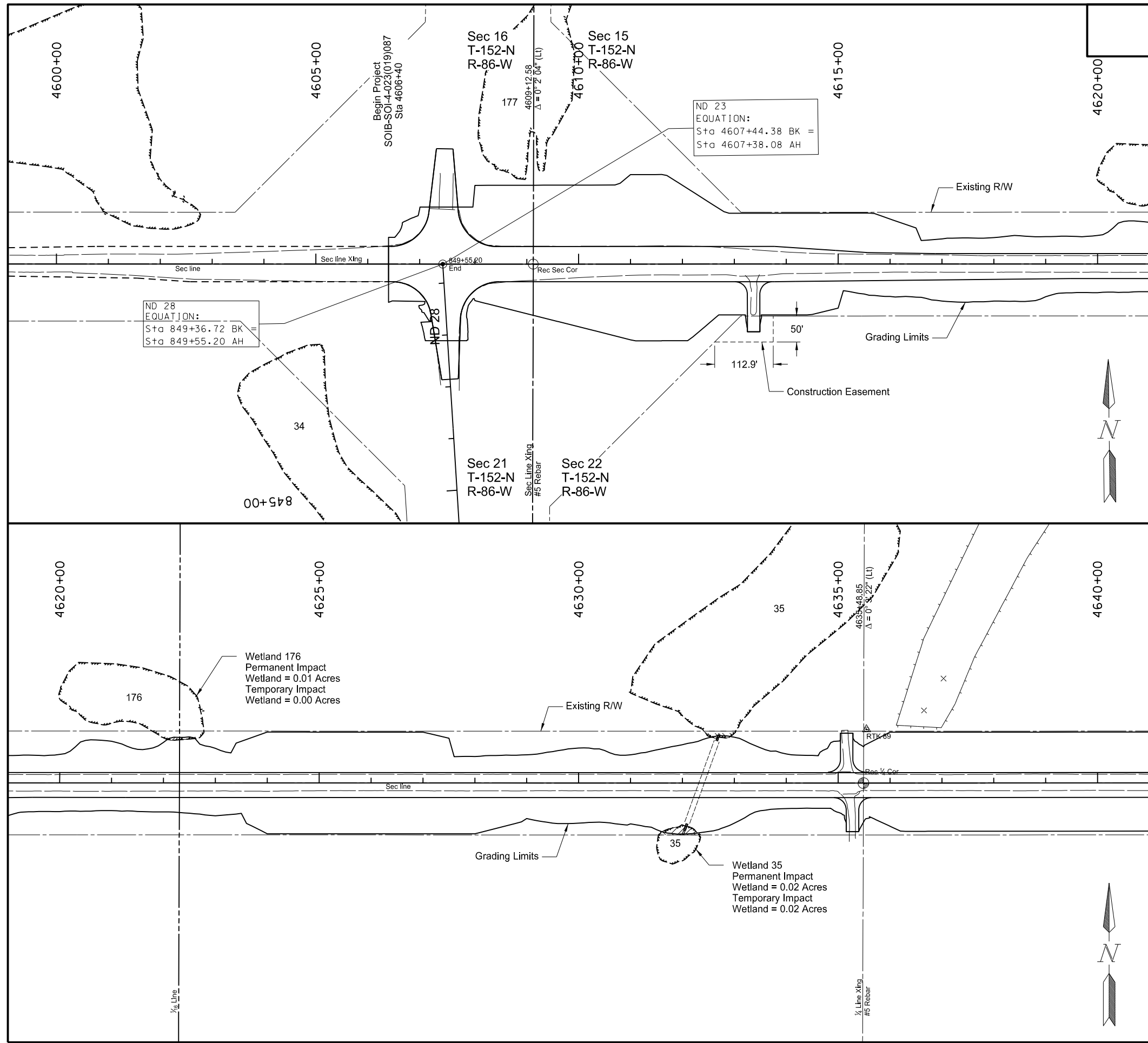




STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	1

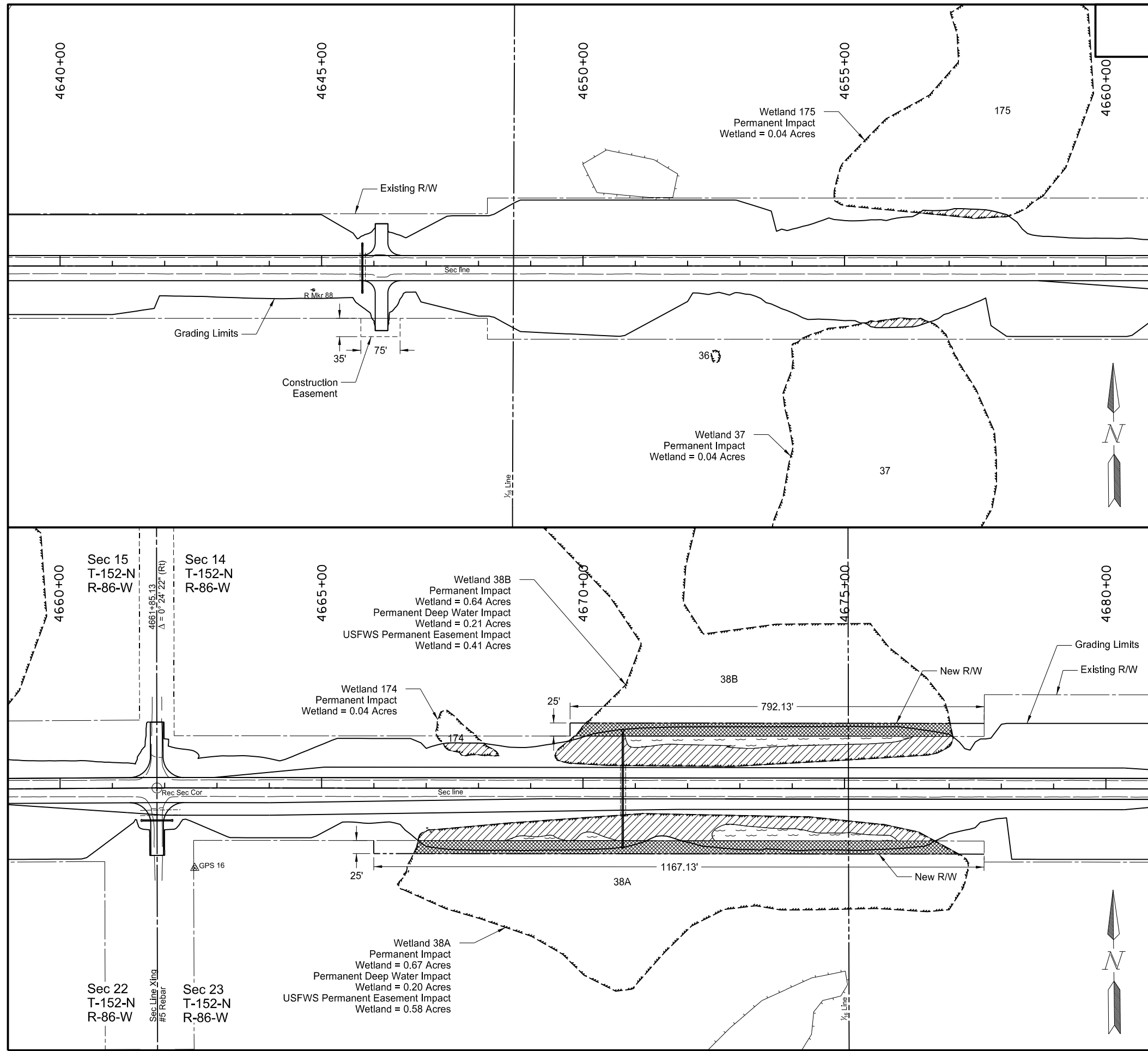






-  Permanent Wetland Impact
-  Temporary Wetland Impact

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Wetlands, Mitigation & Environmental Impacts  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	2

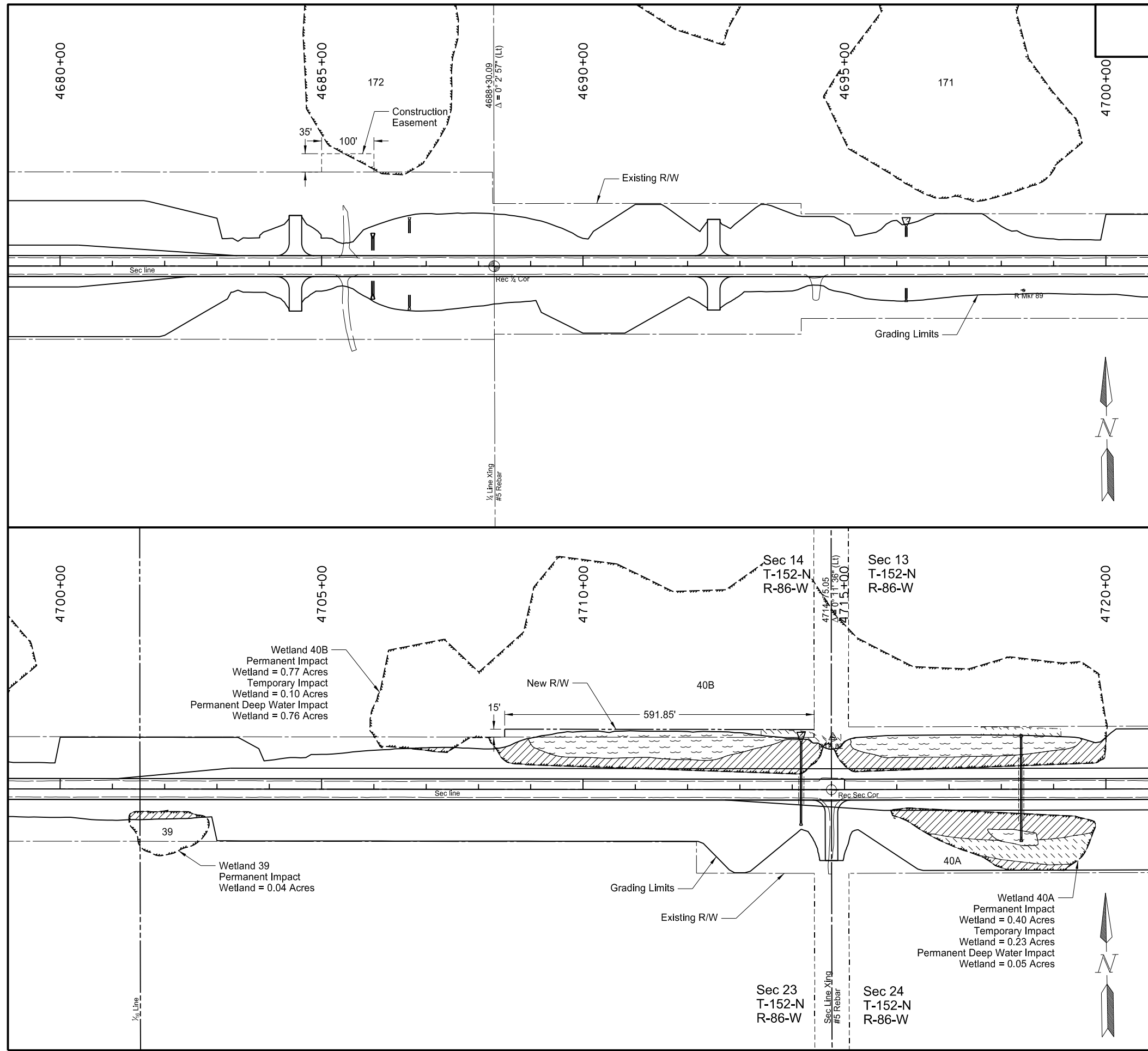


-  Permanent Wetland Impact
-  Temporary Wetland Impact
-  Permanent Deep Water Impact
-  Permanent Wetland Easement Impact

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Wetlands, Mitigation & Environmental Impacts  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	3

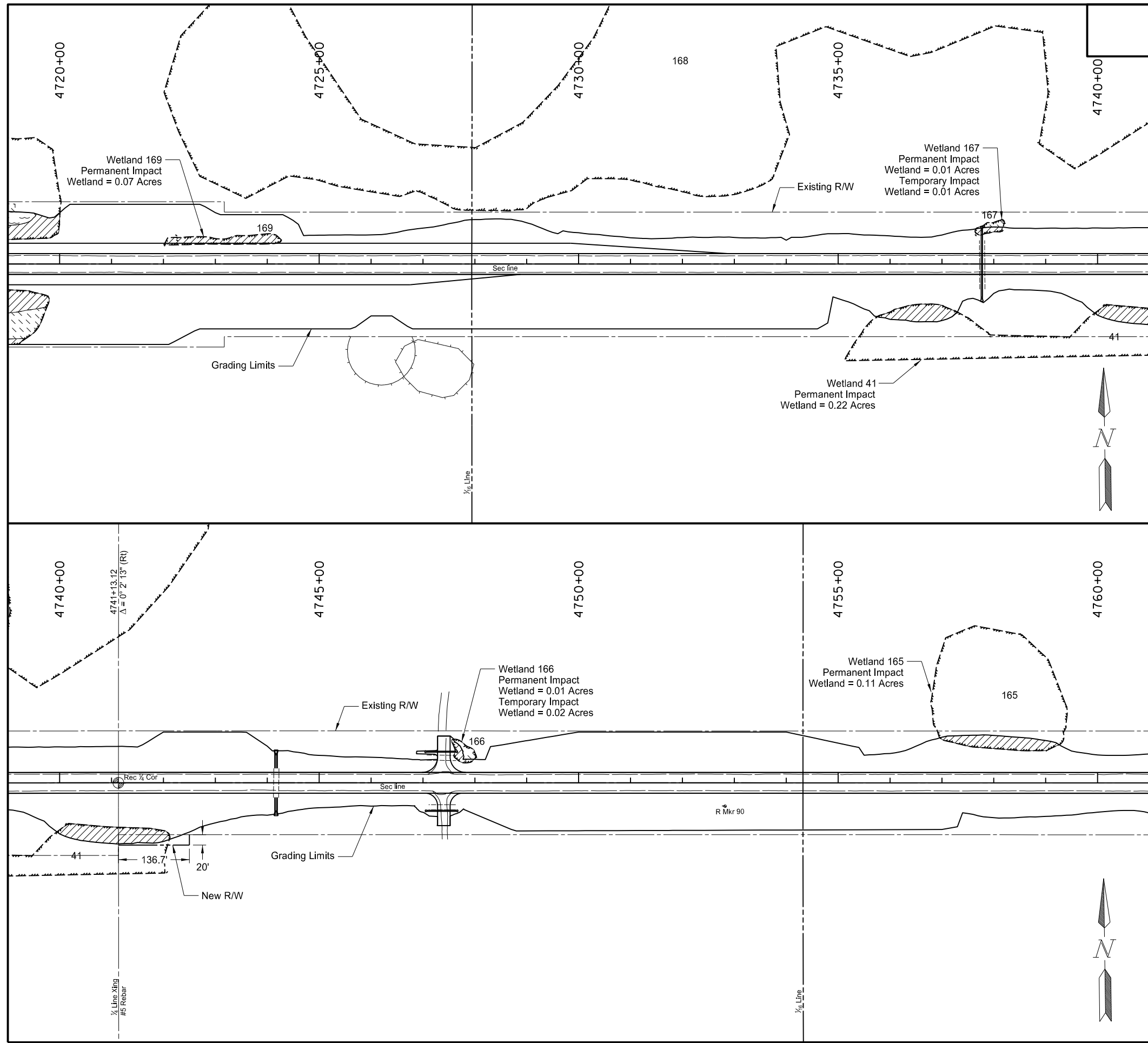




-  Permanent Wetland Impact
-  Temporary Wetland Impact
-  Permanent Deep Water Impact

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Wetlands, Mitigation & Environmental Impacts  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	4



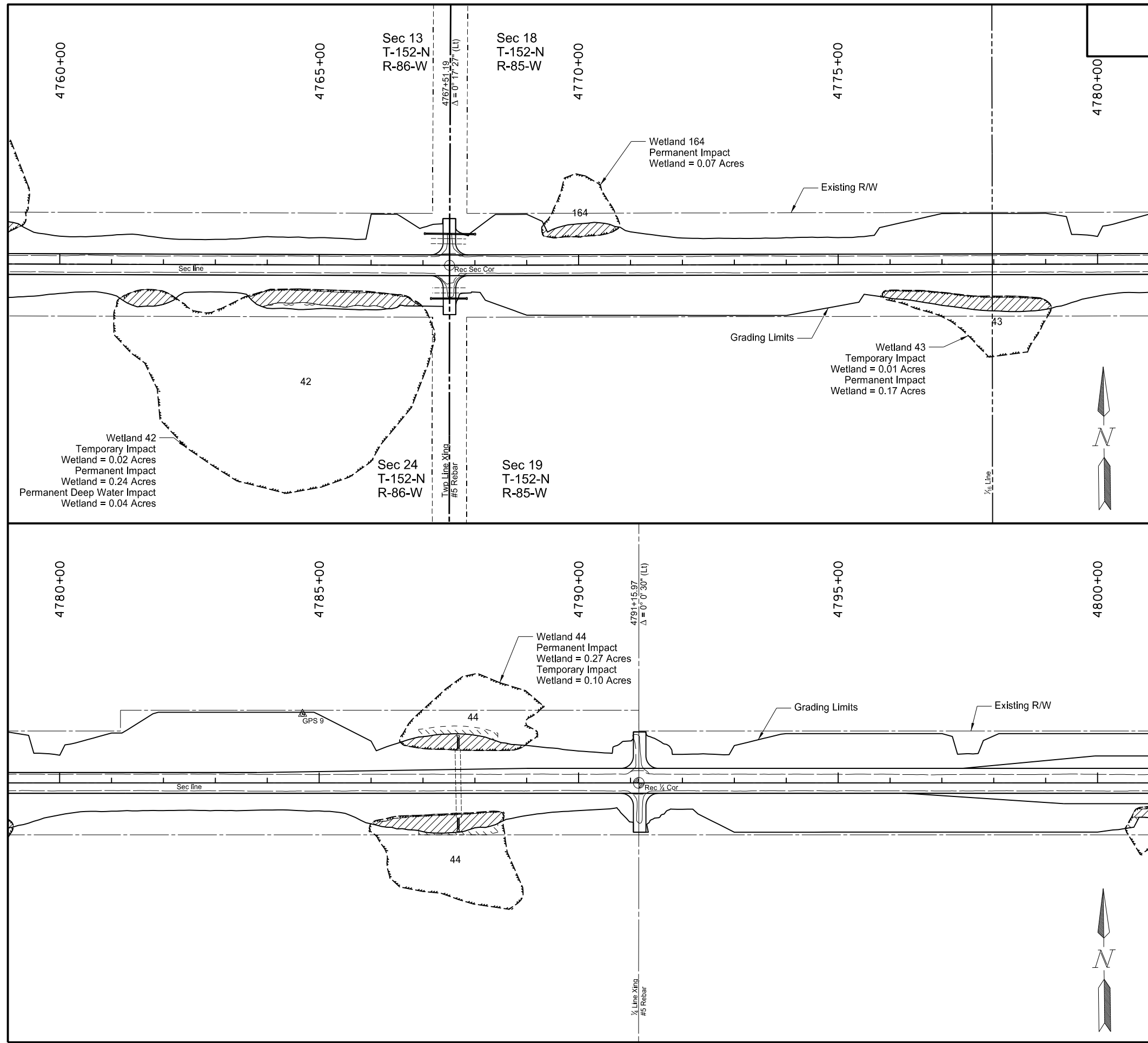
-  Permanent Wetland Impact
-  Temporary Wetland Impact

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Wetlands, Mitigation & Environmental Impacts  
 ND 23 - ND 28 to County Rd 13



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	5

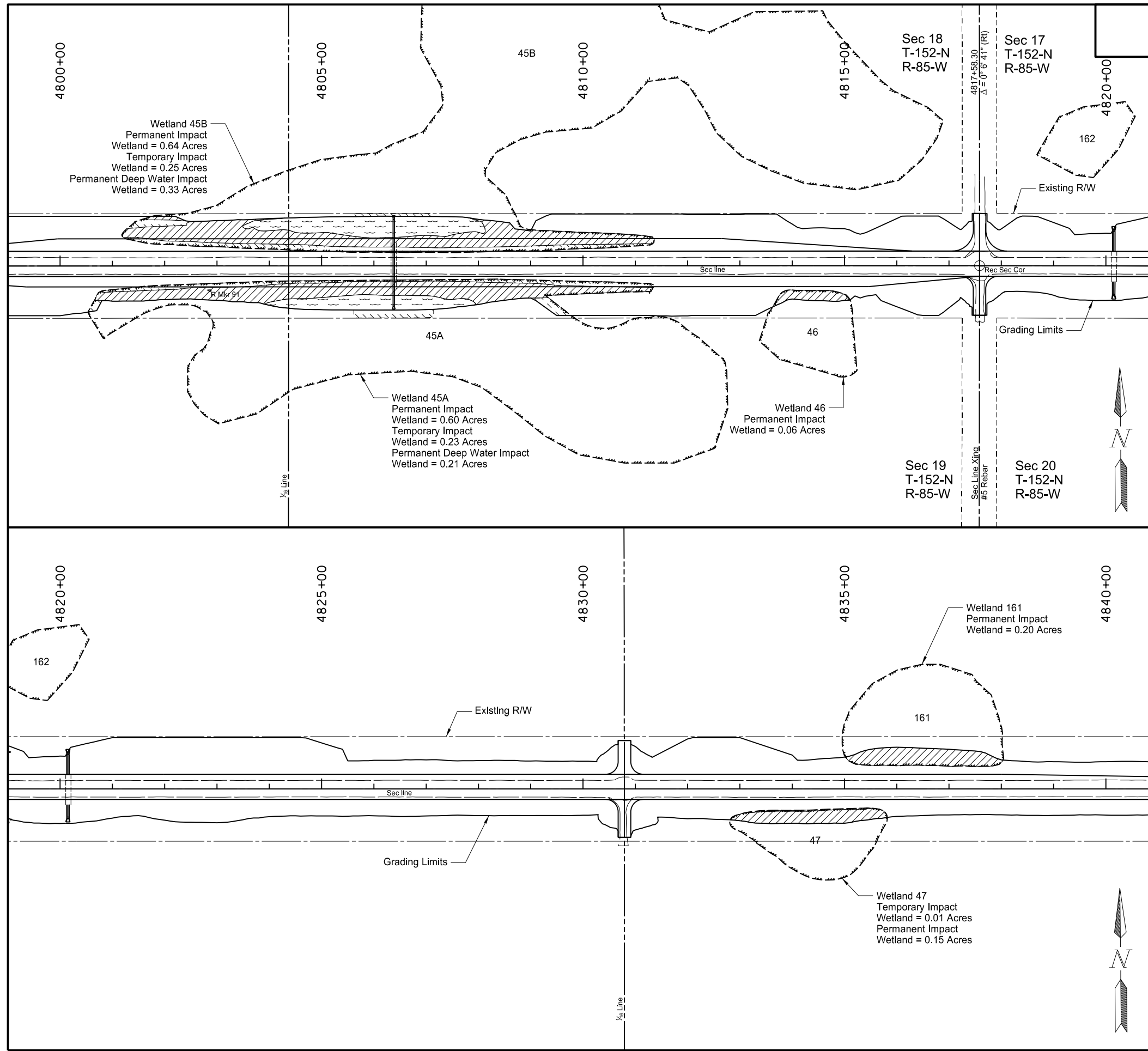


-  Permanent Wetland Impact
-  Temporary Wetland Impact
-  Permanent Deep Water Impact

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Wetlands, Mitigation & Environmental Impacts  
 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	6

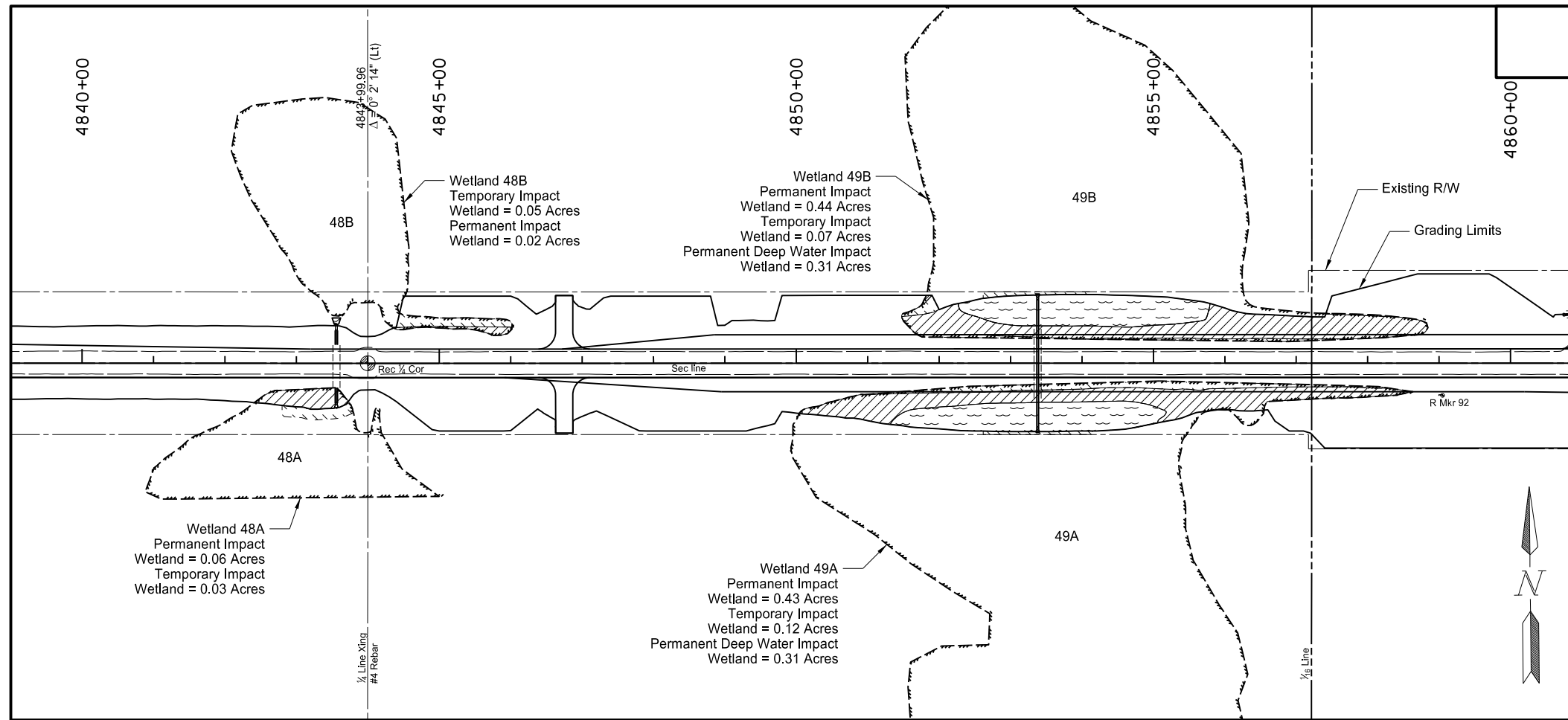


-  Permanent Wetland Impact
-  Temporary Wetland Impact
-  Permanent Deep Water Impact

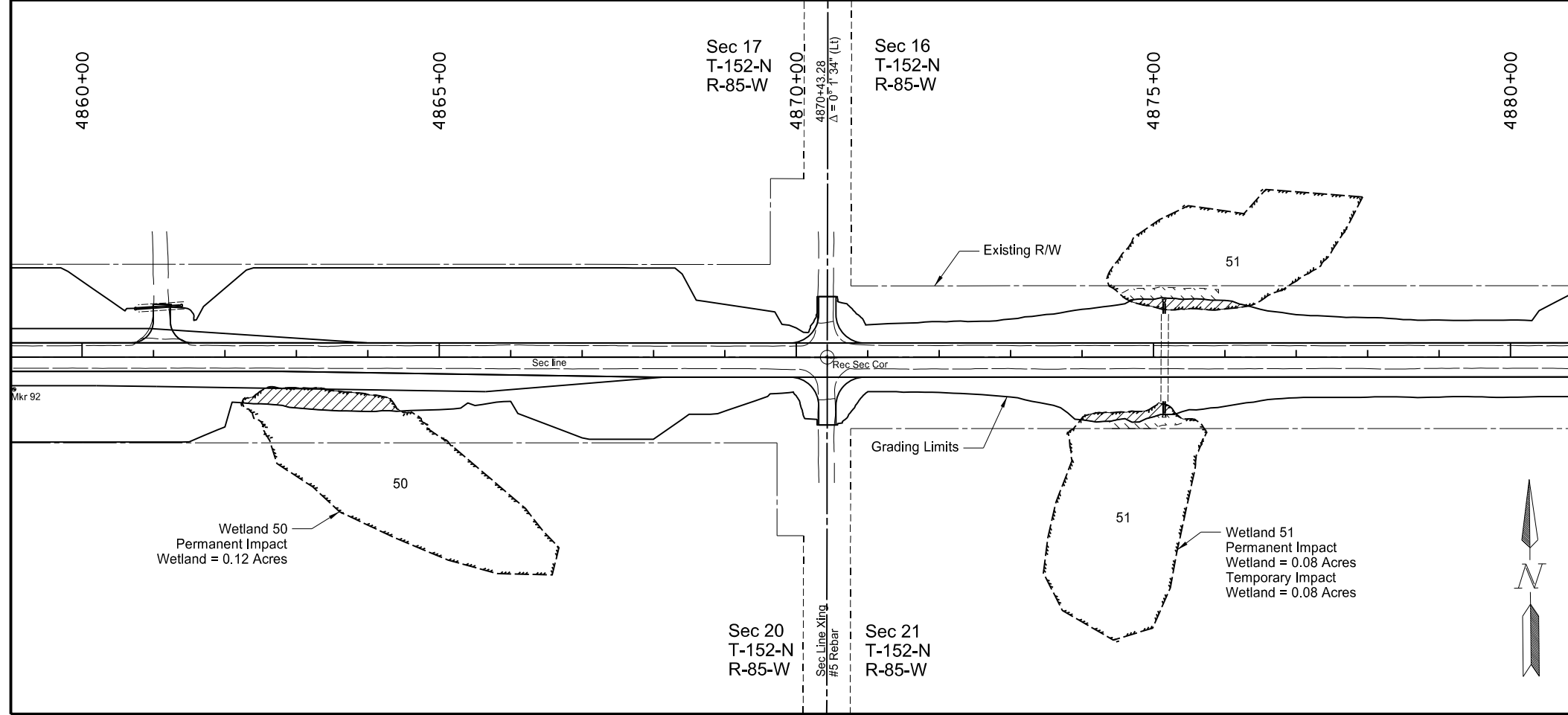
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Wetlands, Mitigation & Environmental Impacts  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	7



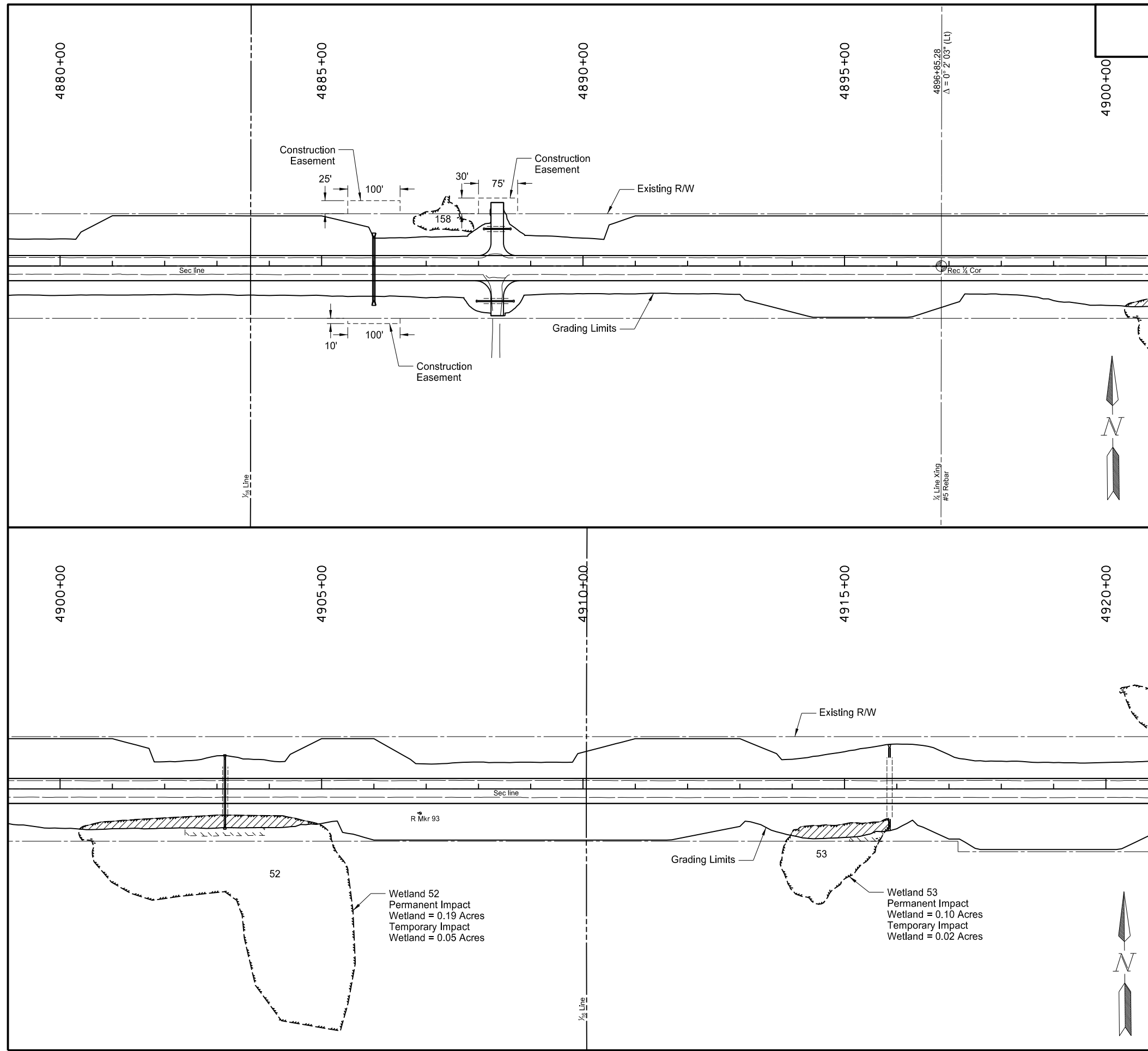
-  Permanent Wetland Impact
-  Temporary Wetland Impact
-  Permanent Deep Water Impact





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Wetlands, Mitigation & Environmental Impacts  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	8

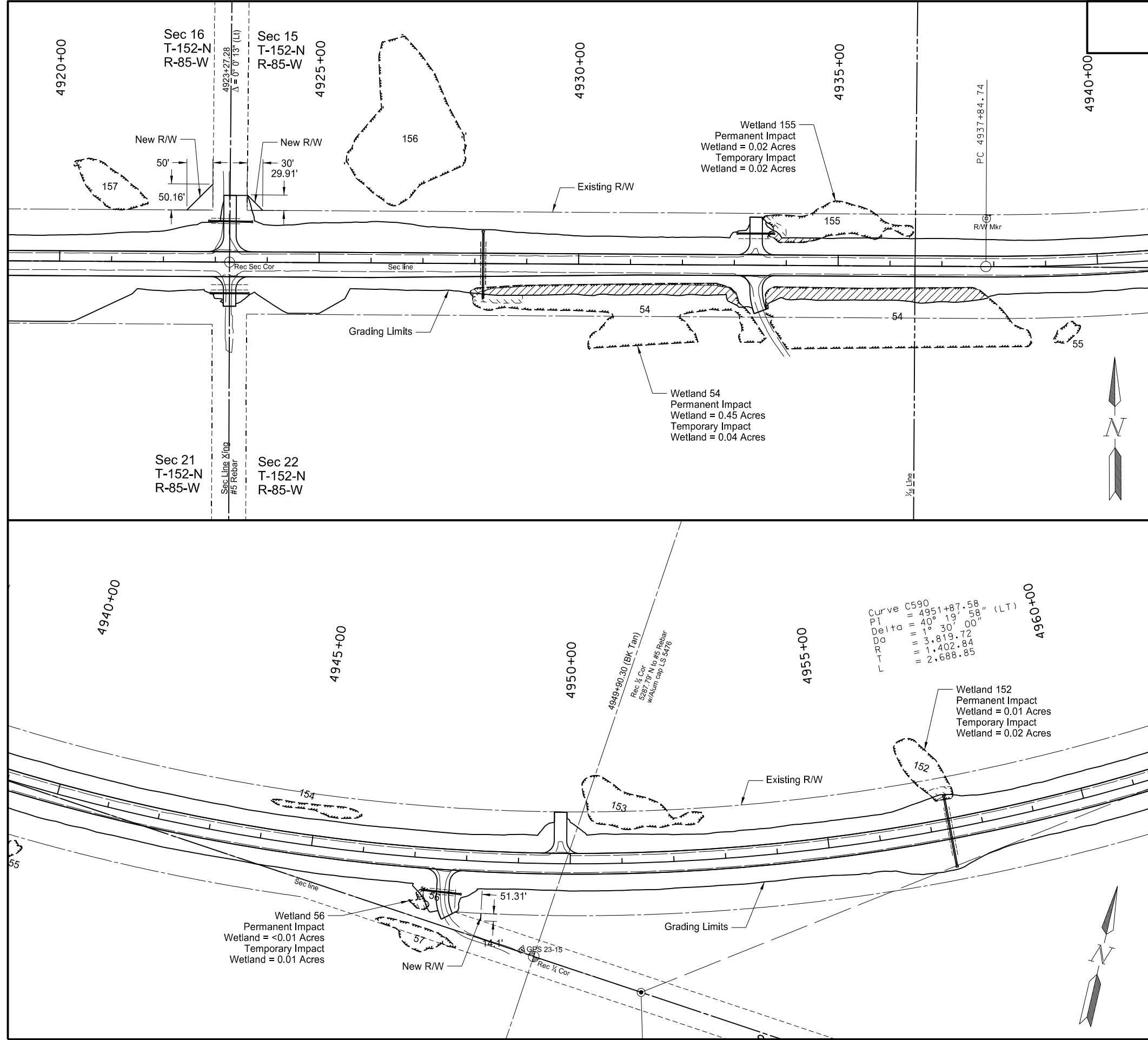




-  Permanent Wetland Impact
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Wetlands, Mitigation & Environmental Impacts  
 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	9

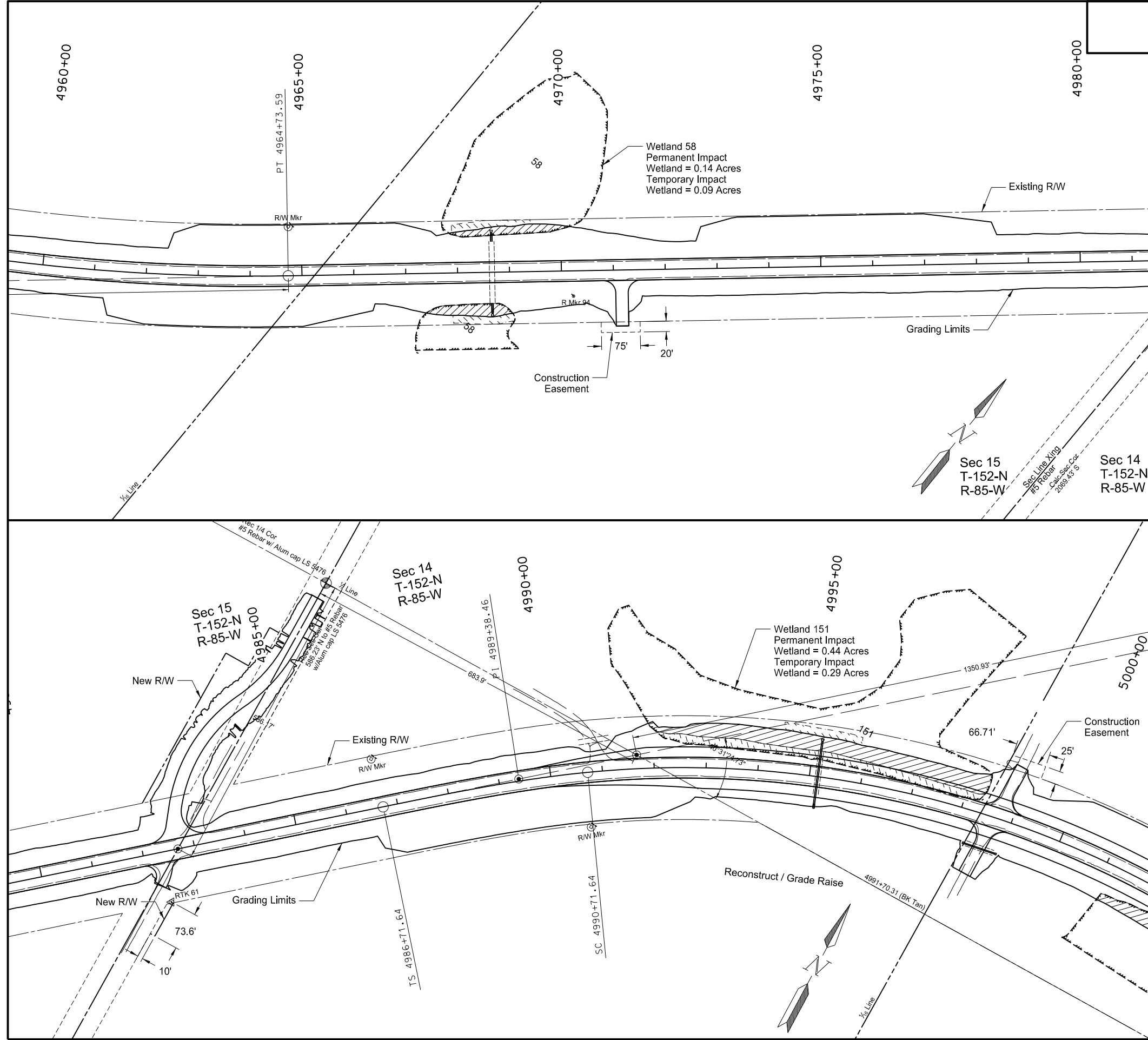




-  Permanent Wetland Impact
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**Wetlands, Mitigation & Environmental Impacts**  
 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	10

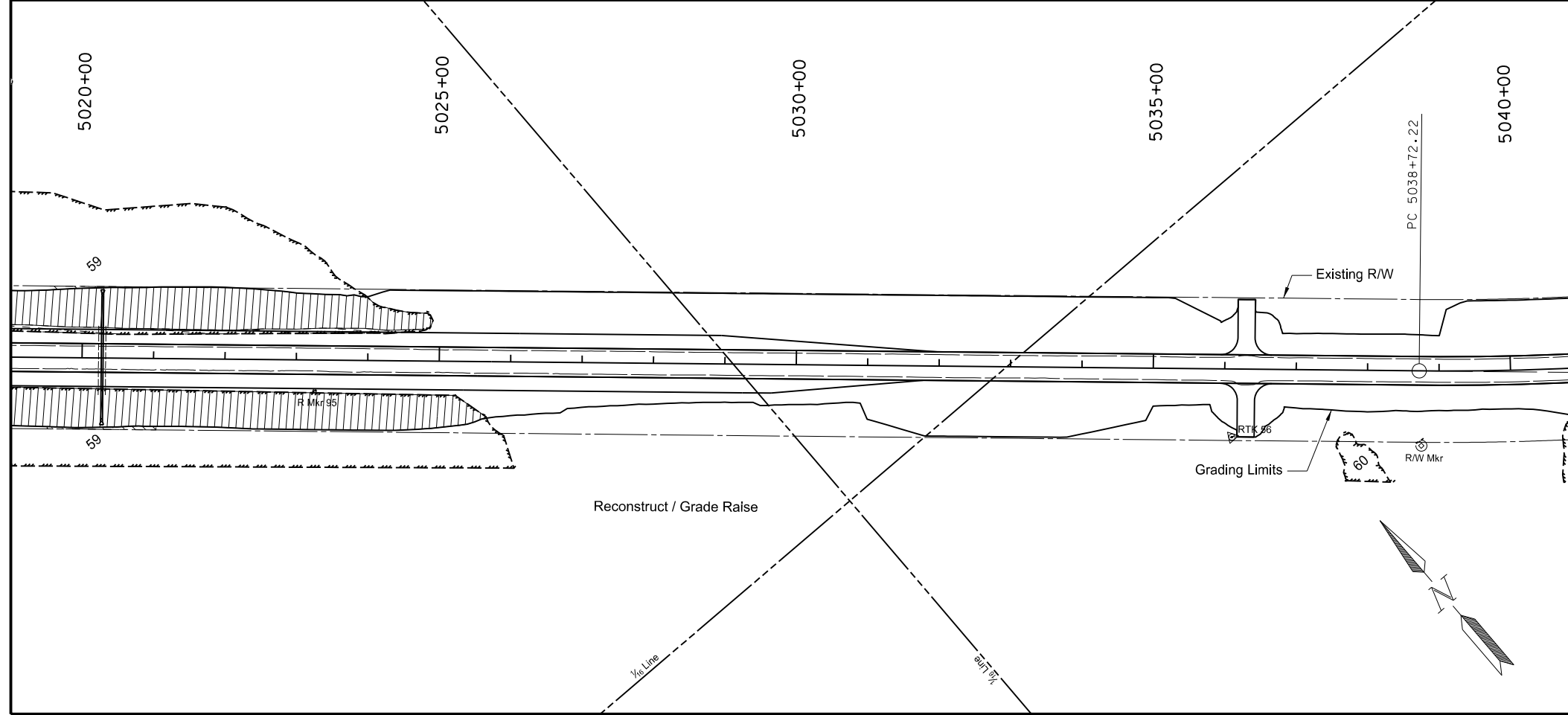
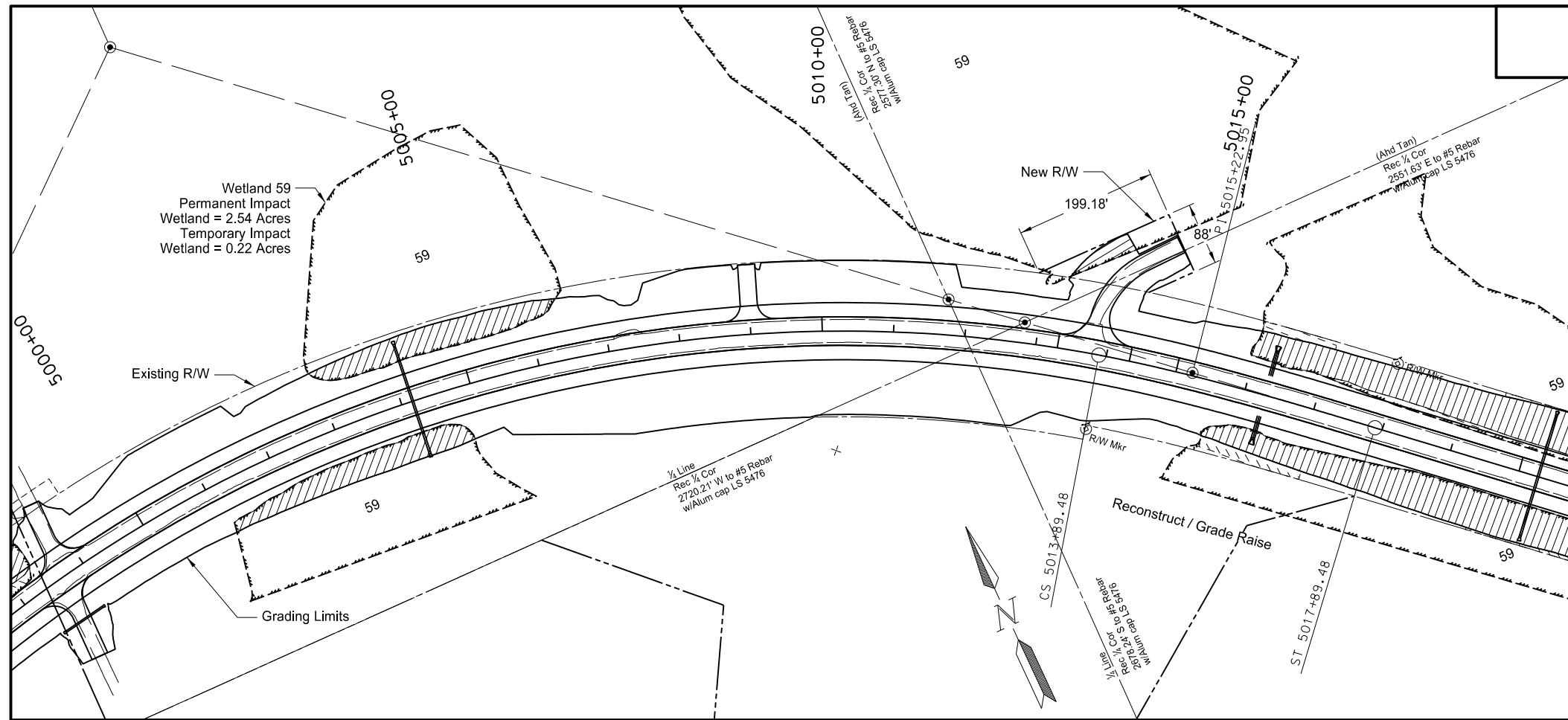




-  Permanent Wetland Impact
-  Temporary Wetland Impact

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 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	11

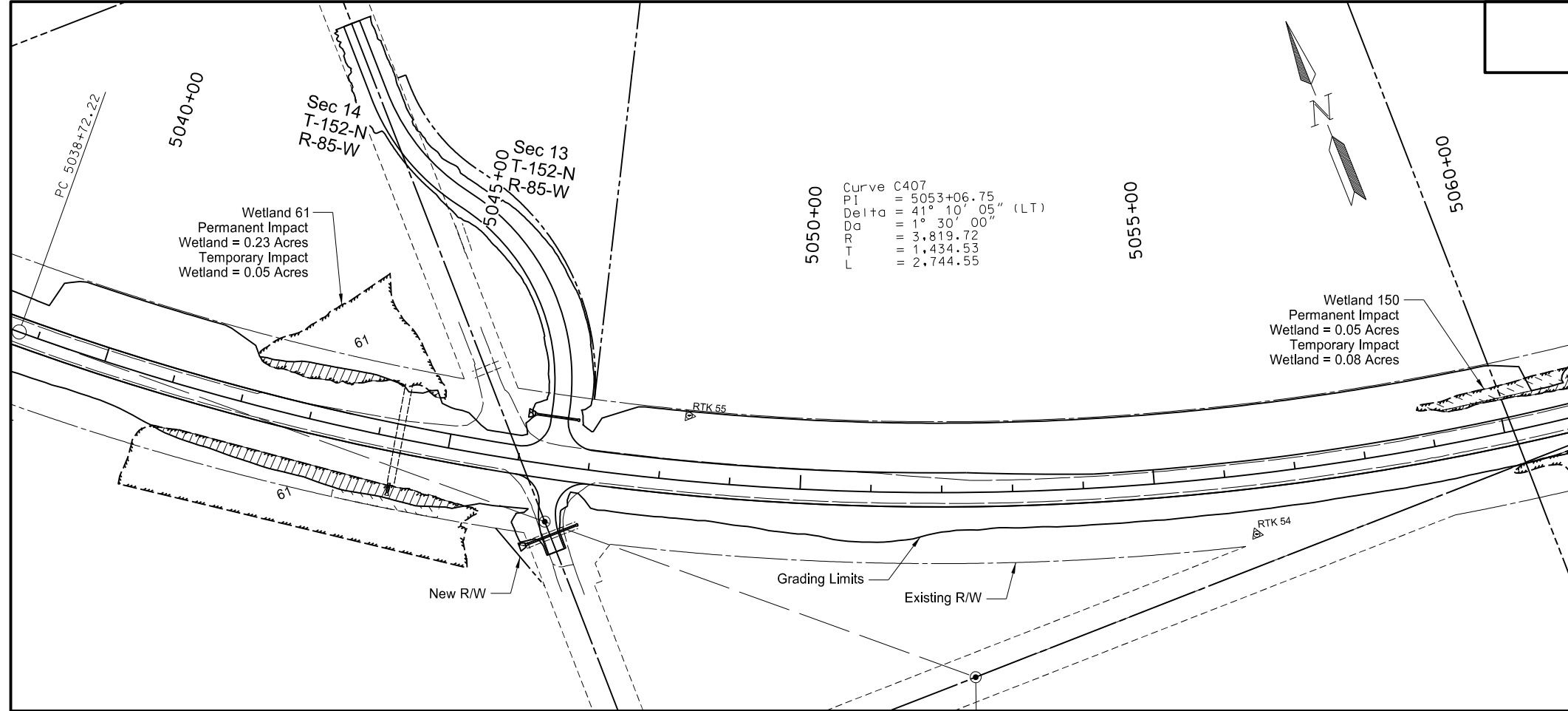


-  Permanent Wetland Impact
-  Temporary Wetland Impact

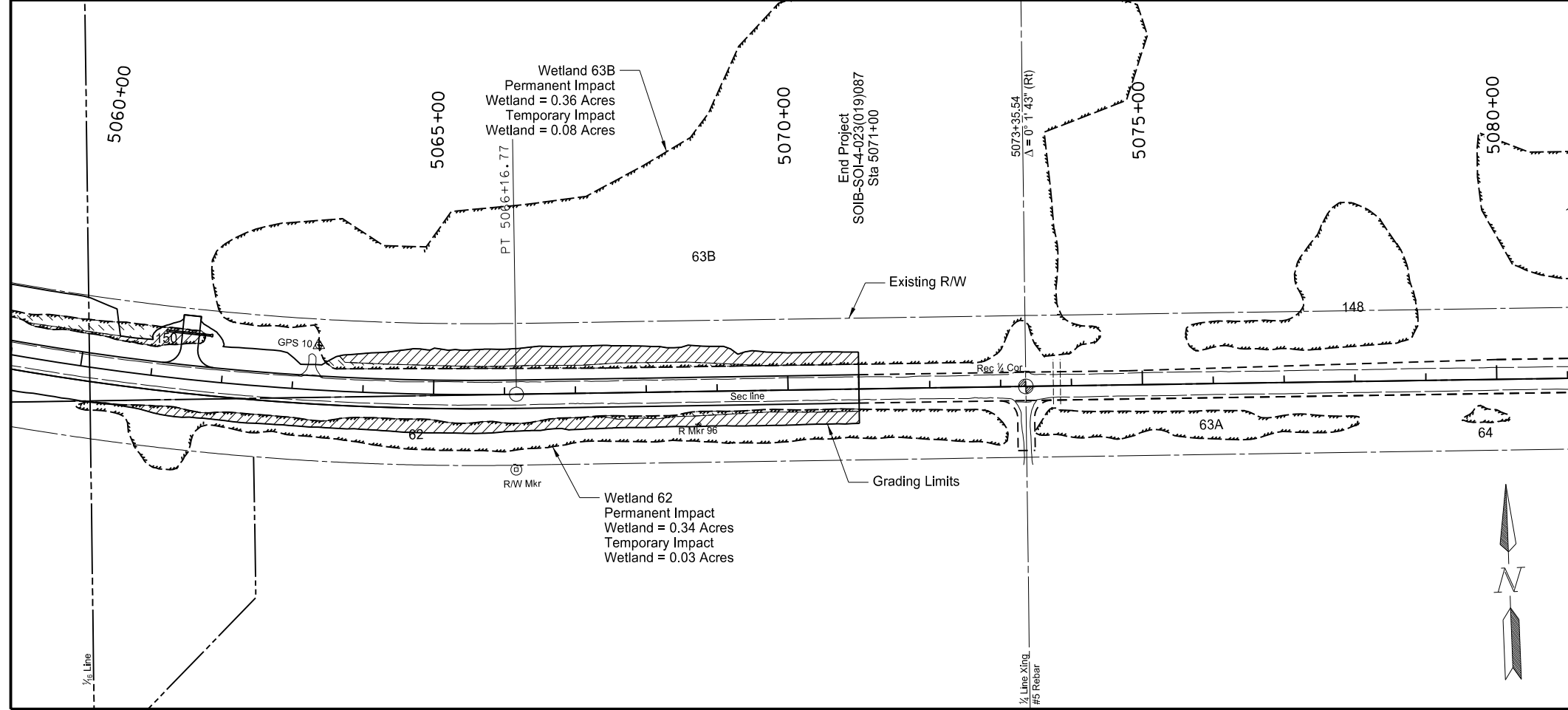
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Wetlands, Mitigation & Environmental Impacts  
 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	12



- Permanent Wetland Impact
- Temporary Wetland Impact



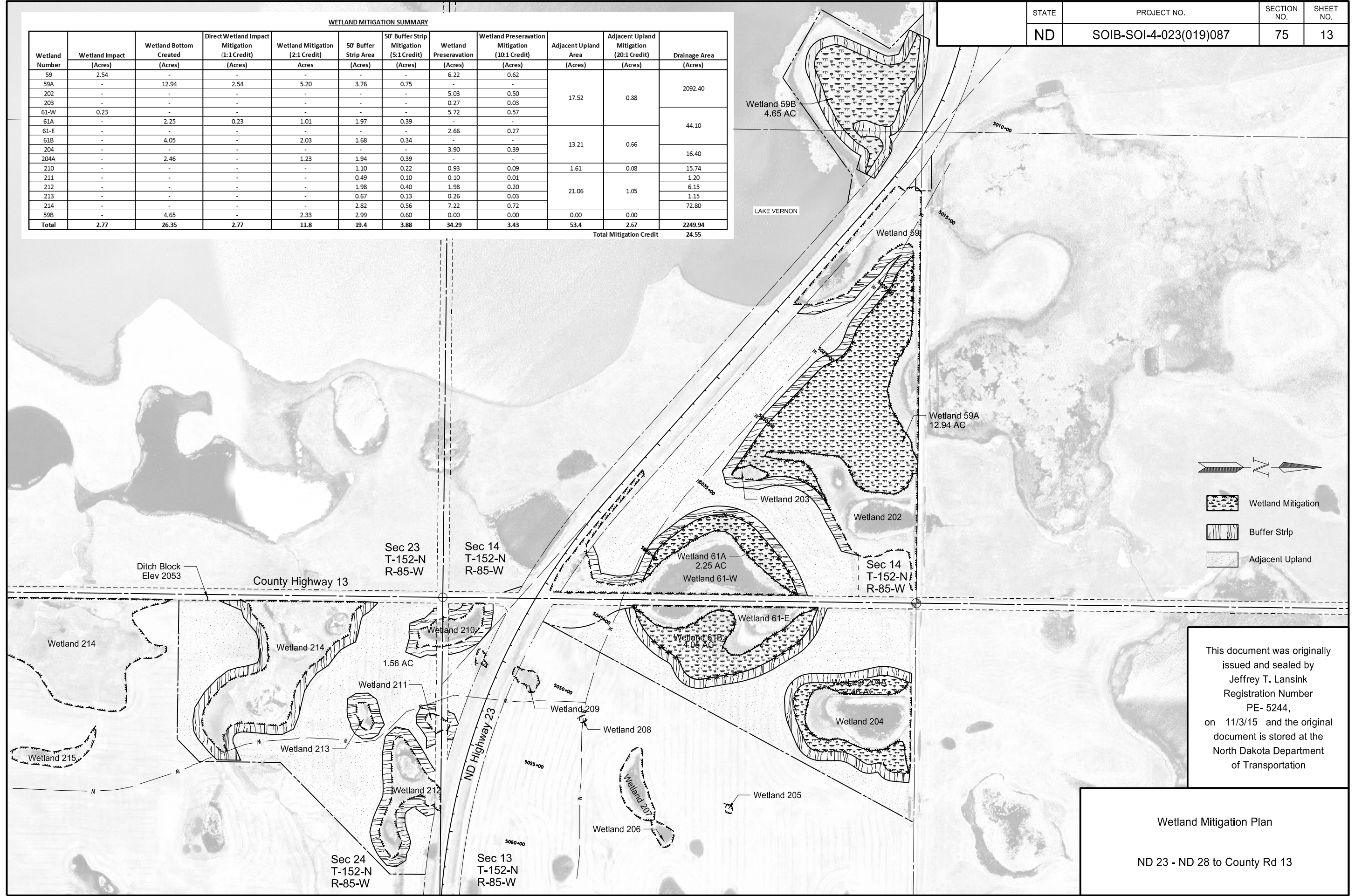
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Wetlands, Mitigation &  
 Environmental Impacts  
 ND 23 - ND 28 to County Rd 13



**WETLAND MITIGATION SUMMARY**

Wetland Number	Wetland Impact (Acres)	Wetland Bottom Created (Acres)	Direct Wetland Impact Mitigation (1:1 Credit) (Acres)	Wetland Mitigation (2:1 Credit) (Acres)	50' Buffer Strip Area (Acres)	50' Buffer Strip Mitigation (5:1 Credit) (Acres)	Wetland Preservation (Acres)	Wetland Mitigation (10:1 Credit) (Acres)	Adjacent Upland Area (Acres)	Adjacent Upland Mitigation (20:1 Credit) (Acres)	Drainage Area (Acres)
59	2.54	-	-	-	-	-	6.22	0.62	-	-	-
59A	-	12.94	2.54	5.20	3.76	0.75	-	-	17.52	0.88	2092.40
202	-	-	-	-	-	-	5.03	0.50	-	-	-
203	-	-	-	-	-	-	0.27	0.03	-	-	-
61-W	0.23	-	-	-	-	-	5.72	0.57	-	-	-
61A	-	2.25	0.23	1.01	1.97	0.39	-	-	13.21	0.66	44.10
61-E	-	-	-	-	-	-	2.66	0.27	-	-	-
61B	-	4.05	-	2.03	1.68	0.34	-	-	-	-	-
204	-	-	-	-	-	-	3.90	0.39	-	-	-
204A	-	2.46	-	1.23	1.94	0.39	-	-	-	-	16.40
210	-	-	-	-	1.10	0.22	0.93	0.09	1.61	0.08	15.74
211	-	-	-	-	0.49	0.10	0.10	0.01	-	-	1.20
212	-	-	-	-	1.98	0.40	1.98	0.20	21.06	1.05	6.15
213	-	-	-	-	0.67	0.13	0.26	0.03	-	-	1.15
214	-	-	-	-	2.82	0.56	7.22	0.72	-	-	72.80
59B	-	4.65	-	2.33	2.99	0.60	0.00	0.00	0.00	0.00	-
<b>Total</b>	<b>2.77</b>	<b>26.35</b>	<b>2.77</b>	<b>11.8</b>	<b>19.4</b>	<b>3.88</b>	<b>34.29</b>	<b>3.43</b>	<b>53.4</b>	<b>2.67</b>	<b>2249.94</b>
<b>Total Mitigation Credit</b>											<b>24.55</b>



North Arrow

- Wetland Mitigation
- Buffer Strip
- Adjacent Upland

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**Wetland Mitigation Plan**  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	14





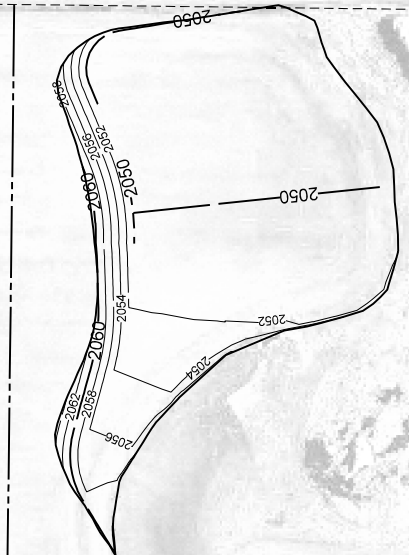
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	15

Sec 23  
T-152-N  
R-85-W

Sec 14  
T-152-N  
R-85-W

Sec 24  
T-152-N  
R-85-W

Sec 13  
T-152-N  
R-85-W



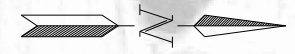
5045+00

5050+00

5055+00

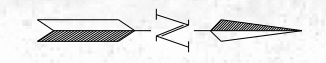
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Wetland Mitigation Plan  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	75	16



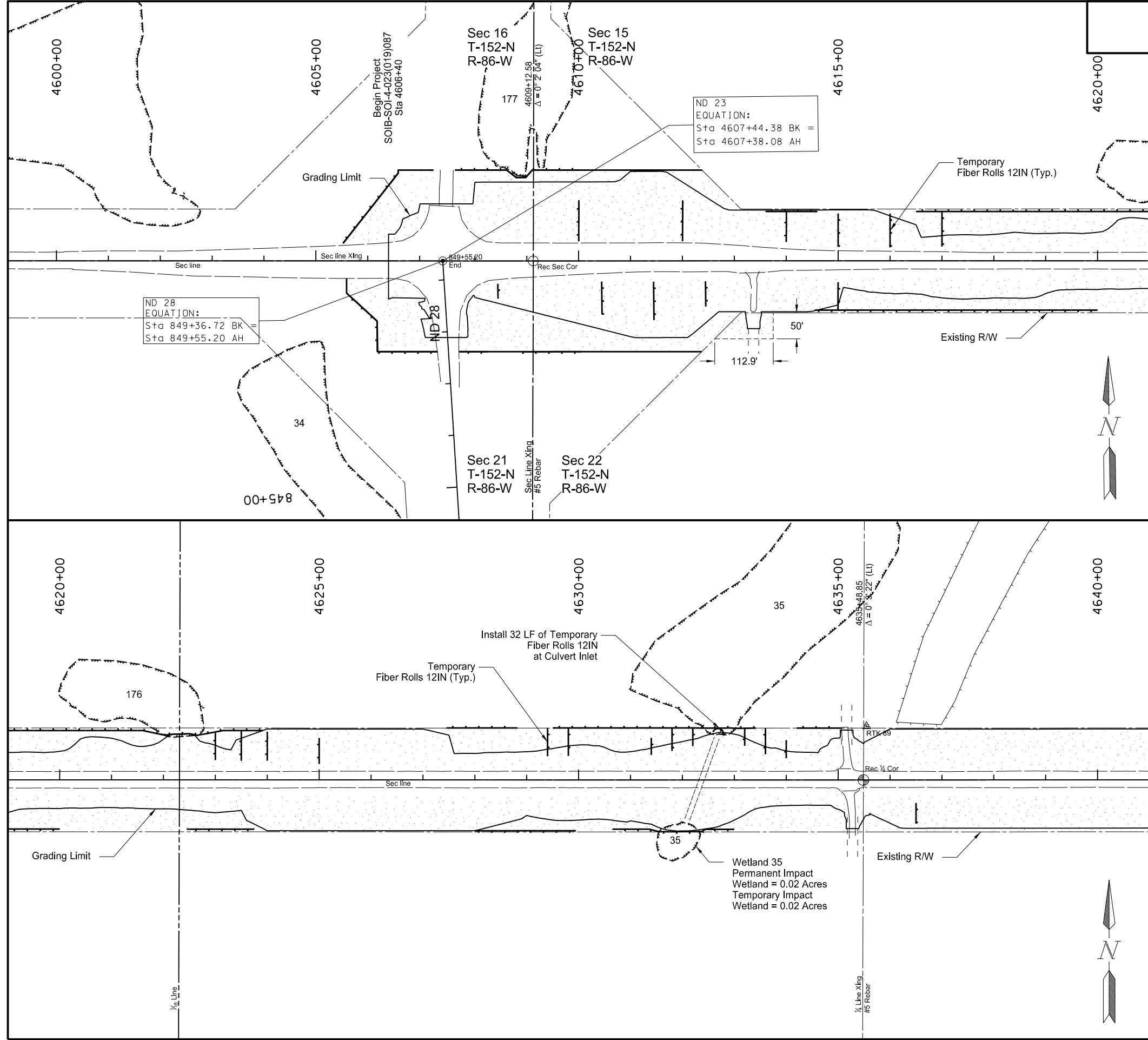
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Wetland Mitigation Plan  
 ND 23 - ND 28 to County Rd 13

LAKE VERNON

5015+00  
 Sec 14  
 T-152-N  
 R-85-W

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	1

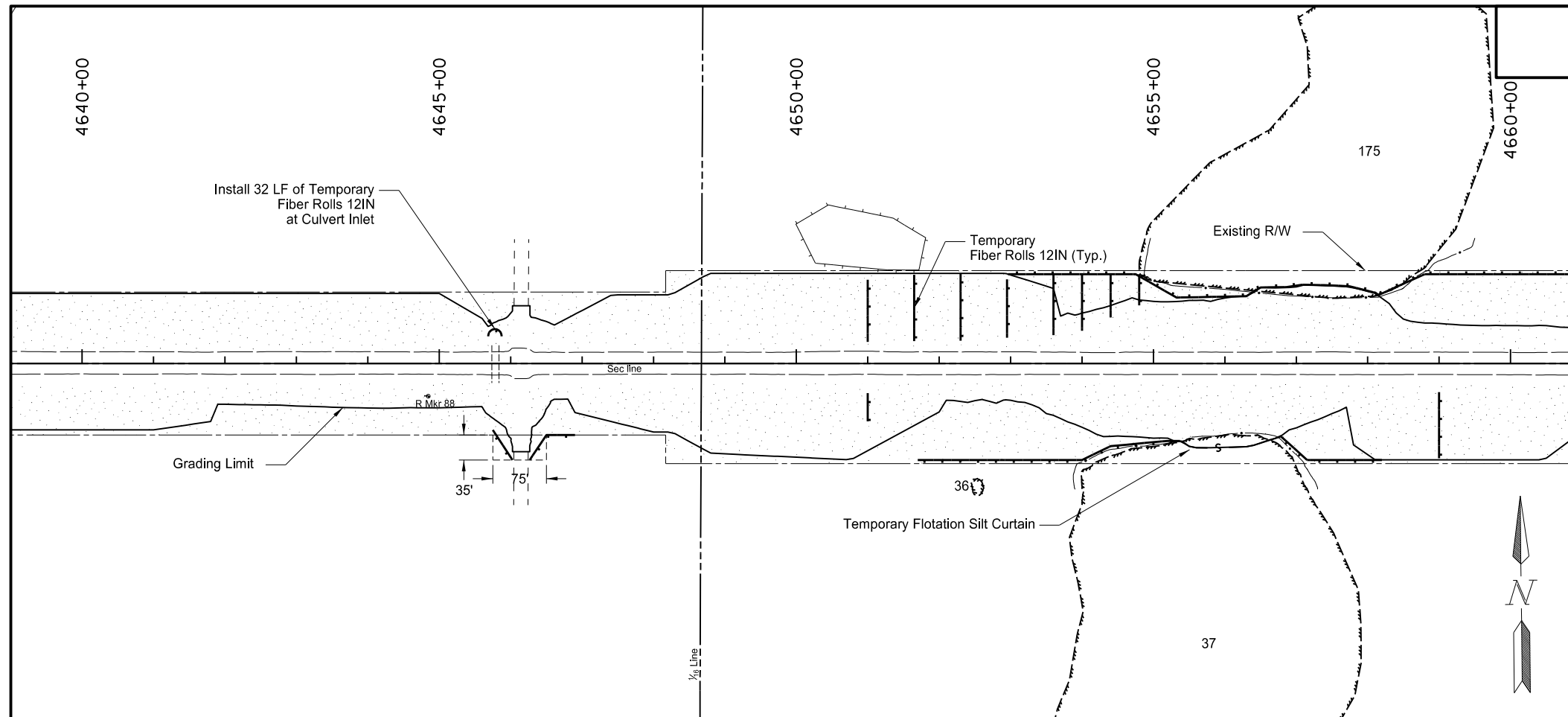


Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop		
	Sta 4605+52 Lt to 4640+00 Lt	6.80	Acre
253-0101	Straw Mulch		
	Sta 4605+52 Lt to 4640+00 Lt	6.80	Acre
261-0112	Fiber Rolls 12IN		
	Sta 4605+52 Lt to 4640+00 Lt	2,891	LF
261-0113	Remove Fiber Rolls 12IN		
	Sta 4605+52 Lt to 4640+00 Lt	1,850	LF



