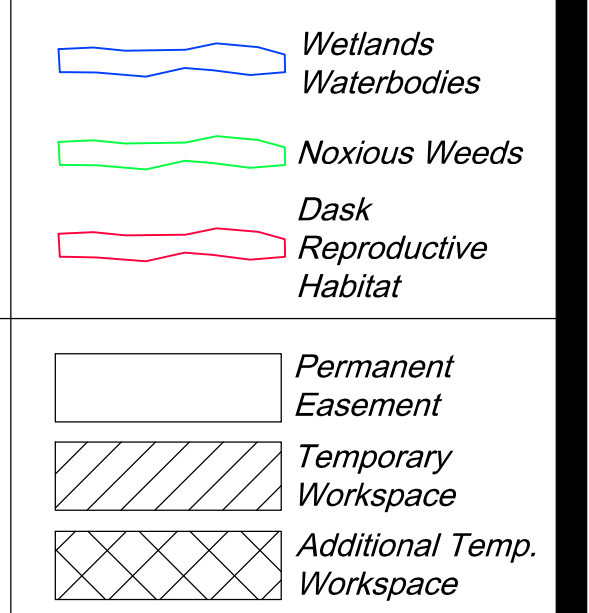
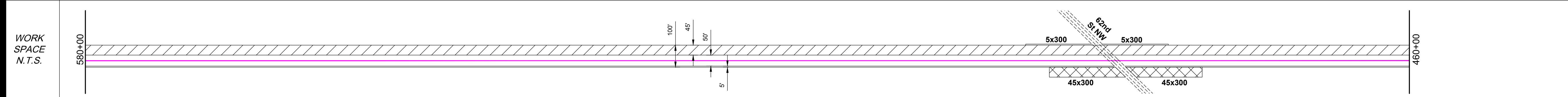
WBI ENERGY TRANSMISSION
 An MDU Resources Group company
 Sec. 18, T156N, R95W,
 Sec. 13, 23, 24, T156N, R96W,
 5th P.M., Williams Co., North Dakota
 Sheet 4 R3



OWNER	156-96-34-035 E1/2 NW1/4 SEC. 34, T156N, R96W 1319' Uncultivated	156-96-34-035 W1/2 NE1/4 EX. DD PT SEC. 34, T156N, R96W 554' Uncultivated	156-96-27-034 W1/2 SE1/4 SEC. 27, T156N, R96W 2190' Uncultivated	157-96-24-033 W1/2 E1/2 SE1/4 SEC. 27, T156N, R96W 739' Uncultivated	156-96-27-032 E1/2 E1/2 SE1/4 SEC. 27, T156N, R96W 648' Uncultivated	156-96-27-031 SE1/4 NE1/4 SEC. 27, T156N, R96W 120' Uncultivated	156-96-26-030 NW1/4 EX. SUBLOT 1-2 SEC. 26, T156N, R96W 1963' Cultivated - 69' Uncultivated	156-96-26-029 MS17-0032 IN NW1/4 SEC. 26, T156N, R96W 1445' Cultivated - 182' Uncultivated	156-96-23-027A SW1/4 EX DD PTS SEC. 23, T156N, R96W 23' Uncultivated	156-96-23-027 SE1/4 EX DD PTS SEC. 23, T156N, R96W 3533' Cultivated - 98' Uncultivated
RODDAGE	578+98 1319.22' / 79.95 Rods	565+79 553.77' / 33.56 Rods	560+25 2190.26' / 132.74 Rods	538+95 739.62' / 44.83 Rods	530+95 647.86' / 39.26 Rods	524+47 119.76' / 7.26 Rods	502+96 2031.85' / 123.14 Rods	502+96 1626.69' / 98.59 Rods	486+69 22.86' / 1.39 Rods	486+46 3630.84' / 220.05 Rods

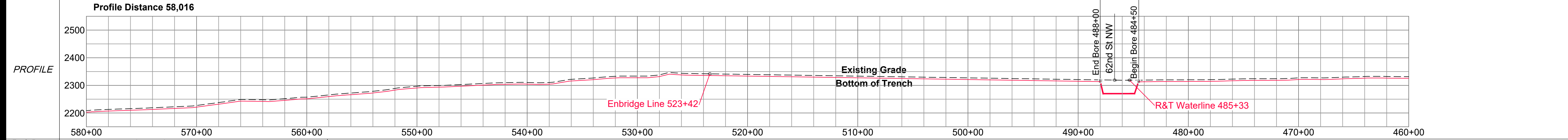


PI TABLE		
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PI #45	486+46.08	00° 00'
PI #46	486+68.94	00° 00'
PI #47	502+95.63	00° 00'
PI #48	523+27.48	00° 00'
PI #49	524+47.24	00° 00'
PI #50	525+51.11	20° 30'R
PI #51	530+95.10	00° 00'
PI #52	537+99.49	44° 30'L
PI #53	538+34.72	00° 00'
PI #54	560+24.98	00° 00'
PI #55	561+06.00	68° 30'R
PI #56	565+78.75	00° 00'
PI #57	578+97.98	00° 00'



ENVIRO	Water Crossing	Name Crossing Method Bridge
	Wetland Crossing	Name Survey Extent Environmental Feature
Miscellaneous/Comments		
Seeding Mix		

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
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SURVEY DATUM
 North Dakota North (NAD 83)(2011)
 International Foot
 *Distances are Grid Distances.
 Combined Scale Factor = 0.999846363
 Grid Dist. x 1.000153661 = Ground Dist.
 Drawing Date: 01-31-2019
 Drawn By: D. Smith
 Checked by: J. Harned

LEGEND:

- Proposed Block Valve
- Proposed Bore
- CTP test station
- Alignment PI
- Utility Pole
- Well
- Valve
- Alignment
- Section Line
- Quarter Line
- Fence Line
- UG Fiber Optic
- UG Electric
- Overhead Elec
- Existing Pipeline
- Dirt Road

SUMMARY of MATERIALS

Mark	Quantity	Description
1	11,650	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	350	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

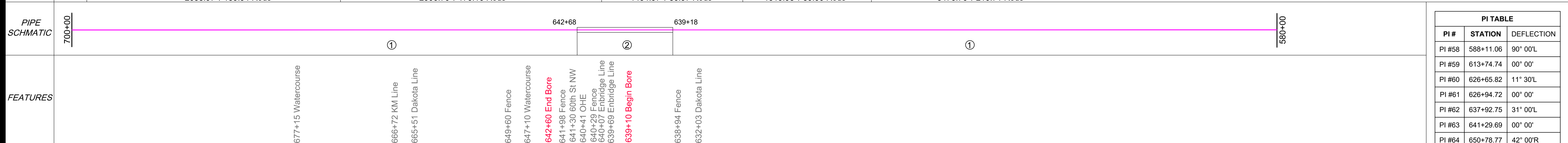
REVISIONS

No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

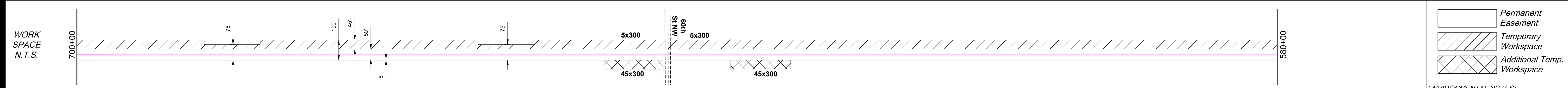
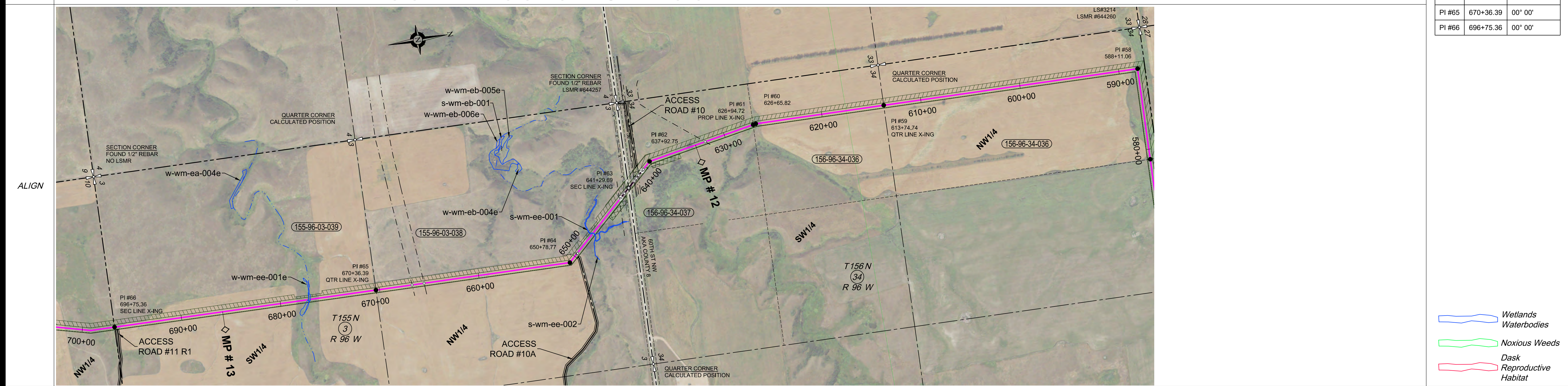
NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE
 1" = 500' HORIZ.
 1" = 200' VERT.

WBI ENERGY TRANSMISSION
 An MDU Resources Group company
 Sec. 23, 26, 27, 34, T156N, R96W,
 5th P.M., Williams Co., North Dakota
 Sheet 5 R3

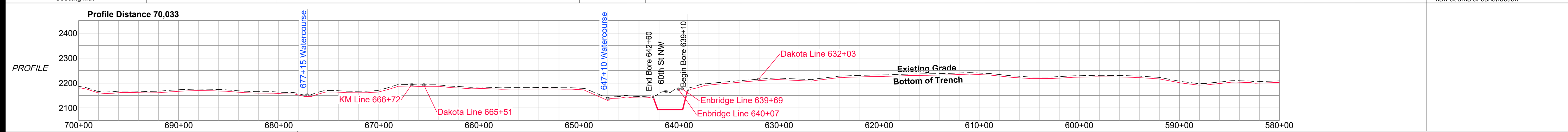
Co, State	SECTION 34, T156N, R96W, SECTION 3, T155N, R96W, WILLIAMS COUNTY, NORTH DAKOTA					
OWNER	155-96-03-039 SW1/4 SEC. 3, T155N, R96W 2335' Cultivated - 304' Uncultivated 2638.97' / 159.94 Rods	155-96-03-038 S1/2 NW1/4, LOTS 3-4 SEC. 3, T155N, R96W 2100' Cultivated - 807' Uncultivated 2906.70' / 176.16 Rods	156-96-34-037 W1/2 NW1/4, NW1/4 SW1/4 SEC. 34, T156N, R96W 1105' Cultivated - 330' Uncultivated 1434.97' / 86.97 Rods	156-96-34-036 NW1/4 SW1/4 SEC. 34, T156N, R96W 1234' Cultivated - 86' Uncultivated 1319.98' / 80.00 Rods	156-96-34-036 W1/2 NW1/4 SEC. 34, T156N, R96W 2516' Cultivated - 961' Uncultivated 3476.76' / 210.71 Rods	



PI TABLE		
PI #	STATION	DEFLECTION
PI #58	588+11.06	90° 00'L
PI #59	613+74.74	00° 00'
PI #60	626+65.82	11° 30'L
PI #61	626+94.72	00° 00'
PI #62	637+92.75	31° 00'L
PI #63	641+29.69	00° 00'
PI #64	650+78.77	42° 00'R
PI #65	670+36.39	00° 00'
PI #66	696+75.36	00° 00'

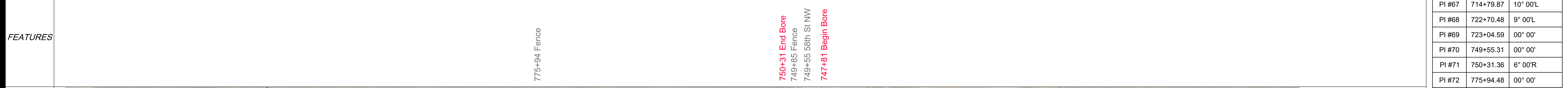
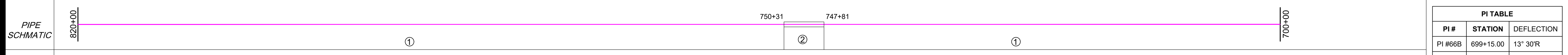


ENVIRO	Water Crossing Name	s-wm-ee-001
	Water Crossing Method	Open-Cut
	Wetland Name	Yes
	Wetland Crossing Survey Extent	647+34 646+89
Environmental Feature		Int Stream
Miscellaneous/Comments		Approx. 90' mats
Seeding Mix		

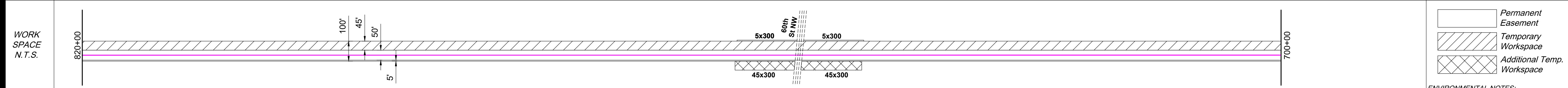
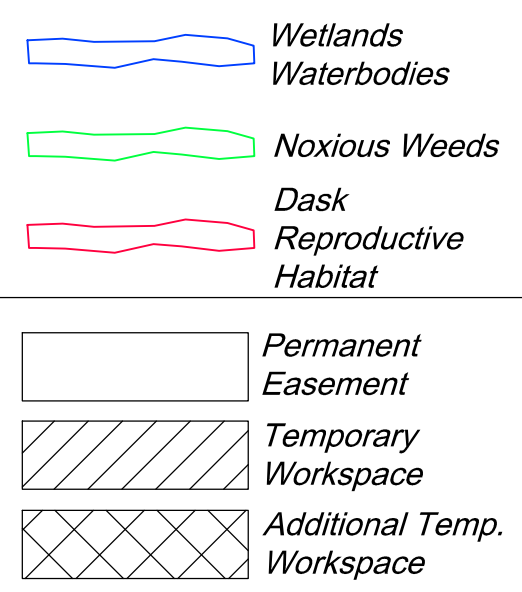


Surveying & Drafting Services By: ECS INC. ERICKSON CONTRACT SURVEYING 333 10th Ave. SE Sidney, Montana Office 406-482-6606 / Fax 406-482-6600 ECS Project # 2018-23-0200	SURVEY DATUM North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist. Drawing Date: 01-31-2019 Drawn By: D. Smith Checked by: J. Harned	LEGEND: [Symbol] Proposed Block Valve [Symbol] Proposed Bore [Symbol] CTP test station [Symbol] Alignment PI [Symbol] Utility Pole [Symbol] Well [Symbol] Valve [Symbol] Alignment [Symbol] Section Line [Symbol] Quarter Line [Symbol] Fence Line [Symbol] UG Fiber Optic [Symbol] UG Electric [Symbol] Overhead Elec [Symbol] Existing Pipeline [Symbol] Dirt Road	SUMMARY of MATERIALS <table border="1"> <thead> <tr> <th>Mark</th> <th>Quantity</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>11,650</td> <td>24" 0.312" W.T., API 5L-X65, ERW, w/FBE</td> </tr> <tr> <td>2</td> <td>350</td> <td>24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO</td> </tr> </tbody> </table>	Mark	Quantity	Description	1	11,650	24" 0.312" W.T., API 5L-X65, ERW, w/FBE	2	350	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO	REVISIONS <table border="1"> <thead> <tr> <th>No.</th> <th>Date</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1/17/20</td> <td>Cultural / Dusk Re-routes</td> </tr> <tr> <td>2</td> <td>5/22/20</td> <td>Re-routes</td> </tr> <tr> <td>3</td> <td>9/3/20</td> <td>Re-routes</td> </tr> </tbody> </table>	No.	Date	Description	1	1/17/20	Cultural / Dusk Re-routes	2	5/22/20	Re-routes	3	9/3/20	Re-routes	NORTH BAKKEN EXPANSION PIPELINE TIOGA-ELKHORN CREEK LINE 1" = 500' HORIZ. 1" = 200' VERT.	WBI ENERGY TRANSMISSION An MDU Resources Group company Sec. 34, T156N, R96W, Sec. 3, T155N, R96W, 5th P.M., Williams Co., North Dakota Sheet 6 R3
	Mark	Quantity	Description																								
1	11,650	24" 0.312" W.T., API 5L-X65, ERW, w/FBE																									
2	350	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO																									
No.	Date	Description																									
1	1/17/20	Cultural / Dusk Re-routes																									
2	5/22/20	Re-routes																									
3	9/3/20	Re-routes																									

OWNER	155-96-22-044 W1/2 NW1/4, NE1/4 NW1/4, NW1/4 NE1/4 SEC. 22, T155N, R96W 2638 Cultivated	155-96-15-043 SW1/4 SEC. 15, T155N, R96W 2639' Uncultivated	155-96-15-042 NW1/4 SEC. 15, T155N, R96W 2532 Cultivated - 107' Uncultivated	155-96-10-041 SW1/4 SEC. 10, T155N, R96W 2651' Uncultivated	155-96-10-040 NW1/4 SEC. 10, T155N, R96W 1578' Cultivated - 1106' Uncultivated
RODDAGE	2638.20' / 159.89 Rods	2638.84' / 159.93 Rods	2639.17' / 159.95 Rods	2650.72' / 160.65 Rods	2684.23' / 162.68 Rods

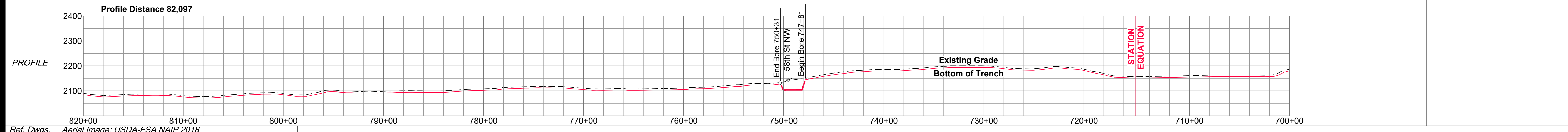


PI TABLE		
PI #	STATION	DEFLECTION
PI #66B	699+15.00	13° 30'R
PI #67	714+79.87	10° 00'L
PI #68	722+70.48	9° 00'L
PI #69	723+04.59	00° 00'
PI #70	749+55.31	00° 00'
PI #71	750+31.36	6° 00'R
PI #72	775+94.48	00° 00'
PI #73	802+33.32	00° 00'



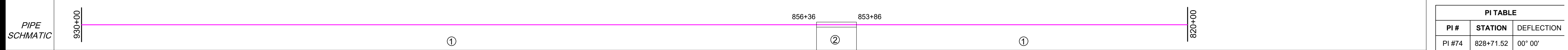
ENVIRO	Water Crossing	Name	
		Crossing Method	Bridge
	Wetland Crossing	Name	
		Survey Extent	
		Environmental Feature	
	Miscellaneous/Comments		
	Seeding Mix		

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
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 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction

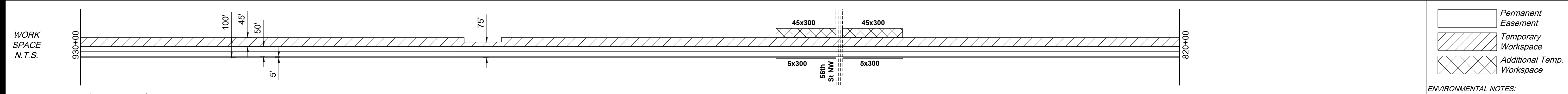
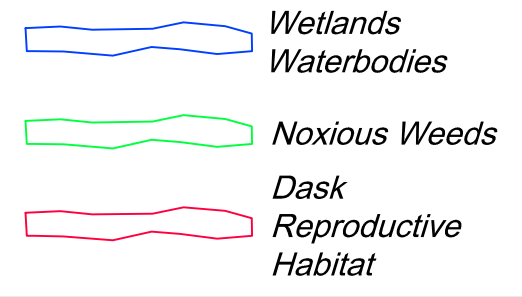
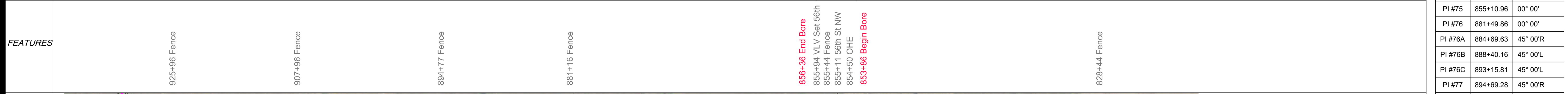


Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018 Surveying & Drafting Services By: ECS INC. ERICKSON CONTRACT SURVEYING 333 10th Ave. SE Sidney, Montana Office 406-482-6606 / Fax 406-482-6600 ECS Project # 2018-23-0200	SURVEY DATUM North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist. Drawing Date: 01-31-2019 Drawn By: D. Smith Checked by: J. Harned	LEGEND: [Symbol] Proposed Block Valve [Symbol] Proposed Bore [Symbol] CTP test station [Symbol] Alignment PI [Symbol] Utility Pole [Symbol] Well [Symbol] Valve [Symbol] Alignment [Symbol] Section Line [Symbol] Quarter Line [Symbol] Fence Line [Symbol] UG Fiber Optic [Symbol] UG Electric [Symbol] Overhead Elec [Symbol] Existing Pipeline [Symbol] Dirt Road	SUMMARY of MATERIALS <table border="1"> <thead> <tr> <th>Mark</th> <th>Quantity</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>11,805</td> <td>24" 0.312" W.T., API 5L-X65, ERW, w/FBE</td> </tr> <tr> <td>2</td> <td>250</td> <td>24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO</td> </tr> </tbody> </table>	Mark	Quantity	Description	1	11,805	24" 0.312" W.T., API 5L-X65, ERW, w/FBE	2	250	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO	REVISIONS <table border="1"> <thead> <tr> <th>No.</th> <th>Date</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1/17/20</td> <td>Cultural / Dask Re-routes</td> </tr> <tr> <td>2</td> <td>5/22/20</td> <td>Re-routes</td> </tr> <tr> <td>3</td> <td>9/3/20</td> <td>Re-routes</td> </tr> </tbody> </table>	No.	Date	Description	1	1/17/20	Cultural / Dask Re-routes	2	5/22/20	Re-routes	3	9/3/20	Re-routes	NORTH BAKKEN EXPANSION PIPELINE TIOGA-ELKHORN CREEK LINE 1" = 500' HORIZ. 1" = 200' VERT.	WBI ENERGY TRANSMISSION An MDU Resources Group company Sec. 10, 15, 22, T155N, R96W, 5th P.M., Williams Co., North Dakota Sheet 7 R3
	Mark	Quantity	Description																								
1	11,805	24" 0.312" W.T., API 5L-X65, ERW, w/FBE																									
2	250	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO																									
No.	Date	Description																									
1	1/17/20	Cultural / Dask Re-routes																									
2	5/22/20	Re-routes																									
3	9/3/20	Re-routes																									
Scale: 500 0 500 1000 feet 1" = 500' - 22 x 34 1" = 1000' - 11 x 17																											

OWNER	155-96-33-051 E1/2 NE1/4, E1/2 SE1/4 EX STATE SEC. 33, T155N, R96W 1960' Uncultivated	155-96-34-049 W1/2 NW1/4 SEC. 34, T155N, R96W 1810' Uncultivated	155-96-27-048 S1/2 SW1/4 SEC. 27, T155N, R96W 688 Cultivated - 631' Uncultivated	155-96-27-047 N1/2 SW1/4 SEC. 27, T155N, R96W 1536' Uncultivated	155-96-22-046 NW1/2 SEC. 22, T155N, R96W 2540 Cultivated - 99' Uncultivated	155-96-22-045 W1/2 SW1/4 SEC. 22, T155N, R96W 2577 Cultivated - 62' Uncultivated	155-96-22-044 W1/2 NW1/4, NE1/4 NW1/4, NW1/4 NE1/4 SEC. 22, T155N, R96W 2638 Cultivated
RODDAGE	1960.43' / 118.81 Rods	1810.26' / 109.71 Rods	1319.41' / 79.96 Rods	1536.48' / 93.12 Rods	2638.90' / 159.93 Rods	2639.44' / 159.97 Rods	2638.20' / 159.89 Rods

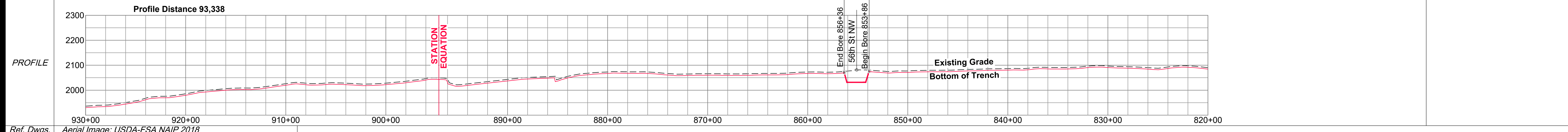


PI TABLE		
PI #	STATION	DEFLECTION
PI #74	828+71.52	00° 00'
PI #75	855+10.96	00° 00'
PI #76	881+49.86	00° 00'
PI #76A	884+69.63	45° 00'R
PI #76B	888+40.16	45° 00'L
PI #76C	893+15.81	45° 00'L
PI #77	894+69.28	45° 00'R
PI #78	907+88.69	42° 00'R
PI #79	925+98.95	00° 00'



ENVIRO	Water Crossing	Name	
		Crossing Method	
	Wetland Crossing	Name	w-wm-eg-001
		Survey Extent	890+80 - 890+31
	Environmental Feature	Environmental Feature	Wetland
Miscellaneous/Comments			Approx. 49' ECD
Seeding Mix			Approx. 49' mats

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Surveying & Drafting Services By:
ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2018-23-0200

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot	
*Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	01-31-2019
Drawn By:	D. Smith
Checked by:	J. Harned

LEGEND:	
	Proposed Block Valve
	Proposed Bore
	CTP test station
	Alignment PI
	Utility Pole
	Well
	Valve
	Alignment
	Section Line
	Quarter Line
	Fence Line
	UG Fiber Optic
	UG Electric
	Overhead Elec
	Existing Pipeline
	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	9,967	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	250	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

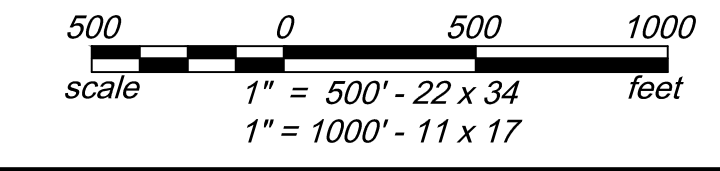
REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dask Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE

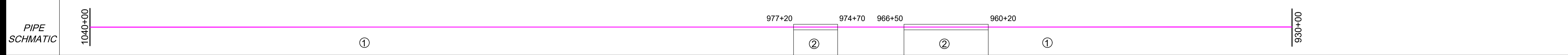
WBI ENERGY TRANSMISSION
 An MDU Resources Group company

Sec. 22, 27, 34, T155N, R96W, 5th P.M., Williams Co., North Dakota

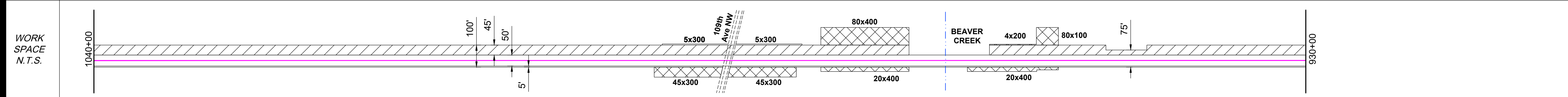
Sheet 8 R3



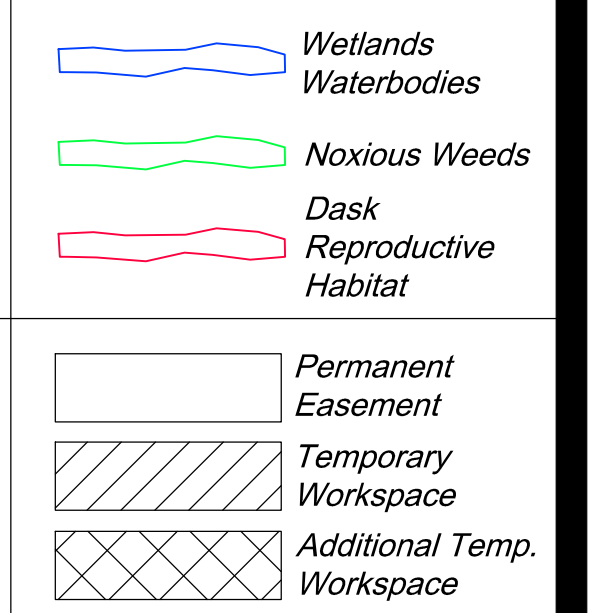
Co, State	SECTIONS 32, 33, T155N, R96W, WILLIAMS COUNTY, NORTH DAKOTA					
OWNER	155-96-32-055 SW1/4 EX STATE SEC. 32, T155N, R96W 1813 Cultivated - 910' Uncultivated 2722.50' / 165.00 Rods	155-96-32-054 SE1/4 SEC. 32, T155N, R96W 966 Cultivated - 1771' Uncultivated 2737.23' / 165.89 Rods	155-96-33-053 W1/2 SW1/4, W1/2 NW1/4 EX. STATE SEC. 33, T155N, R96W 1272 Cultivated - 76' Uncultivated 1348.25' / 81.71 Rods	155-96-33-052 E1/2 SW1/4, W1/2 SE1/4 EX. STATE SEC. 33, T155N, R96W 1203 Cultivated - 1514' Uncultivated 2716.92' / 164.66 Rods	155-96-33-051 E1/2 NE1/4, E1/2 SE1/4 EX STATE SEC. 33, T155N, R96W 1960' Uncultivated 1960.43' / 118.81 Rods	
RODDAGE	1016+46		989+09	975+60	945+59	



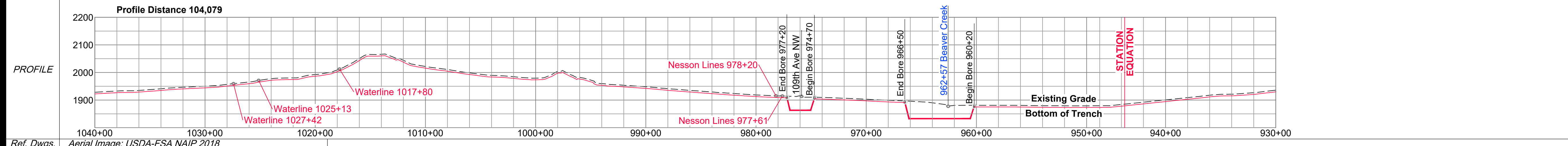
PI TABLE		
PI #	STATION	DEFLECTION
PI #80	937+42.03	00° 00'
PI #81	943+41.79	00° 00'
PI #82	945+59.38	79° 00'R
PI #83	948+80.80	00° 00'
PI #84	962+07.72	00° 00'
PI #85	975+60.41	00° 00'
PI #86	989+08.66	00° 00'
PI #86A	991+89.75	5° 30'R
PI #86B	995+59.75	17° 30'L
PI #86C	1000+57.84	8° 30' R
PI #86D	1010+26.80	17° 00'R
PI #86E	1012+74.69	15° 30'L
PI #87	1016+45.89	00° 00'



ENVIRO	Name	Crossing Method	Survey Extent	Environmental Feature	Miscellaneous/Comments	Seeding Mix	Crossing Details		
							Structure	Material	Notes
	x-wm-eb-002	Bridge	1015+75 - 1007+15	Noxious Weeds			80x400	45x300	10' min. from bank
	s-wm-eb-002	Bore		Minor Stream			4x200	80x100	10' min. from bank
	w-wm-eb-007e	Wetland	957+23	Wetland					Approx. 40' ECD
	w-wm-eb-008e	Wetland	947+75 - 947+30	Wetland					Approx. 40' mats



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 ECS Project # 2018-23-0200

SURVEY DATUM
 North Dakota North (NAD 83)(2011)
 International Foot
 *Distances are Grid Distances.
 Combined Scale Factor = 0.999846363
 Grid Dist. x 1.000153661 = Ground Dist.
 Drawing Date: 01-31-2019
 Drawn By: D. Smith
 Checked by: J. Harned

LEGEND:

- Proposed Block Valve
- Proposed Bore
- CTP test station
- Alignment PI
- Utility Pole
- Well
- Valve
- Alignment
- Section Line
- Quarter Line
- Fence Line
- UG Fiber Optic
- UG Electric
- Overhead Elec
- Existing Pipeline
- Dirt Road

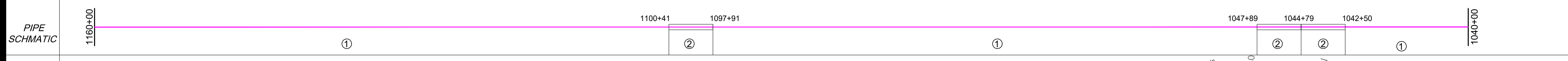
SUMMARY of MATERIALS		
Mark	Quantity	Description
1	9836	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	880	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

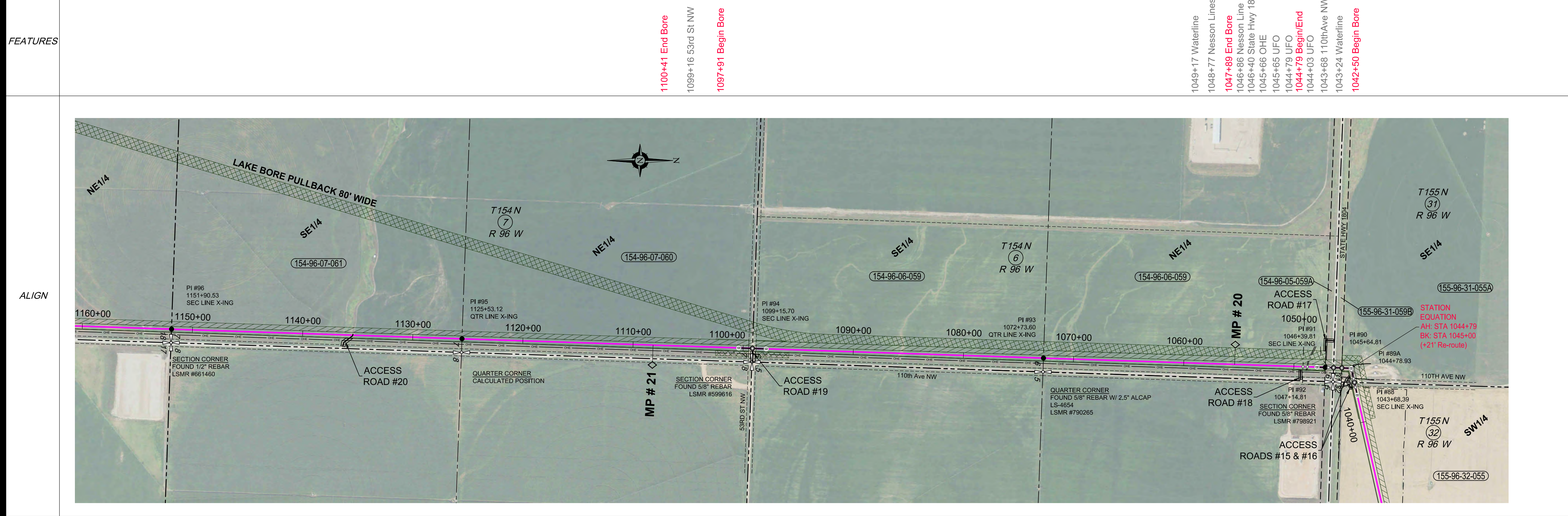
NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE
 1" = 500' HORIZ.
 1" = 200' VERT.