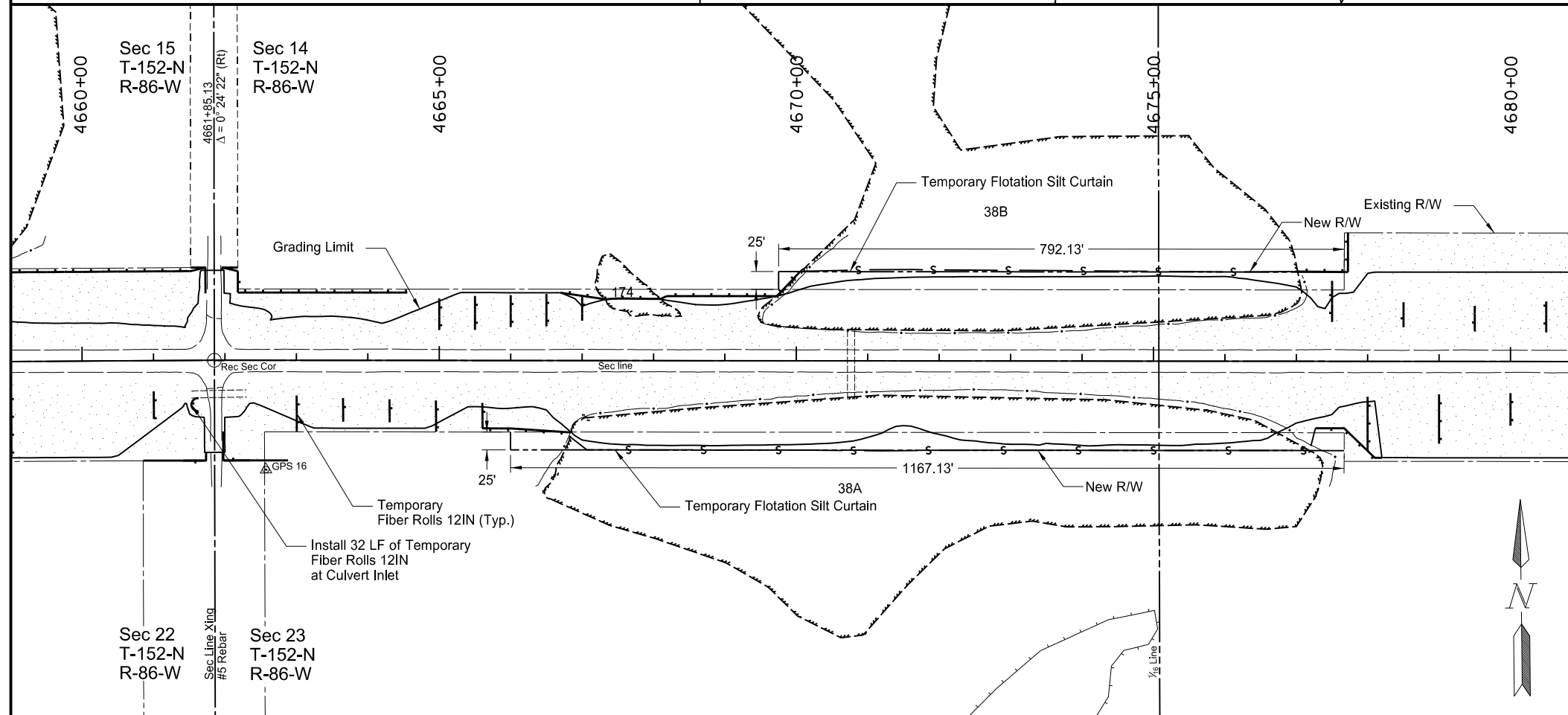
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Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13



Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop		
	Sta 4640+00 Lt to 4680+00 Lt	7.71	Acre
	Sta 4640+00 Rt to 4680+00 Rt	7.51	Acre
253-0101	Straw Mulch		
	Sta 4640+00 Lt to 4680+00 Lt	7.71	Acre
	Sta 4640+00 Rt to 4680+00 Rt	7.51	Acre
261-0112	Fiber Rolls 12IN		
	Sta 4640+00 Lt to 4680+00 Lt	2,664	LF
	Sta 4640+00 Rt to 4680+00 Rt	1,499	LF
261-0113	Remove Fiber Rolls 12IN		
	Sta 4640+00 Lt to 4680+00 Lt	2,664	LF
	Sta 4640+00 Rt to 4680+00 Rt	1,499	LF
262-0100	Flotation Silt Curtain		
	Sta 4669+00 Lt to 4678+00 Lt	696	LF
	Sta 4655+00 Rt to 4677+00 Rt	1,222	LF
262-0101	Remove Flotation Silt Curtain		
	Sta 4669+00 Lt to 4678+00 Lt	696	LF
	Sta 4655+00 Rt to 4677+00 Rt	1,222	LF

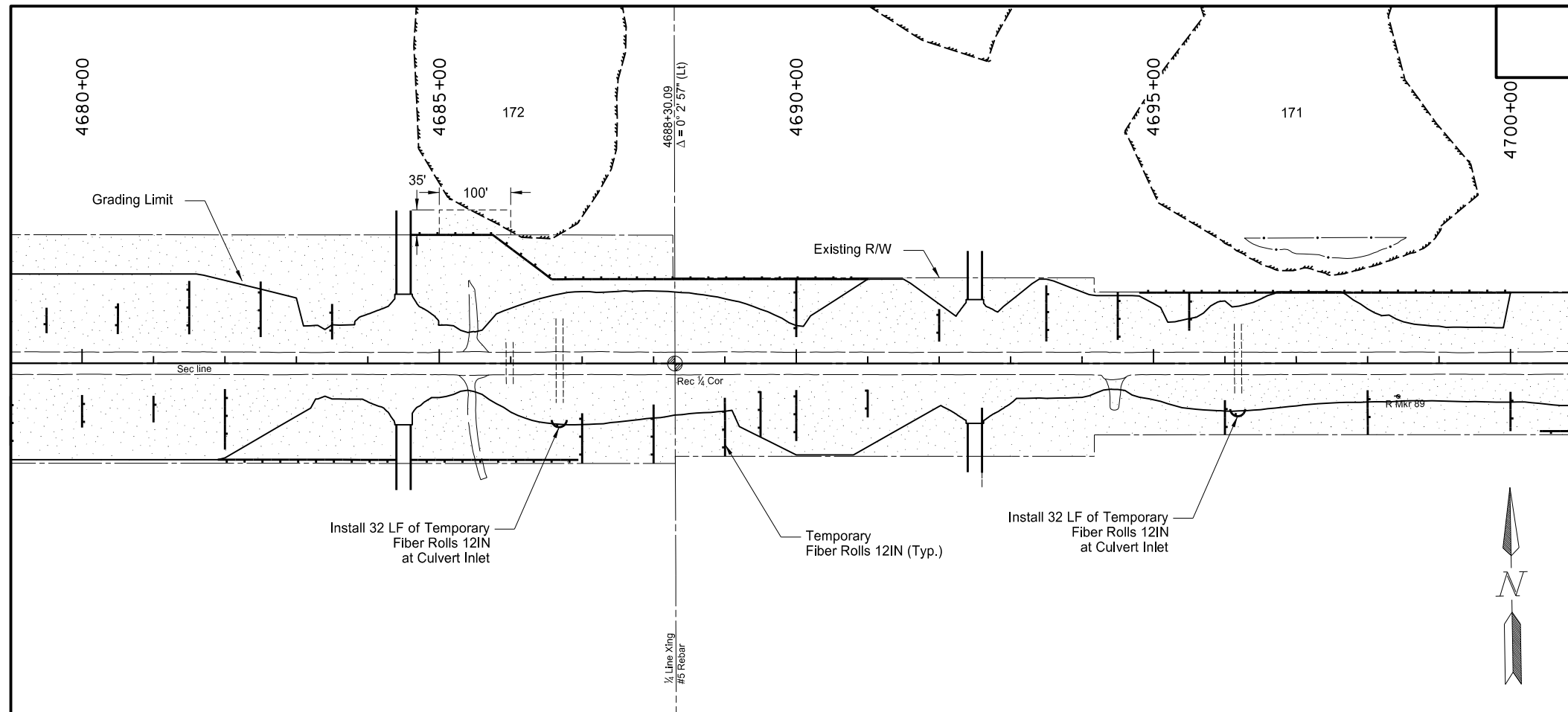
- Temporary Cover Crop
- Temporary Straw Mulch
- Temporary Flotation Silt Curtain
- Temporary Fiber Rolls 12IN



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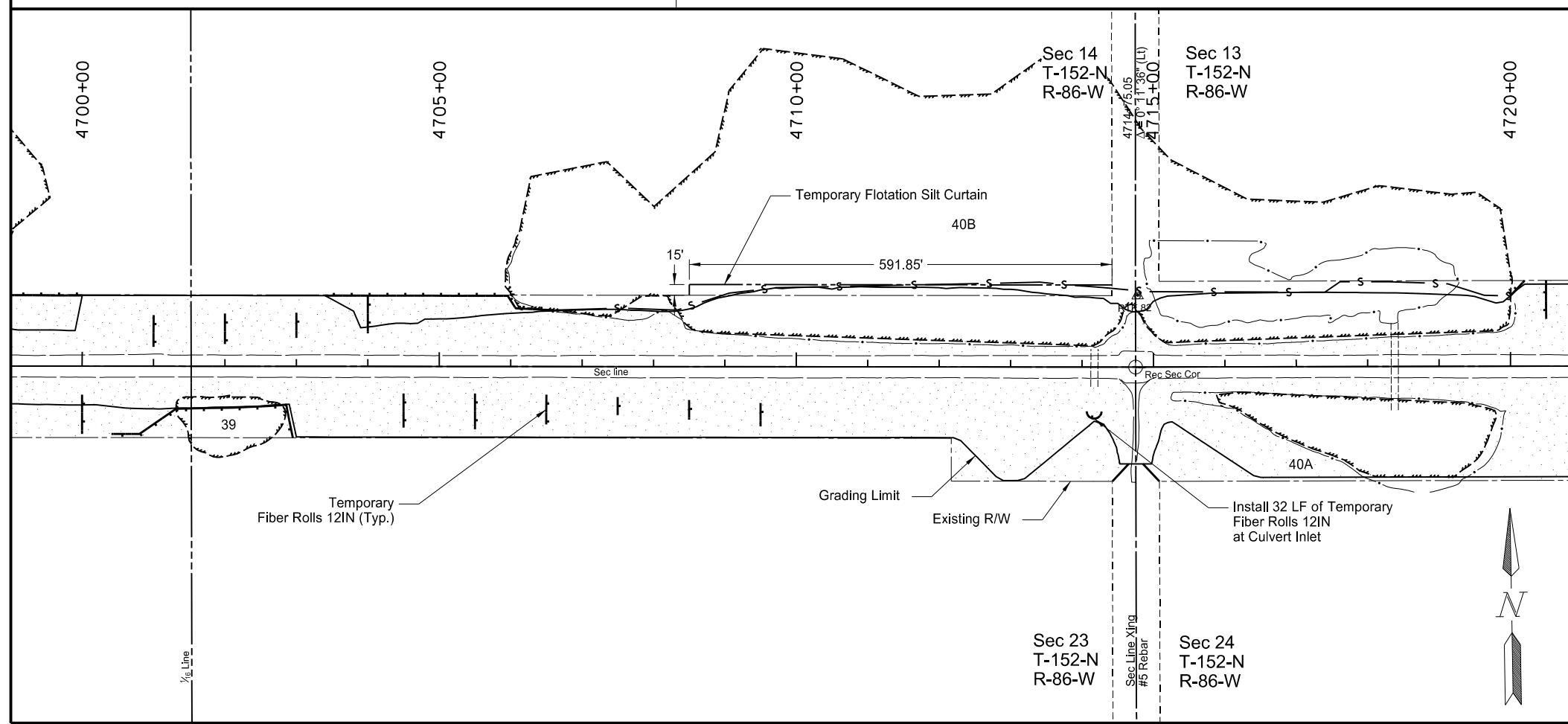
Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	3



Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop		
	Sta 4680+00 Lt to 4720+00 Lt	7.49	Acre
	Sta 4680+00 Rt to 4720+00 Rt	8.52	Acre
253-0101	Straw Mulch		
	Sta 4680+00 Lt to 4720+00 Lt	7.49	Acre
261-0112	Fiber Rolls 12IN		
	Sta 4680+00 Lt to 4720+00 Lt	2,256	LF
261-0113	Remove Fiber Rolls 12IN		
	Sta 4680+00 Lt to 4720+00 Lt	2,256	LF
262-0100	Flotation Silt Curtain		
	Sta 4706+00 Lt to 4720+00 Lt	1,352	LF
262-0101	Remove Flotation Silt Curtain		
	Sta 4706+00 Lt to 4720+00 Lt	1,352	LF

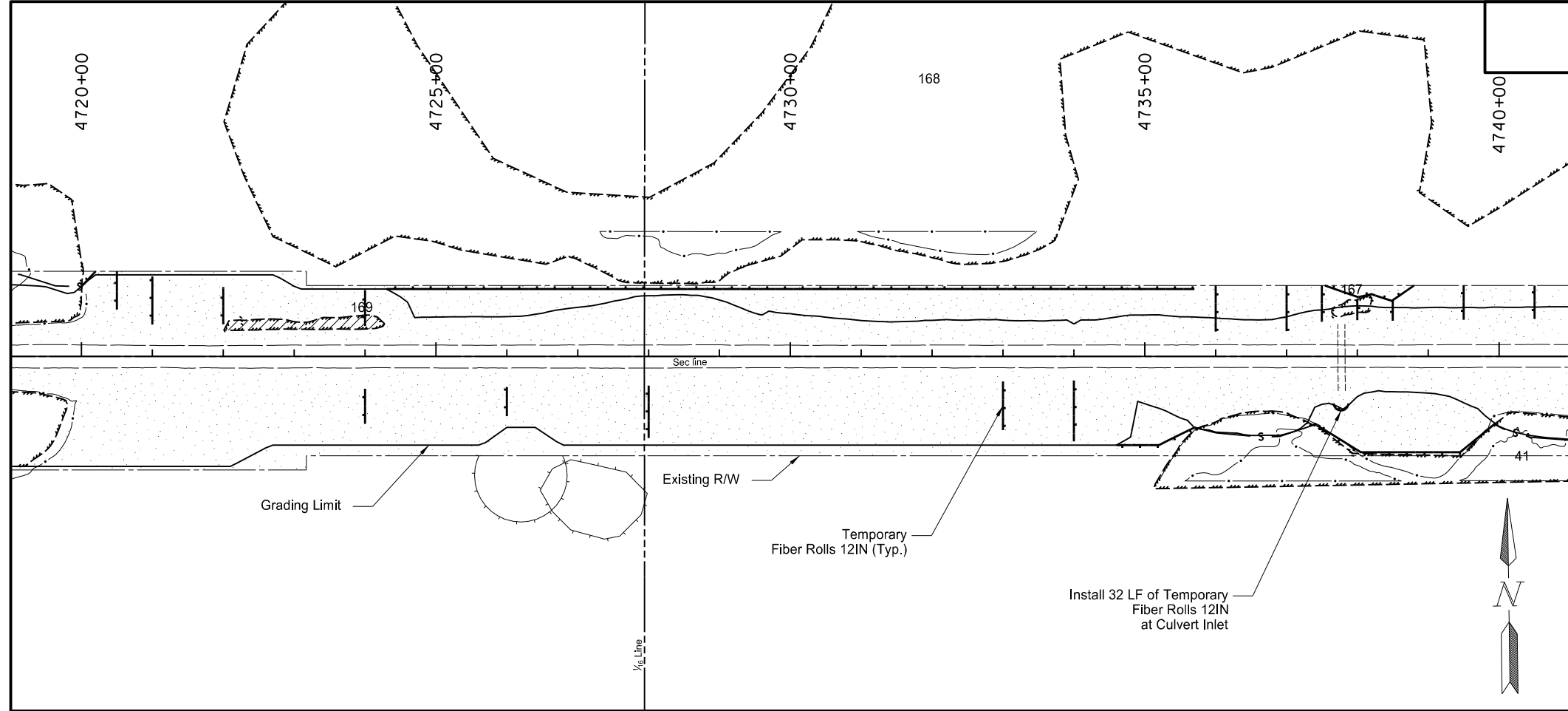
- Temporary Cover Crop
- Temporary Straw Mulch
- Temporary Flotation Silt Curtain
- Temporary Fiber Rolls 12IN



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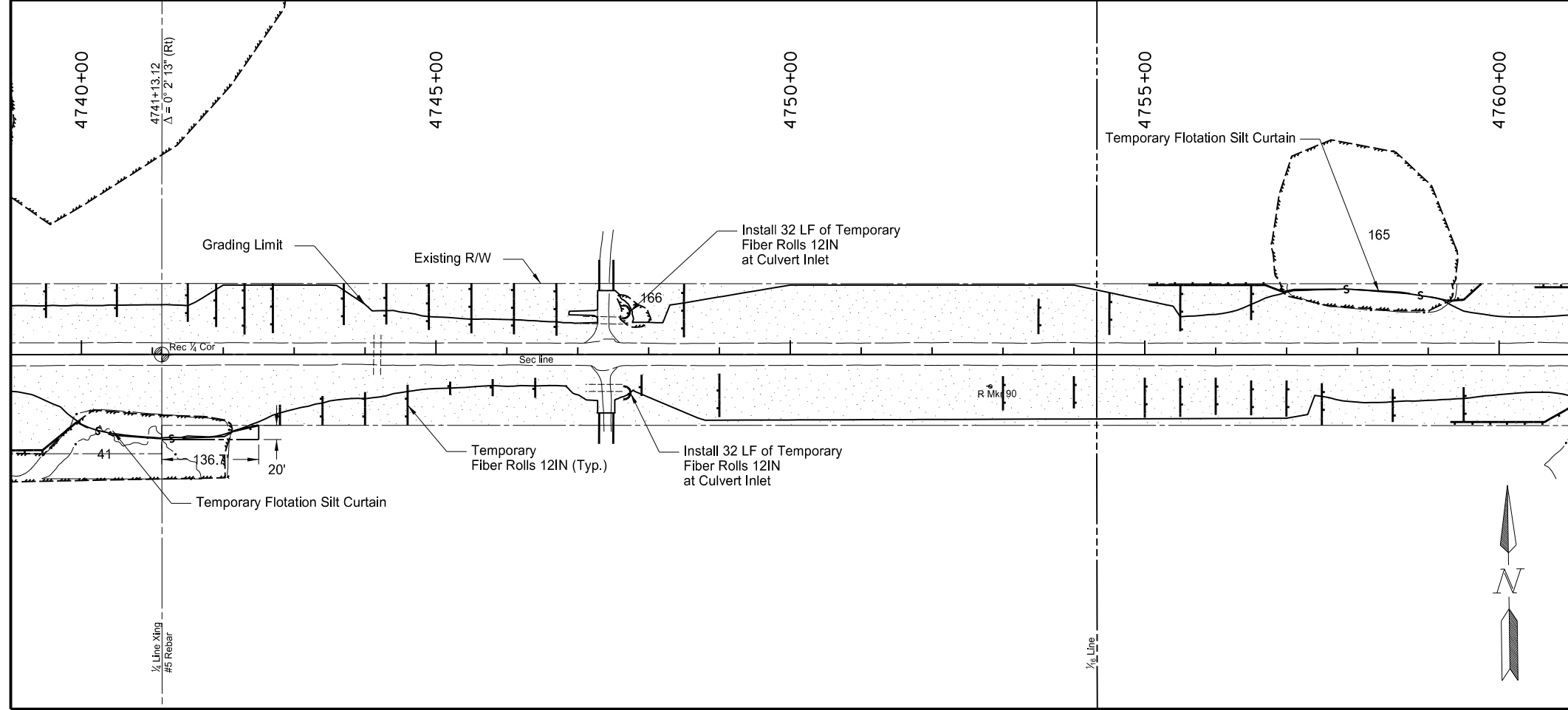
Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	4



Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop	7.09	Acre
	Sta 4720+00 Lt to 4760+00 Lt Sta 4720+00 Rt to 4760+00 Rt	8.90	Acre
253-0101	Straw Mulch	7.09	Acre
	Sta 4720+00 Lt to 4760+00 Lt Sta 4720+00 Rt to 4760+00 Rt	8.90	Acre
261-0112	Fiber Rolls 12IN	3,098	LF
	Sta 4720+00 Lt to 4760+00 Lt Sta 4720+00 Rt to 4760+00 Rt	1,739	LF
261-0113	Remove Fiber Rolls 12IN	3,098	LF
	Sta 4720+00 Lt to 4760+00 Lt Sta 4735+00 Rt to 4743+00 Rt	1,739	LF
262-0100	Flotation Silt Curtain	236	LF
	Sta 4757+00 Lt to 4760+00 Lt Sta 4735+00 Rt to 4743+00 Rt	394	LF
262-0101	Remove Flotation Silt Curtain	236	LF
	Sta 4757+00 Lt to 4760+00 Lt Sta 4735+00 Rt to 4743+00 Rt	394	LF

- Temporary Cover Crop
- Temporary Straw Mulch
- Temporary Flotation Silt Curtain
- Temporary Fiber Rolls 12IN

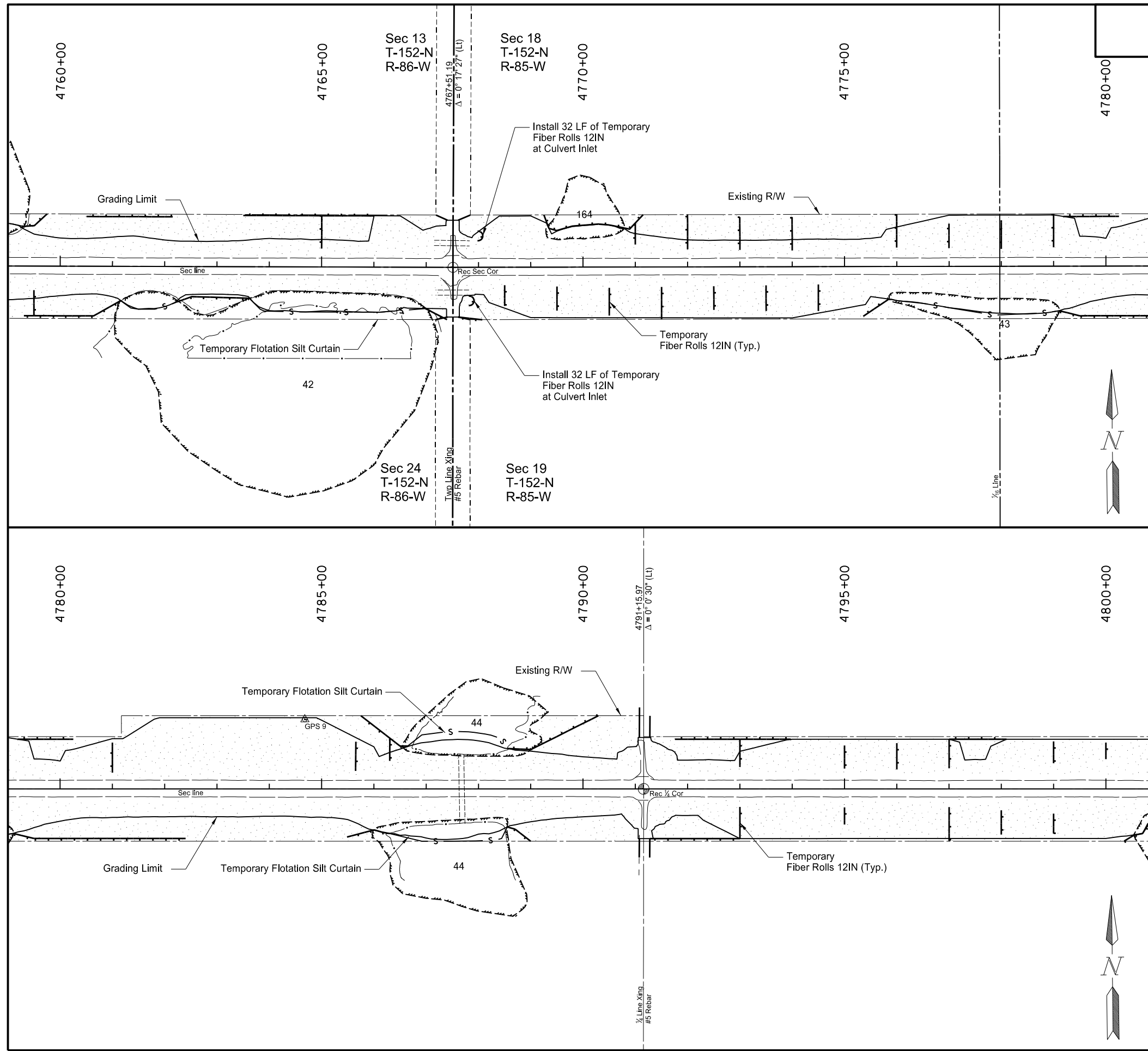


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Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	5

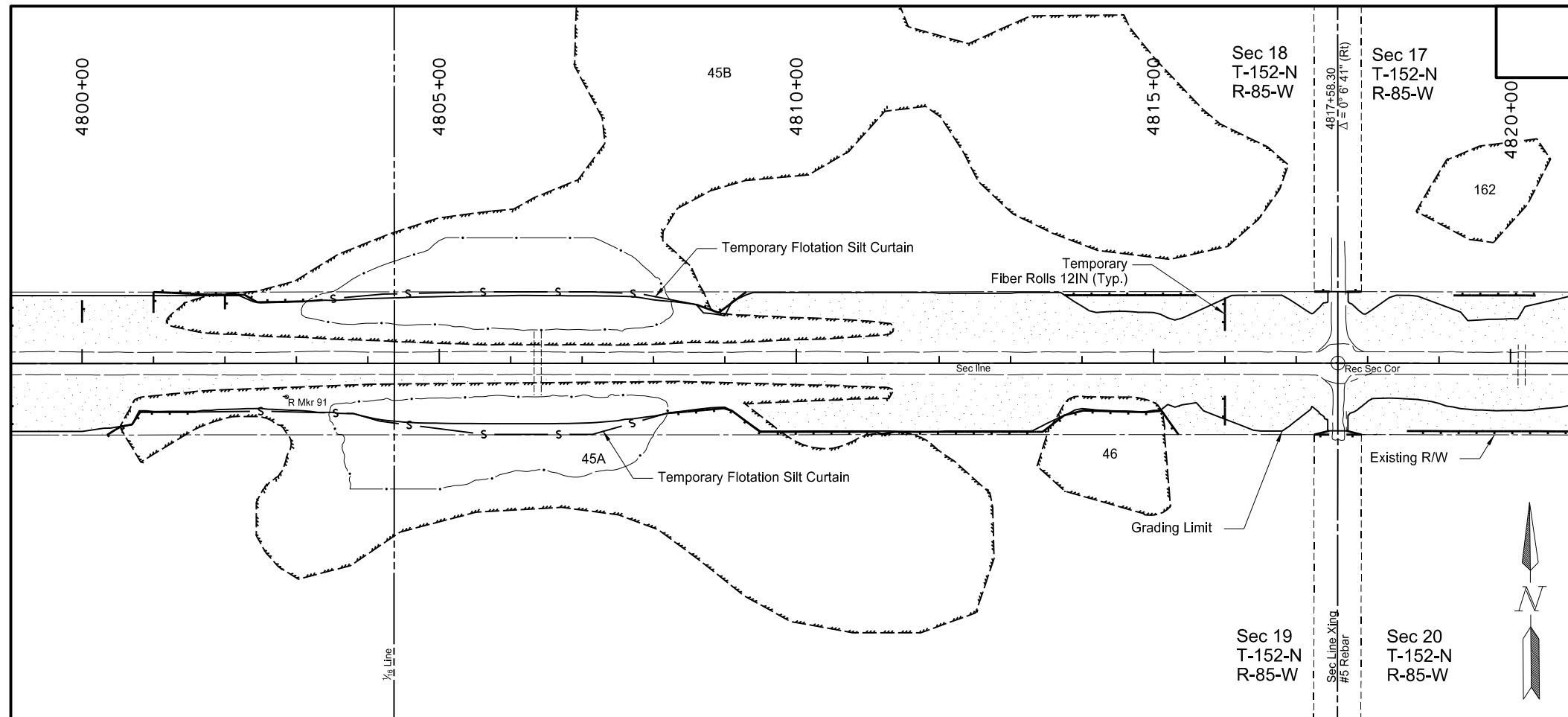


Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop Sta 4760+00 Lt to 4800+00 Lt Sta 4760+00 Rt to 4800+00 Rt	7.19 6.10	Acre Acre
253-0101	Straw Mulch Sta 4760+00 Lt to 4800+00 Lt Sta 4760+00 Rt to 4800+00 Rt	7.19 6.10	Acre Acre
261-0112	Fiber Rolls 12IN Sta 4760+00 Lt to 4800+00 Lt Sta 4760+00 Rt to 4800+00 Rt	2,333 1,672	LF LF
261-0113	Remove Fiber Rolls 12IN Sta 4760+00 Lt to 4800+00 Lt Sta 4760+00 Rt to 4800+00 Rt	2,333 1,672	LF LF
262-0100	Flotation Silt Curtain Sta 4786+00 Lt to 4789+00 Lt Sta 4761+00 Rt to 4789+00 Rt	211 1,034	LF LF
262-0101	Remove Flotation Silt Curtain Sta 4786+00 Lt to 4789+00 Lt Sta 4761+00 Rt to 4789+00 Rt	211 1,034	LF LF





- Temporary Cover Crop
- Temporary Straw Mulch
- Temporary Flotation Silt Curtain
- Temporary Fiber Rolls 12IN

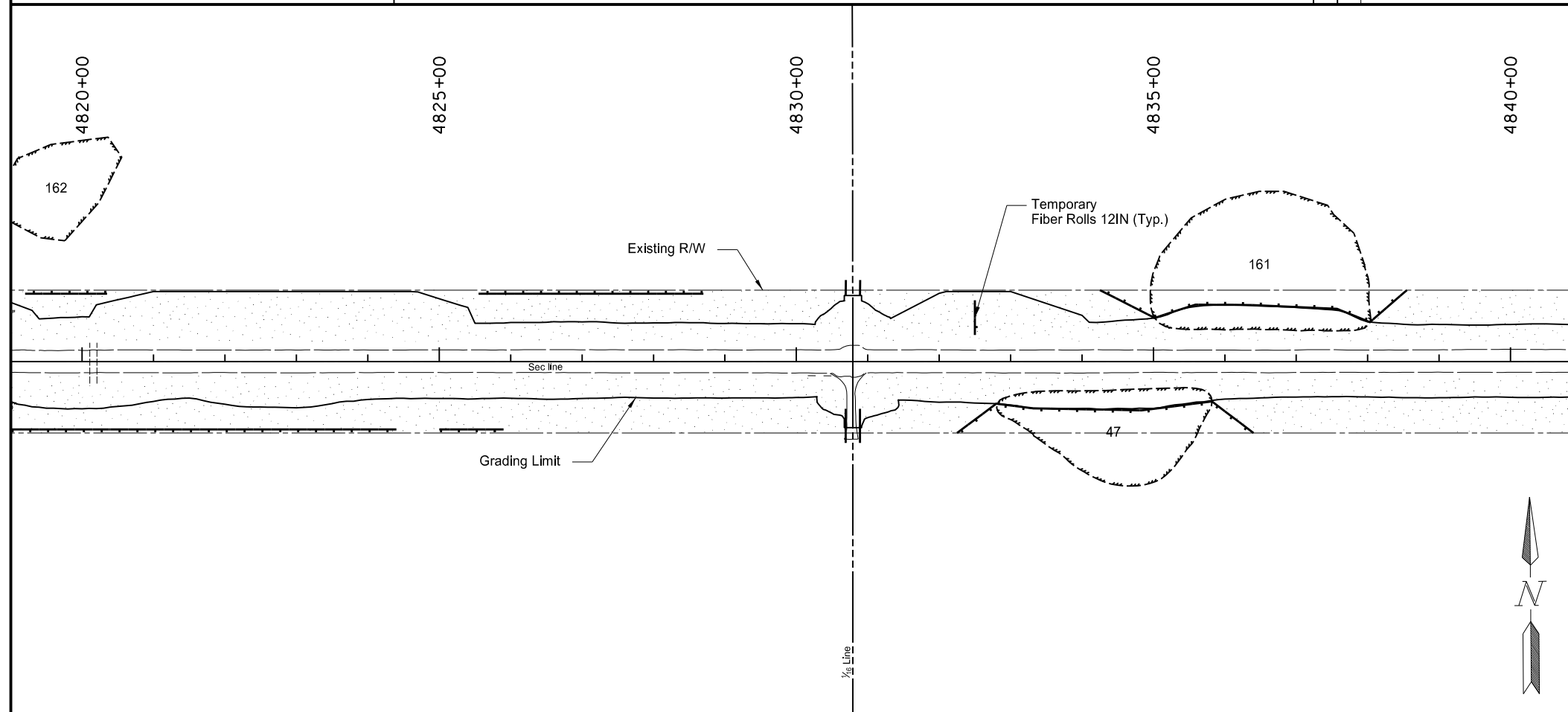
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Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13



Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop Sta 4800+00 Lt to 4840+00 Lt Sta 4800+00 Rt to 4840+00 Rt	4.73 5.07	Acre Acre
253-0101	Straw Mulch Sta 4800+00 Lt to 4840+00 Lt Sta 4800+00 Rt to 4840+00 Rt	4.73 5.07	Acre Acre
261-0112	Fiber Rolls 12IN Sta 4800+00 Lt to 4840+00 Lt Sta 4800+00 Rt to 4840+00 Rt	1,590 2,094	LF LF
261-0113	Remove Fiber Rolls 12IN Sta 4800+00 Lt to 4840+00 Lt Sta 4800+00 Rt to 4840+00 Rt	1,590 2,094	LF LF
262-0100	Flotation Silt Curtain Sta 4803+00 Lt to 4809+00 Lt Sta 4803+00 Rt to 4809+00 Rt	552 666	LF LF
262-0101	Remove Flotation Silt Curtain Sta 4803+00 Lt to 4809+00 Lt Sta 4803+00 Rt to 4809+00 Rt	552 666	LF LF

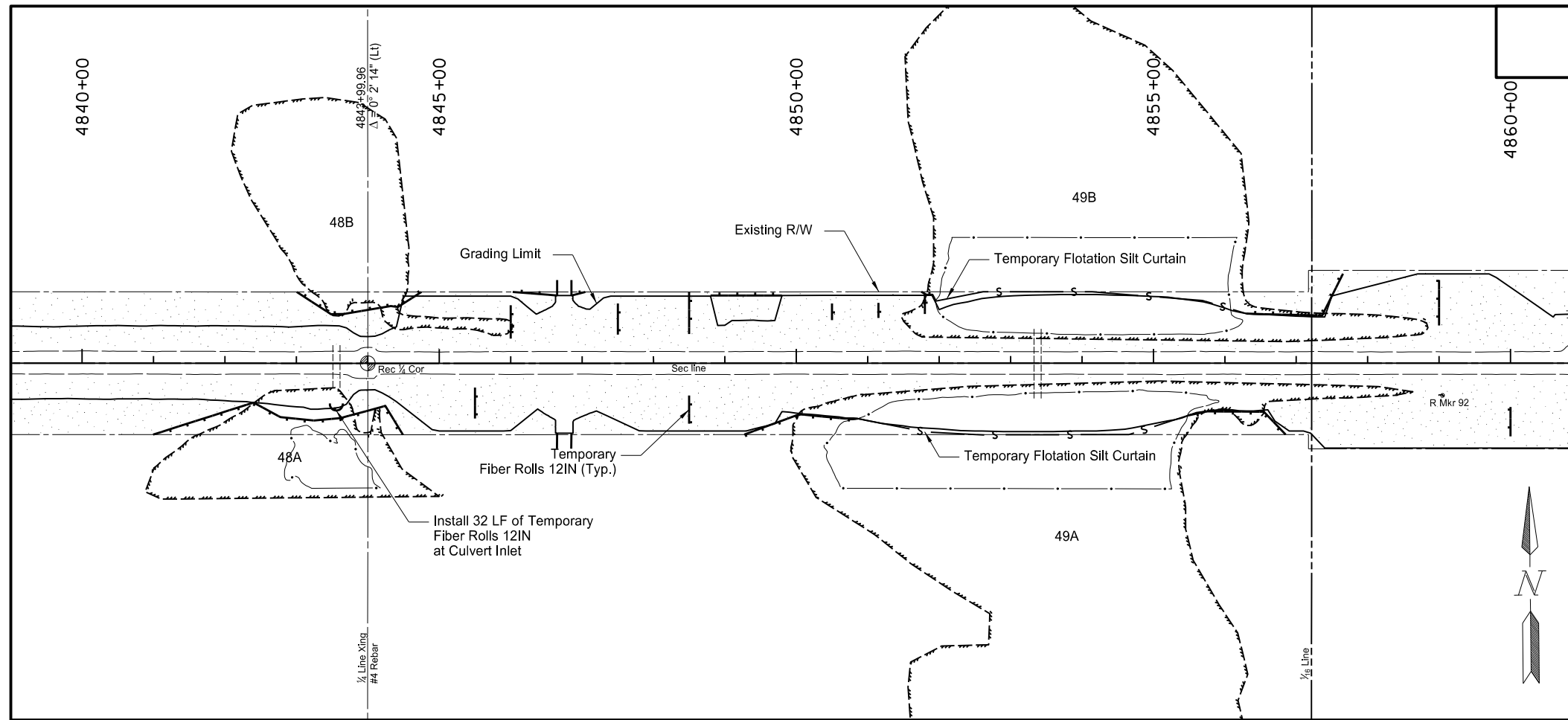
-  Temporary Cover Crop
-  Temporary Straw Mulch
-  Temporary Flotation Silt Curtain
-  Temporary Fiber Rolls 12IN





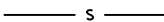

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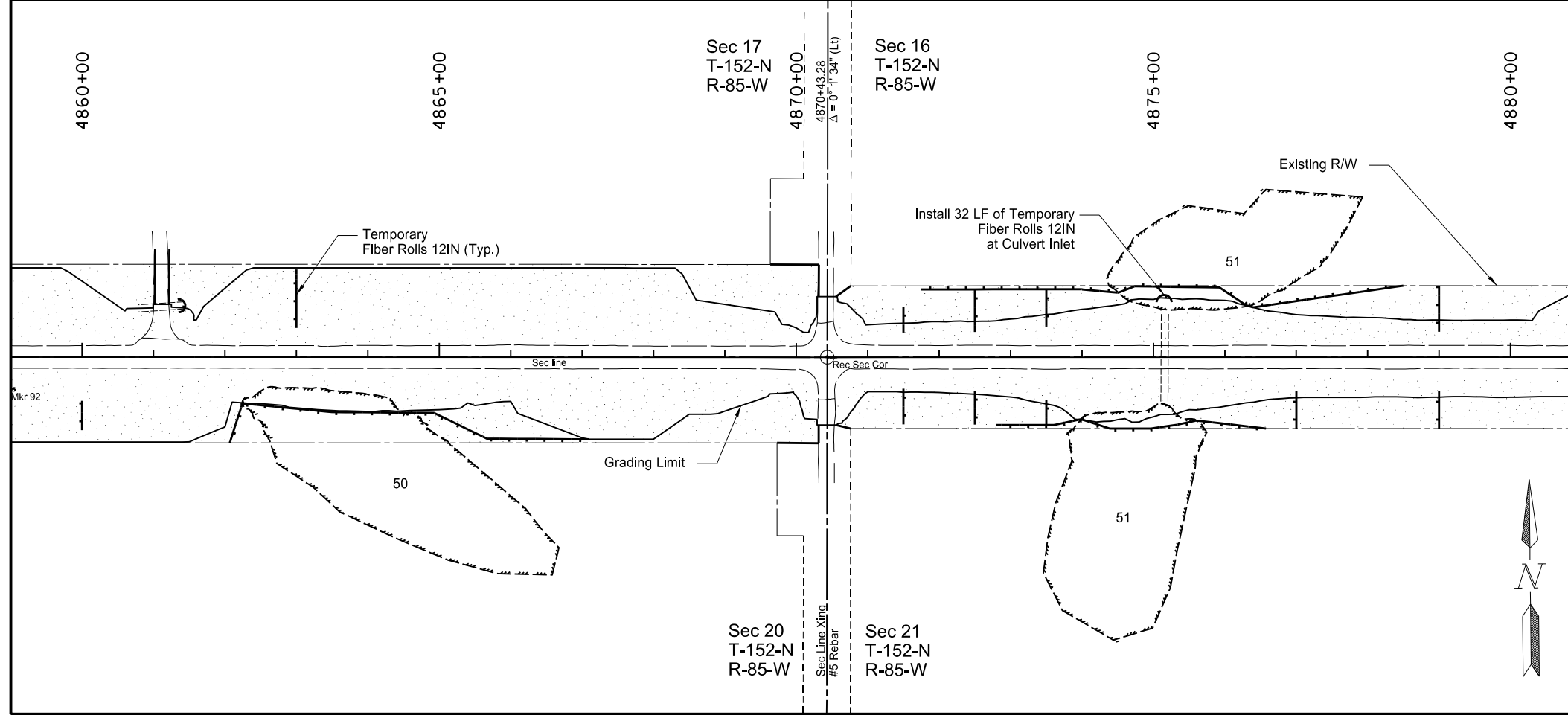
Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	7



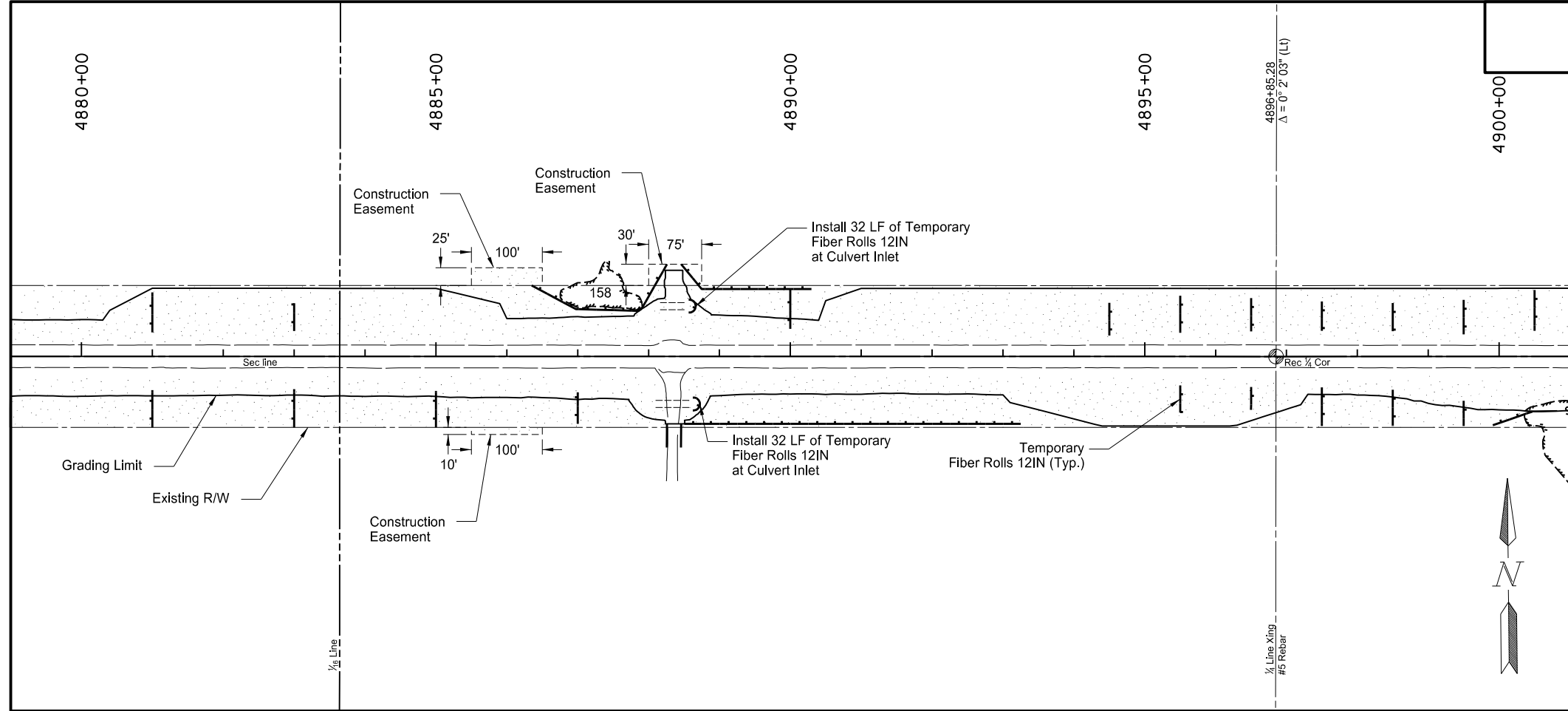
Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop		
	Sta 4840+00 Lt to 4880+00 Lt	5.27	Acre
253-0101	Straw Mulch		
	Sta 4840+00 Lt to 4880+00 Lt	5.27	Acre
261-0112	Fiber Rolls 12IN		
	Sta 4840+00 Lt to 4880+00 Lt	2,033	LF
261-0113	Remove Fiber Rolls 12IN		
	Sta 4840+00 Lt to 4880+00 Lt	2,033	LF
262-0101	Flotation Silt Curtain		
	Sta 4851+00 Lt to 4857+00 Lt	439	LF
262-0100	Remove Flotation Silt Curtain		
	Sta 4851+00 Lt to 4857+00 Lt	469	LF

-  Temporary Cover Crop
-  Temporary Straw Mulch
-  Temporary Flotation Silt Curtain
-  Temporary Fiber Rolls 12IN

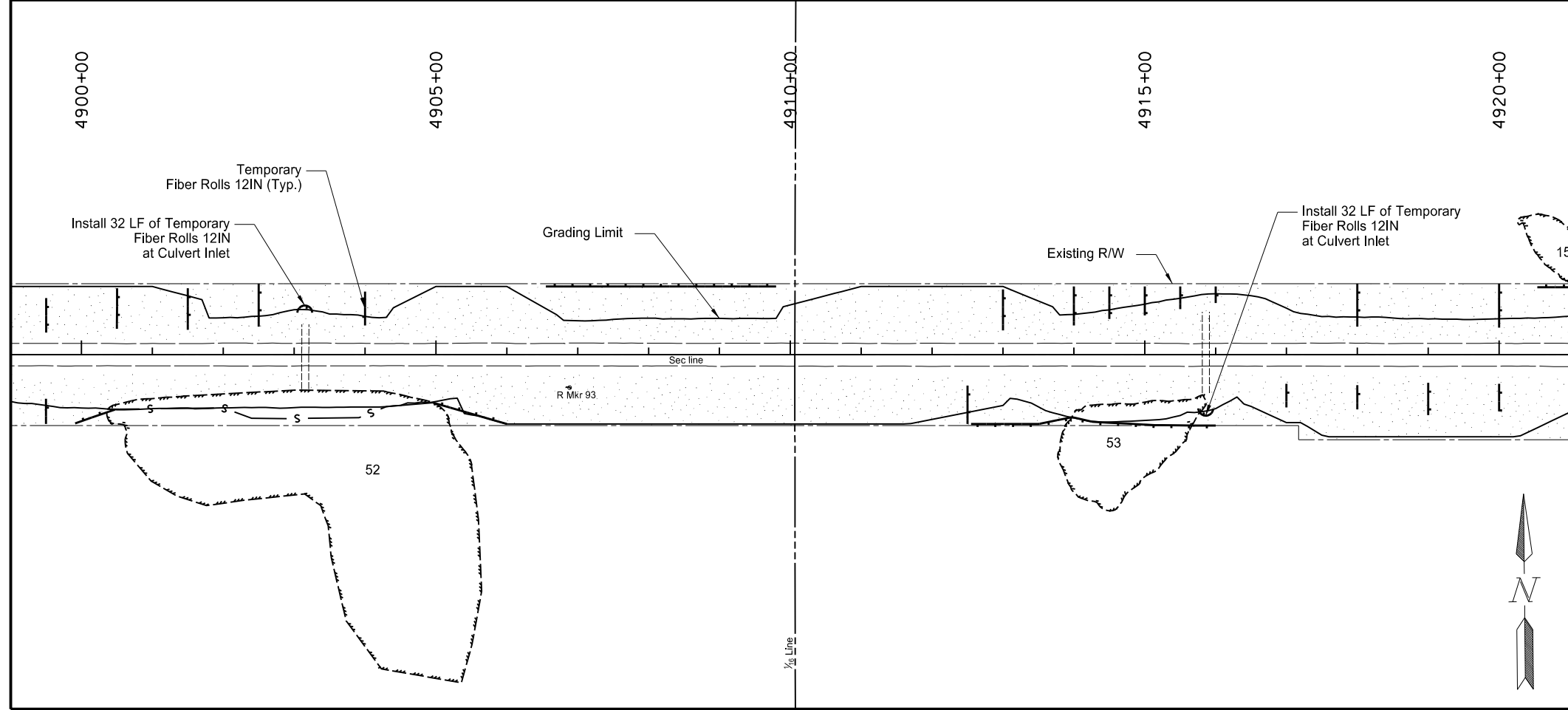
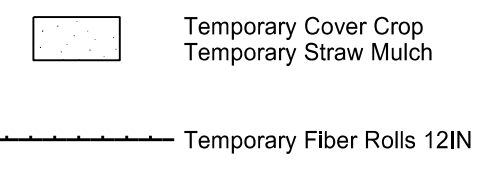


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Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13



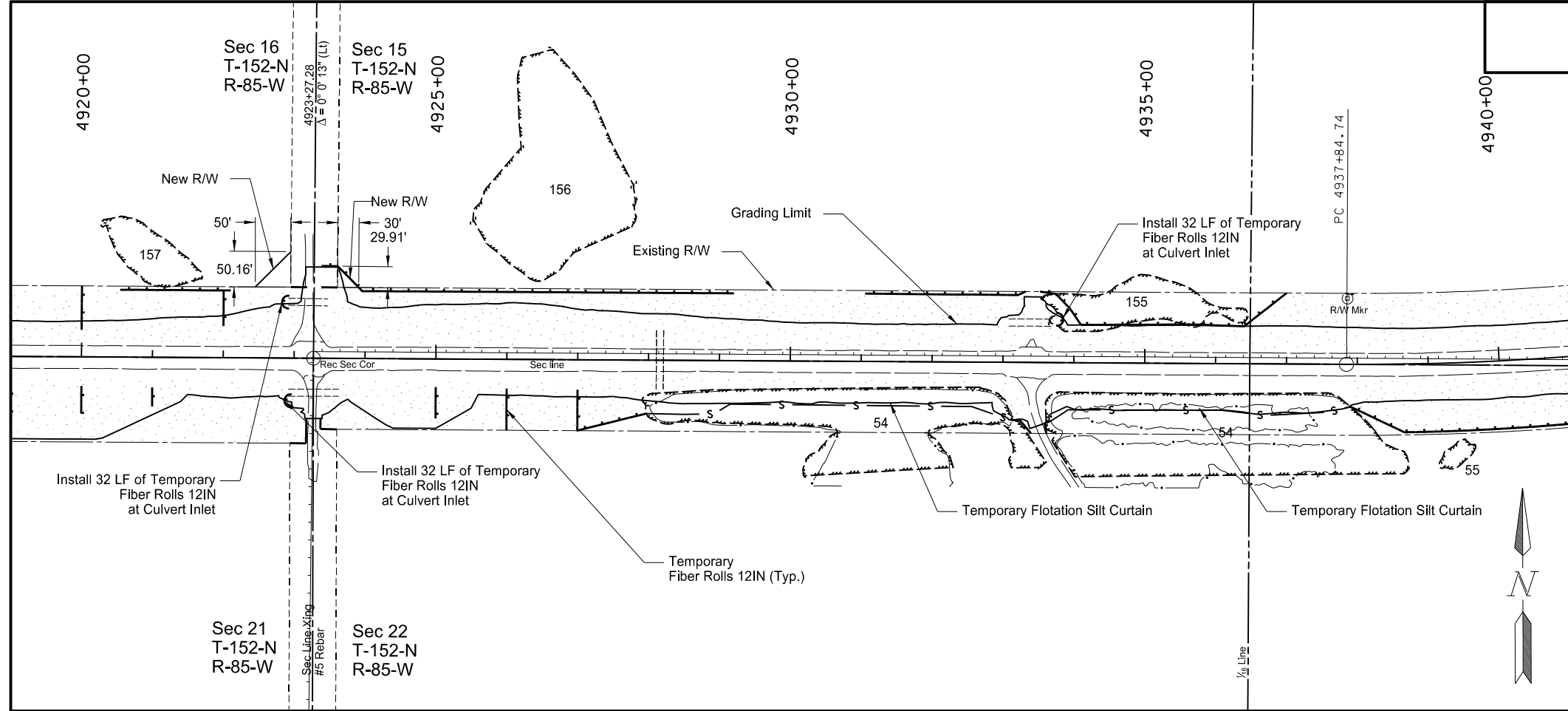
Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop Sta 4880+00 Lt to 4920+00 Lt Sta 4880+00 Rt to 4920+00 Rt	7.26 6.10	Acre Acre
253-0101	Straw Mulch Sta 4880+00 Lt to 4920+00 Lt Sta 4880+00 Rt to 4920+00 Rt	7.26 6.10	Acre Acre
261-0112	Fiber Rolls 12IN Sta 4880+00 Lt to 4920+00 Lt Sta 4880+00 Rt to 4920+00 Rt	1,790 1,634	LF LF
261-0113	Remove Fiber Rolls 12IN Sta 4880+00 Lt to 4920+00 Lt Sta 4880+00 Rt to 4920+00 Rt	1,790 1,634	LF LF
262-0100	Flotation Silt Curtain Sta 4880+00 Rt to 4920+00 Rt	462	LF
262-0101	Remove Flotation Silt Curtain Sta 4880+00 Rt to 4920+00 Rt	462	LF



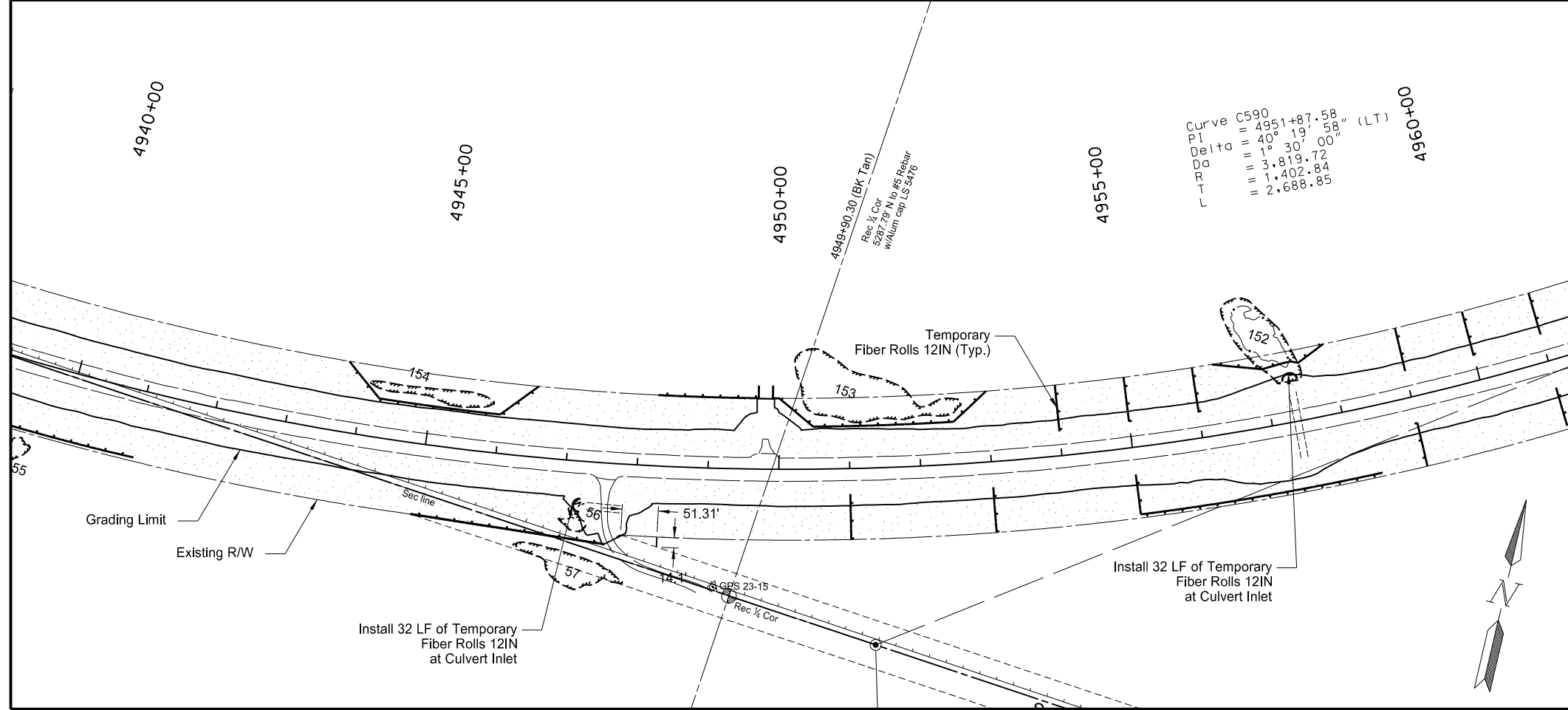
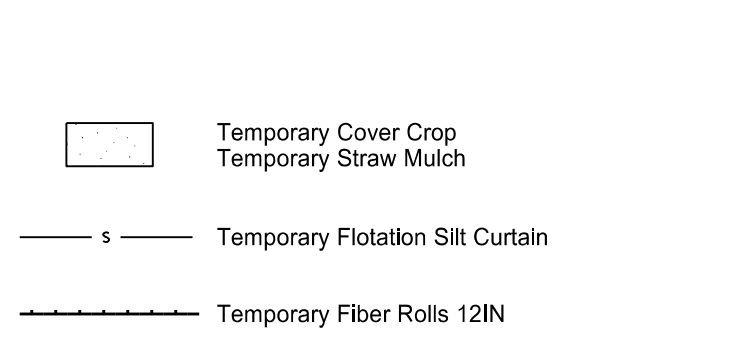
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Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	9



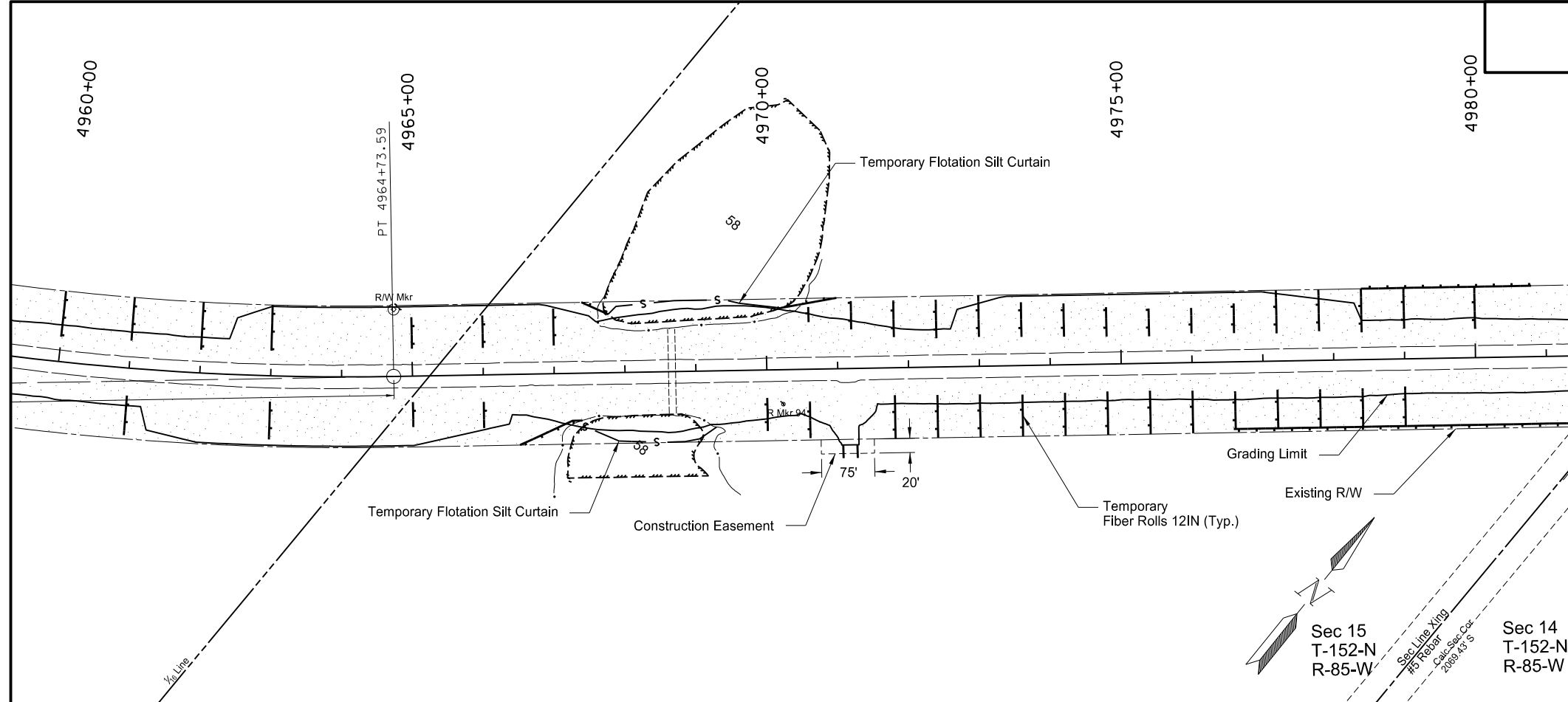
Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop	6.30	Acre
	Sta 4920+00 Lt to 4960+00 Lt Sta 4920+00 Rt to 4960+00 Rt	5.96	Acre
253-0101	Straw Mulch	6.30	Acre
	Sta 4920+00 Lt to 4960+00 Lt Sta 4920+00 Rt to 4960+00 Rt	5.96	Acre
261-0112	Fiber Rolls 12IN	2,774	LF
	Sta 4920+00 Lt to 4960+00 Lt Sta 4920+00 Rt to 4960+00 Rt	1,648	LF
261-0113	Remove Fiber Rolls 12IN	2,774	LF
	Sta 4920+00 Lt to 4960+00 Lt Sta 4920+00 Rt to 4960+00 Rt	1,648	LF
262-0100	Flotation Silt Curtain	949	LF
262-0101	Remove Flotation Silt Curtain	949	LF
	Sta 4928+00 Rt to 4938+00 Rt		



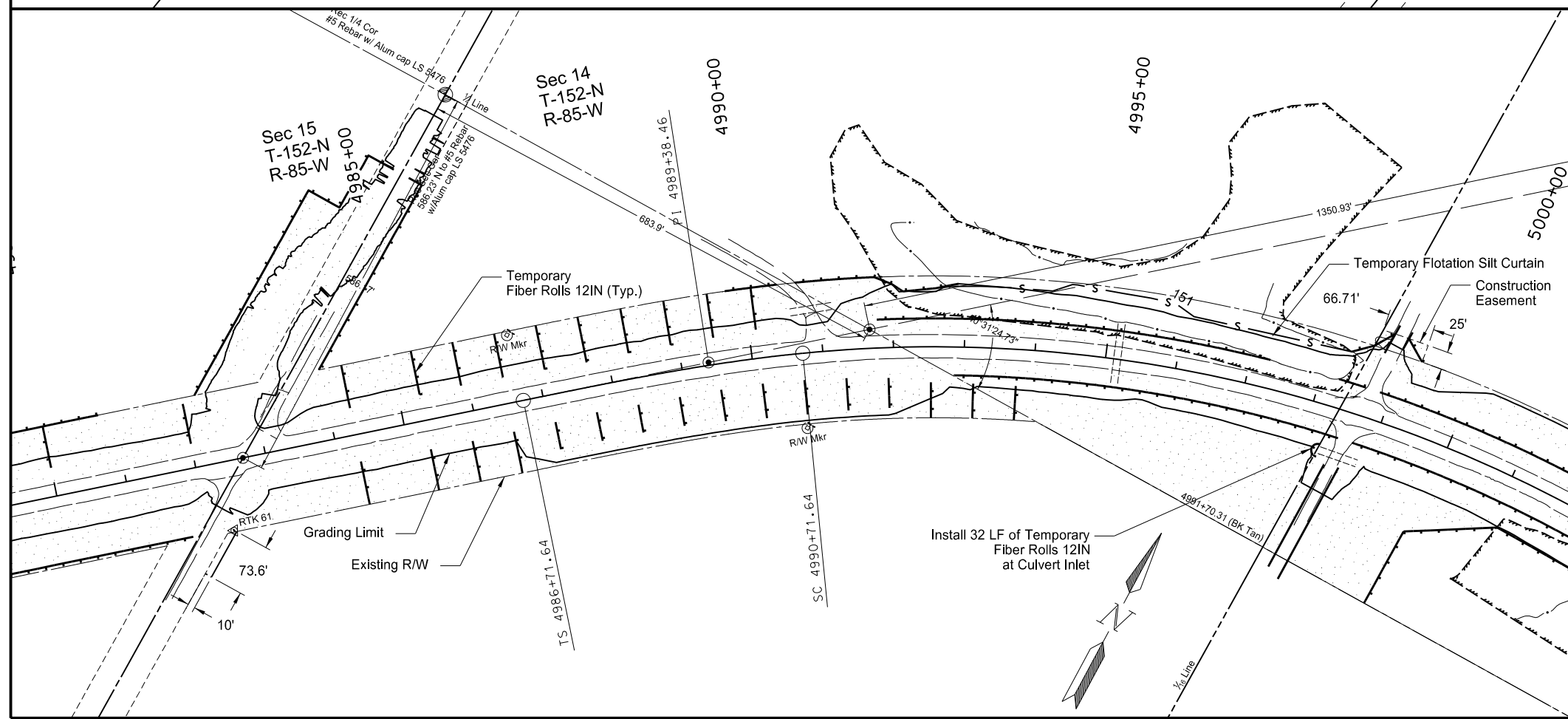
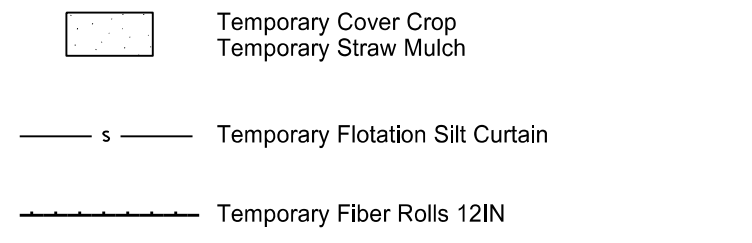
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Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	10



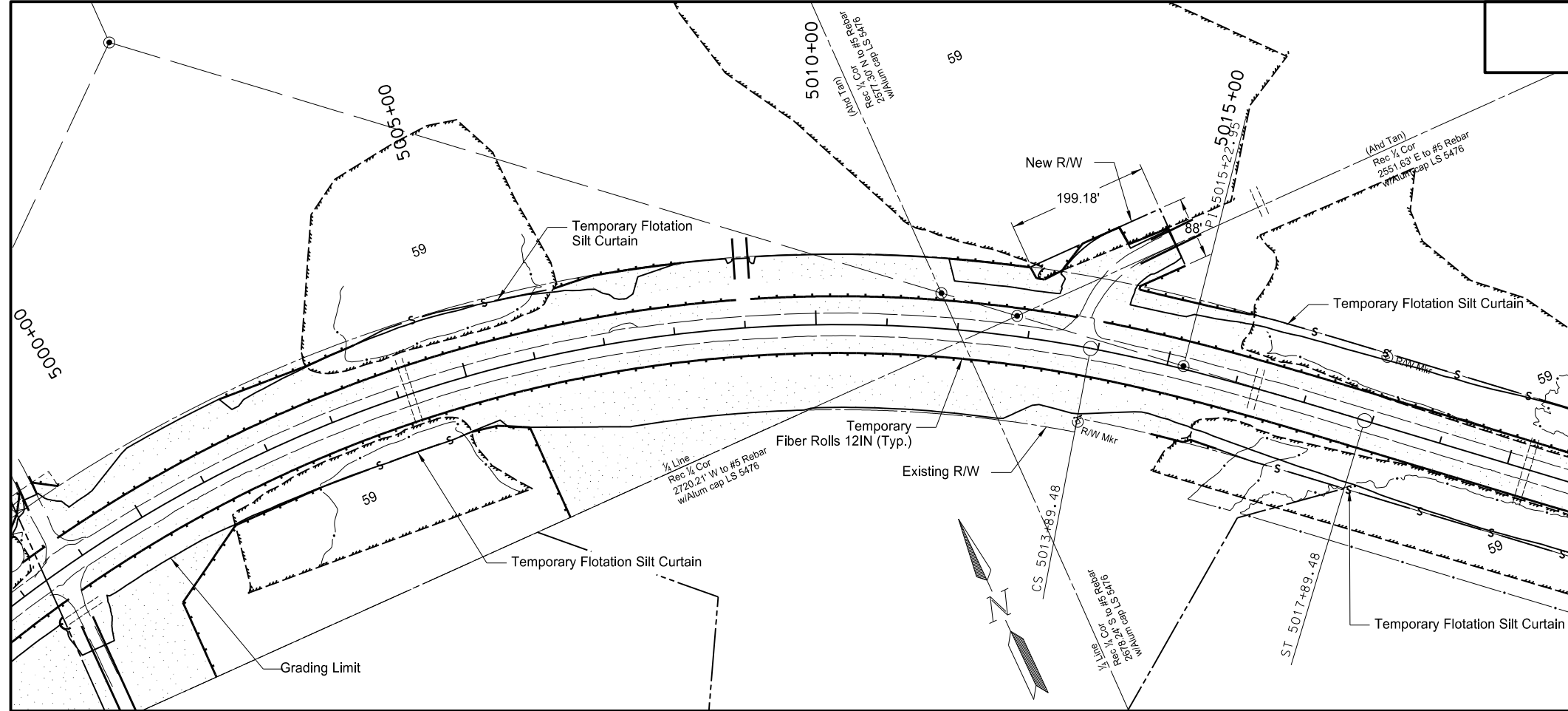
Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop Sta 4960+00 Lt to 5000+00 Lt Sta 4960+00 Rt to 5000+00 Rt	6.77 8.78	Acre Acre
253-0101	Straw Mulch Sta 4960+00 Lt to 5000+00 Lt Sta 4960+00 Rt to 5000+00 Rt	6.77 8.78	Acre Acre
261-0112	Fiber Rolls 12IN Sta 4960+00 Lt to 5000+00 Lt Sta 4960+00 Rt to 5000+00 Rt	3,359 3,266	LF LF
261-0113	Remove Fiber Rolls 12IN Sta 4960+00 Lt to 5000+00 Lt Sta 4960+00 Rt to 5000+00 Rt	3,359 3,266	LF LF
262-0100	Flotation Silt Curtain Sta 4967+00 Lt to 4999+00 Lt Sta 4967+00 Rt to 4970+00 Rt	819 209	LF LF
262-0101	Remove Flotation Silt Curtain Sta 4967+00 Lt to 4999+00 Lt Sta 4967+00 Rt to 4970+00 Rt	819 209	LF LF





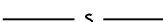

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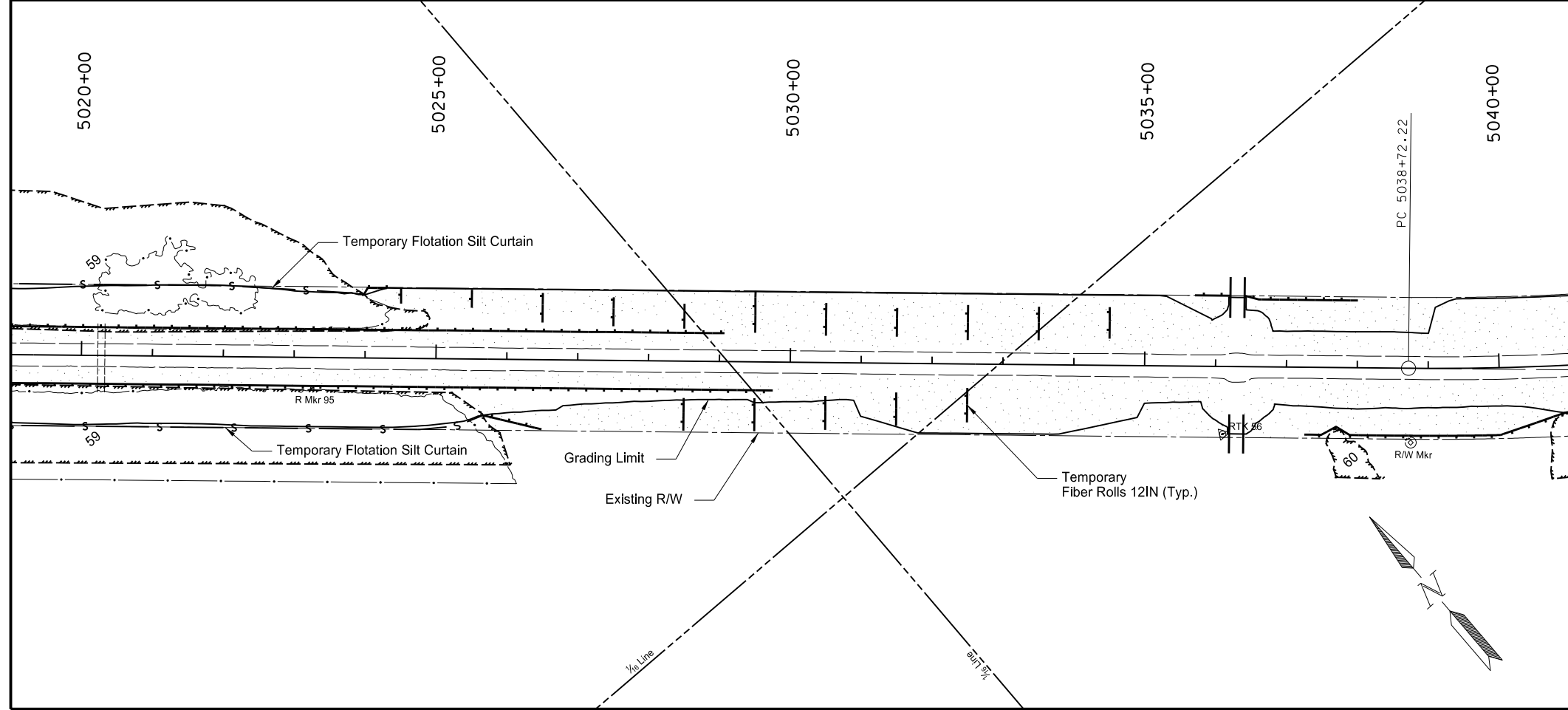
Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	11



Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop Sta 5000+00 Lt to 5040+00 Lt	4.77	Acre
		5.40	Acre
253-0101	Straw Mulch Sta 5000+00 Lt to 5040+00 Lt	4.77	Acre
		5.40	Acre
261-0112	Fiber Rolls 12IN Sta 5000+00 Lt to 5040+00 Lt	4,579	LF
		4,115	LF
261-0113	Remove Fiber Rolls 12IN Sta 5000+00 Lt to 5040+00 Lt	4,579	LF
		4,115	LF
262-0100	Flotation Silt Curtain Sta 5003+00 Lt to 5025+00 Lt	1,098	LF
		1,198	LF
262-0101	Remove Flotation Silt Curtain Sta 5003+00 Lt to 5025+00 Lt	1,098	LF
		1,198	LF

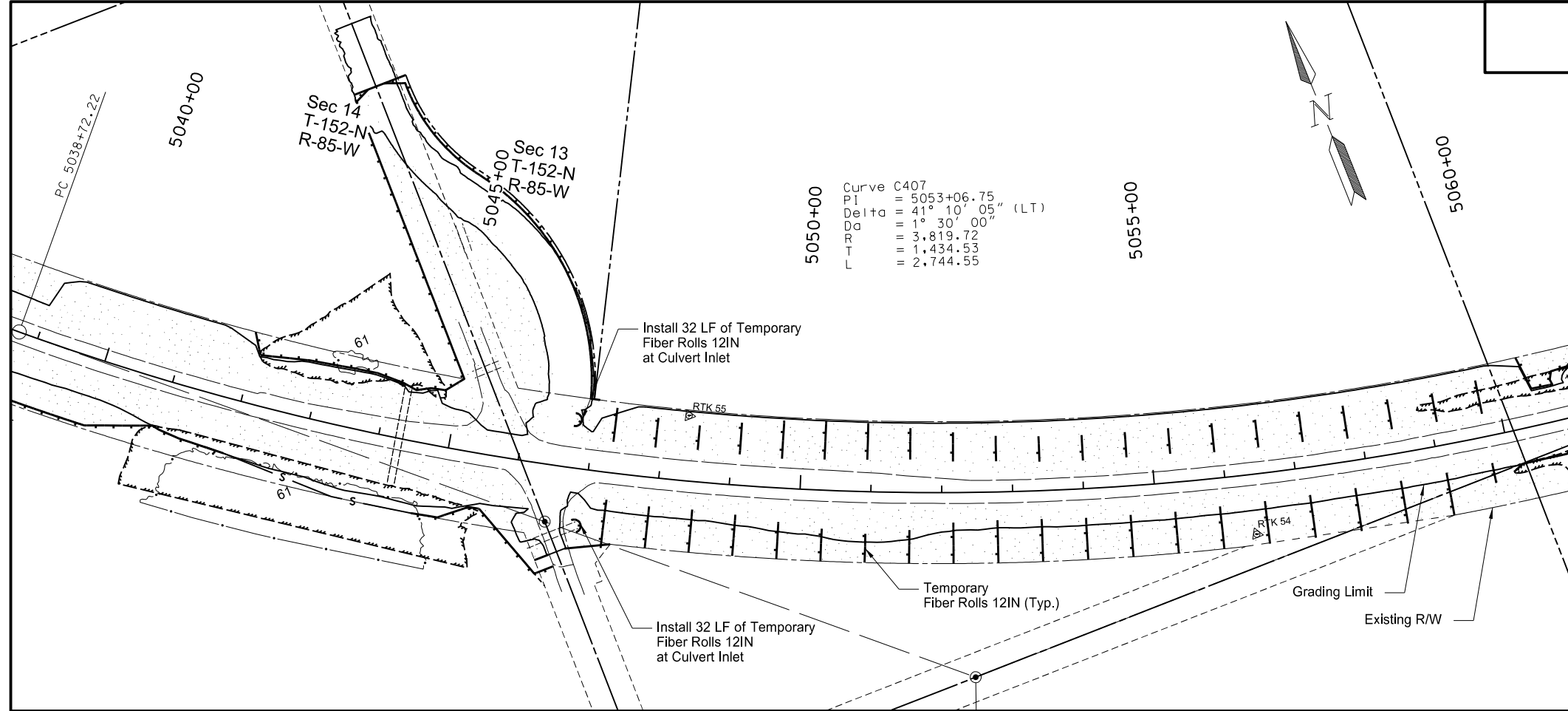
-  Temporary Cover Crop
-  Temporary Straw Mulch
-  Temporary Flotation Silt Curtain
-  Temporary Fiber Rolls 12IN



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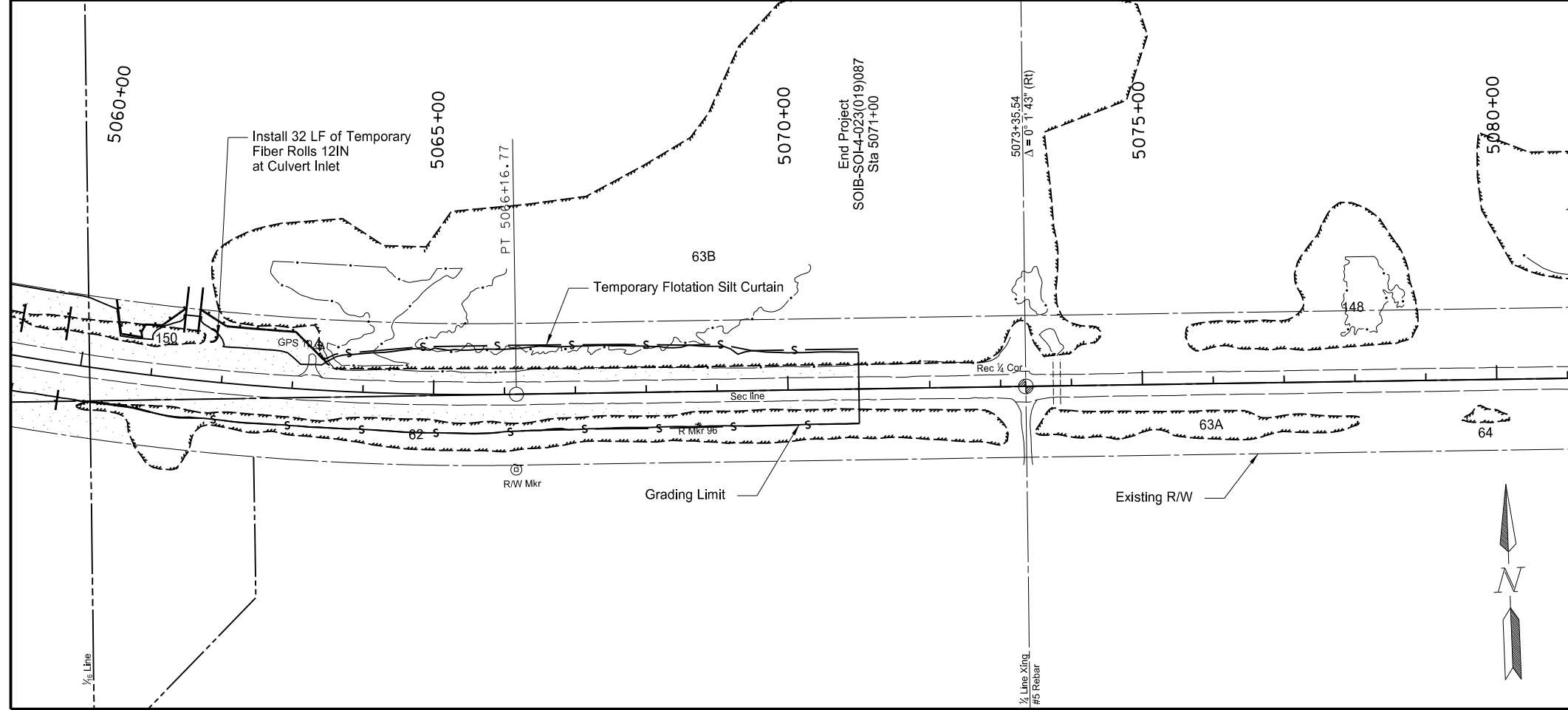
Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	12



Item	Description	Quantity	Unit
251-2000	Temporary Cover Crop		
	Sta 5040+00 Lt to 5071+00 Lt	4.78	Acre
253-0101	Straw Mulch		
	Sta 5040+00 Rt to 5071+00 Rt	3.74	Acre
261-0112	Fiber Rolls 12IN		
	Sta 5040+00 Lt to 5071+00 Lt	2,665	LF
261-0113	Remove Fiber Rolls 12IN		
	Sta 5040+00 Rt to 5071+00 Rt	1,764	LF
262-0100	Flotation Silt Curtain		
	Sta 5063+00 Lt to 5071+00 Lt	757	LF
262-0101	Remove Flotation Silt Curtain		
	Sta 5041+00 Rt to 5071+00 Rt	1,287	LF

- Temporary Cover Crop
- Temporary Straw Mulch
- Temporary Flotation Silt Curtain
- Temporary Fiber Rolls 12IN



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Temporary Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	13

Temporary Fiber Rolls 12IN									
Sheet 1 - Sta 4605+52 to Sta 4640+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
4605+52	34' Lt	4606+59	169' Lt	178	4605+59	62' Rt	4607+34	175' Rt	254
4607+62	175' Lt	4610+00	175' Lt	250	4607+70	175' Rt	4608+25	175' Rt	55
4610+00	38' Lt	4610+01	117' Lt	79	4608+44	44' Rt	4608+45	73' Rt	29
4612+00	38' Lt	4612+01	116' Lt	78	4608+92	175' Rt	4610+05	175' Rt	113
4613+60	95' Lt	4614+60	95' Lt	100	4610+44	40' Rt	4610+45	103' Rt	63
4614+00	36' Lt	4614+00	95' Lt	59	4611+44	40' Rt	4611+45	114' Rt	74
4615+00	27' Lt	4615+00	91' Lt	64	4612+44	39' Rt	4612+45	88' Rt	49
4616+00	26' Lt	4616+00	91' Lt	65	4614+55	95' Rt	4620+00	95' Rt	545
4616+50	95' Lt	4623+92	95' Lt	744	4615+00	95' Rt	4615+00	41' Rt	54
4617+00	28' Lt	4617+00	95' Lt	67	4622+45	95' Rt	4623+75	95' Rt	130
4623+00	38' Lt	4623+00	91' Lt	52	4628+00	98' Rt	4629+95	98' Rt	195
4623+50	37' Lt	4623+50	95' Lt	58	4630+65	95' Rt	4633+00	95' Rt	249
4624+00	37' Lt	4624+00	93' Lt	56	4636+50	84' Rt	4636+50	44' Rt	40
4625+00	31' Lt	4625+00	81' Lt	50					
4627+45	100' Lt	4628+82	100' Lt	137					
4629+40	46' Lt	4629+40	100' Lt	54					
4629+50	100' Lt	4633+41	100' Lt	395					
4629+80	46' Lt	4629+80	100' Lt	54					
4631+40	48' Lt	4631+40	81' Lt	33					
4631+80	56' Lt	4631+80	100' Lt	44					
4632+20	65' Lt	4632+20	100' Lt	35					
4632+58	91' Lt	4632+78	84' Lt	32					
4633+20	66' Lt	4633+20	100' Lt	34					
4633+60	50' Lt	4633+60	100' Lt	50					
4634+00	42' Lt	4634+00	77' Lt	35					
4634+20	100' Lt	4635+06	100' Lt	86					
			Subtotal Lt	2891				Subtotal Rt	1850
								Total	4,741

Temporary Fiber Rolls 12IN									
Sheet 2 - Sta 4640+00 to Sta 4680+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
4645+69	33' Lt	4645+87	33' Lt	31	4645+75	93' Rt	4646+03	135' Rt	50
4651+00	117' Lt	4651+00	30' Lt	87	4646+27	135' Rt	4646+90	100' Rt	82
4651+65	124' Lt	4651+65	31' Lt	93	4651+00	42' Rt	4651+00	81' Rt	39
4652+30	126' Lt	4652+30	32' Lt	94	4651+70	135' Rt	4655+37	108' Rt	372
4652+95	118' Lt	4652+95	36' Lt	82	4656+79	102' Rt	4658+20	135' Rt	154
4652+96	125' Lt	4661+73	130' Lt	898	4659+00	40' Rt	4659+00	133' Rt	93
4653+60	125' Lt	4653+60	40' Lt	85	4661+00	43' Rt	4661+00	82' Rt	39
4654+00	125' Lt	4654+00	46' Lt	79	4661+40	140' Rt	4661+70	140' Rt	30
4654+40	125' Lt	4654+40	64' Lt	61	4661+63	71' Rt	4661+63	53' Rt	30
4654+80	125' Lt	4654+80	81' Lt	44	4661+99	140' Rt	4662+35	140' Rt	36
4661+96	130' Lt	4664+55	95' Lt	289	4663+00	49' Rt	4663+01	100' Rt	51
4665+00	87' Lt	4665+00	43' Lt	44	4663+65	53' Rt	4663+66	86' Rt	33
4665+50	90' Lt	4665+50	43' Lt	47	4664+30	54' Rt	4664+31	87' Rt	32
4666+00	92' Lt	4666+00	47' Lt	45	4664+95	56' Rt	4664+96	100' Rt	44
4666+50	93' Lt	4666+50	48' Lt	45	4665+60	95' Rt	4666+84	101' Rt	124
4666+70	95' Lt	4670+05	125' Lt	352	4665+60	59' Rt	4665+61	95' Rt	36
4667+00	91' Lt	4667+00	56' Lt	35	4677+27	94' Rt	4678+20	135' Rt	110
4677+02	126' Lt	4677+72	125' Lt	125	4678+00	50' Rt	4678+00	125' Rt	76
4677+50	113' Lt	4677+50	55' Lt	58	4679+00	46' Rt	4679+00	115' Rt	69
4678+50	83' Lt	4678+50	48' Lt	35					
4679+50	78' Lt	4679+50	42' Lt	36					
			Subtotal Lt	2664				Subtotal Rt	1499
								Total	4,163

Temporary Fiber Rolls 12IN									
Sheet 3 - Sta 4680+00 to Sta 4720+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
4680+50	84' Lt	4680+50	41' Lt	43	4680+00	44' Rt	4680+00	90' Rt	46
4681+50	115' Lt	4681+50	41' Lt	75	4681+00	46' Rt	4681+00	83' Rt	37
4682+50	115' Lt	4682+50	37' Lt	78	4681+90	135' Rt	4684+40	135' Rt	250
4683+50	83' Lt	4683+50	33' Lt	50	4682+00	36' Rt	4682+00	121' Rt	85
4684+60	180' Lt	4691+01	118' Lt	661	4684+60	135' Rt	4686+95	135' Rt	235
4690+00	118' Lt	4690+00	37' Lt	81	4686+58	70' Rt	4686+79	70' Rt	32
4692+00	76' Lt	4692+00	31' Lt	46	4687+00	70' Rt	4687+00	140' Rt	70
4693+50	110' Lt	4693+50	31' Lt	79	4688+00	57' Rt	4688+00	140' Rt	83
4694+50	100' Lt	4694+50	33' Lt	67	4689+00	48' Rt	4689+00	130' Rt	82
4694+80	99' Lt	4700+00	99' Lt	520	4689+50	39' Rt	4689+50	102' Rt	64
4695+50	99' Lt	4695+50	46' Lt	53	4690+00	37' Rt	4690+00	108' Rt	71
4701+00	72' Lt	4701+00	27' Lt	45	4691+00	37' Rt	4691+00	75' Rt	39
4702+00	74' Lt	4702+00	31' Lt	43	4696+00	52' Rt	4696+00	100' Rt	48
4703+00	75' Lt	4703+00	40' Lt	35	4696+08	54' Rt	4696+29	55' Rt	32
4703+40	99' Lt	4706+59	79' Lt	329	4698+00	38' Rt	4698+00	100' Rt	62
4704+00	99' Lt	4704+00	46' Lt	53	4700+00	40' Rt	4700+00	95' Rt	55
					4700+41	95' Rt	4702+95	100' Rt	303
					4704+50	38' Rt	4704+50	86' Rt	48
					4705+50	38' Rt	4705+50	88' Rt	50
					4706+50	39' Rt	4706+50	81' Rt	42
					4707+50	43' Rt	4707+50	68' Rt	26
					4708+50	47' Rt	4708+50	74' Rt	28
					4709+50	51' Rt	4709+50	84' Rt	33
					4714+07	58' Rt	4714+28	59' Rt	32
					Subtotal Lt	2256		Subtotal Rt	1852
								Total	4,108

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Fiber Rolls 12IN Table  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	14

Temporary Fiber Rolls 12IN									
Sheet 4 - Sta 4720+00 to Sta 4760+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
4720+00	99' Lt	4720+20	120' Lt	29	4724+00	95' Rt	4724+00	46' Rt	49
4720+50	66' Lt	4720+50	120' Lt	54	4726+00	84' Rt	4726+00	43' Rt	41
4721+00	45' Lt	4721+00	113' Lt	68	4728+00	115' Rt	4728+00	41' Rt	74
4722+00	45' Lt	4722+00	98' Lt	53	4733+00	104' Rt	4733+00	35' Rt	69
4724+00	43' Lt	4724+00	93' Lt	51	4734+00	120' Rt	4734+00	34' Rt	86
4724+30	95' Lt	4735+70	95' Lt	1140	4734+60	125' Rt	4735+75	102' Rt	121
4736+00	35' Lt	4736+00	100' Lt	65	4737+38	97' Rt	4739+93	96' Rt	281
4737+00	36' Lt	4737+00	100' Lt	64	4737+67	57' Rt	4737+88	57' Rt	32
4737+50	49' Lt	4737+50	100' Lt	51	4742+15	108' Rt	4742+50	100' Rt	36
4737+54	100' Lt	4738+80	100' Lt	137	4742+80	71' Rt	4742+80	100' Rt	29
4738+00	51' Lt	4738+00	81' Lt	30	4743+40	58' Rt	4743+40	100' Rt	42
4738+50	50' Lt	4738+50	79' Lt	29	4744+00	53' Rt	4744+00	100' Rt	47
4739+50	52' Lt	4739+50	100' Lt	48	4744+60	43' Rt	4744+60	100' Rt	57
4740+50	53' Lt	4740+50	100' Lt	47	4745+20	38' Rt	4745+20	57' Rt	19
4741+50	100' Lt	4741+50	46' Lt	54	4745+80	35' Rt	4745+80	59' Rt	24
4741+90	100' Lt	4741+90	39' Lt	61	4746+40	33' Rt	4746+40	61' Rt	28
4742+30	100' Lt	4742+30	28' Lt	72	4747+64	45' Rt	4747+64	63' Rt	30
4742+70	100' Lt	4742+70	30' Lt	70	4747+90	28' Rt	4747+90	59' Rt	30
4743+70	100' Lt	4743+70	41' Lt	59	4749+00	27' Rt	4749+00	88' Rt	61
4744+30	100' Lt	4744+30	42' Lt	58	4753+00	31' Rt	4753+00	79' Rt	48
4744+90	100' Lt	4744+90	34' Lt	66	4754+00	31' Rt	4754+00	76' Rt	45
4745+50	100' Lt	4745+50	30' Lt	70	4755+00	33' Rt	4755+00	89' Rt	57
4746+10	100' Lt	4746+10	29' Lt	72	4755+50	33' Rt	4755+50	88' Rt	55
4746+70	100' Lt	4746+70	27' Lt	74	4756+00	33' Rt	4756+00	85' Rt	53
4747+63	69' Lt	4747+63	51' Lt	30	4756+50	37' Rt	4756+50	86' Rt	49
4748+50	24' Lt	4748+50	100' Lt	76	4757+00	37' Rt	4757+00	88' Rt	51
4753+50	29' Lt	4753+50	79' Lt	50	4757+50	40' Rt	4757+50	100' Rt	60
4754+50	28' Lt	4754+50	87' Lt	59	4758+50	49' Rt	4758+50	95' Rt	46
4755+05	98' Lt	4756+95	89' Lt	192	4759+31	95' Rt	4760+00	95' Rt	69
4755+50	33' Lt	4755+50	98' Lt	65	4759+50	46' Rt	4759+50	95' Rt	49
4756+50	49' Lt	4756+50	98' Lt	49					
4759+30	76' Lt	4759+75	100' Lt	54					
			<b>Subtotal Lt</b>	<b>3098</b>				<b>Subtotal Rt</b>	<b>1739</b>
								<b>Total</b>	<b>4,837</b>

Temporary Fiber Rolls 12IN									
Sheet 5 - Sta 4760+00 to Sta 4800+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
4760+50	95' Lt	4762+15	95' Lt	165	4760+00	95' Rt	4761+16	65' Rt	124
4763+50	98' Lt	4766+00	98' Lt	250	4762+27	67' Rt	4763+62	60' Rt	137
4765+00	35' Lt	4765+00	98' Lt	63	4766+99	79' Rt	4767+40	100' Rt	46
4767+98	51' Lt	4767+98	69' Lt	30	4767+61	95' Rt	4768+07	100' Rt	47
4769+25	100' Lt	4771+15	100' Lt	222	4767+81	73' Rt	4767+81	55' Rt	30
4771+00	43' Lt	4771+00	84' Lt	41	4768+50	74' Rt	4768+50	34' Rt	40
4772+00	100' Lt	4772+00	34' Lt	66	4769+50	37' Rt	4769+50	83' Rt	46
4773+00	32' Lt	4773+00	95' Lt	63	4770+50	93' Rt	4770+50	40' Rt	53
4774+00	31' Lt	4774+00	95' Lt	64	4771+50	100' Rt	4771+50	38' Rt	62
4776+00	100' Lt	4776+00	36' Lt	64	4772+50	37' Rt	4772+50	82' Rt	45
4777+00	82' Lt	4777+00	35' Lt	47	4773+50	85' Rt	4773+50	36' Rt	49
4778+00	33' Lt	4778+00	88' Lt	55	4774+50	34' Rt	4774+50	85' Rt	51
4779+00	36' Lt	4779+00	100' Lt	64	4775+36	95' Rt	4775+85	62' Rt	59
4779+19	95' Lt	4780+25	95' Lt	106	4779+10	85' Rt	4779+50	95' Rt	41
4781+00	31' Lt	4781+00	88' Lt	57	4779+50	95' Rt	4782+40	95' Rt	290
4785+65	34' Lt	4785+66	90' Lt	56	4785+49	92' Rt	4786+30	85' Rt	84
4785+75	140' Lt	4786+65	82' Lt	109	4788+55	73' Rt	4789+00	100' Rt	53
4786+30	54' Lt	4786+31	97' Lt	43	4791+28	95' Rt	4793+00	95' Rt	172
4788+55	77' Lt	4790+29	140' Lt	190	4793+00	95' Rt	4793+00	35' Rt	60
4791+76	95' Lt	4793+97	95' Lt	222	4795+00	68' Rt	4795+00	35' Rt	33
4793+00	42' Lt	4793+00	95' Lt	53	4797+00	100' Rt	4797+00	35' Rt	65
4795+00	39' Lt	4795+00	83' Lt	44	4798+00	87' Rt	4798+00	41' Rt	46
4796+00	37' Lt	4796+00	87' Lt	50	4799+00	85' Rt	4799+00	47' Rt	38
4797+00	95' Lt	4798+10	95' Lt	110					
4797+00	39' Lt	4797+00	95' Lt	56					
4799+00	49' Lt	4799+00	91' Lt	41					
			<b>Subtotal Lt</b>	<b>2333</b>				<b>Subtotal Rt</b>	<b>1672</b>
								<b>Total</b>	<b>4,005</b>
Sheet 6 - Sta 4800+00 to Sta 4840+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
4800+00	57' Lt	4800+00	88' Lt	32	4800+35	100' Rt	4801+60	68' Rt	138
4801+00	100' Lt	4803+10	87' Lt	213	4808+19	70' Rt	4815+35	100' Rt	753
4801+00	71' Lt	4801+00	100' Lt	29	4816+00	46' Rt	4816+00	87' Rt	42
4802+00	76' Lt	4802+00	96' Lt	20	4817+25	100' Rt	4817+46	100' Rt	21
4808+60	82' Lt	4809+30	100' Lt	82	4817+70	100' Rt	4817+91	100' Rt	21
4813+76	95' Lt	4815+60	95' Lt	184	4818+55	95' Rt	4824+40	95' Rt	585
4816+00	45' Lt	4816+00	92' Lt	47	4825+00	95' Rt	4825+90	95' Rt	90
4817+25	100' Lt	4817+47	100' Lt	21	4832+25	100' Rt	4836+40	100' Rt	445
4817+70	100' Lt	4817+91	100' Lt	21					
4819+20	95' Lt	4820+35	95' Lt	115					
4825+55	95' Lt	4828+70	95' Lt	315					
4832+50	37' Lt	4832+50	86' Lt	49					
4834+25	100' Lt	4838+55	100' Lt	462					
			<b>Subtotal Lt</b>	<b>1590</b>				<b>Subtotal Rt</b>	<b>2094</b>
								<b>Total</b>	<b>3,685</b>

This document was originally issued and sealed by Jeffrey T. Lansink Registration Number PE- 5244, on 11/3/15 and the original document is stored at the North Dakota Department of Transportation

Fiber Rolls 12IN Table  
ND 23 - ND 28 to County Rd 13

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-SOI-4-023(019)087	76	15

Temporary Fiber Rolls 12IN									
Sheet 7 - Sta 4840+00 to Sta 4880+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
4843+01	100' Lt	4844+75	100' Lt	191	4840+99	100' Rt	4844+49	100' Rt	387
4846+00	35' Lt	4846+00	81' Lt	47	4843+47	52' Rt	4843+65	52' Rt	30
4846+03	100' Lt	4846+65	95' Lt	62	4845+50	77' Rt	4845+50	34' Rt	43
4846+85	95' Lt	4847+05	100' Lt	20	4848+50	85' Rt	4848+50	45' Rt	39
4847+50	40' Lt	4847+50	84' Lt	44	4849+27	100' Rt	4850+86	78' Rt	164
4848+50	41' Lt	4848+50	100' Lt	59	4855+48	73' Rt	4856+85	100' Rt	151
4848+80	95' Lt	4849+80	95' Lt	100	4860+00	102' Rt	4860+00	61' Rt	41
4850+50	60' Lt	4850+50	84' Lt	23	4862+07	120' Rt	4867+10	115' Rt	552
4851+15	63' Lt	4851+15	84' Lt	21	4871+50	94' Rt	4871+50	44' Rt	50
4851+75	100' Lt	4851+95	87' Lt	27	4872+50	94' Rt	4872+50	47' Rt	47
4851+80	69' Lt	4851+80	97' Lt	28	4872+80	95' Rt	4876+58	100' Rt	386
4856+30	69' Lt	4857+65	125' Lt	172	4873+50	94' Rt	4873+50	59' Rt	35
4859+00	53' Lt	4859+00	116' Lt	64	4877+00	100' Rt	4877+00	47' Rt	53
4861+34	81' Lt	4861+35	63' Lt	30	4879+00	100' Rt	4879+00	47' Rt	53
4863+00	41' Lt	4863+00	123' Lt	82					
4871+50	35' Lt	4871+50	71' Lt	36					
4871+75	95' Lt	4878+50	100' Lt	687					
4872+50	35' Lt	4872+50	95' Lt	59					
4873+50	43' Lt	4873+50	95' Lt	52					
4875+05	68' Lt	4875+26	68' Lt	32					
4879+00	36' Lt	4879+00	100' Lt	64					
			<b>Subtotal Lt</b>	<b>1901</b>				<b>Subtotal Rt</b>	<b>2033</b>
								<b>Total</b>	<b>3,934</b>

Temporary Fiber Rolls 12IN									
Sheet 8 - Sta 4880 to Sta 4920+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
4881+00	34' Lt	4881+00	90' Lt	56	4881+00	100' Rt	4881+00	47' Rt	53
4883+00	36' Lt	4883+00	75' Lt	39	4883+00	100' Rt	4883+00	46' Rt	54
4886+35	100' Lt	4888+26	130' Lt	236	4885+00	100' Rt	4885+00	49' Rt	51
4888+46	130' Lt	4890+30	95' Lt	200	4887+00	95' Rt	4887+00	51' Rt	44
4888+56	62' Lt	4888+56	80' Lt	30	4888+50	95' Rt	4893+25	95' Rt	475
4890+00	39' Lt	4890+00	95' Lt	56	4888+62	76' Rt	4888+62	58' Rt	30
4894+50	30' Lt	4894+50	76' Lt	46	4895+50	79' Rt	4895+50	41' Rt	38
4895+50	33' Lt	4895+50	86' Lt	52	4896+50	75' Rt	4896+50	43' Rt	32
4896+50	36' Lt	4896+50	82' Lt	47	4897+50	98' Rt	4897+50	44' Rt	54
4897+50	36' Lt	4897+50	78' Lt	41	4898+50	98' Rt	4898+50	47' Rt	51
4898+50	36' Lt	4898+50	75' Lt	40	4899+50	98' Rt	4899+50	62' Rt	36
4899+50	31' Lt	4899+50	80' Lt	49	4899+91	97' Rt	4900+47	78' Rt	59
4900+50	36' Lt	4900+50	94' Lt	57	4904+96	68' Rt	4906+00	98' Rt	108
4901+50	35' Lt	4901+50	93' Lt	59	4912+50	44' Rt	4912+50	98' Rt	54
4902+50	39' Lt	4902+50	100' Lt	61	4912+55	98' Rt	4916+00	100' Rt	349
4903+05	54' Lt	4903+26	54' Lt	32	4915+76	72' Rt	4915+97	73' Rt	32
4904+00	89' Lt	4904+00	41' Lt	48	4917+00	75' Rt	4917+00	41' Rt	33
4906+55	96' Lt	4909+80	96' Lt	325	4918+00	77' Rt	4918+00	43' Rt	34
4913+00	92' Lt	4913+00	34' Lt	58	4919+00	40' Rt	4919+00	86' Rt	46
4914+00	96' Lt	4914+00	41' Lt	55					
4914+50	96' Lt	4914+50	50' Lt	46					
4915+00	96' Lt	4915+00	55' Lt	41					
4915+50	96' Lt	4915+50	64' Lt	32					
4916+00	96' Lt	4916+00	73' Lt	23					
4918+00	100' Lt	4918+00	39' Lt	61					
			<b>Subtotal Lt</b>	<b>1790</b>				<b>Subtotal Rt</b>	<b>1634</b>
								<b>Total</b>	<b>3,424</b>

Temporary Fiber Rolls 12IN									
Sheet 9 - Sta 4920+00 to Sta 4960+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
4920+00	100' Lt	4920+00	38' Lt	62	4920+00	41' Rt	4920+00	80' Rt	39
4920+54	95' Lt	4922+10	95' Lt	156	4921+00	43' Rt	4921+00	69' Rt	27
4922+00	95' Lt	4922+00	45' Lt	50	4922+96	69' Rt	4922+97	51' Rt	30
4922+92	70' Lt	4922+93	88' Lt	30	4925+00	84' Rt	4925+00	40' Rt	44
4923+38	130' Lt	4929+20	95' Lt	597	4926+00	100' Rt	4926+00	41' Rt	59
4931+05	96' Lt	4933+32	100' Lt	228	4926+99	100' Rt	4927+97	75' Rt	101
4933+52	100' Lt	4937+00	100' Lt	385	4927+00	100' Rt	4927+00	42' Rt	58
4933+75	52' Lt	4933+75	70' Lt	30	4933+13	81' Rt	4933+40	100' Rt	36
4943+742	100' Lt	4946+51	100' Lt	307	4933+59	86' Rt	4933+68	82' Rt	24
4948+25	100' Lt	4949+70	100' Lt	142	4937+90	60' Rt	4941+03	95' Rt	329
4949+91	100' Lt	4953+00	100' Lt	332	4944+92	100' Rt	4947+61	114' Rt	277
4954+00	34' Lt	4954+00	100' Lt	66	4947+23	71' Rt	4947+24	53' Rt	30
4955+00	37' Lt	4955+00	100' Lt	63	4951+00	100' Rt	4951+00	36' Rt	64
4956+00	36' Lt	4956+00	100' Lt	64	4953+00	36' Rt	4953+00	100' Rt	64
4956+30	100' Lt	4957+93	100' Lt	168	4955+00	95' Rt	4955+00	38' Rt	57
4957+25	52' Lt	4957+47	52' Lt	32	4955+00	95' Rt	4958+38	95' Rt	346
4959+00	38' Lt	4959+00	100' Lt	62	4959+00	100' Rt	4959+00	37' Rt	63
			<b>Subtotal Lt</b>	<b>2774</b>				<b>Subtotal Rt</b>	<b>1648</b>
								<b>Total</b>	<b>4,422</b>

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Fiber Rolls 12IN Table  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	76	16

Temporary Fiber Rolls 12IN									
Sheet 10 - Sta 4960+00 to Sta 5000+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
4960+00	35' Lt	4960+00	100' Lt	65	4961+00	39' Rt	4961+00	95' Rt	56
4961+00	100' Lt	4961+00	39' Lt	61	4963+00	90' Rt	4963+00	36' Rt	54
4962+00	33' Lt	4962+00	100' Lt	67	4965+00	72' Rt	4965+00	37' Rt	35
4963+00	36' Lt	4963+00	100' Lt	64	4966+00	38' Rt	4966+00	38' Rt	37
4965+00	39' Lt	4965+00	83' Lt	44	4966+50	100' Rt	4967+39	67' Rt	96
4966+00	38' Lt	4966+00	84' Lt	46	4970+00	39' Rt	4970+00	86' Rt	47
4967+00	40' Lt	4967+00	92' Lt	52	4970+60	97' Rt	4970+60	46' Rt	52
4967+40	100' Lt	4967+78	83' Lt	41	4971+80	100' Rt	4971+80	39' Rt	61
4970+21	87' Lt	4971+00	100' Lt	80	4972+40	100' Rt	4972+40	40' Rt	60
4970+60	88' Lt	4970+60	66' Lt	21	4973+00	40' Rt	4973+00	100' Rt	60
4971+20	55' Lt	4971+20	95' Lt	40	4973+60	41' Rt	4973+60	100' Rt	59
4971+80	95' Lt	4971+80	43' Lt	52	4974+20	40' Rt	4974+20	100' Rt	60
4972+40	95' Lt	4972+40	40' Lt	55	4974+80	100' Rt	4974+80	39' Rt	61
4973+00	100' Lt	4973+00	41' Lt	59	4975+40	39' Rt	4975+40	100' Rt	61
4973+60	40' Lt	4973+60	89' Lt	49	4976+00	40' Rt	4976+00	100' Rt	60
4974+20	40' Lt	4974+20	87' Lt	47	4976+57	95' Rt	4981+77	95' Rt	520
4974+80	80' Lt	4974+80	39' Lt	41	4976+60	95' Rt	4976+60	41' Rt	54
4975+40	38' Lt	4975+40	77' Lt	39	4977+20	95' Rt	4977+20	40' Rt	55
4976+00	77' Lt	4976+00	41' Lt	36	4977+80	41' Rt	4977+80	95' Rt	54
4976+60	82' Lt	4976+60	40' Lt	42	4978+40	41' Rt	4978+40	95' Rt	54
4977+20	39' Lt	4977+20	100' Lt	61	4979+00	39' Rt	4979+00	95' Rt	56
4977+80	100' Lt	4977+80	41' Lt	59	4984+30	38' Rt	4984+30	38' Rt	62
4978+40	100' Lt	4978+40	38' Lt	62	4985+30	42' Rt	4985+30	100' Rt	58
4978+40	100' Lt	4980+80	100' Lt	240	4985+90	42' Rt	4985+90	100' Rt	58
4979+00	43' Lt	4979+00	100' Lt	57	4986+50	41' Rt	4986+50	41' Rt	59
4980+00	100' Lt	4980+00	41' Lt	59	4987+10	39' Rt	4987+10	78' Rt	39
4982+00	34' Lt	4982+00	92' Lt	57	4987+70	37' Rt	4987+71	78' Rt	41
4984+30	100' Lt	4984+30	38' Lt	62	4988+30	38' Rt	4988+30	78' Rt	40
4985+30	100' Lt	4985+30	37' Lt	63	4988+90	79' Rt	4988+90	38' Rt	41
4985+90	100' Lt	4985+90	38' Lt	62	4989+50	37' Rt	4989+50	82' Rt	45
4986+50	38' Lt	4986+50	100' Lt	62	4990+10	85' Rt	4990+10	36' Rt	49
4987+10	100' Lt	4987+10	36' Lt	64	4990+70	38' Rt	4990+70	38' Rt	49
4987+69	100' Lt	4987+70	35' Lt	65	4991+31	86' Rt	4991+31	40' Rt	45
4988+30	100' Lt	4988+30	36' Lt	64	4991+92	85' Rt	4991+92	43' Rt	42
4988+90	37' Lt	4988+90	100' Lt	63	4992+53	100' Rt	4992+53	50' Rt	50
4989+50	100' Lt	4989+50	38' Lt	62	4992+86	40' Rt	4998+49	40' Rt	552
4989+75	100' Lt	4990+46	100' Lt	74	4993+14	100' Rt	4993+14	51' Rt	49
4990+10	40' Lt	4990+10	100' Lt	60	4993+76	100' Rt	4993+76	52' Rt	48
4990+70	100' Lt	4992+90	89' Lt	237	4998+26	74' Rt	4998+27	56' Rt	30
4991+78	40' Lt	4992+35	40' Lt	58	4998+70	40' Rt	4998+75	40' Rt	5
4992+35	40' Lt	4997+27	40' Lt	502	4998+75	40' Rt	5000+00	40' Rt	122
4998+25	40' Lt	4998+64	40' Lt	40	4999+70	247' Rt	5000+00	127' Rt	129
4998+31	82' Lt	4998+79	125' Lt	67					
4998+84	40' Lt	5000+00	40' Lt	118					
4998+98	125' Lt	4999+25	100' Lt	38					
			<b>Subtotal Lt</b>	<b>3359</b>				<b>Subtotal Rt</b>	<b>3266</b>
								<b>Total</b>	<b>6,625</b>

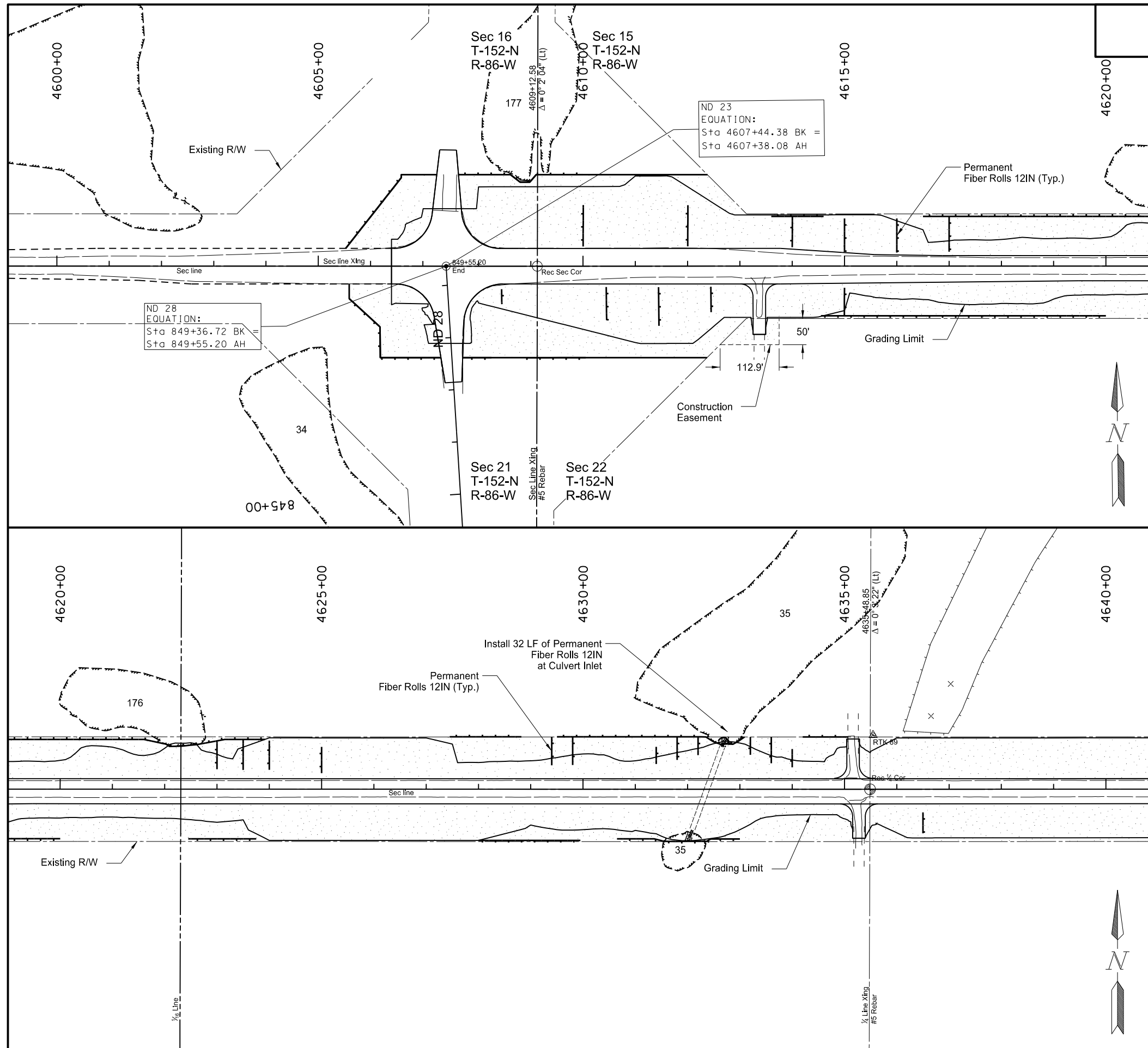
Temporary Fiber Rolls 12IN									
Sheet 11 - Sta 5000+00 to Sta 5040+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
5000+00	40' Lt	5008+90	40' Lt	909	5000+00	40' Rt	5013+89	40' Rt	1360
5001+70	95' Lt	5003+65	91' Lt	205	5000+00	127' Rt	5002+47	78' Rt	248
5006+45	92' Lt	5008+20	99' Lt	184	5004+85	77' Rt	5005+99	229' Rt	222
5009+10	40' Lt	5013+64	40' Lt	463	5013+89	40' Rt	5017+89	40' Rt	396
5011+80	99' Lt	5014+60	188' Lt	365	5015+00	100' Rt	5015+99	97' Rt	98
5014+00	40' Lt	5017+89	40' Lt	393	5017+89	40' Rt	5029+25	40' Rt	1136
5014+39	100' Lt	5015+99	100' Lt	241	5025+67	79' Rt	5026+50	98' Rt	85
5017+89	40' Lt	5029+07	40' Lt	1117	5028+50	98' Rt	5028+50	52' Rt	46
5023+97	90' Lt	5024+30	99' Lt	38	5029+25	40' Rt	5029+76	40' Rt	51
5024+50	77' Lt	5024+50	100' Lt	23	5029+50	98' Rt	5029+50	51' Rt	47
5025+50	72' Lt	5025+50	100' Lt	28	5030+50	95' Rt	5030+50	47' Rt	48
5026+50	53' Lt	5026+50	94' Lt	42	5031+50	88' Rt	5031+50	41' Rt	47
5027+50	48' Lt	5027+50	89' Lt	41	5032+50	82' Rt	5032+50	34' Rt	49
5028+50	46' Lt	5028+50	81' Lt	35	5037+26	95' Rt	5040+00	95' Rt	283
5029+50	41' Lt	5029+50	100' Lt	59					
5030+50	38' Lt	5030+50	84' Lt	46					
5031+50	38' Lt	5031+50	78' Lt	40					
5032+50	34' Lt	5032+50	83' Lt	49					
5033+50	35' Lt	5033+50	82' Lt	47					
5034+50	38' Lt	5034+50	82' Lt	44					
5035+70	100' Lt	5036+20	100' Lt	50					
5036+40	100' Lt	5038+00	95' Lt	161					
			<b>Subtotal Lt</b>	<b>4579</b>				<b>Subtotal Rt</b>	<b>4115</b>
								<b>Total</b>	<b>8,695</b>

Temporary Fiber Rolls 12IN									
Sheet 12 - Sta 5040+00 to Sta 5071+00									
Start Sta	Offset	End Sta	Offset	Length (LF)	Start Sta	Offset	End Sta	Offset	Length (LF)
5041+95	100' Lt	5042+68	466' Lt	776	5040+00	95' Rt	5041+95	72' Rt	204
5042+91	484' Lt	5047+04	100' Lt	570	5044+70	104' Rt	5046+69	141' Rt	243
5046+71	59' Lt	5046+71	77' Lt	30	5046+86	73' Rt	5046+94	89' Rt	30
5047+30	92' Lt	5047+30	44' Lt	48	5047+30	38' Rt	5047+30	107' Rt	69
5047+91	84' Lt	5047+91	43' Lt	42	5047+91	41' Rt	5047+91	100' Rt	59
5048+51	80' Lt	5048+51	45' Lt	35	5048+51	39' Rt	5048+51	100' Rt	61
5049+12	88' Lt	5049+12	43' Lt	45	5049+12	42' Rt	5049+12	100' Rt	58
5049+72	95' Lt	5049+72	42' Lt	54	5049+72	48' Rt	5049+72	100' Rt	52
5050+33	98' Lt	5050+33	43' Lt	55	5050+33	54' Rt	5050+33	100' Rt	46
5050+94	97' Lt	5050+94	45' Lt	52	5050+94	59' Rt	5050+94	100' Rt	41
5051+55	91' Lt	5051+55	47' Lt	44	5051+55	53' Rt	5051+55	100' Rt	47
5052+16	85' Lt	5052+16	44' Lt	41	5052+16	42' Rt	5052+16	100' Rt	58
5052+78	79' Lt	5052+78	43' Lt	36	5052+78	40' Rt	5052+78	100' Rt	60
5053+39	77' Lt	5053+39	41' Lt	36	5053+39	40' Rt	5053+39	100' Rt	60
5054+01	76' Lt	5054+01	40' Lt	36	5054+01	41' Rt	5054+01	100' Rt	59
5054+64	76' Lt	5054+64	40' Lt	36	5054+64	41' Rt	5054+64	100' Rt	59
5055+26	77' Lt	5055+26	41' Lt	36	5055+26	41' Rt	5055+26	100' Rt	59
5055+89	78' Lt	5055+89	37' Lt	41	5055+89	40' Rt	5055+89	100' Rt	60
5056+52	76' Lt	5056+52	37' Lt	39	5056+52	40' Rt	5056+52	100' Rt	60
5057+16	80' Lt	5057+16	36' Lt	43	5057+16	39' Rt	5057+16	100' Rt	61
5057+80	79' Lt	5057+80	32' Lt	47	5057+80	39' Rt	5057+80	100' Rt	61
5058+44	77' Lt	5058+44	35' Lt	43	5058+44	39' Rt	5058+44	100' Rt	61
5059+09	74' Lt	5059+09	34' Lt	40	5059+09	39' Rt	5059+09	100' Rt	61
5059+74	81' Lt	5059+74	33' Lt	48	5059+74	38' Rt	5059+74	67' Rt	29
5060+38	100' Lt	5061+40	100' Lt	165	5060+01	57' Rt	5061+05	45' Rt	107
5061+60	100' Lt	5063+42	43' Lt	197					
5061+78	56' Lt	5061+79	74' Lt	30					
			<b>Subtotal Lt</b>	<b>2665</b>				<b>Subtotal Rt</b>	<b>1764</b>
								<b>Total</b>	<b>4,428</b>




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Fiber Rolls 12IN Table  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	1



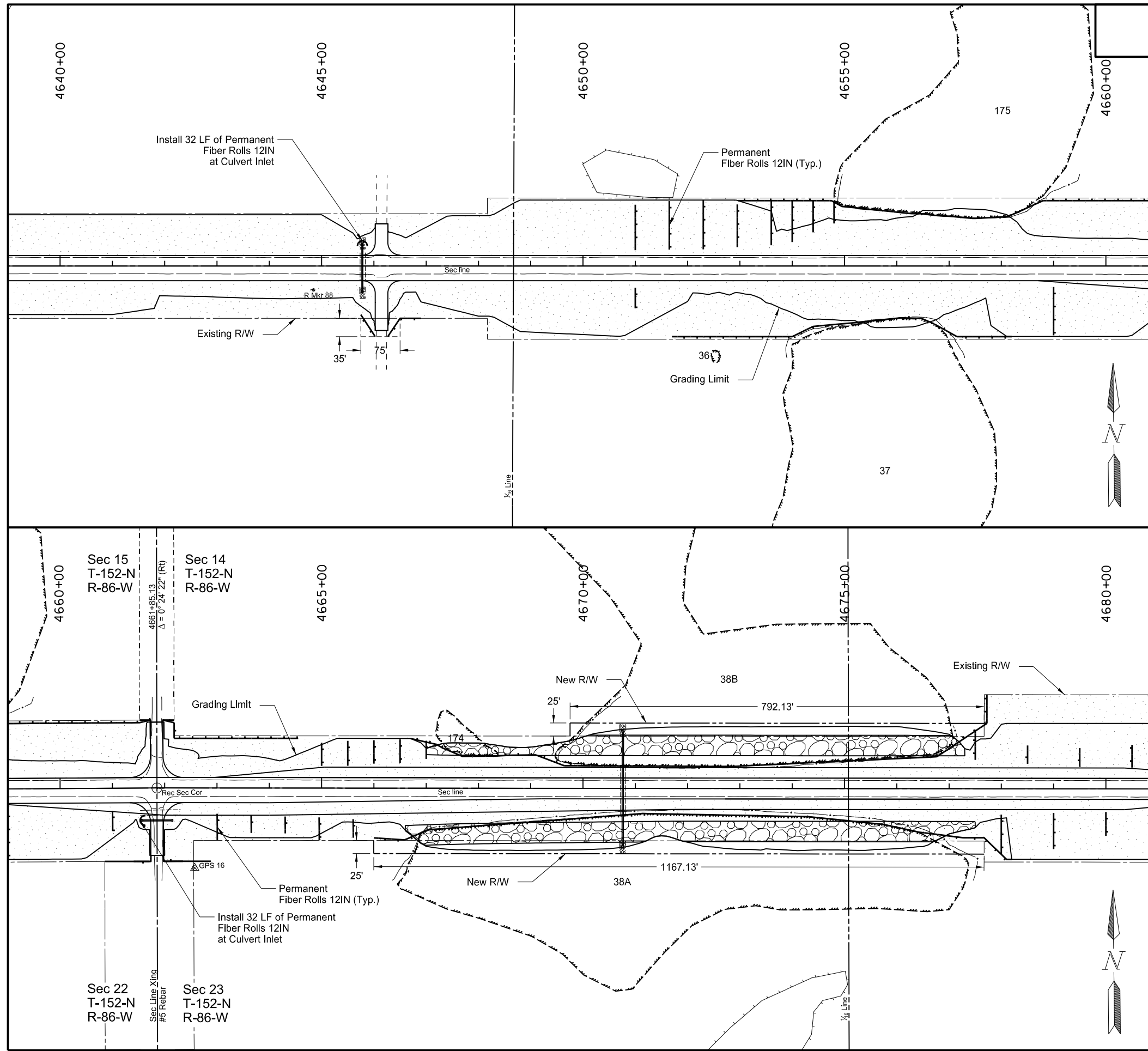
Item	Description	Quantity	Unit
251-0200	Seeding Class II		
	Sta 4605+52 Lt to 4640+00 Lt	6.80	Acre
	Sta 4605+59 Rt to 4640+00 Rt	6.45	Acre
253-0101	Straw Mulch		
	Sta 4605+52 Lt to 4640+00 Lt	6.80	Acre
	Sta 4605+59 Rt to 4640+00 Rt	6.45	Acre
261-0112	Fiber Rolls 12IN		
	Sta 4605+52 Lt to 4640+00 Lt	3,169	LF
	Sta 4605+59 Rt to 4640+00 Rt	2,165	LF

-  Seeding Class II  
Straw Mulch
-  ECB Type 1
-  Fiber Rolls 12IN





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Permanent Erosion Control,  
& Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	2



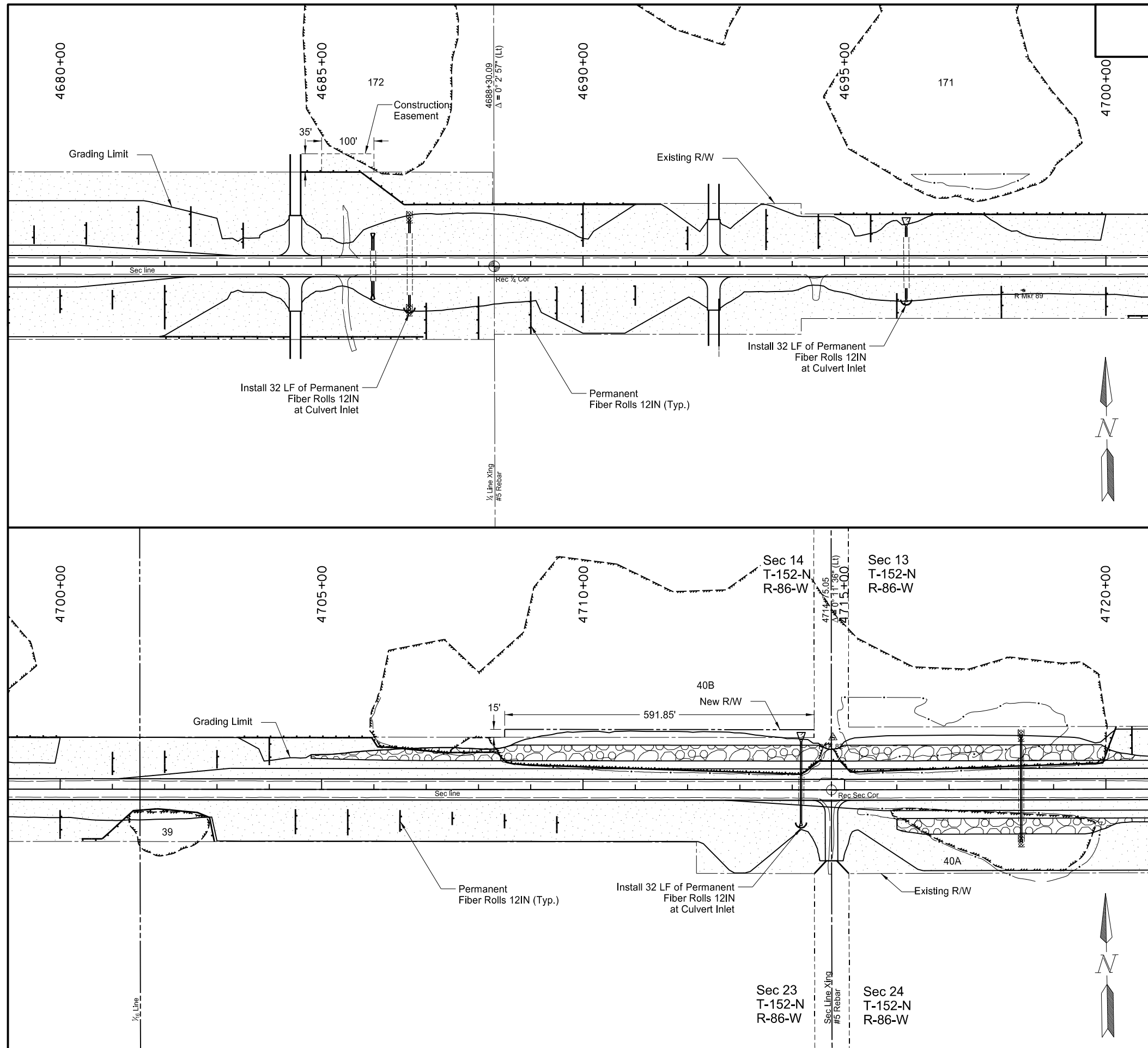
Item	Description	Quantity	Unit
251-0200	Seeding Class II		
	Sta 4640+00 Lt to 4680+00 Lt	7.71	Acre
253-0101	Straw Mulch		
	Sta 4640+00 Rt to 4680+00 Rt	7.51	Acre
256-0201	Riprap Grade II		
	Sta 4667+00 Lt to 4677+30 Lt	3,540	Ton
261-0112	Fiber Rolls 12IN		
	Sta 4640+00 Lt to 4680+00 Lt	3,364	LF
709-0155	Geosynthetic Material Type RR		
	Sta 4667+00 Lt to 4677+30 Lt (12' Width)	4,478	SY
	Sta 4666+60 Rt to 4677+50 Rt (12' Width)	5,143	SY

-  Riprap Grade II
-  Seeding Class II  
Straw Mulch
-  ECB Type 1
-  Fiber Rolls 12IN





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Permanent Erosion Control,  
 & Seeding  
 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	3



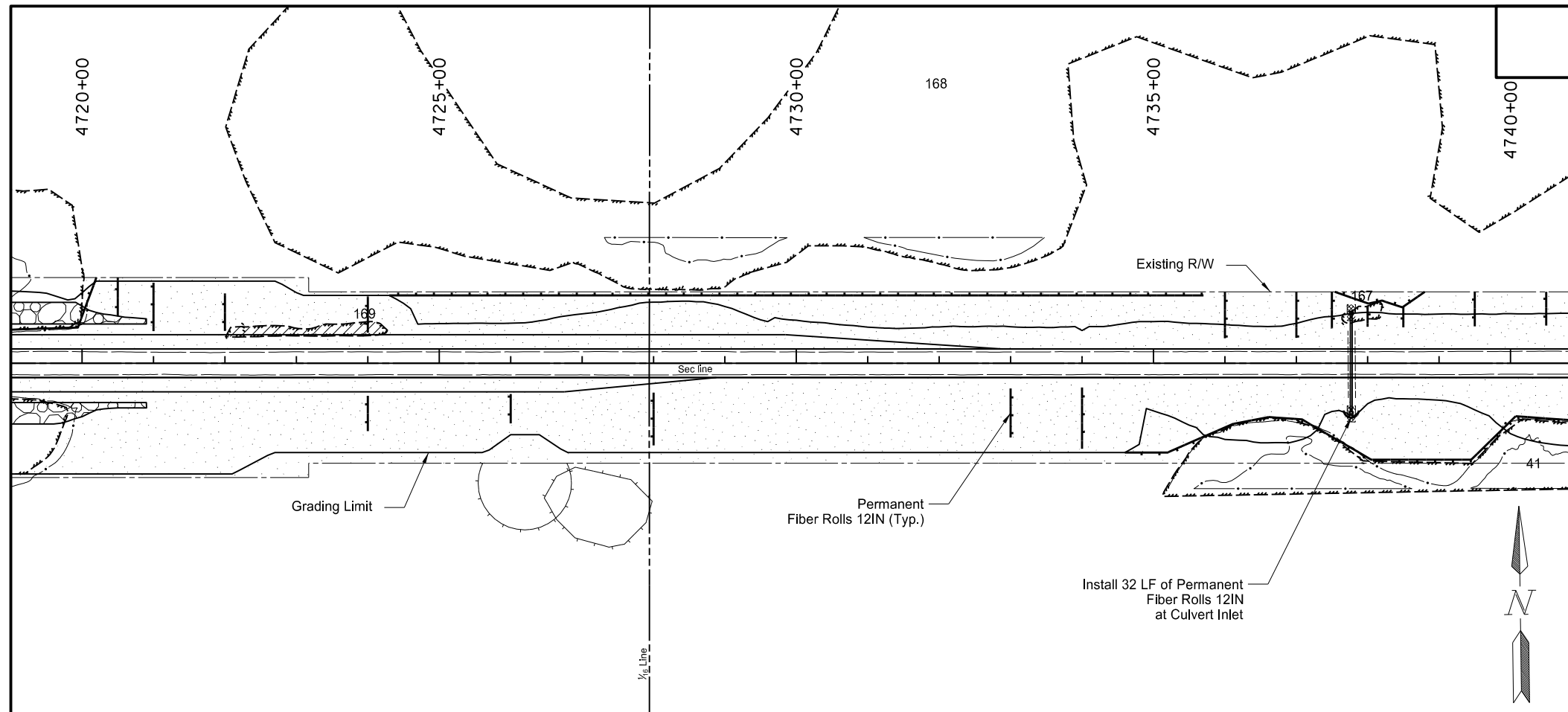
Item	Description	Quantity	Unit
251-0200	Seeding Class II		
	Sta 4680+00 Lt to 4720+00 Lt	7.49	Acre
253-0101	Straw Mulch		
	Sta 4680+00 Rt to 4720+00 Rt	8.52	Acre
256-0201	Riprap Grade II		
	Sta 4704+80 Lt to 4720+00 Lt	3,963	Ton
261-0112	Fiber Rolls 12IN		
	Sta 4680+00 Lt to 4720+00 Lt	3,636	LF
709-0155	Geosynthetic Material Type RR		
	Sta 4716+00 Rt to 4720+00 Rt (12' Width)	1,571	SY

-  Riprap Grade II
-  Seeding Class II Straw Mulch
-  ECB Type 1
-  Fiber Rolls 12IN





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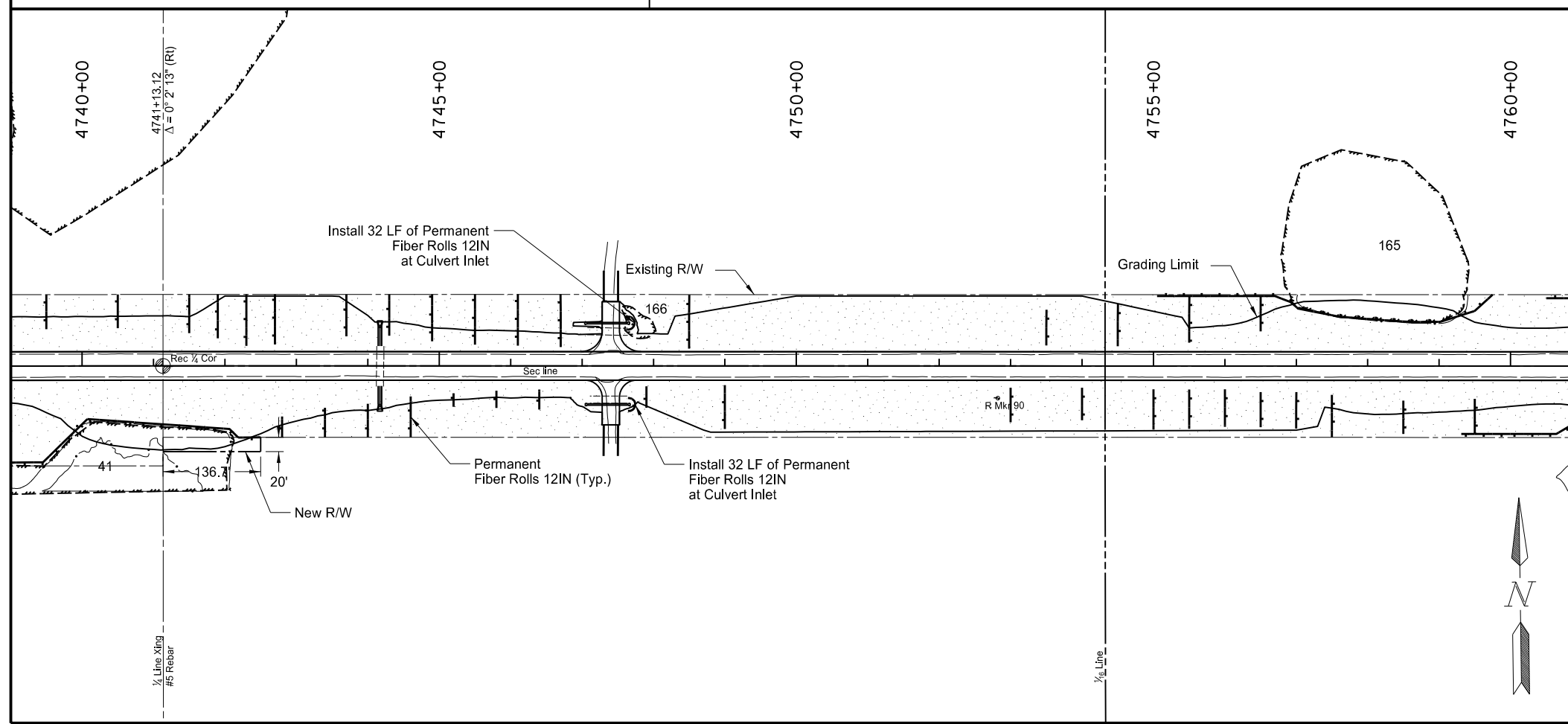
Permanent Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	4