WBI ENERGY TRANSMISSION
 An MDU Resources Group company
 Sec. 32, 33, T155N, R96W,
 5th P.M., Williams Co., North Dakota
 Sheet 9 R3

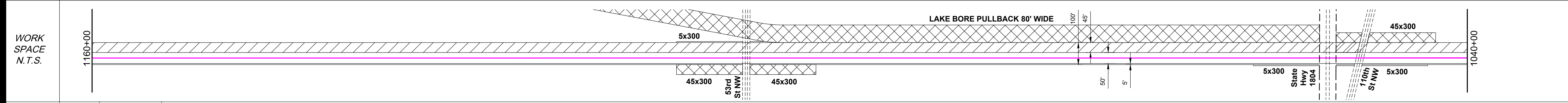
Co, State	SECTION 31, 32, T155N, R96W, SECTION 6, 7, T154N, R96W, WILLIAMS COUNTY, NORTH DAKOTA													
OWNER	1151+91	154-96-07-061	1125+53	154-96-07-060	1099+16	154-96-06-059	1047+15	154-96-06-059A	1045+65	155-96-31-059B	1043+68	155-96-31-055A	1043+68	155-96-32-055
RODDAGE		2637.42' / 159.84 Rods		2637.42' / 159.84 Rods		5200.89' / 315.21 Rods		75.00' / 4.55 Rods		75.00' / 4.55 Rods		217.65' / 13.19 Rods		1813 Cultivated - 910' Uncultivated 2722.50' / 165.00 Rods



PI TABLE		
PI #	STATION	DEFLECTION
PI #88	1043+68.39	00° 00'
PI #89A	1044+78.93	79° 30'L
PI #90	1045+64.81	00° 00'
PI #91	1046+39.81	00° 00'
PI #92	1047+14.81	00° 00'
PI #93	1072+73.60	00° 00'
PI #94	1099+15.70	00° 00'
PI #95	1125+53.12	00° 00'
PI #96	1151+90.53	00° 00'

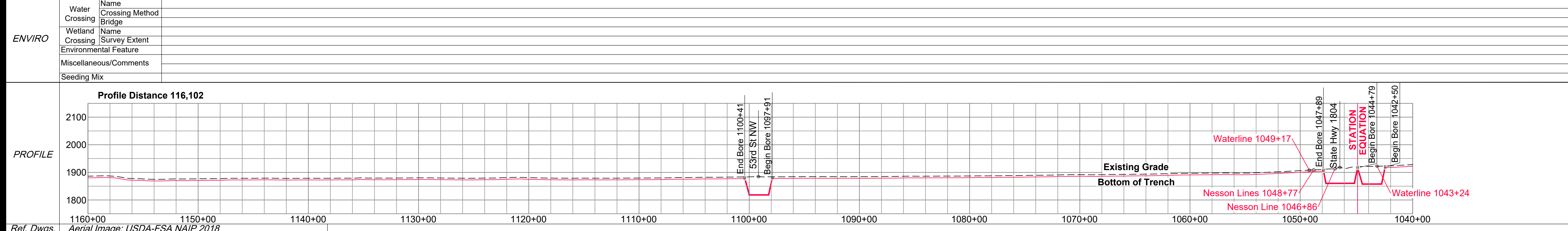


- Wetlands
- Waterbodies
- Noxious Weeds
- Dusk
- Reproductive Habitat
- Permanent Easement
- Temporary Workspace
- Additional Temp. Workspace



ENVIRO	Water Crossing	Name	
		Crossing Method	
	Wetland Crossing	Name	
		Survey Extent	
		Environmental Feature	
	Miscellaneous/Comments		
	Seeding Mix		

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ECS Project # 2018-23-0200

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Drawn By:	D. Smith
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	CTP test station
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	Existing Pipeline
	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	11,171	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	850	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE

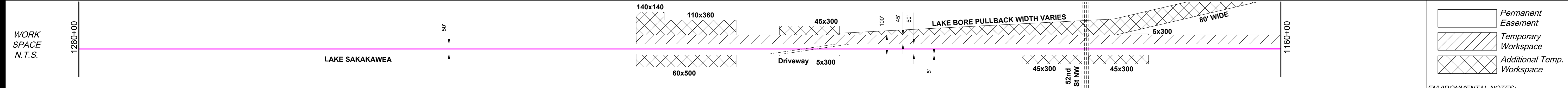
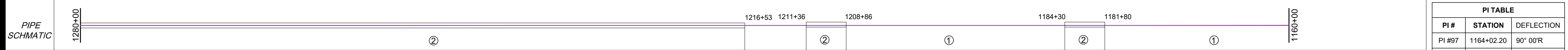
1" = 500' HORIZ.
 1" = 200' VERT.

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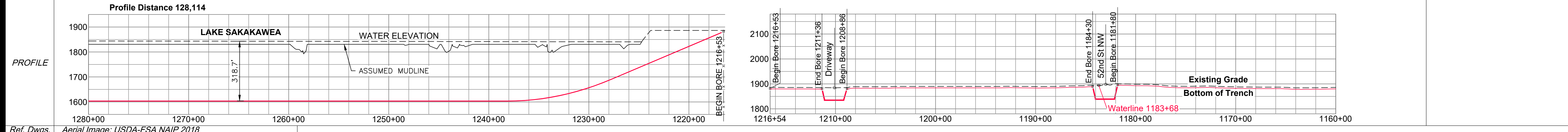
Sec. 31, 32, T155N, R96W,
 Sec. 6, 7, T154N, R96W
 5th P.M., Williams Co., North Dakota

Sheet 10 R3

OWNER	1224+12 154-96-18-066 S1/2 SE1/4 SW1/4 SEC. 18, T154N, R96W 683' Uncultivated 682.54' / 41.37 Rods	1217+30 154-96-18-065 E1/2 SW1/4, LOTS 3-4 EX. DD PTS SEC. 18, T154N, R96W 152 Cultivated - 748' Uncultivated 899.85' / 54.54 Rods	1208+86 154-96-18-064 SE1/4 SEC. 18, T154N, R96W 1158 Cultivated 1157.56' / 70.16 Rods	1196+72 154-96-18-063 S1/2 NE1/4 EX. SUBLT 6 SEC. 18, T154N, R96W 1264 Cultivated - 109' Uncultivated 1372.98' / 83.21 Rods	1182+99 154-96-18-062 N 1/2 NE1/4 SEC. 18, T154N, R96W 3092 Cultivated - 17' Uncultivated 3108.84' / 188.41 Rods
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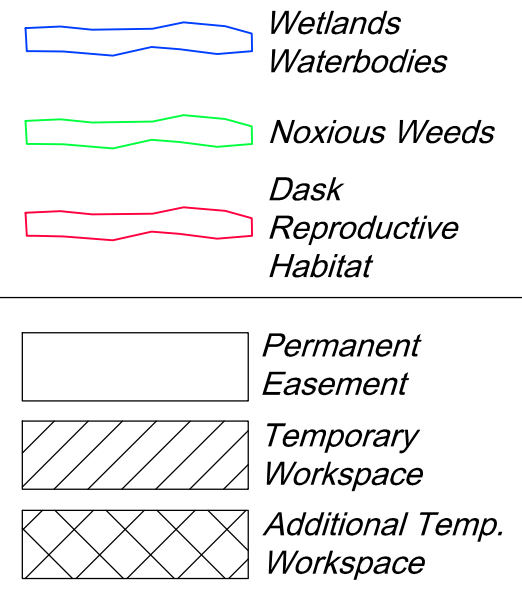


ENVIRO	Water Crossing	Name	
		Crossing Method	Bridge
	Wetland Crossing	Name	
		Survey Extent	
		Environmental Feature	
	Miscellaneous/Comments		
	Seeding Mix		



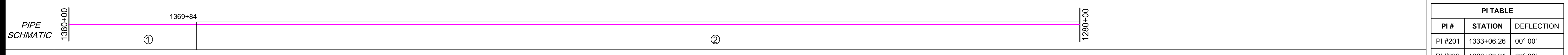
Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018 Surveying & Drafting Services By: ECS INC. ERICKSON CONTRACT SURVEYING 333 10th Ave. SE Sidney, Montana Office 406-482-6606 / Fax 406-482-6600 ECS Project # 2018-23-0200	SURVEY DATUM North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist. Drawing Date: 01-31-2019 Drawn By: D. Smith Checked by: J. Harned	LEGEND: [Symbol] Proposed Block Valve [Symbol] Proposed Bore [Symbol] CTP test station [Symbol] Alignment PI [Symbol] Utility Pole [Symbol] Well [Symbol] Valve [Symbol] Alignment [Symbol] Section Line [Symbol] Quarter Line [Symbol] Fence Line [Symbol] UG Fiber Optic [Symbol] UG Electric [Symbol] Overhead Elec [Symbol] Existing Pipeline [Symbol] Dirt Road	SUMMARY of MATERIALS <table border="1"> <tr><th>Mark</th><th>Quantity</th><th>Description</th></tr> <tr><td>1</td><td>5153</td><td>24" 0.312" W.T., API 5L-X65, ERW, w/FBE</td></tr> <tr><td>2</td><td>6.847</td><td>24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO</td></tr> </table>	Mark	Quantity	Description	1	5153	24" 0.312" W.T., API 5L-X65, ERW, w/FBE	2	6.847	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO	REVISIONS <table border="1"> <tr><th>No.</th><th>Date</th><th>Description</th></tr> <tr><td>1</td><td>1/17/20</td><td>Cultural / Dusk Re-routes</td></tr> <tr><td>2</td><td>5/22/20</td><td>Re-routes</td></tr> <tr><td>3</td><td>9/3/20</td><td>Re-routes</td></tr> </table>	No.	Date	Description	1	1/17/20	Cultural / Dusk Re-routes	2	5/22/20	Re-routes	3	9/3/20	Re-routes	NORTH BAKKEN EXPANSION PIPELINE TIOGA-ELKHORN CREEK LINE 1" = 500' HORIZ. 1" = 200' VERT.	WBI ENERGY TRANSMISSION An MDU Resources Group company Sec. 18, 19, T154N, R96W, 5th P.M., Williams Co., North Dakota Sheet 11 R3
	Mark	Quantity	Description																								
1	5153	24" 0.312" W.T., API 5L-X65, ERW, w/FBE																									
2	6.847	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO																									
No.	Date	Description																									
1	1/17/20	Cultural / Dusk Re-routes																									
2	5/22/20	Re-routes																									
3	9/3/20	Re-routes																									

PI #	STATION	DEFLECTION
PI #97	1164+02.20	90° 00'R
PI #98	1181+80.12	74° 00'L
PI #99	1182+99.38	00° 00'
PI #100	1196+72.36	00° 00'
PI #101	1208+29.92	00° 00'
PI #102	1216+53.32	01° 30'
PI #103	1217+29.79	00° 00'
PI #104	1224+12.33	00° 00'



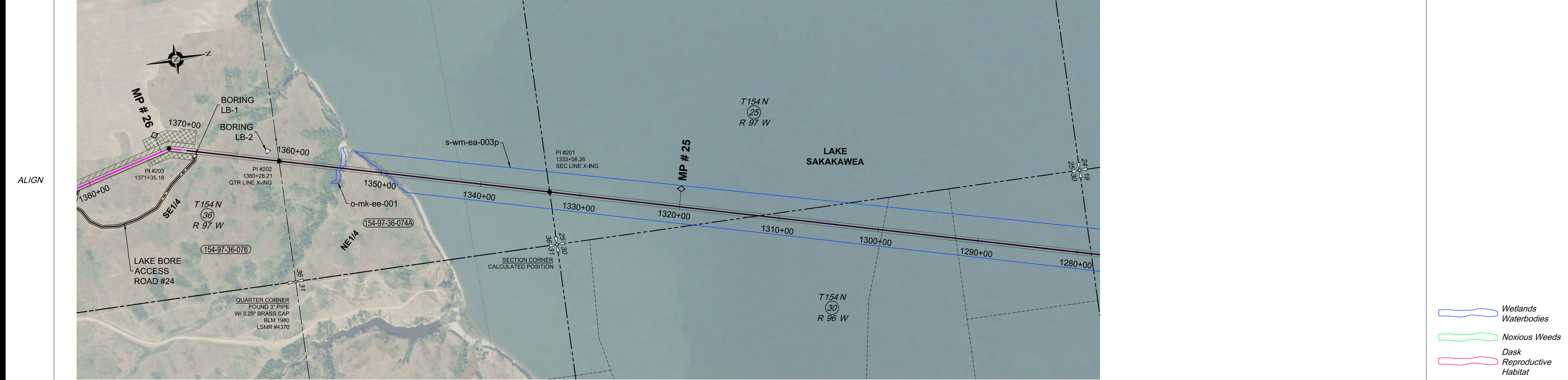
ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction

OWNER	154-97-36-076 SE1/4 SEC. 36, T154N, R97W 568' Cultivated - 2142' Uncultivated 2709.39' / 164.21 Rods	154-97-36-074A ALL LESS DEEDED PORTIONS SEC. 31, T154N, R96W 2723' Uncultivated 2723.10' / 165.04 Rods
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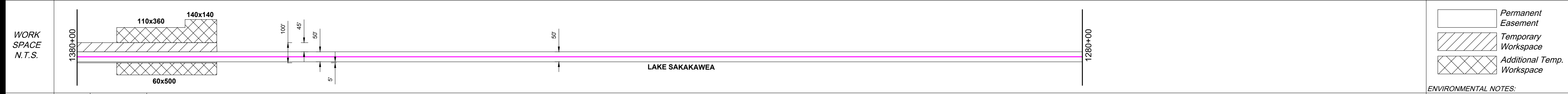


FEATURES	1369+84 Begin Bore	
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PI TABLE		
PI #	STATION	DEFLECTION
PI #201	1333+06.26	00° 00'
PI #202	1360+28.21	00° 00'
PI #203	1371+35.18	30° 00'L



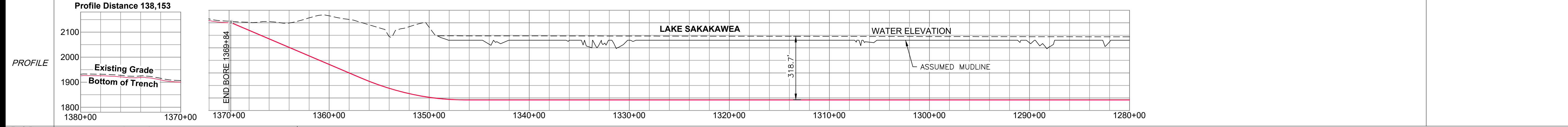
- Wetlands
- Waterbodies
- Noxious Weeds
- Dusk
- Reproductive Habitat



- Permanent Easement
- Temporary Workspace
- Additional Temp. Workspace

ENVIRO	Water Crossing	Name	
		Crossing Method	
	Wetland Crossing	Name	o-mk-ee-001
		Survey Extent	1354+13
		Environmental Feature	Wetland
	Miscellaneous/Comments		
	Seeding Mix		

ENVIRONMENTAL NOTES:
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 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:

ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600

ECS Project # 2018-23-0200

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	01-31-2019
Drawn By:	D. Smith
Checked by:	J. Harned

LEGEND:	
	Proposed Block Valve
	Proposed Bore
	CTP test station
	Alignment PI
	Utility Pole
	Well
	Valve
	Alignment
	Section Line
	Quarter Line
	Fence Line
	UG Fiber Optic
	UG Electric
	Overhead Elec
	Existing Pipeline
	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	1,016	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	8,984	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

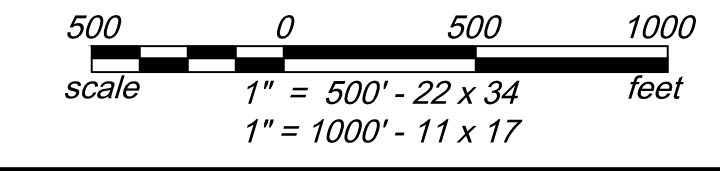
REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

**NORTH BAKKEN
 EXPANSION
 PIPELINE
 TIOGA-ELKHORN CREEK LINE**

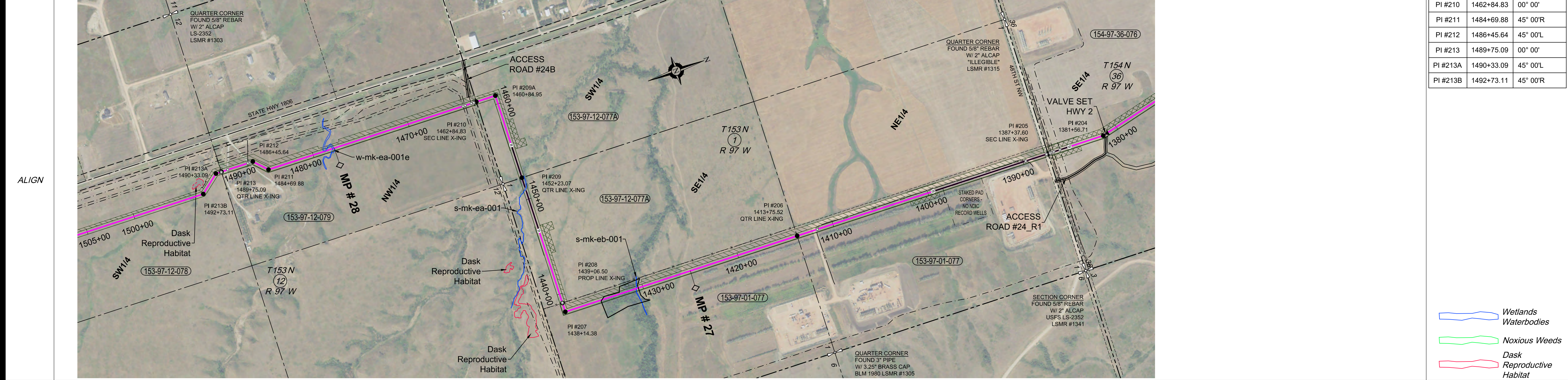
WBI ENERGY TRANSMISSION
 An MDU Resources Group company

Sec. 30, T154N, R96W,
 Sec. 25, 36, T154N, R97W,
 5th P.M., Mckenzie Co., North Dakota

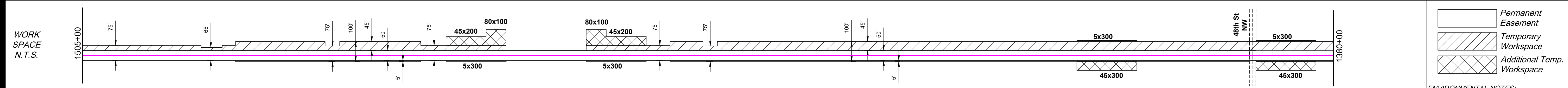
Sheet 12 R3



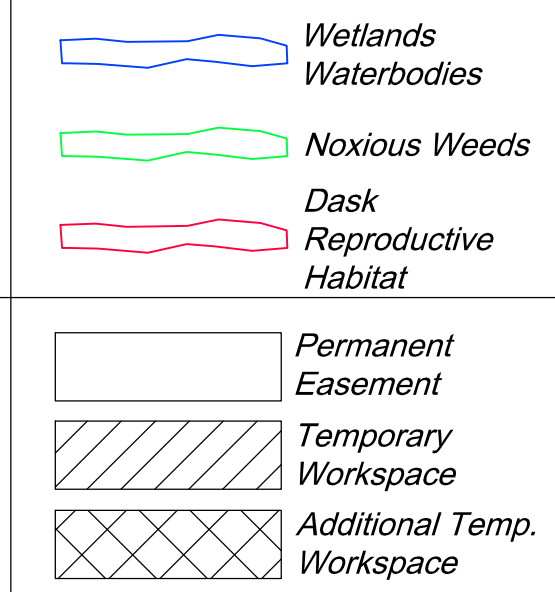
Co, State	SECTION 36, T154N, R97W, SECTIONS 1, 12, T153N, R97W, MCKENZIE COUNTY, NORTH DAKOTA						
OWNER	153-97-12-078 E1/2 SW1/4 SEC. 12, T153N, R97W	153-97-01-079 E1/2 NW1/4 EX RW, IT1388 & IT2044 SEC. 12, T153N, R97W	153-97-01-077A NE1/4 SEC. 1, T153N, R97W	153-97-01-077 E1/2 SE1/4 SEC. 1, T153N, R97W	153-97-01-077 E1/2 SE1/4 SEC. 1, T153N, R97W	153-97-01-077 SE1/4 NE1/4, GOVT LOT 1 SEC. 1, T153N, R97W	154-97-36-076 SE1/4 SEC. 36, T154N, R97W
RODDAGE	3711' Uncultivated 3710.67' / 224.89 Rods	1554' Cultivated - 1136' Uncultivated 2690.26' / 163.05 Rods	2378' Uncultivated 2378.34' / 144.14 Rods	2531' Uncultivated 2530.98' / 153.39 Rods	2638' Uncultivated 2637.92' / 159.87 Rods	567' Cultivated - 2142' Uncultivated 2709.39' / 164.21 Rods	



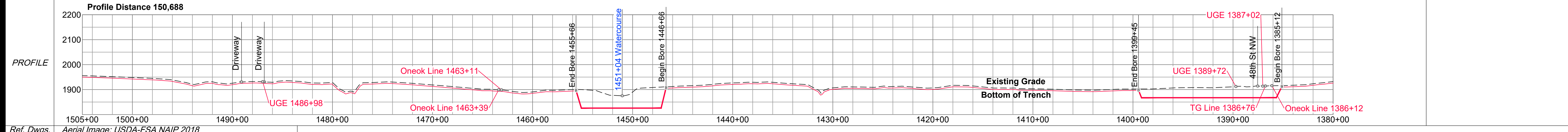
PI TABLE		
PI #	STATION	DEFLECTION
PI #204	1381+56.71	15° 00'R
PI #205	1387+37.60	00° 00'
PI #206	1413+75.52	00° 00'
PI #207	1438+14.38	90° 00'R
PI #208	1439+06.50	00° 00'
PI #209	1452+23.07	00° 00'
PI #209A	1460+84.95	90° 00'L
PI #210	1462+84.83	00° 00'
PI #211	1484+69.88	45° 00'R
PI #212	1486+45.64	45° 00'L
PI #213	1489+75.09	00° 00'
PI #213A	1490+33.09	45° 00'L
PI #213B	1492+73.11	45° 00'R



ENVIRO	Name	Crossing Method	w-mk-ea-001e		s-mk-ea-001	s-mk-eb-001
			1492+90	1479+03	1451+04	1430+67
Water Crossing	Bridge			No	Open-Cut	Yes
Wetland	Dask RH			Minor Stream	Minor Stream	
Crossing	Survey Extent		Approx. 89' LF	Approx. 30' ECD	Approx. 30' ECD	Spoil Setback
Environmental Feature	Dask Fencing			Approx. 30' mats	10' min. from bank	
Miscellaneous/Comments						
Seeding Mix						



ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:
ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2018-23-0200

SURVEY DATUM
 North Dakota North (NAD 83)(2011)
 International Foot
 *Distances are Grid Distances.
 Combined Scale Factor = 0.999846363
 Grid Dist. x 1.000153661 = Ground Dist.

Drawing Date: 01-31-2019
 Drawn By: D. Smith
 Checked by: J. Harned

LEGEND:

- Proposed Block Valve
- Proposed Bore
- CTP test station
- Alignment PI
- Utility Pole
- Well
- Valve
- Alignment
- Section Line
- Quarter Line
- Fence Line
- UG Fiber Optic
- UG Electric
- Overhead Elec
- Existing Pipeline
- Dirt Road

SUMMARY of MATERIALS

Mark	Quantity	Description
1	10,167	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	2333	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS

No.	Date	Description
1	1/17/20	Cultural / Dask Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

Scale: 1" = 500' HORIZ. / 1" = 200' VERT.

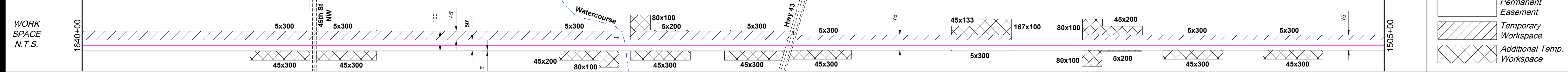
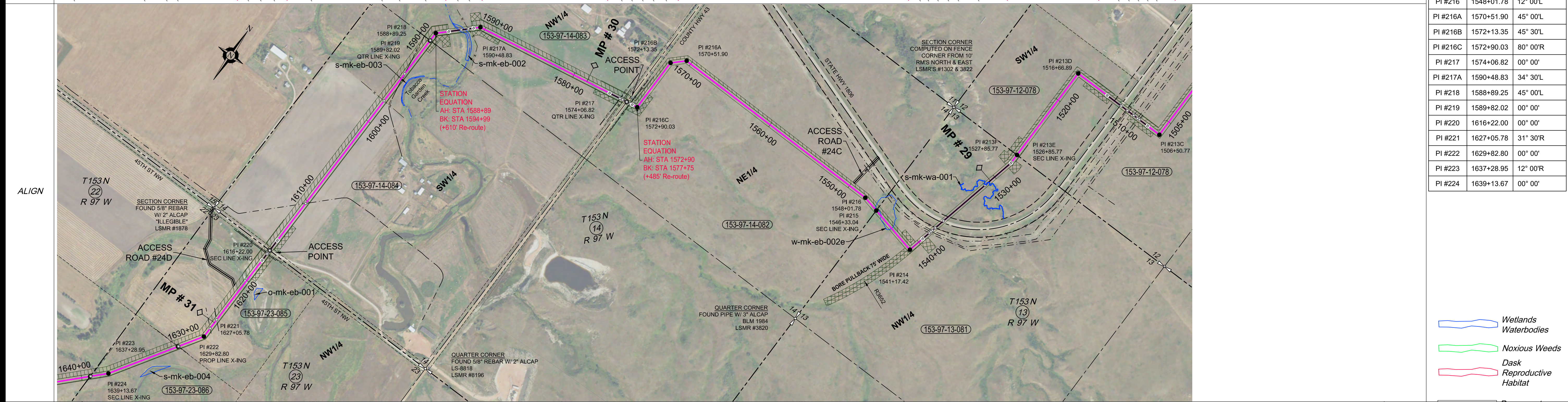
NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

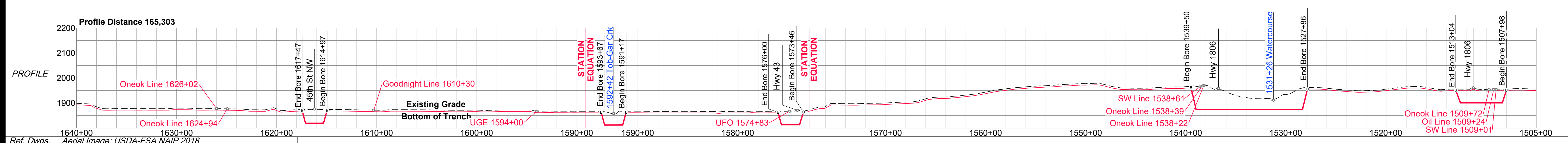
Sec. 36, T154N, R97W,
 Sec. 1, 12, T153N, R97W,
 5th P.M., Mckenzie Co., North Dakota

Sheet 13 R3

OWNER	153-97-23-086 SW1/4 NW1/4 SEC. 23, T153N, R97W 931' Uncultivated 930.87' / 56.42 Rods	153-97-23-085 NW1/4 NW1/4 SEC. 23, T153N, R97W 1849' Cultivated - 433' Uncultivated 1360.79' / 82.47 Rods	153-97-14-084 SW1/4 SEC. 14, T153N, R97W 1849' Cultivated - 791' Uncultivated 2639.98' / 160.00 Rods	153-97-14-083 NW1/4 SEC. 14, T153N, R97W 1658' Cultivated - 527' Uncultivated 2184.78' / 132.41 Rods	153-97-14-082 NE1/4 SEC. 14, T153N, R97W 3251' Uncultivated 3251.42' / 197.06 Rods	153-97-13-081 NW1/4 SEC. 13, T153N, R97W 1947' Uncultivated 1947.27' / 118.02 Rods	153-97-12-078 E1/2 SW1/4 SEC. 12, T153N, R97W 3711' Uncultivated 3710.67' / 224.89 Rods
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ENVIRO	Name	Water Crossing Method	Yes	No	Notes
	s-mk-eb-003	Bore	Yes		
	s-mk-eb-002	Bore	Yes		
	s-mk-eb-004	Bore		Yes	
	o-mk-eb-001	Bore		Yes	
	w-mk-eb-002e	Bore		Yes	
	s-mk-wa-001	Bore		Yes	



Surveying & Drafting Services By:

ERICKSON CONTRACT SURVEYING
333 10th Ave. SE Sidney, Montana
Office 406-482-6606 / Fax 406-482-6600

ECS Project # 2018-23-0200

SURVEY DATUM

North Dakota North (NAD 83)(2011)
International Foot
*Distances are Grid Distances.
Combined Scale Factor = 0.999846363
Grid Dist. x 1.000153661 = Ground Dist.

Drawing Date: 01-31-2019
Drawn By: D. Smith
Checked by: J. Harned

LEGEND:

- ⊠ Proposed Block Valve
- ⊙ Proposed Bore
- ▲ CTP test station
- Alignment PI
- Utility Pole
- ⊕ Well
- ⊗ Valve
- Alignment
- - - Section Line
- · - Quarter Line
- x - x - Fence Line
- u - u - UG Fiber Optic
- o - o - UG Electric
- e - e - Overhead Elec
- - - Existing Pipeline
- · - Dirt Road

SUMMARY of MATERIALS

Mark	Quantity	Description
1	12,174	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	2421	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS

No.	Date	Description
1	1/17/20	Cultural / Dask Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

NORTH BAKKEN EXPANSION PIPELINE
TIOGA-ELKHORN CREEK LINE

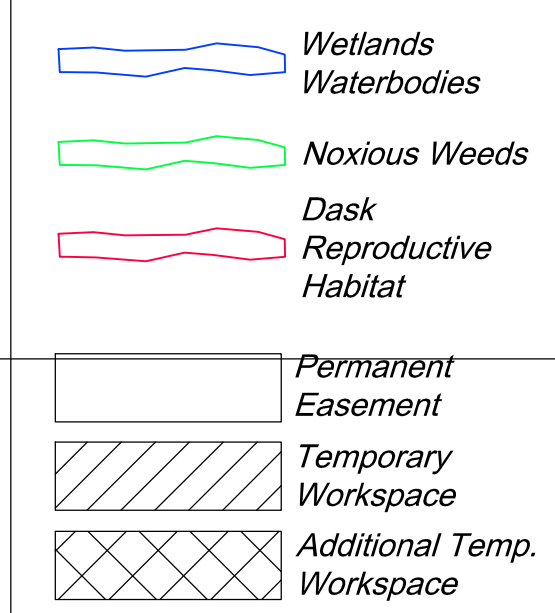
1" = 500' HORIZ.
1" = 200' VERT.