Item	Description	Quantity	Unit
251-0200	Seeding Class II		
	Sta 4720+00 Lt to 4760+00 Lt	7.09	Acre
253-0101	Straw Mulch		
	Sta 4720+00 Lt to 4760+00 Lt	7.09	Acre
256-0201	Riprap - Grade II		
	Sta 4720+00 Lt to 4720+90 Lt	125	Ton
261-0112	Fiber Rolls 12IN		
	Sta 4720+00 Lt to 4760+00 Lt	3,430	LF
709-0155	Geosynthetic Material Type RR		
	Sta 4720+00 Lt to 4720+90 Lt (12' Width)	175	SY
	Sta 4720+00 Rt to 4720+90 Rt (12' Width)	121	SY

-  Riprap - Grade II
-  Seeding Class II Straw Mulch
-  ECB Type 1
-  Fiber Rolls 12IN

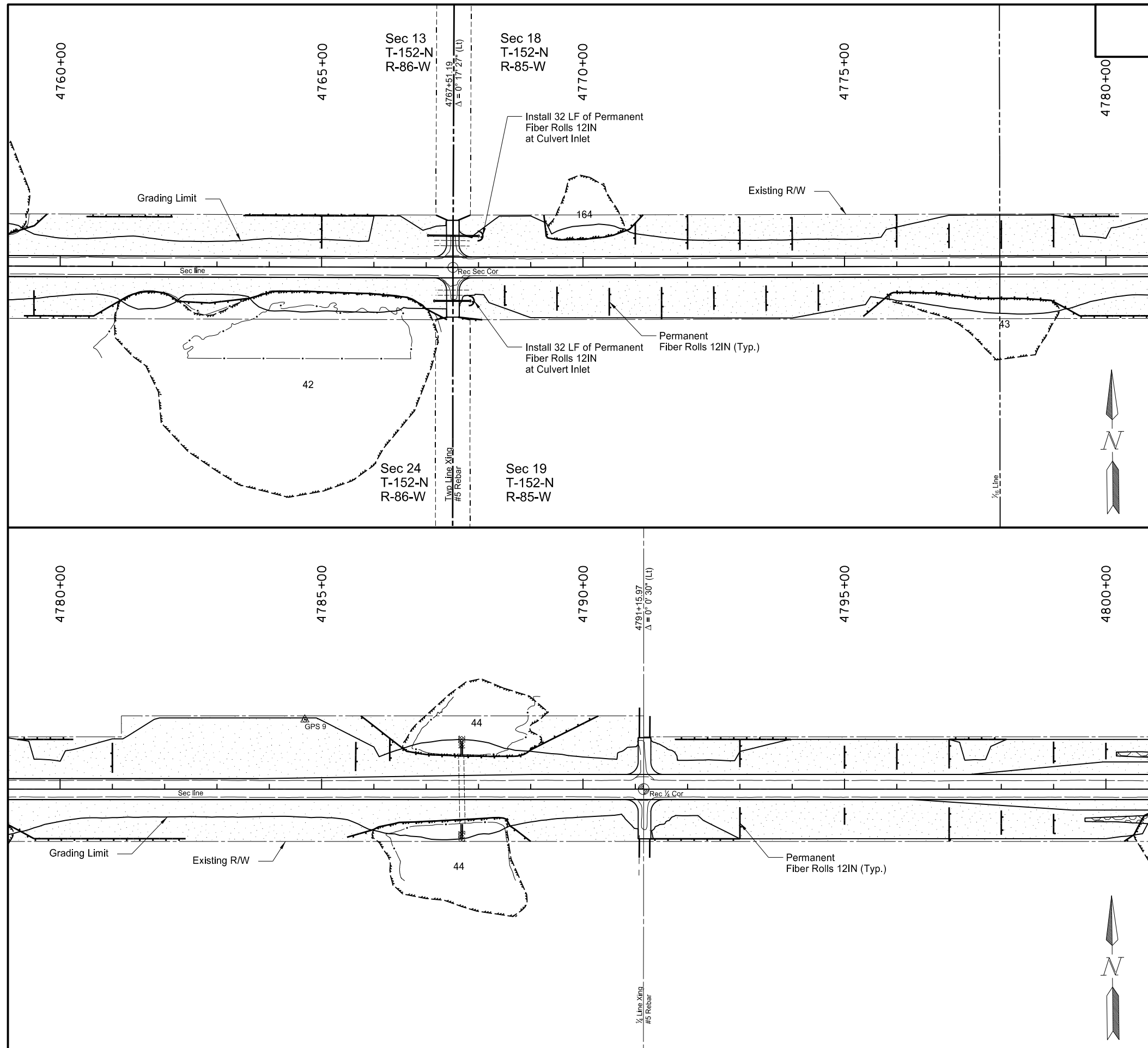


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Permanent Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	5

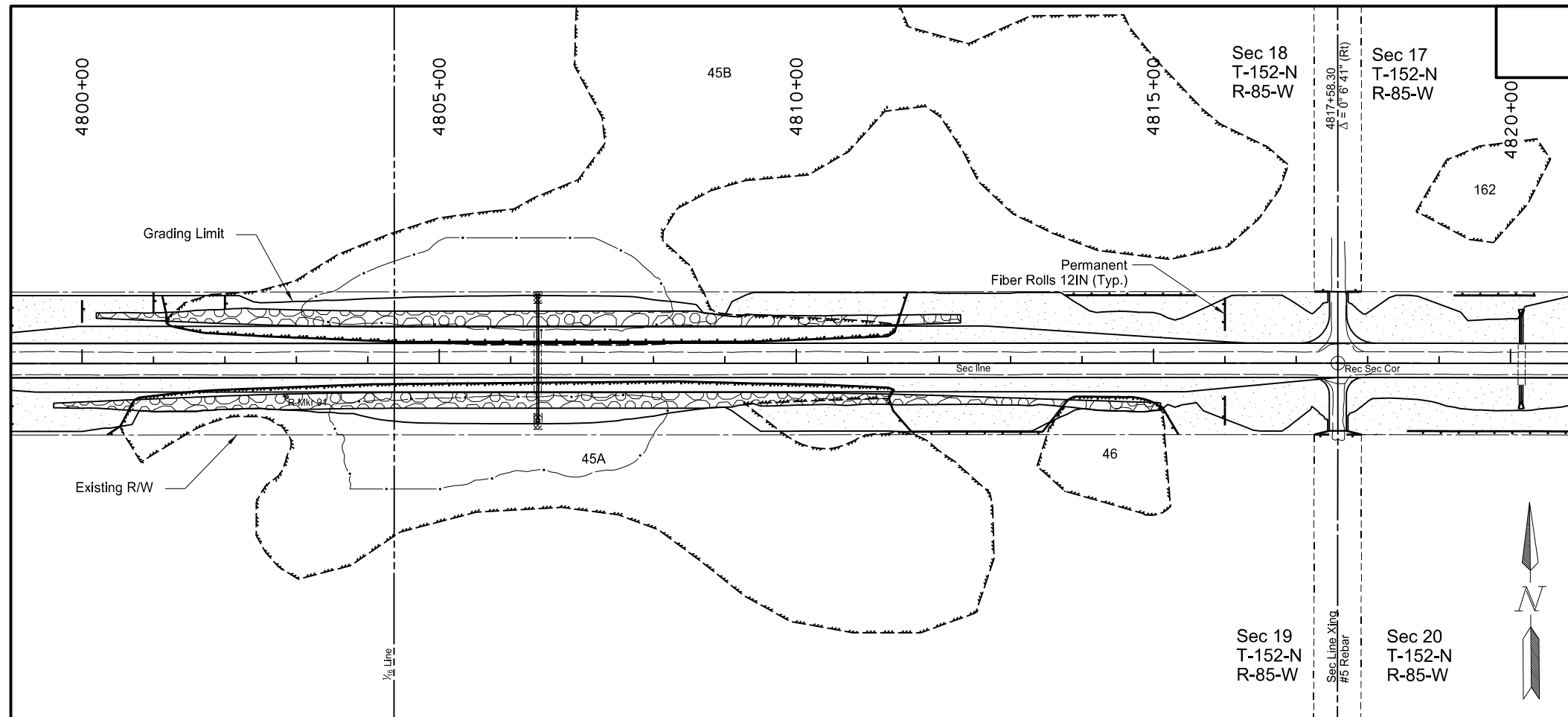


Item	Description	Quantity	Unit
251-0200	Seeding Class II Sta 4760+00 Lt to 4800+00 Lt Sta 4760+00 Rt to 4800+00 Rt	7.19 6.10	Acre Acre
253-0101	Straw Mulch Sta 4760+00 Lt to 4800+00 Lt Sta 4760+00 Rt to 4800+00 Rt	7.19 6.10	Acre Acre
256-0201	Riprap Grade II Sta 4799+60 Rt to 4800+00 Rt	25	Ton
261-0112	Fiber Rolls 12IN Sta 4760+00 Lt to 4800+00 Lt Sta 4760+00 Rt to 4800+00 Rt	2,551 2,711	LF LF
709-0155	Geosynthetic Material Type RR Sta 4799+60 Rt to 4800+00 Rt (12' Width)	46	SY

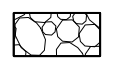




-  Riprap - Grade II
-  Seeding Class II Straw Mulch
-  ECB Type 1
-  Fiber Rolls 12IN

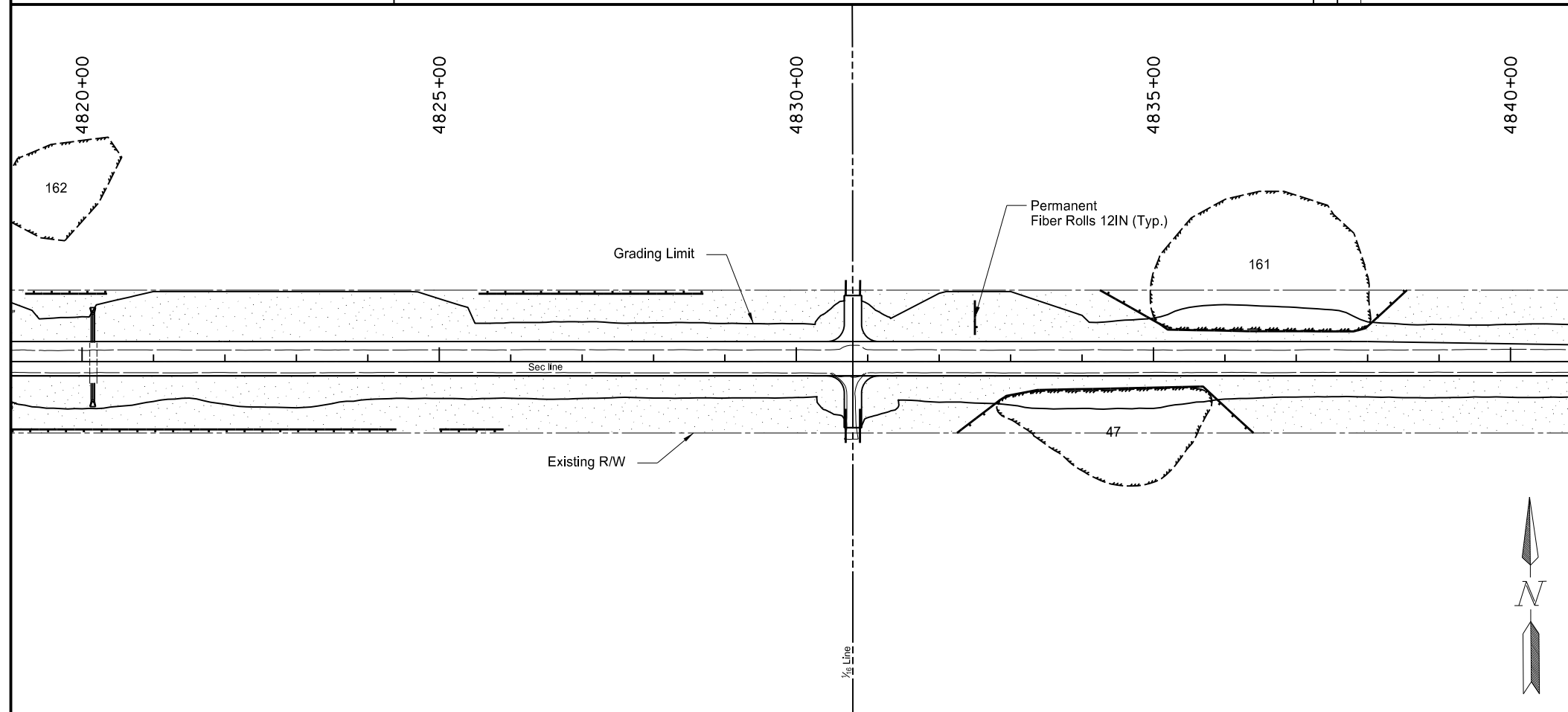
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Permanent Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13



Item	Description	Quantity	Unit
251-0200	Seeding Class II	4.73	Acre
	Sta 4800+00 Lt to 4840+00 Lt	5.07	Acre
253-0101	Straw Mulch	4.73	Acre
	Sta 4800+00 Rt to 4840+00 Rt	5.07	Acre
256-0201	Riprap Grade II	1,842	Ton
	Sta 4800+20 Lt to 4812+30 Lt	2,140	Ton
261-0112	Fiber Rolls 12IN	2,420	LF
	Sta 4800+00 Rt to 4840+00 Rt	2,839	LF
709-0155	Geosynthetic Material Type RR	3,216	SY
	Sta 4800+00 Lt to 4812+30 Lt (12' Width)	3,902	SY
	Sta 4800+00 Rt to 4815+10 Rt (12' Width)		

-  Riprap Grade II
-  Seeding Class II
-  Straw Mulch
-  ECB Type 1
-  Fiber Rolls 12IN

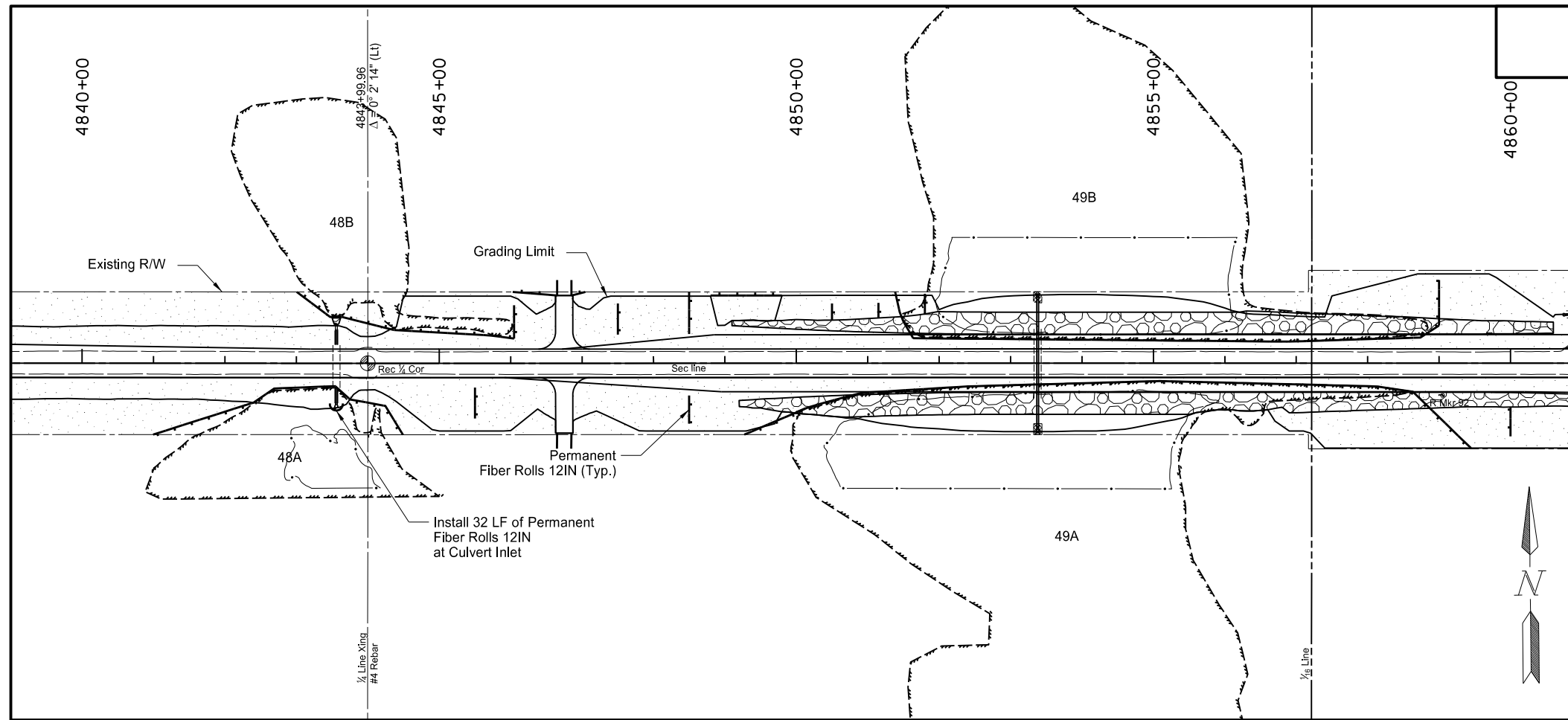


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
Permanent Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13


STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	7


Item	Description	Quantity	Unit
251-0200	Seeding Class II		
	Sta 4840+00 Lt to 4880+00 Lt	5.27	Acre
253-0101	Straw Mulch		
	Sta 4840+00 Rt to 4880+00 Rt	5.43	Acre
256-0201	Riprap Grade II		
	Sta 4849+10 Lt to 4860+60 Lt	2,654	Ton
261-0112	Fiber Rolls 12IN		
	Sta 4840+00 Rt to 4880+00 Rt	2,813	LF
709-0155	Geosynthetic Material Type RR		
	Sta 4849+10 Lt to 4860+60 Lt (12' Width)	3,854	SY
	Sta 4849+20 Rt to 4865+30 Rt (12' Width)	5,177	SY




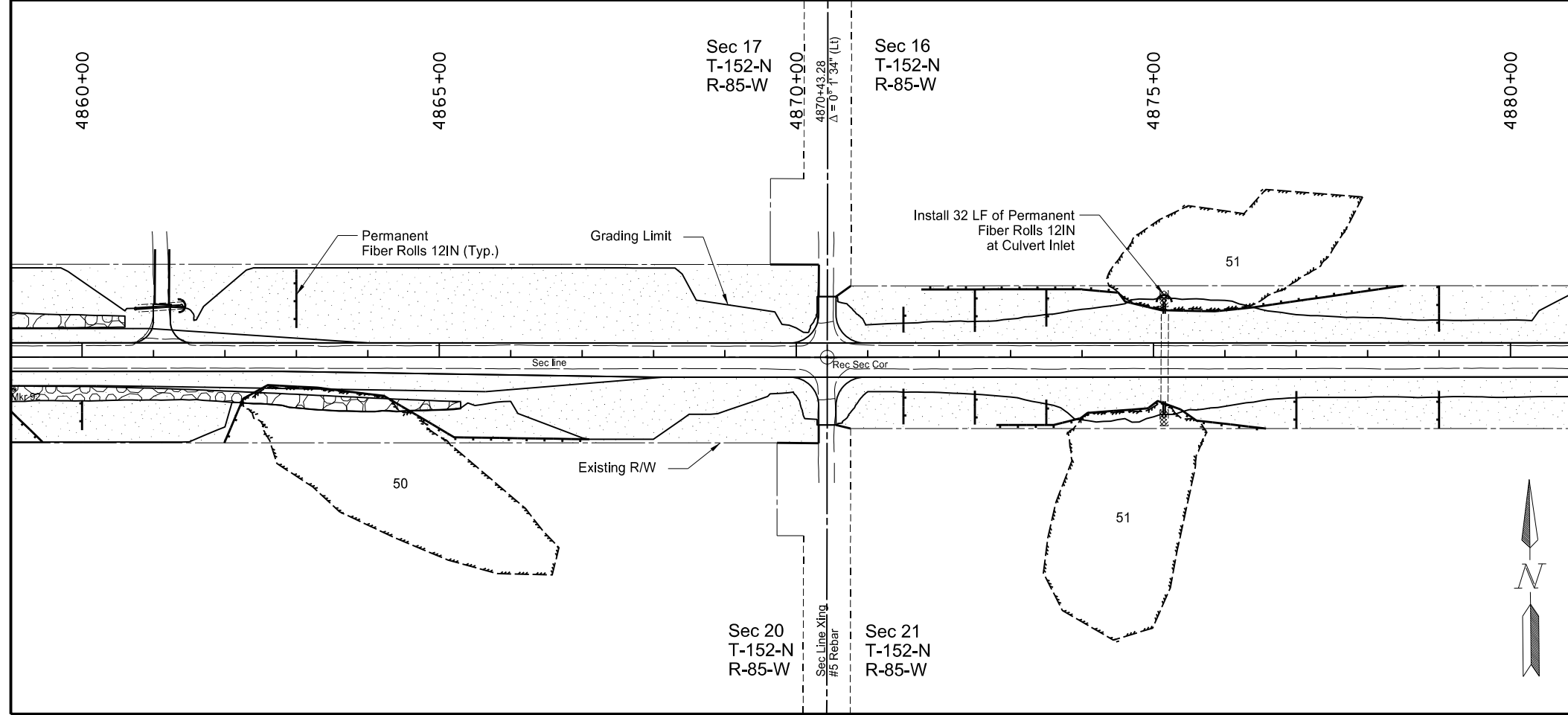
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 Riprap Grade II

 Seeding Class II  
Straw Mulch

 ECB Type 1

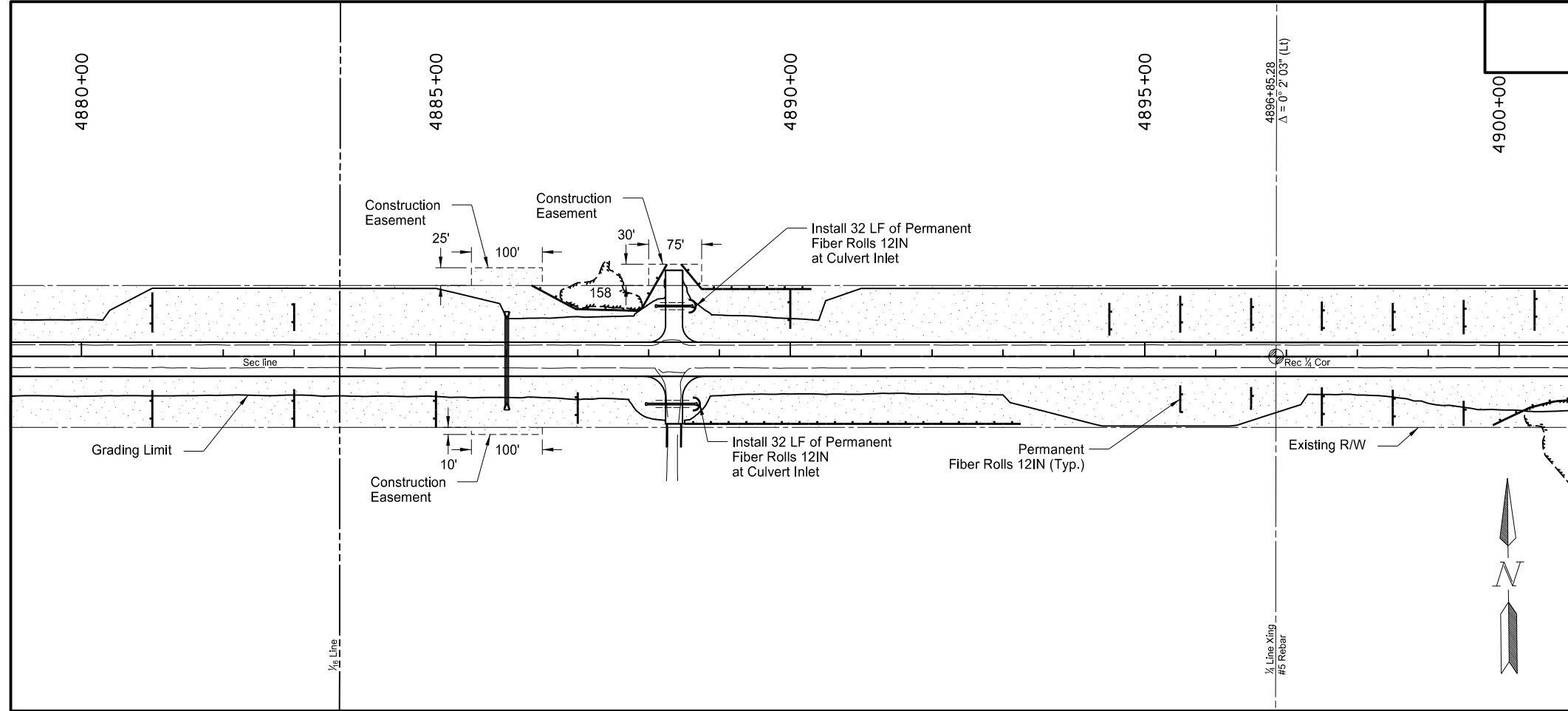
 Fiber Rolls 12IN






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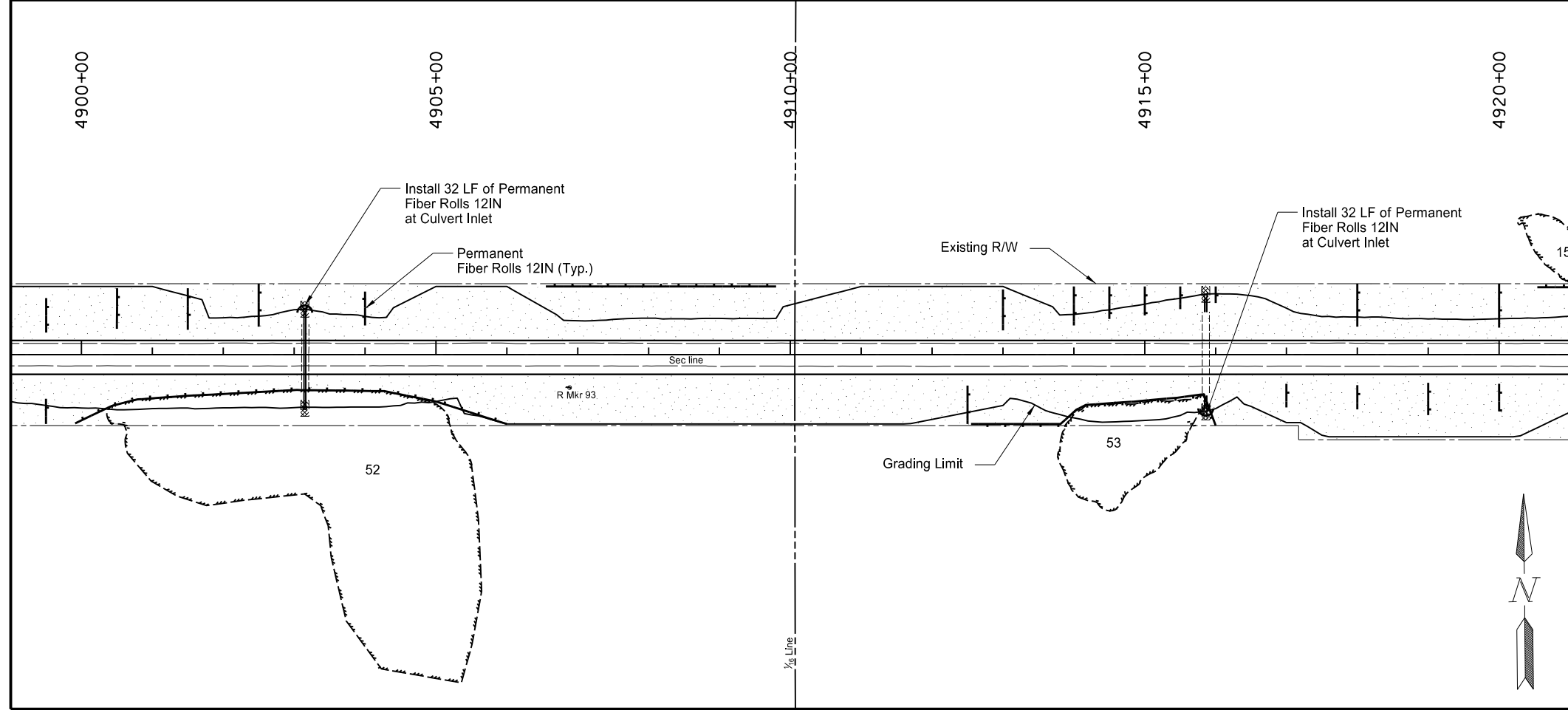
Permanent Erosion Control,  
 & Seeding  
 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	8



Item	Description	Quantity	Unit
251-0200	Seeding Class II Sta 4880+00 Lt to 4920+00 Lt Sta 4880+00 Rt to 4920+00 Rt	7.26 6.10	Acre Acre
253-0101	Straw Mulch Sta 4880+00 Lt to 4920+00 Lt Sta 4880+00 Rt to 4920+00 Rt	7.26 6.10	Acre Acre
261-0112	Fiber Rolls 12IN Sta 4880+00 Lt to 4920+00 Lt Sta 4880+00 Rt to 4920+00 Rt	1,790 2,126	LF LF

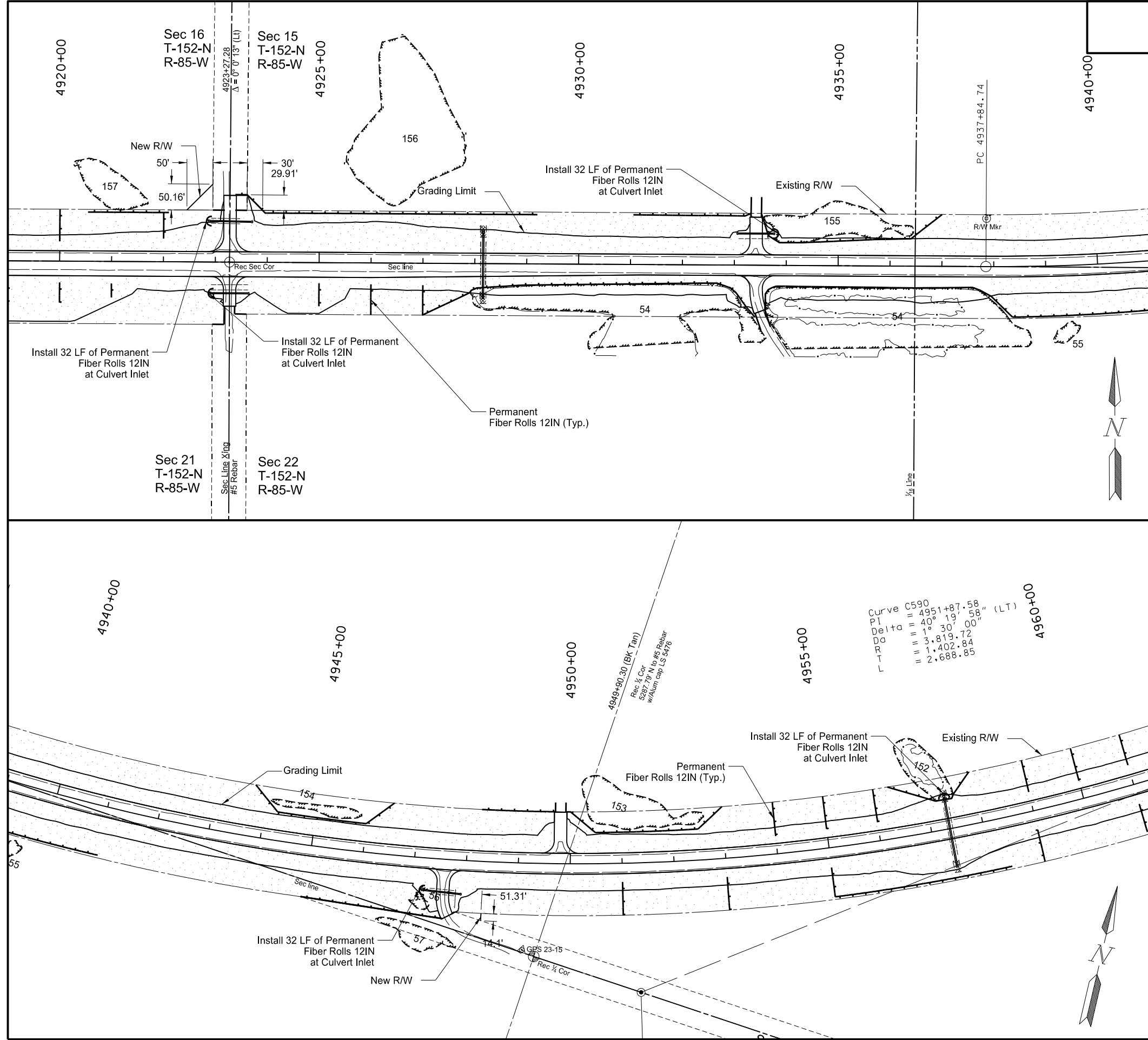
-  Seeding Class II  
Straw Mulch
-  ECB Type 1
-  Fiber Rolls 12IN






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Permanent Erosion Control,  
& Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	9



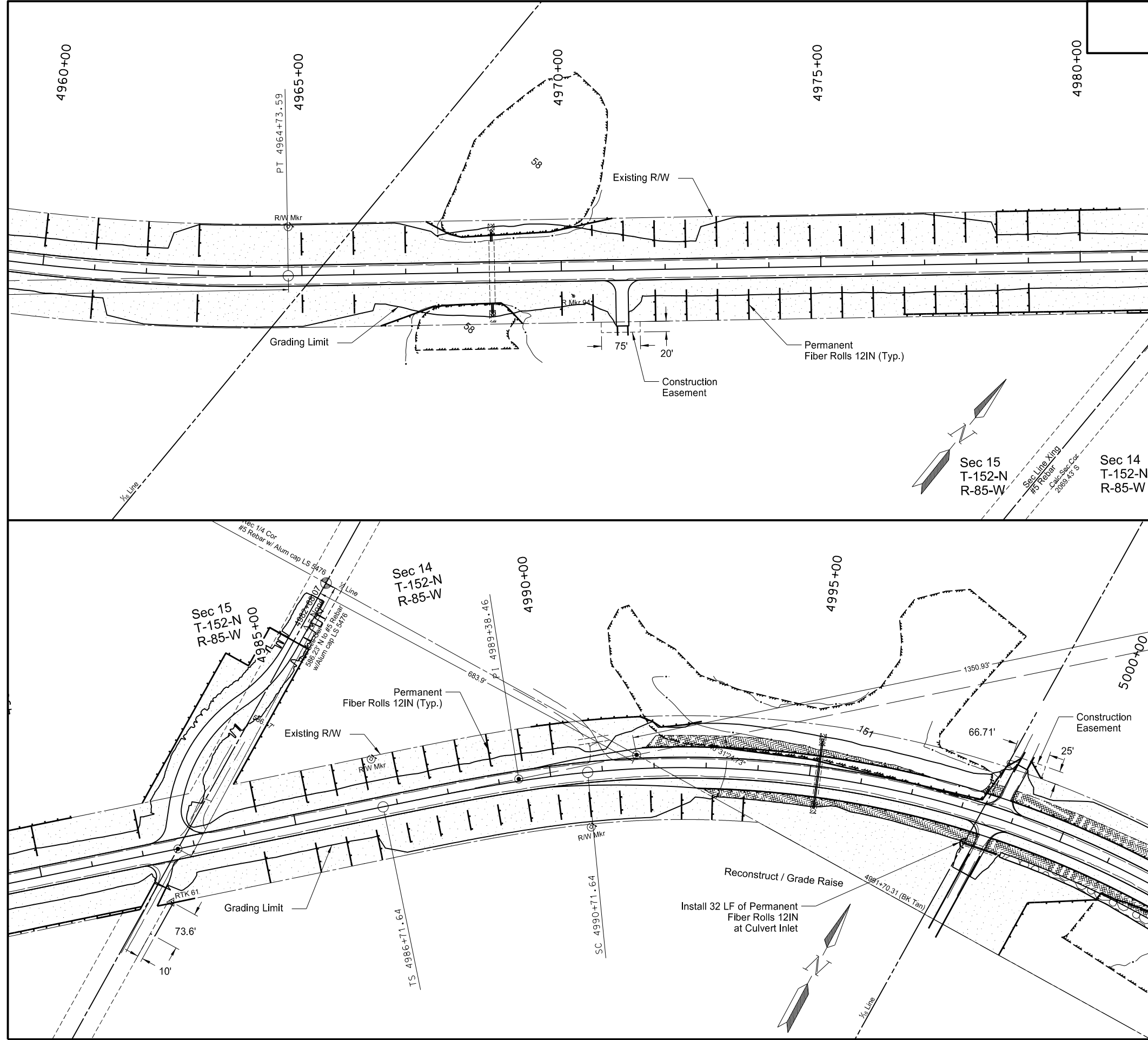
Item	Description	Quantity	Unit
251-0200	Seeding Class II		
	Sta 4920+00 Lt to 4960+00 Lt	6.30	Acre
253-0101	Straw Mulch		
	Sta 4920+00 Rt to 4960+00 Rt	5.96	Acre
261-0112	Fiber Rolls 12IN		
	Sta 4920+00 Lt to 4960+00 Lt	2,811	LF
	Sta 4920+00 Rt to 4960+00 Rt	2,662	LF

-  Seeding Class II  
Straw Mulch
-  ECB Type 1
-  Fiber Rolls 12IN




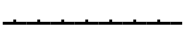
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Permanent Erosion Control, & Seeding  
 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	10



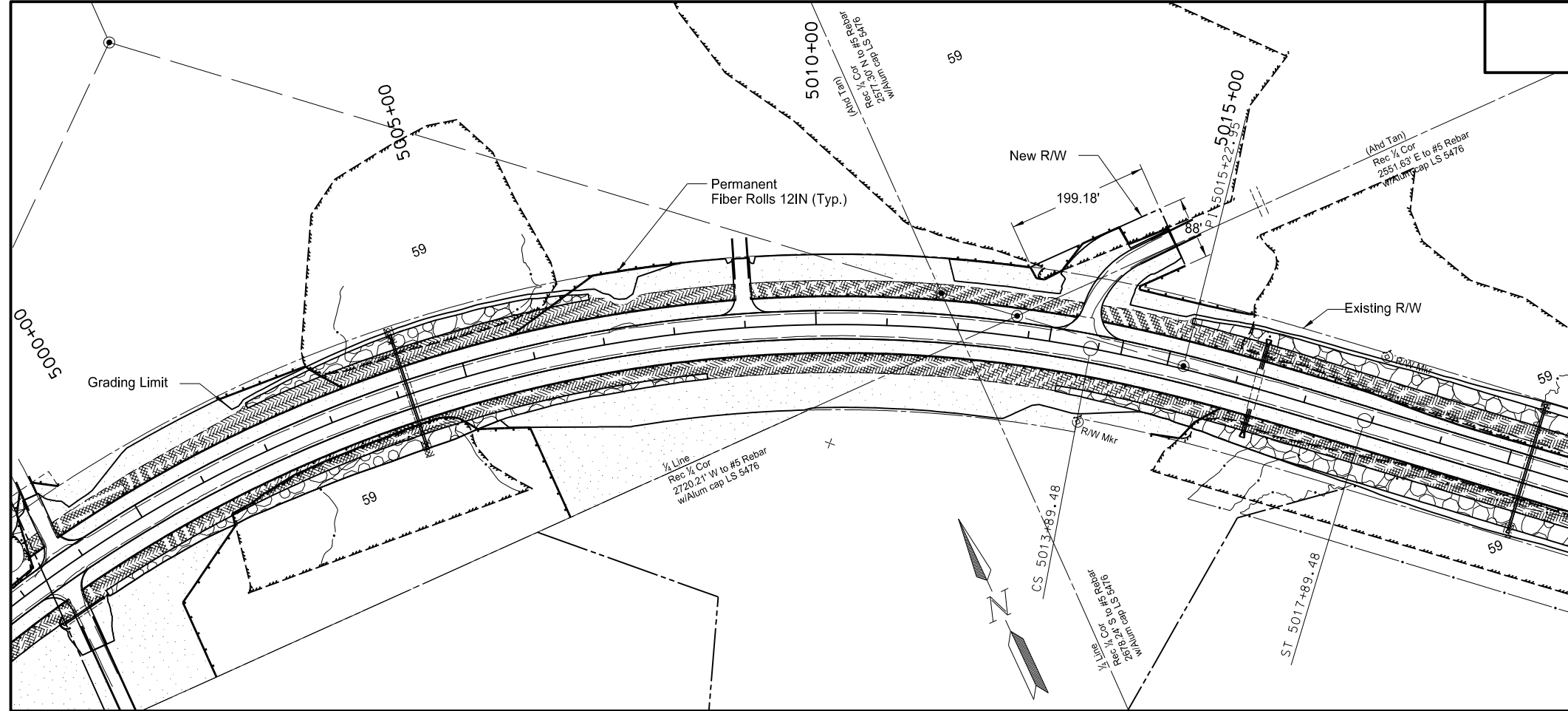
Item	Description	Quantity	Unit
251-0200	Seeding Class II Sta 4960+00 Lt to 5000+00 Lt Sta 4960+00 Rt to 5000+00 Rt	6.77 8.78	Acre Acre
253-0101	Straw Mulch Sta 4960+00 Lt to 5000+00 Lt Sta 4960+00 Rt to 5000+00 Rt	6.77 8.78	Acre Acre
255-0101	ECB-Type I Sta 4960+00 Lt to 5000+00 Lt Sta 4960+00 Rt to 5000+00 Rt	1,284 1,379	SY SY
256-0201	Riprap Grade II Sta 4999+00 Rt to 5000+00 Rt	65	Ton
261-0112	Fiber Rolls 12IN Sta 4960+00 Lt to 5000+00 Lt Sta 4960+00 Rt to 5000+00 Rt	4,154 3,467	LF LF
709-0155	Geosynthetic Material Type RR Sta 4999+00 Rt to 5000+00 Rt (12' Width)	118	SY

-  Riprap Grade II
-  Seeding Class II Straw Mulch
-  ECB Type I
-  Fiber Rolls 12IN





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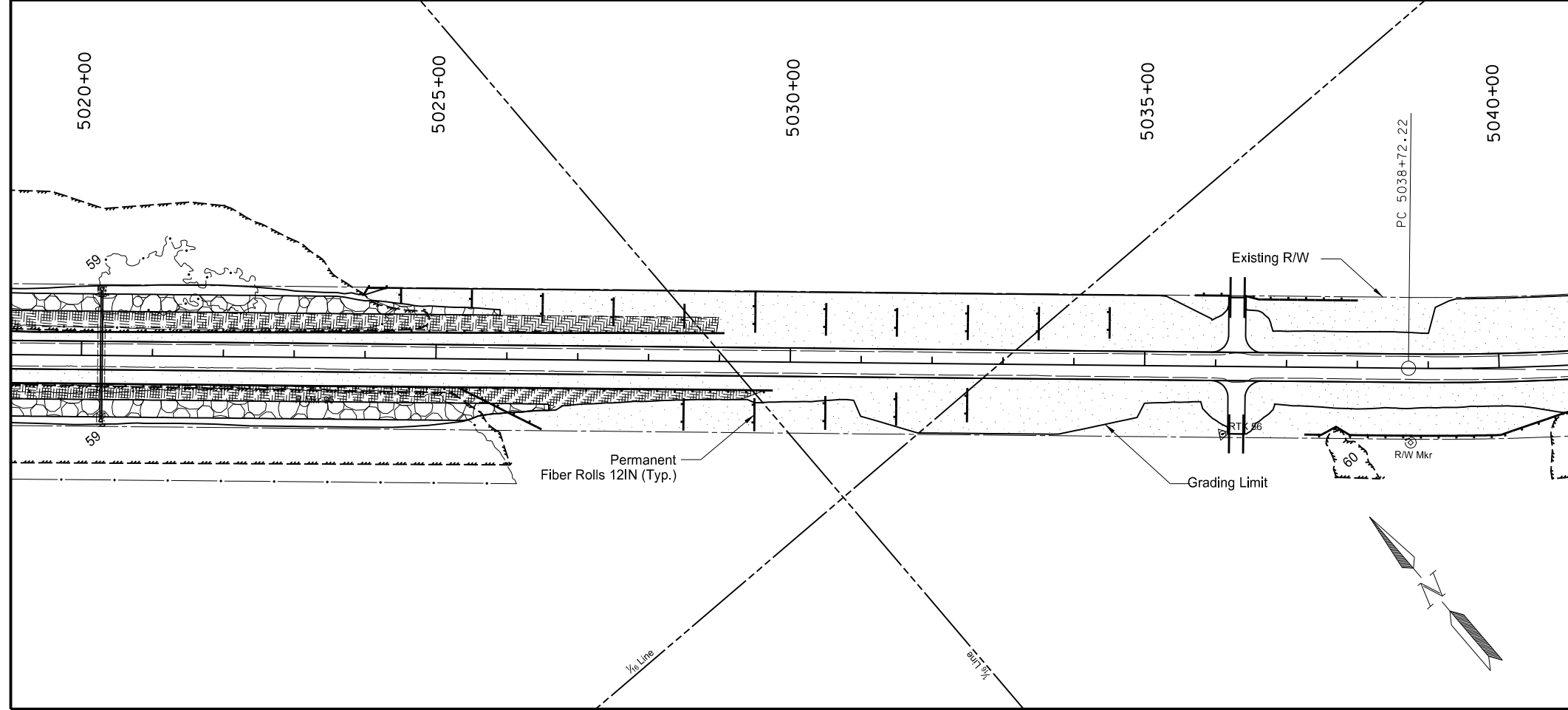
Permanent Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	11



Item	Description	Quantity	Unit
251-0200	Seeding Class II	4.77	Acre
	Sta 5000+00 Lt to 5040+00 Lt	5.40	Acre
253-0101	Straw Mulch	4.77	Acre
	Sta 5000+00 Rt to 5040+00 Rt	5.40	Acre
255-0101	ECB-Type I	7,493	SY
	Sta 5000+00 Rt to 5040+00 Rt	7,092	SY
256-0201	Riprap Grade II	2,550	Ton
	Sta 5002+00 Lt to 5025+90 Lt	3,168	Ton
261-0112	Fiber Rolls 12IN	4,650	LF
	Sta 5000+00 Lt to 5040+00 Lt	4,438	LF
709-0155	Geosynthetic Material Type RR	4,330	SY
	Sta 5002+00 Lt to 5025+90 Lt (12' Width)	5,638	SY

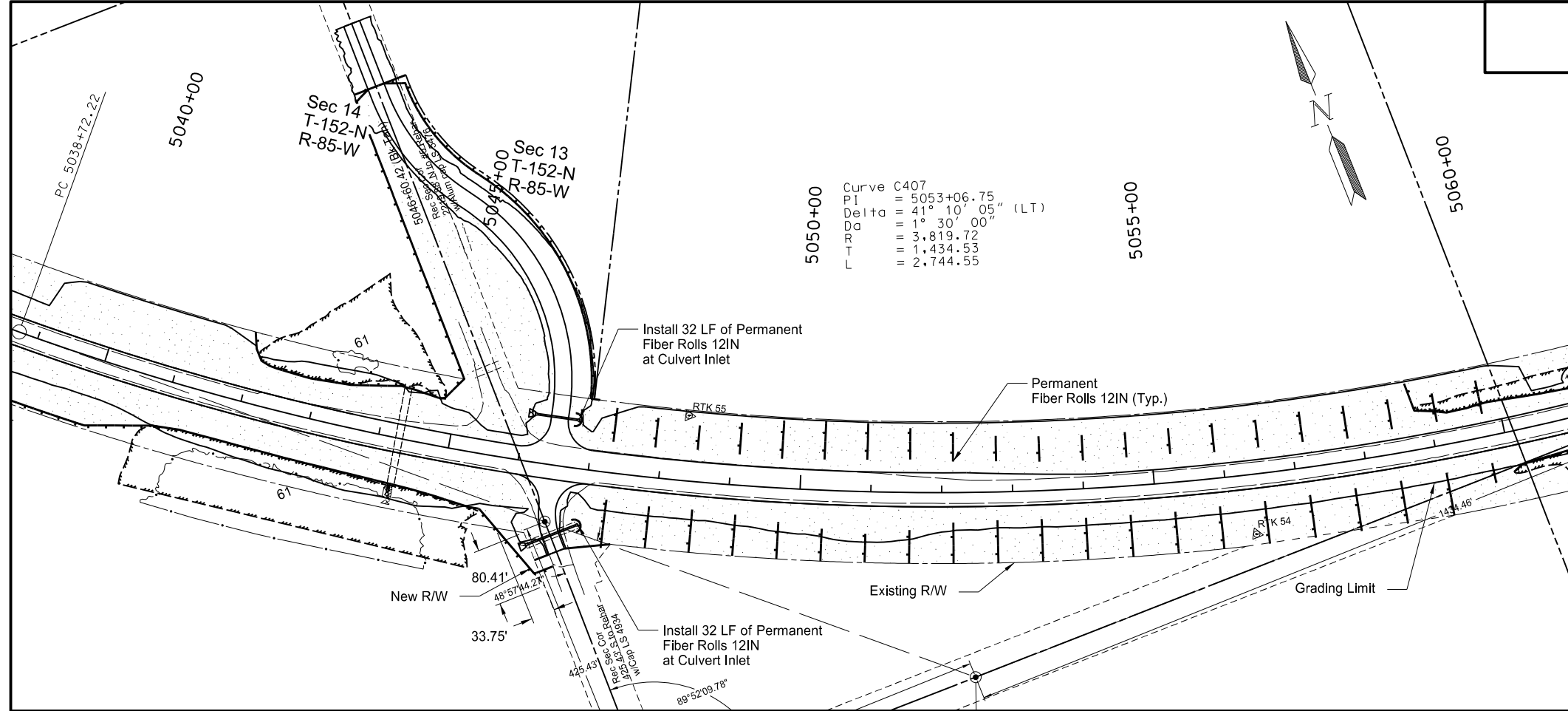
-  Riprap Grade II
-  Seeding Class II  
Straw Mulch
-  ECB Type I
-  Fiber Rolls 12IN






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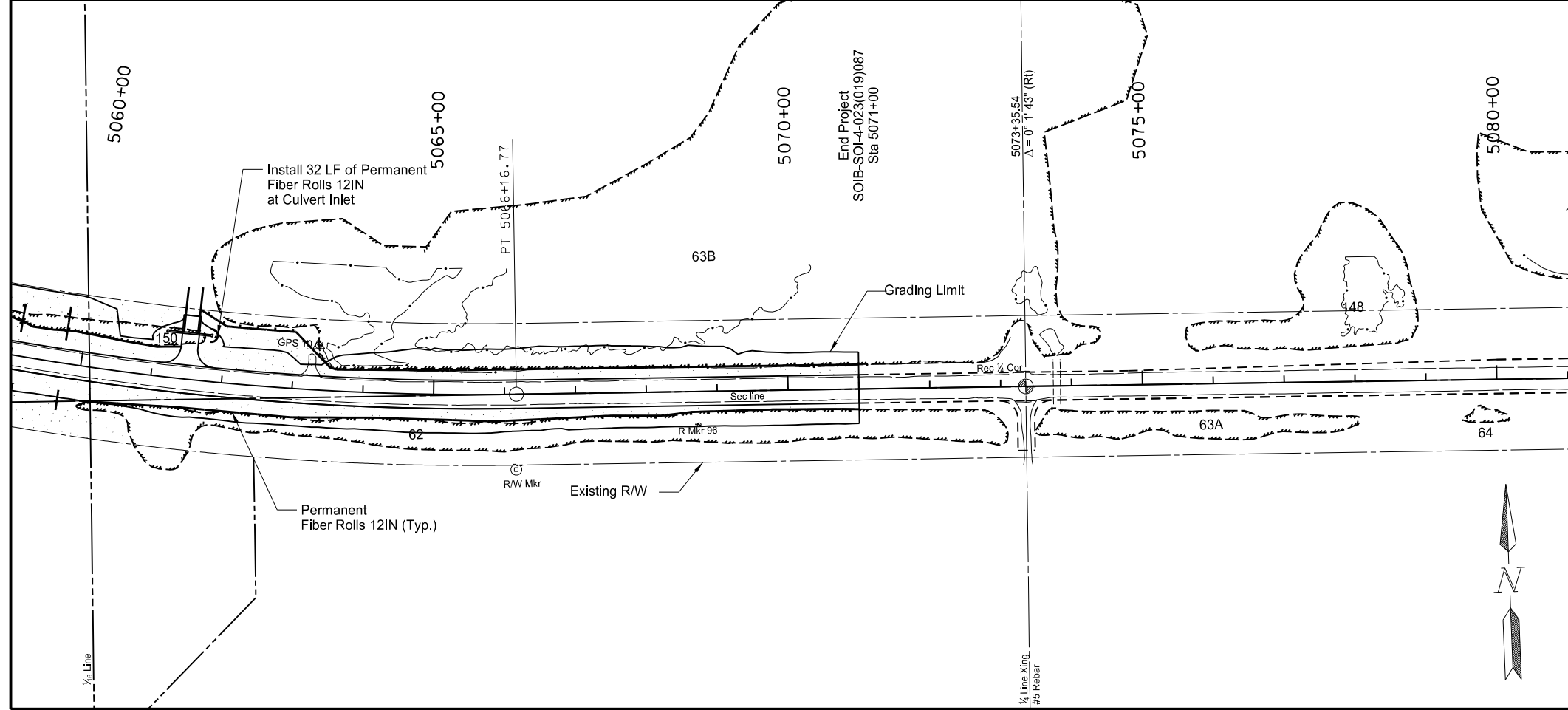
Permanent Erosion Control,  
 & Seeding  
 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	77	12



Item	Description	Quantity	Unit
251-0200	Seeding Class II		
	Sta 5040+00 Lt to 5071+00 Lt	4.74	Acre
	Sta 5040+00 Rt to 5071+00 Rt	3.71	Acre
253-0101	Straw Mulch		
	Sta 5040+00 Lt to 5071+00 Lt	4.74	Acre
	Sta 5040+00 Rt to 5071+00 Rt	3.71	Acre
261-0112	Fiber Rolls 12IN		
	Sta 5040+00 Lt to 5071+00 Lt	3,586	LF
	Sta 5040+00 Rt to 5071+00 Lt	3,102	LF

-  Seeding Class II  
Straw Mulch
-  ECB Type 1
-  Fiber Rolls 12IN



This document was originally issued and sealed by Jeffrey T. Lansink Registration Number PE- 5244, on 11/3/15 and the original document is stored at the North Dakota Department of Transportation

Permanent Erosion Control, & Seeding  
ND 23 - ND 28 to County Rd 13



PRELIMINARY SURVEY COORDINATE AND CURVE DATA - ND HWY 23 MOUNTRAIL/WARD COUNTY LINE TO US 83

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	81	1

HORIZONTAL ALIGNMENT				CURVE DATA		US PUBLIC LAND SURVEY DATA					SURVEY CONTROL POINTS						
PNT	STATION	NORTHING	EASTING	ARC DEFINITION		DESC.	SEC-TWP-RGE	NORTHING	EASTING		PNT	NORTHING	EASTING	ELEV	STATION	OFFSET	
				C740	SCS657	CONTROL POINT DESCRIPTION					CONTROL POINT DESCRIPTION						
EX23 - ND 23																	
Sec Cor	4137+49.52	359739.37	1632813.02	PI STA = 4346+88.49	PI STA = 5005+21.23	Primary Control					Secondary Control						
¼ Cor	4163+90.70	359693.35	1635453.81	Delta = 2° 40' 46" RT	Delta = 81° 32' 06" RT	GPS7	359437.20	1645843.39	2091.20	4267+83	77 RT	RTK 119	359436.42	1643365.53	2071.47	4243+06	118 RT
Sec Cor	4190+31.89	359647.32	1638094.59	Da = 0° 18' 00"	Da = 3° 00' 00"	#6 Rebar w/ Alum Cap					RTK 120 359471.41 1642357.54 2087.11 4232+97 101 RT						
¼ Cor	4216+72.56	359601.03	1640734.86	R = 19,098.59'	R = 1,909.86'	GPS8	359045.14	1671808.68	2072.81	4527+54	121 RT	RTK 121	359531.80	1640738.54	2075.87	4216+77	69 RT
Sec Cor	4243+13.24	359554.75	1643375.13	T = 446.66'	Ls = 400.00'	#6 Rebar w/ Alum Cap					RTK 122 359734.68 1638989.55 2084.95 4199+25 103 LT						
⅙ Cor	4259+03.55	359528.60	1644965.22	L = 893.16'	Sc = 6°00'00"	GPS16	359279.26	1670387.47	2053.25	4513+30	95 LT	RTK 123	359751.78	1637858.08	2085.64	4187+94	100 LT
¼ Cor	4267+68.35	359514.49	1645829.90		Ts = 1,849.59'	#6 Rebar w/ Alum Cap					RTK 124 359566.88 1636447.05 2093.58 4173+86 109 RT						
Sec Cor	4294+10.16	359471.31	1648471.36		L = 2,317.84'	GPS23-17	359464.98	1658978.35	2067.45	4399+20	118 LT	RTK 125	359559.34	1635021.70	2098.83	4159+61	142 RT
¼ Cor	4320+49.79	359436.43	1651110.76			#6 Rebar w/ Alum Cap					RTK 126 358056.38 1765251.84 2172.67 5479+98 129 RT						
PC	4342+41.89	359409.73	1653302.70	C744	C407	GPS23-18	359829.28	1632809.45	2074.37	Off Alignment - West		RTK 127	358067.88	1763418.09	2155.85	5461+64	132 RT
Sec Cor (PI)	4346+88.55	359404.29	1653749.32	PI STA = 4366+65.83	PI STA = 5053+06.75	#6 Rebar w/ Alum Cap					RTK 128 358062.23 1762288.71 2152.13 5450+35 146 RT						
PT	4351+35.04	359377.97	1654195.21	Delta = 4° 42' 37" LT	Delta = 41° 10' 06" LT												
PC	4360+76.76	359322.49	1655135.29	Da = 0° 24' 00"	Da = 1° 30' 00"												
PI	4366+65.88	359287.78	1655723.39	R = 14,323.94'	R = 3,819.72'	Secondary Control					RTK 131 358332.99 1758723.91 2135.56 5414+68 98 LT						
PT	4372+54.35	359301.49	1656312.36	T = 589.13'	T = 1,434.53'	RTK 25	357990.35	1773697.72	2156.16	5564+44	127 RT	RTK 132	358148.62	1757675.92	2147.55	5404+21	96 RT
¼ Line Xing	4373+35.72	359303.38	1656393.72	L = 1,177.59'	L = 2,744.55'	RTK 26	357999.36	1772576.01	2134.02	5553+22	128 RT	RTK 133	358119.86	1756287.63	2156.10	5390+33	137 RT
PC	4389+55.98	359341.07	1658013.53			RTK 27	358038.36	1771726.90	2129.38	5544+73	96 RT	RTK 134	358175.00	1755249.96	2139.15	5379+95	91 RT
PI	4394+45.43	359352.45	1658502.85	C747		RTK 28	358243.55	1770171.56	2143.64	5529+16	96 LT	RTK 135	358404.69	1754208.50	2172.58	5369+52	130 LT
PT	4399+34.78	359347.12	1658992.26	PI STA = 4394+45.37		RTK 29	358275.07	1769116.33	2163.69	5518+60	119 LT	RTK 136	358367.24	1752899.07	2126.23	5356+43	80 LT
Sec Cor	4399+83.17	359346.59	1659040.65	Delta = 1° 57' 27" RT		RTK 30	358037.68	1768180.34	2180.91	5509+26	126 RT						
¼ Cor	4426+24.53	359314.05	1661681.81	Da = 0° 12' 00"		RTK 31	358316.41	1767300.53	2153.96	5500+44	147 LT						
Sec Cor	4452+65.37	359282.57	1664322.46	R = 28,647.89'		RTK 32	358324.51	1766205.84	2187.42	5489+49	147 LT						
¼ Cor	4477+11.28	359242.40	1666768.04	T = 489.45'		RTK 54	358600.36	1722882.35	2081.35	5056+36	84 RT						
Sec Cor	4503+53.27	359197.29	1669409.65	L = 978.80'		RTK 55	359054.36	1722201.81	2068.03	5048+34	92 LT						
¼ Cor	4529+94.68	359162.61	1672050.83			RTK 56	359619.26	1721110.53	2051.85	5036+11	95 RT						
Sec Cor	4556+37.27	359128.34	1674693.20	C590		RTK 61	360596.62	1716741.10	2068.18	4982+35	98 RT						
¼ Cor	4582+78.61	359093.76	1677334.31	PI STA = 4951+87.58		RTK 82	359006.08	1690539.95	2092.72	4714+78	100 LT						
Eq 4607+44.38 Bk = 4607+38.08 Ah	359062.62	1679799.89		Delta = 40° 19' 58" LT		RTK 89	359132.11	1682617.56	2134.91	4635+55	103 LT						
Sec Cor	4609+12.58	359060.41	1679974.37	Da = 1° 30' 00"		RTK 108	359261.19	1657825.15	2068.87	4387+66	75 RT	All coordinates and measurements on this document derived from the International Foot definition.					
¼ Cor	4635+48.85	359028.71	1682610.45	R = 3,819.72'		RTK 112	359502.80	1653198.33	2079.52	4341+36	92 LT						
Sec Cor	4661+85.13	358999.58	1685246.57	T = 1,402.84'		RTK 118	359456.53	1644527.66	2081.54	4254+67	79 RT						
¼ Cor	4688+30.09	358951.62	1687891.10	L = 2,688.85'		<input type="checkbox"/> Assumed Coordinates											
Sec Cor	4714+75.05	358905.91	1690535.66			<input checked="" type="checkbox"/> All coordinates on this sheet are Ward County ground coordinates. They are derived from the "North Dakota Coordinate System of 1983", NAD83(OPUS), North Zone Combination Factor (cf) = 0.9998530					INITIALIZING BENCH MARK		This document was originally issued and sealed by Curtis A. Skaphol Registration Number LS- 4723, on 11/3/15 and the original document is stored at the North Dakota Department of Transportation				
NOTES: ALIGNMENT BASED ON SURVEY FOR AC-SOI-NH-4-023(016)078 & AC-SOI-NH-4-023(019)087										<input checked="" type="checkbox"/> NAVD-88 <input type="checkbox"/> NGVD-29							
Date Survey Completed 09/02/11										<input checked="" type="checkbox"/> GEOID 09 <input type="checkbox"/> GEOID 12A							

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - ND HWY 23 MOUNTRAIL/WARD COUNTY LINE TO US 83

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	81	2

HORIZONTAL ALIGNMENT				HORIZONTAL ALIGNMENT				REFERENCE MARKERS				US PUBLIC LAND SURVEY DATA							
PNT	STATION	NORTHING	EASTING	PNT	STATION	NORTHING	EASTING	DESC.	SEC-TWP-RGE	NORTHING	EASTING	DESC.	SEC-TWP-RGE	NORTHING	EASTING				
EX23 - ND 23 (Continued)				EX23 - ND 23 (Continued)				79	359633.66	1636081.38	4170+19	49' Rt	NE Sec Cor	Sec 15 T-152-N R-83-W	363349.11	1779817.38			
¼ Cor	4741+13.12	358869.24	1693173.48	¼ Cor	5282+40.55	358355.99	1745496.53	80	359543.11	1641453.62	4223+92	45' Rt	N ¼ Cor	Sec 15 T-152-N R-83-W	363371.85	1777171.80			
Sec Cor	4767+51.19	358830.86	1695811.27	Sec Cor	5308+77.83	358333.38	1748133.71	81	359455.09	1646668.40	4276+07	46' Rt	NW Sec Cor	Sec 15 T-152-N R-83-W	363394.75	1774526.08			
¼ Cor	4791+15.97	358808.47	1698175.95	¼ Cor	5335+21.90	358308.00	1750777.67	82	359371.98	1652545.49	4334+85	47' Rt	W ¼ Cor	Sec 15 T-152-N R-83-W	360752.84	1774496.87			
Sec Cor	4817+58.30	358783.83	1700818.16	Sec Cor	5361+65.97	358281.93	1753421.61	83	359277.49	1657250.58	4381+91	46' Rt	E ¼ Cor	Sec 15 T-152-N R-83-W	360706.52	1779790.11			
¼ Cor	4843+99.96	358754.06	1703459.65	¼ Cor	5388+11.14	358258.94	1756066.68	84	359232.21	1664448.87	4453+92	48' Rt	SE Sec Cor	Sec 15 T-152-N R-83-W	358063.86	1779762.72			
Sec Cor	4870+43.28	358726.00	1706102.82	Sec Cor	5414+56.31	358235.42	1758711.74	85	359168.40	1668414.76	4493+58	46' Rt	S ¼ Cor	Sec 15 T-152-N R-83-W	358087.45	1777115.19			
¼ Cor	4896+85.28	358699.15	1708744.68	¼ Cor	5439+80.24	358216.65	1761235.60	86	359100.57	1673398.40	4543+42	45' Rt	SE Sec Cor	Sec 16 T-152-N R-83-W	358110.93	1774467.66			
Sec Cor	4923+27.28	358673.87	1711386.56	Sec Cor	5466+20.34	358195.78	1736875.62	87	359032.87	1678343.35	4592+88	48' Rt	S ¼ Cor	Sec 16 T-152-N R-83-W	358133.63	1771823.05			
PC	4937+84.74	358660.02	1712843.96	¼ Cor	5492+77.56	358175.11	1766532.76	88	358972.56	1683545.65	4644+84	46' Rt	SW Sec Cor	Sec 16 T-152-N R-83-W	358156.07	1769178.24			
¼ Line Xing	4949+90.30	358648.76	1714028.52	Sec Cor	5519+23.11	358156.07	1769178.24	89	358887.67	1688902.88	4698+42	46' Rt	W ¼ Cor	Sec 16 T-152-N R-83-W	360796.47	1769209.48			
PI	4951+87.58	358646.69	1714246.73	¼ Cor	5545+68.02	358133.63	1771823.05	90	358807.16	1694341.76	4752+82	45' Rt	NW Sec Cor	Sec 16 T-152-N R-83-W	363441.38	1769238.88			
PT	4964+73.59	359544.44	1715324.70	Eq 5571+70.73 Bk = 5571+29.76 Ahd	358111.29	1774425.67		91	358750.64	1699346.01	4802+86	47' Rt	N ¼ Calc	Sec 16 T-152-N R-83-W	363418.06	1771882.48			
Sec Line Xing	4982+68.07	360692.82	1716703.60	Sec Cor	5571+71.76	358110.93	1774467.66	92	358692.94	1704964.00	4859+04	45' Rt	N ¼ WC	Sec 16 T-152-N R-83-W	363422.25	1771407.43			
TS	4986+71.64	360951.08	1717013.71	¼ Cor	5598+19.39	358087.45	1777115.19	93	358642.90	1709747.56	4906+88	47' Rt	S ¼ Cor	Sec 17 T-152-N R-83-W	358175.11	1766532.76			
SC	4990+71.64	361196.06	1717329.67	Sec Cor	5524+67.02	358063.86	1779762.72	94	359858.36	1715777.75	4970+22	49' Rt	SW Sec Cor	Sec 17 T-152-N R-83-W	358195.78	1763875.62			
¼ Line Xing	4991+70.31 (Bk Tan)	361270.21	1717396.89					95	360513.77	1720186.42	5023+25	43' Rt	W ¼ Cor	Sec 17 T-152-N R-83-W	360834.03	1763906.98			
PI	5005+21.23	362134.73	1718434.97					96	358497.30	1724130.30	5068+73	47' Rt	NW Sec Cor	Sec 17 T-152-N R-83-W	363472.28	1763938.34			
¼ Line Xing	1226.08' (Ahd Tan)	361318.36	1719349.74					97	358441.01	1729675.51	5124+19	47' Rt	N ¼ Cor	Sec 17 T-152-N R-83-W	363461.72	1766590.33			
¼ Line Xing	1337.65' (Ahd Tan)	361244.07	1719432.98					98	358390.88	1734762.25	5175+06	47' Rt	S ¼ Cor	Sec 18 T-152-N R-83-W	358216.65	1761235.60			
CS	5013+89.48	361158.83	1719507.54					99	358350.69	1740042.63	5227+86	46' Rt	SW Sec Cor	Sec 18 T-152-N R-83-W	358235.42	1758711.74			
ST	5017+89.48	360903.20	1719814.94					100	358310.57	1745307.48	5280+51	47' Rt	W ¼ Cor	Sec 18 T-152-N R-83-W	360887.61	1758730.39			
PC	5038+72.22	359516.43	1721368.86					101	358269.77	1749965.40	5327+10	46' Rt	NW Sec Cor	Sec 18 T-152-N R-83-W	363539.80	1758749.05			
Sec Line Xing	5046+60.42 (Bk Tan)	358991.61	1721956.93					102	358211.72	1755881.03	5386+25	49' Rt	N ¼ Cor	Sec 18 T-152-N R-83-W	363506.81	1761284.65			
PI	5053+06.75	358561.26	1722439.15					103	358170.02	1761198.59	5439+43	47' Rt	W ¼ Cor	Sec 19 T-152-N R-83-W	355591.51	1758686.96			
PT	5066+16.77	358546.77	1723873.61					104	358123.67	1767291.01	5500+36	46' Rt	SW Sec Cor	Sec 19 T-152-N R-83-W	352948.99	1758661.65			
¼ Cor	5073+35.54	358539.52	1724592.35					105	358078.97	1772563.43	5553+08	48' Rt	S ¼ Cor	Sec 19 T-152-N R-83-W	352926.01	1761196.33			
Sec Cor	5099+76.35	358511.54	1727233.01										E ¼ Cor	Sec 19 T-152-N R-83-W	355549.06	1763857.06			
¼ Cor	5123+82.59	358488.57	1729639.14										SE Sec Cor	Sec 19 T-152-N R-83-W	352902.35	1763838.50			
Sec Cor	5150+25.57	358460.89	1732281.97																
¼ Cor	5176+65.98	358436.60	1734922.27																
Sec Cor	5203+06.72	358414.42	1737562.92																
¼ Cor	5229+56.54	358395.08	1740212.67																
Sec Cor	5256+03.27	358377.02	1742859.34																
NOTES: ALIGNMENT BASED ON SURVEY FOR AC-SOI-NH-4-023(016)078 & AC-SOI-NH-4-023(019)087								Date Survey Completed 09/02/11											
								<input type="checkbox"/> Assumed Coordinates <input checked="" type="checkbox"/> All coordinates on this sheet are Ward County ground coordinates. They are derived from the "North Dakota Coordinate System of 1983", NAD83(OPUS). North Zone Combination Factor (cf) = 0.9998530				All coordinates and measurements on this document derived from the International Foot definition.  INITIALIZING BENCH MARK <input checked="" type="checkbox"/> NAVD-88 <input type="checkbox"/> NGVD-29 <input checked="" type="checkbox"/> GEOID 09 <input type="checkbox"/> _____ <input type="checkbox"/> GEOID 12A				This document was originally issued and sealed by Curtis A. Skarphol Registration Number LS- 4723, on 11/3/15 and the original document is stored at the North Dakota Department of Transportation			

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - ND HWY 23 MOUNTRAIL/WARD COUNTY LINE TO US 83

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	81	3

HORIZONTAL ALIGNMENT				CURVE DATA		US PUBLIC LAND SURVEY DATA				US PUBLIC LAND SURVEY DATA					
PNT	STATION	NORTHING	EASTING	ARC DEFINITION		DESC.	SEC-TWP-RGE	NORTHING	EASTING	DESC.	SEC-TWP-RGE	NORTHING	EASTING		
EX28 - ND 28				C453		S ¼ Cor	Sec 20 T-152-N R-83-W	352881.00	1766487.06	W ¼ Cor	Sec 17 T-152-N R-84-W	361101.41	1732307.21		
Sec Cor	796+52.72	353782.20	1679890.23	PI STA = 4346+88.49		W ¼ Cor	Sec 21 T-152-N R-83-W	355509.75	1769155.25	SW Sec Cor	Sec 17 T-152-N R-84-W	358460.89	1732281.97		
PC	820+34.36	356163.51	1679929.90	Delta = 2° 40' 46" RT		S ¼ Cor	Sec 21 T-152-N R-83-W	352840.10	1771772.34	S ¼ Cor	Sec 17 T-152-N R-84-W	358436.60	1734922.27		
¼ Cor (PI)	822+92.17	356421.28	1679934.20	Da = 0° 18' 00"		E ¼ Cor	Sec 21 T-152-N R-83-W	355460.83	1774444.74	N ¼ Cor	Sec 18 T-152-N R-84-W	363770.20	1729692.77		
PT	825+49.78	356678.76	1679921.11	R = 19,098.59'		SE Sec Cor	Sec 21 T-152-N R-83-W	352818.26	1774419.76	NW Sec Cor	Sec 18 T-152-N R-84-W	363795.81	1727302.36		
Eq	849+36.72 Bk = 849+55.20 Ahd	359062.62	1679799.89	T = 446.66'		SW Sec Cor	Sec 21 T-152-N R-83-W	352863.27	1769132.37	W ¼ Cor	Sec 18 T-152-N R-84-W	361156.26	1727276.57		
End	849+55.20	359062.62	1679799.89	L = 893.16'		S ¼ Calc	Sec 22 T-152-N R-83-W	352791.89	1777063.21	SW Sec Cor	Sec 18 T-152-N R-84-W	358511.54	1727233.01		
EX83SB - US 83 Southbound				C931		C933									
Begin	9595+46.64	352817.86	1774461.76	PI STA = 9605+39.52		PI STA = 9656+97.19		E ¼ Cor	Sec 22 T-152-N R-83-W	355414.69	1779734.69	W ¼ Cor	Sec 19 T-152-N R-84-W	355868.78	1727199.80
PC	9601+38.95	353410.14	1774467.36	Delta = 4° 00' 15" LT		Delta = 4° 00' 15" RT		NW Sec Cor	Sec 13 T-152-N R-84-W	363550.55	1756116.97	SW Sec Cor	Sec 19 T-152-N R-84-W	353226.03	1727166.59
PI	9605+39.52	353810.70	1774471.14	Da = 0° 30' 00"		Da = 0° 30' 07"		W ¼ Cor	Sec 13 T-152-N R-84-W	360923.29	1753448.22	SE Sec Cor	Sec 19 T-152-N R-84-W	353176.74	1732231.90
PT	9609+39.78	354210.55	1774446.95	R = 11,459.16'		R = 11,414.77'		SW Sec Cor	Sec 13 T-152-N R-84-W	358281.93	1753421.61	E ¼ Cor	Sec 19 T-152-N R-84-W	355818.81	1732256.93
Sec Line Xing	9611+40.67	354411.07	1774434.82	T = 400.58'		T = 399.04'		S ¼ Cor	Sec 13 T-152-N R-84-W	358258.94	1756066.68	S ¼ Cor	Sec 20 T-152-N R-84-W	353156.97	1734873.27
PC	9613+41.56	354611.60	1774422.69	L = 800.83'		L = 797.75'		N ¼ Cor	Sec 14 T-152-N R-84-W	363590.50	1750828.46	SE WC	Sec 20 T-152-N R-84-W	353132.23	1737459.58
PI	9617+42.14	355011.44	1774398.49					NW Sec Cor	Sec 14 T-152-N R-84-W	363611.09	1748188.00	SE Calc	Sec 20 T-152-N R-84-W	353131.70	1737514.58
PT	9621+42.39	355412.00	1774402.28	C932		C934		W ¼ Cor	Sec 14 T-152-N R-84-W	360975.26	1748160.89	E ¼ Cor	Sec 20 T-152-N R-84-W	355773.83	1737539.44
¼ Line Xing	9621+91.60	355461.21	1774402.74	PI STA = 9617+42.14		PI STA = 9668+99.81		SW Sec Cor	Sec 14 T-152-N R-84-W	358333.38	1748133.71	S ¼ WC	Sec 21 T-152-N R-84-W	353113.42	1740061.44
Eq	9648+41.77 Bk = 9647+98.56 Ahd	358111.29	1774425.67	Delta = 4° 00' 15" RT		Delta = 4° 00' 15" LT		S ¼ Cor	Sec 14 T-152-N R-84-W	358308.00	1750777.66	S ¼ Calc	Sec 21 T-152-N R-84-W	353112.57	1740161.51
Sec Line Xing	9647+98.56	358111.29	1774425.67	Da = 0° 30' 00"		Da = 0° 29' 53"		N ¼ Cor	Sec 15 T-152-N R-84-W	363634.79	1745549.27	SE Sec Cor	Sec 21 T-152-N R-84-W	353093.90	1742808.44
PC	9652+98.16	358610.85	1774431.19	R = 11,459.16'		R = 11,503.89'		NW Calc	Sec 15 T-152-N R-84-W	363662.69	1742910.59	E ¼ Cor	Sec 21 T-152-N R-84-W	355736.32	1742832.30
PI	9656+97.19	359009.87	1774435.60	T = 400.58'		T = 402.14'		NW WC	Sec 15 T-152-N R-84-W	363532.68	1742909.31	S ¼ Cor	Sec 22 T-152-N R-84-W	353064.82	1745443.90
PT	9660+95.91	359407.60	1774467.86	L = 800.83'		L = 803.96'		W ¼ Cor	Sec 15 T-152-N R-84-W	361019.85	174288496	SE Sec Cor	Sec 22 T-152-N R-84-W	353042.28	1748077.45
Sec Line Xing	9662+98.35	359609.37	1774484.23					SW Sec Cor	Sec 15 T-152-N R-84-W	358377.02	1742859.34	E ¼ WC	Sec 22 T-152-N R-84-W	355637.78	1748105.43
PC	9664+97.67	359808.04	1774500.34					S ¼ Cor	Sec 15 T-152-N R-84-W	358355.99	1745496.53	E ¼ Calc	Sec 22 T-152-N R-84-W	355687.83	1748105.58
PI	9668+99.81	360208.87	1774532.86					N ¼ Cor	Sec 16 T-152-N R-84-W	363682.26	1740264.26	S ¼ Cor	Sec 23 T-152-N R-84-W	353007.27	1750725.71
PT	9673+01.63	360610.99	1774537.30					NW Sec Cor	Sec 16 T-152-N R-84-W	363701.82	1737617.93	SE Sec Cor	Sec 23 T-152-N R-84-W	352987.51	1753370.09
¼ Line Xing	9674+43.12	360752.47	1774538.87					W ¼ Cor	Sec 16 T-152-N R-84-W	361058.12	1737590.43	E ¼ Cor	Sec 23 T-152-N R-84-W	355634.72	1753395.85
End	9700+85.20	363394.39	1774568.08					SW Sec Cor	Sec 16 T-152-N R-84-W	358414.42	1737562.92	S ¼ Cor	Sec 23 T-152-N R-84-W	352965.54	1756020.26
								S ¼ Cor	Sec 16 T-152-N R-84-W	358395.08	1740212.67	All coordinates and measurements on this document derived from the International Foot definition.		This document was originally issued and sealed by Curtis A. Skarphol Registration Number LS- 4723, on 11/3/15 and the original document is stored at the North Dakota Department of Transportation	
								N ¼ Cor	Sec 17 T-152-N R-84-W	363721.87	1734975.30				
								NW Sec Cor	Sec 17 T-152-N R-84-W	363741.92	1732332.66				
								<input type="checkbox"/> Assumed Coordinates <input checked="" type="checkbox"/> All coordinates on this sheet are County ground coordinates. They are derived from the "North Dakota Coordinate System of 1983", NAD83( ). Zone _____ Combination Factor (cf) = _____		<input type="checkbox"/> Initializing Bench Mark <input checked="" type="checkbox"/> NAVD-88 <input type="checkbox"/> NGVD-29 <input checked="" type="checkbox"/> GEOID 09 <input type="checkbox"/> GEOID 12A					
NOTES: ALIGNMENT BASED ON SURVEY FOR AC-SOI-NH-4-023(016)078 & AC-SOI-NH-4-023(019)087				Date Survey Completed 09/02/11											

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - ND HWY 23 MOUNTRAIL/WARD COUNTY LINE TO US 83

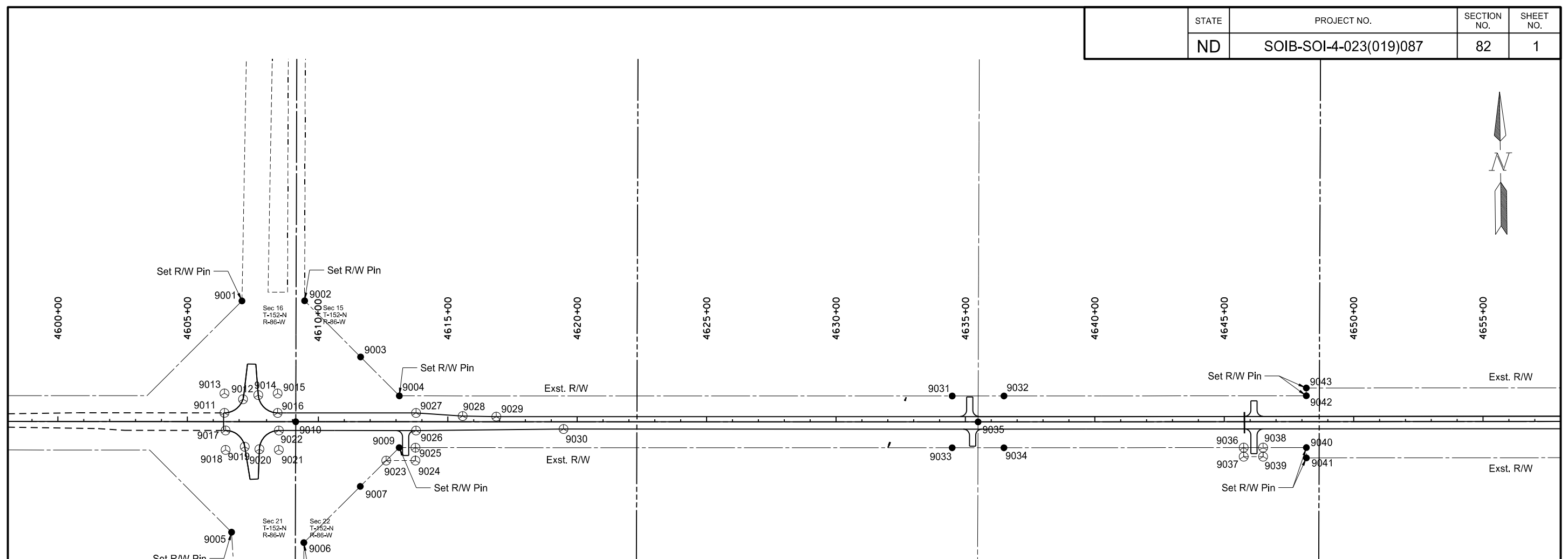
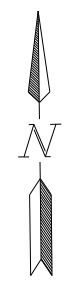
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	81	4

US PUBLIC LAND SURVEY DATA				US PUBLIC LAND SURVEY DATA				US PUBLIC LAND SURVEY DATA				US PUBLIC LAND SURVEY DATA					
DESC.	SEC-TWP-RGE	NORTHING	EASTING	DESC.	SEC-TWP-RGE	NORTHING	EASTING	DESC.	SEC-TWP-RGE	NORTHING	EASTING	DESC.	SEC-TWP-RGE	NORTHING	EASTING		
N ¼ Cor	Sec 13 T-152-N R-85-W	363826.14	1724659.75	S ¼ WC	Sec 19 T-152-N R-85-W	353527.01	1697991.47	SW Sec Cor	Sec 16 T-152-N R-86-W	364411.71	1674772.73	S ¼ WC	Sec 24 T-152-N R-86-W	353594.79	1692864.57		
NW Sec Cor	Sec 13 T-152-N R-85-W	363856.48	1722017.14	S ¼ Calc	Sec 19 T-152-N R-85-W	353525.53	1698121.48	S ¼ Cor	Sec 16 T-152-N R-86-W	361770.02	1674732.96	N ¼ Cor	Sec 13 T-152-N R-87-W	364595.63	1661768.98		
W ¼ Cor	Sec 13 T-152-N R-85-W	361211.33	1721984.40	SE Sec Cor	Sec 19 T-152-N R-85-W	353495.46	1700759.59	N ¼ Cor	Sec 17 T-152-N R-86-W	364445.97	1672136.27	NW Sec Cor	Sec 13 T-152-N R-87-W	364627.50	1659129.36		
SW Sec Cor	Sec 13 T-152-N R-85-W	358566.18	1721951.66	E ¼ Cor	Sec 19 T-152-N R-85-W	356139.65	1700788.88	NW Sec Cor	Sec 17 T-152-N R-86-W	364483.42	1669495.37	W ¼ Cor	Sec 13 T-152-N R-87-W	361987.04	1659085.00		
S ¼ Cor	Sec 13 T-152-N R-85-W	358539.52	1724592.34	S ¼ Cor	Sec 20 T-152-N R-85-W	353469.96	1703401.04	W ¼ Calc	Sec 17 T-152-N R-86-W	361840.36	1669452.51	SW Sec Cor	Sec 13 T-152-N R-87-W	359346.59	1659040.65		
N ¼ Cor	Sec 14 T-152-N R-85-W	363895.40	1719386.33	SE Sec Cor	Sec 20 T-152-N R-85-W	353444.45	1706042.50	SW Sec Cor	Sec 17 T-152-N R-86-W	359197.29	1669409.65	S ¼ Cor	Sec 13 T-152-N R-87-W	359314.05	1661681.81		
NW Sec Cor	Sec 14 T-152-N R-85-W	363934.32	1716755.51	E ¼ Cor	Sec 20 T-152-N R-85-W	356082.00	1706071.61	S ¼ Cor	Sec 17 T-152-N R-86-W	359162.61	1672050.83	N ¼ Cor	Sec 14 T-152-N R-87-W	364658.87	1656489.30		
W ¼ Cor	Sec 14 T-152-N R-85-W	361278.98	1716712.99	S ¼ Cor	Sec 21 T-152-N R-85-W	353419.30	1708684.85	N ¼ Cor	Sec 18 T-152-N R-86-W	364525.11	1666855.62	NW Sec Cor	Sec 14 T-152-N R-87-W	364687.62	1653841.97		
SW Sec Calc	Sec 14 T-152-N R-85-W	358623.65	1716670.47	SE Sec Cor	Sec 21 T-152-N R-85-W	353385.88	1711350.38	NW Sec Cor	Sec 18 T-152-N R-86-W	364563.76	1664408.59	W ¼ Cor	Sec 14 T-152-N R-87-W	362049.41	1653795.77		
SW WC	Sec 14 T-152-N R-85-W	358493.65	1716668.94	E ¼ Cor	Sec 21 T-152-N R-85-W	356029.88	1711368.47	W ¼ Cor	Sec 18 T-152-N R-86-W	361925.16	1664396.86	SW Sec Cor	Sec 14 T-152-N R-87-W	359404.29	1653749.32		
S ¼ Cor	Sec 14 T-152-N R-85-W	358594.91	1719311.07	S ¼ Cor	Sec 22 T-152-N R-85-W	353361.91	1713966.01	SW Sec Cor	Sec 18 T-152-N R-86-W	359282.57	1664322.46	S ¼ Cor	Sec 14 T-152-N R-87-W	359375.44	1656394.99		
N ¼ Cor	Sec 15 T-152-N R-85-W	363936.03	1714103.62	SE WC	Sec 22 T-152-N R-85-W	353331.70	1716809.01	S ¼ Cor	Sec 18 T-152-N R-86-W	359242.40	1666768.04	N ¼ Cor	Sec 15 T-152-N R-87-W	364707.45	1651205.52		
NW Sec Cor	Sec 15 T-152-N R-85-W	363951.06	1711454.03	SE Sec Calc	Sec 22 T-152-N R-85-W	353333.79	1716609.01	W ¼ Cor	Sec 19 T-152-N R-86-W	356638.66	1664278.71	NW Sec Cor	Sec 15 T-152-N R-87-W	364748.84	1648564.00		
W ¼ Cor	Sec 15 T-152-N R-85-W	361312.47	1711420.30	E ¼ Cor	Sec 22 T-152-N R-85-W	355978.72	1716639.74	SW Sec Calc	Sec 19 T-152-N R-86-W	353994.76	1664234.95	W ¼ Cor	Sec 15 T-152-N R-87-W	362110.08	1648517.68		
SW Sec Cor	Sec 15 T-152-N R-85-W	358673.87	1711386.56	S ¼ Cor	Sec 23 T-152-N R-85-W	353305.71	1719248.05	SW WC	Sec 19 T-152-N R-86-W	353992.53	1664384.94	SW Sec Cor	Sec 15 T-152-N R-87-W	359471.31	1648471.36		
S ¼ Cor	Sec 15 T-152-N R-85-W	358648.76	1714028.52	SE Sec Cor	Sec 23 T-152-N R-85-W	353277.64	1721887.09	S ¼ Cor	Sec 19 T-152-N R-86-W	353958.50	1666687.29	S ¼ Cor	Sec 15 T-152-N R-87-W	359436.43	1651110.76		
N ¼ Cor	Sec 16 T-152-N R-85-W	363980.14	1708808.96	E ¼ Cor	Sec 23 T-152-N R-85-W	355921.91	1721919.38	W ¼ Cor	Sec 19 T-152-N R-86-W	356558.38	1669368.36	N ¼ Cor	Sec 16 T-152-N R-87-W	364796.92	1645922.72		
NW Sec Cor	Sec 16 T-152-N R-85-W	364009.21	1706163.88	S ¼ Cor	Sec 24 T-152-N R-85-W	353251.83	1724526.84	SW Sec Cor	Sec 20 T-152-N R-86-W	353919.47	1669327.06	NW ¼ NE ¼ Cor	Sec 16 T-152-N R-87-W	364812.44	1645056.57		
W ¼ Cor	Sec 16 T-152-N R-85-W	361369.19	1706135.25	N ¼ Cor	Sec 13 T-152-N R-86-W	364147.74	1693255.01	S ¼ Cor	Sec 20 T-152-N R-86-W	353885.01	1671967.80	NW Sec Cor	Sec 16 T-152-N R-87-W	364838.65	1643483.17		
SW Sec Cor	Sec 16 T-152-N R-85-W	358726.00	1706102.82	NW Sec Cor	Sec 13 T-152-N R-86-W	364188.13	1690616.29	W ¼ Cor	Sec 21 T-152-N R-86-W	356491.34	1674649.95	W ¼ Cor	Sec 16 T-152-N R-87-W	362202.38	1643429.75		
S ¼ Cor	Sec 16 T-152-N R-85-W	358699.15	1708744.68	W ¼ Cor	Sec 13 T-152-N R-86-W	361547.02	1690575.97	SW Sec Cor	Sec 21 T-152-N R-86-W	353850.88	1674608.61	SW Sec Cor	Sec 16 T-152-N R-87-W	359554.75	1643375.13		
N ¼ Cor	Sec 17 T-152-N R-85-W	364034.61	1703515.06	SW Sec Cor	Sec 13 T-152-N R-86-W	358905.91	1690535.66	S ¼ Cor	Sec 21 T-152-N R-86-W	353816.54	1677249.42	SW ¼ SE ¼ Cor	Sec 16 T-152-N R-87-W	359528.60	1644965.22		
NW Sec Cor	Sec 17 T-152-N R-85-W	364060.01	1700866.24	S ¼ Cor	Sec 13 T-152-N R-86-W	358869.24	1693173.48	W ¼ Cor	Sec 22 T-152-N R-86-W	356421.28	1679934.20	S ¼ Cor	Sec 16 T-152-N R-87-W	359514.49	1645829.90		
W ¼ Cor	Sec 17 T-152-N R-85-W	361421.92	1700842.09	N ¼ Cor	Sec 14 T-152-N R-86-W	364231.26	1687972.32	SW Sec Cor	Sec 22 T-152-N R-86-W	353782.20	1679890.23	N ¼ Cor	Sec 17 T-152-N R-87-W	364882.97	1640842.73		
SW Sec Cor	Sec 17 T-152-N R-85-W	358783.83	1700818.16	NW Sec Cor	Sec 14 T-152-N R-86-W	364274.39	1685328.36	S ¼ Cor	Sec 22 T-152-N R-86-W	353746.65	1682530.23	NW Sec Cor	Sec 17 T-152-N R-87-W	364927.72	1638203.44		
S ¼ Cor	Sec 17 T-152-N R-85-W	358754.06	1703459.65	W ¼ Cor	Sec 14 T-152-N R-86-W	361636.99	1685287.46	W ¼ Cor	Sec 23 T-152-N R-86-W	356353.34	1685207.15	W ¼ Cor	Sec 17 T-152-N R-87-W	362288.10	1638148.62		
N ¼ Cor	Sec 18 T-152-N R-85-W	364085.13	1698227.60	SW Sec Cor	Sec 14 T-152-N R-86-W	358999.58	1685246.57	SW Sec Calc	Sec 23 T-152-N R-86-W	353711.10	1685170.24	SW ¼ Cor	Sec 17 T-152-N R-87-W	359647.32	1638094.59		
NW Sec Cor	Sec 18 T-152-N R-85-W	364107.35	1695893.73	S ¼ Cor	Sec 14 T-152-N R-86-W	358951.62	1687891.10	SW WC	Sec 23 T-152-N R-86-W	353715.83	1684820.20	S ¼ Cor	Sec 17 T-152-N R-87-W	359601.03	1640734.86		
W ¼ Cor	Sec 18 T-152-N R-85-W	361469.11	1695852.50	N ¼ Cor	Sec 15 T-152-N R-86-W	364306.91	1682690.14	S ¼ Cor	Sec 23 T-152-N R-86-W	353670.55	1687816.77	N ¼ Cor	Sec 18 T-152-N R-87-W	364969.42	1635563.84		
SW Sec Cor	Sec 18 T-152-N R-85-W	358830.86	1695811.27	NW Sec Cor	Sec 15 T-152-N R-86-W	364339.44	1680051.92	W ¼ Cor	Sec 24 T-152-N R-86-W	356267.95	1690499.48	All coordinates and measurements on this document derived from the International Foot definition.		This document was originally issued and sealed by Curtis A. Skarphol Registration Number LS- 4723, on 11/3/15 and the original document is stored at the North Dakota Department of Transportation			
S ¼ Cor	Sec 18 T-152-N R-85-W	358808.47	1698175.95	W ¼ Cor	Sec 15 T-152-N R-86-W	361699.92	1680013.15	SW Sec Cor	Sec 24 T-152-N R-86-W	353629.99	1690463.30					INITIALIZING BENCH MARK	
W ¼ Cor	Sec 19 T-152-N R-85-W	356191.73	1695778.56	SW Sec Cor	Sec 15 T-152-N R-86-W	359060.41	1679974.37	S ¼ Calc	Sec 24 T-152-N R-86-W	353591.30	1693104.58						
SW WC	Sec 19 T-152-N R-85-W	354002.63	1695751.43	S ¼ Cor	Sec 15 T-152-N R-86-W	359028.71	1682610.45	<input type="checkbox"/> Assumed Coordinates <input checked="" type="checkbox"/> All coordinates on this sheet are Ward County ground coordinates. They are derived from the "North Dakota Coordinate System of 1983", NAD83(OPUS), North Zone Combination Factor (cf) = 0.9998530		<input checked="" type="checkbox"/> GEOID 09 <input type="checkbox"/> GEOID 12A							
SW Sec Calc	Sec 19 T-152-N R-85-W	353552.60	1695745.86	N ¼ Cor	Sec 16 T-152-N R-86-W	364377.39	1677414.45										

NOTES: ALIGNMENT BASED ON SURVEY FOR AC-SOI-NH-4-023(016)078 & AC-SOI-NH-4-023(019)087

Date Survey Completed 09/02/11

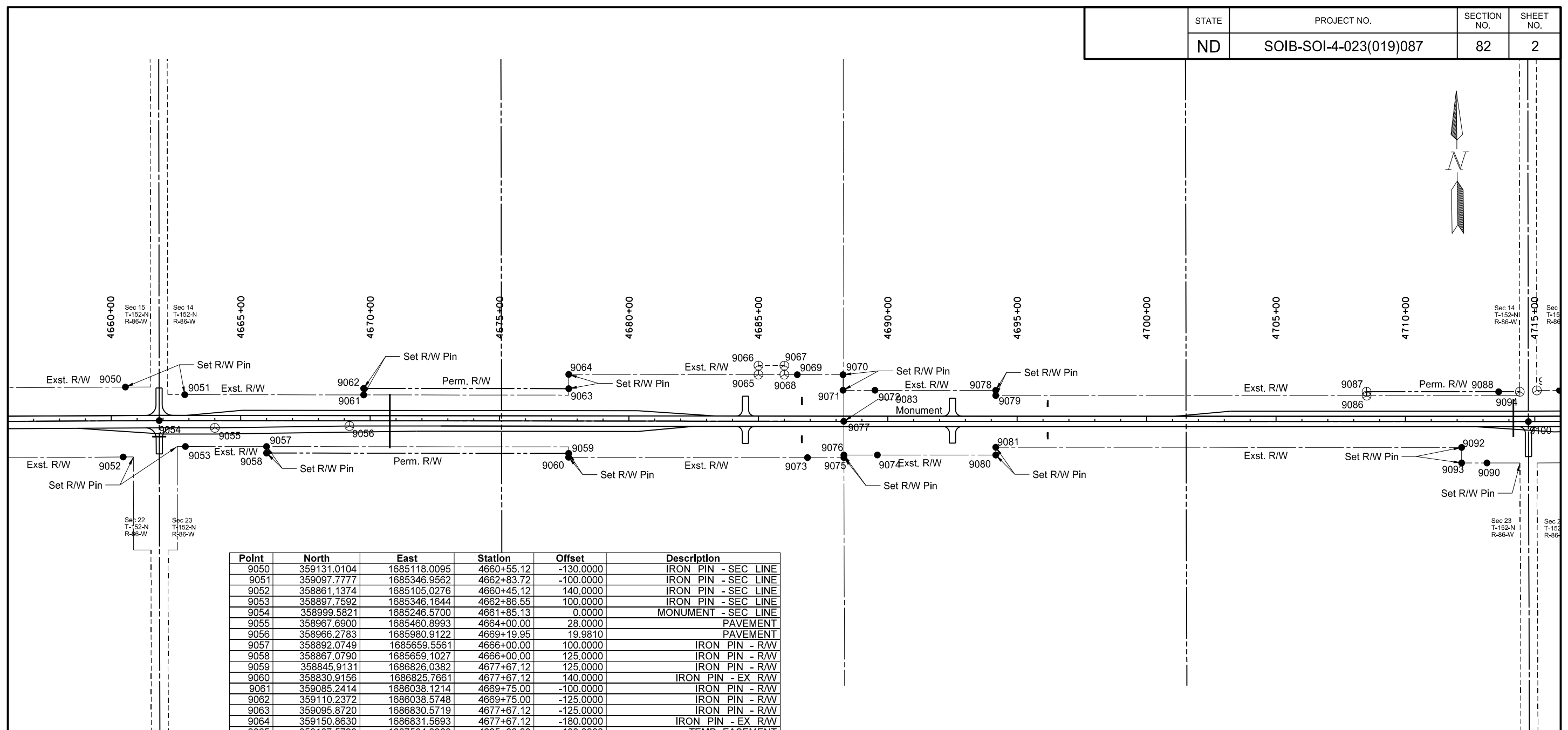




Point	North	East	Station	Offset	Description
9001	359529.4098	1679772.1847	4607+10.78	-466.4070	IRON PIN - EX R/W
9002	359526.9646	1680014.2284	4609+46.82	-466.9982	IRON PIN - EX R/W
9003	359307.5634	1680227.8451	4611+63.06	-250.1818	IRON PIN - SEC LINE
9004	359155.5911	1680375.8106	4613+12.84	-100.0000	IRON PIN - EX R/W
9005	358836.6559	1679721.4161	4606+71.29	426.9167	IRON PIN - EX R/W
9006	358593.0694	1680000.2611	4609+44.09	466.9974	IRON PIN - EX R/W
9007	358807.6793	1680220.7995	4611+62.03	249.7509	IRON PIN - SEC LINE
9009	358955.6126	1680372.8196	4613+12.26	100.0000	IRON PIN - EX R/W
9010	359060.4120	1679974.3710	4609+12.58	0.0000	MONUMENT - SEC LINE
9011	359097.8885	1679699.3163	4606+43.37	-34.0000	RADIUS
9012	359149.7325	1679771.6011	4607+15.00	-86.7526	RADIUS
9013	359172.9951	1679700.2634	4606+43.37	-109.1125	RADIUS
9014	359165.1676	1679830.8457	4607+67.74	-102.9348	RADIUS
9015	359170.2884	1679905.6628	4608+42.49	-109.0000	RADIUS
9016	359095.2944	1679904.7157	4608+42.49	-34.0000	RADIUS
9017	359029.8385	1679702.8505	4606+47.76	34.0000	RADIUS
9018	358954.8445	1679701.9033	4606+47.76	109.0000	RADIUS
9019	358966.0876	1679776.0558	4607+21.77	96.8213	RADIUS
9020	358955.9091	1679832.7427	4607+72.28	106.2831	RADIUS
9021	358952.2459	1679907.6532	4608+47.23	109.0000	RADIUS
9022	359027.2399	1679908.6003	4608+47.23	34.0000	RADIUS
9023	358906.2195	1680322.0619	4612+62.10	150.0000	TEMP EASEMENT
9024	358904.8617	1680434.9566	4613+75.00	150.0000	TEMP EASEMENT
9025	358954.8581	1680435.5579	4613+75.00	100.0000	TEMP EASEMENT
9026	359020.8264	1680438.5851	4613+77.23	34.0000	PAVEMENT
9027	359088.8197	1680439.5511	4613+77.38	-34.0000	PAVEMENT
9028	359074.6556	1680619.3918	4615+57.38	-21.9997	PAVEMENT
9029	359071.0929	1680749.3346	4616+87.36	-20.0000	PAVEMENT
9030	359019.9710	1681008.6197	4619+47.24	28.0000	PAVEMENT
9031	359129.9032	1682511.6608	4634+48.85	-100.0000	IRON PIN - QUARTER LINE
9032	359127.5944	1682711.7450	4636+49.04	-99.9997	IRON PIN - QUARTER LINE
9033	358929.9176	1682509.2555	4634+48.85	100.0000	IRON PIN - QUARTER LINE
9034	358927.6116	1682709.1441	4636+48.65	99.9997	IRON PIN - QUARTER LINE
9035	359028.7076	1682610.4507	4635+48.85	0.0000	MONUMENT - QUARTER LINE
9036	358917.3770	1683635.4359	4645+75.00	100.0000	TEMP EASEMENT
9037	358882.3791	1683635.0492	4645+75.00	135.0000	TEMP EASEMENT
9038	358916.5484	1683710.4313	4646+50.00	100.0000	TEMP EASEMENT
9039	358881.5505	1683710.0446	4646+50.00	135.0000	TEMP EASEMENT
9040	358914.7019	1683877.5485	4648+17.13	100.0000	IRON PIN - EX R/W
9041	358874.7043	1683877.1066	4648+17.13	140.0000	IRON PIN - EX R/W
9042	359114.6897	1683879.7581	4648+17.13	-100.0000	IRON PIN - EX R/W
9043	359144.6879	1683880.0896	4648+17.13	-130.0000	IRON PIN - EX R/W

This document was originally issued and sealed by Jeffrey T. Lansink Registration Number PE- 5244, on 11/3/15 and the original document is stored at the North Dakota Department of Transportation

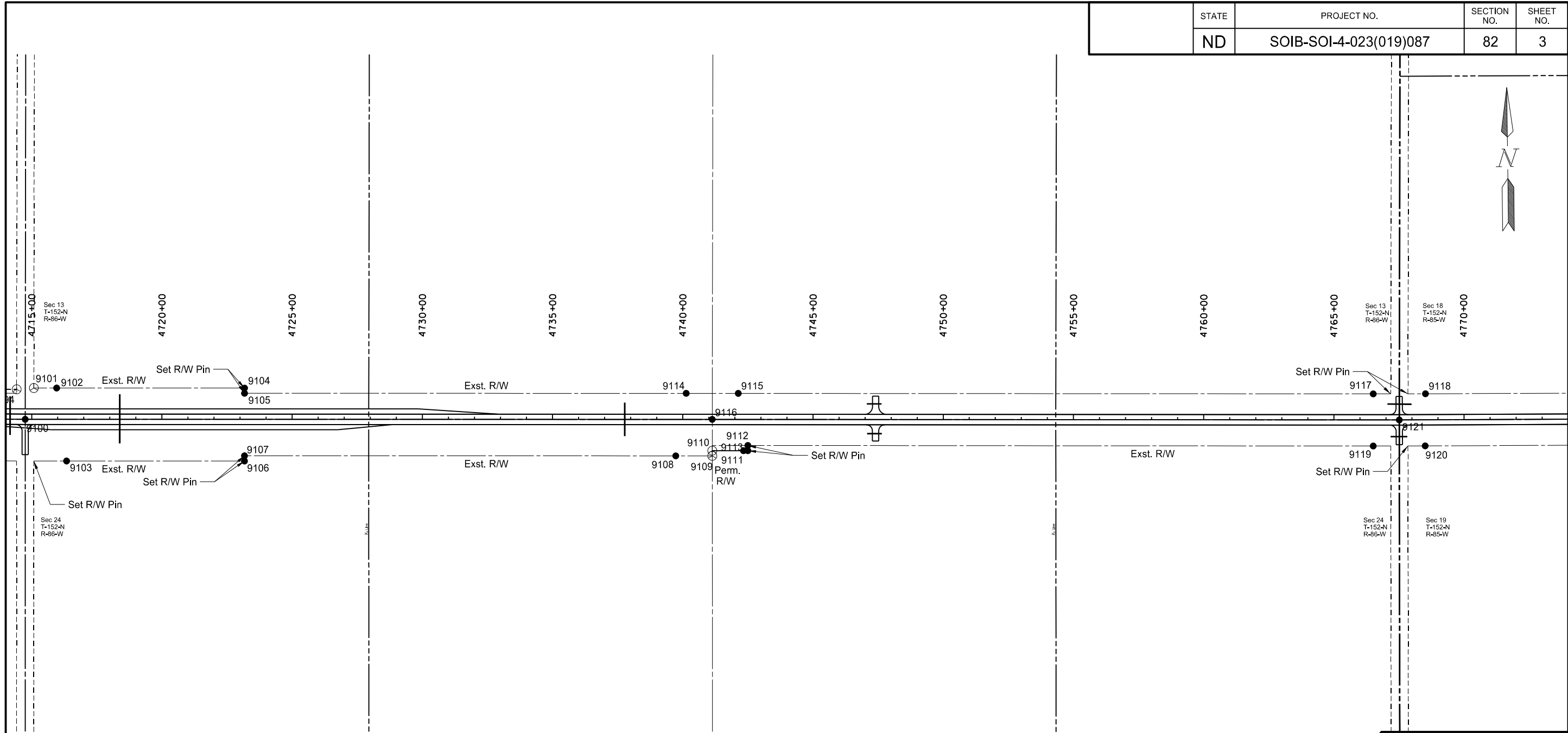
Survey Data Layout  
ND 23 - ND 28 to County Rd 13



Point	North	East	Station	Offset	Description
9050	359131.0104	1685118.0095	4660+55.12	-130.0000	IRON PIN - SEC LINE
9051	359097.7777	1685346.9562	4662+83.72	-100.0000	IRON PIN - SEC LINE
9052	358861.1374	1685105.0276	4660+45.12	140.0000	IRON PIN - SEC LINE
9053	358897.7592	1685346.1644	4662+86.55	100.0000	IRON PIN - SEC LINE
9054	358999.5821	1685246.5700	4661+85.13	0.0000	MONUMENT - SEC LINE
9055	358967.6900	1685460.8993	4664+00.00	28.0000	PAVEMENT
9056	358966.2783	1685980.9122	4669+19.95	19.9810	PAVEMENT
9057	358892.0749	1685659.5561	4666+00.00	100.0000	IRON PIN - R/W
9058	358867.0790	1685659.1027	4666+00.00	125.0000	IRON PIN - R/W
9059	358845.9131	1686826.0382	4677+67.12	125.0000	IRON PIN - R/W
9060	358830.9156	1686825.7661	4677+67.12	140.0000	IRON PIN - EX R/W
9061	359085.2414	1686038.1214	4669+75.00	-100.0000	IRON PIN - R/W
9062	359110.2372	1686038.5748	4669+75.00	-125.0000	IRON PIN - R/W
9063	359095.8720	1686830.5719	4677+67.12	-125.0000	IRON PIN - R/W
9064	359150.8630	1686831.5693	4677+67.12	-180.0000	IRON PIN - EX R/W
9065	359137.5723	1687564.3260	4685+00.00	-180.0000	TEMP EASEMENT
9066	359172.5665	1687564.9608	4685+00.00	-215.0000	TEMP EASEMENT
9067	359170.7530	1687664.9443	4686+00.00	-215.0000	TEMP EASEMENT
9068	359135.7588	1687664.3096	4686+00.00	-180.0000	TEMP EASEMENT
9069	359134.8504	1687714.3861	4686+50.08	-180.0000	IRON PIN - QUARTER LINE
9070	359131.6411	1687891.3289	4688+27.06	-180.0000	IRON PIN - EX R/W
9071	359071.6460	1687890.3761	4688+27.19	-119.9975	IRON PIN - EX R/W
9072	359069.5208	1688013.3536	4689+50.29	-120.0000	IRON PIN - QUARTER LINE
9073	358814.1777	1687748.5764	4686+90.08	140.0000	IRON PIN - QUARTER LINE
9074	358819.3927	1688018.6041	4689+59.86	130.0000	IRON PIN - QUARTER LINE
9075	358811.6285	1687889.1215	4688+30.53	140.0005	IRON PIN - EX R/W
9076	358821.6280	1687889.2623	4688+30.50	130.0000	IRON PIN - EX R/W
9077	358951.6157	1687891.0968	4688+30.09	0.0000	MONUMENT - QUARTER LINE
9078	359061.4541	1688480.1353	4694+17.14	-120.0000	IRON PIN - EX R/W
9079	359041.4571	1688479.7897	4694+17.14	-100.0000	IRON PIN - EX R/W
9080	358811.4914	1688475.8155	4694+17.14	130.0000	IRON PIN - EX R/W
9081	358841.4869	1688476.3339	4694+17.14	100.0000	IRON PIN - EX R/W
9086	359016.6988	1689912.4338	4708+50.00	-100.0000	R/W
9087	359031.6970	1689912.6627	4708+49.97	-115.0000	R/W
9088	359022.8835	1690422.6586	4713+60.04	-115.0000	IRON PIN - SEC LINE
9090	358748.7021	1690372.9183	4713+15.05	160.0000	IRON PIN - SEC LINE
9092	358810.3847	1690276.0698	4712+17.15	100.0000	IRON PIN - EX R/W
9093	358750.3937	1690275.0331	4712+17.15	160.0000	IRON PIN - EX R/W
9094	359021.4705	1690504.4192	4714+41.81	-115.0000	R/W

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Survey Data Layout  
ND 23 - ND 28 to County Rd 13

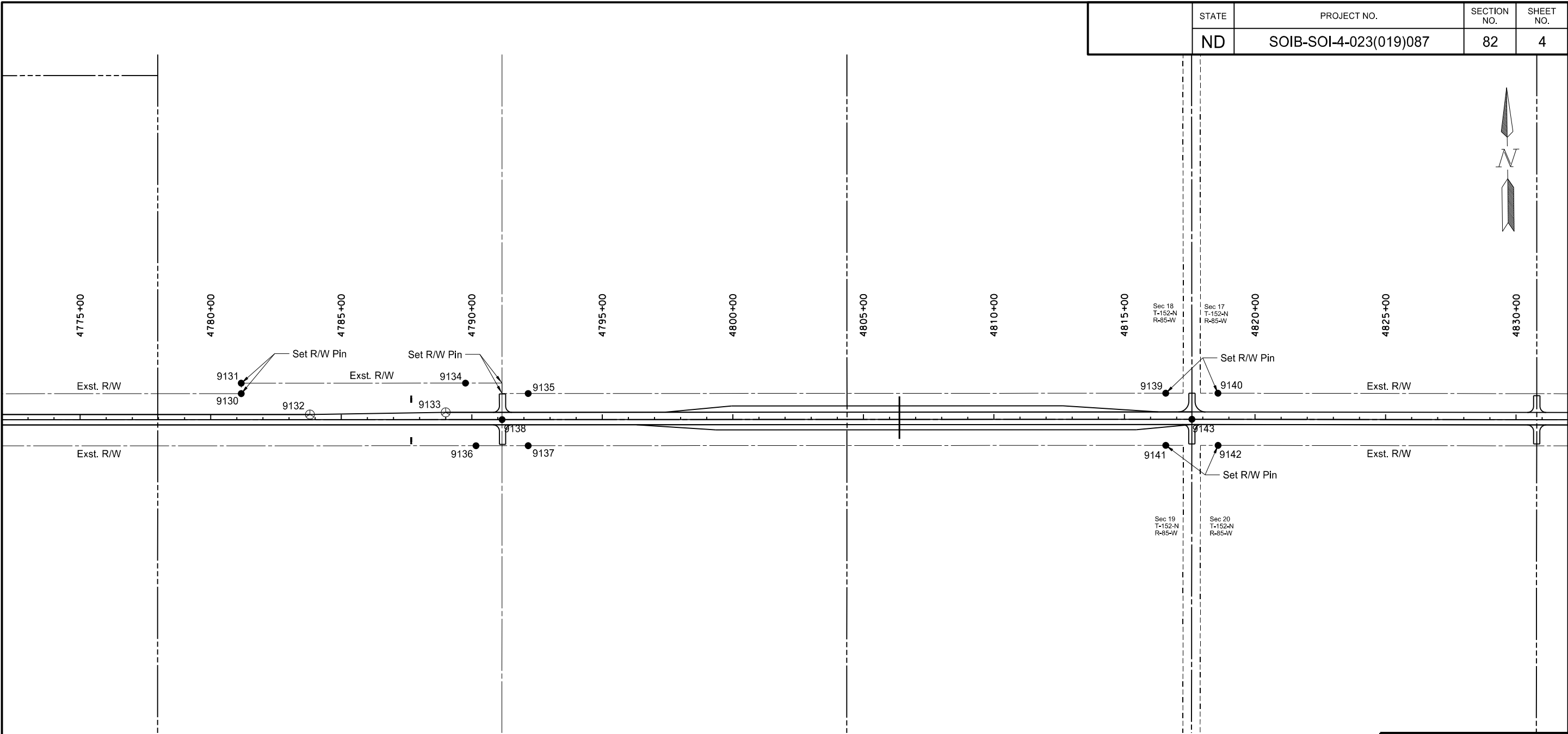


Point	North	East	Station	Offset	Description
9100	358905.9135	1690535.6590	4714+75.05	0.0000	MONUMENT - SEC LINE
9101	359025.4409	1690570.4875	4715+08.21	-120.0000	EX R/W
9102	359024.2223	1690658.1288	4715+95.86	-120.0000	IRON PIN - SEC LINE
9103	358743.7195	1690692.3423	4716+33.97	160.0000	IRON PIN - SEC LINE
9104	359014.1944	1691379.3415	4723+17.14	-120.0000	IRON PIN - EX R/W
9105	358994.1963	1691379.0635	4723+17.14	-100.0000	IRON PIN - EX R/W
9106	358734.2214	1691375.4487	4723+17.14	160.0000	IRON PIN - EX R/W
9107	358754.2195	1691375.7268	4723+17.14	140.0000	IRON PIN - EX R/W
9108	358731.1967	1693031.5383	4739+73.11	140.0000	IRON PIN - QUARTER LINE
9109	358729.2486	1693171.6485	4741+13.33	139.9999	EX R/W
9110	358749.2470	1693171.9095	4741+13.30	119.9998	R/W
9111	358747.5018	1693291.8673	4742+33.27	119.9998	IRON PIN - QUARTER LINE
9112	358767.2562	1693308.8838	4742+50.00	100.0000	IRON PIN - R/W
9113	358747.2585	1693308.5929	4742+50.00	119.9998	IRON PIN - R/W
9114	358970.6174	1693074.8712	4740+13.11	-100.0000	IRON PIN - QUARTER LINE
9115	358967.7734	1693274.7868	4742+12.99	-100.0000	IRON PIN - QUARTER LINE
9116	358869.2115	1693173.4758	4741+13.12	0.0252	MONUMENT - QUARTER LINE
9117	358932.3061	1695712.7312	4766+51.19	-100.0000	IRON PIN - SEC LINE
9118	358929.9008	1695913.2290	4768+52.21	-100.0000	IRON PIN - SEC LINE
9119	358732.3272	1695709.8219	4766+51.19	100.0000	IRON PIN - SEC LINE
9120	358729.9290	1695909.3043	4768+50.18	100.0000	IRON PIN - SEC LINE
9121	358830.8620	1695811.2660	4767+51.19	0.0000	MONUMENT - SEC LINE

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Survey Data Layout  
ND 23 - ND 28 to County Rd 13

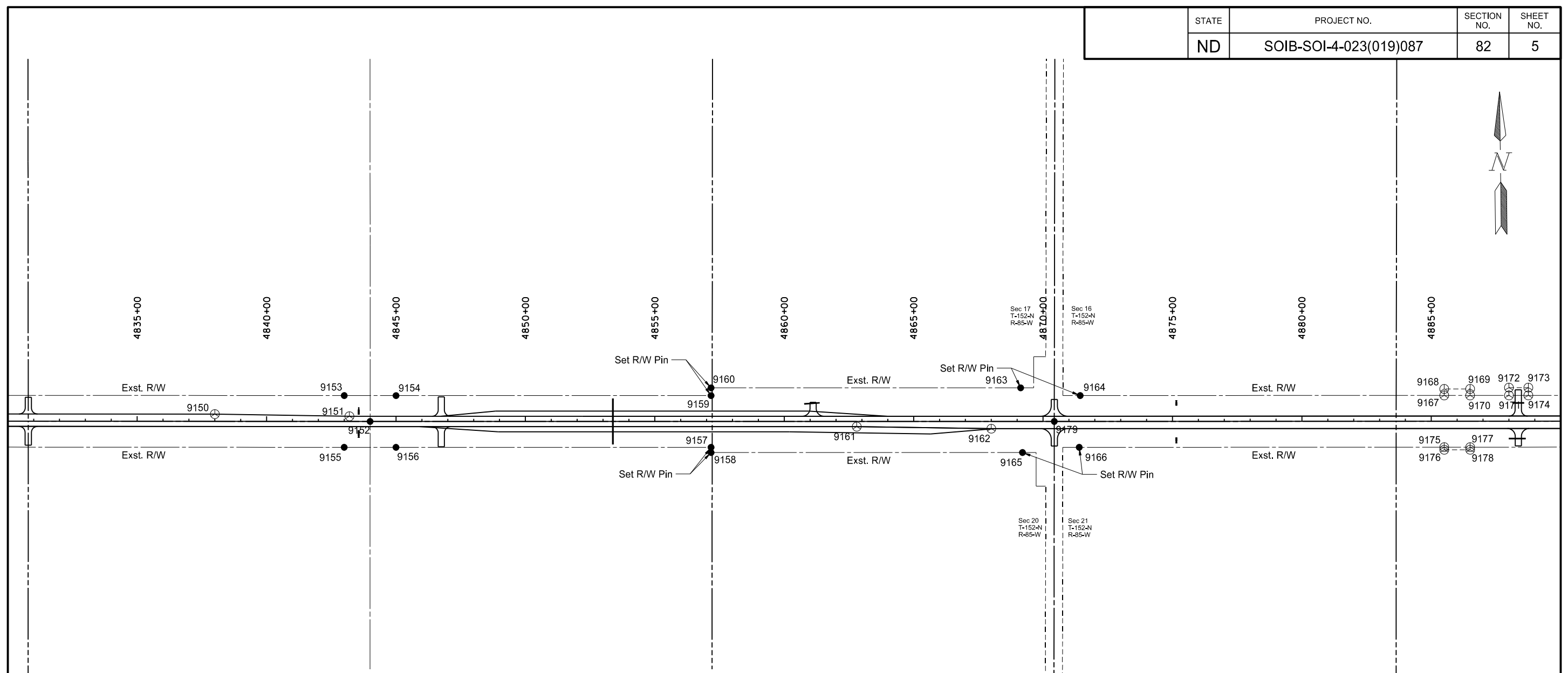
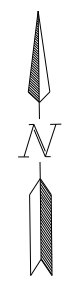




Point	North	East	Station	Offset	Description
9130	358917.9223	1697178.0342	4781+17.07	-100.0000	IRON PIN - EX R/W
9131	358957.9206	1697178.4130	4781+17.07	-140.0000	IRON PIN - EX R/W
9132	358835.4359	1697440.1941	4783+80.00	-20.0000	PAVEMENT
9133	358838.5111	1697960.2465	4789+00.00	-28.0000	PAVEMENT
9134	358949.7866	1698037.2743	4789+75.97	-140.0000	IRON PIN - QUARTER LINE
9135	358907.5301	1698276.8995	4792+16.00	-100.0000	IRON PIN - QUARTER LINE
9136	358709.4186	1698074.9998	4790+15.97	100.0000	IRON PIN - QUARTER LINE
9137	358707.5393	1698274.9761	4792+15.94	100.0000	IRON PIN - QUARTER LINE
9138	358808.4670	1698175.9470	4791+15.97	0.0000	MONUMENT - QUARTER LINE
9139	358884.7585	1700719.0927	4816+58.30	-100.0000	IRON PIN - SEC LINE
9140	358882.7016	1700918.8883	4818+57.91	-100.0000	IRON PIN - SEC LINE
9141	358684.7672	1700717.2280	4816+58.30	100.0000	IRON PIN - SEC LINE
9142	358682.7055	1700917.4125	4818+58.69	100.0000	IRON PIN - SEC LINE
9143	358783.8304	1700818.1560	4817+58.30	0.0000	MONUMENT - SEC LINE

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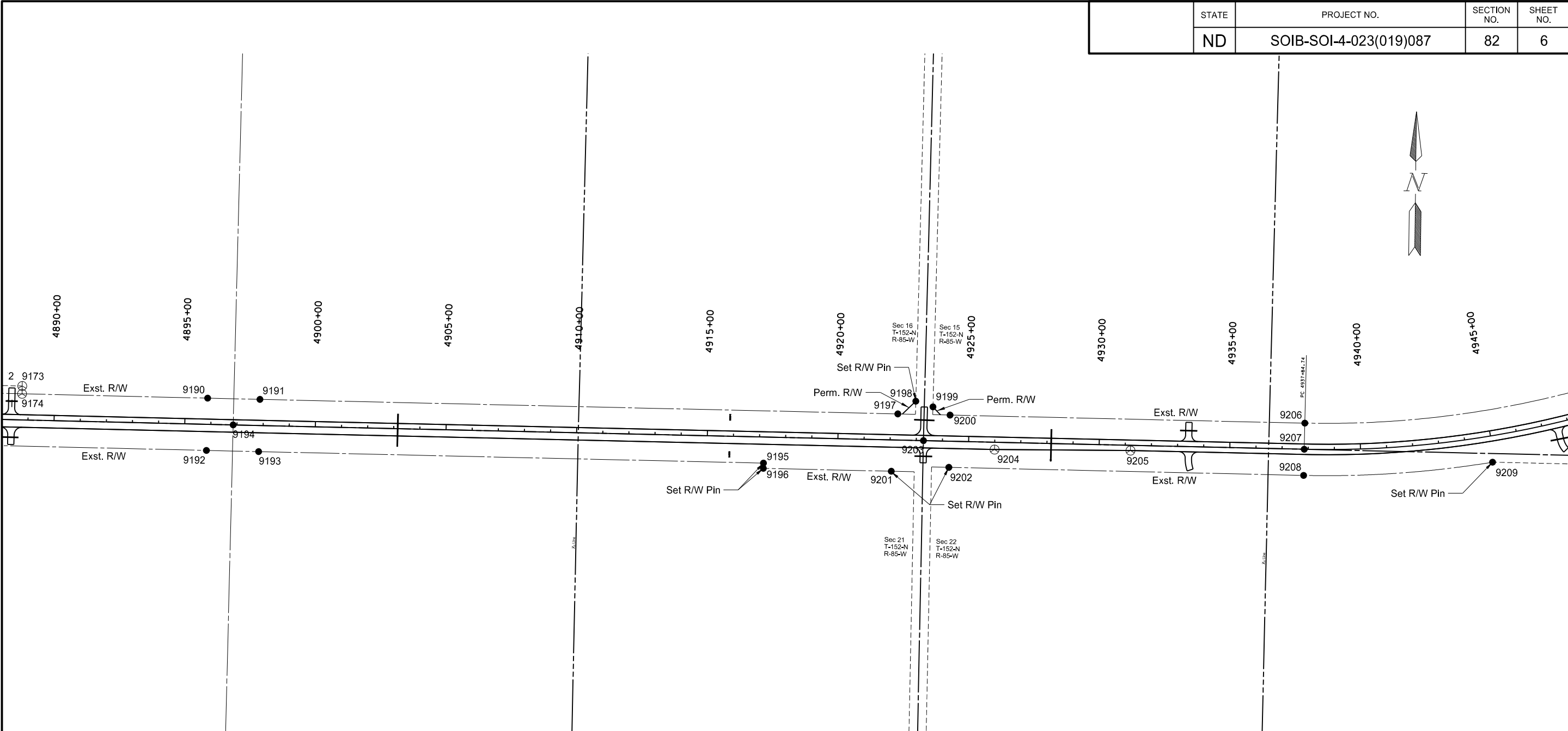
Survey Data Layout  
ND 23 - ND 28 to County Rd 13



Point	North	East	Station	Offset	Description
9150	358788.8211	1702860.0435	4838+00.00	-28.0000	PAVEMENT
9151	358774.9619	1703379.9157	4843+20.00	-20.0000	PAVEMENT
9152	358754.0620	1703459.6520	4843+99.96	0.0000	MONUMENT - QUARTER LINE
9153	358855.1826	1703360.7806	4842+99.96	-100.0000	IRON PIN - QUARTER LINE
9154	358852.9933	1703560.8339	4845+00.09	-100.0000	IRON PIN - QUARTER LINE
9155	358655.1953	1703358.5268	4842+99.96	100.0000	IRON PIN - QUARTER LINE
9156	358653.0074	1703558.4497	4844+99.83	100.0000	IRON PIN - QUARTER LINE
9157	358640.0828	1704775.7277	4857+17.17	100.0000	IRON PIN - EX R/W
9158	358620.0839	1704775.5153	4857+17.17	120.0000	IRON PIN - EX R/W
9159	358840.0715	1704777.8511	4857+17.17	-100.0000	IRON PIN - EX R/W
9160	358870.0698	1704778.1696	4857+17.17	-130.0000	IRON PIN - EX R/W
9161	358714.1028	1705339.3708	4862+80.00	20.0000	PAVEMENT
9162	358700.5824	1705859.2566	4868+00.00	28.0000	PAVEMENT
9163	358857.3708	1705974.2066	4869+13.28	-130.0000	IRON PIN - SEC LINE
9164	358824.9756	1706203.9211	4871+43.37	-100.0000	IRON PIN - SEC LINE
9165	358607.3094	1705978.6620	4869+20.39	120.0000	IRON PIN - SEC LINE
9166	358625.0230	1706198.2362	4871+39.72	100.0000	IRON PIN - SEC LINE
9167	358810.6816	1707610.4793	4885+50.00	-100.0000	TEMP EASEMENT
9168	358835.6804	1707610.7333	4885+50.00	-125.0000	TEMP EASEMENT
9169	358834.6642	1707710.7282	4886+50.00	-125.0000	TEMP EASEMENT
9170	358809.6654	1707710.4741	4886+50.00	-100.0000	TEMP EASEMENT
9171	358808.1411	1707860.4670	4888+00.00	-100.0000	TEMP EASEMENT
9172	358838.1396	1707860.7718	4888+00.00	-130.0000	TEMP EASEMENT
9173	358837.3775	1707935.7680	4888+75.00	-130.0000	TEMP EASEMENT
9174	358807.3790	1707935.4631	4888+75.00	-100.0000	TEMP EASEMENT
9175	358610.6919	1707608.4469	4885+50.00	100.0000	TEMP EASEMENT
9176	358600.6925	1707608.3453	4885+50.00	110.0000	TEMP EASEMENT
9177	358609.6758	1707708.4417	4886+50.00	100.0000	TEMP EASEMENT
9178	358599.6763	1707708.3401	4886+50.00	110.0000	TEMP EASEMENT
9179	358725.9979	1706102.8190	4870+43.28	0.0000	MONUMENT - SEC LINE

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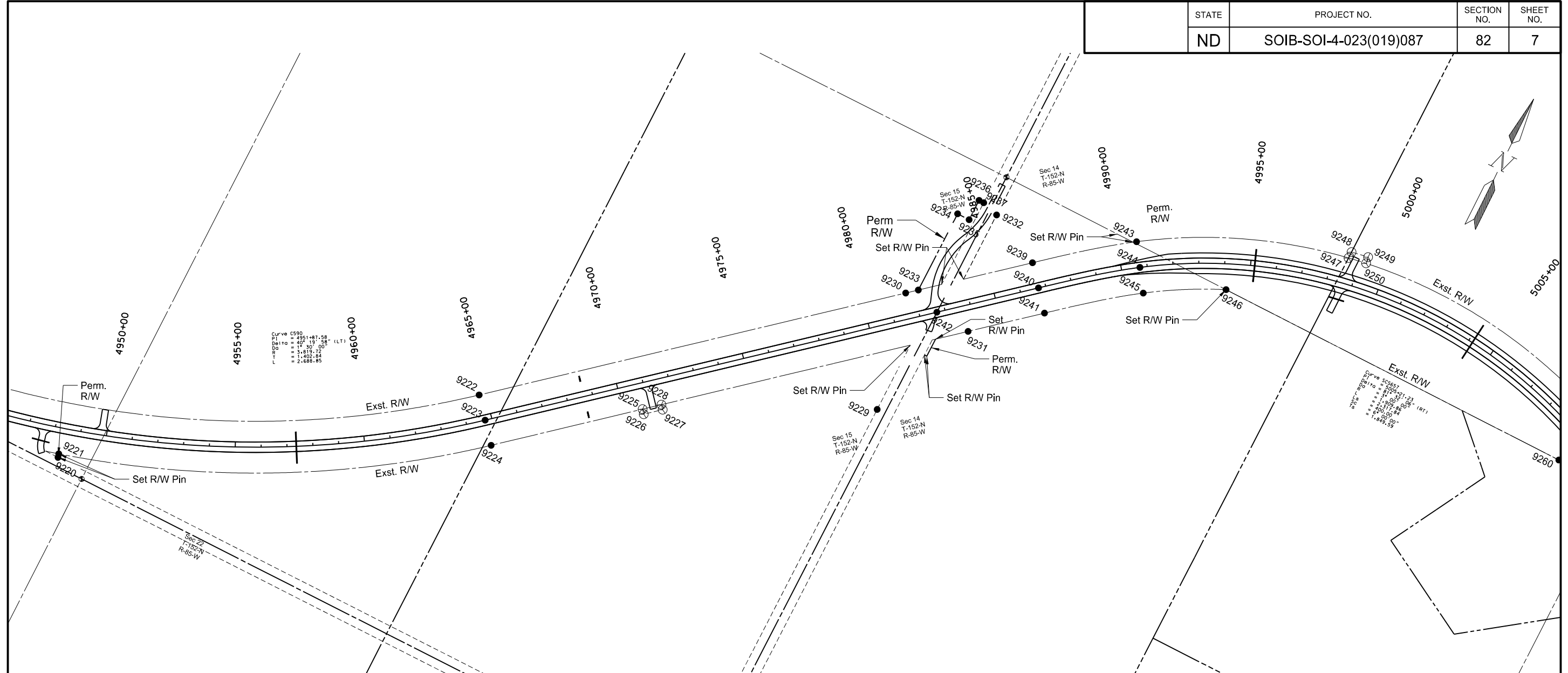
Survey Data Layout  
ND 23 - ND 28 to County Rd 13



Point	North	East	Station	Offset	Description
9190	358800.1613	1708645.6977	4895+85.27	-100.0000	IRON PIN - QUARTER LINE
9191	358798.1878	1708845.7473	4897+85.39	-99.9998	IRON PIN - QUARTER LINE
9192	358600.1717	1708643.6651	4895+85.27	100.0000	IRON PIN - QUARTER LINE
9193	358598.1994	1708843.5959	4897+85.15	100.0000	IRON PIN - QUARTER LINE
9194	358699.1503	1708744.6810	4896+85.28	0.0000	MONUMENT - QUARTER LINE
9195	358579.7159	1710775.5288	4917+17.17	100.0000	IRON PIN - EX R/W
9196	358559.7168	1710775.3374	4917+17.17	120.0000	IRON PIN - EX R/W
9197	358774.8312	1711287.0467	4922+26.80	-100.0000	IRON PIN - SEC LINE
9198	358824.3404	1711355.4786	4922+94.76	-150.1616	IRON PIN - R/W
9199	358803.4561	1711421.2170	4923+60.70	-129.9051	IRON PIN - R/W
9200	358772.9239	1711487.0438	4924+26.81	-100.0000	IRON PIN - SEC LINE
9201	358555.0326	1711264.9429	4922+06.80	120.0000	IRON PIN - SEC LINE
9202	358572.9332	1711485.1180	4924+26.79	100.0000	IRON PIN - SEC LINE
9203	358673.8745	1711386.5620	4923+27.28	0.0000	IRON PIN - SEC LINE
9204	358643.2837	1711658.9956	4925+99.99	28.0000	PAVEMENT
9205	358646.3402	1712179.1189	4931+20.06	20.0000	PAVEMENT
9206	358760.0172	1712844.9018	4937+84.73	-100.0000	IRON PIN - PC
9207	358660.0217	1712843.9513	4937+84.73	0.0000	IRON PIN - PC
9208	358560.0263	1712843.0009	4937+84.73	100.0000	IRON PIN - PC
9209	358620.1643	1713565.2373	4944+91.99	99.9991	IRON PIN - EX R/W

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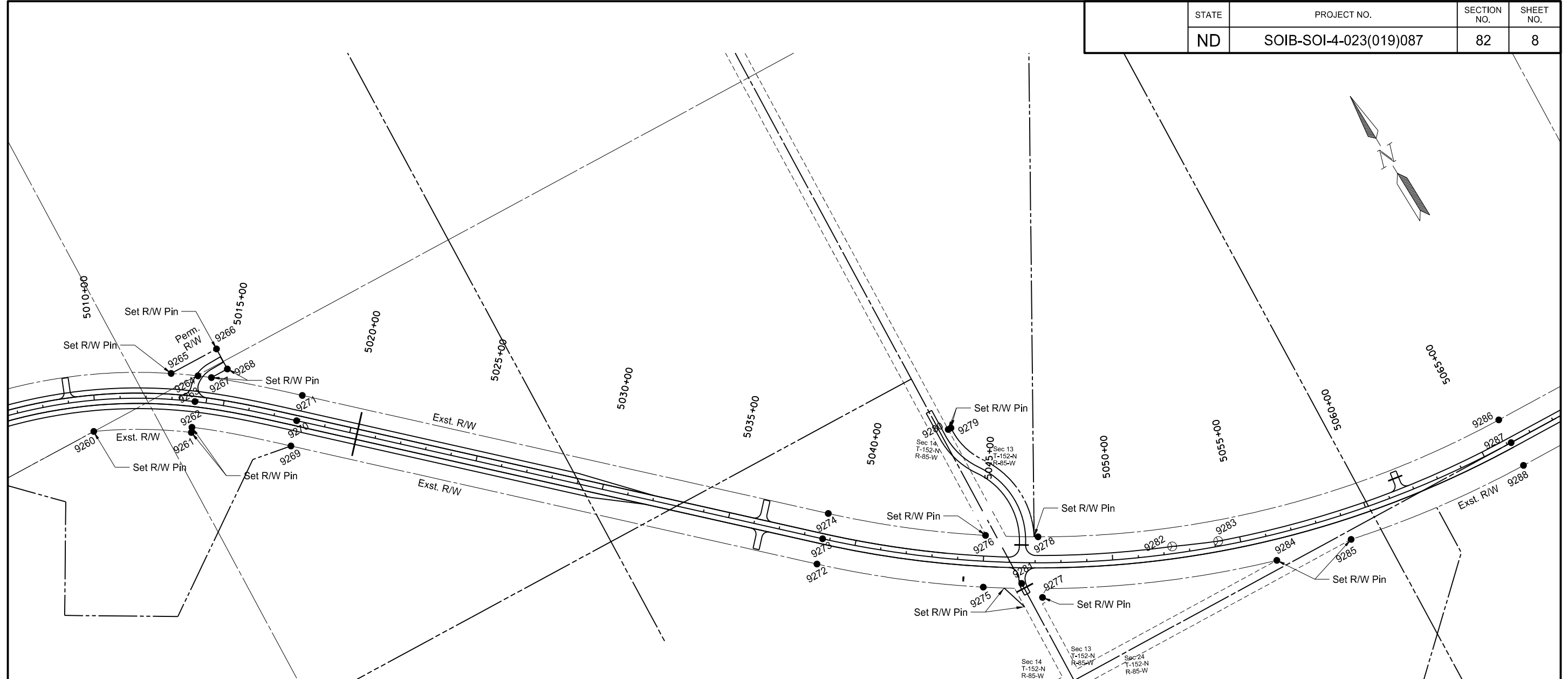
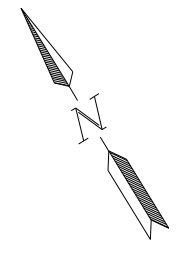
Survey Data Layout  
ND 23 - ND 28 to County Rd 13