500 0 500 1000
scale 1" = 500' - 22 x 34 feet
1" = 1000' - 11 x 17

Sec. 13, 14, 22, 23, T153N, R97W,
5th P.M., McKenzie Co., North Dakota

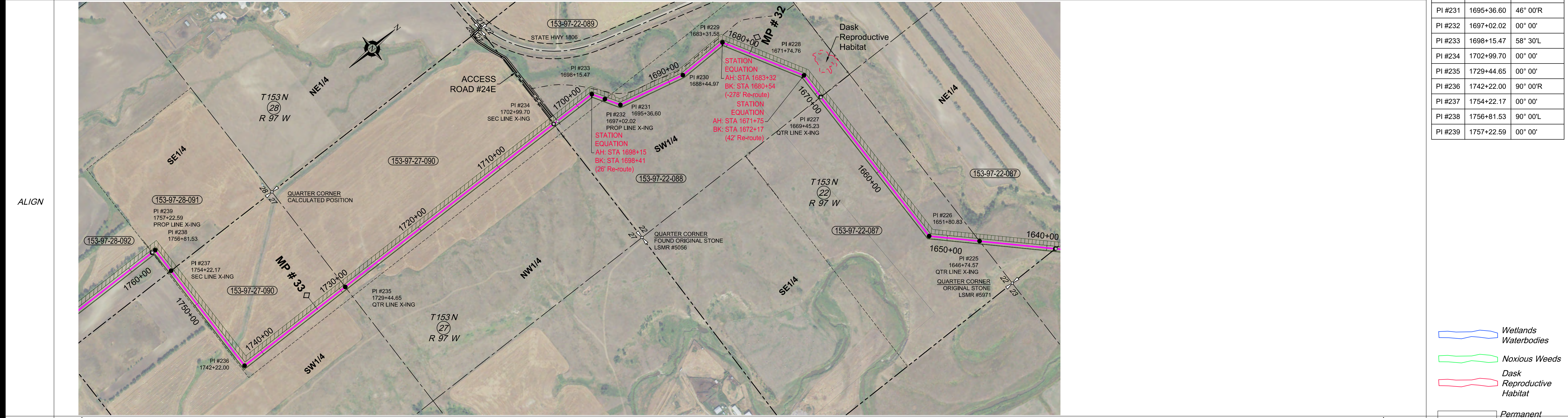
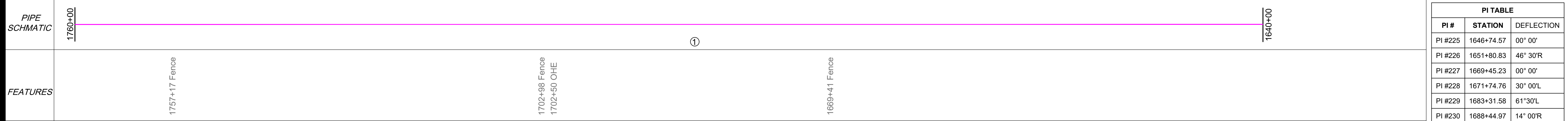
Sheet 14 R3

PI TABLE		
PI #	STATION	DEFLECTION
PI #213C	1506+50.77	90° 00'R
PI #213D	1516+66.89	90° 00'L
PI #213E	1526+85.77	00° 00'
PI #213F	1527+85.77	12° 30'R
PI #214	1541+17.42	90° 00'R
PI #215	1546+33.04	00° 00'
PI #216	1548+01.78	12° 00'L
PI #216A	1570+51.90	45° 00'L
PI #216B	1572+13.35	45° 30'L
PI #216C	1572+90.03	80° 00'R
PI #217	1574+06.82	00° 00'
PI #217A	1590+48.83	34° 30'L
PI #218	1588+89.25	45° 00'L
PI #219	1589+82.02	00° 00'
PI #220	1616+22.00	00° 00'
PI #221	1627+05.78	31° 30'R
PI #222	1629+82.80	00° 00'
PI #223	1637+28.95	12° 00'R
PI #224	1639+13.67	00° 00'

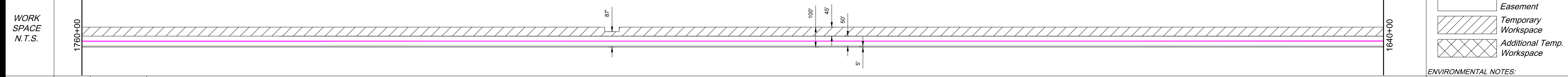


ENVIRONMENTAL NOTES:
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2. Actual wetland or stream width may vary at time of construction.
* Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction

Co, State	SECTIONS 22, 27, 28, T153N, R97W, MCKENZIE COUNTY, NORTH DAKOTA									
OWNER	153-97-28-092 SE1/4 SE1/4 EX IT #2707 SEC. 28, T153N, R97W	153-97-28-091 NE1/4 SE1/4 SEC. 28, T153N, R97W	153-97-27-090 NW1/4 SW1/4 SEC. 27, T153N, R97W	153-97-27-090 W1/2 NW1/4 SEC. 27, T153N, R97W	153-97-22-089 W1/2 SW1/4 EX 9.77 A RW SEC. 22, T153N, R97W	153-97-22-088 E1/2 SW1/4 SEC. 22, T153N, R97W	153-97-22-087 N1/2 SE1/4 SEC. 22, T153N, R97W	153-97-22-087 S1/2 NE1/4 SEC. 22, T153N, R97W	153-97-22-087 S1/2 NE1/4 SEC. 22, T153N, R97W	153-97-22-087 S1/2 NE1/4 SEC. 22, T153N, R97W
RODDAGE	963' Cultivated - 357' Uncultivated 1319.66' / 79.98 Rods	125' Cultivated - 175' Uncultivated 300.41' / 18.21 Rods	2235' Cultivated - 243' Uncultivated 2477.53' / 150.15 Rods	2352' Cultivated - 293' Uncultivated 2644.95' / 160.30 Rods	623' Uncultivated 623.33' / 37.78 Rods	2437' Uncultivated 2436.71' / 147.68 Rods	2523' Uncultivated 2521.91' / 150.84 Rods	761' Uncultivated 760.91' / 46.12 Rods	761' Uncultivated 760.91' / 46.12 Rods	761' Uncultivated 760.91' / 46.12 Rods



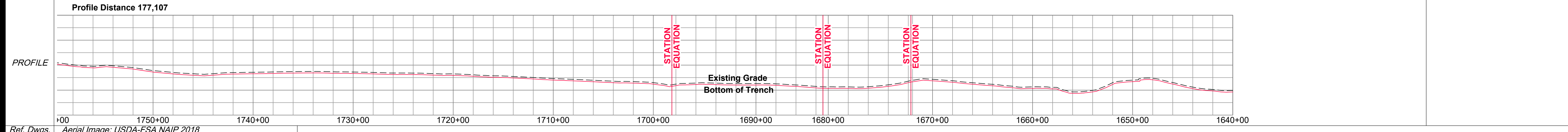
PI TABLE		
PI #	STATION	DEFLECTION
PI #225	1646+74.57	00° 00'
PI #226	1651+80.83	46° 30'R
PI #227	1669+45.23	00° 00'
PI #228	1671+74.76	30° 00'L
PI #229	1683+31.58	61° 30'L
PI #230	1688+44.97	14° 00'R
PI #231	1695+36.60	46° 00'R
PI #232	1697+02.02	00° 00'
PI #233	1698+15.47	58° 30'L
PI #234	1702+99.70	00° 00'
PI #235	1729+44.65	00° 00'
PI #236	1742+22.00	90° 00'R
PI #237	1754+22.17	00° 00'
PI #238	1756+81.53	90° 00'L
PI #239	1757+22.59	00° 00'



ENVIRO	Name	Survey Extent	Environmental Feature	Miscellaneous/Comments	Seeding Mix
Water Crossing	Bridge				
Wetland Crossing	Dask RH	1670+25			

- Wetlands
- Waterbodies
- Noxious Weeds
- Dask Reproductive Habitat
- Permanent Easement
- Temporary Workspace
- Additional Temp. Workspace

ENVIRONMENTAL NOTES:
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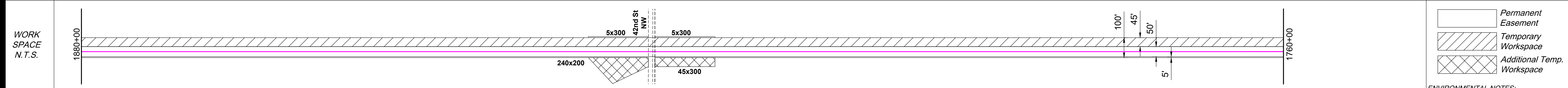
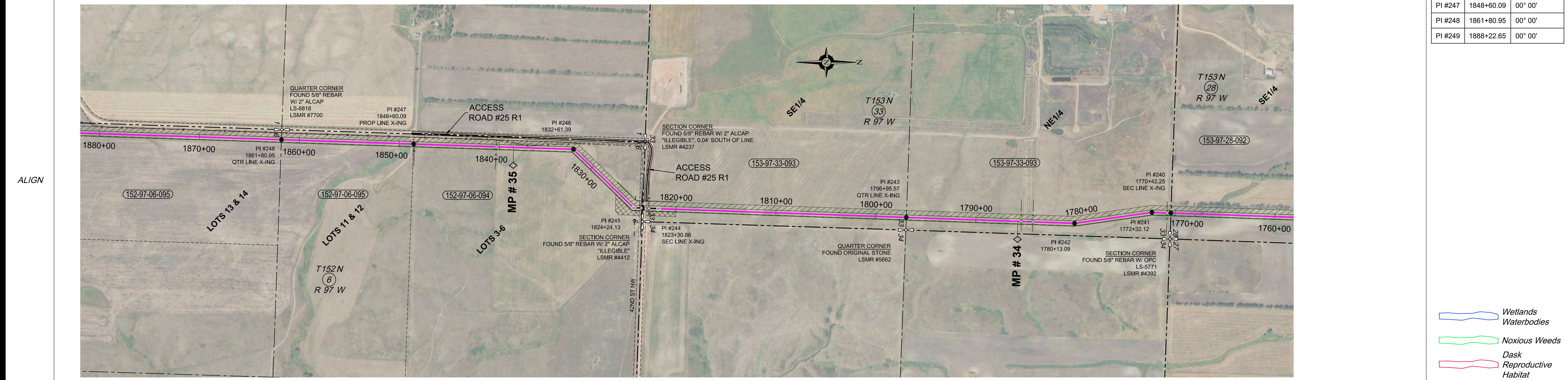


Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018 Surveying & Drafting Services By: ECS INC. ERICKSON CONTRACT SURVEYING 333 10th Ave. SE Sidney, Montana Office 406-482-6606 / Fax 406-482-6600 ECS Project # 2018-23-0200	SURVEY DATUM North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist. Drawing Date: 01-31-2019 Drawn By: D. Smith Checked by: J. Harned	LEGEND: Proposed Block Valve Proposed Bore CTP test station Alignment PI Utility Pole Well Valve Alignment Section Line Quarter Line Fence Line UG Fiber Optic UG Electric Overhead Elec Existing Pipeline Dirt Road	SUMMARY of MATERIALS <table border="1"> <thead> <tr> <th>Mark</th> <th>Quantity</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>11,790</td> <td>24" 0.312" W.T., API 5L-X65, ERW, w/FBE</td> </tr> </tbody> </table>	Mark	Quantity	Description	1	11,790	24" 0.312" W.T., API 5L-X65, ERW, w/FBE	REVISIONS <table border="1"> <thead> <tr> <th>No.</th> <th>Date</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1/17/20</td> <td>Cultural / Dask Re-routes</td> </tr> <tr> <td>2</td> <td>5/22/20</td> <td>Re-routes</td> </tr> <tr> <td>3</td> <td>9/3/20</td> <td>Re-routes</td> </tr> </tbody> </table>	No.	Date	Description	1	1/17/20	Cultural / Dask Re-routes	2	5/22/20	Re-routes	3	9/3/20	Re-routes	NORTH BAKKEN EXPANSION PIPELINE TIOGA-ELKHORN CREEK LINE 1" = 500' HORIZ. 1" = 200' VERT.	WBI ENERGY TRANSMISSION An MDU Resources Group company Sec. 22, 27, 28, T153N, R97W, 5th P.M., McKenzie Co., North Dakota Sheet 15 R3
	Mark	Quantity	Description																					
1	11,790	24" 0.312" W.T., API 5L-X65, ERW, w/FBE																						
No.	Date	Description																						
1	1/17/20	Cultural / Dask Re-routes																						
2	5/22/20	Re-routes																						
3	9/3/20	Re-routes																						

OWNER	152-97-06-095 LOTS 13 & 14 SEC. 6, T152N, R97W 2139' Cultivated - 503' Uncultivated 2641.70' / 160.10 Rods	152-97-06-095 LOTS 11, 12 SEC. 6, T152N, R97W 1202' Cultivated - 119' Uncultivated 1320.86' / 80.05 Rods	152-97-06-094 LOTS 3, 4, 5 & 6 SEC. 6, T152N, R97W 1670' Cultivated - 859' Uncultivated 2529.23' / 153.29 Rods	153-97-33-093 E1/2 SE1/4 SEC. 33, T153N, R97W 1974' Cultivated - 661' Uncultivated 2635.29' / 159.71 Rods	153-97-33-093 E1/2 NE1/4 SEC. 33, T153N, R97W 2534' Cultivated - 119' Uncultivated 2653.32' / 160.81 Rods	153-97-28-092 SE1/4 SE1/4 EX IT #2707 SEC. 28, T153N, R97W 963' Cultivated - 357' Uncultivated 1319.66' / 79.98 Rods
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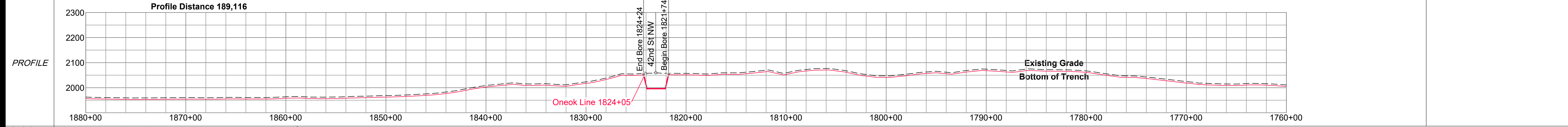
PI TABLE		
PI #	STATION	DEFLECTION
PI #240	1770+42.25	00° 00'
PI #241	1772+32.12	10° 00'L
PI #242	1780+13.09	10° 00'R
PI #243	1796+95.57	00° 00'
PI #244	1823+30.86	00° 00'
PI #245	1824+24.13	42° 00'R
PI #246	1832+61.39	42° 00'L
PI #247	1848+60.09	00° 00'
PI #248	1861+80.95	00° 00'
PI #249	1888+22.65	00° 00'



- Wetlands
- Waterbodies
- Noxious Weeds
- Dask
- Reproductive Habitat
- Permanent Easement
- Temporary Workspace
- Additional Temp. Workspace

ENVIRO	Water Crossing	Name	
		Crossing Method	Bridge
	Wetland Crossing	Name	
		Survey Extent	
		Environmental Feature	
	Miscellaneous/Comments		
	Seeding Mix		

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:
ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2018-23-0200

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	01-31-2019
Drawn By:	D. Smith
Checked by:	J. Harned

LEGEND:	
⊗	Proposed Block Valve
⊕	Proposed Bore
▲	CTP test station
●	Alignment PI
○	Utility Pole
⊙	Well
⊗	Valve
—	Alignment
- - -	Section Line
- · - · -	Quarter Line
- x - x - x -	Fence Line
- U - U - U -	UG Fiber Optic
- E - E - E -	UG Electric
- O - E -	Overhead Elec
- · - · - · -	Existing Pipeline
- · - - - -	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	11,750	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	250	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

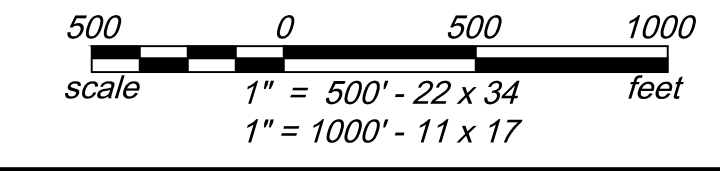
REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dask Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

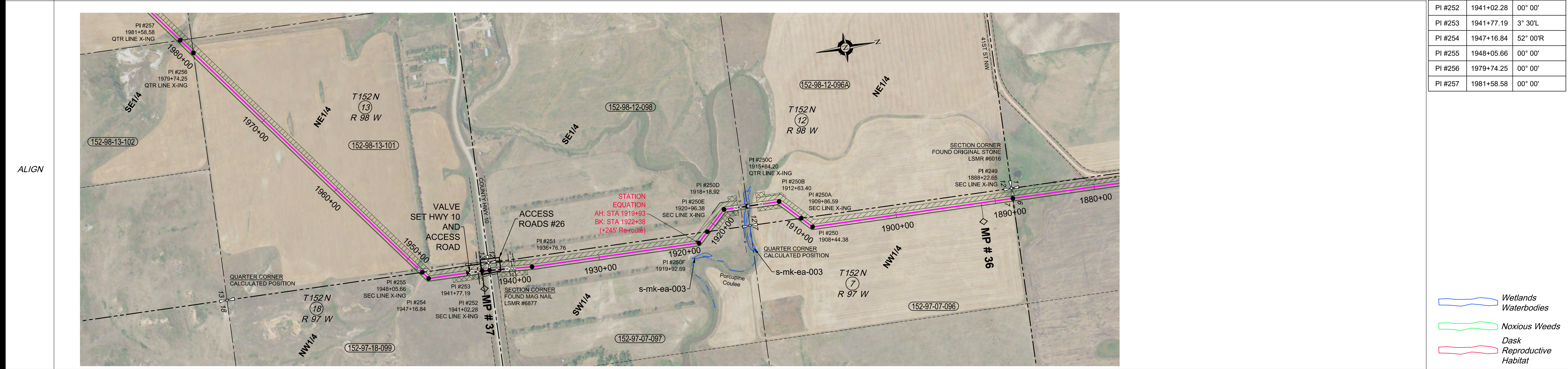
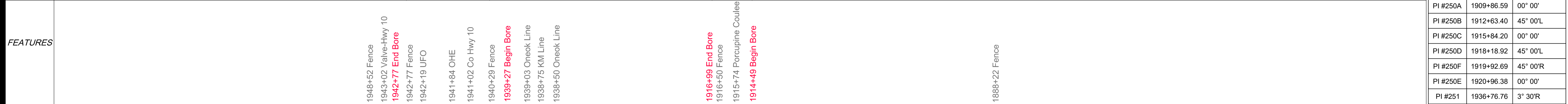
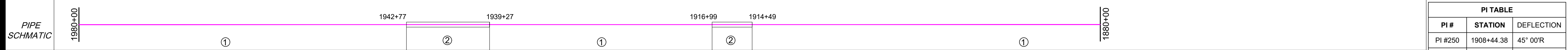
Sec. 28, 33, T153N, R97W,
 Sec. 6, T152N, R97W, 5th P.M.,
 Mckenzie Co., North Dakota

Sheet 16 R3

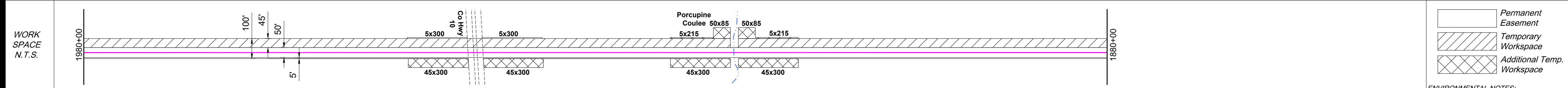


1" = 500' HORIZ.
 1" = 200' VERT.

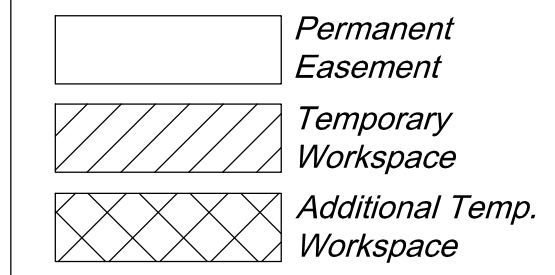
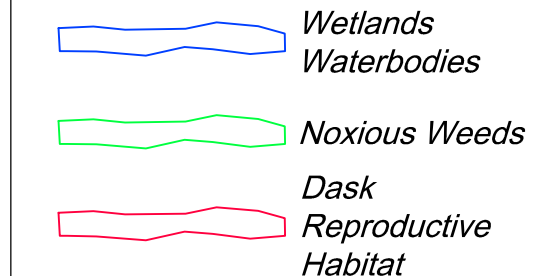
Co, State	SECTIONS 7, 18, T152N, R97W, SECTION 12, 13, T152N, R98W, MCKENZIE COUNTY, NORTH DAKOTA														
OWNER	152-98-13-102 NW1/4 SE1/4 SEC. 13, T152N, R98W 184' Uncultivated 184.33' / 11.17 Rods	152-98-13-101 NE1/4 SEC. 13, T152N, R98W 3066' Cultivated - 103' Uncultivated 3168.59' / 192.04 Rods	152-97-18-099 LOTS 1, 2, 3 & 4 SEC. 18, T152N, R97W 703' Uncultivated 703.38' / 42.63 Rods	152-97-07-097 LOTS 3 & 4 SEC. 7, T152N, R97W 2076' Cultivated - 175' Uncultivated 2251.43' / 136.45 Rods	152-98-12-098 SE1/4 SEC. 12, T152N, R98W 380' Cultivated - 132' Uncultivated 512.17' / 31.04 Rods	152-98-12-096A NE1/4 SEC. 12, T152N, R98W 550' Cultivated - 48' Uncultivated 597.61' / 36.22 Rods	152-97-07-096 LOTS 1 & 2 SEC. 7, T152N, R97W 2138' Cultivated - 26' Uncultivated 2163.94' / 131.15 Rods	1981+59	1979+74	1948+06	1941+02	1920+96	1915+84	1909+87	1888+23
RODDAGE															



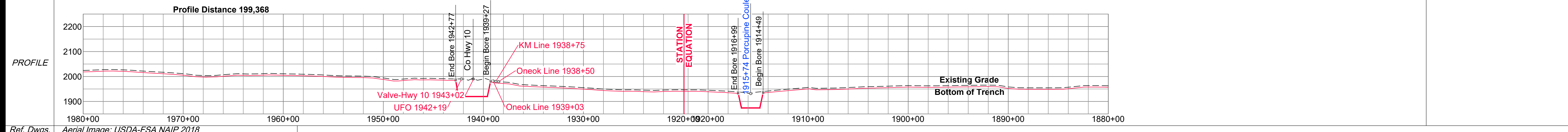
PI TABLE		
PI #	STATION	DEFLECTION
PI #250A	1909+86.59	00° 00'
PI #250B	1912+63.40	45° 00'L
PI #250C	1915+84.20	00° 00'
PI #250D	1918+18.92	45° 00'L
PI #250F	1919+92.69	45° 00'R
PI #250E	1920+96.38	00° 00'
PI #251	1936+76.76	3° 30'R
PI #252	1941+02.28	00° 00'
PI #253	1941+77.19	3° 30'L
PI #254	1947+16.84	52° 00'R
PI #255	1948+05.66	00° 00'
PI #256	1979+74.25	00° 00'
PI #257	1981+58.58	00° 00'



ENVIRO	Water Crossing	Name		s-mk-ea-003	s-mk-ea-003
		Crossing Method	Bridge	Yes	Yes
	Wetland Crossing	Name		1920+00	1915+16
		Survey Extent		1914+65	
		Environmental Feature		Int Stream	Int Stream
		Miscellaneous/Comments			
		Seeding Mix			



ENVIRONMENTAL NOTES:
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 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

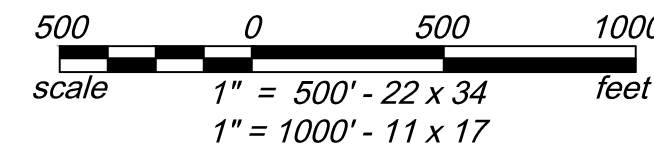
Surveying & Drafting Services By:
ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2018-23-0200

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	01-31-2019
Drawn By:	D. Smith
Checked by:	J. Harned

LEGEND:	
⊠	Proposed Block Valve
⊙	Proposed Bore
▲	CTP test station
●	Alignment PI
○	Utility Pole
⊙	Well
⊠	Valve
—	Alignment
- - -	Section Line
- · - · -	Quarter Line
- x - x - x -	Fence Line
- o - o - o -	UG Fiber Optic
- e - e - e -	UG Electric
- o e - o e -	Overhead Elec
- · - · - · -	Existing Pipeline
- - - - -	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	9,646	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	600	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes



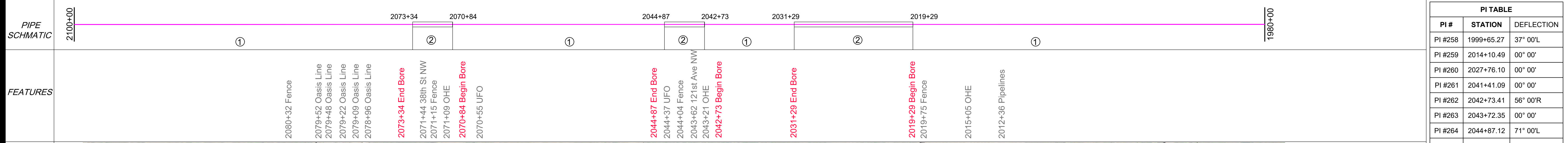
NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

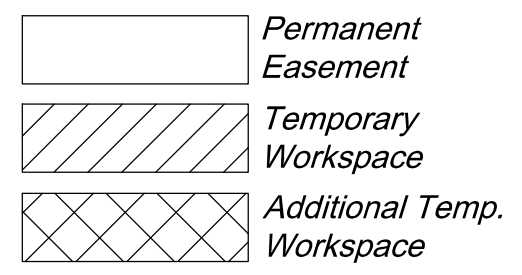
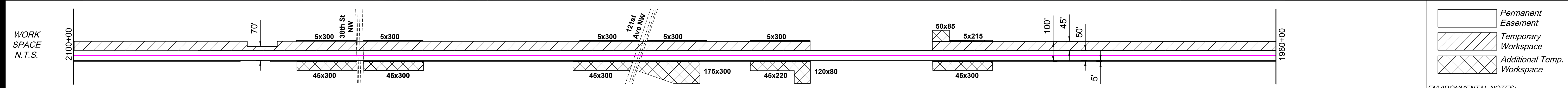
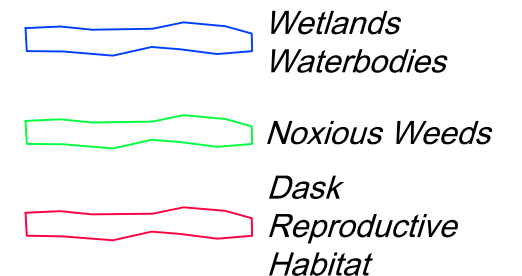
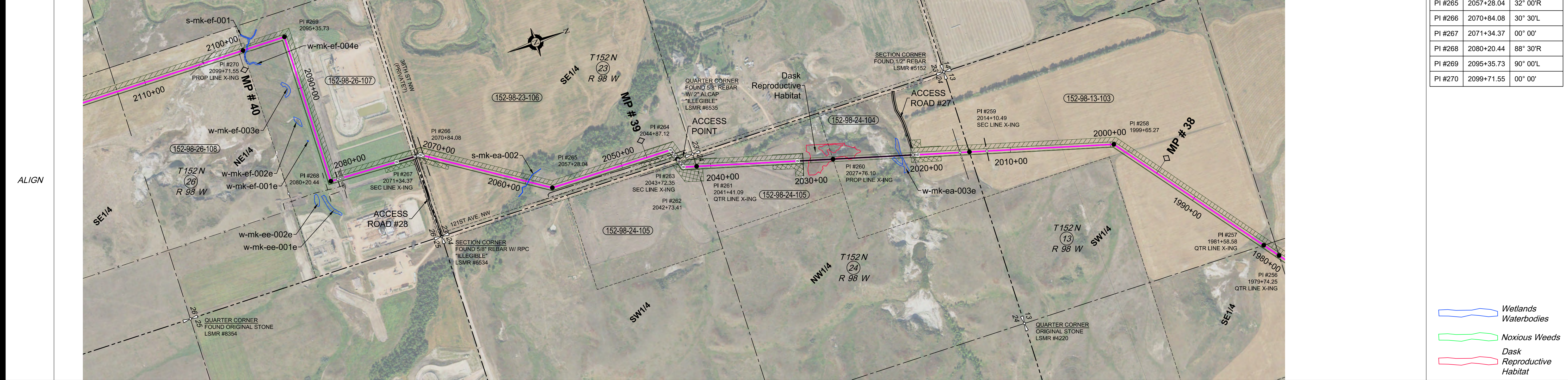
Sec. 7, 18, T152N, R97W,
 Sec. 12, 13, T152N, R98W, 5th P.M.,
 Mckenzie Co., North Dakota

Sheet 17 R3

OWNER	152-98-26-108 S1/2 NE1/4 SEC. 26, T152N, R98W	152-98-26-107 N1/2 NE1/4 SEC. 26, T152N, R98W	152-98-23-106 SE1/4 SEC. 23, T152N, R98W	152-98-24-105 W1/2NW1/4SW1/4 SEC. 24, T152N, R98W	152-98-24-105 W1/2SW1/4NW1/4, W1/2W1/2E1/2SW1/4NW1/4, W1/2E1/2NW1/4SW1/4 SEC. 24, T152N, R98W	152-98-24-104 NW1/4NW1/4 SEC. 24, T152N, R98W	152-98-13-103 N1/2SW1/4, SW1/4SW1/4 SEC. 13, T152N, R98W
RODDAGE	1322' Uncultivated 1321.61' / 80.10 Rods	1033' Cultivated - 1804' Uncultivated 2837.17' / 171.95 Rods	1033' Cultivated - 1729' Uncultivated 2762.02' / 167.40 Rods	155' Cultivated - 76' Uncultivated 231.26' / 14.02 Rods	891' Cultivated - 474' Uncultivated 1364.99' / 82.73 Rods	533' Cultivated - 833' Uncultivated 1365.62' / 82.76 Rods	3421' Cultivated - 169' Uncultivated 3251.91' / 197.09 Rods

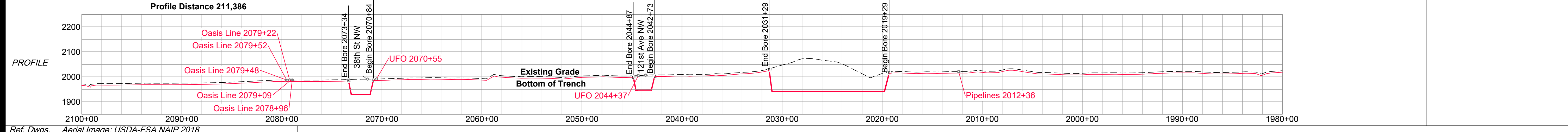


PI TABLE		
PI #	STATION	DEFLECTION
PI #258	1999+65.27	37° 00'L
PI #259	2014+10.49	00° 00'
PI #260	2027+76.10	00° 00'
PI #261	2041+41.09	00° 00'
PI #262	2042+73.41	56° 00'R
PI #263	2043+72.35	00° 00'
PI #264	2044+87.12	71° 00'L
PI #265	2057+28.04	32° 00'R
PI #266	2070+84.08	30° 30'L
PI #267	2071+34.37	00° 00'
PI #268	2080+20.44	88° 30'R
PI #269	2095+35.73	90° 00'L
PI #270	2099+71.55	00° 00'



ENVIRO	Name	Survey Extent	Environmental Feature	Miscellaneous/Comments	Seeding Mix
	s-mk-ea-002	2059+76	Int Stream	Approx. 225' LF	Dask Fencing
	w-mk-ef-004e	2099+25	Wetland	Approx. 28' ECD	Approx. 90' mats
	w-mk-ea-003e	2021+82	Wetland	Approx. 90' ECD	Approx. 90' mats

ENVIRONMENTAL NOTES:
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 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction.



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:
ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2018-23-0200

SURVEY DATUM
 North Dakota North (NAD 83)(2011)
 International Foot
 *Distances are Grid Distances.
 Combined Scale Factor = 0.999846363
 Grid Dist. x 1.000153661 = Ground Dist.