Point	North	East	Station	Offset	Description
9220	358620.1643	1713565.2373	4944+91.99	99.9991	IRON PIN - R/W
9221	358696.5022	1713906.2240	4948+32.62	99.9987	IRON PIN - R/W
9222	359621.2796	1715260.6970	4964+73.59	-100.0030	IRON PIN - PT
9223	359544.4381	1715324.6922	4964+73.59	-0.0030	IRON PIN - PT
9224	359467.5966	1715388.6873	4964+73.59	99.9970	IRON PIN - PT
9225	359852.4685	1715850.8230	4970+75.00	100.0000	TEMP EASEMENT
9226	359837.1002	1715863.6220	4970+75.00	120.0000	TEMP EASEMENT
9227	359885.0966	1715921.2532	4971+50.00	120.0000	TEMP EASEMENT
9228	359900.4649	1715908.4541	4971+50.00	100.0000	TEMP EASEMENT
9229	360253.9560	1716663.5717	4979+56.46	311.6108	IRON PIN - SEC LINE
9230	360253.9560	1716663.5717	4979+56.46	311.6108	IRON PIN - SEC LINE
9231	360679.9726	1716844.4398	4983+68.07	100.0000	IRON PIN - SEC LINE
9232	361131.7348	1716743.6359	4985+79.72	-311.6505	IRON PIN - SEC LINE
9233	360737.7651	1716601.3099	4982+18.23	-100.0000	IRON PIN - R/W
9234	361068.8400	1716606.6113	4984+34.18	-351.0103	IRON PIN - R/W
9235	361068.0395	1716656.6049	4984+72.08	-318.4017	IRON PIN - R/W
9236	361152.1328	1716657.9515	4985+26.93	-382.1585	IRON PIN - R/W
9237	361151.8126	1716677.9489	4985+42.09	-369.1150	IRON PIN - R/W
9239	361027.9249	1716949.7114	4986+71.64	-100.0030	IRON PIN - TS
9240	360951.0834	1717013.7066	4986+71.64	-0.0030	IRON PIN - TS
9241	360874.2419	1717077.7018	4986+71.64	99.9970	IRON PIN - TS
9242	360692.8165	1716703.6018	4982+68.07	0.0011	MONUMENT - SEC LINE
9243	361279.1727	1717274.0517	4990+71.64	-100.0026	IRON PIN - SC
9244	361196.0628	1717329.6642	4990+71.64	-0.0026	IRON PIN - SC
9245	361112.9529	1717385.2767	4990+71.64	99.9974	IRON PIN - SC
9246	361266.7522	1717666.0280	4994+09.88	99.9981	IRON PIN - EX R/W
9247	361586.8532	1718035.7495	4998+57.80	-100.0000	TEMP EASEMENT
9248	361612.1098	1718036.1721	4998+62.39	-124.7881	TEMP EASEMENT
9249	361622.9040	1718101.9989	4999+25.00	-125.0044	TEMP EASEMENT
9250	361598.1545	1718105.5602	4999+25.00	-100.0000	TEMP EASEMENT

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Survey Data Layout  
ND 23 - ND 28 to County Rd 13



Point	North	East	Station	Offset	Description
9260	361248.2195	1719110.0022	5009+86.50	120.0018	IRON PIN - EX R/W
9261	361061.4418	1719437.4286	5013+89.47	120.0027	IRON PIN - EX R/W
9262	361077.6739	1719449.1127	5013+89.47	100.0027	IRON PIN - CS
9263	361158.8325	1719507.5361	5013+89.48	0.0027	IRON PIN - CS
9264	361239.9907	1719565.9551	5013+89.48	-99.9945	IRON PIN - CS
9265	361298.4715	1719480.1171	5012+90.77	-99.9947	IRON PIN - R/W
9266	361295.9153	1719679.2842	5014+43.22	-212.3860	IRON PIN - R/W
9267	361208.8212	1719608.1324	5014+39.47	-99.9945	IRON PIN - R/W
9268	361207.9225	1719678.1548	5014+92.63	-142.2183	IRON PIN - R/W
9269	360828.5901	1719748.3500	5017+89.47	100.0027	IRON PIN - ST
9270	360903.1996	1719814.9333	5017+89.47	0.0031	IRON PIN - ST
9271	360977.8095	1719881.5169	5017+89.47	-99.9969	IRON PIN - ST
9272	359441.8181	1721302.2688	5038+72.21	100.0031	IRON PIN - PC
9273	359516.4275	1721368.8529	5038+72.21	0.0031	IRON PIN - PC
9274	359591.0369	1721435.4369	5038+72.21	-99.9969	IRON PIN - PC
9275	359051.3517	1721820.4516	5045+05.21	100.0000	IRON PIN - SEC LINE
9276	359221.7462	1721925.1966	5045+02.80	-100.0000	IRON PIN - SEC LINE
9277	358905.3536	1722000.8655	5047+28.02	133.9198	IRON PIN - SEC LINE
9278	359118.1059	1722099.5694	5047+11.13	-100.0000	IRON PIN - SEC LINE
9279	359649.0826	1722010.0663	5043+22.48	-502.8986	IRON PIN - R/W
9280	359649.2311	1721998.0673	5043+11.08	-496.1244	IRON PIN - R/W
9281	358991.6095	1721956.9283	5046+49.51	80.4774	MONUMENT - SEC LINE
9282	358833.6767	1722534.6024	5052+35.09	-28.0000	PAVEMENT
9283	358765.1512	1722699.9065	5054+15.00	-20.0000	PAVEMENT
9284	358589.9938	1722861.5924	5056+18.88	100.0012	IRON PIN - EX R/W
9285	358521.0613	1723151.6800	5059+09.51	100.0009	IRON PIN - EX R/W
9286	358646.7683	1723874.6186	5066+16.77	-100.0000	IRON PIN - PT
9287	358546.7734	1723873.6089	5066+16.77	-0.0000	IRON PIN - PT
9288	358446.7785	1723872.5992	5066+16.77	100.0000	IRON PIN - PT

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Survey Data Layout  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	82	9

Iron Pins			
Point	Sta	Offset	Description
9005	4606+71.29	426.92	IRON PIN - EX R/W
9001	4607+10.78	-466.41	IRON PIN - EX R/W
9006	4609+44.09	467.00	IRON PIN - EX R/W
9002	4609+46.82	-467.00	IRON PIN - EX R/W
9007	4611+62.03	249.75	IRON PIN - SEC LINE
9003	4611+63.06	-250.18	IRON PIN - SEC LINE
9009	4613+12.26	100.00	IRON PIN - EX R/W
9004	4613+12.84	-100.00	IRON PIN - EX R/W
9031	4634+48.85	-100.00	IRON PIN - QUARTER LINE
9033	4634+48.85	100.00	IRON PIN - QUARTER LINE
9034	4636+48.65	100.00	IRON PIN - QUARTER LINE
9032	4636+49.04	-100.00	IRON PIN - QUARTER LINE
9040	4648+17.13	100.00	IRON PIN - EX R/W
9041	4648+17.13	140.00	IRON PIN - EX R/W
9042	4648+17.13	-100.00	IRON PIN - EX R/W
9043	4648+17.13	-130.00	IRON PIN - EX R/W
9052	4660+45.12	140.00	IRON PIN - SEC LINE
9050	4660+55.12	-130.00	IRON PIN - SEC LINE
9051	4662+83.72	-100.00	IRON PIN - SEC LINE
9053	4662+86.55	100.00	IRON PIN - SEC LINE
9057	4666+00.00	100.00	IRON PIN - R/W
9058	4666+00.00	125.00	IRON PIN - R/W
9061	4669+75.00	-100.00	IRON PIN - R/W
9062	4669+75.00	-125.00	IRON PIN - R/W
9060	4677+67.12	140.00	IRON PIN - EX R/W
9064	4677+67.12	-180.00	IRON PIN - EX R/W
9059	4677+67.12	125.00	IRON PIN - R/W
9063	4677+67.12	-125.00	IRON PIN - R/W
9069	4686+50.08	-180.00	IRON PIN - QUARTER LINE
9073	4686+90.08	140.00	IRON PIN - QUARTER LINE
9070	4688+27.06	-180.00	IRON PIN - EX R/W
9071	4688+27.19	-120.00	IRON PIN - EX R/W
9076	4688+30.50	130.00	IRON PIN - EX R/W
9075	4688+30.53	140.00	IRON PIN - EX R/W
9072	4689+50.29	-120.00	IRON PIN - QUARTER LINE
9074	4689+59.86	130.00	IRON PIN - QUARTER LINE
9078	4694+17.14	-120.00	IRON PIN - EX R/W
9079	4694+17.14	-100.00	IRON PIN - EX R/W
9080	4694+17.14	130.00	IRON PIN - EX R/W
9081	4694+17.14	100.00	IRON PIN - EX R/W
9092	4712+17.15	100.00	IRON PIN - EX R/W
9093	4712+17.15	160.00	IRON PIN - EX R/W
9090	4713+15.05	160.00	IRON PIN - SEC LINE
9088	4713+60.04	-115.00	IRON PIN - SEC LINE
9102	4715+95.86	-120.00	IRON PIN - SEC LINE
9103	4716+33.97	160.00	IRON PIN - SEC LINE
9104	4723+17.14	-120.00	IRON PIN - EX R/W
9105	4723+17.14	-100.00	IRON PIN - EX R/W
9106	4723+17.14	160.00	IRON PIN - EX R/W
9107	4723+17.14	140.00	IRON PIN - EX R/W

Iron Pins			
Point	Sta	Offset	Description
9108	4739+73.11	140.00	IRON PIN - QUARTER LINE
9114	4740+13.11	-100.00	IRON PIN - QUARTER LINE
9115	4742+12.99	-100.00	IRON PIN - QUARTER LINE
9111	4742+33.27	120.00	IRON PIN - QUARTER LINE
9112	4742+50.00	100.00	IRON PIN - R/W
9113	4742+50.00	120.00	IRON PIN - R/W
9117	4766+51.19	-100.00	IRON PIN - SEC LINE
9119	4766+51.19	100.00	IRON PIN - SEC LINE
9120	4768+50.18	100.00	IRON PIN - SEC LINE
9118	4768+52.21	-100.00	IRON PIN - SEC LINE
9130	4781+17.07	-100.00	IRON PIN - EX R/W
9131	4781+17.07	-140.00	IRON PIN - EX R/W
9134	4789+75.97	-140.00	IRON PIN - QUARTER LINE
9136	4790+15.97	100.00	IRON PIN - QUARTER LINE
9137	4792+15.94	100.00	IRON PIN - QUARTER LINE
9135	4792+16.00	-100.00	IRON PIN - QUARTER LINE
9139	4816+58.30	-100.00	IRON PIN - SEC LINE
9141	4816+58.30	100.00	IRON PIN - SEC LINE
9140	4818+57.91	-100.00	IRON PIN - SEC LINE
9142	4818+58.69	100.00	IRON PIN - SEC LINE
9153	4842+99.96	-100.00	IRON PIN - QUARTER LINE
9155	4842+99.96	100.00	IRON PIN - QUARTER LINE
9156	4844+99.83	100.00	IRON PIN - QUARTER LINE
9154	4845+00.09	-100.00	IRON PIN - QUARTER LINE
9157	4857+17.17	100.00	IRON PIN - EX R/W
9158	4857+17.17	120.00	IRON PIN - EX R/W
9159	4857+17.17	-100.00	IRON PIN - EX R/W
9160	4857+17.17	-130.00	IRON PIN - EX R/W
9163	4869+13.28	-130.00	IRON PIN - SEC LINE
9165	4869+20.39	120.00	IRON PIN - SEC LINE
9166	4871+39.72	100.00	IRON PIN - SEC LINE
9164	4871+43.37	-100.00	IRON PIN - SEC LINE
9190	4895+85.27	-100.00	IRON PIN - QUARTER LINE
9192	4895+85.27	100.00	IRON PIN - QUARTER LINE
9193	4897+85.15	100.00	IRON PIN - QUARTER LINE
9191	4897+85.39	-100.00	IRON PIN - QUARTER LINE
9195	4917+17.17	100.00	IRON PIN - EX R/W
9196	4917+17.17	120.00	IRON PIN - EX R/W
9201	4922+06.80	120.00	IRON PIN - SEC LINE
9197	4922+26.80	-100.00	IRON PIN - SEC LINE
9198	4922+94.76	-150.16	IRON PIN - R/W
9203	4923+27.28	0.00	IRON PIN - SEC LINE
9199	4923+60.70	-129.91	IRON PIN - R/W
9202	4924+26.79	100.00	IRON PIN - SEC LINE
9200	4924+26.81	-100.00	IRON PIN - SEC LINE
9206	4937+84.73	-100.00	IRON PIN - PC
9208	4937+84.73	100.00	IRON PIN - PC
9209	4944+91.99	100.00	IRON PIN - EX R/W
9220	4944+91.99	100.00	IRON PIN - R/W
9221	4948+32.62	100.00	IRON PIN - R/W

Iron Pins			
Point	Sta	Offset	Description
9222	4964+73.59	-100.00	IRON PIN - PT
9224	4964+73.59	100.00	IRON PIN - PT
9229	4979+56.46	311.61	IRON PIN - SEC LINE
9230	4979+56.46	311.61	IRON PIN - SEC LINE
9233	4982+18.23	-100.00	IRON PIN - R/W
9231	4983+68.07	100.00	IRON PIN - SEC LINE
9234	4984+34.18	-351.01	IRON PIN - R/W
9235	4984+72.08	-318.40	IRON PIN - R/W
9236	4985+26.93	-382.16	IRON PIN - R/W
9237	4985+42.09	-369.12	IRON PIN - R/W
9232	4985+79.72	-311.65	IRON PIN - SEC LINE
9239	4986+71.64	-100.00	IRON PIN - TS
9241	4986+71.64	100.00	IRON PIN - TS
9243	4990+71.64	-100.00	IRON PIN - SC
9245	4990+71.64	100.00	IRON PIN - SC
9246	4994+09.88	100.00	IRON PIN - EX R/W
9260	5009+86.50	120.00	IRON PIN - EX R/W
9265	5012+90.77	-99.99	IRON PIN - R/W
9262	5013+89.47	100.00	IRON PIN - CS
9261	5013+89.47	120.00	IRON PIN - EX R/W
9264	5013+89.48	-99.99	IRON PIN - CS
9267	5014+39.47	-99.99	IRON PIN - R/W
9266	5014+43.22	-212.39	IRON PIN - R/W
9268	5014+92.63	-142.22	IRON PIN - R/W
9269	5017+89.47	100.00	IRON PIN - ST
9271	5017+89.47	-100.00	IRON PIN - ST
9272	5038+72.21	100.00	IRON PIN - PC
9274	5038+72.21	-100.00	IRON PIN - PC
9280	5043+11.08	-496.12	IRON PIN - R/W
9279	5043+22.48	-502.90	IRON PIN - R/W
9276	5045+02.80	-100.00	IRON PIN - SEC LINE
9275	5045+05.21	100.00	IRON PIN - SEC LINE
9278	5047+11.13	-100.00	IRON PIN - SEC LINE
9277	5047+28.02	133.92	IRON PIN - SEC LINE
9284	5056+18.88	100.00	IRON PIN - EX R/W
9285	5059+09.51	100.00	IRON PIN - EX R/W
9286	5066+16.77	-100.00	IRON PIN - PT
9288	5066+16.77	100.00	IRON PIN - PT

Iron Pins = 138  
R/W Markers = 138

Precast Concrete Alignment Monument			
Point	Sta	Offset	Description
9010	4609+12.58	0.00	MONUMENT - SEC LINE
9035	4635+48.85	0.00	MONUMENT - QUARTER LINE
9054	4661+85.13	0.00	MONUMENT - SEC LINE
9077	4688+30.09	0.00	MONUMENT - QUARTER LINE
9100	4714+75.05	0.00	MONUMENT - SEC LINE
9116	4741+13.12	0.03	MONUMENT - QUARTER LINE
9121	4767+51.19	0.00	MONUMENT - SEC LINE
9138	4791+15.97	0.00	MONUMENT - QUARTER LINE
9143	4817+58.30	0.00	MONUMENT - SEC LINE
9152	4843+99.96	0.00	MONUMENT - QUARTER LINE
9179	4870+43.28	0.00	MONUMENT - SEC LINE
9194	4896+85.28	0.00	MONUMENT - QUARTER LINE
9242	4982+68.07	0.00	MONUMENT - SEC LINE
9281	5046+49.51	80.48	MONUMENT - SEC LINE

Monuments = 14

Iron Pins - Centerline Location			
Point	Sta	Offset	Description
9207	4937+84.73	0.00	IRON PIN - PC
9223	4964+73.59	0.00	IRON PIN - PT
9240	4986+71.64	0.00	IRON PIN - TS
9244	4990+71.64	0.00	IRON PIN - SC
9263	5013+89.48	0.00	IRON PIN - CS
9270	5017+89.47	0.00	IRON PIN - ST
9273	5038+72.21	0.00	IRON PIN - PC
9287	5066+16.77	0.00	IRON PIN - PT

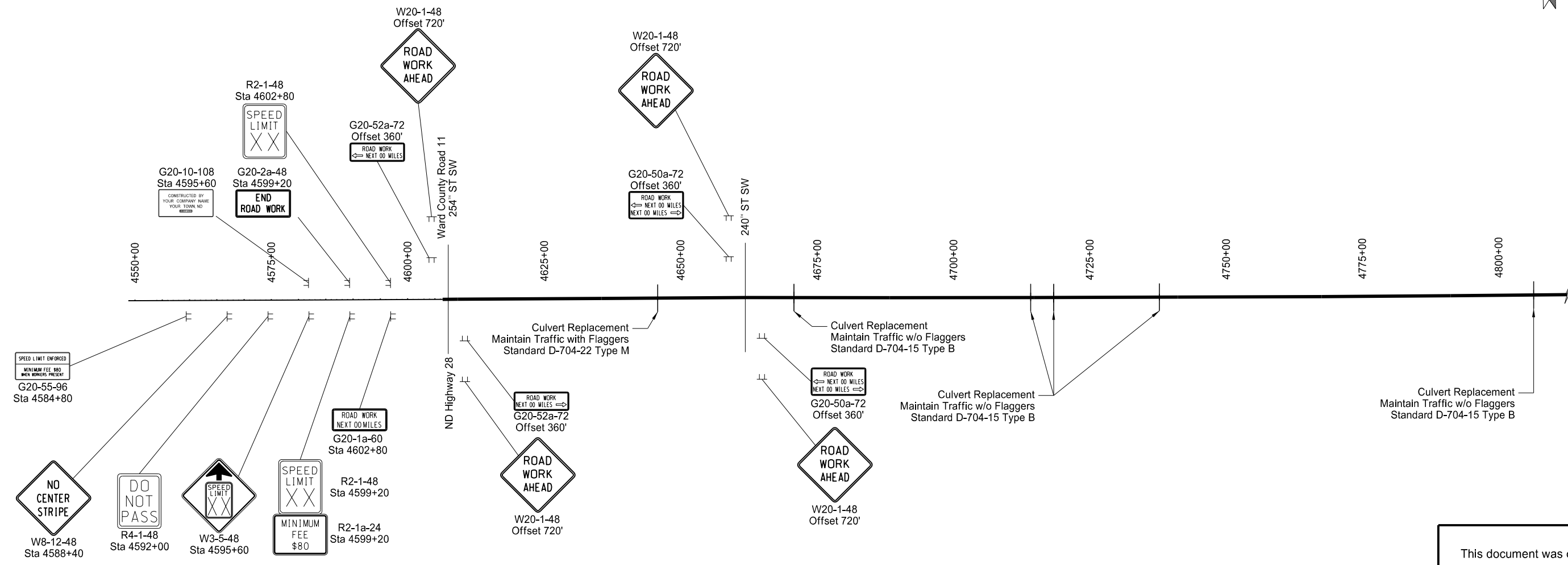
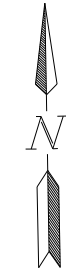
Iron Pins = 8

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R/W Marker and Concrete Monument Locations  
ND 23 - ND 28 to County Rd 13



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-SOI-4-023(019)087	100	2



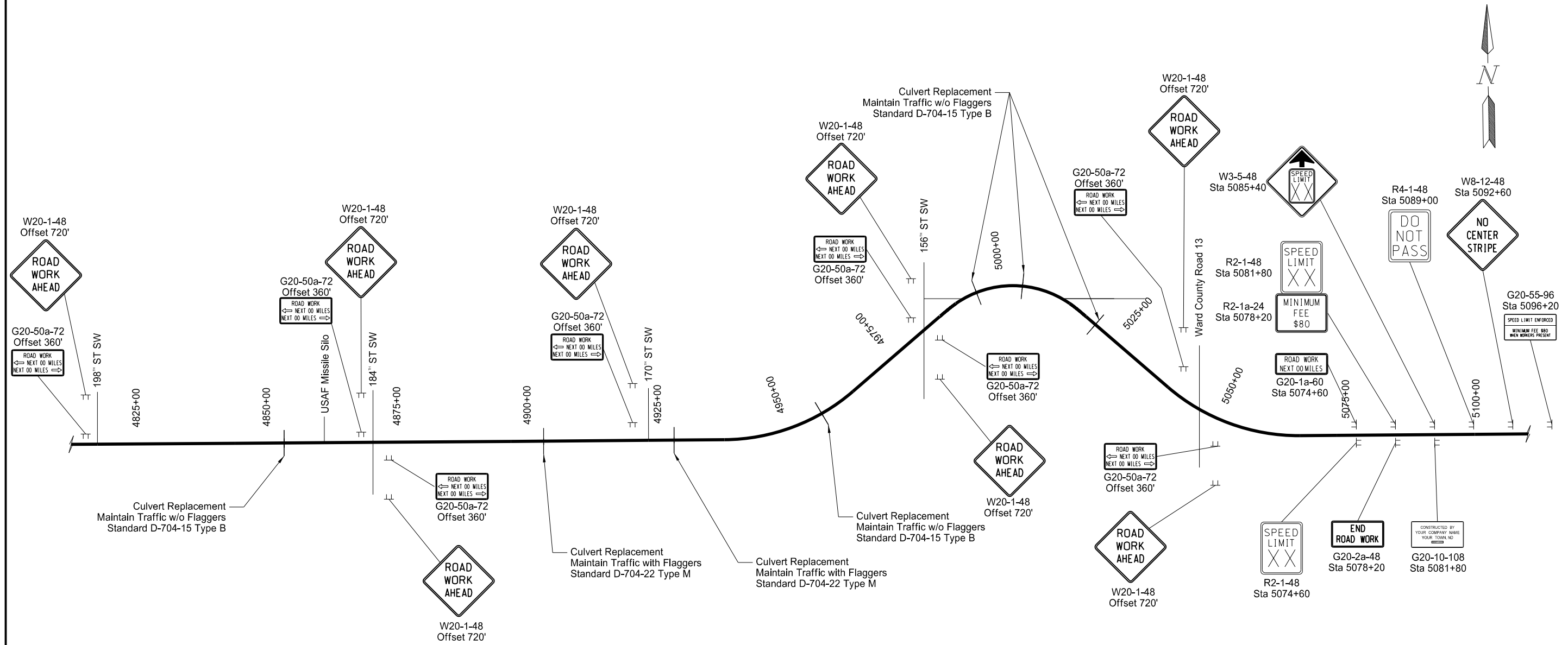
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Work Zone Traffic Control All Phases ND 23 - ND 28 to County Rd 13

Notes: All signs are labeled for the proper Station and Offset but may not be shown at the proper Station and Offset in the plan view.



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	100	3

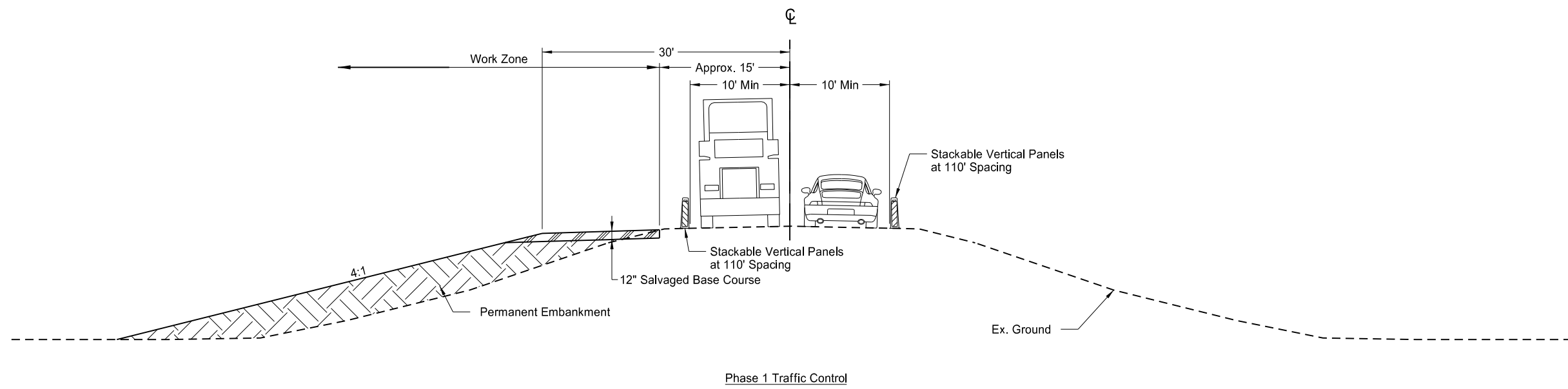


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 of Transportation

Notes: All signs are labeled for the proper Station and Offset but may not be shown at the proper Station and Offset in the plan view.  
 All signs east of Sta 5071+00 shall be covered while project SOIB-4-023(026)096 is active or as directed by the Engineer.

Work Zone Traffic Control  
 All Phases  
 ND 23 - ND 28 to County Rd 13

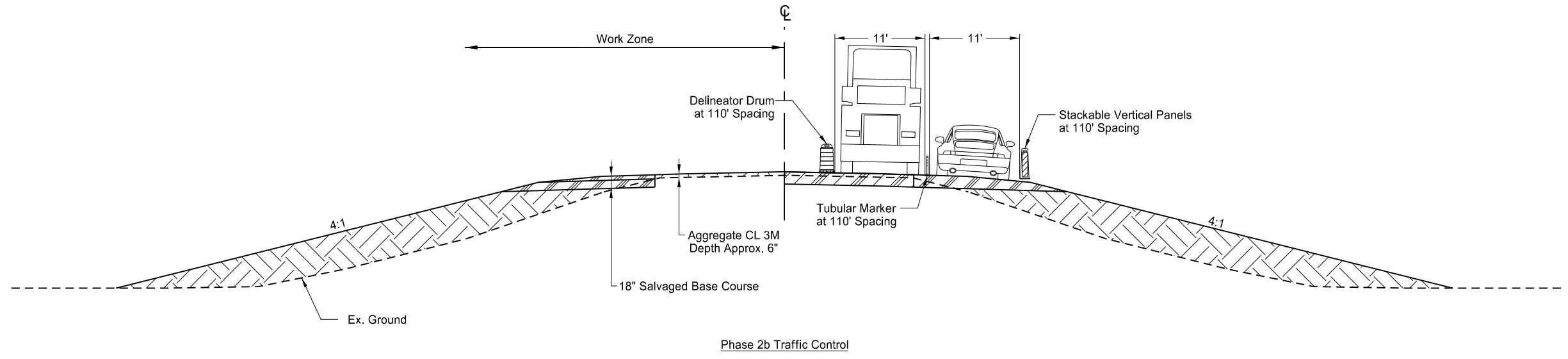
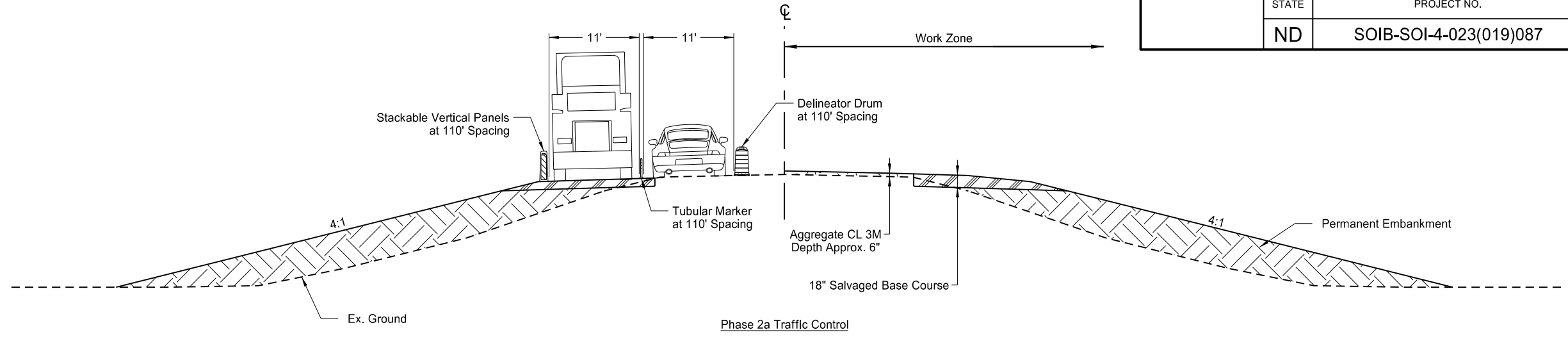
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	100	4



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Work Zone Traffic Control  
Phase 1 Typical Sections  
ND 23 - ND 28 to County Rd 13

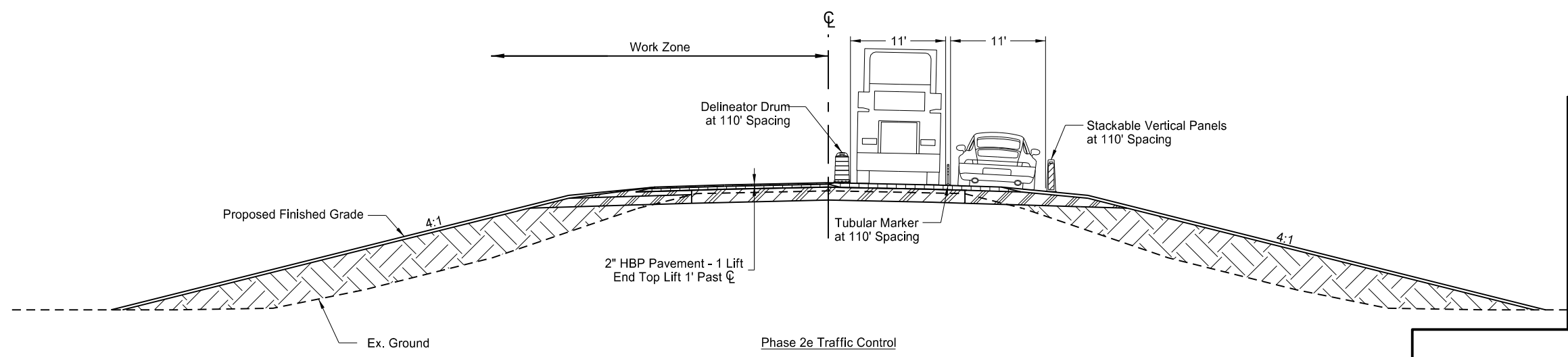
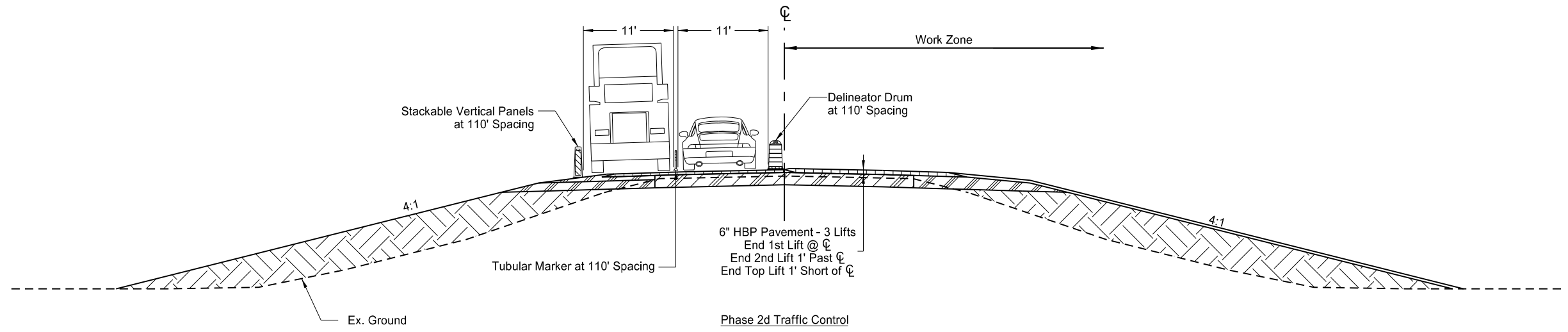
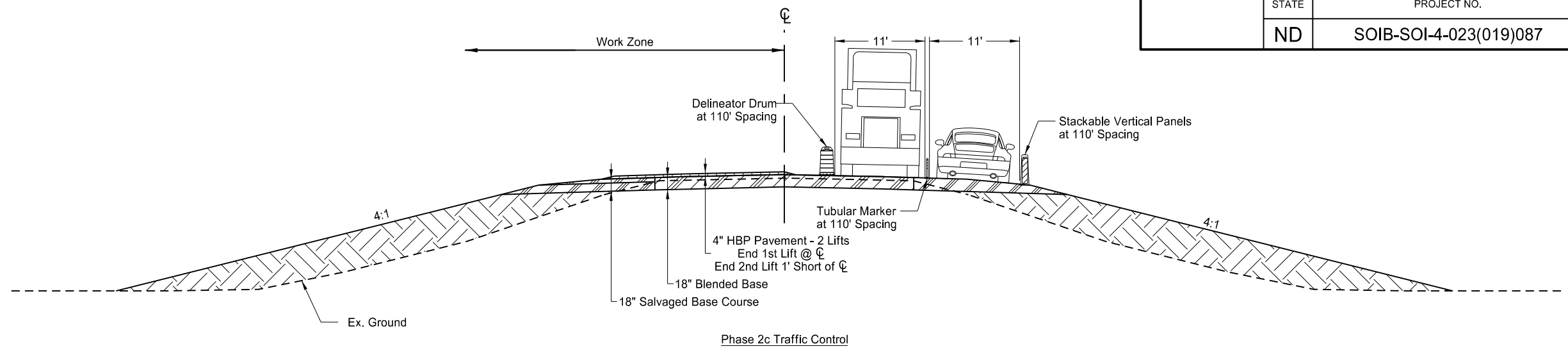
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	100	5



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Work Zone Traffic Control  
Phase 2 Typical Section  
ND 23 - ND 28 to County Rd 13

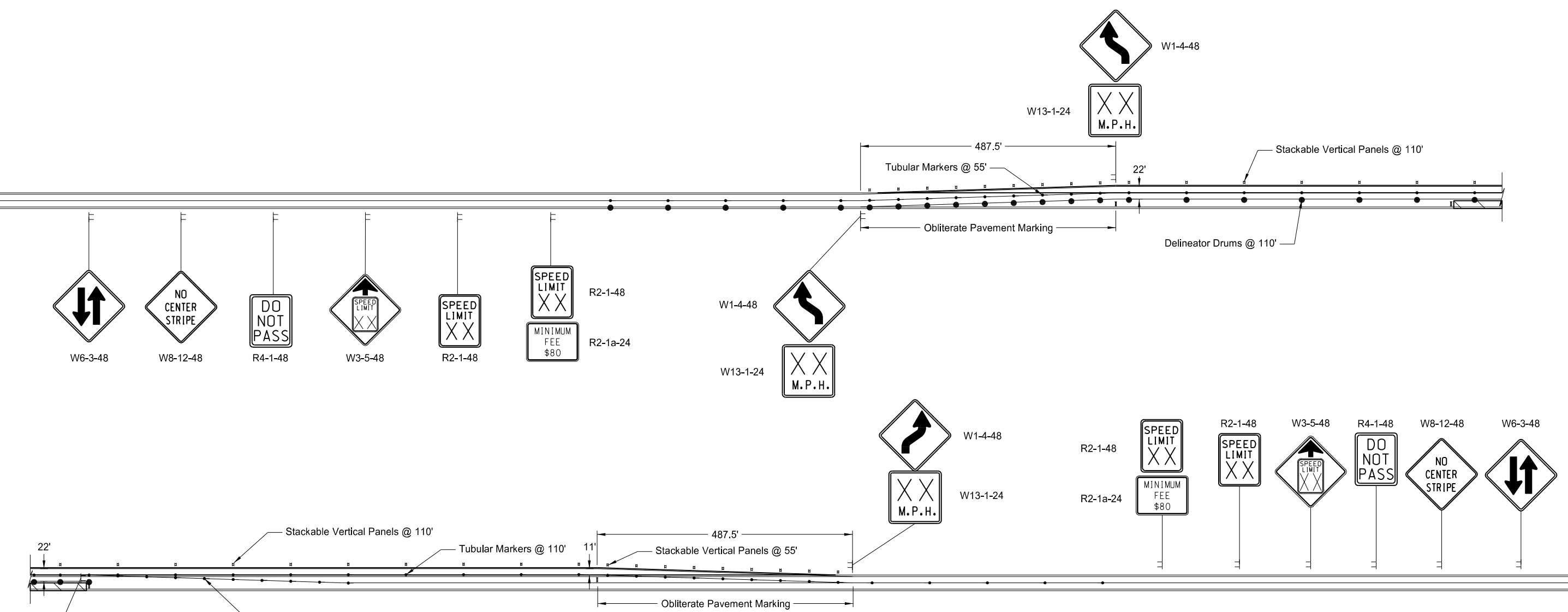
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	100	6



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Work Zone Traffic Control  
Phase 2 Typical Section  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	100	7



Traffic Control Layout based on Standard D-701-15 Type C.  
See standard drawing for sign spacing

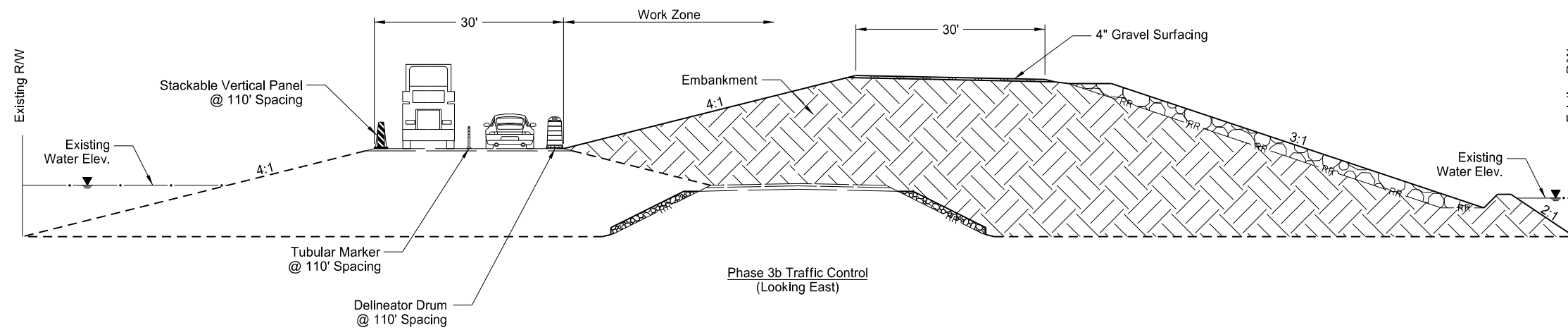
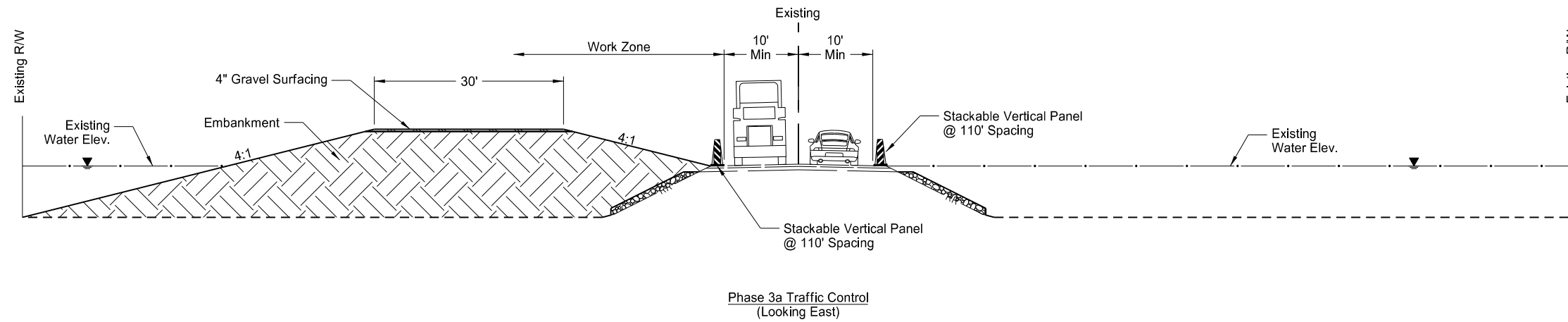
Notes:

- Contractor shall maintain the aggregate for traffic control a minimum of once per day. Additional maintenance shall be as directed by the Engineer. Maintenance of temporary aggregate surfacing shall be included in work zone traffic control bid items.
- The quantity for traffic control signs in the plans is based on two installations for the project. There will be no additional compensation for resetting the signs for construction on the opposite side of the roadway.

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Work Zone Traffic Control  
Phase 2 Layout  
ND 23 - ND 28 to County Rd 13

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-SOI-4-023(019)087	100	8



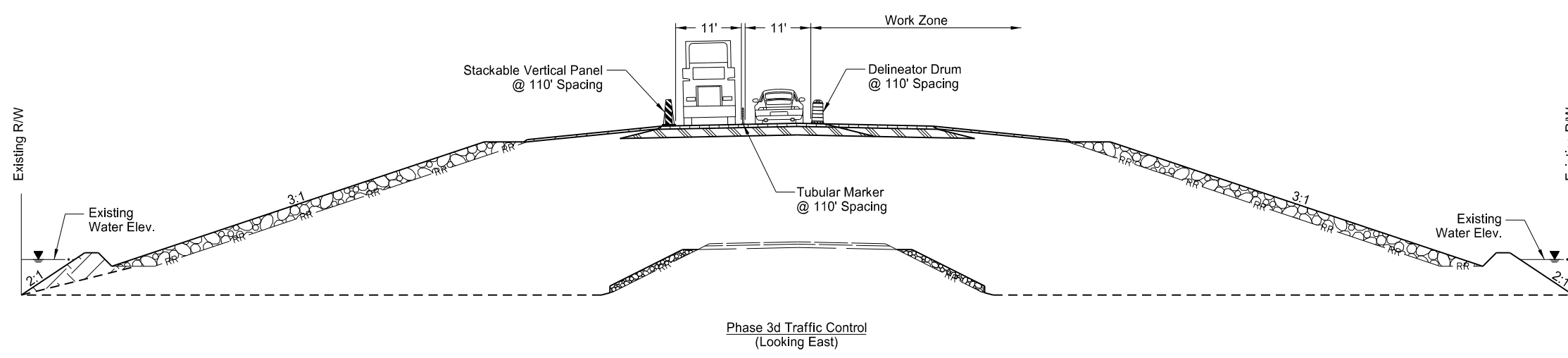
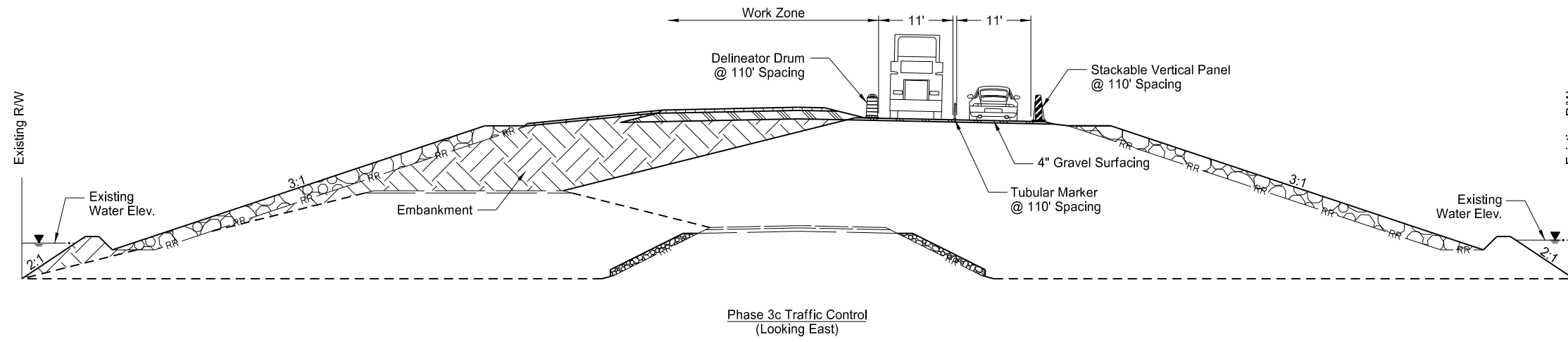
Notes:

1. Traffic control signs and devices for grade raise areas have been included in Phase 1 and Phase 2 quantities in the "Traffic Control Devices List."

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Work Zone Traffic Control  
Grade Raise  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	100	9



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Notes:

1. Traffic control signs and devices for grade raise areas have been included in Phase 1 and Phase 2 quantities in the "Traffic Control Devices List."

Work Zone Traffic Control  
Grade Raise  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SOIB-SOI-4-023(019)087	110	1

Sta/RP	Sign/Assembly No.	Flat Sheet For Signs		Panel For Signs		Overlay Panel		Galv Steel Post Standard Pipe		Size	Galv Steel Post W-Shape Posts			Max Post Len LF	Post Space FT	Revise Fuse Joint EA	Std Pipe Fdn			W-Shape Pile LF	Remove Sign Fdns		Reset Sign Panel EA	Reset Sign Support EA	Stub Post EA	Multi Dir Base EA	Comments	
		IV SF	XI SF	IV SF	XI SF	IV SF	XI SF	1st LF	2nd LF		3rd LF	1st LF	2nd LF				3rd LF	Dia FT	Dep FT		Vol CY	Conc Fdn EA						W-Shape Pile EA
<b>ND 23</b>																												
4608+00 Rt	SN 2			51.0						W4x13	15.3	16.3		17.5	4.3						28							
4619+80 Lt	SN 1			46.8						W4x13	13.4	14.4		18.6	4.3						28							
<b>Sub Total</b>		0.0	0.0	97.8	0.0	0.0	0.0	<b>Total 0.0</b>			<b>Total 59.3</b>						0.0	56	0	0	0	0	0	0	0			
<b>Grand Total</b>		0.0	0.0	97.8	0.0	0.0	0.0	<b>Total 0.0</b>			<b>Total 59.3</b>						0.0	56	0	0	0	0	0	0	0			

Basis of Estimate  
Sign Support Lengths  
The sign support lengths have been calculated using the following vertical clearances:  
Rural Roadway - 60"

<p>This document was originally issued and sealed by Jeffery T. Lansink, Registration Number PE-5244, on 11/3/2015 and the original document is stored at the North Dakota Department of Transportation</p>	<p>Sign Summary Round Steel Pipe and W-Shape  ND 23 - ND 28 to County Rd 13</p>
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Sta/RP	Sign No.	Assembly No.	Flat Sheet For Signs IV SF	XI SF	Sign Support Length				Support Size	Max Post Len LF	Sleeve Length				Sleeve Size	Anchor EA	Anchor LF	Anchor Size	Reset Sign Panel EA	Reset Sign Support EA	Break-Away EA	Comments
					1st LF	2nd LF	3rd LF	4th LF		1st LF	2nd LF	3rd LF	4th LF									
<b>CR 13 Realignment</b>																						
-1+35 Lt		9		5.0	11.9				2.25 x 2.25 12 ga	15.0						1	4	2.5 x 2.5 12 ga				
-1+35 Rt		391	6.2		12.7				2.5 x 2.5 12 ga	15.9						1	4	3 x 3 7 ga				
-3+35 Rt		19		6.3	12.6				2.5 x 2.5 12 ga	14.5						1	4	3 x 3 7 ga				
0+65 Lt		9		5.0	11.9				2.25 x 2.25 12 ga	15.0						1	4	2.5 x 2.5 12 ga				
2+65 Lt		371	6.0		12.9				2.5 x 2.5 12 ga	16.2						1	4	3 x 3 7 ga				
4+62 Lt		405	12.4		10.6				2.5 x 2.5 12 ga	13.5	2.2			2.25 x 2.25 12 ga		1	4	3 x 3 7 ga			1	
4+65 Rt		1		5.2	9.2				2 x 2 12 ga	10.5						1	4	2.25 x 2.25 12 ga				
5+41 Lt	SA 2E			5.2	10.7				2.25 x 2.25 12 ga	11.4						1	4	2.5 x 2.5 12 ga	1			
5+56 Rt		405	12.4		10.5				2.5 x 2.5 12 ga	13.5	2.2			2.25 x 2.25 12 ga		1	4	3 x 3 7 ga			1	
6+00 Rt		53		8.5	13.5				2.5 x 2.5 10 ga	14.7						1	4	3 x 3 7 ga			1	
6+98 Rt		34		8.0	10.9				2.5 x 2.5 10 ga	13.6						1	4	3 x 3 7 ga			1	
7+81 Rt		34		8.0	10.9				2.5 x 2.5 10 ga	13.6						1	4	3 x 3 7 ga			1	
9+00 Rt		371	6.0		12.9				2.5 x 2.5 12 ga	16.2						1	4	3 x 3 7 ga				
10+08 Lt		34		8.0	10.9				2.5 x 2.5 10 ga	13.6						1	4	3 x 3 7 ga			1	
10+78 Lt		34		8.0	10.9				2.5 x 2.5 10 ga	13.6						1	4	3 x 3 7 ga			1	
11+00 Rt		9		5.0	11.4				2.25 x 2.25 12 ga	15.0						1	4	2.5 x 2.5 12 ga				
13+00 Rt		9		5.0	11.9				2.25 x 2.25 12 ga	15.0						1	4	2.5 x 2.5 12 ga				
13+21 Lt		53		8.5	13.7				2.5 x 2.5 10 ga	14.7						1	4	3 x 3 7 ga			1	
15+21 Lt		391	6.2		12.7				2.5 x 2.5 12 ga	15.9						1	4	3 x 3 7 ga				
17+21 Lt		19		6.3	12.6				2.5 x 2.5 12 ga	14.5						1	4	3 x 3 7 ga				
<b>Sub Total</b>			49.2	92.0			<b>Total</b>	235.5								<b>Total</b>	80		1	0	8	
<b>156th St SW Realignment</b>																						
4+23 Lt	SA 2E			5.2	10.7				2.25 x 2.25 12 ga	11.4						1	4	2.5 x 2.5 12 ga	1			
4+73 Rt		53		8.5	13.7				2.5 x 2.5 10 ga	14.7						1	4	3 x 3 7 ga			1	
6+00 Lt		34		8.0	10.7				2.5 x 2.5 10 ga	13.6						1	4	3 x 3 7 ga			1	
6+23 Lt		34		8.0	10.7				2.5 x 2.5 10 ga	13.6						1	4	3 x 3 7 ga			1	
7+20 Rt		34		8.0	10.9				2.5 x 2.5 10 ga	13.6						1	4	3 x 3 7 ga			1	
8+34 Rt		34		8.0	10.7				2.5 x 2.5 10 ga	13.6						1	4	3 x 3 7 ga			1	
10+60 Lt		53		8.5	13.7				2.5 x 2.5 10 ga	14.7						1	4	3 x 3 7 ga			1	
12+60 Lt		19		6.3	12.6				2.5 x 2.5 12 ga	14.5						1	4	3 x 3 7 ga				
<b>Sub Total</b>			0.0	60.5			<b>Total</b>	93.9								<b>Total</b>	32		1	0	6	

Basis of Estimate  
Sign Support Lengths  
The sign support lengths have been calculated using the following vertical clearances:  
Rural Roadway - 60"

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Sign Summary  
Perforated Tube

ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SOIB-SOI-4-023(019)087	110	3

Sta/RP	Sign No.	Assembly No.	Flat Sheet For Signs		Sign Support Length				Support Size	Max Post Len LF	Sleeve Length				Sleeve Size	Anchor EA	Anchor LF	Anchor Size	Reset Sign Panel EA	Reset Sign Support EA	Break-Away EA	Comments
			IV SF	XI SF	1st LF	2nd LF	3rd LF	4th LF			1st LF	2nd LF	3rd LF	4th LF								
<b>ND 23</b>																						
4606+79 Rt		431	14.4		12.2				2.5 x 2.5 12 ga	13.0	3.9			2.25 x 2.25 12 ga	1	4	3 x 3 7 ga				1	
4606+83 Lt	SA B			6.9	12.7				2.5 x 2.5 10 ga	14.6					1	4	3 x 3 7 ga	1			1	
4607+18 Lt		395	10.2		14.3				2.5 x 2.5 12 ga	15.0	4.7			2.25 x 2.25 12 ga	1	4	3 x 3 7 ga				1	
4607+28 Lt		3		13.3	7.9				2.5 x 2.5 10 ga	8.9					1	4	3 x 3 7 ga				1	
4607+28 Rt		371	6.0		13.0				2.5 x 2.5 12 ga	16.2					1	4	3 x 3 7 ga					
4607+47 Rt		9		5.0	12.0				2.25 x 2.25 12 ga	15.0					1	4	2.5 x 2.5 12 ga					
4607+66 Rt		3		13.3	7.9				2.5 x 2.5 10 ga	8.9					1	4	3 x 3 7 ga				1	
4607+73 Lt		371	6.0		13.0				2.5 x 2.5 12 ga	16.2					1	4	3 x 3 7 ga					
4607+74 Lt		9		5.0	12.0				2.25 x 2.25 12 ga	15.0					1	4	2.5 x 2.5 12 ga					
4607+75 Lt		9		5.0	12.0				2.25 x 2.25 12 ga	15.0					1	4	2.5 x 2.5 12 ga					
4608+00 Rt		5		6.9	10.8				2.5 x 2.5 12 ga	13.4					1	4	3 x 3 7 ga					
4608+03 Lt		401	12.2		11.0				2.5 x 2.5 12 ga	13.7	2.6			2.25 x 2.25 12 ga	1	4	3 x 3 7 ga				1	
4608+09 Rt		437	8.4		13.6				2.5 x 2.5 10 ga	15.2					1	4	3 x 3 7 ga				1	
4610+50 Rt		371	6.0		13.0				2.5 x 2.5 12 ga	16.2					1	4	3 x 3 7 ga					
4613+80 Lt		387	16.4		13.4	13.9			2.5 x 2.5 10 ga	15.3					2	4	3 x 3 7 ga				2	
4614+50 Rt		9		5.0	12.0				2.25 x 2.25 12 ga	15.0					1	4	2.5 x 2.5 12 ga					
4618+50 Rt		9		5.0	11.9				2.25 x 2.25 12 ga	15.0					1	4	2.5 x 2.5 12 ga					
4621+80 Lt		437	8.4		12.2				2.5 x 2.5 10 ga	15.2					1	4	3 x 3 7 ga				1	
4625+80 Lt		391	6.2		11.4				2.25 x 2.25 12 ga	12.7					1	4	2.5 x 2.5 12 ga					
4647+00 Rt		20		9.0	12.9				2.25 x 2.25 12 ga	14.1	4.2			2 x 2 12 ga	1	4	3 x 3 7 ga				1	
4652+00 Rt		20		9.0	12.9				2.25 x 2.25 12 ga	14.1	4.2			2 x 2 12 ga	1	4	3 x 3 7 ga				1	
4656+80 Lt	SN 5		14.0		10.8				2.5 x 2.5 12 ga	11.8	3.7			2.25 x 2.25 12 ga	1	4	3 x 3 7 ga				1	
4661+57 Rt		30			11.0				2 x 2 12 ga	13.6					1	4	2.25 x 2.25 12 ga	1				
4661+60 Lt	SA 2E			5.2	10.7				2.25 x 2.25 12 ga	11.4					1	4	2.5 x 2.5 12 ga	1				
4662+11 Rt		1		5.2	9.2				2 x 2 12 ga	10.5					1	4	2.25 x 2.25 12 ga					
4676+80 Lt		9		5.0	9.8				2 x 2 12 ga	11.5					1	4	2.25 x 2.25 12 ga					
4679+00 Rt	SA A		18.0		10.7				2.5 x 2.5 10 ga	12.0	3.2			2.19 x 2.19 10 ga	1	4	3 x 3 7 ga				1	
4766+20 Lt	SA A		18.0		11.6				2.5 x 2.5 10 ga	12.0	4.1			2.19 x 2.19 10 ga	1	4	3 x 3 7 ga				1	
4776+20 Rt		9		5.0	10.6				2 x 2 12 ga	11.5					1	4	2.25 x 2.25 12 ga					
4801+00 Lt		20		9.0	10.9				2.5 x 2.5 10 ga	12.9					1	4	3 x 3 7 ga				1	
4807+00 Lt		20		9.0	10.9				2.5 x 2.5 10 ga	12.9					1	4	3 x 3 7 ga				1	
4807+20 Rt	SN 5		14.0		9.9				2.5 x 2.5 12 ga	11.8	2.8			2.25 x 2.25 12 ga	1	4	3 x 3 7 ga				1	
4817+33 Lt	SA 2E			5.2	10.7				2.25 x 2.25 12 ga	11.4					1	4	2.5 x 2.5 12 ga	1				
4848+30 Lt		9		5.0	10.6				2 x 2 12 ga	11.5					1	4	2.25 x 2.25 12 ga					

Basis of Estimate  
Sign Support Lengths  
The sign support lengths have been calculated using the following vertical clearances:  
Rural Roadway - 60"

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Sign Summary  
Perforated Tube  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SOIB-SOI-4-023(019)087	110	4

Sta/RP	Sign No.	Assembly No.	Flat Sheet For Signs		Sign Support Length				Support Size	Max Post Len LF	Sleeve Length				Sleeve Size	Anchor EA	Anchor LF	Anchor Size	Reset Sign Panel EA	Reset Sign Support EA	Break-Away EA	Comments
			IV SF	XI SF	1st LF	2nd LF	3rd LF	4th LF			1st LF	2nd LF	3rd LF	4th LF								
4857+70 Rt		9		5.0	9.8				2 x 2 12 ga	11.5						1	4	2.25 x 2.25 12 ga				
4870+18 Lt	SA 2E			5.2	11.7				2.5 x 2.5 12 ga	13.9						1	4	3 x 3 7 ga	1			
4870+69 Rt		1		5.2	9.2				2 x 2 12 ga	10.5						1	4	2.25 x 2.25 12 ga				
4898+60 Lt	SN 5		14.0		10.8				2.5 x 2.5 12 ga	11.8	3.7			2.25 x 2.25 12 ga	1	4	3 x 3 7 ga				1	
4908+00 Rt		20		9.0	12.9				2.25 x 2.25 12 ga	14.1	4.2			2 x 2 12 ga	1	4	3 x 3 7 ga				1	
4914+00 Rt		20		9.0	12.9				2.25 x 2.25 12 ga	14.1	4.2			2 x 2 12 ga	1	4	3 x 3 7 ga				1	
4936+50 Rt		19		6.3	11.3				2.25 x 2.25 12 ga	11.6					1	4	2.5 x 2.5 12 ga					
4938+80 Lt		9		5.0	10.6				2 x 2 12 ga	11.5					1	4	2.25 x 2.25 12 ga					
4948+80 Rt	SA A		18.0		11.3				2.5 x 2.5 10 ga	12.0	3.9			2.19 x 2.19 10 ga	1	4	3 x 3 7 ga				1	
4966+00 Lt		19		6.3	11.3				2.25 x 2.25 12 ga	11.6					1	4	2.5 x 2.5 12 ga					
4985+50 Rt		19		6.3	11.3				2.25 x 2.25 12 ga	11.6					1	4	2.5 x 2.5 12 ga					
5013+56 Lt		1		5.2	9.2				2 x 2 12 ga	10.5					1	4	2.25 x 2.25 12 ga					
5019+00 Lt		19		6.3	10.4				2.25 x 2.25 12 ga	11.6					1	4	2.5 x 2.5 12 ga					
5035+50 Rt		19		6.3	11.3				2.25 x 2.25 12 ga	11.6					1	4	2.5 x 2.5 12 ga					
5038+00 Rt		437	8.4		12.2				2.5 x 2.5 10 ga	15.2					1	4	3 x 3 7 ga				1	
5040+00 Rt	SN 8	34	8.0		10.1				2.5 x 2.5 12 ga	11.3					1	4	3 x 3 7 ga					
5042+00 Rt	SN 4		22.5		10.0	10.5	11.1		2.5 x 2.5 12 ga	12.0					3	4	3 x 3 7 ga				3	
5052+35 Lt	SN 3		22.5		11.6	12.6			2.5 x 2.5 12 ga	14.0	3.3	4.3		2.25 x 2.25 12 ga	2	4	3 x 3 7 ga				2	
5054+35 Lt	SN 9	34	8.0		10.3				2.5 x 2.5 12 ga	11.3					1	4	3 x 3 7 ga					
5056+35 Lt		437	8.4		12.2				2.5 x 2.5 10 ga	15.2					1	4	3 x 3 7 ga				1	
5058+35 Lt	SA A		18.0		11.6				2.5 x 2.5 10 ga	12.0	4.1			2.19 x 2.19 10 ga	1	4	3 x 3 7 ga				1	
5067+40 Rt		9		5.0	10.6				2 x 2 12 ga	11.5					1	4	2.25 x 2.25 12 ga					
5067+50 Lt		19		6.3	11.3				2.25 x 2.25 12 ga	11.6					1	4	2.5 x 2.5 12 ga					
<b>Sub Total</b>			286.0	218.4		<b>Total</b> 691.8									<b>Total</b> 244			5	0	30		
<b>Grand Total</b>			335.2	370.9		<b>Total</b> 1021.2									<b>Total</b> 356			7	0	44		

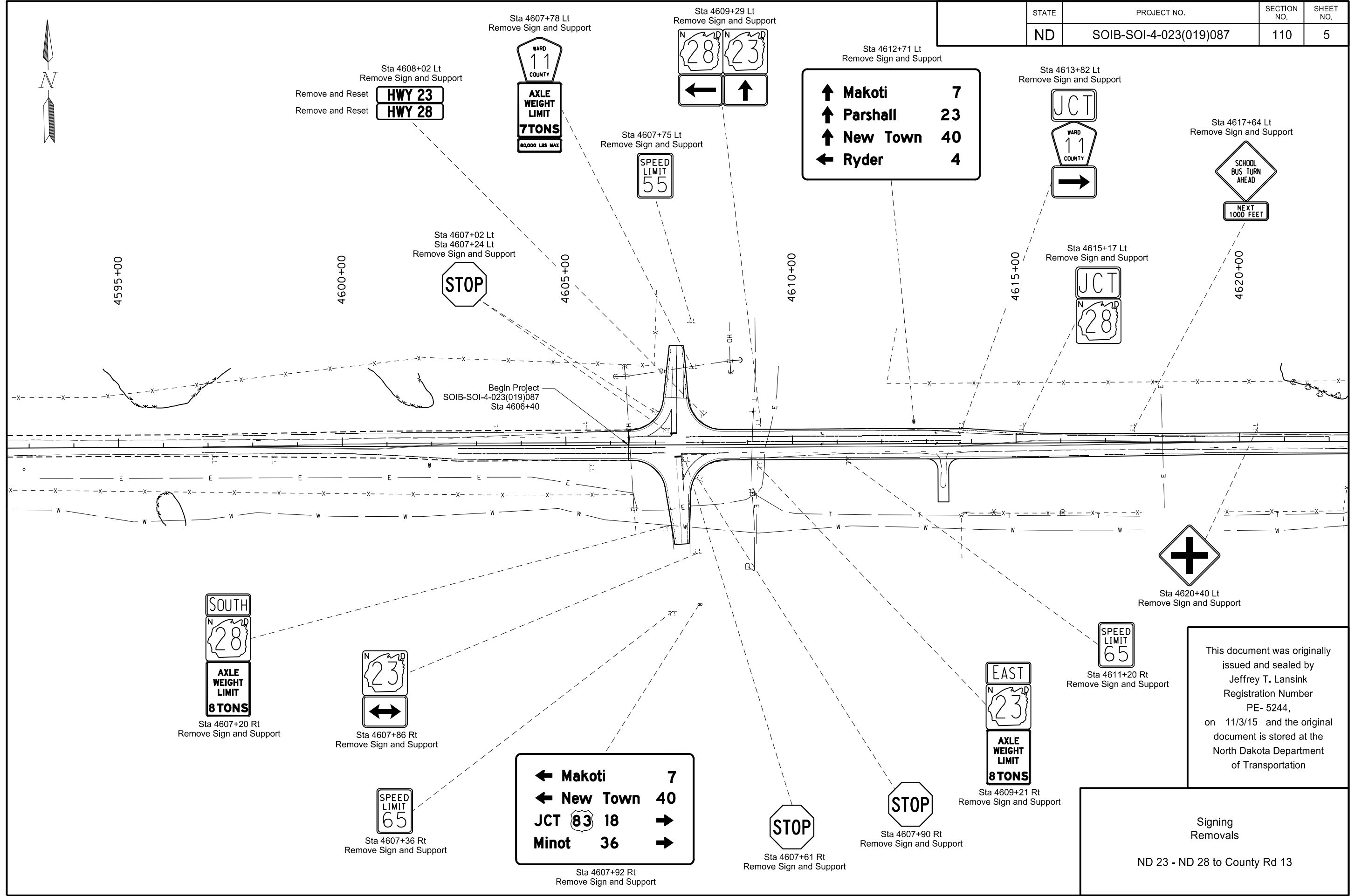
Basis of Estimate  
Sign Support Lengths  
The sign support lengths have been calculated using the following vertical clearances:  
Rural Roadway - 60"

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Sign Summary  
Perforated Tube

ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	5



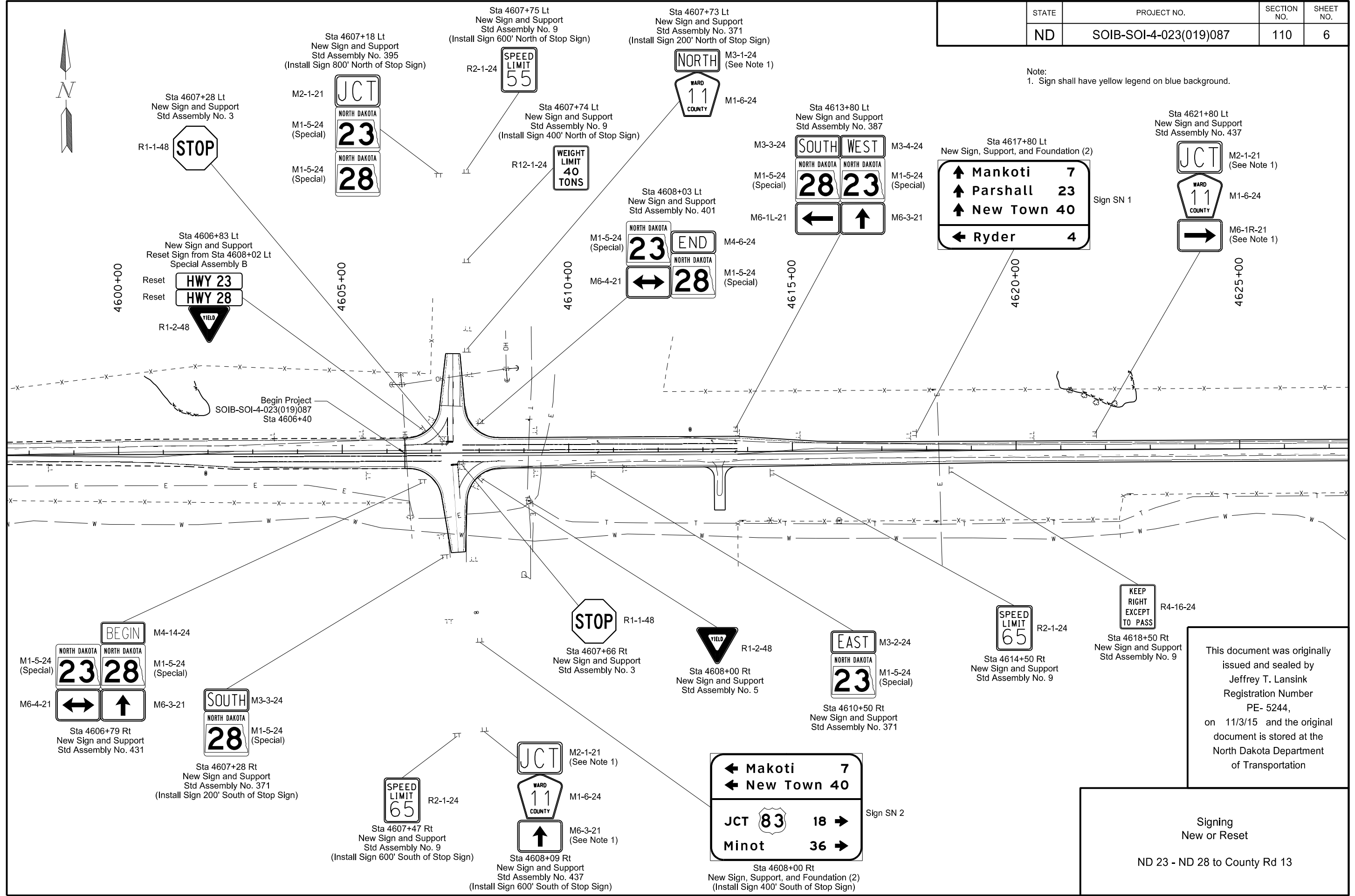
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Signing Removals  
ND 23 - ND 28 to County Rd 13

← Makoti 7  
← New Town 40  
JCT 83 18 →  
Minot 36 →

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	6

Note:  
1. Sign shall have yellow legend on blue background.



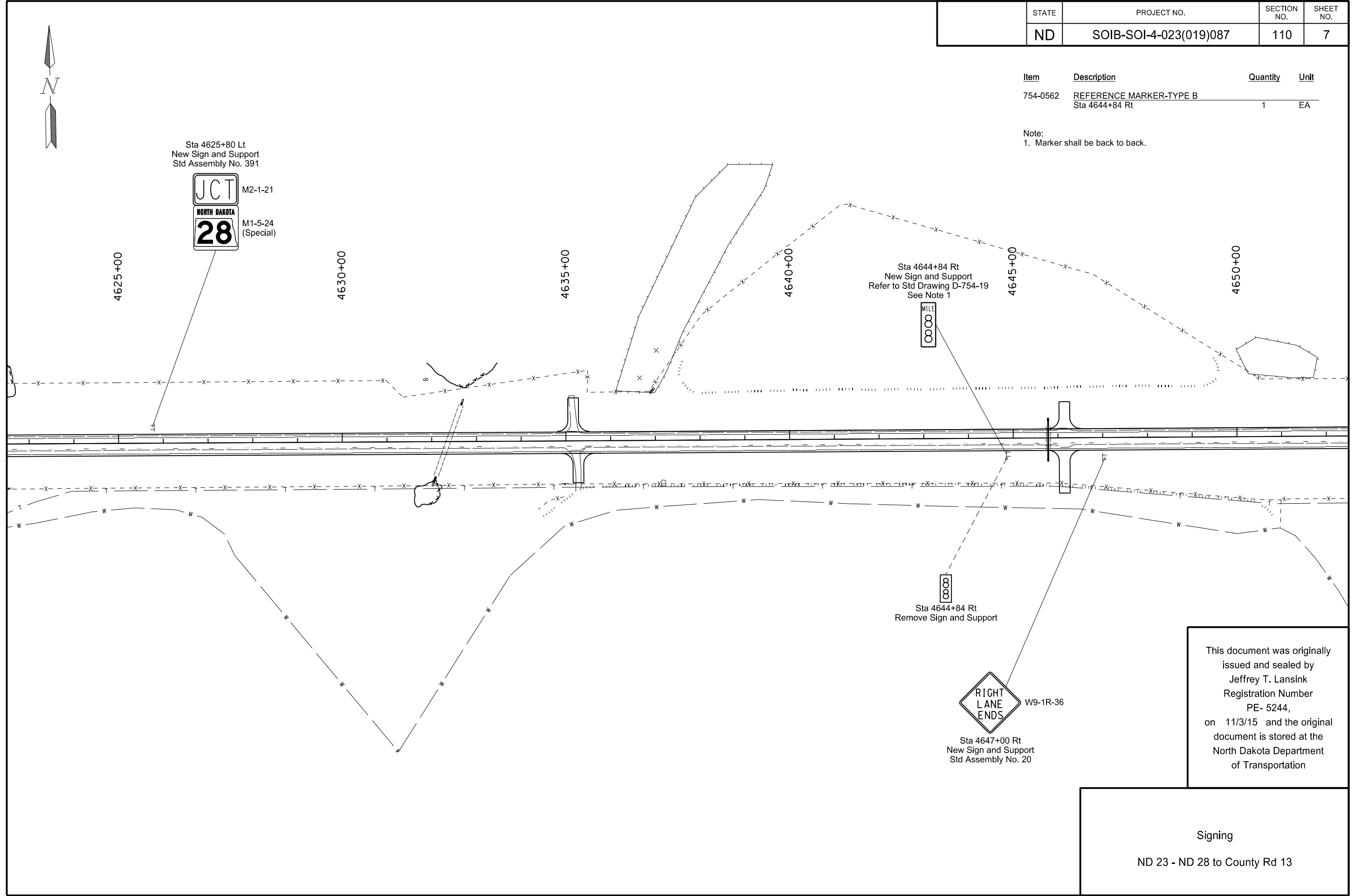
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Signing  
New or Reset  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	7

Item	Description	Quantity	Unit
754-0562	REFERENCE MARKER-TYPE B Sta 4644+84 Rt	1	EA

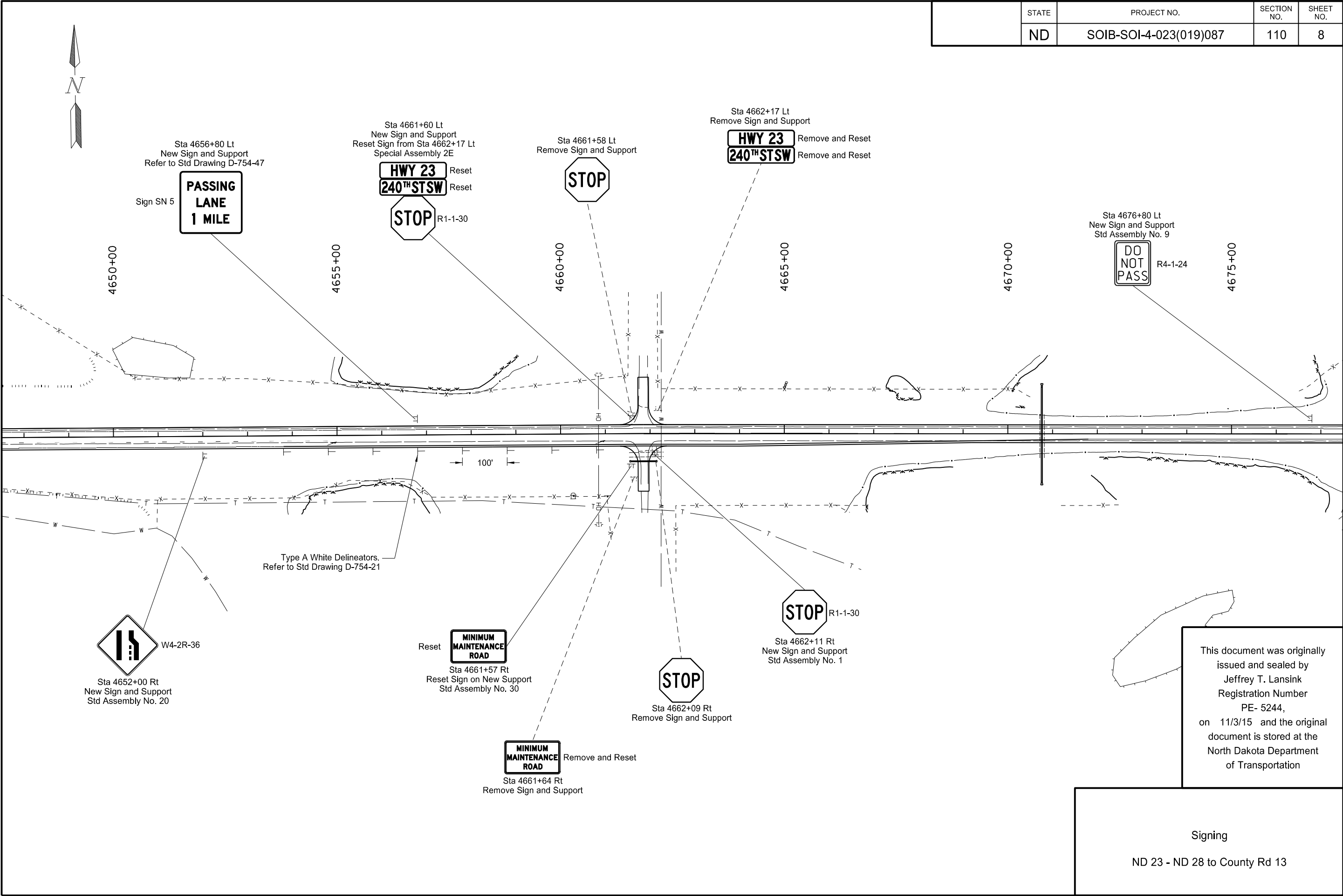
Note:  
1. Marker shall be back to back.



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Signing  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	8



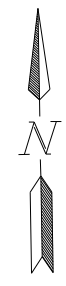
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Signing  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	9

Item	Description	Quantity	Unit
754-0562	REFERENCE MARKER-TYPE B Sta 4698+42 Rt	1	EA

Note:  
1. Marker shall be back to back.



4680+00

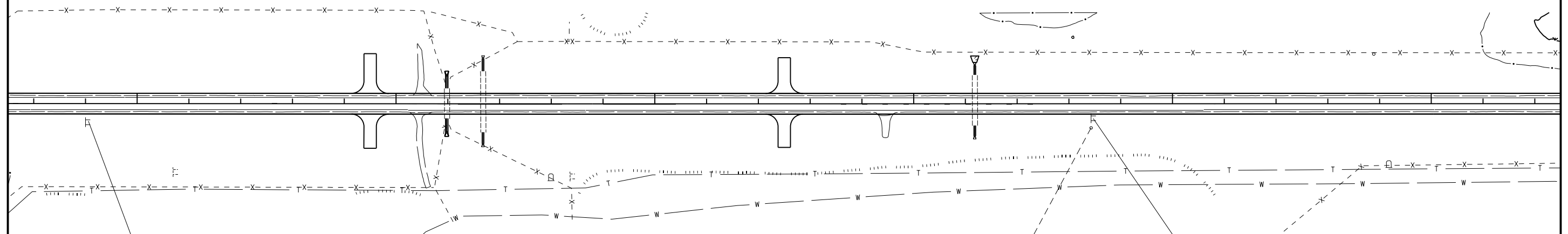
4685+00

4690+00

4695+00

4700+00

4705+00



**NEXT  
PASSING  
LANE  
3 MILES**

Sign SN 6

Sta 4679+00 Rt  
New Sign and Support  
Special Assembly A

Sta 4698+42 Rt  
Remove Sign and Support

Sta 4698+42 Rt  
New Sign and Support  
Refer to Std Drawing D-754-19  
See Note 1

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Signing  
ND 23 - ND 28 to County Rd 13



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	10

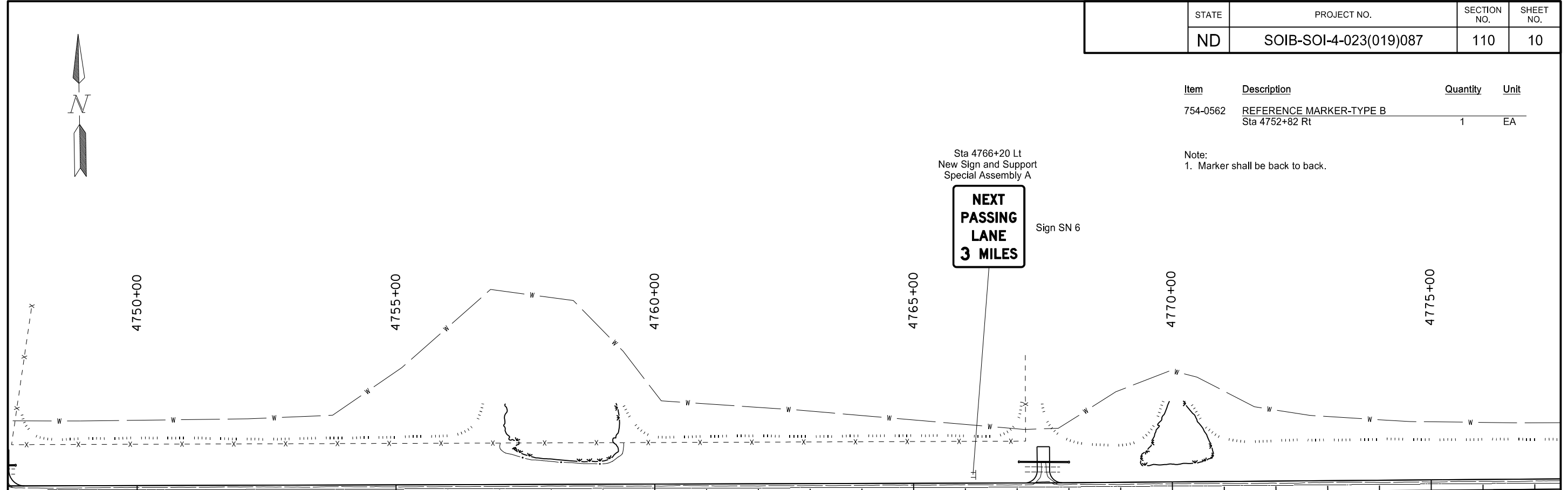
Item	Description	Quantity	Unit
754-0562	REFERENCE MARKER-TYPE B Sta 4752+82 Rt	1	EA

Note:  
1. Marker shall be back to back.

Sta 4766+20 Lt  
New Sign and Support  
Special Assembly A

**NEXT  
PASSING  
LANE  
3 MILES**

Sign SN 6



**00**  
Sta 4752+82 Rt  
Remove Sign and Support

**MILE  
00**  
Sta 4752+82 Rt  
New Sign and Support  
Refer to Std Drawing D-754-19  
See Note 1

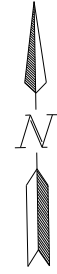
**DO  
NOT  
PASS** R4-1-24  
Sta 4776+20 Rt  
New Sign and Support  
Std Assembly No. 9

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Signing  
ND 23 - ND 28 to County Rd 13

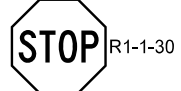


STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	12



Sta 4817+33 Lt  
New Sign and Support  
Reset Sign from Sta 4817+91 Lt  
Special Assembly 2E

**HWY 23** Reset  
**198<sup>TH</sup> STSW** Reset



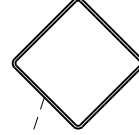
4815+00

Sta 4817+91 Lt  
Remove Sign and Support

**HWY 23** Remove and Reset  
**198<sup>TH</sup> STSW** Remove and Reset

4820+00

Sta 4820+61 Lt  
Remove Sign and Support



4825+00

Sta 4828+11 Lt  
Remove Sign and Support



4830+00

4835+00

4840+00



Sta 4817+34 Lt  
Remove Sign and Support

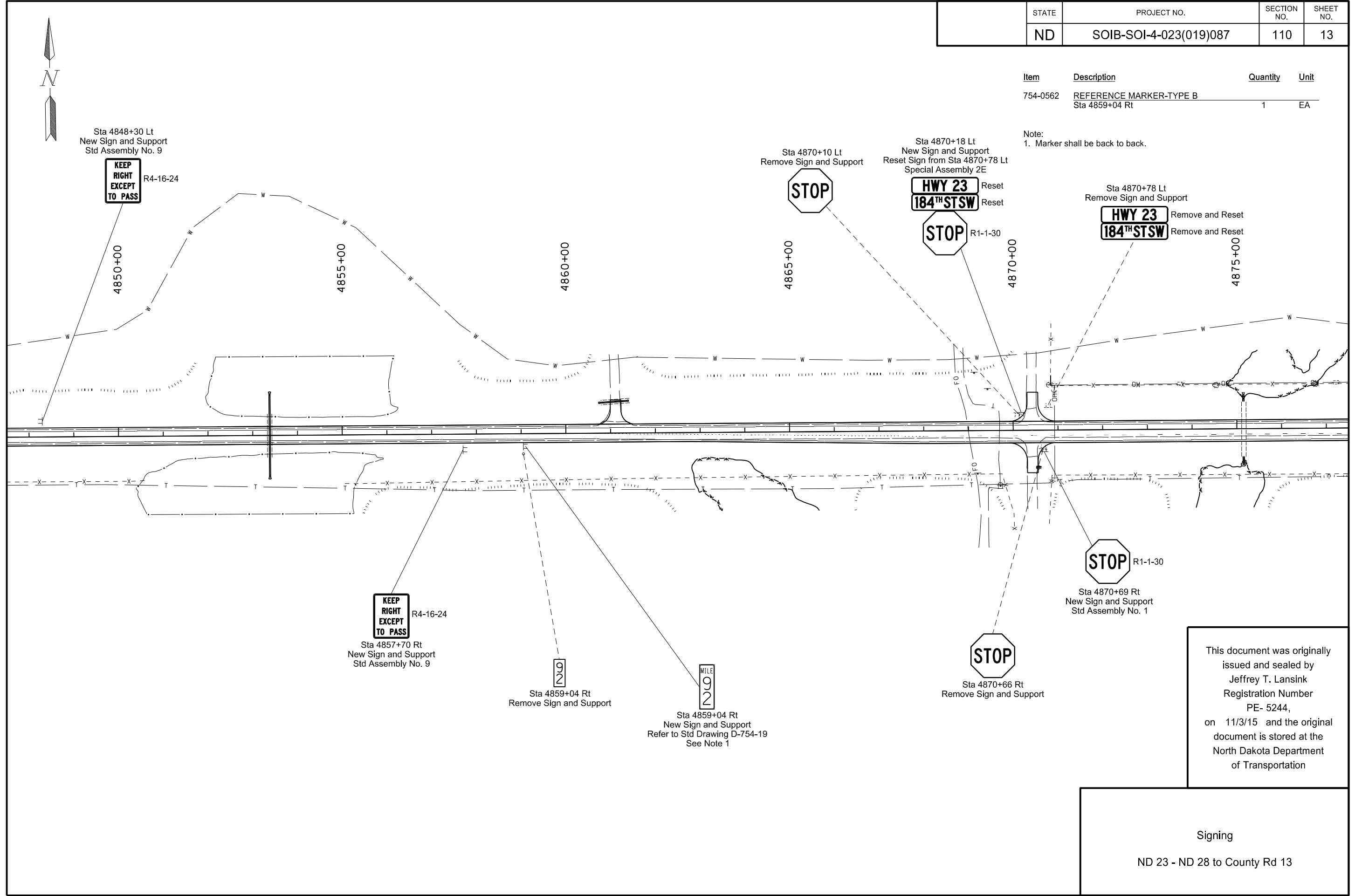
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Signing  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	13

Item	Description	Quantity	Unit
754-0562	REFERENCE MARKER-TYPE B Sta 4859+04 Rt	1	EA

Note:  
1. Marker shall be back to back.



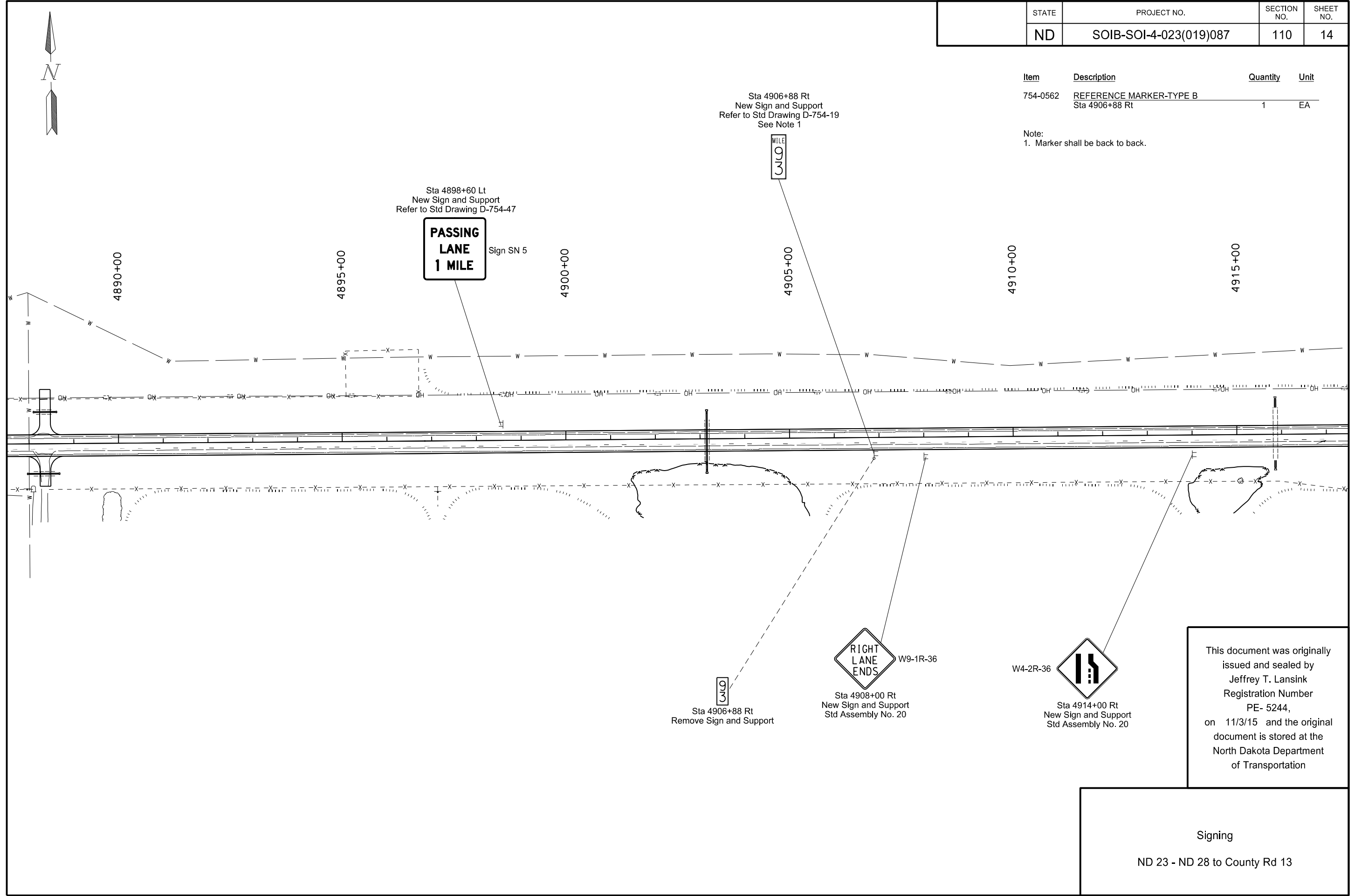
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Signing  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	14

Item	Description	Quantity	Unit
754-0562	REFERENCE MARKER-TYPE B Sta 4906+88 Rt	1	EA

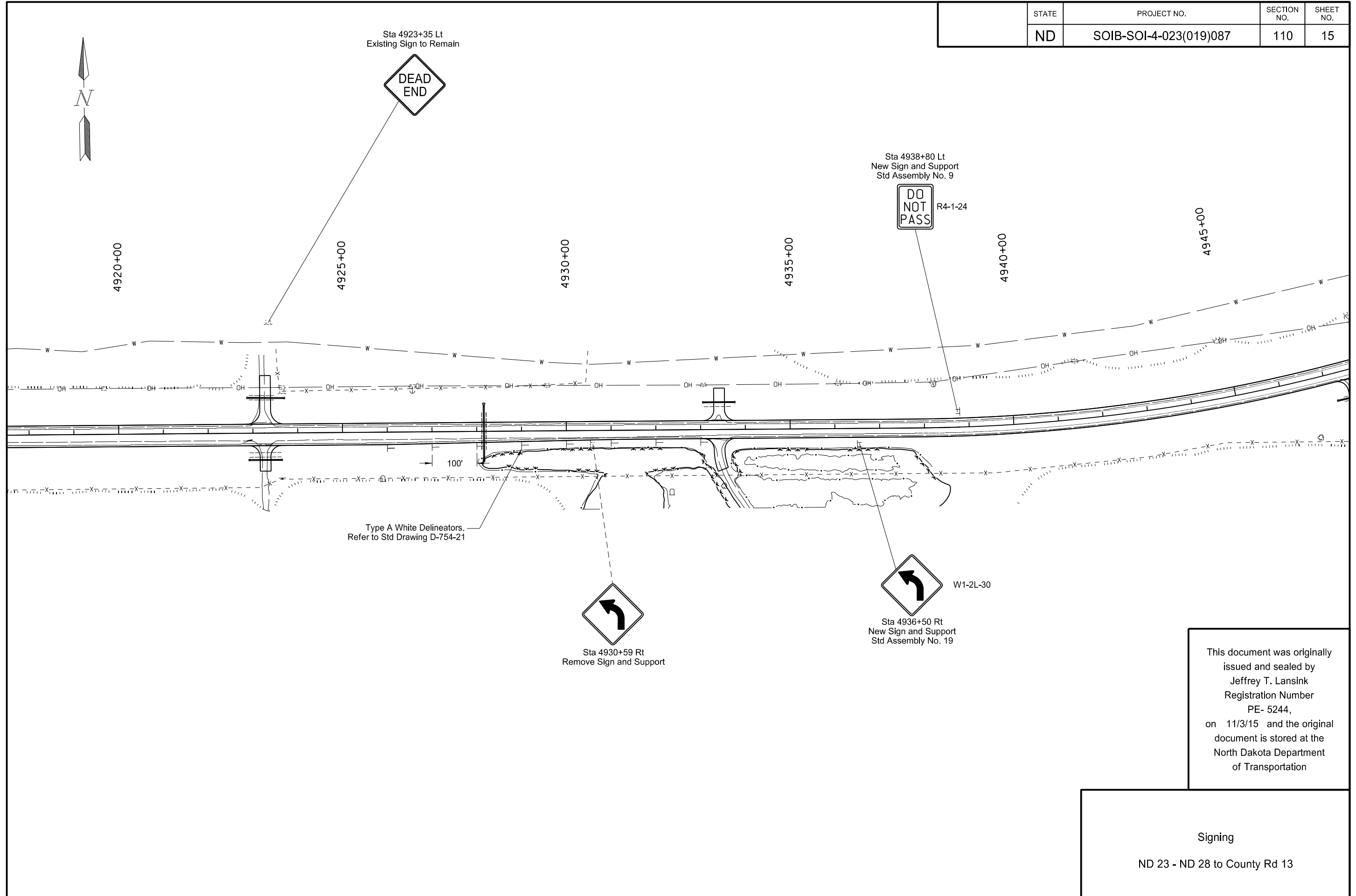
Note:  
1. Marker shall be back to back.



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Signing  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	15



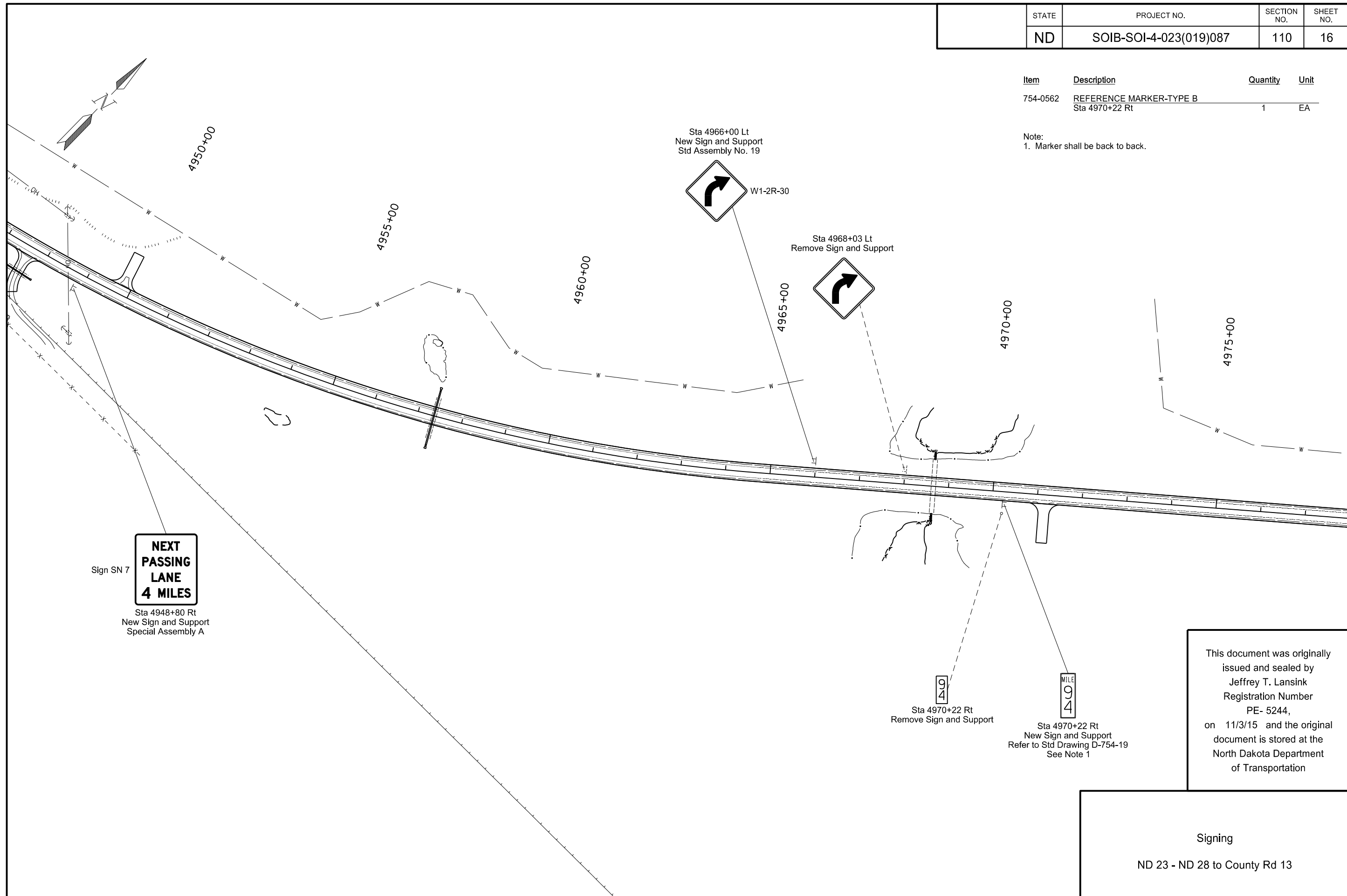
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Signing  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	16

Item	Description	Quantity	Unit
754-0562	REFERENCE MARKER-TYPE B Sta 4970+22 Rt	1	EA

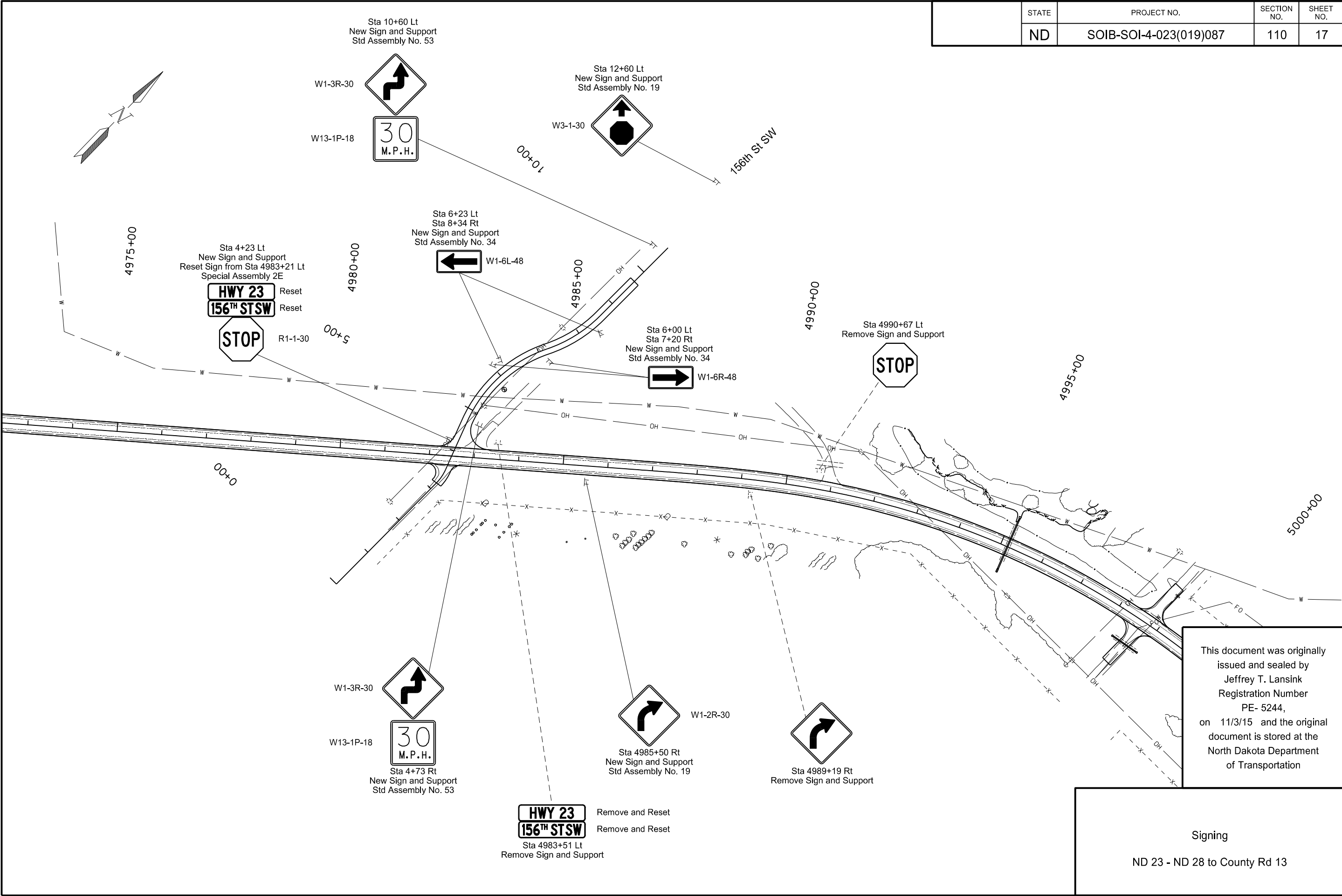
Note:  
1. Marker shall be back to back.



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Signing  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	17



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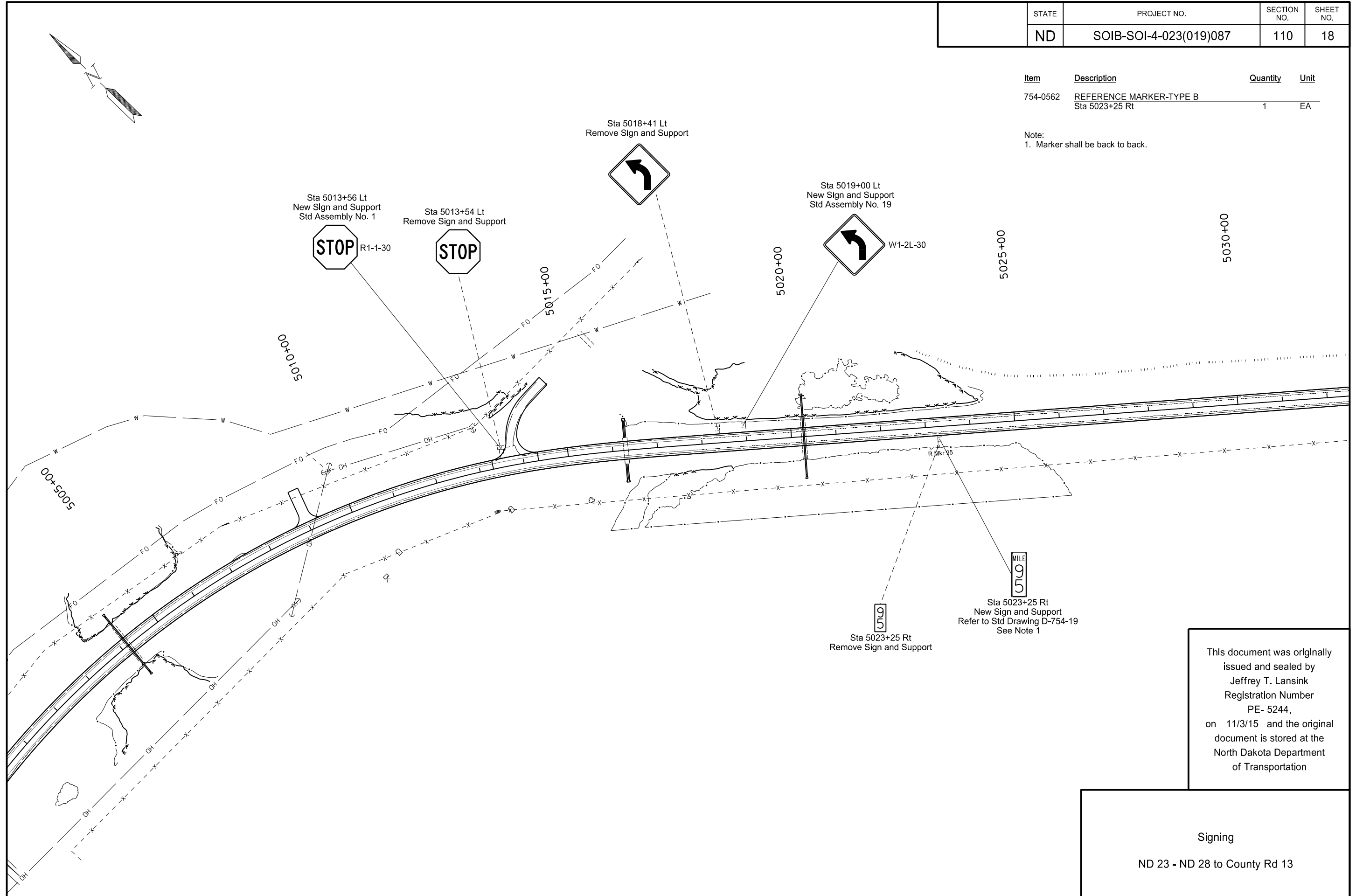
Signing  
ND 23 - ND 28 to County Rd 13



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	18

Item	Description	Quantity	Unit
754-0562	REFERENCE MARKER-TYPE B Sta 5023+25 Rt	1	EA

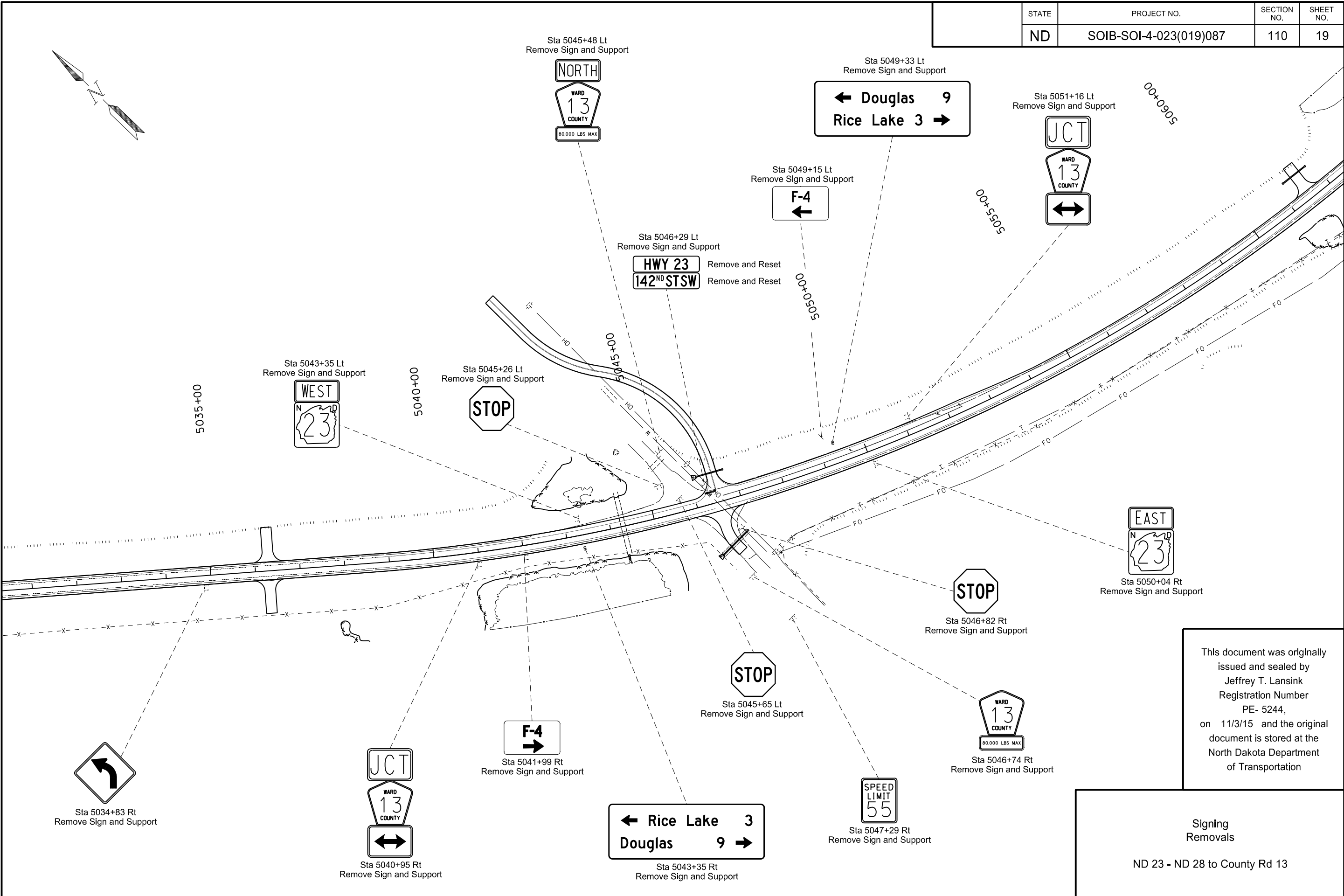
Note:  
1. Marker shall be back to back.



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Signing  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	19

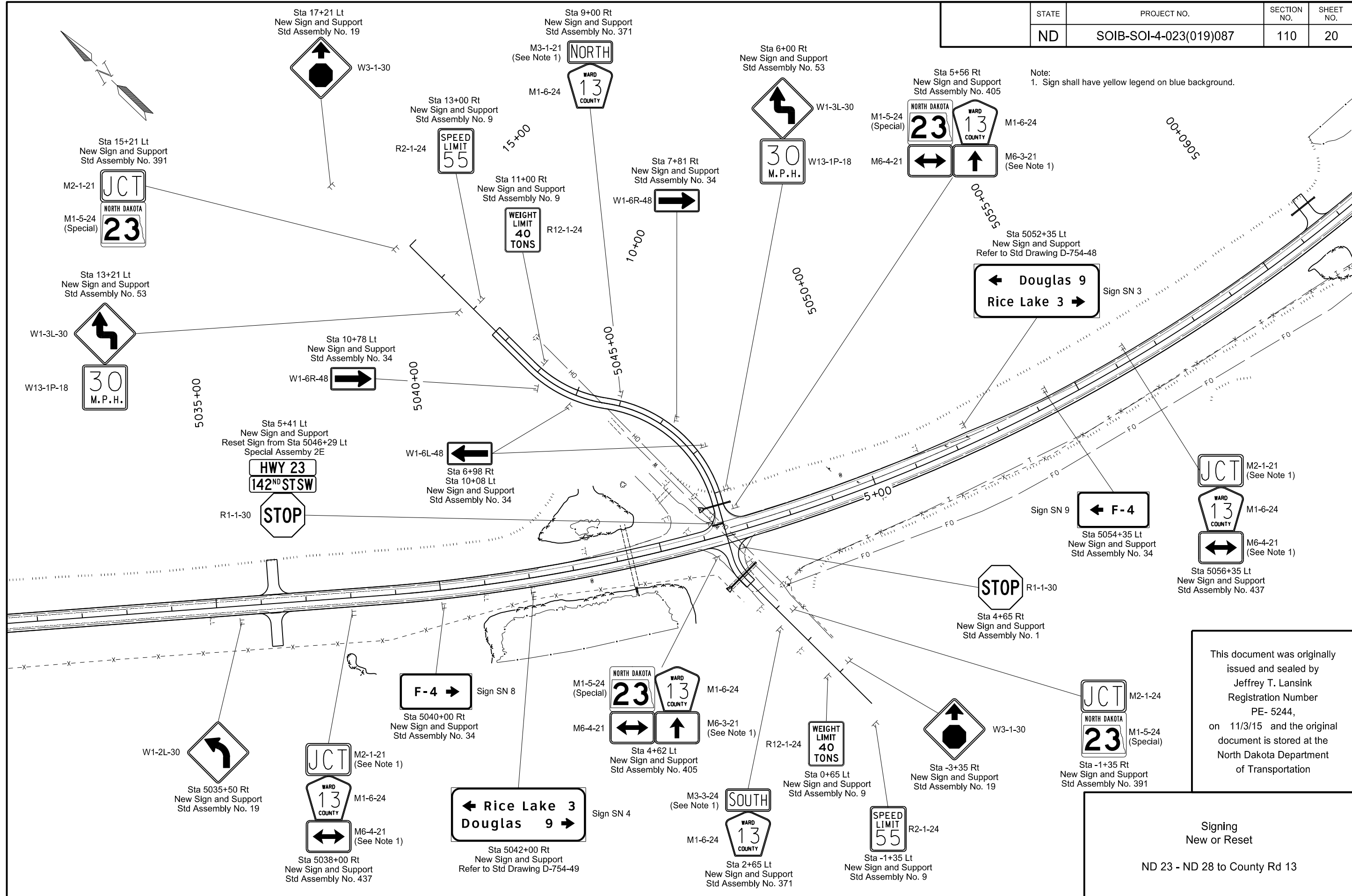


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Signing Removals  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	20

Note:  
1. Sign shall have yellow legend on blue background.



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Signing  
New or Reset  
ND 23 - ND 28 to County Rd 13



Sta 5058+35 Lt  
New Sign and Support  
Special Assembly A

**NEXT  
PASSING  
LANE  
4 MILES**

Sign SN 7

5060+00

5065+00

W1-2R-30



Sta 5067+50 Lt  
New Sign and Support  
Std Assembly No. 19

Sta 5068+74 Lt  
Remove Sign and Support



5070+00

End Project  
SOIB-SOI-4-023(019)087  
Sta 5071+00

5075+00

5080+00

5085+00



R4-1-24

Sta 5067+40 Rt  
New Sign and Support  
Std Assembly No. 9



Sta 5068+73 Rt  
Remove Sign and Support



Sta 5068+73 Rt  
New Sign and Support  
Refer to Std Drawing D-754-19  
See Note 1

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	21

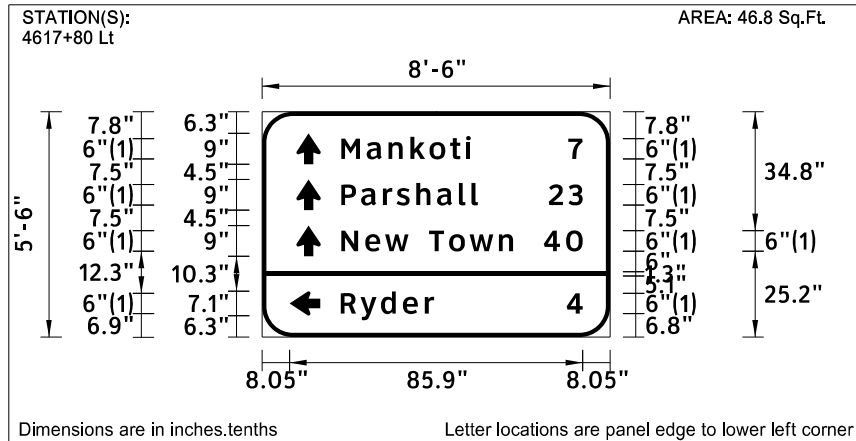
Item	Description	Quantity	Unit
754-0562	REFERENCE MARKER-TYPE B Sta 5068+73 Rt	1	EA

Note:  
1. Marker shall be back to back.

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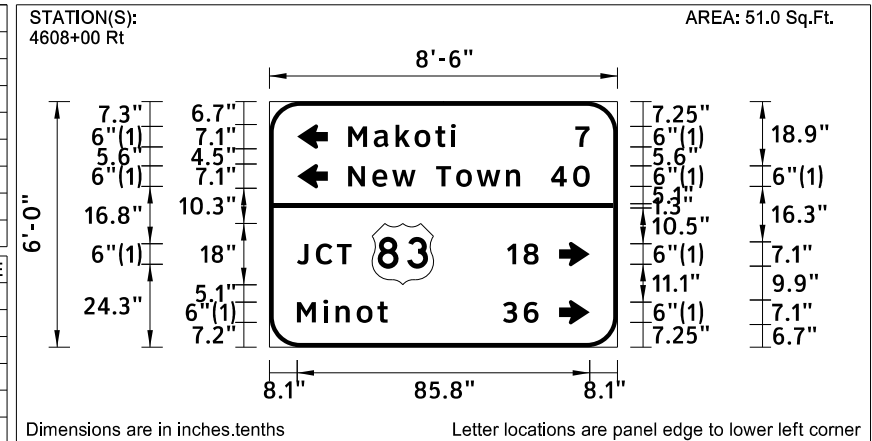
Signing  
ND 23 - ND 28 to County Rd 13

SIGN NUMBER	SN 1
WIDTH x HEIGHT	8'-6" x 5'-6"
BORDER WIDTH	1.25" (inset 0")
CORNER RADIUS	9"
MOUNTING	Ground
BACKGROUND	TYPE: Type IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: Type IV Reflective COLOR: White
SYMBOL	X Y WID HT ANGLE
ARDD	10.1 50.7 7.1 9 90
ARDD	10.1 37.2 7.1 9 90
ARDD	10.1 23.7 7.1 9 90
ARDD	8 6.3 7.1 9 180



LETTER POSITION (X)							LENGTH	SIZE	SERIES	
M	a	n	k	o	t	i	38	6/4.9	ClearviewHwy-5-W	
23.2	30.7	37	43.5	49.1	55.1	59.8				
7							4.2	6	ClearviewHwy-5-W	
89.7										
P	a	r	s	h	a	l	l	40.1	6/4.9	ClearviewHwy-5-W
23.2	29	35.4	39.4	45.2	51.3	57.7	61.4			
2	3							9.9	6	ClearviewHwy-5-W
84	89.8									
N	e	w	T	o	w	n	50.4	6/4.9	ClearviewHwy-5-W	
23.2	30.2	36	49	54.8	60.8	69.4				
4	0						11.4	6	ClearviewHwy-5-W	
82.6	89.1									
R	y	d	e	r			27.4	6/4.9	ClearviewHwy-5-W	
23	28.8	34.8	41.2	47.7						
4							4.7	6	ClearviewHwy-5-W	
89.2										

SIGN NUMBER	SN 2
WIDTH x HEIGHT	8'-6" x 6'-0"
BORDER WIDTH	1.25" (inset 0")
CORNER RADIUS	9"
MOUNTING	Ground
BACKGROUND	TYPE: Type IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: Type IV Reflective COLOR: White
SYMBOL	X Y WID HT ANGLE
ARDD	8.1 58.2 7.1 9 180
ARDD	8.1 46.6 7.1 9 180
ARDD	84.9 23.8 7.1 9 0
M1_4	30.1 18.3 18 18 0
ARDD	84.9 6.7 7.1 9 0

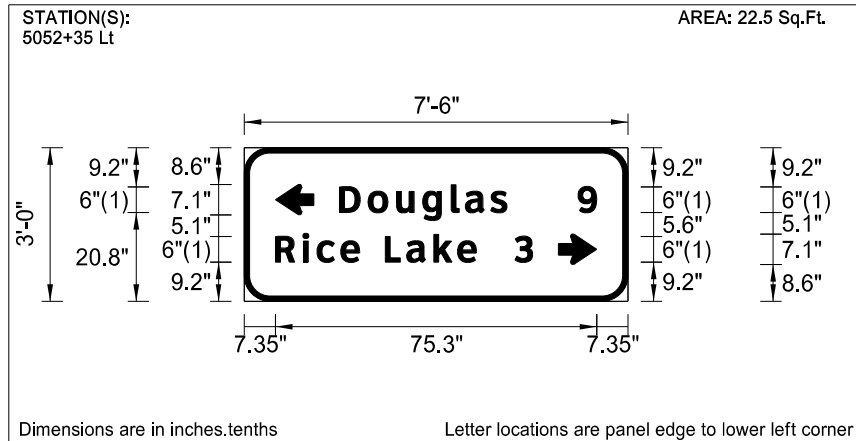


LETTER POSITION (X)							LENGTH	SIZE	SERIES
M	a	k	o	t	i	31.5	6/4.9	ClearviewHwy-5-W	
23.1	30.6	37	42.5	48.6	53.2				
7						4.2	6	ClearviewHwy-5-W	
89.7									
N	e	w	T	o	w	n	50.4	6/4.9	ClearviewHwy-5-W
23.1	30.1	35.9	48.9	54.7	60.7	69.3			
4	0						11.4	6	ClearviewHwy-5-W
82.5	89								
J	C	T					16	6	ClearviewHwy-5-W
8.1	13.6	19.8							
1	8						9.3	6	ClearviewHwy-5-W
69.6	74.5								
M	i	n	o	t			26.5	6/4.9	ClearviewHwy-5-W
8.1	15.8	19.4	25.6	31.7					
3	6						10.5	6	ClearviewHwy-5-W
68.4	74.5								

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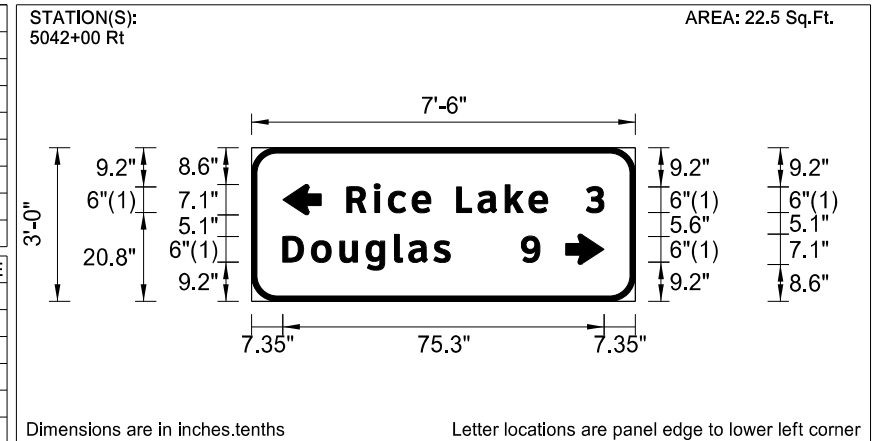
Sign Details  
ND 23 - ND 28 to County Rd 13

SIGN NUMBER	SN 3
WIDTH x HEIGHT	7'-6" x 3'-0"
BORDER WIDTH	1.25" (inset 0")
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Type IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: Type IV Reflective COLOR: White
SYMBOL	X Y WID HT ANGLE
ARDD	7.4 20.3 7.1 9 180
ARDD	73.6 8.6 7.1 9 0



LETTER POSITION (X)										LENGTH	SIZE	SERIES
D	o	u	g	l	a	s				39.2	6/4.9	ClearviewHwy-5-W
22.4	29.1	35.7	41.9	48.5	51.9	57.8						
9										4.4	6	ClearviewHwy-5-W
78.3												
R	i	c	e	L	a	k	e			47.1	6/4.9	ClearviewHwy-5-W
7.4	13.8	17.1	22.6	33.1	38.1	44.5	50					
3										4.2	6	ClearviewHwy-5-W
63.5												

SIGN NUMBER	SN 4
WIDTH x HEIGHT	7'-6" x 3'-0"
BORDER WIDTH	1.25" (inset 0")
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Type IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: Type IV Reflective COLOR: White
SYMBOL	X Y WID HT ANGLE
ARDD	7.4 20.3 7.1 9 180
ARDD	73.6 8.6 7.1 9 0



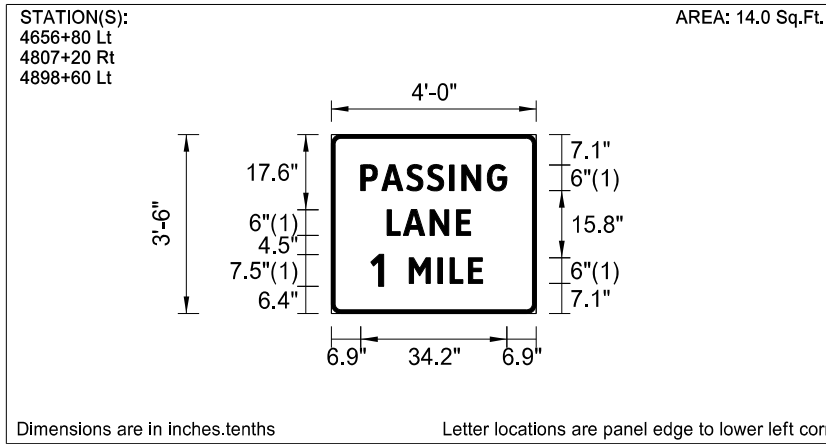
LETTER POSITION (X)										LENGTH	SIZE	SERIES
R	i	c	e	L	a	k	e			47.1	6/4.9	ClearviewHwy-5-W
22.4	28.8	32.1	37.7	48.1	53.1	59.5	65					
3										4.2	6	ClearviewHwy-5-W
78.5												
D	o	u	g	l	a	s				39.2	6/4.9	ClearviewHwy-5-W
7.4	14.1	20.7	26.9	33.5	36.9	42.8						
9										4.4	6	ClearviewHwy-5-W
63.3												

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Sign Details  
ND 23 - ND 28 to County Rd 13

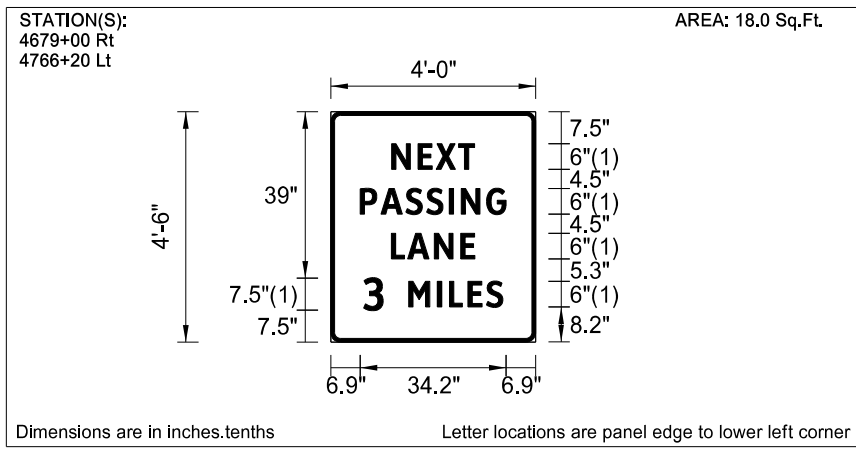
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	24

SIGN NUMBER	SN 5
WIDTH x HEIGHT	4'-0" x 3'-6"
BORDER WIDTH	0.88" (inset 0")
CORNER RADIUS	2.25"
MOUNTING	Ground
BACKGROUND	TYPE: Type IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: Type IV Reflective COLOR: White
SYMBOL	X Y WID HT ANGLE



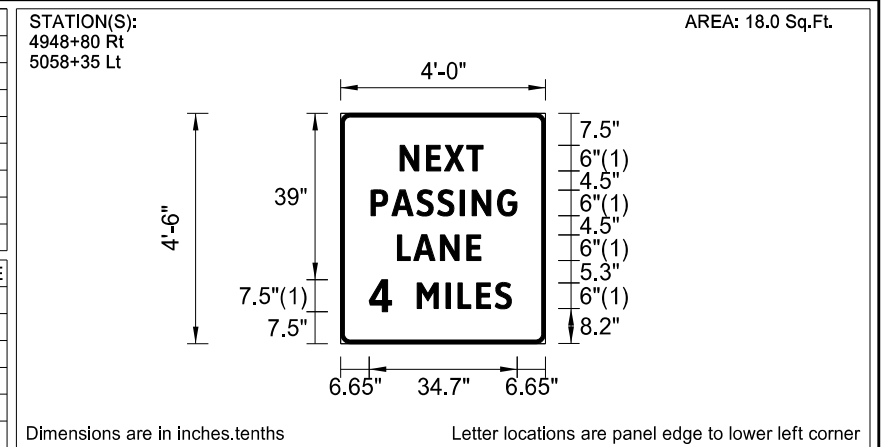
LETTER POSITION (X)							LENGTH	SIZE	SERIES
P	A	S	S	I	N	G	34.2	6	ClearviewHwy-3-W
6.9	11.8	17.6	22.5	27.7	30.6	36.5			
L	A	N	E				19.6	6	ClearviewHwy-3-W
13.1	16.9	23.1	29.3						
1							3	7.5	ClearviewHwy-3-W
9.3									
M	I	L	E				17.2	6	ClearviewHwy-3-W
18.2	25	27.8	32.1						

SIGN NUMBER	SN 6
WIDTH x HEIGHT	4'-0" x 4'-6"
BORDER WIDTH	0.88" (inset 0")
CORNER RADIUS	2.25"
MOUNTING	Ground
BACKGROUND	TYPE: Type IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: Type IV Reflective COLOR: White
SYMBOL	X Y WID HT ANGLE



LETTER POSITION (X)							LENGTH	SIZE	SERIES
N	E	X	T				19.5	6	ClearviewHwy-3-W
14.3	20.5	24.7	29.9						
P	A	S	S	I	N	G	34.2	6	ClearviewHwy-3-W
6.9	11.8	17.6	22.5	27.7	30.6	36.5			
L	A	N	E				19.6	6	ClearviewHwy-3-W
14.2	18	24.3	30.5						
3							4.6	7.5	ClearviewHwy-3-W
7.7									
M	I	L	E	S			22.1	6	ClearviewHwy-3-W
18.3	25	27.8	32.2	36.5					

SIGN NUMBER	SN 7
WIDTH x HEIGHT	4'-0" x 4'-6"
BORDER WIDTH	0.88" (inset 0")
CORNER RADIUS	2.25"
MOUNTING	Ground
BACKGROUND	TYPE: Type IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: Type IV Reflective COLOR: White
SYMBOL	X Y WID HT ANGLE

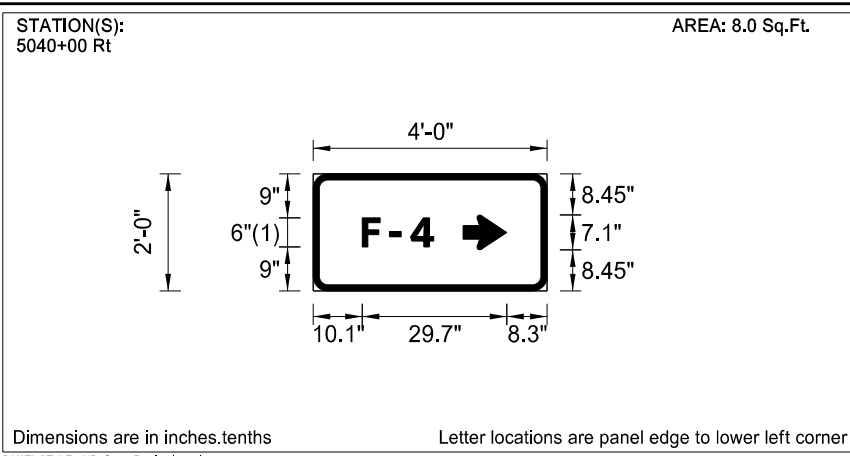


LETTER POSITION (X)							LENGTH	SIZE	SERIES
N	E	X	T				19.5	6	ClearviewHwy-3-W
13.9	20.1	24.3	29.6						
P	A	S	S	I	N	G	34.2	6	ClearviewHwy-3-W
7.1	12	17.8	22.7	28	30.8	36.8			
L	A	N	E				19.6	6	ClearviewHwy-3-W
13.3	17.1	23.4	29.6						
4							5.3	7.5	ClearviewHwy-3-W
6.7									
M	I	L	E	S			22.1	6	ClearviewHwy-3-W
18	24.7	27.5	31.8	36.2					

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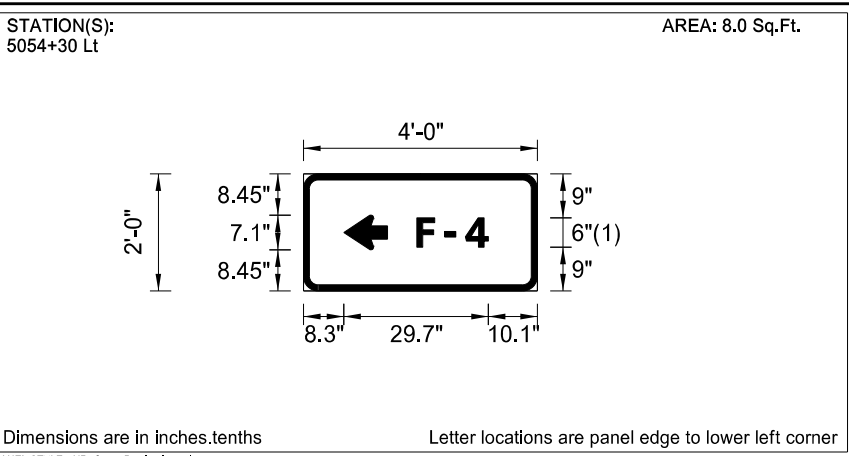
Sign Details  
ND 23 - ND 28 to County Rd 13

SIGN NUMBER	SN 8
WIDTH x HEIGHT	4'-0" x 2'-0"
BORDER WIDTH	1.25" (inset 0")
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Type IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: Type IV Reflective COLOR: White
SYMBOL	X Y WID HT ANGLE
ARDD	30.7 8.4 7.1 9 0



LETTER POSITION (X)							LENGTH	SIZE	SERIES
F	-	4					14.7	6	ClearviewHwy-5-W
10.1	15.7	20							

SIGN NUMBER	SN 9
WIDTH x HEIGHT	4'-0" x 2'-0"
BORDER WIDTH	1.25" (inset 0")
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Type IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: Type IV Reflective COLOR: White
SYMBOL	X Y WID HT ANGLE
ARDD	8.3 8.4 7.1 9 180



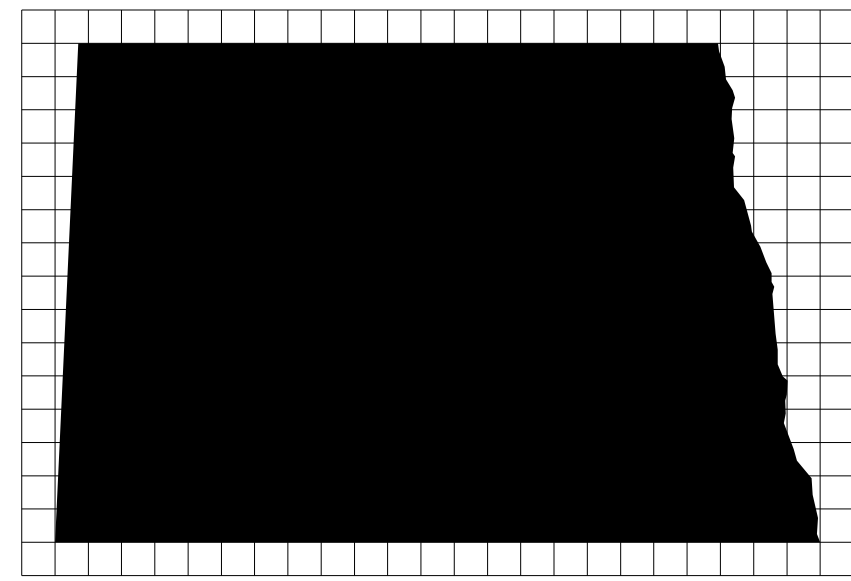
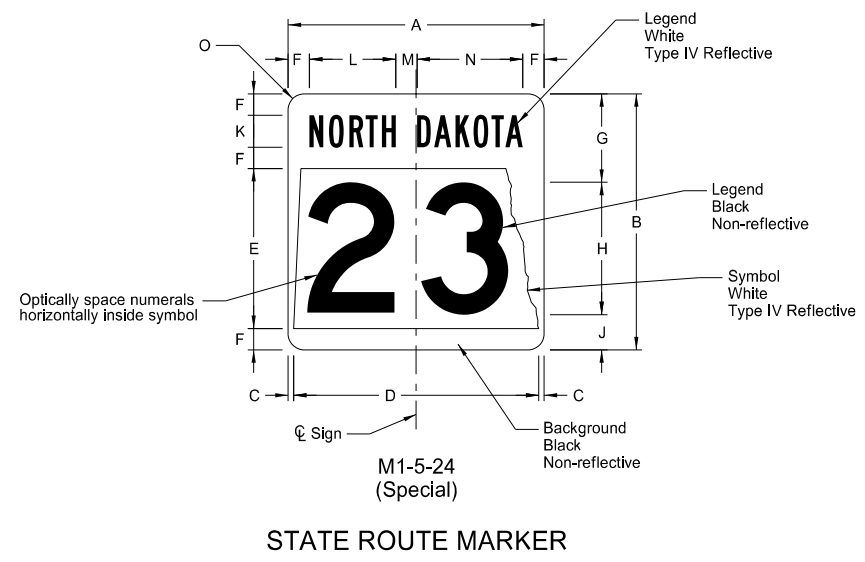
LETTER POSITION (X)							LENGTH	SIZE	SERIES
F	-	4					14.7	6	ClearviewHwy-5-W
23.3	28.9	33.2							

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Sign Details  
ND 23 - ND 28 to County Rd 13



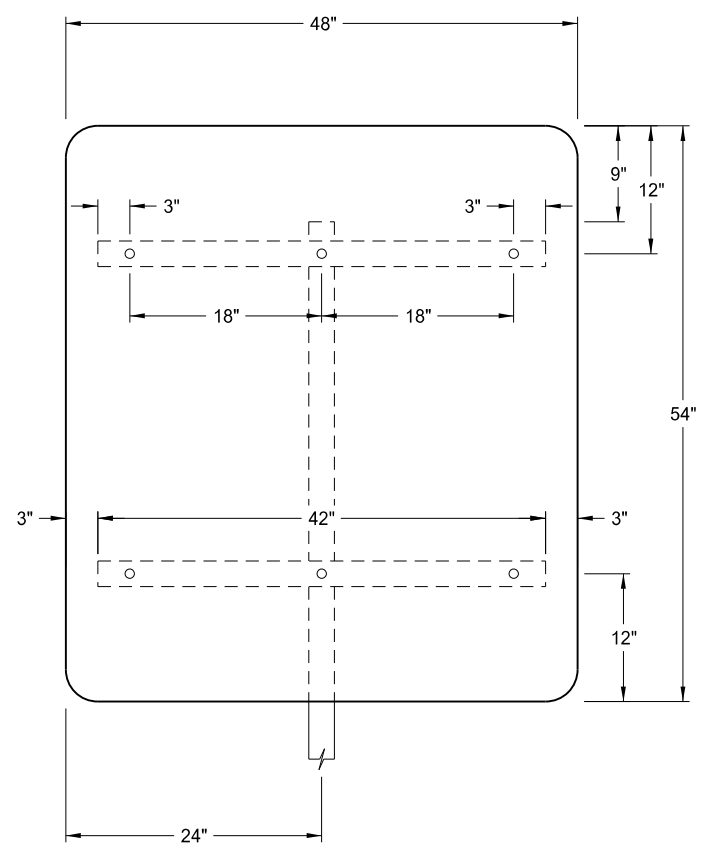
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	110	26



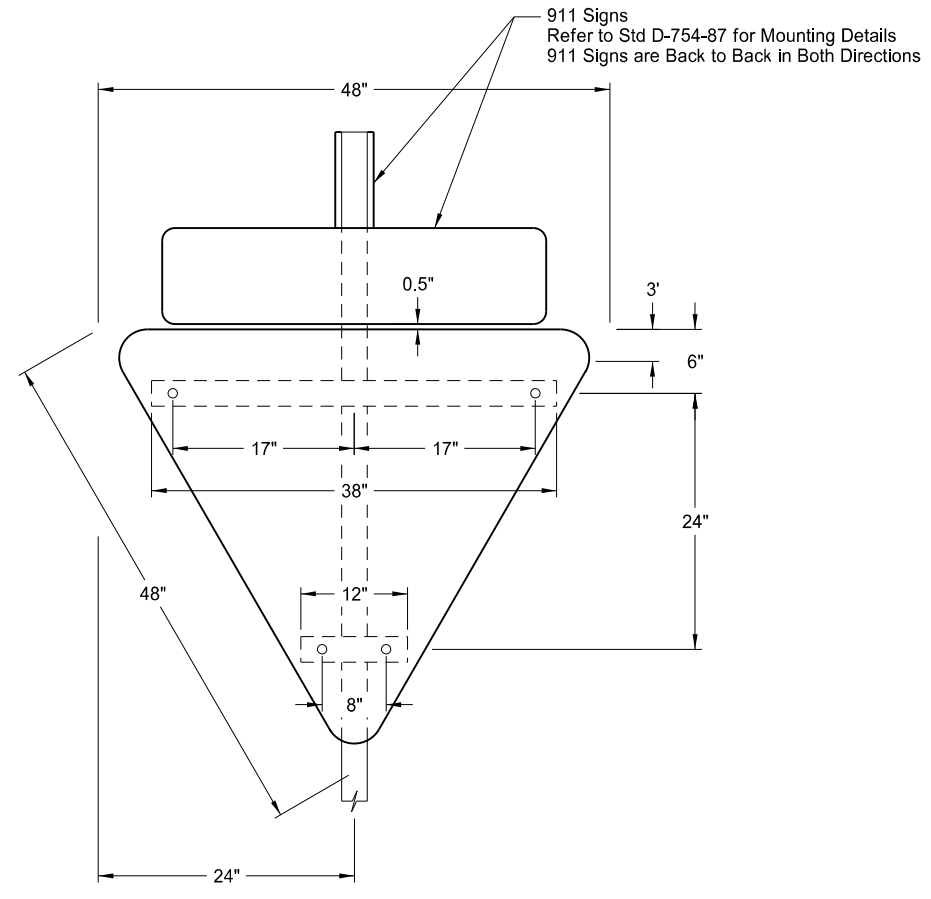
Note: North Dakota symbol graphics file can be obtained from the Design Division of North Dakota Department of Transportation.