Drawing Date: 01-31-2019
 Drawn By: D. Smith
 Checked by: J. Harned

LEGEND:

- Proposed Block Valve
- Proposed Bore
- CTP test station
- Alignment PI
- Utility Pole
- Well
- Valve
- Alignment
- Section Line
- Quarter Line
- Fence Line
- UG Fiber Optic
- UG Electric
- Overhead Elec
- Existing Pipeline
- Dirt Road

SUMMARY of MATERIALS

Mark	Quantity	Description
1	10,336	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	1664	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS

No.	Date	Description
1	1/17/20	Cultural / Dask Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

Scale: 1" = 500' HORIZ. / 1" = 1000' VERT.

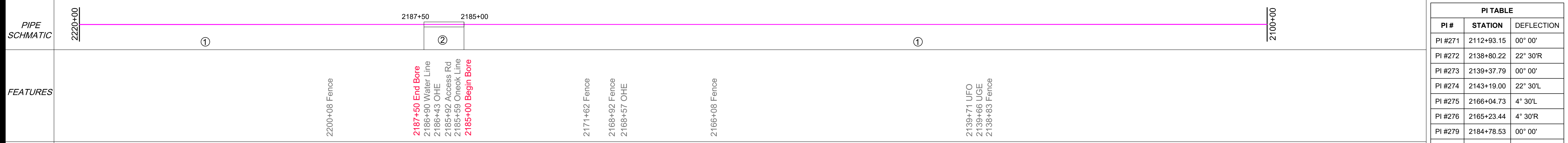
NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

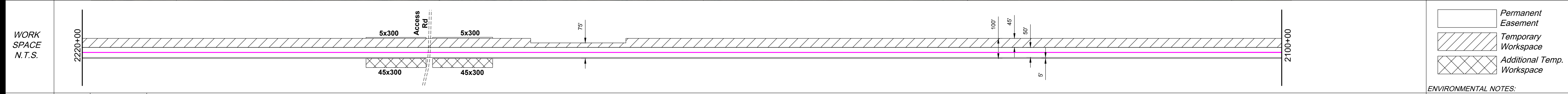
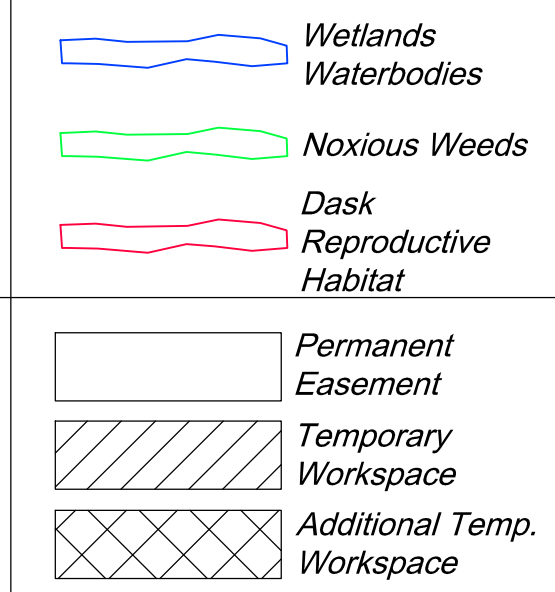
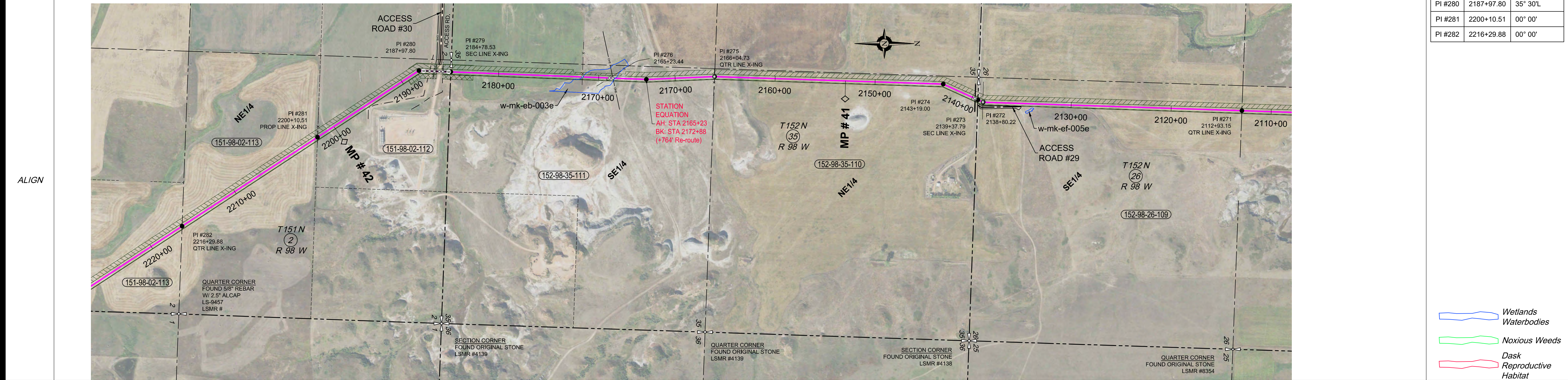
Sec. 13, 23, 24, 26 T152N, R98W,
 5th P.M., McKenzie Co., North Dakota

Sheet 18 R3

OWNER	151-98-02-113 E1/2 SE1/4 SEC. 2, T151N, R98W	151-98-02-113 S1/2 NE1/4 SEC. 2, T151N, R98W	151-98-02-112 LOT 2 SEC. 2, T151N, R98W	152-98-35-111 W1/2 SE1/4, NE1/4 SE1/4 SEC. 35, T152N, R98W	152-98-35-110 NE1/4, EX IT 1349 SEC. 35, T152N, R98W	152-98-26-109 SE1/4 SEC. 26, T152N, R98W
RODDAGE	2503' Cultivated - 373' Uncultivated 2875.69' / 174.28 Rods	1573' Cultivated - 46' Uncultivated 1619.37' / 98.14 Rods	1451' Cultivated - 81' Uncultivated 1531.98' / 92.85 Rods	1268' Cultivated - 1371' Uncultivated 2638.53' / 159.91 Rods	2336' Cultivated - 331' Uncultivated 2666.94' / 161.63 Rods	2645' Cultivated 2644.64' / 160.28 Rods

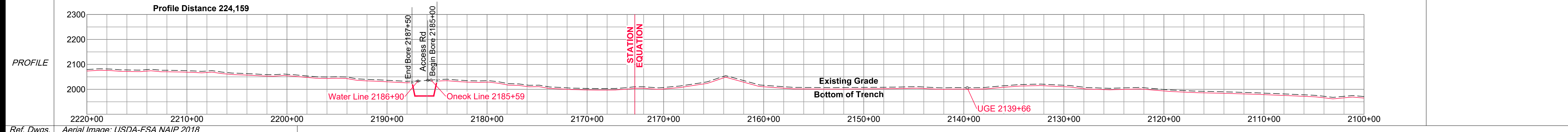


PI TABLE		
PI #	STATION	DEFLECTION
PI #271	2112+93.15	00° 00'
PI #272	2138+80.22	22° 30'R
PI #273	2139+37.79	00° 00'
PI #274	2143+19.00	22° 30'L
PI #275	2166+04.73	4° 30'L
PI #276	2165+23.44	4° 30'R
PI #279	2184+78.53	00° 00'
PI #280	2187+97.80	35° 30'L
PI #281	2200+10.51	00° 00'
PI #282	2216+29.88	00° 00'



ENVIRO	Water Crossing	Name	
		Crossing Method	
	Wetland Crossing	Name	
		Survey Extent	
	Environmental Feature		
	Miscellaneous/Comments		
	Seeding Mix		

ENVIRONMENTAL NOTES:
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 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:

ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600

ECS Project # 2018-23-0200

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot	
*Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	01-31-2019
Drawn By:	D. Smith
Checked by:	J. Harned

LEGEND:	
⊗	Proposed Block Valve
⊕	Proposed Bore
▲	CTP test station
●	Alignment PI
○	Utility Pole
⊙	Well
⊗	Valve
—	Alignment
- - -	Section Line
- · - · -	Quarter Line
- x - x - x -	Fence Line
- U - U - U -	UG Fiber Optic
- O - O - O -	UG Electric
- E - E - E -	Overhead Elec
- · - · - · -	Existing Pipeline
- · - · - · -	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	12,515	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	250	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

NORTH BAKKEN
 EXPANSION
 PIPELINE
 TIOGA-ELKHORN CREEK LINE

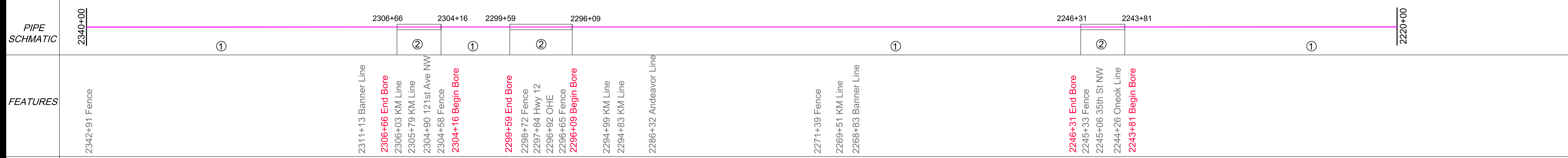
1" = 500' HORIZ.
 1" = 200' VERT.

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

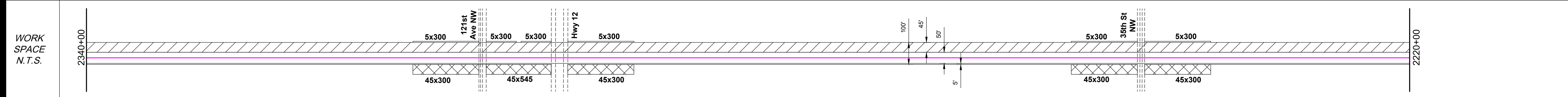
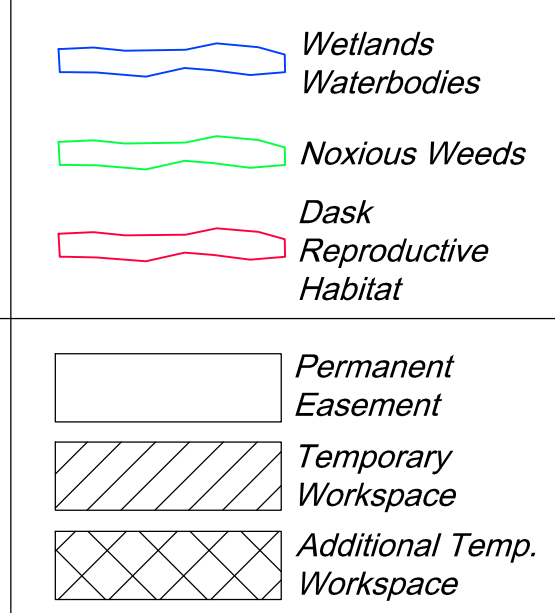
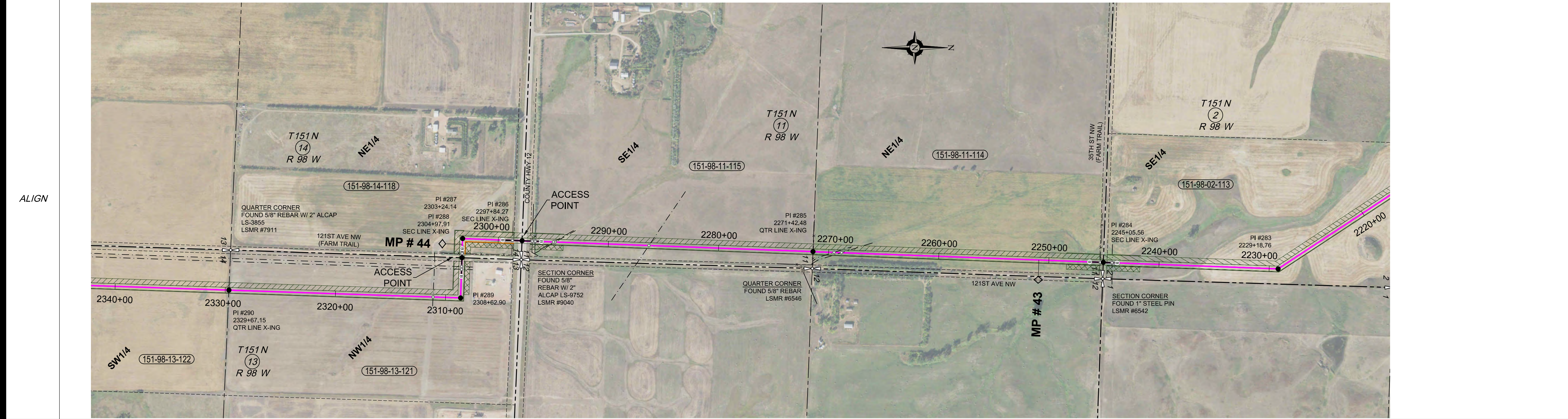
Sec. 26, 35, T152N, R98W,
 Sec. 2, T151N, R98W, 5th P.M.,
 Mckenzie Co., North Dakota

Sheet 19 R3

Co, State	SECTIONS 2, 11, 13, 14, T151N, R98W, MCKENZIE COUNTY, NORTH DAKOTA						
OWNER	151-98-13-122 NW1/4 SW1/4 SEC. 13, T151N, R98W 1273' Cultivated - 47' Uncultivated 1319.60' / 79.98 Rods	151-98-13-121 W1/2 NW1/4 EX IT 2459, EX. 89 A RW SEC. 13, T151N, R98W 2436' Cultivated - 33' Uncultivated 2469.24' / 149.65 Rods	151-98-14-118 E1/2 NE1/4 NE1/4, EX. 60 A RW SEC. 14, T151N, R98W 618' Cultivated - 96' Uncultivated 713.64' / 43.25 Rods	151-98-11-115 SE1/4 SEC. 11, T151N, R98W 2642' Uncultivated 2641.79' / 160.11 Rods	151-98-11-114 NE1/4 SEC. 11, T151N, R98W 2388' Cultivated - 249' Uncultivated 2636.91' / 159.81 Rods	151-98-02-113 E1/2 SE1/4 SEC. 2, T151N, R98W 2503' Cultivated - 373' Uncultivated 2875.69' / 174.28 Rods	
RODDAGE	2329+67	2304+98	2297+84	2271+42	2245+06		

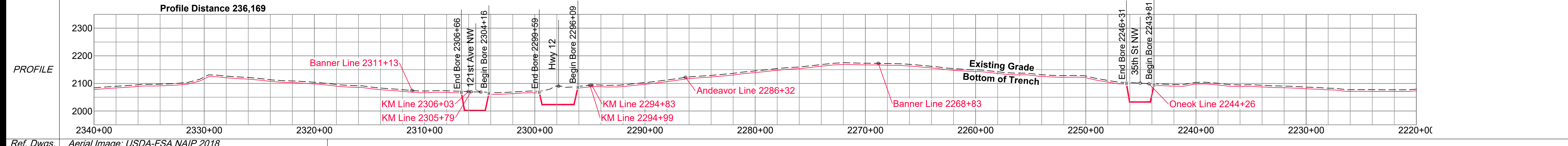


PI TABLE		
PI #	STATION	DEFLECTION
PI #283	2229+18.76	35° 30'R
PI #284	2245+05.56	00° 00'
PI #285	2271+42.48	00° 00'
PI #286	2297+84.27	00° 00'
PI #287	2303+24.14	90° 00'L
PI #288	2304+97.91	00° 00'
PI #289	2308+62.90	90° 00'R
PI #290	2329+67.15	00° 00'



ENVIRO	Water Crossing	Name	
		Crossing Method	
	Wetland Crossing	Name	
		Survey Extent	
		Environmental Feature	
	Miscellaneous/Comments		
	Seeding Mix		

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
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 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:
ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2018-23-0200

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	01-31-2019
Drawn By:	D. Smith
Checked by:	J. Harned

LEGEND:	
⊠	Proposed Block Valve
⊙	Proposed Bore
▲	CTP test station
●	Alignment PI
○	Utility Pole
⊕	Well
⊗	Valve
—	Alignment
- - -	Section Line
- · - · -	Quarter Line
- x - x - x -	Fence Line
- - - - -	UG Fiber Optic
- - - - -	UG Electric
- - - - -	Overhead Elec
- - - - -	Existing Pipeline
- - - - -	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	11,150	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	850	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE

1" = 500' HORIZ.
 1" = 200' VERT.

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

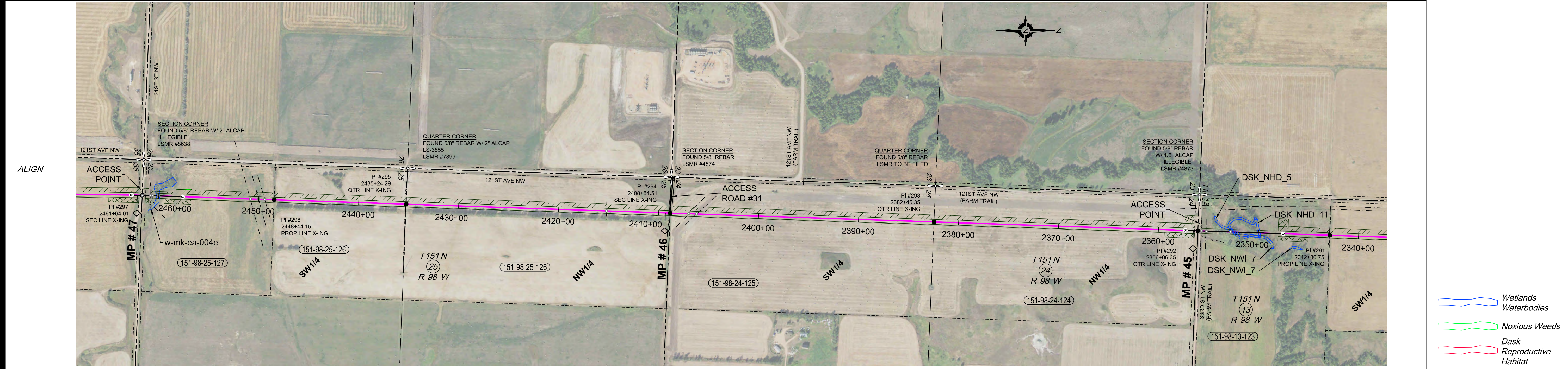
Sec. 2, 11, 13, 14, T151N, R98W,
 5th P.M., McKenzie Co., North Dakota

Sheet 20 R3

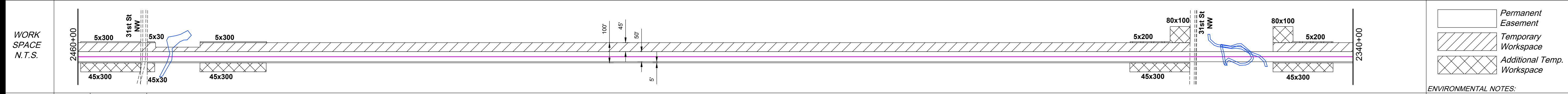
OWNER	2461+64 151-98-25-127 SW1/4 SW1/4 SEC. 25, T151N, R98W 1095' Cultivated - 225' Uncultivated 1319.86' / 79.99 Rods	2448+44 151-98-25-126 NW1/4 SW1/4, W1/2 NW1/4 SEC. 25, T151N, R98W 1296' Cultivated - 24' Uncultivated 1319.86' / 79.99 Rods	2435+24 151-98-25-126 NW1/4 SW1/4, W1/2 NW1/4 SEC. 25, T151N, R98W 2605' Cultivated - 35' Uncultivated 2639.78' / 159.99 Rods	2408+85 151-98-24-125 W1/2 NW1/4 SEC. 24, T151N, R98W 2623' Cultivated - 16' Uncultivated 2639.16' / 159.95 Rods	2382+45 151-98-24-124 W1/2 NW1/4 SEC. 24, T151N, R98W 2639' Cultivated 2639.01' / 159.94 Rods	2356+06 151-98-13-123 S1/2 SW1/4 SEC. 13, T151N, R98W 1320' Uncultivated 1319.60' / 79.98 Rods	2342+87
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PIPE SCHMATIC	2460+00	2462+70	2457+59	②	①	2357+31	2347+54	②	①	2340+00
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FEATURES	2462+70 End Bore	2461+64 31st St NW	2460+80 OHE	2460+62 Oasis Line	2460+01 WETLAND	2457+59 Begin Bore	2450+83 Cenex Line	2450+00 Pipeline	2449+39 Pipeline	2435+29 OHE	2415+21 Pipeline	2408+92 UFO	2406+97 Pipeline	2406+18 Oasis Line	2357+31 End Bore	2355+86 31st St NW	2355+73 Fence	2355+24 Pipeline	2352+78 Timber Prong Crk	2347+54 Begin Bore
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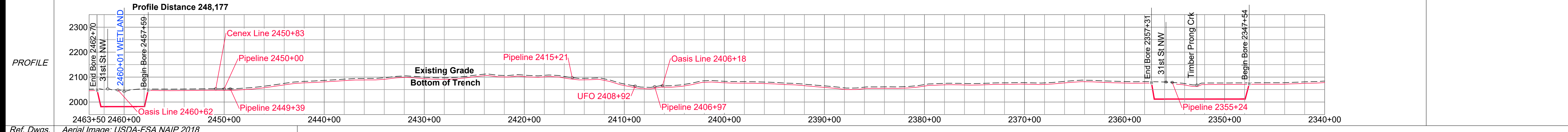
PI TABLE		
PI #	STATION	DEFLECTION
PI #291	2342+86.75	00° 00'
PI #292	2356+06.35	00° 00'
PI #293	2382+45.35	00° 00'
PI #294	2408+84.51	00° 00'
PI #295	2435+24.29	00° 00'
PI #296	2448+44.15	00° 00'
PI #297	2461+64.01	00° 00'



ENVIRO	Water Crossing		Wetland Crossing		Miscellaneous/Comments		Seeding Mix	
	Name	Survey Extent	Name	Survey Extent	Environmental Feature	Approx. ECD	Approx. Mats	Approx. Mats
	Bridge	2460+20 - 2459+88	w-mk-ea-004e	2460+20 - 2459+88	Wetland	Approx. 80' ECD	Approx. 80' mats	
								dsk nwi 7 2352+57 Wetland Approx. 70' ECD Approx. 70' mats
								dsk nhd 11 2349+94 Wetland Approx. 50' ECD Approx. 50' mats

- Wetlands
- Waterbodies
- Noxious Weeds
- Dask
- Reproductive Habitat
- Permanent Easement
- Temporary Workspace
- Additional Temp. Workspace

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
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 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction

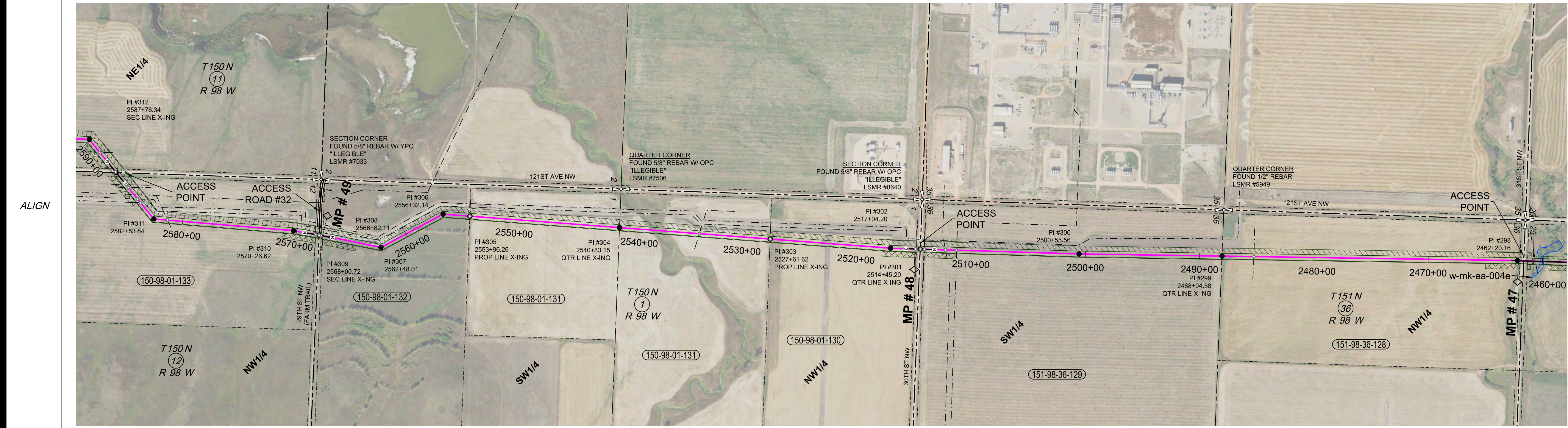


Surveying & Drafting Services By: ECS INC. ERICKSON CONTRACT SURVEYING 333 10th Ave. SE Sidney, Montana Office 406-482-6606 / Fax 406-482-6600 ECS Project # 2018-23-0200	SURVEY DATUM North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist. Drawing Date: 01-31-2019 Drawn By: D. Smith Checked by: J. Harned	LEGEND: [Symbol] Proposed Block Valve [Symbol] Proposed Bore [Symbol] CTP test station [Symbol] Alignment PI [Symbol] Utility Pole [Symbol] Well [Symbol] Valve [Line] Alignment [Line] Section Line [Line] Quarter Line [Line] Fence Line [Line] UG Fiber Optic [Line] UG Electric [Line] Overhead Elec [Line] Existing Pipeline [Line] Dirt Road	SUMMARY of MATERIALS <table border="1"> <thead> <tr> <th>Mark</th> <th>Quantity</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10,512</td> <td>24" 0.312" W.T., API 5L-X65, ERW, w/FBE</td> </tr> <tr> <td>2</td> <td>1488</td> <td>24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO</td> </tr> </tbody> </table>	Mark	Quantity	Description	1	10,512	24" 0.312" W.T., API 5L-X65, ERW, w/FBE	2	1488	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO	REVISIONS <table border="1"> <thead> <tr> <th>No.</th> <th>Date</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1/17/20</td> <td>Cultural / Dask Re-routes</td> </tr> <tr> <td>2</td> <td>5/22/20</td> <td>Re-routes</td> </tr> <tr> <td>3</td> <td>9/3/20</td> <td>Re-routes</td> </tr> </tbody> </table>	No.	Date	Description	1	1/17/20	Cultural / Dask Re-routes	2	5/22/20	Re-routes	3	9/3/20	Re-routes	NORTH BAKKEN EXPANSION PIPELINE TIOGA-ELKHORN CREEK LINE scale 1" = 500' - 22 x 34 feet 1" = 1000' - 11 x 17 feet 1" = 500' HORIZ. 1" = 200' VERT.	WBI ENERGY TRANSMISSION An MDU Resources Group company Sec. 13, 24, 25, T151N, R98W, 5th P.M., McKenzie Co., North Dakota Sheet 21 R3
	Mark	Quantity	Description																								
1	10,512	24" 0.312" W.T., API 5L-X65, ERW, w/FBE																									
2	1488	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO																									
No.	Date	Description																									
1	1/17/20	Cultural / Dask Re-routes																									
2	5/22/20	Re-routes																									
3	9/3/20	Re-routes																									

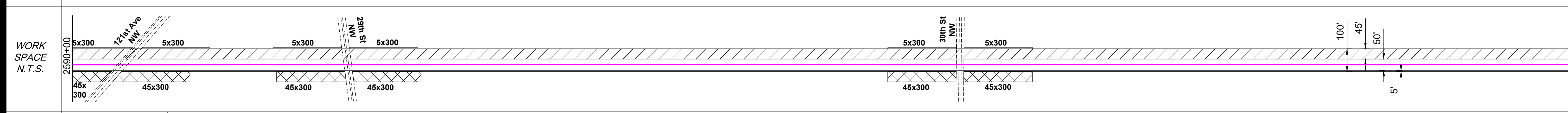
Co, State	SECTIONS 36, T151N, R98W, SECTIONS 1, 11, 12, T150N, R98W, MCKENZIE COUNTY, NORTH DAKOTA													
OWNER	2587+76	150-98-12-133	2568+01	150-98-01-132	2553+96	150-98-01-131	2540+83	150-98-01-131	2527+62	150-98-01-130	2514+45	151-98-36-129	2488+05	151-98-36-128
RODDAGE		W1/2 NW1/4 SEC. 12, T150N, R98W 1742' Cultivated - 234' Uncultivated 1975.62' / 119.73 Rods		S1/2 SW1/4 SEC. 1, T150N, R98W 1182' Cultivated - 222' Uncultivated 1404.46' / 85.12 Rods		NW1/4 SW1/4 SEC. 1, T150N, R98W 1313' Cultivated 1313.11' / 79.58 Rods		S1/2 NW1/4 SEC. 1, T150N, R98W 1170' Cultivated - 152' Uncultivated 1321.53' / 80.09 Rods		LOTS 3 & 4 SEC. 1, T150N, R98W 1153' Cultivated - 163' Uncultivated 1316.42' / 79.78 Rods		SW1/4 SEC. 36, T151N, R98W 2608' Cultivated - 33' Uncultivated 2640.62' / 160.04 Rods		W1/2 NW1/4 SEC. 25, T151N, R98W 2478' Cultivated - 163' Uncultivated 2640.57' / 160.03 Rods

PIPE SCHMATIC	2590+00	2589+01	2586+51	2569+32	2566+82		2515+70	2513+20		2460+00		
FEATURES		2589+01 End Bore 2587+84 121st Ave NW 2586+51 Begin Bore 2586+39 Oneok Line 2586+08 Oneok Line 2584+79 Andeavor Line 2584+37 KM Line 2581+33 KM Line		2569+32 End Bore 2568+31 Fence 2568+01 29th St NW 2567+80 OHE 2566+82 Begin Bore		2553+96 Fence		2515+70 End Bore 2514+85 Fence 2514+45 30th St NW 2514+09 OHE		2513+20 Begin Bore 2512+24 KM Line 2511+27 Oneok Line		2488+05 2485+25 KM Line

PI TABLE		
PI #	STATION	DEFLECTION
PI #298	2462+20.16	1° 00'L
PI #299	2488+04.58	00° 00'
PI #300	2500+55.56	1° 00'R
PI #301	2514+45.20	00° 00'
PI #302	2517+04.20	2° 30'R
PI #303	2527+61.62	00° 00'
PI #304	2540+83.15	00° 00'
PI #305	2553+96.26	00° 00'
PI #306	2556+32.14	32° 30'L
PI #307	2562+48.01	40° 00'R
PI #308	2566+82.11	1° 30'L
PI #309	2568+00.72	00° 00'
PI #310	2570+26.62	5° 00'L
PI #311	2582+53.84	46° 00'R
PI #312	2587+76.34	00° 00'

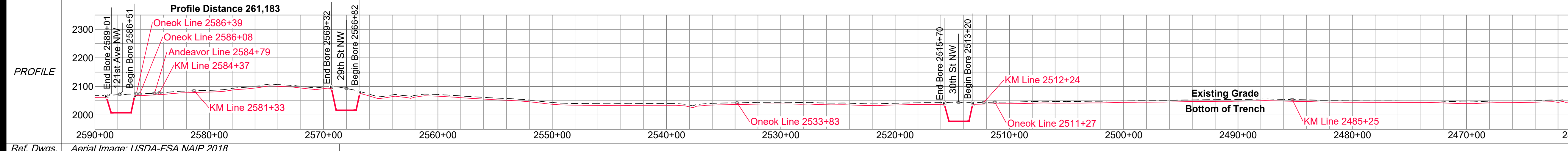


- Wetlands
- Waterbodies
- Noxious Weeds
- Dusk
- Reproductive Habitat
- Permanent Easement
- Temporary Workspace
- Additional Temp. Workspace



ENVIRO	Water Crossing	Name	
		Crossing Method	
	Wetland Crossing	Name	
		Survey Extent	
		Environmental Feature	
	Miscellaneous/Comments		
	Seeding Mix		

ENVIRONMENTAL NOTES:
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ECS Project # 2018-23-0200

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot	
*Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	01-31-2019
Drawn By:	D. Smith
Checked by:	J. Harned

LEGEND:	
	Proposed Block Valve
	Proposed Bore
	CTP test station
	Alignment PI
	Utility Pole
	Well
	Valve
	Alignment
	Section Line
	Quarter Line
	Fence Line
	UG Fiber Optic
	UG Electric
	Overhead Elec
	Existing Pipeline
	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	12,250	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	750	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE

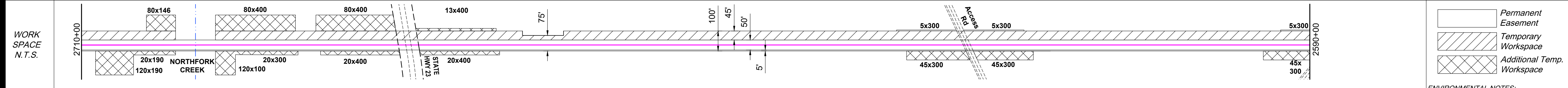
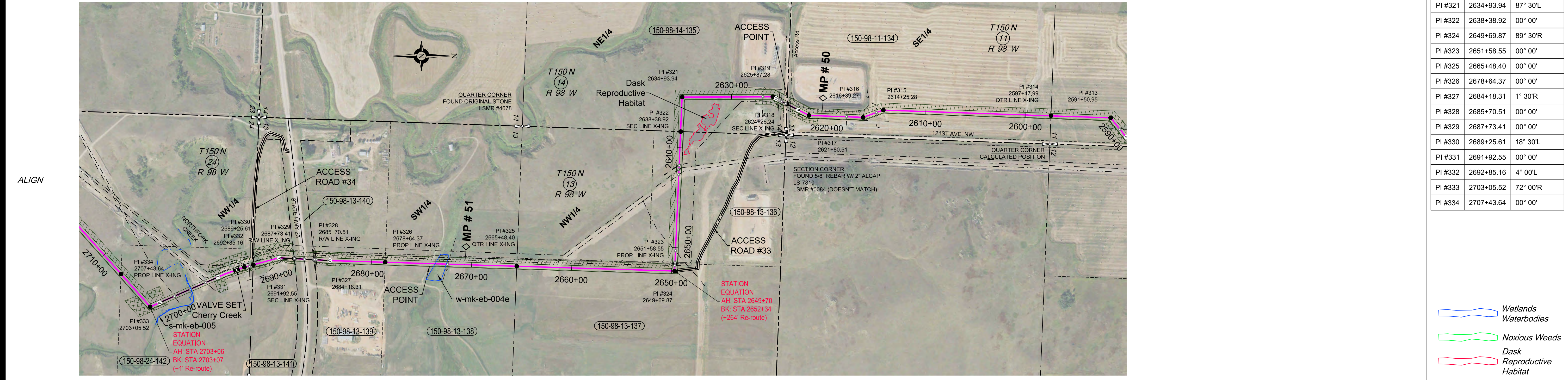
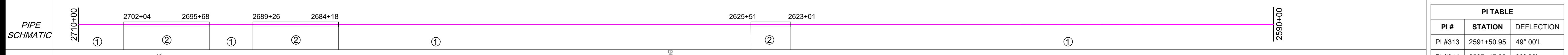
1" = 500' HORIZ.
 1" = 200' VERT.

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

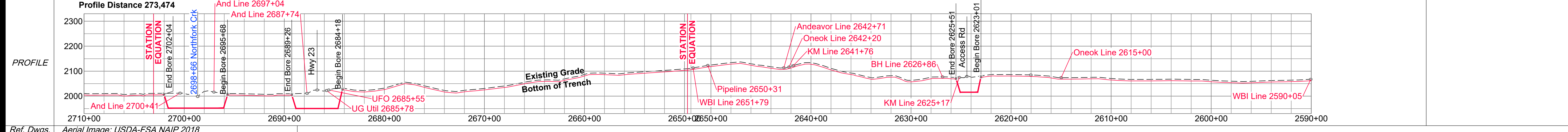
Sec. 36, T151N, R98W
 Sec. 1, 11, 12, T150N, R98W,
 5th P.M., Mckenzie Co., North Dakota

Sheet 22 R3

OWNER	150-98-24-142 NE1/4 NW1/4 SEC. 24, T150N, R98W 327' Cultivated - 1225' Uncultivated 1552.49' / 94.09 Rods	150-98-13-141 IT #1954, EX 10.32 AC RW SEC. 13, T150N, R98W 419' Uncultivated 419.14' / 25.40 Rods	150-98-13-140 HWY 23 RW SEC. 13, T150N, R98W 203' Uncultivated 202.90' / 12.30 Rods	150-98-13-139 IT #1955, EX 9.88 AC RW & EX IT #2099, 2632 SEC. 13, T150N, R98W 706' Cultivated 706.14' / 42.80 Rods	150-98-13-138 NE1/4SW1/4 SEC. 13, T150N, R98W 1142' Cultivated - 174' Uncultivated 1315.97' / 79.76 Rods	150-98-13-137 E1/2NW1/4 SEC. 13, T150N, R98W 473' Cultivated - 1181' Uncultivated 1654.34' / 100.26 Rods	150-98-13-136 NW1/4NW1/4 SEC. 13, T150N, R98W 1320' Uncultivated 1319.63' / 79.98 Rods	150-98-14-135 E1/2NE1/4 SEC. 14, T150N, R98W 1413' Uncultivated 1412.68' / 85.62 Rods	150-98-11-134 S1/2SE1/4, NE1/4SE1/4 SEC. 11, T150N, R98W 2580' Cultivated - 98' Uncultivated 2678.25' / 162.32 Rods	150-98-11-134 SE1/4NE1/4 SEC. 11, T150N, R98W 939' Cultivated - 33' Uncultivated 971.65' / 58.89 Rods
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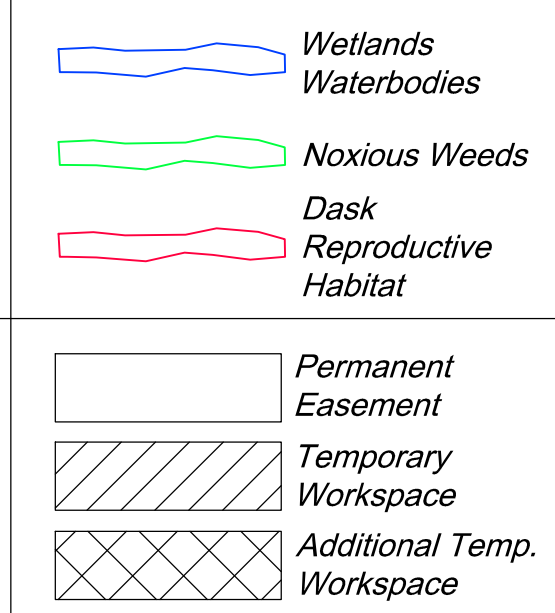


ENVIRO	Water Crossing	Name	s-mk-eb-005	Bridge	Bore	Yes
	Wetland Crossing	Name	Cherry Creek	Survey Extent	2698+65	2698+60
	Environmental Feature	Minor Stream				
	Miscellaneous/Comments					
	Seeding Mix					



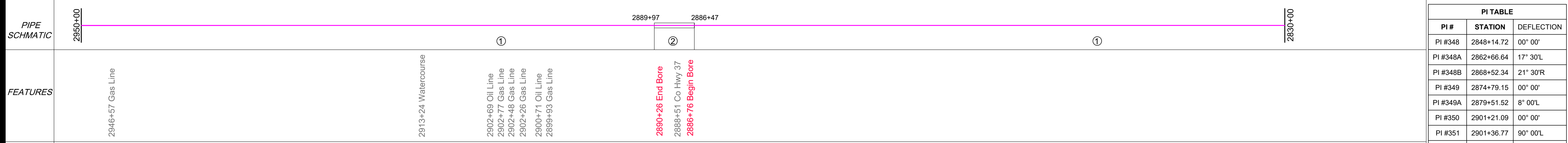
<p>Surveying & Drafting Services By:</p> <p>ERICKSON CONTRACT SURVEYING 333 10th Ave. SE Sidney, Montana Office 406-482-6606 / Fax 406-482-6600</p> <p>ECS Project # 2018-23-0200</p>	<p>SURVEY DATUM</p> <p>North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.</p> <p>Drawing Date: 01-31-2019 Drawn By: D. Smith Checked by: J. Harned</p>	<p>LEGEND:</p> <ul style="list-style-type: none"> Proposed Block Valve Proposed Bore CTP test station Alignment PI Utility Pole Well Valve Alignment Section Line Quarter Line Fence Line UG Fiber Optic UG Electric Overhead Elec Existing Pipeline Dirt Road 	<p>SUMMARY of MATERIALS</p> <table border="1"> <tr> <th>Mark</th> <th>Quantity</th> <th>Description</th> </tr> <tr> <td>1</td> <td>10,872</td> <td>24" 0.312" W.T., API 5L-X65, ERW, w/FBE</td> </tr> <tr> <td>2</td> <td>1,394</td> <td>24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO</td> </tr> </table>	Mark	Quantity	Description	1	10,872	24" 0.312" W.T., API 5L-X65, ERW, w/FBE	2	1,394	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO	<p>REVISIONS</p> <table border="1"> <tr> <th>No.</th> <th>Date</th> <th>Description</th> </tr> <tr> <td>1</td> <td>1/17/20</td> <td>Cultural / Dask Re-routes</td> </tr> <tr> <td>2</td> <td>5/22/20</td> <td>Re-routes</td> </tr> <tr> <td>3</td> <td>9/3/20</td> <td>Re-routes</td> </tr> </table>	No.	Date	Description	1	1/17/20	Cultural / Dask Re-routes	2	5/22/20	Re-routes	3	9/3/20	Re-routes	<p>NORTH BAKKEN EXPANSION PIPELINE TIOGA-ELKHORN CREEK LINE</p> <p>1" = 500' HORIZ. 1" = 200' VERT.</p>	<p>500 0 500 1000 scale 1" = 500' - 22 x 34 feet 1" = 1000' - 11 x 17</p>	<p>WBI ENERGY TRANSMISSION An MDU Resources Group company</p>	<p>Sec. 11, 13, 14, 24, T150N, R98W, 5th P.M., McKenzie Co., North Dakota</p> <p>Sheet 23 R3</p>
	Mark	Quantity	Description																										
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1	1/17/20	Cultural / Dask Re-routes																											
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PI TABLE		
PI #	STATION	DEFLECTION
PI #313	2591+50.95	49° 00'L
PI #314	2597+47.99	00° 00'
PI #315	2614+25.28	22° 00'L
PI #316	2616+39.27	22° 00'R
PI #317	2621+80.51	25° 30'R
PI #318	2624+26.24	00° 00'
PI #319	2625+87.28	27° 30'L
PI #321	2634+93.94	87° 30'L
PI #322	2638+38.92	00° 00'
PI #324	2649+69.87	89° 30'R
PI #323	2651+58.55	00° 00'
PI #325	2665+48.40	00° 00'
PI #326	2678+64.37	00° 00'
PI #327	2684+18.31	1° 30'R
PI #328	2685+70.51	00° 00'
PI #329	2687+73.41	00° 00'
PI #330	2689+25.61	18° 30'L
PI #331	2691+92.55	00° 00'
PI #332	2692+85.16	4° 00'L
PI #333	2703+05.52	72° 00'R
PI #334	2707+43.64	00° 00'

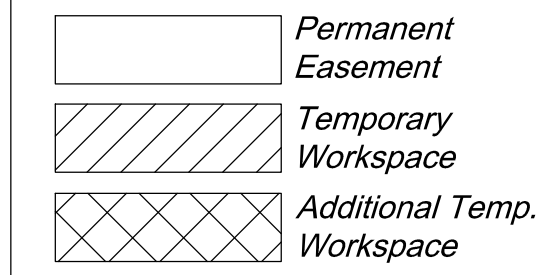
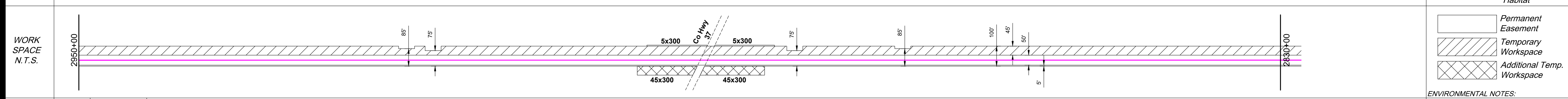
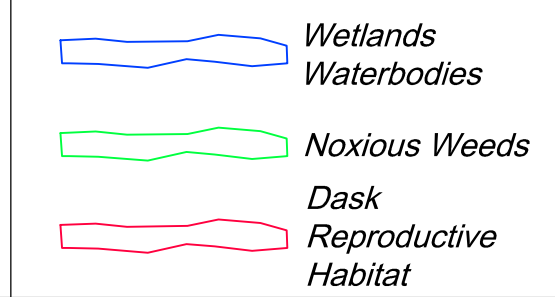
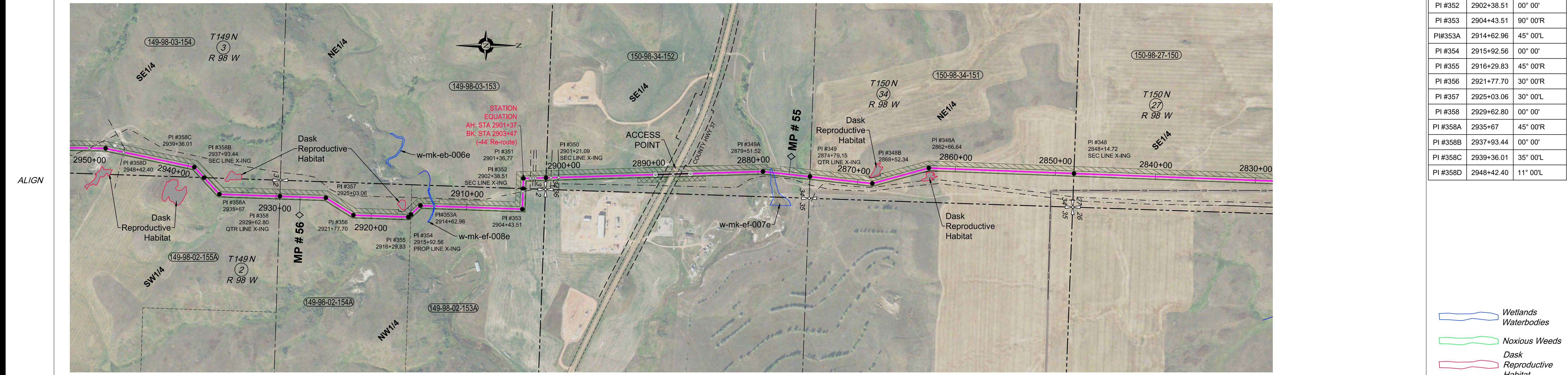


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OWNER	149-98-03-154 SE1/4 SEC. 3, T149N, R98W	149-98-02-155A W1/2SW1/4, SE1/4SW1/4 SEC. 2, T149N, R98W	149-98-02-154A NE1/4SW1/4, NW1/4SE1/4, S1/2NW1/4 SEC. 2, T149N, R98W	149-98-02-153A LOT 2 & LOT 3 EXCEPT CO #37 ROW, LOT 4, S1/2NE1/4 SEC. 2, T149N, R98W	149-98-03-153 LOTS 1 & 2, S1/2 NE1/4 SEC. 3, T149N, R98W	150-98-34-152 SE1/4 SEC. 34, T150N, R98W	150-98-34-151 NE1/4 SEC. 34, T150N, R98W	150-98-27-150 SE1/4 SEC. 27, T150N, R98W
RODDAGE	370' Cultivated - 1587' Uncultivated 1957.38' / 118.63 Rods	831' Uncultivated 830.64' / 50.34 Rods	1370' Uncultivated 1370.24' / 83.04 Rods	566' Cultivated - 788' Uncultivated 1354.05' / 82.06 Rods	327' Cultivated 327.24' / 19.83 Rods	2642' Cultivated 2641.94' / 160.12 Rods	2169' Cultivated - 495' Uncultivated 2664.43' / 161.48 Rods	2582' Cultivated - 55' Uncultivated 2636.84' / 159.81 Rods

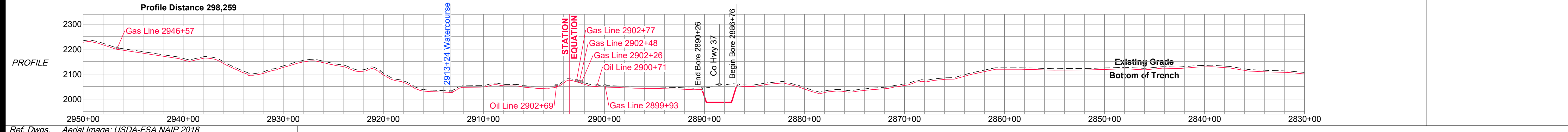


PI TABLE		
PI #	STATION	DEFLECTION
PI #348	2848+14.72	00° 00'
PI #348A	2862+66.64	17° 30'L
PI #348B	2868+52.34	21° 30'R
PI #349	2874+79.15	00° 00'
PI #349A	2879+51.52	8° 00'L
PI #350	2901+21.09	00° 00'
PI #351	2901+36.77	90° 00'L
PI #352	2902+38.51	00° 00'
PI #353	2904+43.51	90° 00'R
PI#353A	2914+62.96	45° 00'L
PI #354	2915+92.56	00° 00'
PI #355	2916+29.83	45° 00'R
PI #356	2921+77.70	30° 00'R
PI #357	2925+03.06	30° 00'L
PI #358	2929+62.80	00° 00'
PI #358A	2935+67	45° 00'R
PI #358B	2937+93.44	00° 00'
PI #358C	2939+36.01	35° 00'L
PI #358D	2948+42.40	11° 00'L



ENVIRO	Name	Survey Extent	Environmental Feature	Miscellaneous/Comments	Seeding Mix
Water Crossing	Bridge				
Wetland	Dask RH	2916+96	Dask RH	Dask Fencing	
Crossing	Wetland	2914+39	Wetland	Approx. 30' ECD	
Survey	Wetland	2914+26	Wetland	Approx. 30' mats	
Extent	Wetland	2878+88	Wetland	Approx. 37' mats	
Feature	Wetland	2878+51	Wetland	Approx. 184' LF	
Miscellaneous/Comments	Dask RH	2868+11	Dask RH	Dask Fencing	
Seeding Mix	Dask RH	2862+53	Dask RH	Dask Fencing	

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:
ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2018-23-0200

SURVEY DATUM
 North Dakota North (NAD 83)(2011)
 International Foot
 *Distances are Grid Distances.
 Combined Scale Factor = 0.999846363
 Grid Dist. x 1.000153661 = Ground Dist.

Drawing Date: 01-31-2019
 Drawn By: D. Smith
 Checked by: J. Harned

LEGEND:

	Proposed Block Valve		Alignment
	Proposed Bore		Section Line
	CTP test station		Quarter Line
	Alignment PI		Fence Line
	Utility Pole		UG Fiber Optic
	Well		UG Electric
	Valve		Overhead Elec
			Existing Pipeline
			Dirt Road

SUMMARY of MATERIALS

Mark	Quantity	Description
1	11,606	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	350	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS

No.	Date	Description
1	1/17/20	Cultural / Dask Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

500 0 500 1000
 scale 1" = 500' - 22 x 34 feet
 1" = 1000' - 11 x 17

NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE

1" = 500' HORIZ.
 1" = 200' VERT.

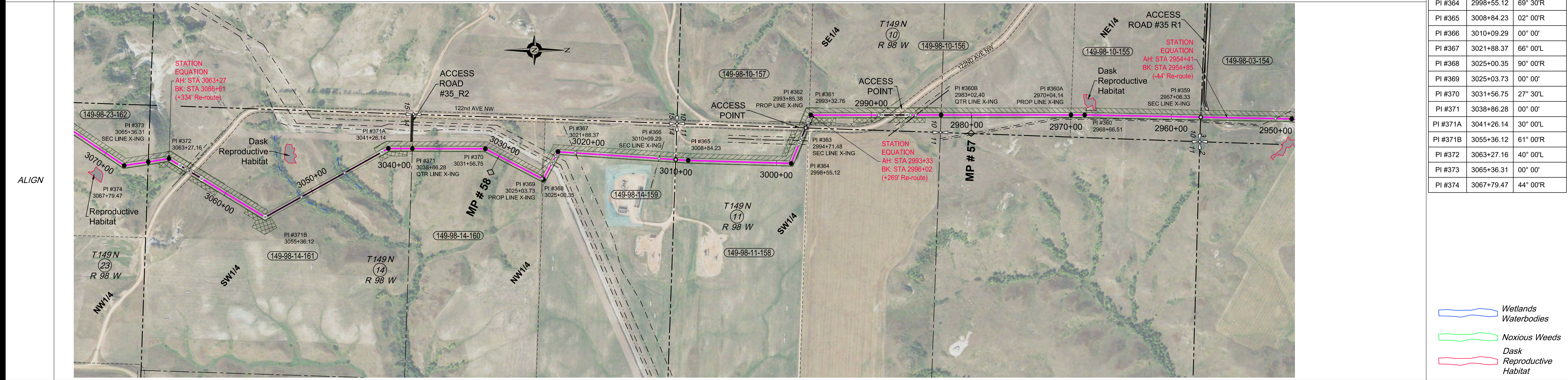
WBI ENERGY TRANSMISSION
 An MDU Resources Group company

Sec. 27, 34, T150N, R98W,
 Sec. 2, 3, T149N, R98W, 5th P.M.,
 Mckenzie Co., North Dakota

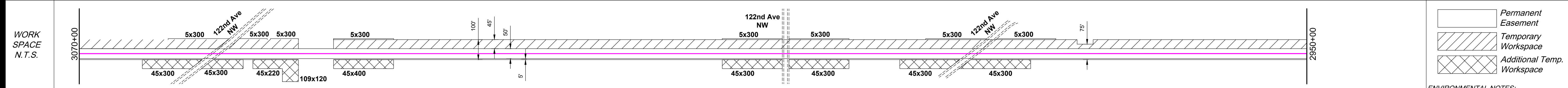
Sheet 25 R3

Co, State	SECTIONS 10, 11, 14, 23, T149N, R98W, MCKENZIE COUNTY, NORTH DAKOTA									
OWNER	149-98-23-162 NW1/4 NW1/4 SEC. 23, T149N, R98W 1399' Uncultivated	149-98-14-161 W1/2 SW1/4 SEC. 14, T149N, R98W 2984' Uncultivated	149-98-14-160 S1/2 N1/2 SEC. 14, T149N, R98W 1383' Uncultivated	149-98-14-159 N1/2 NW1/4 SEC. 14, T149N, R98W 1458' Cultivated - 36' Uncultivated	149-98-11-158 S1/2 SW1/4 EX IT 2600 SEC. 11, T149N, R98W 1465' Cultivated - 73' Uncultivated	149-98-10-157 S1/2 SE1/4 SEC. 10, T149N, R98W 86' Uncultivated	149-98-10-156 S1/2 NE1/4, N1/2 SE1/4 SEC. 10, T149N, R98W 2651' Uncultivated	149-98-10-155 N1/2 NE1/4 SEC. 10, T149N, R98W 1298' Uncultivated	149-98-03-154 SE1/4 SEC. 3, T149N, R98W 370' Cultivated - 1587' Uncultivated	
RODDAGE	1399.07' / 84.79 Rods	2984.17' / 180.86 Rods	1382.55' / 83.79 Rods	1494.44' / 90.57 Rods	1537.81' / 93.20 Rods	86.10' / 5.22 Rods	2650.73' / 160.65 Rods	1297.81' / 78.66 Rods	1957.38' / 118.63 Rods	

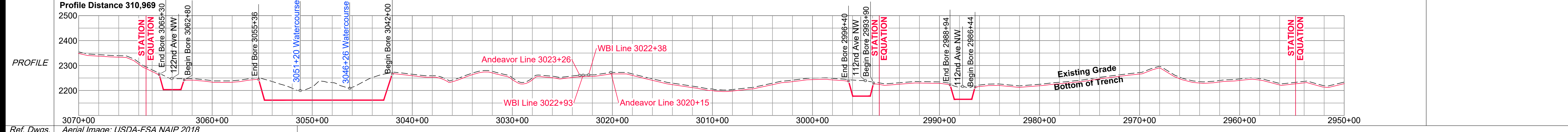
PIPE SCHMATIC	3070+00	3065+30	3062+80	3055+36	3042+00		2996+40	2993+90	2988+94	2986+44		2950+00
FEATURES	①	②	①	②	①		②	①	②	①		



PI TABLE		
PI #	STATION	DEFLECTION
PI #359	2957+06.33	00° 00'
PI #360	2968+66.51	1° 00'L
PI #360A	2970+04.14	00° 00'
PI #360B	2983+02.40	00° 00'
PI #361	2993+32.76	66° 30'L
PI #362	2993+85.38	00° 00'
PI #363	2994+71.48	00° 00'
PI #364	2998+55.12	69° 30'R
PI #365	3008+84.23	02° 00'R
PI #366	3010+09.29	00° 00'
PI #367	3021+88.37	66° 00'L
PI #368	3025+00.35	90° 00'R
PI #369	3025+03.73	00° 00'
PI #370	3031+56.75	27° 30'L
PI #371	3038+86.28	00° 00'
PI #371A	3041+26.14	30° 00'L
PI #371B	3055+36.12	61° 00'R
PI #372	3063+27.16	40° 00'L
PI #373	3065+36.31	00° 00'
PI #374	3067+79.47	44° 00'R



ENVIRO	<table border="1"> <tr><td>Name</td><td></td></tr> <tr><td>Water Crossing</td><td>Bridge</td></tr> <tr><td>Wetland</td><td>Survey Extent</td></tr> <tr><td>Environmental Feature</td><td></td></tr> <tr><td>Miscellaneous/Comments</td><td></td></tr> <tr><td>Seeding Mix</td><td></td></tr> </table>	Name		Water Crossing	Bridge	Wetland	Survey Extent	Environmental Feature		Miscellaneous/Comments		Seeding Mix		<table border="1"> <tr><td>2968+09</td><td>Dask RH</td></tr> <tr><td></td><td>Approx. 175' LF</td></tr> <tr><td></td><td>Dask Fencing</td></tr> </table>	2968+09	Dask RH		Approx. 175' LF		Dask Fencing
Name																				
Water Crossing	Bridge																			
Wetland	Survey Extent																			
Environmental Feature																				
Miscellaneous/Comments																				
Seeding Mix																				
2968+09	Dask RH																			
	Approx. 175' LF																			
	Dask Fencing																			



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:

ERICKSON CONTRACT SURVEYING
333 10th Ave. SE Sidney, Montana
Office 406-482-6606 / Fax 406-482-6600

ECS Project # 2018-23-0200

SURVEY DATUM

North Dakota North (NAD 83)(2011)
International Foot
*Distances are Grid Distances.
Combined Scale Factor = 0.999846363
Grid Dist. x 1.000153661 = Ground Dist.

Drawing Date: 01-31-2019
Drawn By: D. Smith
Checked by: J. Harned

LEGEND:

⊠	Proposed Block Valve	—	Alignment
⊙	Proposed Bore	- - -	Section Line
⊙	CTP test station	- - - -	Quarter Line
●	Alignment PI	- x - x - x -	Fence Line
○	Utility Pole	- - - - -	UG Fiber Optic
⊕	Well	- - - - -	UG Electric
⊗	Valve	- - - - -	Overhead Elec
		- - - - -	Existing Pipeline
		- - - - -	Dirt Road

SUMMARY of MATERIALS

Mark	Quantity	Description
1	10,204	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	2086	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS

No.	Date	Description
1	1/17/20	Cultural / Dask Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

500 0 500 1000
scale 1" = 500' - 22 x 34 feet
1" = 1000' - 11 x 17

NORTH BAKKEN EXPANSION PIPELINE
TIOGA-ELKHORN CREEK LINE

1" = 500' HORIZ.
1" = 200' VERT.

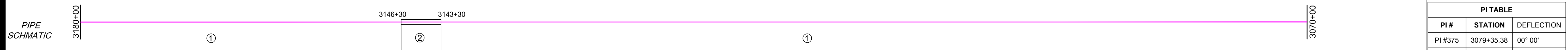
WBI ENERGY TRANSMISSION
An MDU Resources Group company

Sec. 10, 11, 14, 23, T149N, R98W,
5th P.M., Mckenzie Co., North Dakota

Sheet 26 R3

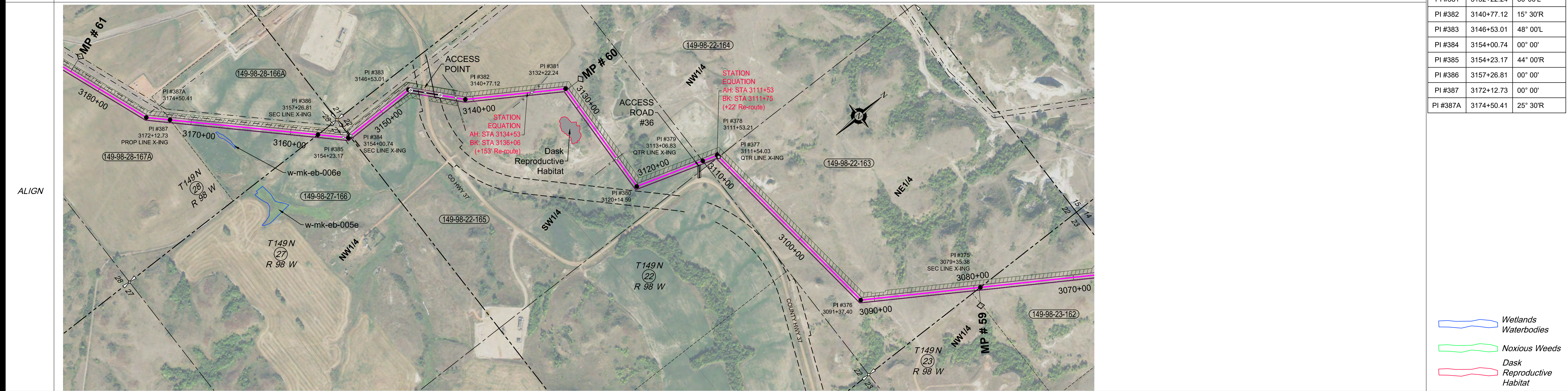
- Wetlands Waterbodies
 - Noxious Weeds
 - Dask
 - Reproductive Habitat
 - Permanent Easement
 - Temporary Workspace
 - Additional Temp. Workspace
- ENVIRONMENTAL NOTES:**
- Wetlands depicted on these sheets represent actual field survey data or NWI.
 - Actual wetland or stream width may vary at time of construction.
- * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction

Co, State	SECTIONS 22, 23, 27, 28, T149N, R98W, MCKENZIE COUNTY, NORTH DAKOTA							
OWNER	149-98-28-167A E1/2NW1/4, S1/2NE1/4, NW1/4NE1/4 SEC. 28, T149N, R98W 2165.16' / 131.22 Rods	149-98-28-166a NE1/4NE1/4 SEC. 28, T149N, R98W 1485.92' / 90.06 Rods	149-98-27-166 NW1/4 SEC. 27, T149N, R98W 326.06' / 19.76 Rods	149-98-22-165 SW1/4 SEC. 22, T149N, R98W 572' Cultivated - 3675' Uncultivated 4246.49' / 257.36 Rods	149-98-22-164 NW1/4 SEC. 22, T149N, R98W 175' Uncultivated 174.75' / 10.60 Rods	149-98-22-163 NE1/4 SEC. 22, T149N, R98W 3219' Uncultivated 3218.65' / 195.07 Rods	149-98-23-162 NW1/4 NW1/4 SEC. 23, T149N, R98W 1399' Uncultivated 1399.07' / 84.79 Rods	
RODDAGE	2165.16' / 131.22 Rods	1485.92' / 90.06 Rods	326.06' / 19.76 Rods	4246.49' / 257.36 Rods	174.75' / 10.60 Rods	3218.65' / 195.07 Rods	1399.07' / 84.79 Rods	

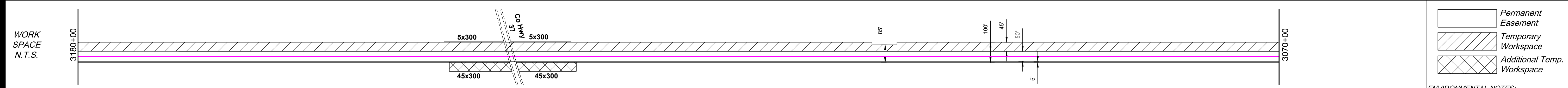


FEATURES

3154+72 SW Line
3153+90 Oil Line
3153+85 Gas Line
3146+30 End Bore
3144+83 Co Hwy 37
3143+30 Begin Bore
3141+73 OHE
3135+60 Fence
3123+60 Fence
3111+52 Fence



PI TABLE		
PI #	STATION	DEFLECTION
PI #375	3079+35.38	00° 00'
PI #376	3091+37.40	51° 30'R
PI #377	3111+54.03	00° 00'
PI #378	3111+53.21	66° 30'L
PI #379	3113+06.83	00° 00'
PI #380	3120+14.59	75° 00'R
PI #381	3132+22.24	60° 00'L
PI #382	3140+77.12	15° 30'R
PI #383	3146+53.01	48° 00'L
PI #384	3154+00.74	00° 00'
PI #385	3154+23.17	44° 00'R
PI #386	3157+26.81	00° 00'
PI #387	3172+12.73	00° 00'
PI #387A	3174+50.41	25° 30'R



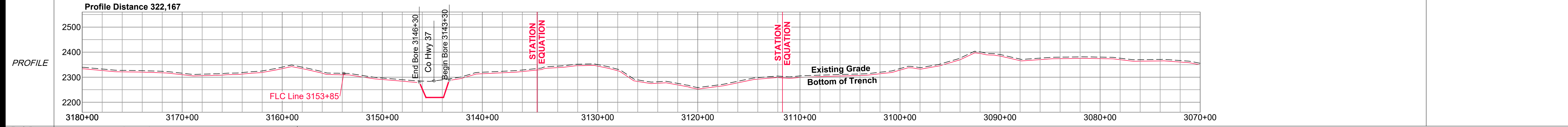
ENVIRO	Water Crossing	Name	
		Crossing Method	Bridge
	Wetland Crossing	Name	
		Survey Extent	
		Environmental Feature	
	Miscellaneous/Comments		
	Seeding Mix		

- Wetlands
- Waterbodies
- Noxious Weeds
- Dask
- Reproductive Habitat
- Permanent Easement
- Temporary Workspace
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ENVIRONMENTAL NOTES:

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* Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:

ERICKSON CONTRACT SURVEYING
333 10th Ave. SE Sidney, Montana
Office 406-482-6606 / Fax 406-482-6600

ECS Project # 2018-23-0200

SURVEY DATUM

North Dakota North (NAD 83)(2011)
International Foot
*Distances are Grid Distances.
Combined Scale Factor = 0.999846363
Grid Dist. x 1.000153661 = Ground Dist.

Drawing Date: 01-31-2019
Drawn By: D. Smith
Checked by: J. Harned

LEGEND:

⊠	Proposed Block Valve	—	Alignment
⊙	Proposed Bore	- - - - -	Section Line
▲	CTP test station	- · - · -	Quarter Line
●	Alignment PI	- x - x - x -	Fence Line
○	Utility Pole	- - - - -	UG Fiber Optic
⊕	Well	- · - · -	UG Electric
⊗	Valve	- - - - -	Overhead Elec
		- - - - -	Existing Pipeline
		- · - · -	Dirt Road

SUMMARY of MATERIALS

Mark	Quantity	Description
1	10,875	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2	300	24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS

No.	Date	Description
1	1/17/20	Cultural / Dask Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

500 0 500 1000
scale 1" = 500' - 22 x 34 feet
1" = 1000' - 11 x 17

NORTH BAKKEN EXPANSION PIPELINE
TIOGA-ELKHORN CREEK LINE

1" = 500' HORIZ.
1" = 200' VERT.

WBI ENERGY TRANSMISSION
An MDU Resources Group company

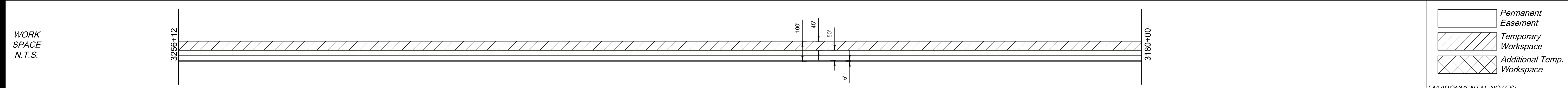
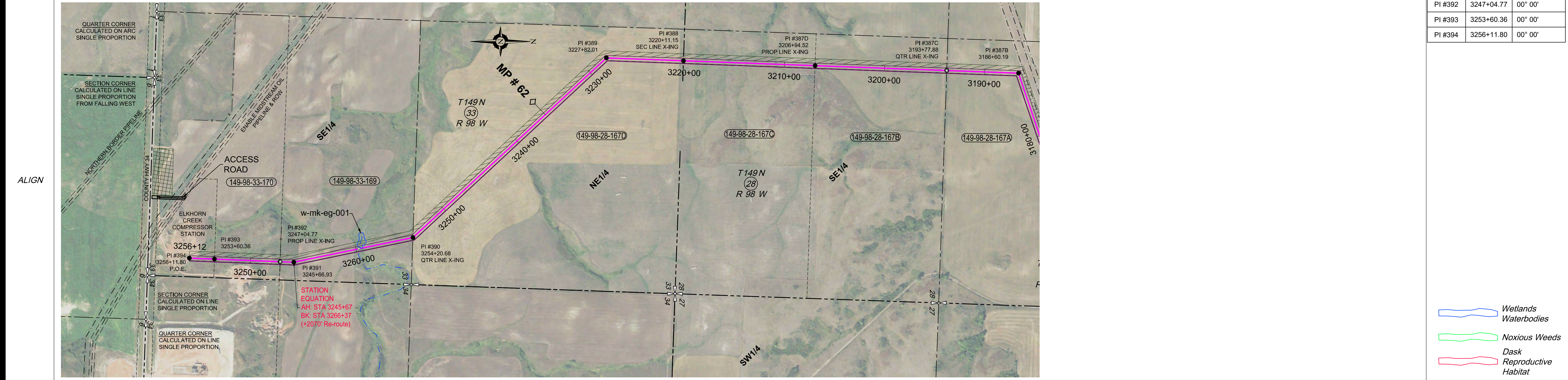
Sec. 22, 23, 27, 28, T149N, R98W,
5th P.M., McKenzie Co., North Dakota

Sheet 27 R3

OWNER	149-98-33-170 S1/2 SE1/4, NW1/4 SE1/4 SEC. 33, T149N, R98W 907' Uncultivated 907.03' / 54.97 Rods	149-98-33-169 NE1/4 SE1/4 SEC. 33, T149N, R98W 573' Cultivated - 781' Uncultivated 1353.91' / 82.06 Rods	149-98-28-167D NE1/4 SEC. 33, T149N, R98W 3410' Cultivated 3409.52' / 206.64 Rods	149-98-28-167C SE1/4SW1/4, S1/2SE1/4 SEC. 28, T149N, R98W Cultivated 386' - 931' Uncultivated 1316.63' / 79.80 Rods	149-98-28-167B N1/2SE1/4 SEC. 28, T149N, R98W 1317' Cultivated 1316.64' / 79.80 Rods	149-98-28-167A E1/2NW1/4, S1/2NE1/4, NW1/4NE1/4 SEC. 28, T149N, R98W 2165' Cultivated 2165.16' / 131.22 Rods
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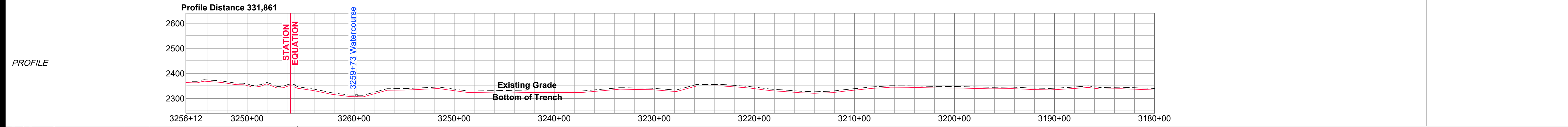
PI TABLE		
PI #	STATION	DEFLECTION
PI #387B	3186+60.19	38° 00'L
PI #387C	3193+77.88	00° 00'
PI #387D	3206+94.52	00° 00'
PI #388	3220+11.15	00° 00'
PI #389	3227+82.01	36° 30'L
PI #390	3254+20.68	31° 00'R
PI #391	3245+66.93	20° 30'R
PI #392	3247+04.77	00° 00'
PI #393	3253+60.36	00° 00'
PI #394	3256+11.80	00° 00'



ENVIRO	Water Crossing	Name	
		Bridge	
	Wetland Crossing	Name	w-mk-eg-001
	Environmental Feature	Survey Extent	3259+82 - 3258+92
Miscellaneous/Comments		Wetland	
Seeding Mix		Approx. 90' ECD	
		Approx. 90' mats	

- Wetlands Waterbodies
- Noxious Weeds
- Dusk Reproductive Habitat
- Permanent Easement
- Temporary Workspace
- Additional Temp. Workspace

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:
ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2018-23-0200

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	01-31-2019
Drawn By:	D. Smith
Checked by:	J. Harned

LEGEND:	
	Proposed Block Valve
	Proposed Bore
	CTP test station
	Alignment PI
	Utility Pole
	Well
	Valve
	Alignment
	Section Line
	Quarter Line
	Fence Line
	UG Fiber Optic
	UG Electric
	Overhead Elec
	Existing Pipeline
	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	9,682	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2		24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

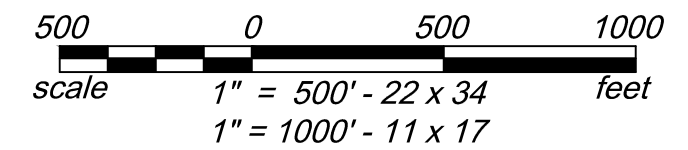
REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

NORTH BAKKEN EXPANSION PIPELINE
 TIOGA-ELKHORN CREEK LINE

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

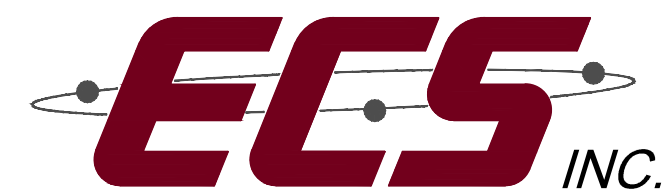
Sec. 28, 33, T149N, R98W, 5th P.M., Mckenzie Co., North Dakota

Sheet 28 R3



WBI ENERGY TRANSMISSION, INC
NORTH BAKKEN EXPANSION
GAS PIPELINE
LINE SECTION 25 LOOP

Surveying & Drafting Services By:



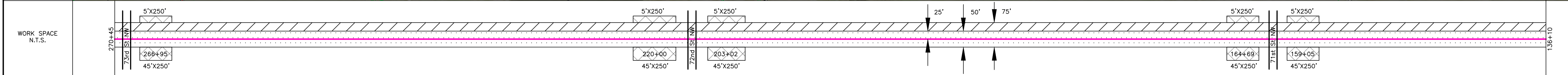
ERICKSON CONTRACT SURVEYING
333 10th Ave. SE Sidney, Montana
Office 406-482-6606 / Fax 406-482-6600



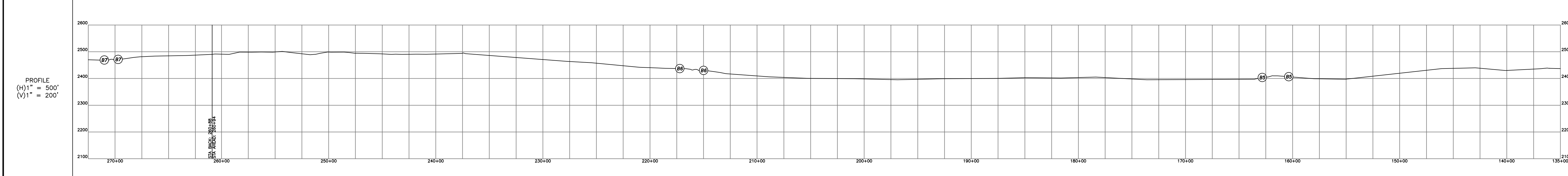
NORTH BAKKEN EXPANSION
GAS PIPELINE
TIOGA-ELKHORN CREEK LINE

Horizontal Project Length	Revision
331,342' / 62.75 mi	R3

CO. STATE	Sections 1 & 12, T157N, R95W, Sections 25 & 36, T158N, R95W, WILLIAMS COUNTY, NORTH DAKOTA		
OWNER	158-95-36-014 158-95-36-015 158-95-36-016 (NON-CULTIVATED) E1/2SW1/4, NW1/4SE1/4, W1/2NE1/4, Section 36, T158N R95W	157-95-01-012 (CULTIVATED) 157-95-01-013 (CULTIVATED) N1/2SW1/4, SW1/4SW1/4 EX SUBLLOT 1, SE1/4NW1/4 SW1/4NE1/4, L3, L4, Section 1, T157N R95W	157-95-12-010 (CULTIVATED) 157-95-01-011 (CULTIVATED) N1/2NW1/4 Section 12, S1/2SW1/4 Section 1, T157N R95W
RODDAGE	4937.7' / 299.3 RODS		
PIPE SCHEMATIC	4035.4' / 244.57 RODS		
PIPE SCHEMATIC	2679.7' / 162.41 RODS		



ENVIRONMENTAL	WETLAND CROSSING	UNIQUE ID	w-wm-ed-001e	w-wm-ed-002e
		SURVEY EXTENT	251+89	243+18
		CROSSING METHOD	OPEN TRENCH	OPEN TRENCH
		ENVIRONMENTAL FEATURE	WETLAND	WETLAND
	SPECIAL REQUIREMENTS			
	SEEDING MIX			



SURVEY DATUM				
BASIS OF BEARING IS WGS 84 NORTH & GROUND DISTANCES				
P.I. TABLE			P.I. TABLE	
P.I.	Station	Deflection	P.I.	Station
15	136+02	6'40" R		AH:260+94
16	143+83	17'20" L		EQ:-6
17	160+01	5'18" R		
18	220+98	3'07" R		
19	239+08	24'55" L		
20	240+62	15'27" R		
21	243+71	17'02" R		
22	248+91	13'57" L		
23	256+30	16'17" R		
24	BK:260+88	10'04" L		

SUMMARY OF MATERIALS		
MARK	QTY	DESCRIPTION
①		12", 0.250" W.T. FBE, X-65
②		12", 0.312" W.T. FBE W/ARO, API 5L X-65

LEGEND	
	PROPOSED LS 25 LOOP PIPELINE
	PROPOSED LS 25 LOOP EXTENSION
	UPRATING BORE #1
	EXISTING WBI PIPELINE
	EXISTING FENCE LINE
	OVERHEAD POWERLINE
	UNDERGROUND POWER
	FIBER OPTIC
	WATER LINE
	DAKOTA GAS PIPELINE
	ALLIANCE PIPELINE
	HESS PIPELINE
	LIBERTY GAS PIPELINE
	TESORO PIPELINE
	SECTION LINE
	QUARTER LINE
	POWER POLE
	MILEAGE MARKER
	P.I. NODE
	PROPOSED BORE
	TEST LEAD LOCATION
	ACCESS ROADS
	WETLAND BOUNDARY
	TREE ROW/SHELTER BELT
	ROCK PILE
	NOXIOUS WEEDS
	SECTION CORNER
	SECTION CORNER CALC
	QUARTER CORNER
	QUARTER CORNER CALC
	CENTER QUARTER CORNER
	PROPERTY CORNERS
	PERMANENT EASEMENT
	TEMPORARY EASEMENT
	EXTRA WORK SPACE

811 Know what's below. Call before you dig.

ND - 1-800-795-0555

SHEET 2 OF 8

8	9/4/20	RMG	ADD UPDATED WETLAND & WEEDS
7	8/31/20	RMG	TO DATE
NO	DATE	BY	REVISION

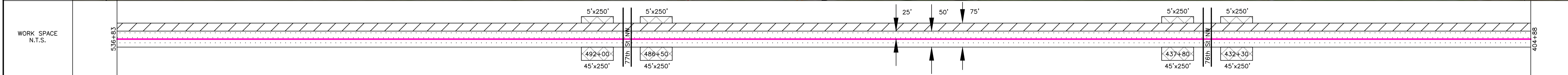
WBI ENERGY TRANSMISSION
A Subsidiary of MDU Resources Group, Inc.

**LINE SECTION 25 LOOP
NORTH BAKKEN EXPANSION PROJECT**

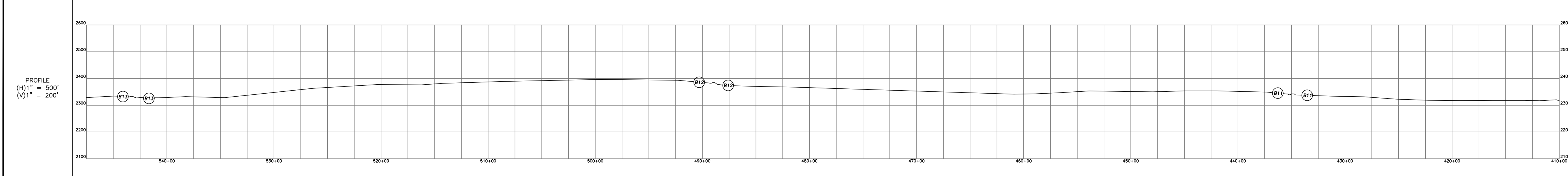
DATE	DRAWN BY	SCALE	COMP. NO.	DRAWING NO.
11/20/19	RMG	NOTED	NRSELOOP	C-7-1775-2

CO. STATE	Sections 6, 7 & 18, T158N, R94W, MOUNTRAIL COUNTY, NORTH DAKOTA				
OWNER	158-94-06-027 (NON-CULTIVATED) NE1/4 Section 6, T158N R94W	158-94-06-026 (CULTIVATED) SE1/4 Section 6, T158N R94W	158-94-07-024 (CULTIVATED) 158-94-07-025 (CULTIVATED) E1/2NW1/4, E1/2SW1/4, NW1/4 Section 7, T158N R94W	158-94-18-023 (CULTIVATED) N1/2NW1/4, N1/2NE1/4, Section 18, T158N R94W	158-94-18-022 (CULTIVATED) S1/2NW1/4, N1/2SW1/4, N1/2NE1/4, N1/2NW1/4 Section 18, T158N R94W
RODDAGE	2715.5' / 164.58 RODS	2716.9' / 164.66 RODS	5404.1' / 327.52 RODS	1340.7' / 81.25 RODS	2681.5' / 162.52 RODS
PIPE SCHEMATIC					

FEATURES	536+83 MATCH LINE 533+34 TESSORO PIPELINE X-ING 532+81 HESS PIPELINE X-ING/ 532+76 TESSORO PIPELINE X-ING/ 530+98 HESS PIPELINE X-ING	516+53 E-W FENCE 516+53 E-W FENCE	504+59 HESS PIPELINE X-ING	487+59 BEGIN BORE 487+59 BEGIN BORE	479+21 HESS PIPELINE X-ING	465+37 HESS PIPELINE X-ING	459+17 HESS PIPELINE X-ING 459+73 UNDERGROUND POWER	457+12 HESS PIPELINE X-ING	452+08 HESS PIPELINE X-ING/ 451+26 HESS PIPELINE X-ING	442+30 HESS PIPELINE X-ING	436+27 END BORE 435+07 76TH ST NW 433+53 BEGIN BORE	428+75 HESS PIPELINE X-ING	418+24 HESS PIPELINE X-ING	414+10 HESS PIPELINE X-ING 412+79 HESS PIPELINE X-ING 408+99 TESSORO PIPELINE X-ING/ INSTALL TEST LEAD 408+72 HESS PIPELINE X-ING/ 408+35 TESSORO PIPELINE X-ING 408+35 TESSORO PIPELINE X-ING 408+44 TESSORO PIPELINE X-ING 408+56 HESS PIPELINE X-ING	405+00 MATCH LINE
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DEPTH OF COVER	4' MINIMUM DEPTH, BORE & SECTION LINE EXCEPTION																										
	<table border="1"> <tr> <th>WETLAND CROSSING</th> <th>UNIQUE ID</th> <th>W-MT-EA-002e</th> <th>W-MT-EA-001e</th> </tr> <tr> <td>SURVEY EXTENT</td> <td>580+53</td> <td>516+14</td> <td>516+08</td> </tr> <tr> <td>CROSSING METHOD</td> <td>N/A</td> <td></td> <td>OPEN TRENCH</td> </tr> <tr> <td>ENVIRONMENTAL FEATURE</td> <td>WETLAND</td> <td></td> <td>WETLAND</td> </tr> <tr> <td>SPECIAL REQUIREMENTS</td> <td></td> <td></td> <td></td> </tr> <tr> <td>SEEDING MIX</td> <td></td> <td></td> <td>X MIX</td> </tr> </table>				WETLAND CROSSING	UNIQUE ID	W-MT-EA-002e	W-MT-EA-001e	SURVEY EXTENT	580+53	516+14	516+08	CROSSING METHOD	N/A		OPEN TRENCH	ENVIRONMENTAL FEATURE	WETLAND		WETLAND	SPECIAL REQUIREMENTS				SEEDING MIX		
WETLAND CROSSING	UNIQUE ID	W-MT-EA-002e	W-MT-EA-001e																								
SURVEY EXTENT	580+53	516+14	516+08																								
CROSSING METHOD	N/A		OPEN TRENCH																								
ENVIRONMENTAL FEATURE	WETLAND		WETLAND																								
SPECIAL REQUIREMENTS																											
SEEDING MIX			X MIX																								



SURVEY DATUM					
BASIS OF BEARING IS WGS 84 NORTH & GROUND DISTANCES					
P.I. TABLE			P.I. TABLE		
P.I.	Station	Deflection	P.I.	Station	Deflection
34	453+52	3'36" R			

SUMMARY OF MATERIALS		
MARK	QTY	DESCRIPTION
①		12", 0.250" W.T. FBE, X-65
②		12", 0.312" W.T. FBE W/ARO, API 5L X-65

LEGEND

- PROPOSED LS 25 LOOP PIPELINE
- PROPOSED LS 25 LOOP EXTENSION
- UPRATING BORE #1
- WBI EXISTING WBI PIPELINE
- EXISTING FENCE LINE
- OVERHEAD POWERLINE
- PWR UNDERGROUND POWER
- FO FIBER OPTIC
- H2O WATER LINE
- DAKOTA GAS DAKOTA GAS PIPELINE
- ALLIANCE PIPELINE
- HESS HESS PIPELINE
- LIBERTY LIBERTY GAS PIPELINE
- TESSORO TESSORO PIPELINE
- SECTION LINE
- QUARTER LINE
- POWER POLE
- MILEAGE MARKER
- P.I. NODE
- PROPOSED BORE
- TEST LEAD LOCATION
- ACCESS ROADS
- WETLAND BOUNDARY
- TREE ROW/SHELTER BELT
- ROCK PILE
- NOXIOUS WEEDS
- SECTION CORNER
- SECTION CORNER CALC
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- PROPERTY CORNERS
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA WORK SPACE

811 Know what's below. Call before you dig.

ND - 1-800-795-0555

SHEET 4 OF 8

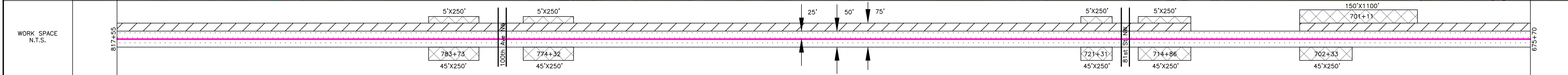
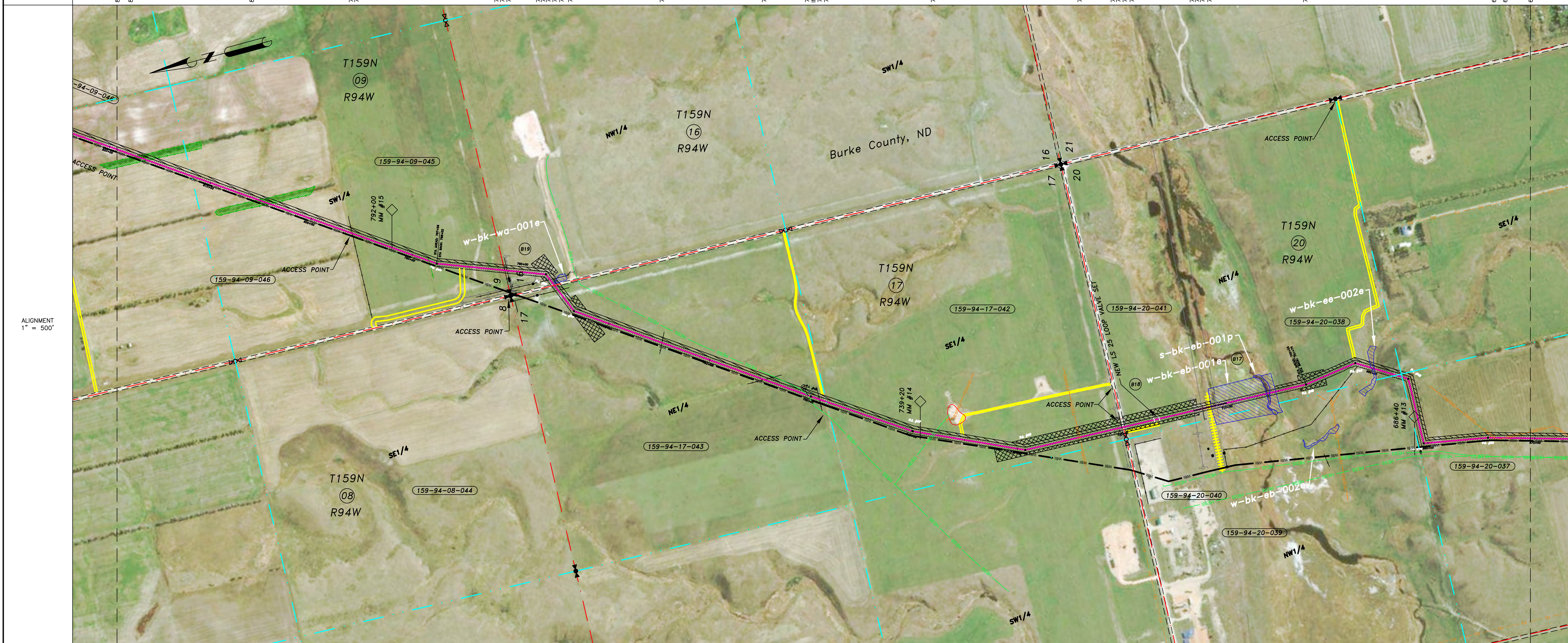
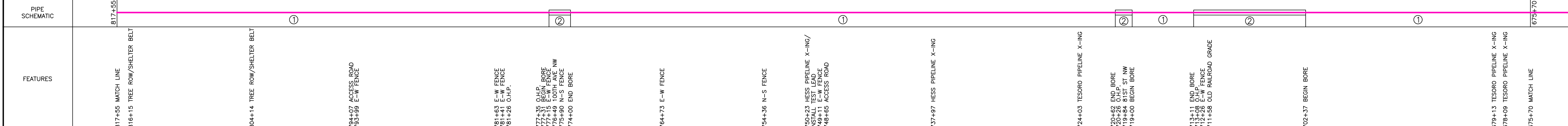
8	9/4/20	RMG	ADD UPDATED WETLAND & WEEDS
7	8/31/20	RMG	TO DATE
NO	DATE	BY	REVISION

WBI ENERGY TRANSMISSION
A Subsidiary of MDU Resources Group, Inc.

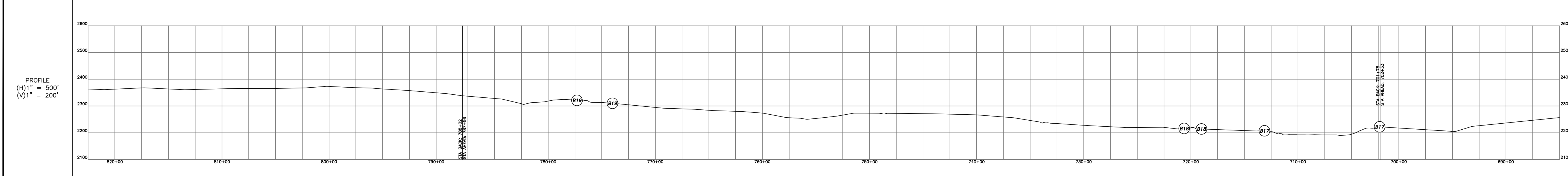
**LINE SECTION 25 LOOP
NORTH BAKKEN EXPANSION PROJECT**

DATE	DRAWN BY	SCALE	COMP. NO.	DRAWING NO.
11/20/19	RMG	NOTED	NRSELOOP	C-7-1775-4

CO. STATE	159-94-09-046	159-94-09-045	159-94-08-044 (CULTIVATED)	159-94-17-043 (NON-CULTIVATED)	159-94-20-041 (NON-CULTIVATED) 159-94-17-042 (CULTIVATED)	159-94-20-040 (NON-CULTIVATED)	159-94-20-038 (NON-CULTIVATED) 159-94-20-039 (NON-CULTIVATED)	159-94-20-037 (CULTIVATED)
OWNER	N1/2SW1/4, NW1/4, N1/2NE1/4, Section 09, T159N R94W	S1/2SW1/4, S1/2SE1/4, Section 09, T159N R94W	NW1/4NW1/4 Section 16, T159N R94W	NE1/4 Section 17, T159N R94W	N1/2NW1/4 N1/2NE1/4 LESS POR AND LESS RW, Section 20, SE1/4 Section 17, T159N R94W	Por in NW1/4NE1/4 Section 20, T159N R94W	S1/2NW1/4, S1/2NE1/4, N1/2NW1/4, N1/2NE1/4 LESS POR AND LESS RW, Section 20, T159N R94W	NE1/4SW1/4 Section 20, T159N R94W
RODDAGE	6372.4' / 386.21 RODS	1493.2' / 90.50 RODS	517.3' / 31.4 RODS	2806.5' / 170.10 RODS	5425.0' / 328.8 RODS	140.1' / 8.49 RODS	1303.9' / 79.02 RODS	1976.0' / 119.75 RODS



ENVIRONMENTAL	DEPTH OF COVER	4" MINIMUM DEPTH, BORE & SECTION LINE EXCEPTION			
	WETLAND CROSSING	UNIQUE ID	711+41	708+12	709+80
	SURVEY EXTENT	711+41	708+12	709+80	708+23
	CROSSING METHOD	BORE	BORE	BORE	OPEN TRENCH
ENVIRONMENTAL FEATURE		WETLAND	WATERBODY	WETLAND	WETLAND
SPECIAL REQUIREMENTS					
SEEDING MIX					



SURVEY DATUM
BASIS OF BEARING IS WGS 84 NORTH & GROUND DISTANCES

P.I. TABLE			P.I. TABLE		
P.I.	Station	Deflection	P.I.	Station	Deflection
41	679+37	5'48" L	49	773+46	32'45" R
42	685+38	8'1'29" R	50	777+77	46'58" L
43	691+57	59'53" L	51	BK:788+02	14'02" R
44	696+74	40'09" L		AH:787+56	
45	BK:701+75	10'25" R		EQ:+46	
	AH:702+33				
	EQ:-58				
46	729+25	22'36" R			
47	739+89	9'21" R			
48	749+94	1'01" R			

SUMMARY OF MATERIALS

MARK	QTY	DESCRIPTION
①		12", 0.250" W.T. FBE, X-65
②		12", 0.312" W.T. FBE W/ARO, API 5L X-65

LEGEND

- PROPOSED LS 25 LOOP PIPELINE
- PROPOSED LS 25 LOOP EXTENSION
- UPRATING BORE #1
- WBI EXISTING WBI PIPELINE
- EXISTING FENCE LINE
- OVERHEAD POWERLINE
- PWR UNDERGROUND POWER
- FO FIBER OPTIC
- H2O WATER LINE
- DAKOTA GAS DAKOTA GAS PIPELINE
- ALLIANCE PIPELINE
- HESS HESS PIPELINE
- LIBERTY LIBERTY GAS PIPELINE
- TESORO TESORO PIPELINE
- SECTION LINE
- QUARTER LINE
- POWER POLE
- MILEAGE MARKER
- P.I. NODE
- PROPOSED BORE
- TEST LEAD LOCATION
- ACCESS ROADS
- WETLAND BOUNDARY
- TREE ROW/SHELTER BELT
- ROCK PILE
- NOXIOUS WEEDS
- SECTION CORNER
- SECTION CORNER CALC
- QUARTER CORNER
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- CENTER QUARTER CORNER
- PROPERTY CORNERS
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA WORK SPACE

811 Know what's below. Call before you dig.

ND - 1-800-795-0555

SHEET 6 OF 8

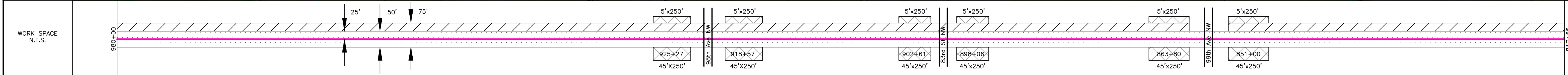
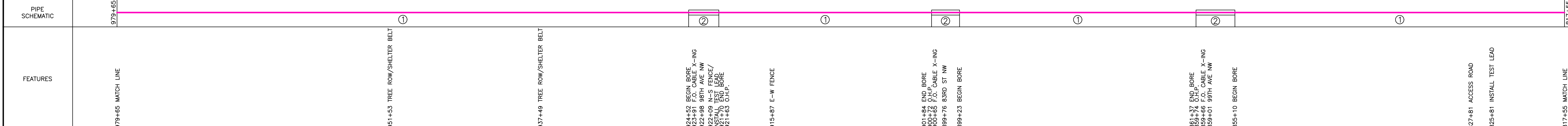
9	9/4/20	RMG	ADD UPDATED WETLANDS & WEEDS
8	8/31/20	RMG	TO DATE
NO	DATE	BY	REVISION

WBI ENERGY TRANSMISSION
A Subsidiary of MDU Resources Group, Inc.

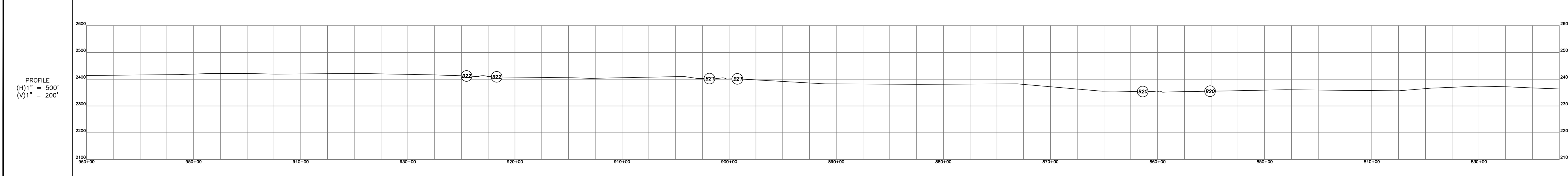
LINE SECTION 25 LOOP
NORTH BAKKEN EXPANSION PROJECT

DATE	DRAWN BY	SCALE	COMP. NO.	DRAWING NO.
11/20/19	RMG	NOTED	NRSELOOP	C-7-1775-6

CO. STATE	Sections 2, 3, 4, 9, & 10, T159N, R94W, Section 35, T160N, R94W, BURKE COUNTY, NORTH DAKOTA					
OWNER	160-94-35-049D SW1/4 Section 35, T160N R94W	159-94-02-049B 159-94-02-049C SW1/4, S1/2NW1/4, Lots 3-4 Section 2, T159N R94W	159-94-03-049A SW1/4NE1/4, N1/2SE1/4 Section 3, T159N R94W	159-94-03C 159-94-10-048B S1/2SE1/4 Section 3, N1/2NE1/4 Section 10, T159N R94W	159-94-10-048A NW1/4 Section 10, T159N R94W	159-94-09-046 159-94-09-047 N1/2SW1/4, NW1/4, N1/2NE1/4, Section 09 T159N R94W
RODDAGE	2706.7' / 164.04 RODS	3998.6' / 242.34 RODS	638.8' / 38.72 RODS	3040.4' / 184.27 RODS	2637.1' / 159.82 RODS	6372.4' / 386.21 RODS
PIPE SCHEMATIC						



ENVIRONMENTAL	DEPTH OF COVER	4" MINIMUM DEPTH, BORE & SECTION LINE EXCEPTION	
	WETLAND CROSSING	UNIQUE ID	
		SURVEY EXTENT	
		CROSSING METHOD	
		ENVIRONMENTAL FEATURE	
	SPECIAL REQUIREMENTS		
	SEEDING MIX		



SURVEY DATUM				
BASIS OF BEARING IS WGS 84 NORTH & GROUND DISTANCES				
P.I. TABLE			P.I. TABLE	
P.I.	Station	Deflection	P.I.	Deflection
52	828+99	5'40" R		
53	842+61	5'1'26" R		
54	898+90	55'30" L		
55	920+64	0'21" L		
56	952+51	16'53" L		
57	976+74	17'34" L		

SUMMARY OF MATERIALS		
MARK	QTY	DESCRIPTION
①		12", 0.250" W.T. FBE, X-65
②		12", 0.312" W.T. FBE W/ARO, API 5L X-65

LEGEND

- PROPOSED LS 25 LOOP PIPELINE
- PROPOSED LS 25 LOOP EXTENSION
- UPRATING BORE #1
- WBI EXISTING WBI PIPELINE
- EXISTING FENCE LINE
- OVERHEAD POWERLINE
- UNDERGROUND POWER
- FIBER OPTIC
- WATER LINE
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- HESS PIPELINE
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- TESORO PIPELINE
- SECTION LINE
- QUARTER LINE
- POWER POLE
- MILEAGE MARKER
- P.I. NODE
- PROPOSED BORE
- TEST LEAD LOCATION
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- ROCK PILE
- NOXIOUS WEEDS
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- SECTION CORNER CALC
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811 Know what's below. Call before you dig.

ND - 1-800-795-0555

SHEET 7 OF 8

8	9/4/20	RMG	ADD UPDATED WETLANDS & WEEDS
7	8/31/20	RMG	TO DATE
NO	DATE	BY	REVISION

WBI ENERGY TRANSMISSION
A Subsidiary of MDU Resources Group, Inc.

LINE SECTION 25 LOOP
NORTH BAKKEN EXPANSION PROJECT

DATE	DRAWN BY	SCALE	COMP. NO.	DRAWING NO.
11/20/19	RMG	NOTED	NRSELOOP	C-7-1775-7

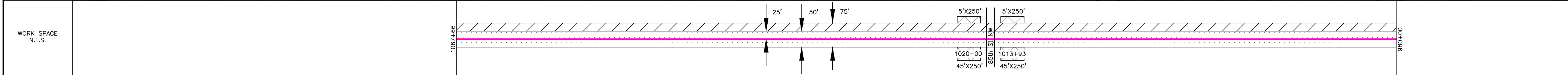
CO. STATE	Sections 26, & 35, T160N, R94W, BURKE COUNTY, NORTH DAKOTA			
OWNER	160-94-26-080 NW1/4 Section 26, T160N R94W	160-94-26-059 NE1/4SW1/4, E1/2E1/2NW1/4SW1/4, N1/2SE1/4SW1/4, E1/2NE1/4, SW1/4SW1/4, E1/2SE1/4, SE1/4SW1/4 LESS .19A EASE Section 26, T160N R94W	160-94-35-0396 NW1/4 Section 35, T160N R94W	160-94-35-0490 SW1/4 Section 35, T160N R94W
RODDAGE	2484.5' / 150.58 RODS	2839.6' / 172.10 RODS	2686.2' / 162.80 RODS	2706.7' / 164.0 RODS
PIPE SCHEMATIC				
FEATURES	<p>1068+54 END PROJECT 1060+34 E-W FENCE 1060+24 E-W FENCE</p> <p>1060+36 WBI PIPELINE X-ING</p> <p>1043+07 E-W FENCE 1042+97 E-W FENCE</p> <p>1017+67 O.H.P. E-W FENCE 1016+59 F.O. CABLE X-ING 1015+72 INSTALL TEST LEAD</p> <p>979+65 MATCH LINE</p>			

SURVEY DATUM				
BASIS OF BEARING IS WGS 84 NORTH & GROUND DISTANCES				
P.I. TABLE			P.I. TABLE	
P.I.	Station	Deflection	P.I.	Station
58	992+86	45°00' L	EQ:+47	
59	994+28	45°00' R		
60	1017+88	73°53' R		
61	BK:1020+61	73°37' L		
	1019+15			
	EQ:+146			
62	1060+86	40°35' R		
63	1061+92	40°05' L		
	BK:1069+01	E.O.L.		
	AH:1068+54			

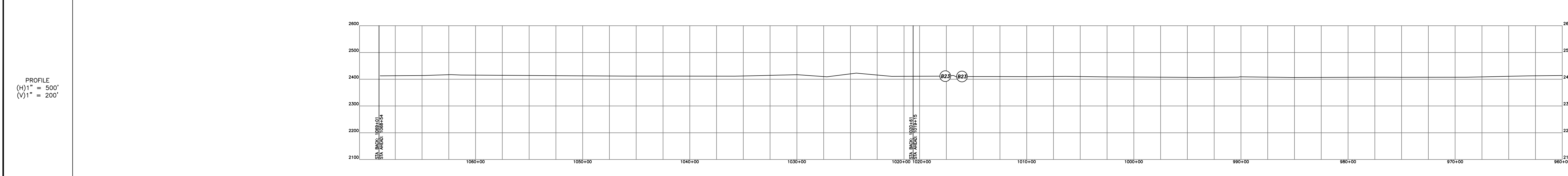
SUMMARY OF MATERIALS		
MARK	QTY	DESCRIPTION
①		12", 0.250" W.T. FBE, X-65
②		12", 0.312" W.T. FBE W/ARO, API 5L X-65

LEGEND

- PROPOSED LS 25 LOOP PIPELINE
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- UPRATING BORE #1
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- PROPERTY CORNERS
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- EXTRA WORK SPACE



ENVIRONMENTAL	DEPTH OF COVER	
	WETLAND CROSSING	UNIQUE ID
		SURVEY EXTENT
		CROSSING METHOD
		ENVIRONMENTAL FEATURE
	SPECIAL REQUIREMENTS	
	SEEDING MIX	



811 Know what's below. Call before you dig.

ND - 1-800-795-0555

SHEET 8 OF 8

NO	DATE	BY	REVISION
9	9/4/20	RMG	ADD UPDATED WETLANDS & WEEDS
8	8/31/20	RMG	TO DATE

WBI ENERGY TRANSMISSION
A Subsidiary of MDU Resources Group, Inc.

**LINE SECTION 25 LOOP
NORTH BAKKEN EXPANSION PROJECT**

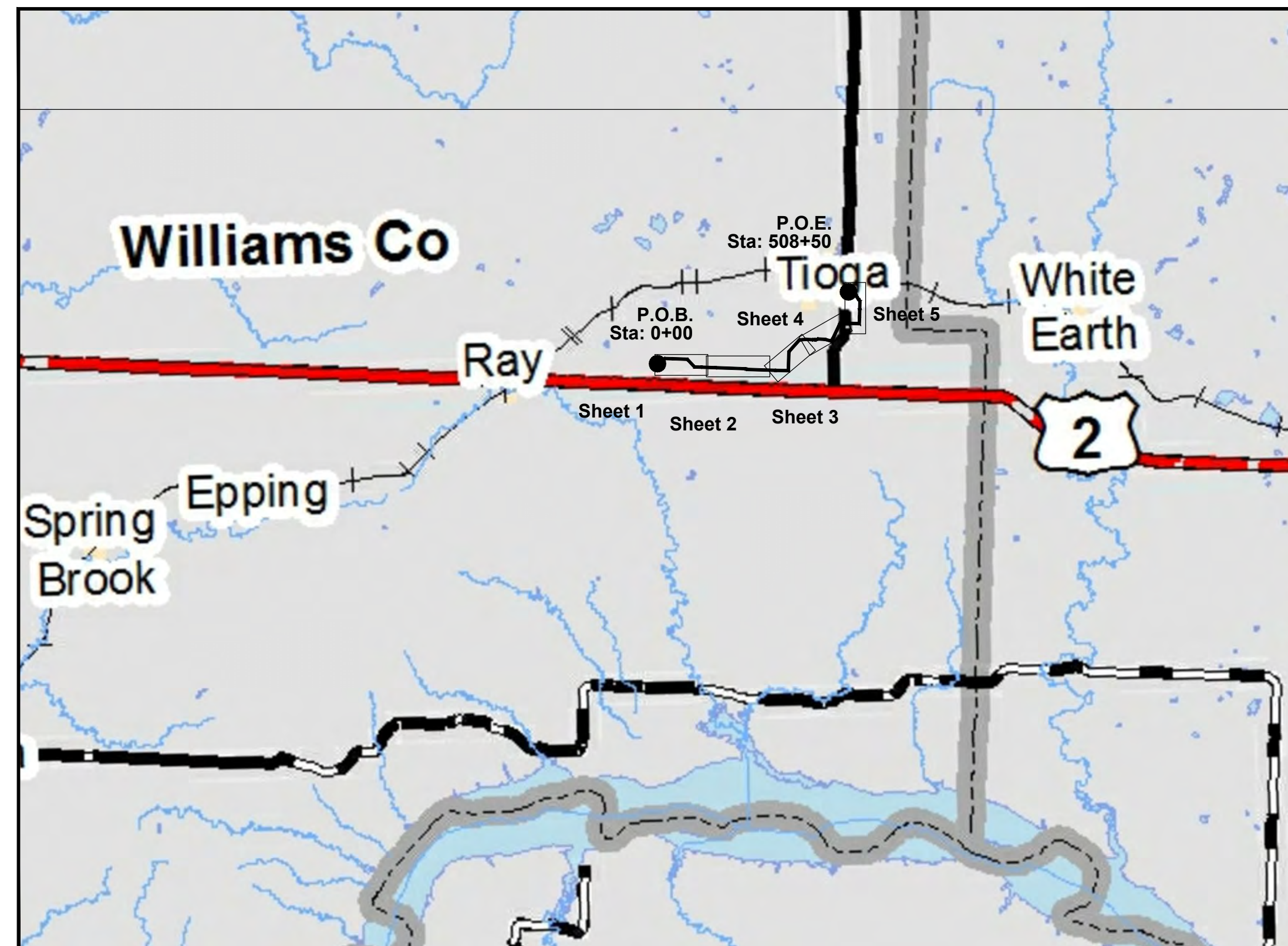
DATE	DRAWN BY	SCALE	COMP. NO.	DRAWING NO.
11/20/19	RMG	NOTED	NRSELOOP	C-7-1775-8

WBI ENERGY TRANSMISSION, INC

NORTH BAKKEN

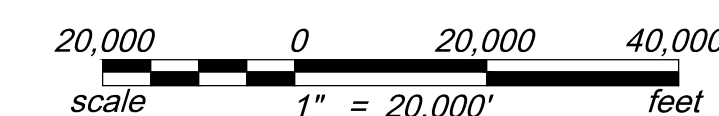
EXPANSION PIPELINE

LINE SECTION 30 LOOP

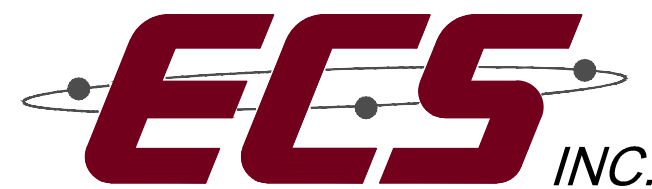


Sheet Index	
Sheet 1	Sta 0+00 - 100+00
Sheet 2	Sta 100+00 - 210+00
Sheet 3	Sta 210+00 - 310+00
Sheet 4	Sta 310+00 - 410+00
Sheet 5	Sta 410+00 - 508+50

LEGEND	
	Proposed Pipeline Corridor



Surveying & Drafting Services By:



ERICKSON CONTRACT SURVEYING
333 10th Ave. SE Sidney, Montana
Office 406-482-6606 / Fax 406-482-6600

Date Surveyed: July-Sept 19

Surveyed By: AH, GP, JW, TW

Drawing Date: Sept, 2019

Drawn By: D. Smith

Checked By: J. Harned

Revision No.: _____

Revision Date: _____

ECS Project #

2019-23-2000

Coversheet



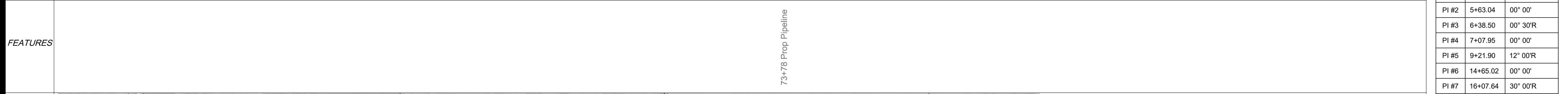
Know what's below
Call before you dig.
MT - 1-800-424-5555
ND - 1-800-795-0555



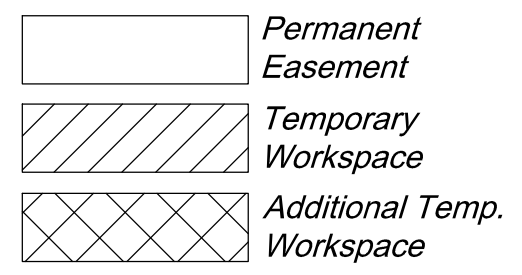
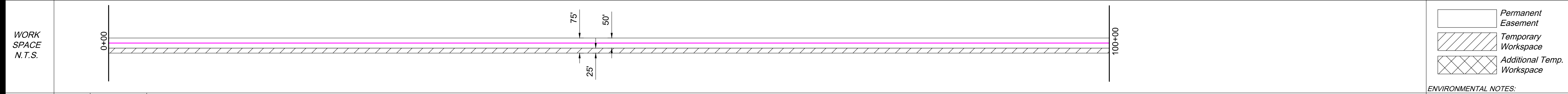
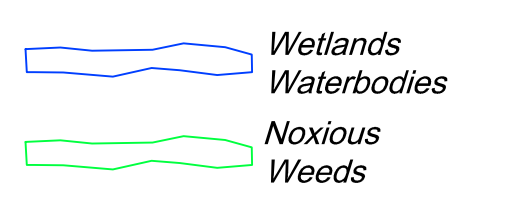
NORTH BAKKEN
EXPANSION PIPELINE
LINE SECTION 30 LOOP

Horizontal Project Length	Revision
50,316' / 9.53 mi	R2

OWNER	156-96-04-001 MS18-0053 IN NW1/4 SEC. 4, T156N, R96W 563' Uncultivated	156-96-04-002 SUBLOT #1 IN NW1/4 SEC. 4, T156N, R96W 145' Uncultivated	156-96-04-001 MS18-0053 IN NW1/4 SEC. 4, T156N, R96W 757' Uncultivated	156-96-04-003 MS18-0052 IN NW1/4 SEC. 4, T156N, R96W 1395' Uncultivated	156-96-04-004 NE1/4 SEC. 4, T156N, R96W 2571' Cultivated - 67' Uncultivated	156-96-03-007 NW1/4 SEC. 3, T156N, R96W 3191' Cultivated	156-96-03-008 NE1/4 SEC. 3, T156N, R96W 2502' Cultivated - 141' Uncultivated 3191' Cultivated
RODDAGE	563.04' / 34.12 Rods	144.91' / 8.78 Rods	757.07' / 45.88 Rods	1395.47' / 84.57 Rods	2638.23' / 159.89 Rods	3190.89' / 193.39 Rods	2642.77' / 160.17 Rods

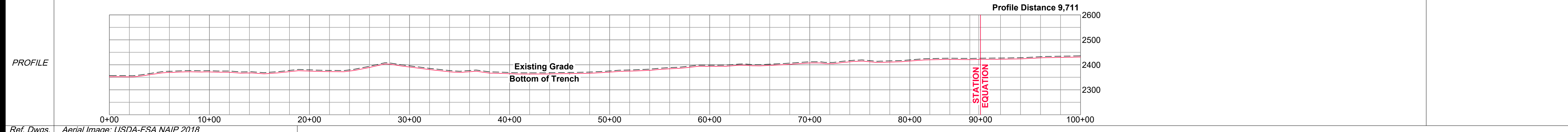


PI TABLE		
PI #	STATION	DEFLECTION
PI #1	0+00.00	00° 00'
PI #2	5+63.04	00° 00'
PI #3	6+38.50	00° 30'R
PI #4	7+07.95	00° 00'
PI #5	9+21.90	12° 00'R
PI #6	14+65.02	00° 00'
PI #7	16+07.64	30° 00'R
PI #8	28+60.49	00° 00'
PI #11	54+98.72	00° 00'
PI #12	55+98.72	45° 00'R
PI #13	74+58.54	45° 00'L
PI #14	89+83.11	00° 00'



Name	Crossing Method	Wetland			
		Survey Extent	Environmental Feature	Miscellaneous/Comments	Seeding Mix
o-wm-ec-001	Bridge	0+00	Wetland	Approx. 490' ECD	
w-wm-ec-004e	Bridge	2+94	Wetland	Approx. 180' mats	
w-wm-ec-005e	Bridge	9+58	Wetland	Approx. 180' mats	

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Surveying & Drafting Services By:
ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2019-23-2000

SURVEY DATUM
 North Dakota North (NAD 83)(2011)
 International Foot
 *Distances are Grid Distances.
 Combined Scale Factor = 0.999846363
 Grid Dist. x 1.000153661 = Ground Dist.
 Drawing Date: 09-06-2019
 Drawn By: D. Smith
 Checked by: J. Harned

LEGEND:

- Proposed Block Valve
- Proposed Bore
- CTP test station
- Alignment PI
- Utility Pole
- Well
- Valve
- Alignment
- Section Line
- Quarter Line
- Fence Line
- UG Fiber Optic
- UG Electric
- Overhead Elec
- Existing Pipeline
- Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	9707	12.75" OD, .250" WT, X42, FBE
2		12.75" OD, .312" WT, X42, FBE w/ARO

REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Foreign Utility Re-routes
2	9/3/20	Cultural / Foreign Utility Re-routes

NORTH BAKKEN EXPANSION PIPELINE LINE SECTION 30 LOOP

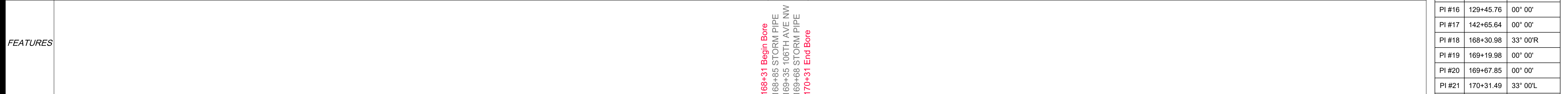
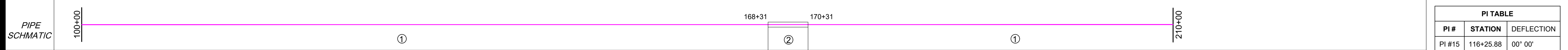
1" = 500' HORIZ.
 1" = 200' VERT.

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

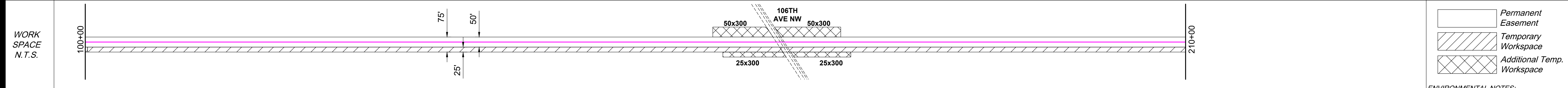
Sec. 3, 4, T156N, R96W,
 5th P.M., Williams Co., North Dakota

Sheet 1 R2

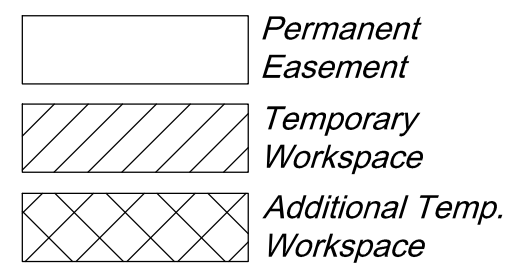
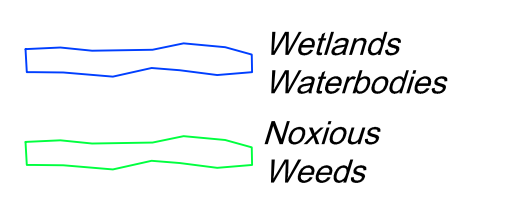
OWNER	156-96-03-008 NE1/4 SEC. 3, T156N, R96W	156-96-02-009 SW1/4NW1/4 SEC. 2, T156N, R96W	156-96-02-010 SE1/4NW1/4 SEC. 2, T156N, R96W	156-96-02-011 PARCEL 3 IN S1/2NE1/4, LOTS 1 & 2 SEC. 2, T156N, R96W	156-96-02-012 NW1/4 SEC. 1, T156N, R96W	156-96-01-013 W1/2SW1/4 SEC. 1, T156N, R96W	156-96-01-014 E1/2SW1/4 SEC. 1, T156N, R96W	156-96-01-015 MS14-0087 IN W1/2SE1/4 SEC. 1, T156N, R96W
RODDAGE	2502' Cultivated - 141' Uncultivated 2642.77' / 160.17 Rods	1076' Cultivated - 244' Uncultivated 1319.88' / 79.99 Rods	1320' Cultivated 1319.88' / 79.99 Rods	2621' Cultivated - 33' Uncultivated 2654.34' / 160.87 Rods	48' Uncultivated 47.87' / 2.90 Rods	1187' Cultivated - 103' Uncultivated 1290.01' / 78.18 Rods	988' Cultivated - 332' Uncultivated 1319.62' / 79.97 Rods	1321' Cultivated 1320.99' / 80.06 Rods



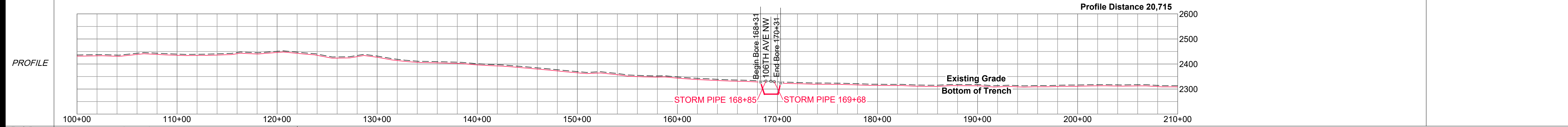
PI TABLE		
PI #	STATION	DEFLECTION
PI #15	116+25.88	00° 00'
PI #16	129+45.76	00° 00'
PI #17	142+65.64	00° 00'
PI #18	168+30.98	33° 00'R
PI #19	169+19.98	00° 00'
PI #20	169+67.85	00° 00'
PI #21	170+31.49	33° 00'L
PI #22	182+57.86	00° 00'
PI #23	195+77.48	00° 00'
PI #24	208+98.47	00° 00'



ENVIRO	Water Crossing	Name		
		Crossing Method		
	Wetland Crossing	Name	o-wm-ed-001	
		Survey Extent	108+60	
	Environmental Feature		Wetland	
	Miscellaneous/Comments			
	Seeding Mix			



ENVIRONMENTAL NOTES:
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 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

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 ECS Project # 2019-23-2000

SURVEY DATUM
 North Dakota North (NAD 83)(2011)
 International Foot
 *Distances are Grid Distances.
 Combined Scale Factor = 0.999846363
 Grid Dist. x 1.000153661 = Ground Dist.

Drawing Date: 09-06-2019
 Drawn By: D. Smith
 Checked by: J. Harned

LEGEND:

⊠	Proposed Block Valve	—	Alignment
⊙	Proposed Bore	- - - - -	Section Line
▲	CTP test station	- · - · -	Quarter Line
●	Alignment PI	- x - x -	Fence Line
○	Utility Pole	- - - - -	UG Fiber Optic
⊕	Well	- · - · -	UG Electric
⊗	Valve	- - - - -	Overhead Elec
		- · - · -	Existing Pipeline
		- - - - -	Dirt Road

SUMMARY of MATERIALS

Mark	Quantity	Description
1	10,800	12.75" OD, .250" WT, X42, FBE
2	200	12.75" OD, .312" WT, X42, FBE w/ARO

REVISIONS

No.	Date	Description
1	1/17/20	Cultural / Foreign Utility Re-routes
2	9/3/20	Cultural / Foreign Utility Re-routes

500 0 500 1000
 scale 1" = 500' - 22 x 34 feet
 1" = 1000' - 11 x 17

NORTH BAKKEN EXPANSION PIPELINE LINE SECTION 30 LOOP

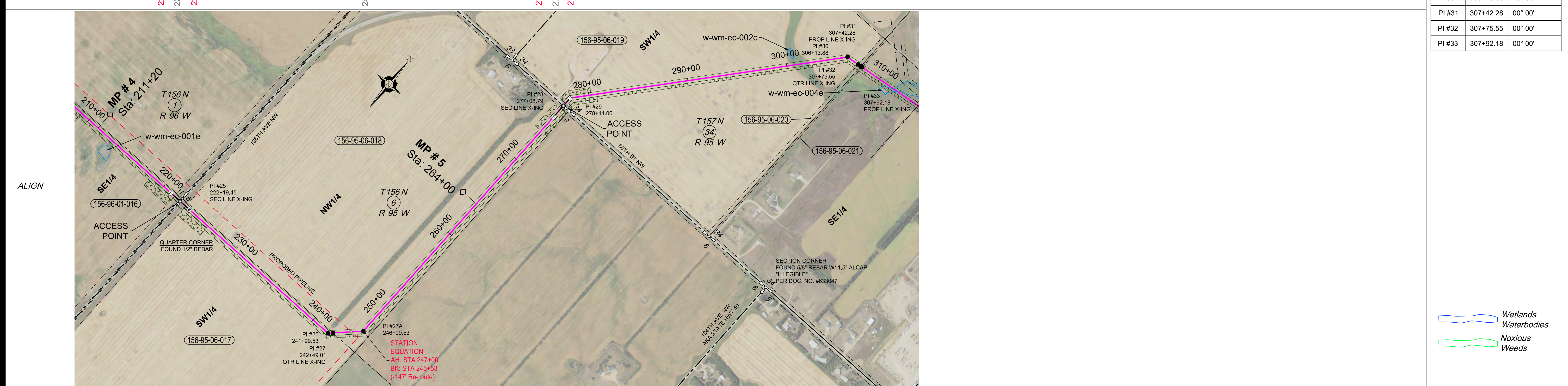
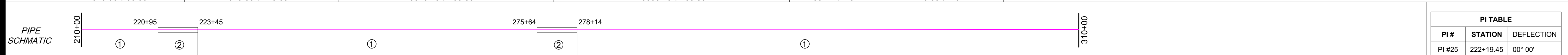
1" = 500' HORIZ.
 1" = 200' VERT.

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

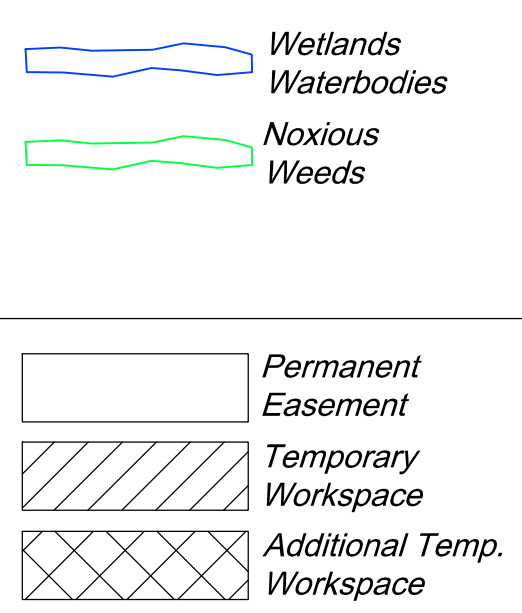
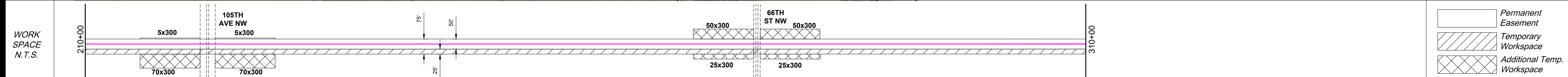
Sec. 1, 2, 3, T156N, R96W,
 5th P.M., Williams Co., North Dakota

Sheet 2 R2

OWNER	156-96-01-016 E1/2SE1/4 EX DDT PTS SEC. 1, T156N, R96W 1271' Cultivated - 50' Uncultivated 1320.98' / 80.06 Rods	156-95-06-017 MS18-0036 IN SW1/4 SEC. 6, T156N, R95W 1971' Cultivated - 59' Uncultivated 2029.56' / 123.00 Rods	156-95-06-018 SE1/4NW1/4, LOT 3, LOT 4, LOT 5, EX DD PTS SEC. 6, T156N, R95W 3280' Cultivated - 33' Uncultivated 3313.18' / 200.80 Rods	157-95-34-019 SW 1/4 EX. DD PTS SEC. 34, T157N, R95W 2819' Cultivated - 214' Uncultivated 3033.49' / 183.85 Rods	157-95-34-020 EAST 33' OF THE SW 1/4 SEC. 34, T157N, R95W 33' Uncultivated 33.27' / 2.02 Rods	157-95-34-021 WEST 16.5' OF THE SE1/4 SEC. 34, T157N, R95W 17' Uncultivated 16.63' / 1.01 Rods
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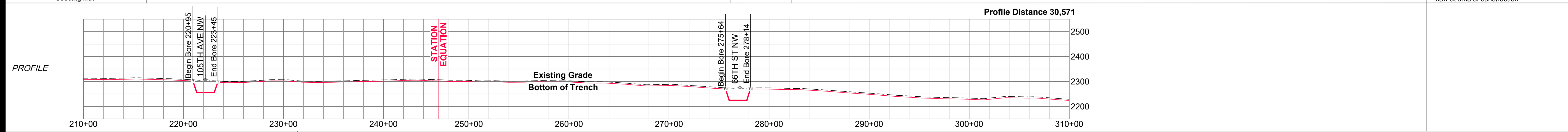


PI TABLE		
PI #	STATION	DEFLECTION
PI #25	222+19.45	00° 00'
PI #26	241+99.53	45° 00'L
PI #27	242+49.01	00° 00'
PI #27A	246+99.53	45° 00'L
PI #28	277+08.79	00° 00'
PI #29	278+14.06	40° 00'R
PI #30	306+13.88	43° 00'R
PI #31	307+42.28	00° 00'
PI #32	307+75.55	00° 00'
PI #33	307+92.18	00° 00'



ENVIRO	Water Crossing	Name			
		Crossing Method			
	Wetland Crossing	Name	w-wm-ec-001e		
		Survey Extent	213+22		
	Environmental Feature		Wetland		
	Miscellaneous/Comments				
	Seeding Mix				

ENVIRONMENTAL NOTES:
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 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



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 ECS Project # 2019-23-2000

SURVEY DATUM
 North Dakota North (NAD 83)(2011)
 International Foot
 *Distances are Grid Distances.
 Combined Scale Factor = 0.999846363
 Grid Dist. x 1.000153661 = Ground Dist.

Drawing Date: 09-06-2019
 Drawn By: D. Smith
 Checked by: J. Harned

LEGEND:

⊠	Proposed Block Valve	—	Alignment
⊙	Proposed Bore	- - - -	Section Line
▲	CTP test station	- - - -	Quarter Line
●	Alignment PI	- - - -	Fence Line
○	Utility Pole	- - - -	UG Fiber Optic
⊙	Well	- - - -	UG Electric
⊗	Valve	- - - -	Overhead Elec
		- - - -	Existing Pipeline
		- - - -	Dirt Road

SUMMARY of MATERIALS

Mark	Quantity	Description
1	9,353	12.75" OD, .250" WT, X42, FBE
2	500	12.75" OD, .312" WT, X42, FBE w/ARO

REVISIONS

No.	Date	Description
1	1/17/20	Cultural / Foreign Utility Re-routes
2	9/3/20	Cultural / Foreign Utility Re-routes

Scale: 1" = 500' - 22 x 34 feet
 1" = 1000' - 11 x 17 feet

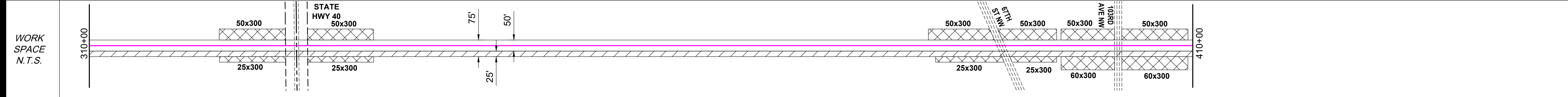
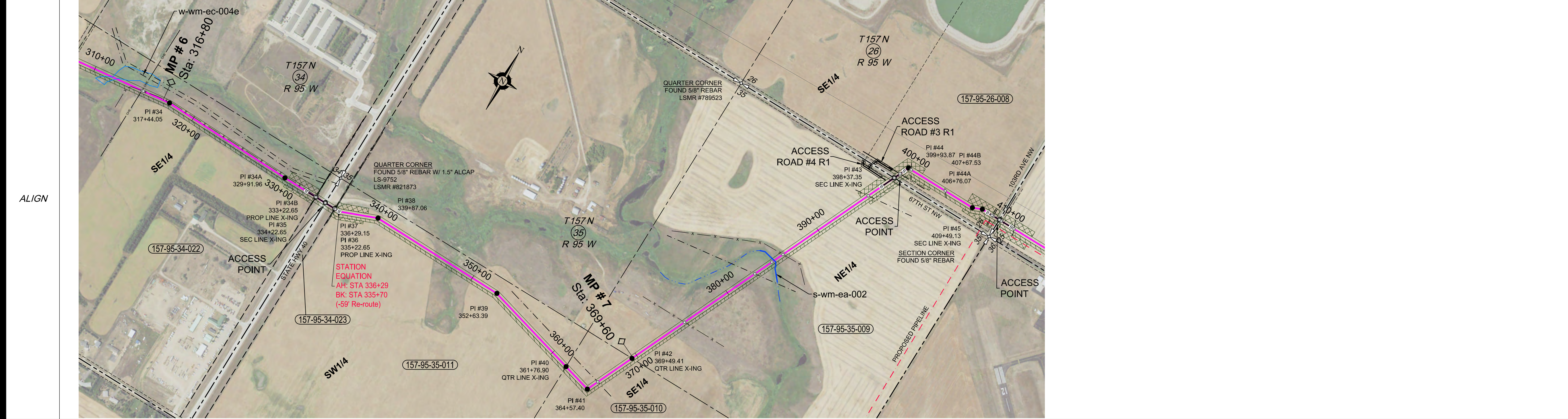
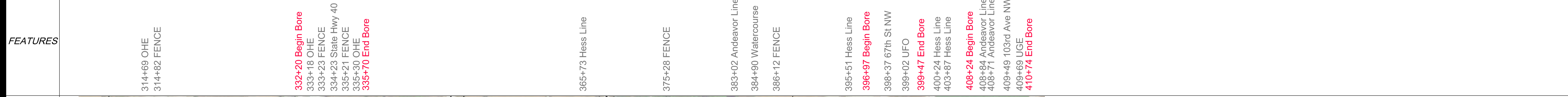
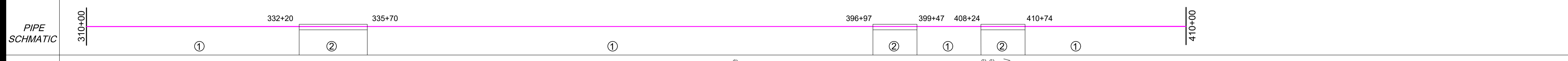
NORTH BAKKEN EXPANSION PIPELINE LINE SECTION 30 LOOP

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

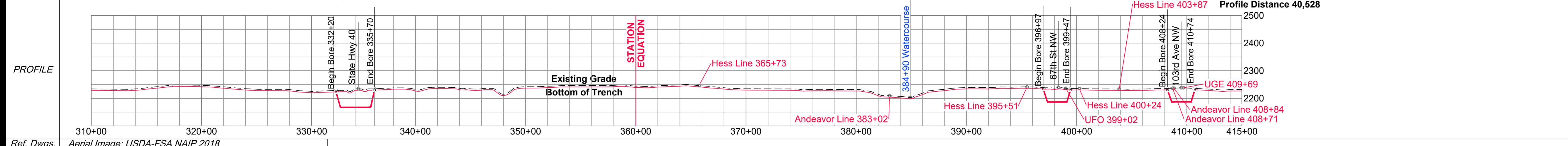
Sec. 1, T156N, R96W, Sec. 6, T156N, R95W, Sec. 34, T157N, R95W
 5th P.M., Williams Co., North Dakota

Sheet 3 R2

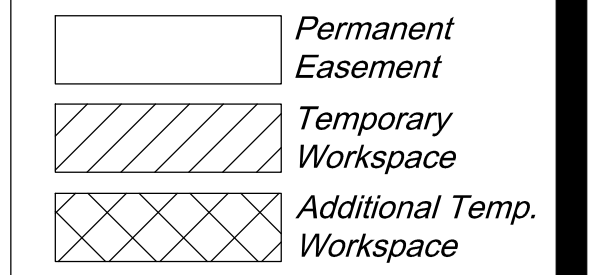
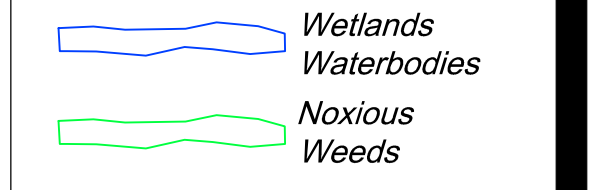
Co, State	SECTIONS 26, 34, 35, T157N, WILLIAMS COUNTY, NORTH DAKOTA										
OWNER	157-95-34-022 SE1/4 EX SIX-K SUB & DD PTS SEC. 34, T157N, R95W	157-95-34-023 HWY 40 SEC. 34, T157N, R95W	157-95-34-023 HWY 40 SEC. 34, T157N, R95W	157-95-35-011 SW 1/4 EX. ST SEC. 35, T157N, R95W	157-95-35-010 SE 1/4 SEC. 35, T157N, R95W	157-95-35-009 NE 1/4 SEC. 35, T157N, R95W	157-95-26-008 E1/2 SE1/4, SE1/4 NE1/4 EX. DD PT SEC. 26, T157N, R95W				
RODDAGE	2530.46' / 153.36 Rods	100.00' / 6.06 Rods	100.00' / 6.06 Rods	2595.38' / 157.30 Rods	772.51' / 46.82 Rods	2887.94' / 175.03 Rods	1111.78' / 67.38 Rods				



ENVIRO	Water Crossing	Name: s-wm-ea-002 Crossing Method: Open-Cut
	Wetland Crossing	Name: w-wm-ec-004e Survey Extent: 312+53 to 314+15 Environmental Feature: Wetland Miscellaneous/Comments: Approx. 160' ECD, Approx. 120' mats



PI TABLE		
PI #	STATION	DEFLECTION
PI #34	317+44.05	8° 30'R
PI #34A	329+91.96	1° 00'L
PI #34B	333+22.65	00° 00'
PI #35	334+22.65	00° 00'
PI #36	335+22.65	00° 00'
PI #37	336+29.15	22° 30'L
PI #38	339+87.06	22° 30'R
PI #39	352+63.39	14° 00'R
PI #40	361+76.90	00° 00'
PI #41	364+57.40	81° 00'L
PI #42	369+49.41	00° 00'
PI #43	396+37.35	00° 00'
PI #44	399+93.87	66° 00'R
PI #44A	406+76.07	22° 30'L
PI #44B	407+67.53	22° 30'R
PI #45	409+49.13	00° 00'



ENVIRONMENTAL NOTES:
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 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction

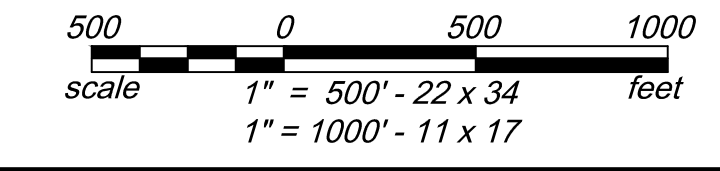
Surveying & Drafting Services By:
ECS INC.
 ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600
 ECS Project # 2019-23-2000

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	09-09-2019
Drawn By:	D. Smith
Checked by:	J. Harned

LEGEND:	
⊠	Proposed Block Valve
▲	Proposed Bore
●	CTP test station
○	Alignment PI
○	Utility Pole
⊙	Well
⊗	Valve
—	Proposed Alignment
- - -	Section Line
- · - · -	Quarter Line
- x - x - x -	Fence Line
- · - · -	UG Fiber Optic
- · - · -	UG Electric
- · - · -	Overhead Elec
- · - · -	Existing Pipeline
- · - · -	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	9,091	12.75" OD, .250" WT, X42, FBE
2	850	12.75" OD, .312" WT, X42, FBE w/ARO

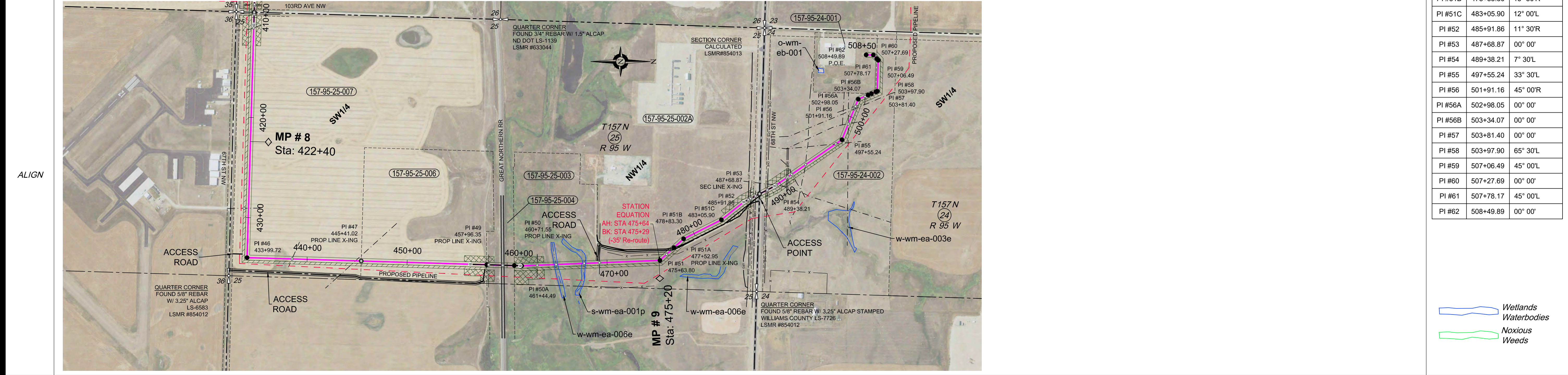
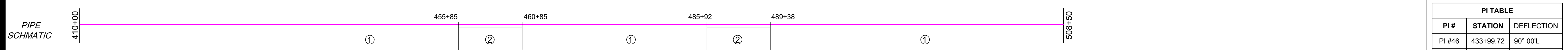
REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Foreign Utility Re-routes
2	9/3/20	Cultural / Foreign Utility Re-routes



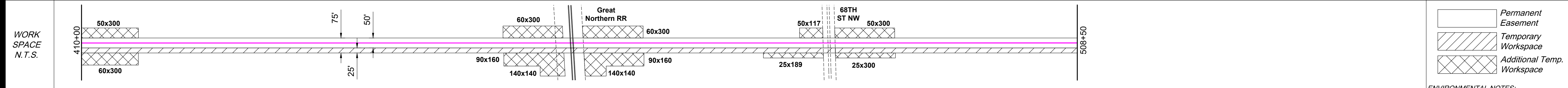
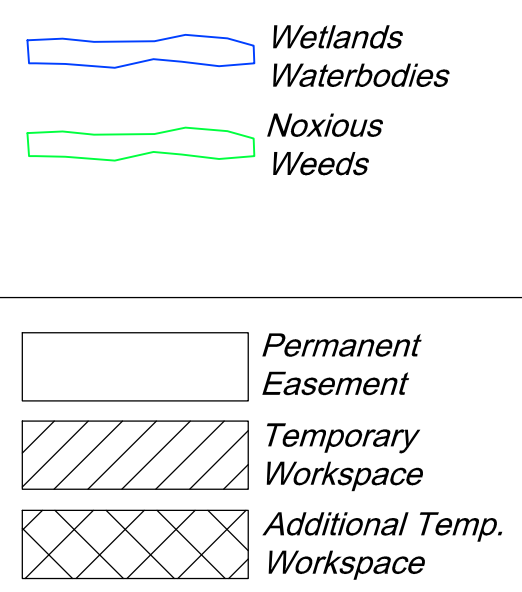
NORTH BAKKEN EXPANSION PIPELINE
 LINE SECTION 30 LOOP
 1" = 500' HORIZ.
 1" = 200' VERT.

WBI ENERGY TRANSMISSION
 An MDU Resources Group company
 Sec. 26, 34, 35, T157N, R95W,
 5th P.M., Williams Co., North Dakota
 Sheet 4 R2

OWNER	157-95-25-007 W1/2 SW1/4, SE1/4 SW1/4, & SW1/4 NW1/4 EX. RR SEC. 25, T157N, R95W	157-95-25-006 NE1/4 SW1/4, EX. RR SEC. 25, T157N, R95W	157-95-25-004 ROW IN SW1/4 NW1/4 SEC. 25, T157N, R95W	157-95-25-003 N1/2 NW1/4, SE1/4 NW1/4, EX. SUBLOTS 3, 4, RR & DD PT SEC. 25, T157N, R95W	157-95-25-002A MS 13-081 & MS 13-082 SEC. 25, T157N, R95W	157-95-24-002 MS 16-0041 IN S1/2 SW1/4 SEC. 24, T157N, R95W	157-95-24-001 MS 16-0042 IN SW1/4 SW1/4 SEC. 24, T157N, R95W
RODDAGE	3449' Cultivated - 143' Uncultivated 3591.89' / 217.69 Rods	1169' Cultivated - 86' Uncultivated 1255.33' / 76.08 Rods	275' Uncultivated 275.20' / 16.68 Rods	1646' Uncultivated 1646.23' / 99.77 Rods	1016' Uncultivated 1015.92' / 61.57 Rods	1911' Uncultivated 1911.49' / 115.85 Rods	122' Uncultivated 122.20' / 1.41 Rods

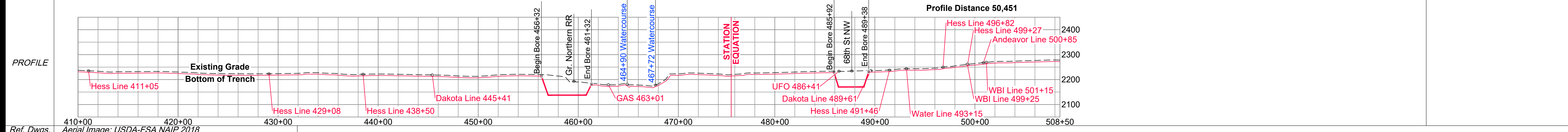


PI TABLE		
PI #	STATION	DEFLECTION
PI #46	433+99.72	90° 00'L
PI #47	445+41.02	00° 00'
PI #49	457+96.35	00° 00'
PI #50	460+71.55	00° 00'
PI #50A	461+44.49	4° 00'L
PI #51	475+63.80	44° 00'L
PI #51A	477+52.95	00° 00'
PI #51B	478+83.30	15° 30'R
PI #51C	483+05.90	12° 00'L
PI #52	485+91.86	11° 30'R
PI #53	487+68.87	00° 00'
PI #54	489+38.21	7° 30'L
PI #55	497+55.24	33° 30'L
PI #56	501+91.16	45° 00'R
PI #56A	502+98.05	00° 00'
PI #56B	503+34.07	00° 00'
PI #57	503+81.40	00° 00'
PI #58	503+97.90	65° 30'L
PI #59	507+06.49	45° 00'L
PI #60	507+27.69	00° 00'
PI #61	507+78.17	45° 00'L
PI #62	508+49.89	00° 00'



ENVIRO	Name	Crossing Method	Survey Extent	Environmental Feature	Miscellaneous/Comments	Seeding Mix	w-wm-ea-006e	s-wm-ea-001p
Water Crossing	Bridge	Open-Cut					Yes	
Wetland Crossing	Survey Extent		464+25	Wetland	Approx. 50' ECD	Approx. 40' mats	464+61	467+23

ENVIRONMENTAL NOTES:
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 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



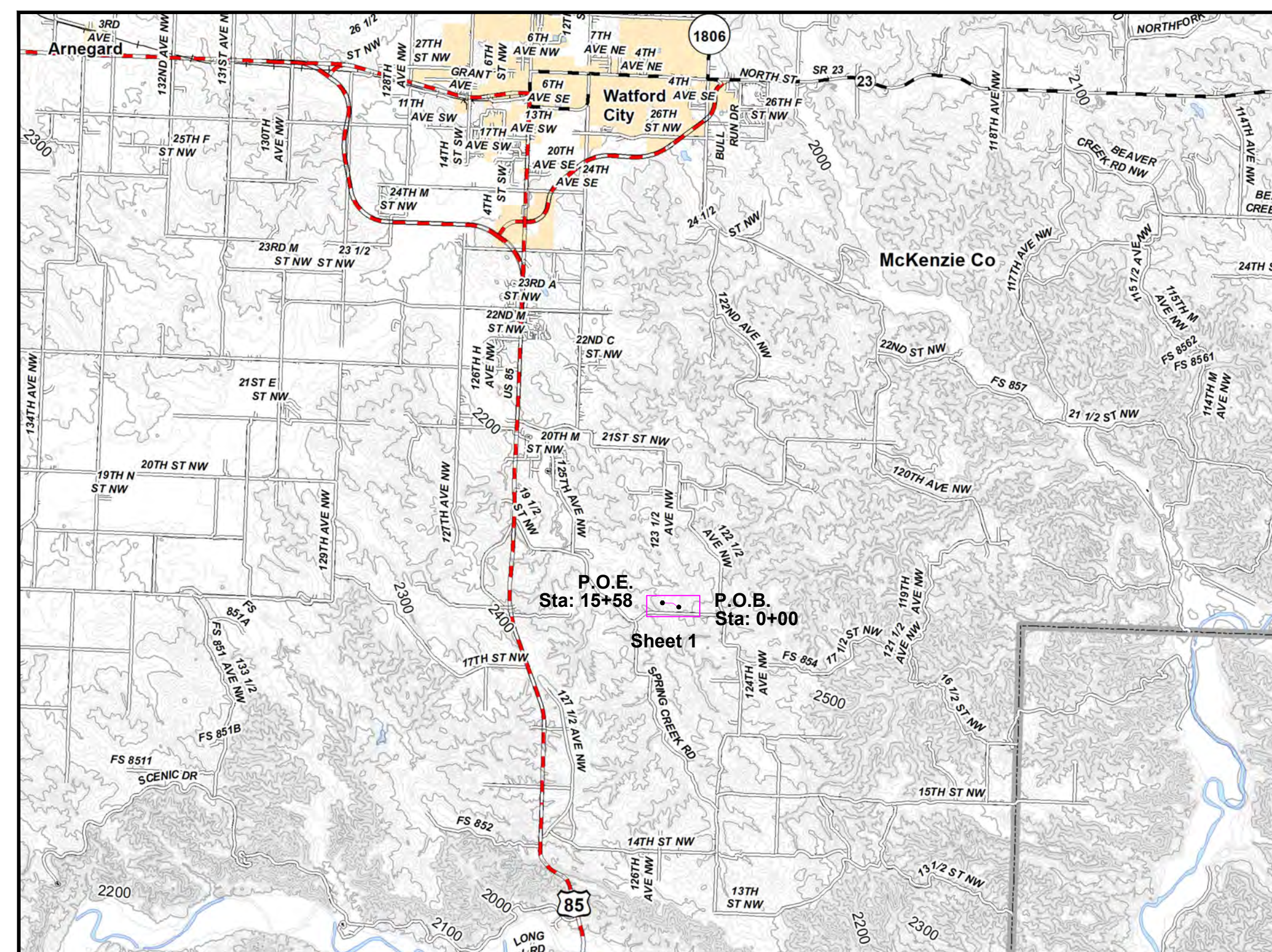
Surveying & Drafting Services By: ECS INC. ERICKSON CONTRACT SURVEYING 333 10th Ave. SE Sidney, Montana Office 406-482-6606 / Fax 406-482-6600 ECS Project # 2019-23-2000	SURVEY DATUM North Dakota North (NAD 83)(2011) International Foot *Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	LEGEND: ☒ Proposed Block Valve ▲ Proposed Bore ● CTP test station ○ Alignment PI ○ Utility Pole ⊕ Well ⊗ Valve	— Alignment - - - Section Line - - - Quarter Line - - - Fence Line - - - UG Fiber Optic - - - UG Electric - - - Overhead Elec - - - Existing Pipeline - - - Dirt Road	SUMMARY of MATERIALS <table border="1"> <thead> <tr> <th>Mark</th> <th>Quantity</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>8965</td> <td>12.75" OD, .250" WT, X42, FBE</td> </tr> <tr> <td>2</td> <td>850</td> <td>12.75" OD, .312" WT, X42, FBE w/ARO</td> </tr> </tbody> </table>	Mark	Quantity	Description	1	8965	12.75" OD, .250" WT, X42, FBE	2	850	12.75" OD, .312" WT, X42, FBE w/ARO	REVISIONS <table border="1"> <thead> <tr> <th>No.</th> <th>Date</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1/17/20</td> <td>Cultural / Foreign Utility Re-routes</td> </tr> <tr> <td>2</td> <td>9/3/20</td> <td>Cultural / Foreign Utility Re-routes</td> </tr> </tbody> </table>	No.	Date	Description	1	1/17/20	Cultural / Foreign Utility Re-routes	2	9/3/20	Cultural / Foreign Utility Re-routes	NORTH BAKKEN EXPANSION PIPELINE LINE SECTION 30 LOOP 1" = 500' HORIZ. 1" = 200' VERT.		WBI ENERGY TRANSMISSION An MDU Resources Group company	Sec. 24, 25, T157N, R95W, 5th P.M., Williams Co., North Dakota Sheet 5 R2
	Mark	Quantity	Description																								
1	8965	12.75" OD, .250" WT, X42, FBE																									
2	850	12.75" OD, .312" WT, X42, FBE w/ARO																									
No.	Date	Description																									
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WBI ENERGY TRANSMISSION, LLC

NORTH BAKKEN

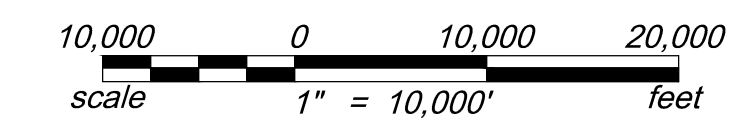
EXPANSION PIPELINE

Elkhorn Creek - Northern Border Interconnect



LEGEND	
	Proposed Pipeline Corridor

Sheet Index	
Sheet 1	Sta 0+00 - 15+58



Surveying & Drafting Services By: ERICKSON CONTRACT SURVEYING 333 10th Ave. SE Sidney, Montana Office 406-482-6606 / Fax 406-482-6600	Date Surveyed: July-Sept 19 Surveyed By: AH, GP, JW, TW Drawing Date: Sept, 2019 Drawn By: D. Smith Checked By: J. Hamed	ECS Project # 2018-23-0200
	Revision No.: R3 Revision Date: 9/3/20	Coversheet

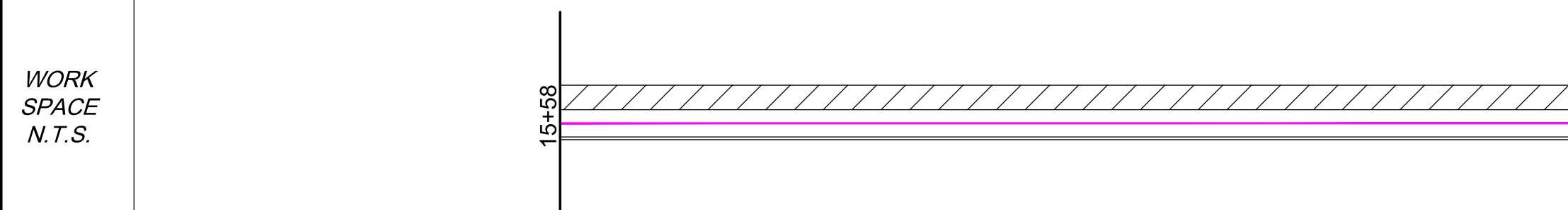
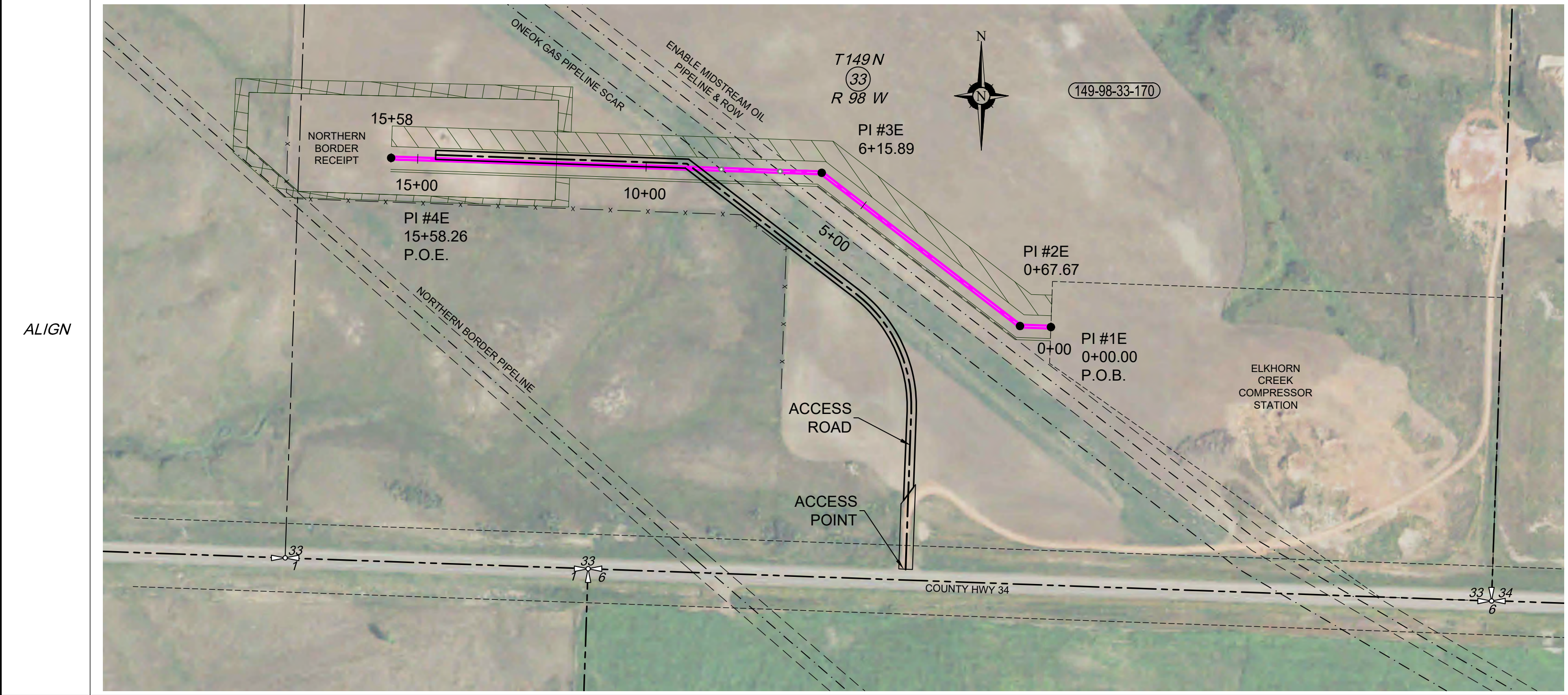
An MDU Resources Group company
NORTH BAKKEN
EXPANSION PIPELINE
 Elkhorn Creek Plant -
 Northern Border Receipt Lateral

Horizontal Project Length	Revision
1,558' / 0.30 mi	R3

OWNER	15+58	149-98-33-170 S1/2 SE1/4, NW1/4 SE1/4 SEC. 33, T149N, R98W	0+00
RODDAGE		1558' Uncultivated 1558.26' / 94.44 Rods	
PIPE SCHMATIC	15+58	①	0+00

FEATURES	8+35 Oneok Line	7+07 Enable Line
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PI TABLE		
PI #	STATION	DEFLECTION
PI #1E	0+00.00	00° 00'
PI #2E	0+67.67	35° 30'R
PI #3E	6+15.89	35° 30'L
PI #4E	15+58.26	00° 00'

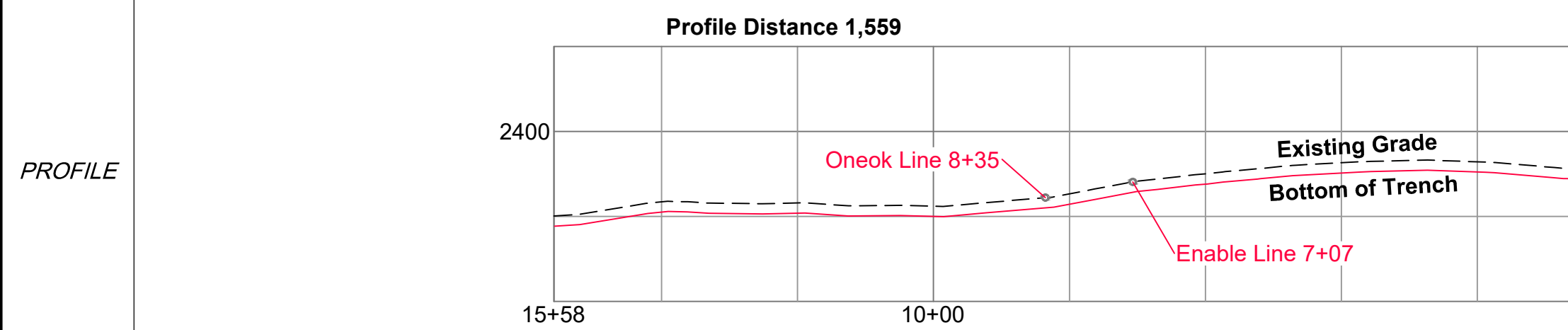


- Wetlands Waterbodies
- Noxious Weeds
- Dusk Reproductive Habitat

- Permanent Easement
- Temporary Workspace
- Additional Temp. Workspace

ENVIRO	Water Crossing	Name	
		Crossing Method	
	Wetland Crossing	Name	
		Survey Extent	
		Environmental Feature	
	Miscellaneous/Comments		
	Seeding Mix		

ENVIRONMENTAL NOTES:
 1. Wetlands depicted on these sheets represent actual field survey data or NWI.
 2. Actual wetland or stream width may vary at time of construction.
 * Open ("WET") trench if no distinguishable flow at the time of construction, dry crossing method if distinguishable flow at time of construction



Ref. Dwgs. Aerial Image: USDA-FSA NAIP 2018

Surveying & Drafting Services By:

ERICKSON CONTRACT SURVEYING
 333 10th Ave. SE Sidney, Montana
 Office 406-482-6606 / Fax 406-482-6600

ECS Project # 2018-23-0200

SURVEY DATUM	
North Dakota North (NAD 83)(2011) International Foot	
*Distances are Grid Distances. Combined Scale Factor = 0.999846363 Grid Dist. x 1.000153661 = Ground Dist.	
Drawing Date:	01-31-2019
Drawn By:	D. Smith
Checked by:	J. Harned

LEGEND:	
	Proposed Block Valve
	Proposed Bore
	CTP test station
	Alignment PI
	Utility Pole
	Well
	Valve
	Alignment
	Section Line
	Quarter Line
	Fence Line
	UG Fiber Optic
	UG Electric
	Overhead Elec
	Existing Pipeline
	Dirt Road

SUMMARY of MATERIALS		
Mark	Quantity	Description
1	1,559	24" 0.312" W.T., API 5L-X65, ERW, w/FBE
2		24" 0.375" W.T., API 5L-X65, ERW, w/FBE & ARO

REVISIONS		
No.	Date	Description
1	1/17/20	Cultural / Dusk Re-routes
2	5/22/20	Re-routes
3	9/3/20	Re-routes

NORTH BAKKEN EXPANSION PIPELINE
 Elkhorn Creek Plant - Northern Border Receipt Lateral

1" = 500' HORIZ.
 1" = 200' VERT.

WBI ENERGY TRANSMISSION
 An MDU Resources Group company

Sec. 33, T149N, R98W, 5th P.M.,
 Mckenzie Co., North Dakota

Sheet 1 R3