SIGN	DIMENSION (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	O
2 digits	24	24	0.5	23	15	2	8.5	12 D*	3.5	3 B	8.1	2	9.9	1.5

\* Reduce numeral spacing by 25%



Special Assembly A

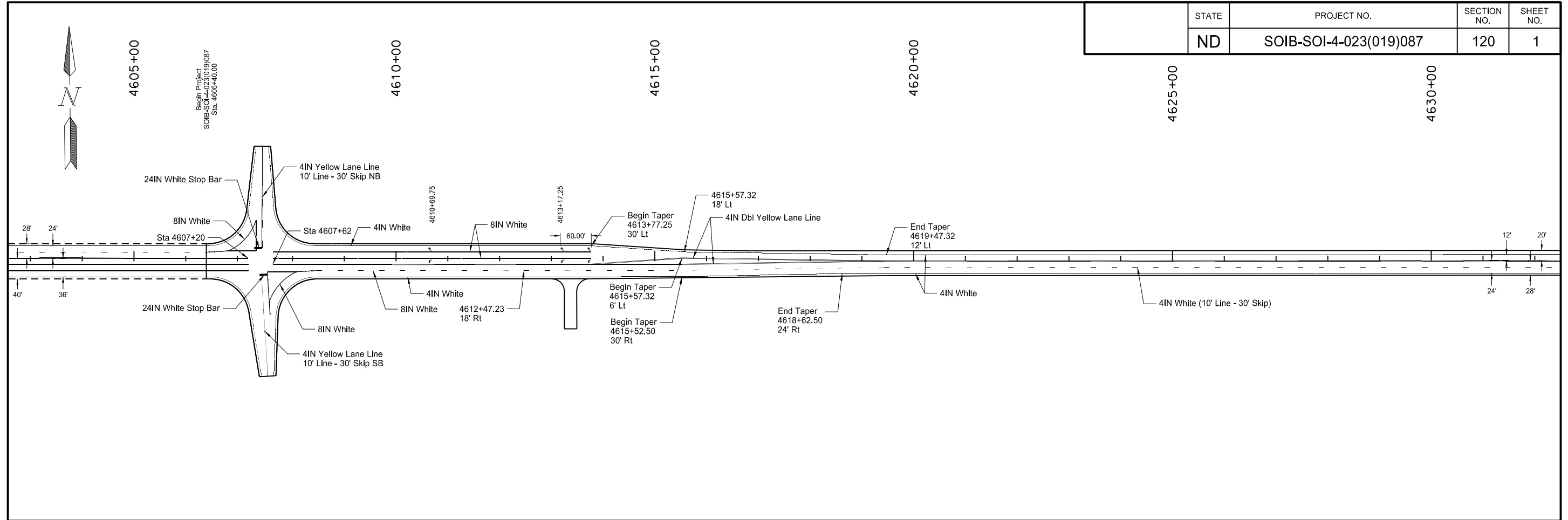


Special Assembly B

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Sign Details  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	120	1

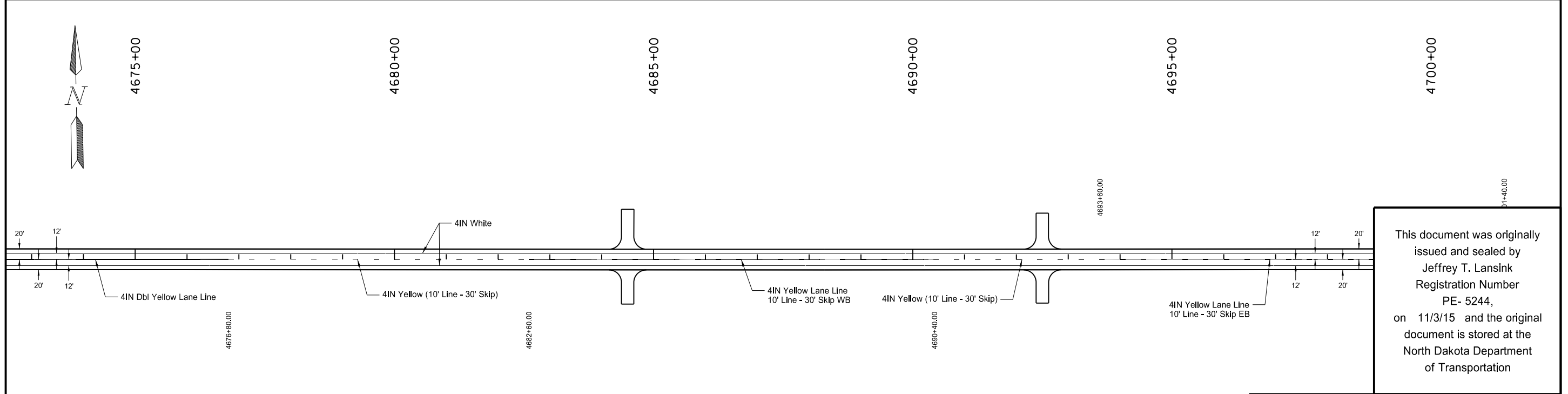
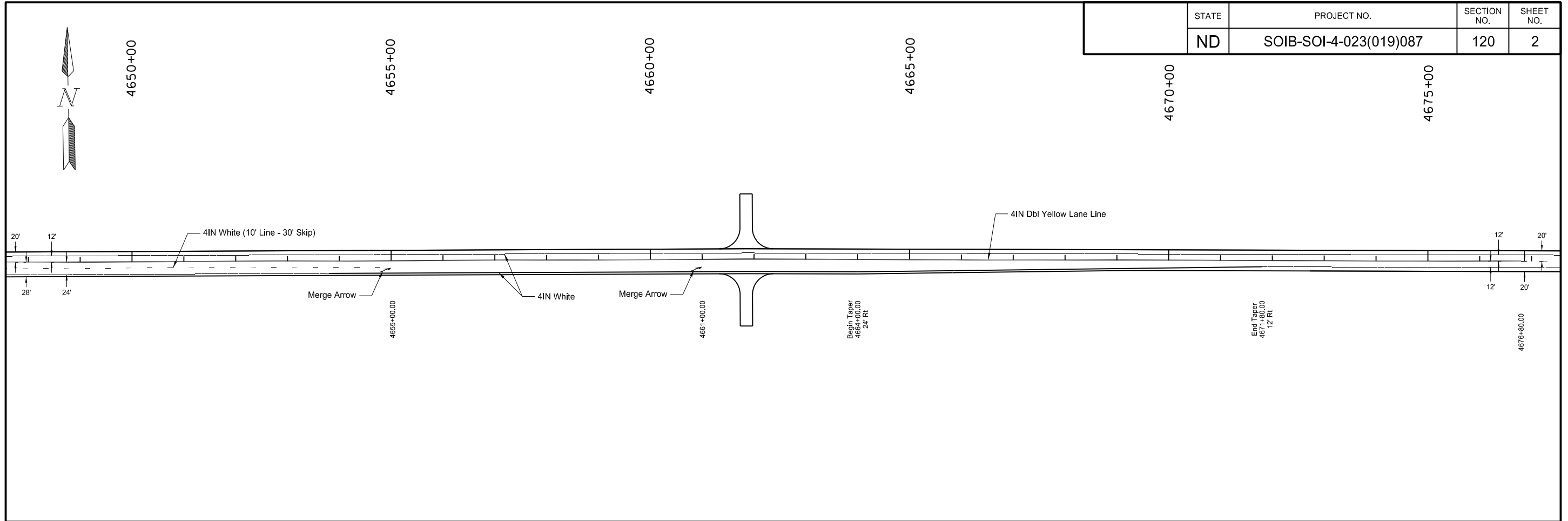


Item	Description	Quantity	Unit
762-0112	EPOXY PVMT MK MESSAGE Sta 4606+40 to 4650+00	96	SF
762-0113	EPOXY PVMT MK 4 IN LINE Sta 4606+40 to 4650+00 - White	10,627	LF
	Sta 4606+40 to 4650+00 - Yellow	11,744	LF
762-0115	EPOXY PVMT MK 8 IN LINE Sta 4606+40 to 4650+00 - White	2,167	LF
762-0117	EPOXY VMT MK 24 IN LINE Sta 4606+40 to 4650+00 - White	24	LF

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Pavement Marking Layout  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	120	2

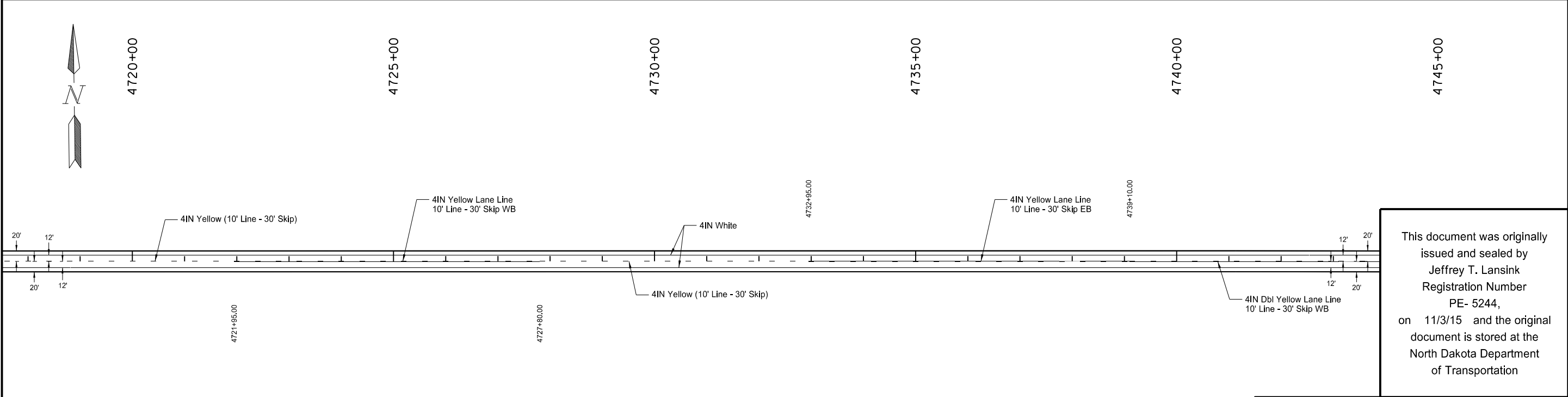
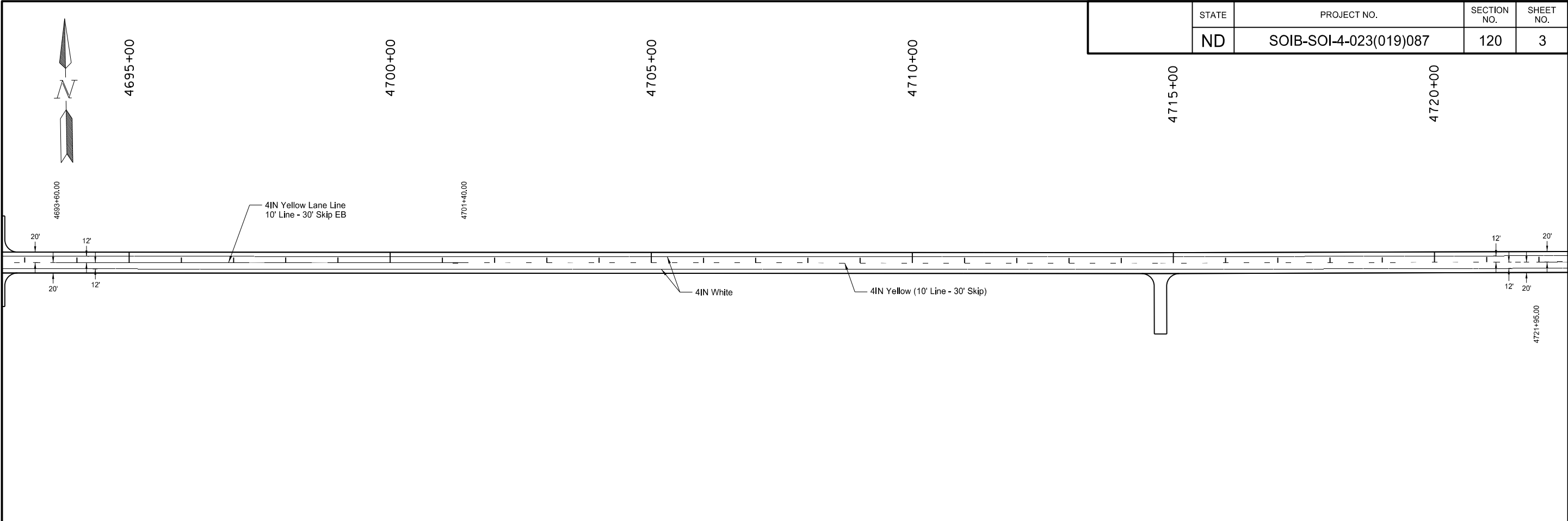


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Item	Description	Quantity	Unit
762-0112	EPOXY PVMT MK MESSAGE Sta 4650+00 to 4695+00	82	SF
762-0113	EPOXY PVMT MK 4 IN LINE Sta 4650+00 to 4695+00 - White	9,125	LF
	Sta 4650+00 to 4695+00 - Yellow	6,735	LF

Pavement Marking Layout  
ND 23 - ND 28 to County Rd 13

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-SOI-4-023(019)087	120	3

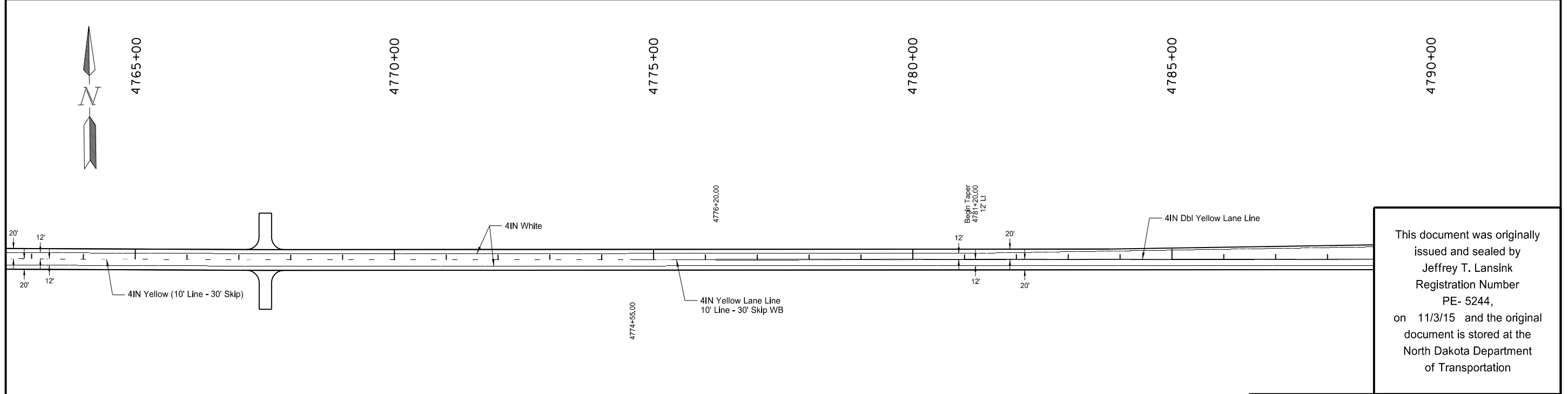
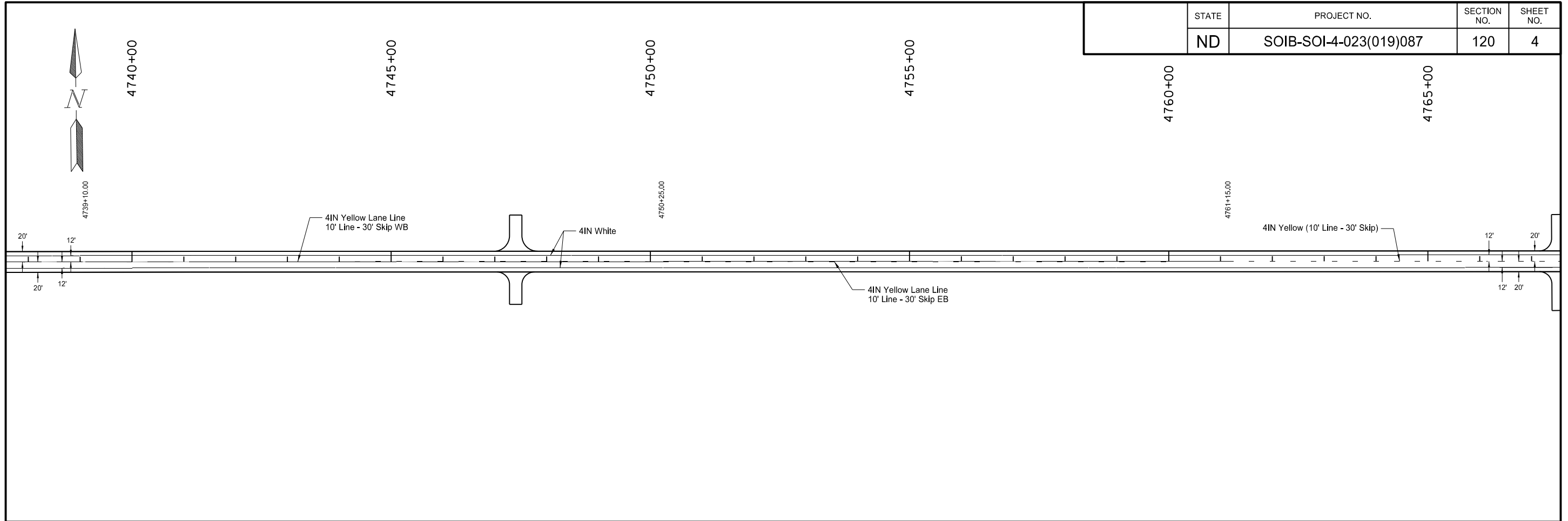


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Pavement Marking Layout  
ND 23 - ND 28 to County Rd 13

Item	Description	Quantity	Unit
762-0113	EPOXY PVMT MK 4 IN LINE		
	Sta 4695+00 to 4740+00 - White	9,000	LF
	Sta 4695+00 to 4740+00 - Yellow	3,056	LF

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-SOI-4-023(019)087	120	4

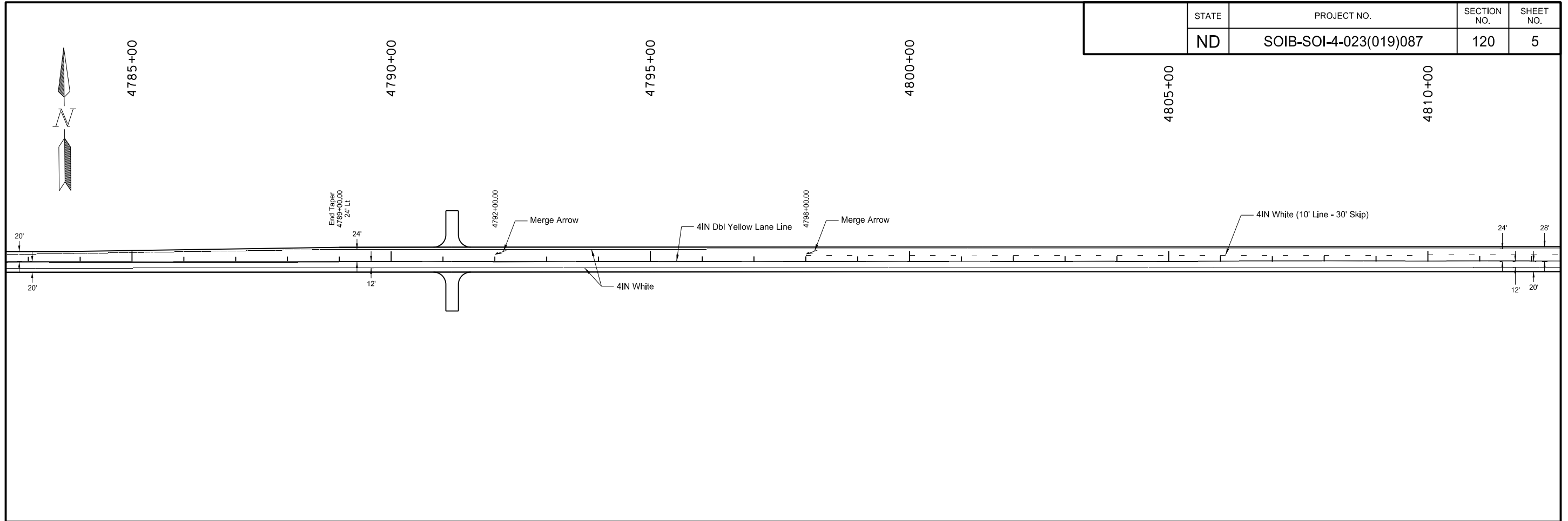


This document was originally issued and sealed by Jeffrey T. Lansink Registration Number PE- 5244, on 11/3/15 and the original document is stored at the North Dakota Department of Transportation

Item	Description	Quantity	Unit
762-0113	EPOXY PVMT MK 4 IN LINE		
	Sta 4740+00 to 4785+00 - White	9,000	LF
	Sta 4740+00 to 4785+00 - Yellow	4,945	LF

Pavement Marking Layout  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	120	5

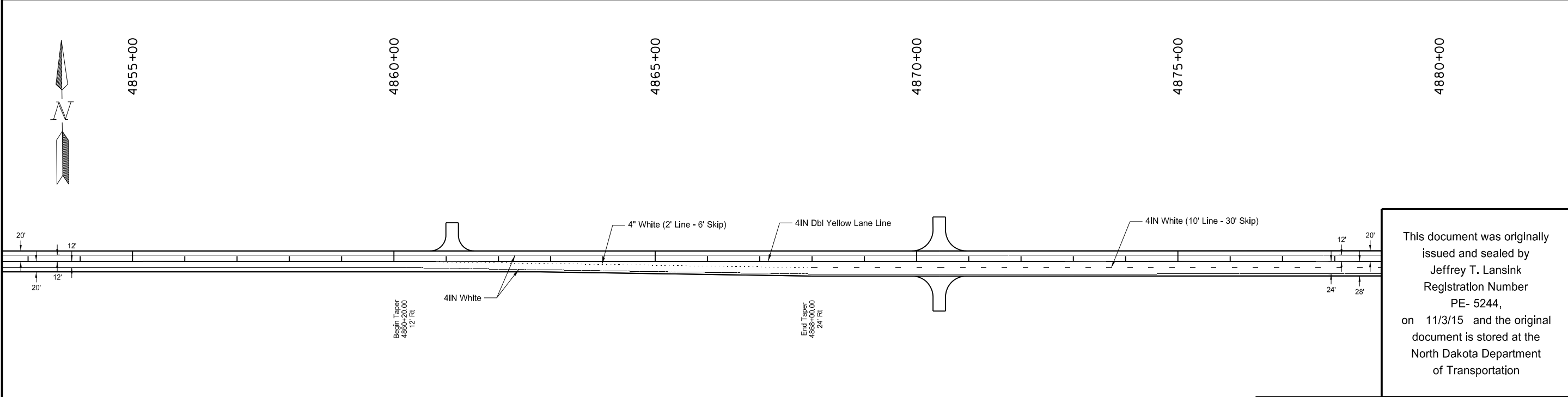
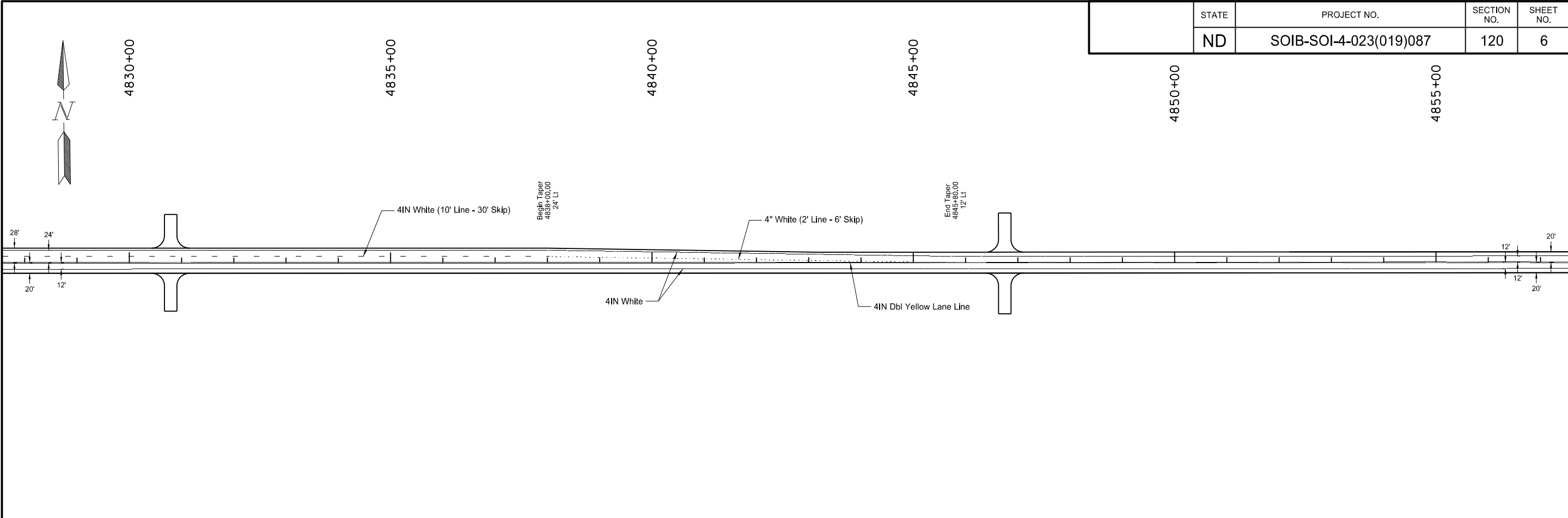


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Item	Description	Quantity	Unit
762-0112	EPOXY PVMT MK MESSAGE Sta 4785+00 to 4830+00	82	SF
762-0113	EPOXY PVMT MK 4 IN LINE Sta 4785+00 to 4830+00 - White	9,800	LF
	Sta 4785+00 to 4830+00 - Yellow	9,000	LF

Pavement Marking Layout  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	120	6

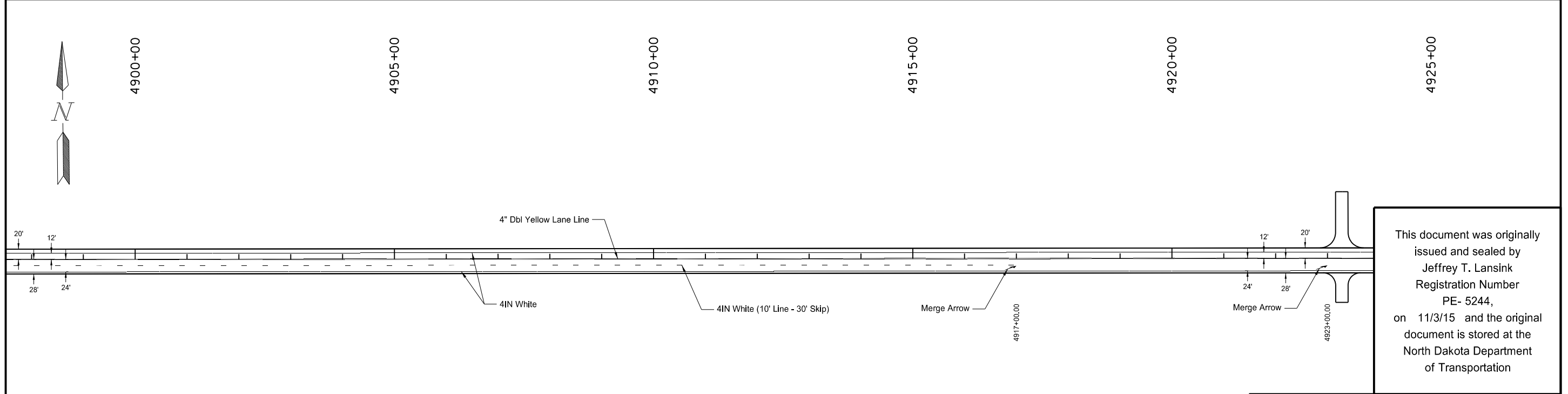
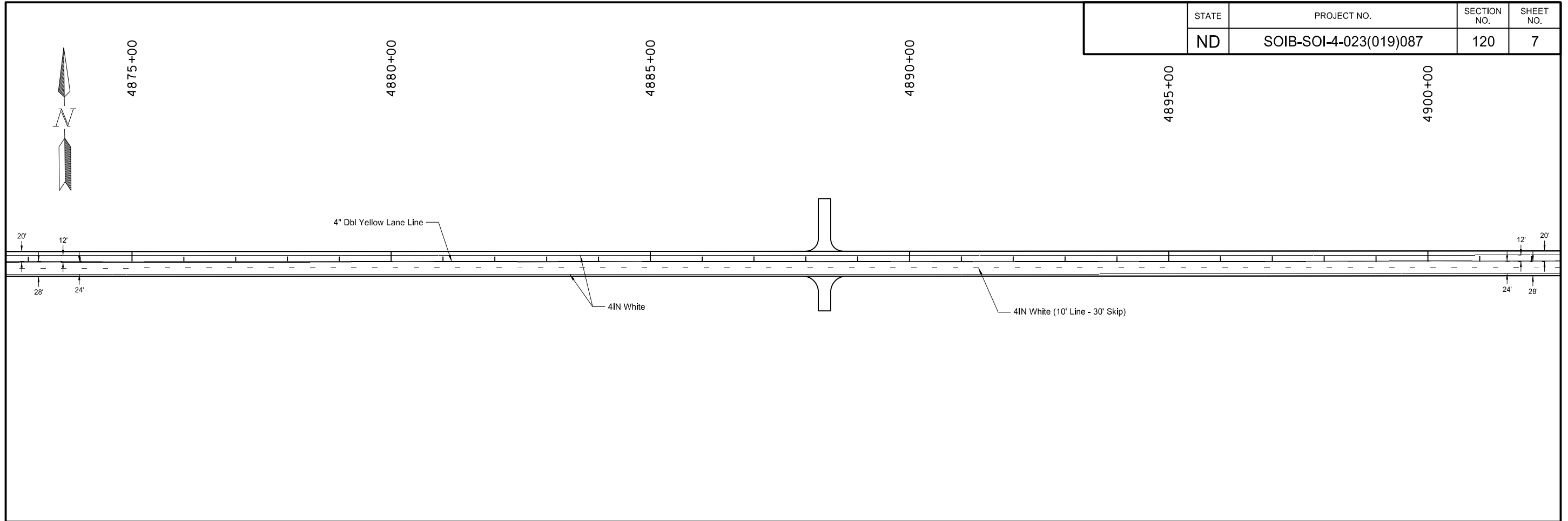


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Pavement Marking Layout  
ND 23 - ND 28 to County Rd 13

Item	Description	Quantity	Unit
762-0113	EPOXY PVMT MK 4 IN LINE		
	Sta 4830+00 to 4875+00 - White	9,765	LF
	Sta 4830+00 to 4875+00 - Yellow	9,000	LF

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-SOI-4-023(019)087	120	7



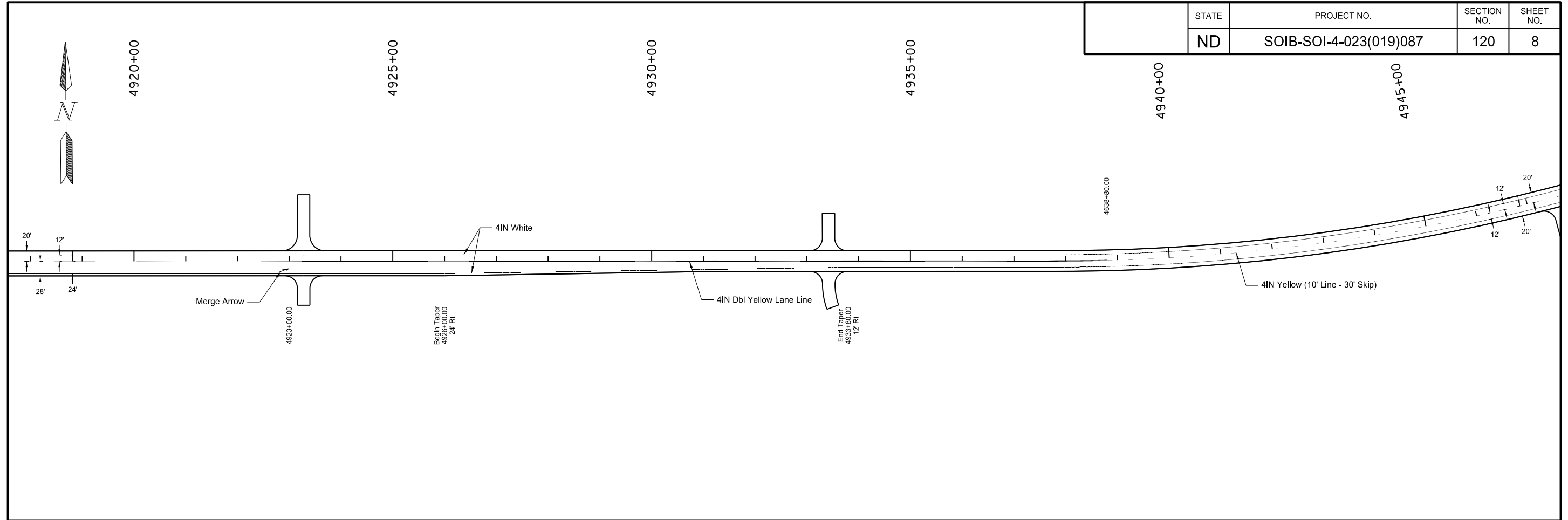
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Pavement Marking Layout  
ND 23 - ND 28 to County Rd 13

Item	Description	Quantity	Unit
762-0112	EPOXY PVMT MK MESSAGE Sta 4875+00 to 4920+00	41	SF
762-0113	EPOXY PVMT MK 4 IN LINE Sta 4875+00 to 4920+00 - White Sta 4875+00 to 4920+00 - Yellow	10,050 9,000	LF LF



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	120	8

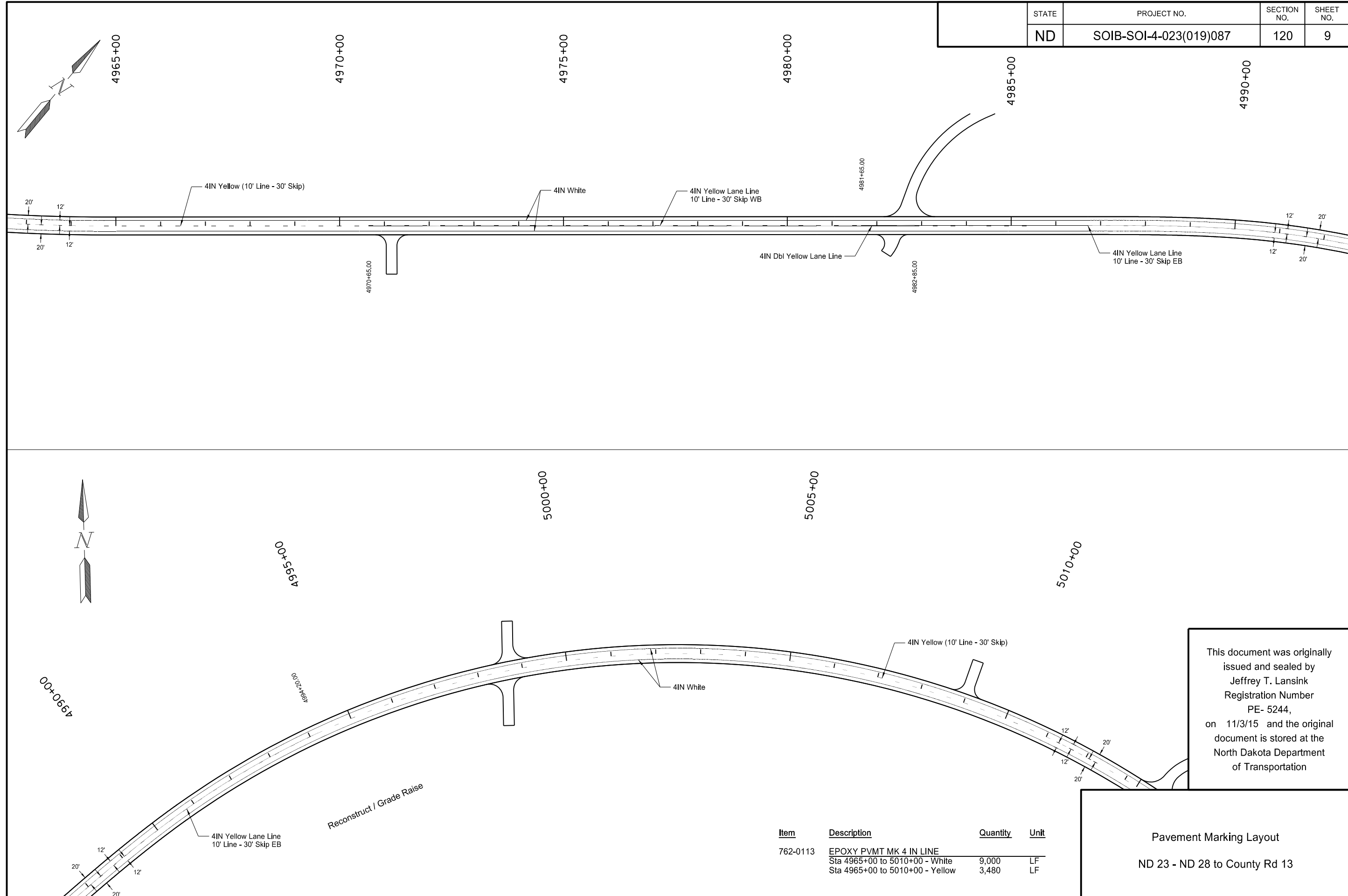


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Pavement Marking Layout  
ND 23 - ND 28 to County Rd 13

Item	Description	Quantity	Unit
762-0112	EPOXY PVMT MK MESSAGE Sta 4920+00 to 4965+00	41	SF
762-0113	EPOXY PVMT MK 4 IN LINE Sta 4920+00 to 4965+00 - White	9,000	LF
	Sta 4920+00 to 4965+00 - Yellow	4,415	LF

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	120	9

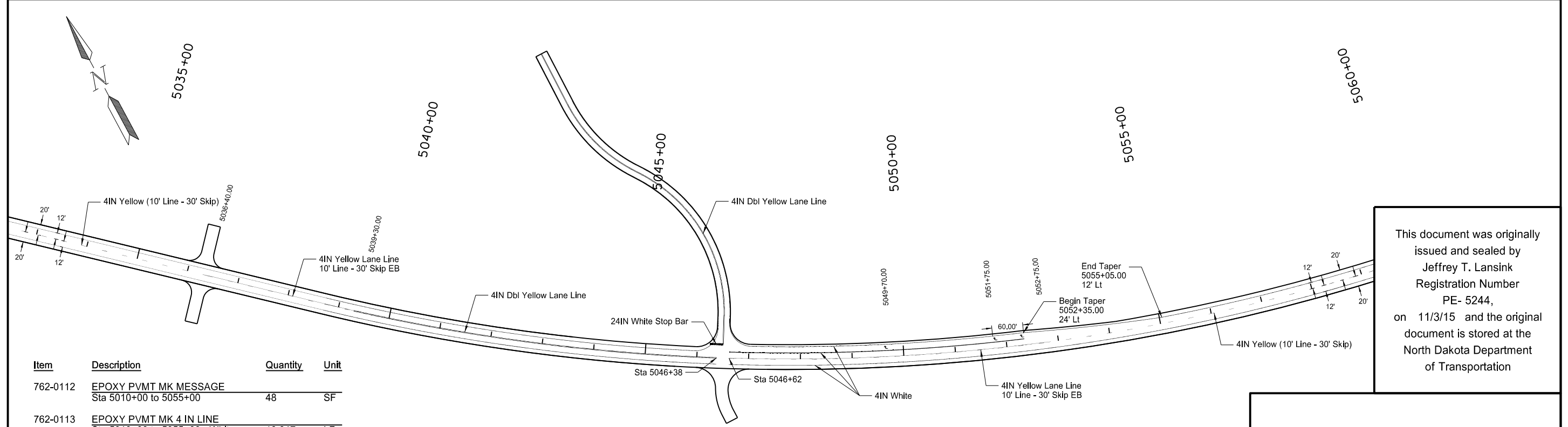
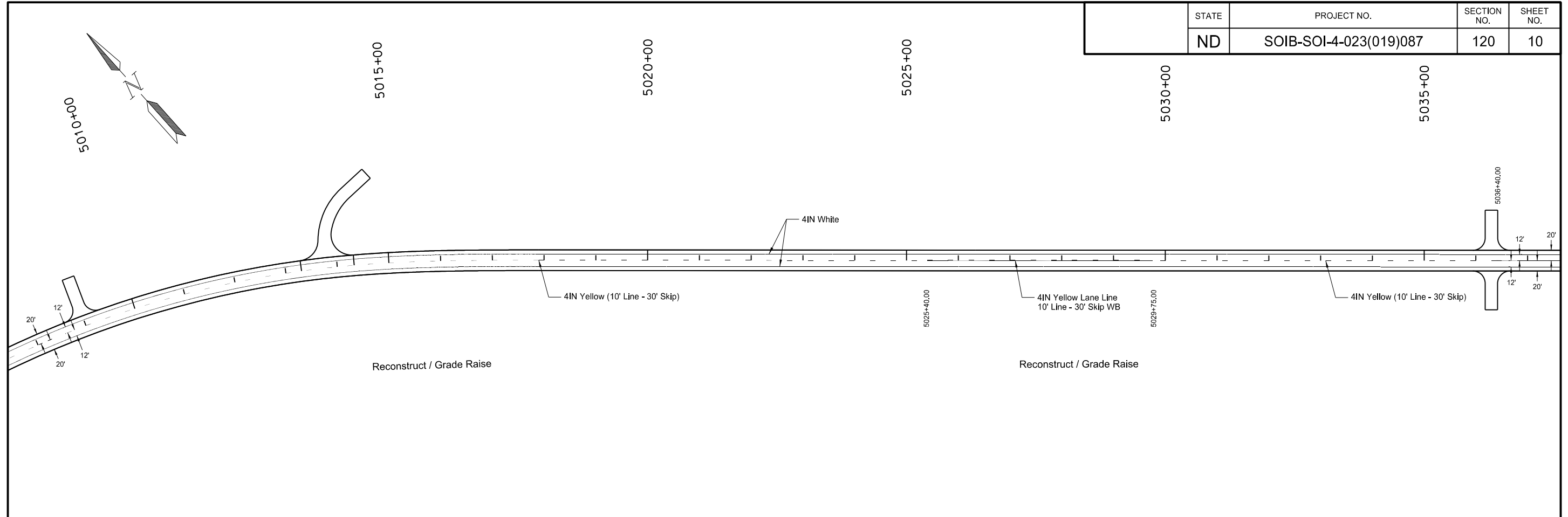


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Item	Description	Quantity	Unit
762-0113	EPOXY PVMT MK 4 IN LINE		
	Sta 4965+00 to 5010+00 - White	9,000	LF
	Sta 4965+00 to 5010+00 - Yellow	3,480	LF

Pavement Marking Layout  
ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	120	10

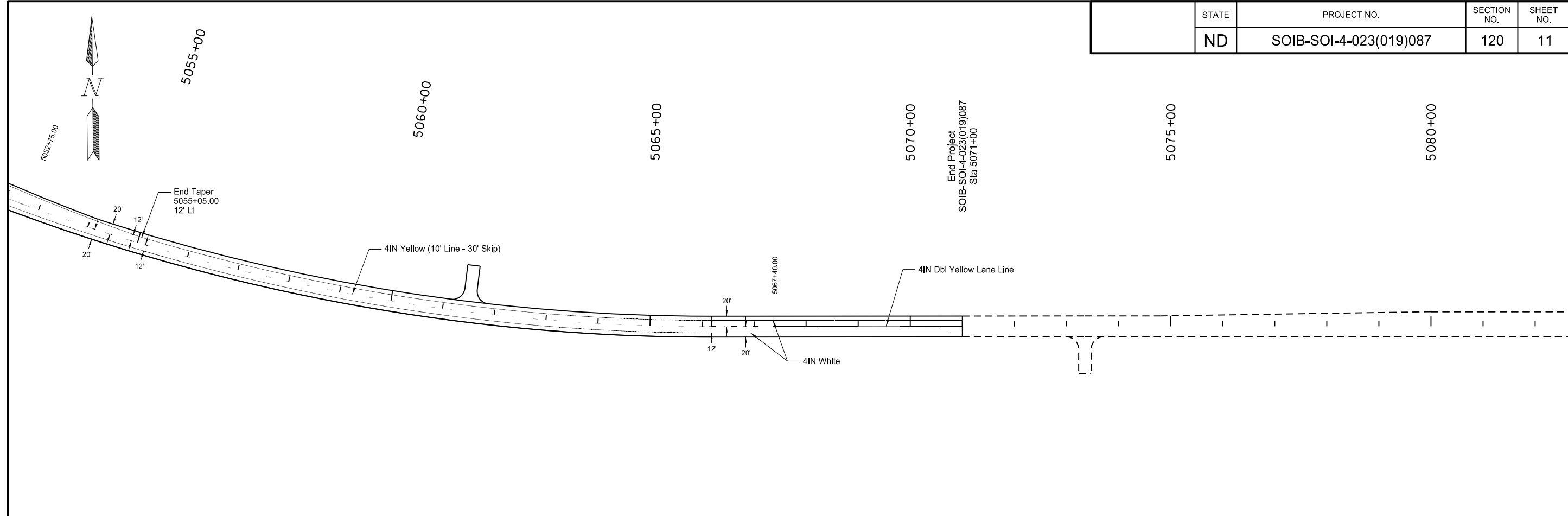


Item	Description	Quantity	Unit
762-0112	EPOXY PVMT MK MESSAGE Sta 5010+00 to 5055+00	48	SF
762-0113	EPOXY PVMT MK 4 IN LINE Sta 5010+00 to 5055+00 - White	10,317	LF
	Sta 5010+00 to 5055+00 - Yellow	5,094	LF
762-0115	EPOXY PVMT MK 8 IN LINE Sta 5010+00 to 5055+00 - White	572	LF
762-0117	EPOXY PVMT MK 24 IN LINE Sta 5010+00 to 5055+00 - White	24	LF

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Pavement Marking Layout  
 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	120	11

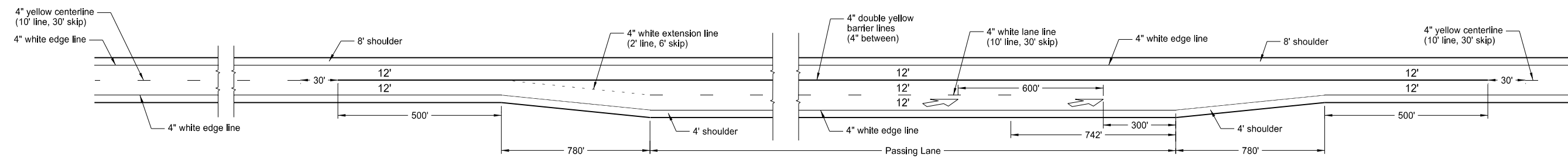


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Item	Description	Quantity	Unit
762-0113	EPOXY PVMT MK 4 IN LINE		
	Sta 5055+00 to 5071+00 - White	3,200	LF
	Sta 5055+00 to 5071+00 - Yellow	1,030	LF

Pavement Marking Layout  
 ND 23 - ND 28 to County Rd 13

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-SOI-4-023(019)087	120	12



Passing Lane Detail

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Pavement Marking Detail  
 Passing Lanes  
 ND 23 - ND 28 to County Rd 13

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-SOI-4-023(019)087	180	1

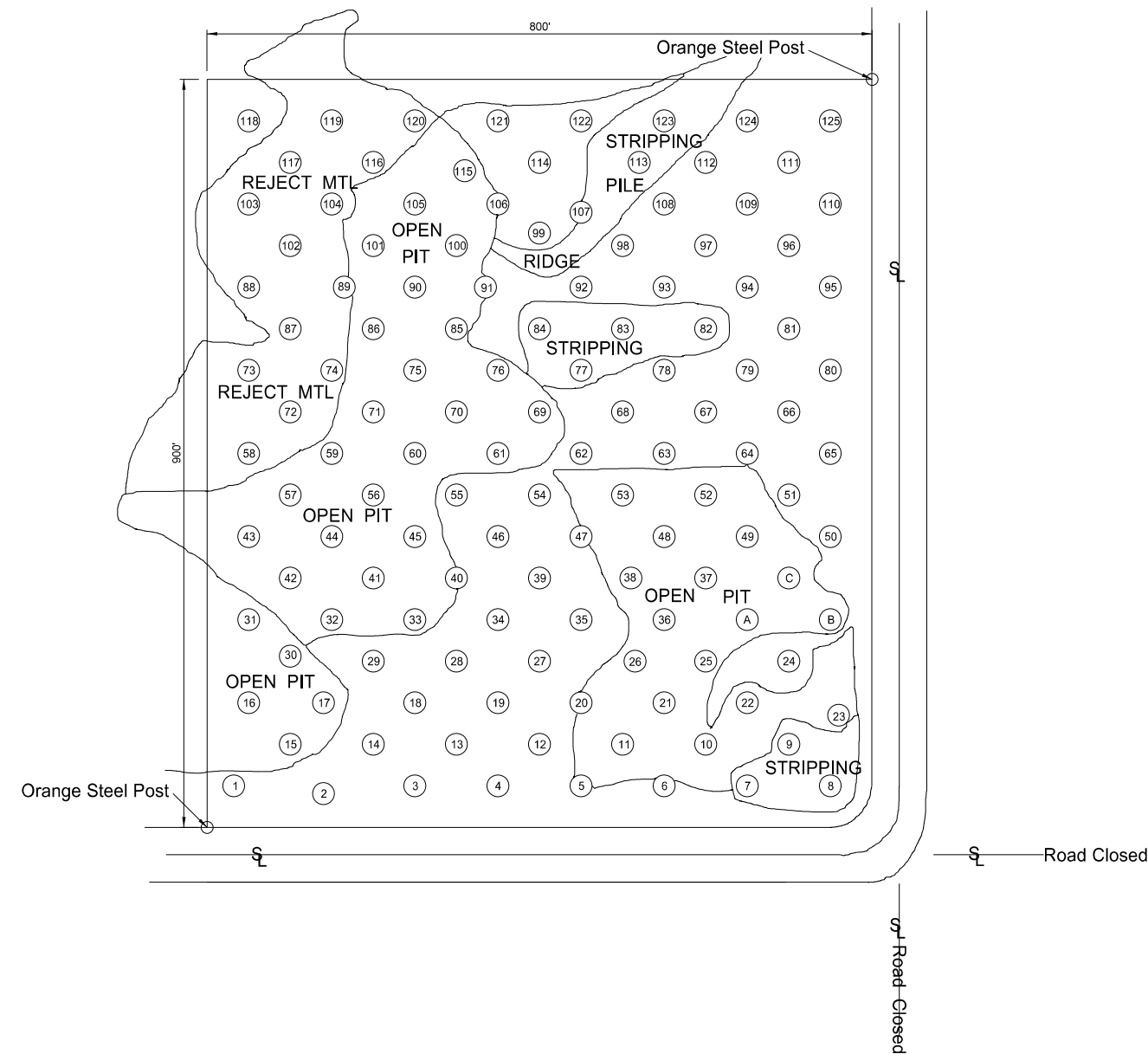
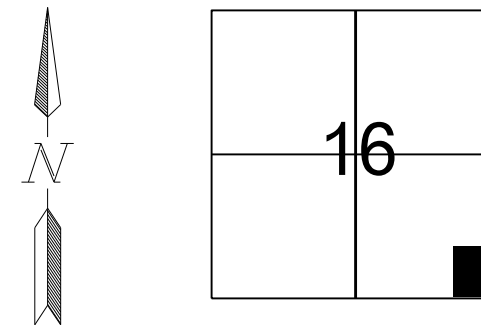
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

TEST HOLE PLAT

Location: SE1/4 16-151-84 County: WARD

Ownership: STATE OWNED

LOCATION OF PIT IN SECTION



- Area "A" represents Test Holes 1-3, 14-18, 29-33
- Area "B" represents Test Holes 4-5, 11-13, 19-20, 26-28, 34-35
- Area "C" represents Test Holes 6-10, 21-25, 36
- Area "D" represents Test Holes 37, 48-52, 63-65
- Area "E" represents Test Holes 38-40, 46-47, 53-55, 61-62
- Area "F" represents Test Holes 41-45, 56-60
- Area "G" represents Test Holes 71-75, 86-90
- Area "H" represents Test Holes 68-70, 76-77, 83-85, 91-92
- Area "I" represents Test Holes 66-67, 78-82, 93-95
- Area "J" represents Test Holes 96-97, 108-112, 123-125
- Area "K" represents Test Holes 98-100, 106-107, 113-115, 121-122
- Area "L" represents Test Holes 101-105, 116-120

- Legend:
- gr = gravel
  - sd = sand
  - FS = fine sand
  - Fgr = fine gravel
  - CS = coarse sand
  - sh = shale
  - SICl = silt clay
  - rk = rock
  - FeO = Iron oxide
  - CoS = Coal Slack
  - WL = water line
  - NG = no gravel
  - RGr = Contaminated Gravel
  - RS = Reject Sand

Note: Test holes No's 88, 103, 117, & 119 were drilled on a Reject sand stockpile (minus #4 Material). Stripping was encountered below the reject sand stockpile at the natural ground level. These stripping's were not sampled and included in the field and lab analysis or used in calculation of quantity.

Scale 1" = 200'

																								STATE	PROJECT NO.	SECTION NO.	SHEET NO.
																								ND	SOIB-SOI-4-023(019)087	180	2

PIT LOGGING BY TEST HOLES							PIT LOGGING BY TEST HOLES							PIT LOGGING BY TEST HOLES							PIT LOGGING BY TEST HOLES										
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
1	1.0	4.5 gr	0	10	20	31	FS Si Cl	10		1.0 sd						20	2.0	4.0 gr	0	9	20	30	+	33	0.5	7.5 gr	0	2	18	29	+
		1.0 sd								4.0 gr								3.0 sd								1.0 sd					
		1.0 gr						11	2.5	2.0 gr	0	5	15	26	Si Cl			6.0 gr								1.0 FS					
		1.0 sd								1.5 sd								1.0 sd								1.0 sd					
2	3.0	2.0 gr	0	5	15	25	+			2.0 gr								1.0 gr								4.0 gr					
		1.0 sd SiCl								2.0 sd								2.0 sd								1.0 FS					
		1.0 gr						12	2.0	6.0 gr	0	3	14	27	+	21	1.0	2.0 gr	0	2	13	25	+WL 6.0			1.0 gr					
		1.0 sd								1.0 sd								1.0 sd								1.0 sd					
		1.0 sd sh								9.0 gr								2.0 gr								1.0 gr					
		1.0 gr								1.0 sd sh						22	2.5	3.5 gr	0	8	20	31	+WL 9.0	34	4.0	3.0 gr	0	7	17	26	+
		1.0 sd						13	1.5	9.5 gr	1	11	21	31	+			1.0 sd sh								1.0 sd					
		2.0 sd sh								1.0 sd sh								1.0 gr								1.0 gr					
		1.0 sd								4.0 gr								1.0 sd								1.0 sd					
		1.0 gr								1.0 sd						23	2.5	6.5 gr	0	6	19	32	Si Cl			2.0 gr					
		1.0 sd								2.0 gr						24	6.0	5.0 gr	0	8	19	32	+WL11.0			1.0 sd					
		3.0 gr						14	0.5	8.5 gr	0	6	18	27	+	25	0.5	5.5 gr	0	5	16	30	+WL 6.0			1.0 gr					
3	2.5	2.5 gr	0	7	19	28	+			1.0 sd						26	1.0	8.0 gr	0	8	21	34	Si Cl			1.0 sd					
		1.0 sd								4.0 gr						27	1.5	14.5 gr	1	8	19	31	+			1.0 gr					
		3.0 gr								4.0 sd								2.0 sd								1.0 gr sh					
		2.0 sd								1.0 gr								1.0 gr								1.0 gr					
		4.0 gr						15	0.5	1.5 gr	0	9	21	35	+WL10.0	28	1.5	11.5 gr	1	9	21	32	+			1.0 sd					
		4.0 sd								1.0 gr sh								1.0 sd						35	1.5	8.5 gr	0	5	17	29	rk
4	1.5	5.5 gr	0	9	18	29	+			1.0 sd sh								1.0 gr								1.0 gr sh					
		1.0 sd								6.0 gr								1.0 gr sh								1.0 FS sh					
		5.0 gr						16	0.5	1.5 gr	0	1	9	22	+WL 8.0			3.0 gr								4.0 gr					
		1.0 gr sh								1.0 sd						29	0.5	5.5 gr	0	10	21	34	+			1.0 gr sh					
		1.0 sd								1.0 sd sh								1.0 sd sh						36	1.0	7.0 gr	0	5	18	31	+WL 8.0
		4.0 gr								1.0 gr								3.0 gr						37	0.5	4.5 gr	0	1	10	22	Si Cl
5	2.5	3.5 gr	0	7	18	27	Si Cl			1.0 sd								3.0 sd						38	0.5	2.5 gr	0	3	13	23	+WL10.0
		1.0 FS SiCl								1.0 gr								2.0 gr								1.0 sd					
		7.0 gr								1.0 sd								1.0 sd								2.0 gr					
		1.5 sd						17	2.0	3.0 gr	0	5	16	29	+WL10.0			2.0 sd								2.0 sd					
		1.0 sd sh								2.0 FS						30	0.5	1.5 sd	1	12	28	42	+WL10.0			1.0 gr					
		2.5 sd								3.0 gr								4.0 gr								1.0 sd					
6	0.5	1.5 gr	0	13	22	32	Si Cl	18	0.5	1.5 gr	0	5	16	26	+			1.0 gr SiCl						39	2.0	5.0 gr	0	10	23	34	rk
		1.0 sd								2.0 sd								3.0 gr								1.0 sd					
		3.0 gr								8.0 gr						31	0.5	3.5 gr	0	6	17	28	+WL10.0			8.0 gr					
		1.0 sd								1.0 sd								1.0 sd								1.0 sd					
		6.0 gr								2.0 gr								1.0 sd sh								1.0 gr					
7	3.5	1.5 gr	0	6	16	24	Si Cl			1.0 sd sh								4.0 gr								1.0 gr					
		1.0 sd								1.0 gr						32	0.5	3.5 gr	0	11	22	33	+			1.0 sd sh					
		6.0 gr								1.0 FS								1.0 sd sh								1.0 sd					
		1.0 sd								1.0 sd								1.0 sd								2.0 gr					
		1.0 gr						19	2.0	1.0 sd	0	9	18	29	+			2.0 gr								1.0 gr					
8	7.5	7.5 gr	0	4	15	27	Si Cl			10.0 gr								1.0 sd sh								1.0 sd sh					
9	4.0	6.0 gr	0	7	19	29	Si Cl			1.0 sd sh								3.0 gr								3.0 gr					
		2.0 sd								4.0 sd								4.0 sd								4.0 sd					
10	1.5	1.5 gr	0	5	16	25	+WL10.0			1.0 gr								2.0 gr								2.0 gr					
		1.0 sd																1.0 sd								1.0 sd					
		1.0 gr																													

RANGE 84 TWP 151 SEC SE1/4 16  
COUNTY Ward Jul-93  
PROSPECTED BY W. Heinrich  
INSPECTED & APPROVED

PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES							
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
40	1.0	8.0 gr	0	11	22	34	Si Cl	52	0.5	4.5 gr	0	7	17	29	+WL 9.0	67	1.5	1.5 gr	0	7	17	26	+	77	1.0	13.0 gr	0	3	14	24	+
		1.0 CS								1.0 sd								1.0 sd								1.0 sd sh					
		8.0 gr								3.0 gr								6.0 gr								4.0 gr					
41	1.0	2.0 gr	0	1	8	19	+WL12.0	53	0.5	6.5 gr	0	2	13	26	+WL 7.0			1.0 sd						78	3.0	7.0 gr	0	8	19	31	+WL18.0
		3.0 sd						54	4.0	15.0 gr	0	10	22	34	+			4.0 gr								2.0 sd					
		3.0 gr						55	1.0	1.0 gr	0	6	16	26	+	68	3.5	8.5 gr	0	6	15	24	+			1.0 gr					
		1.0 sd								1.0 sd								1.0 sd								1.0 sd					
		2.0 gr								10.0 gr								1.0 gr								4.0 gr					
42	0.5	1.5 sd	0	8	17	25	+WL10.0			5.0 sd								1.0 sd						79	2.0	6.0 gr	0	7	19	29	+
		4.0 gr								1.0 gr								2.5 gr								3.0 sd					
		1.0 sd						56	0.5	3.5 gr	0	3	15	26	+WL11.0			1.5 gr sh								3.0 gr					
		1.0 gr								2.0 sd						69	0.5	6.5 gr	0	10	21	32	+WL17.0			1.0 sd					
		2.0 sd								3.0 gr								3.0 sd								2.0 gr					
43	4.0	6.0 gr	0	4	15	28	+WL12.0			1.0 sd								3.0 gr								2.0 sd					
		1.0 sd								1.0 gr								2.0 sd						80	1.0	5.0 gr	0	5	17	27	FS Si Cl
		1.0 gr						57	1.0	7.0 gr	0	5	18	32	+WL 8.0			2.0 gr								1.0 sd					
44	0.5	2.5 gr	0	4	12	25	+WL11.0	58	0.5	8.5 RS	0	4	8	20	+WL15.0	70	0.5	3.5 gr	0	6	17	28	+WL17.0			10.0 gr					
		1.0 gr sh								4.0 gr								2.0 sd						81	2.0	2.0 gr	0	11	23	33	Si Cl
		1.0 sd								1.0 CS								2.0 gr								3.0 sd					
		6.0 gr								1.0 gr								1.0 gr sh								3.0 gr					
45	1.0	1.0 gr	0	1	10	22	+WL12.0	59	0.5	12.5 gr	0	10	21	34	+WL13.0			4.0 gr								1.0 sd					
		2.0 sd						60	0.5	6.5 gr	0	2	17	31	+WL11.0			2.0 sd								1.0 gr					
		2.0 gr								1.0 sd								1.0 gr								2.0 gr sh					
		1.0 sd								3.0 gr								1.0 sd								1.0 gr					
		1.0 gr						61	2.0	3.0 gr	0	2	13	25	+WL12.0	71	0.5	12.5 gr	0	7	20	31	sd			1.0 sd					
		1.0 gr sh								4.0 sd								1.0 sd								1.0 gr					
		3.0 gr								3.0 gr								3.0 gr						82	8.0	9.0 gr	0	4	14	23	+
46	3.0	8.0 gr	0	6	16	29	+	62	3.0	2.0 gr	0	12	23	33	+	72	0.5	7.5 RS	0	2	9	23	+WL15.0			2.0 sd					
		1.0 gr SiCl								1.0 gr sh								7.0 gr						83	8.0	11.0 gr	0	7	23	33	+
		2.0 gr								3.0 gr						73	0.5	15.5 RS	0	0	0	15	+	84	7.0	9.0 gr	0	3	12	22	+
		1.0 sd								1.0 sd								1.0 sd								1.0 sd					
		2.0 gr								9.0 gr								1.0 gr								2.0 gr					
		2.0 sd						63	5.5	4.5 gr	0	5	15	26	+	74	2.0	2.0 RS	0	2	11	21	+	85	0.5	10.5 gr	0	4	13	25	+WL15.0
47	2.0	1.0 sd	1	12	26	36	+			1.0 sd								6.0 gr								2.0 sd					
		4.0 gr								1.0 gr								1.0 gr sh								2.0 gr					
		1.0 sd								1.0 sd								2.0 gr						86	0.5	5.5 gr	0	5	13	25	+WL14.0
		1.0 gr								4.0 gr								1.0 FS								1.0 gr sh					
		1.0 sd								1.0 sd								1.0 gr								3.0 gr					
		8.0 gr								1.0 gr								2.0 sd								2.0 sd					
		1.0 sd						64	3.5	5.5 gr	0	3	11	23	Si Cl	75	0.5	4.5 gr	0	4	14	25	Si Cl			2.0 sd sh					
48	0.5	3.5 gr	1	3	10	30	+WL 7.0			3.0 gr sh								1.0 gr sh						RANGE <u>84</u> TWP <u>151</u> SEC <u>SE1/4 16</u> COUNTY <u>Ward</u> Jul-93 PROSPECTED BY <u>W. Heinrich</u> INSPECTED & APPROVED _____							
		1.0 sd								4.0 gr								4.5 gr													
		2.0 gr								1.0 sd								2.5 sd													
49	0.5	1.5 gr	0	1	12	25	Si Cl			1.0 FS								3.0 gr													
		1.0 gr SiCl						65	3.0	12.0 gr	0	9	20	32	rk	76	0.5	2.5 gr	0	7	18	30	Si Cl								
		4.0 gr						66	2.0	8.0 gr	0	6	17	27	+			1.0 sd													
50	2.0	13.0 gr	1	11	23	4	+WL15.0			1.0 sd								8.0 gr													
51	4.0	9.0 gr	0	9	20	32	Si Cl			6.0 gr								2.0 sd													
		2.0 gr sh								2.0 sd								3.0 gr													
		3.0 gr																													



PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES									
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole		
87	0.5	13.5 RS	0	0	2	15	+	95		1.0 sd						104		2.0 sd							113	2.0	2.0 gr	0	6	16	27	+	
		1.0 FS						96	2.5	1.5 sd	0	5	14	23	rk	105	0.5	3.5 RGr	0	6	16	29	+			2.0 sd							
		1.0 gr								6.0 gr								1.0 sd															
		1.0 gr sh								1.0 sd								6.0 gr															
		2.0 gr								5.0 gr								2.0 sd															
88	0.5	9.5 RS	0	5	11	22	+	97	1.0	11.0 gr	0	6	18	28	rk			2.0 FS															
		2.0 SS								1.0 gr sh								4.0 gr															
		7.0 gr						98	2.0	10.0 gr	0	5	18	32	+	106	0.5	6.5 gr	0	5	17	28	+WL16.0			2.0 sd							
89	3.0	7.0 gr	0	2	9	22	+			2.0 gr sh								1.0 sd															
		2.0 sd								2.0 gr								3.0 gr															
		1.0 gr								1.0 sd								3.0 sd							114	1.0	1.0 gr	0	5	12	22	+WL14.0	
		2.0 sd								2.0 gr								1.0 gr SiCl															
		4.0 gr						99	1.0	6.0 gr	0	5	16	28	Si Cl			1.0 sd															
90	3.0	2.0 sd	0	2	13	24	+WL16.0			2.0 gr sh						107	1.0	4.0 gr	0	7	18	30	Si Cl			2.0 sd							
		5.0 gr								2.0 gr								2.0 sd															
		3.0 sd								3.0 gr sh								7.0 gr															
		1.0 gr								1.0 sd sh								1.0 sd															
		1.0 sd								1.0 sd								2.0 gr							115	1.0	1.0 gr	0	4	13	23	+WL13.0	
		1.0 gr						100	0.5	3.5 RGr	0	5	13	22	+	108	2.5	1.5 gr	0	7	16	27	+			2.0 sd							
91	0.5	6.5 gr	0	6	15	26	+WL15.0			2.0 sd								2.0 sd															
		1.0 sd								5.0 gr								1.0 gr															
		2.0 gr								3.0 sd								2.0 sd															
		1.0 sd sh								1.0 gr								2.0 gr															
		1.0 gr sh								3.0 sd								2.0 sd															
		1.0 sd								1.0 gr								6.0 gr															
		2.0 gr						101	0.5	3.5 RGr	0	5	12	22	+	109	1.0	12.0 gr	0	6	18	28	+			2.0 gr							
92	3.0	9.0 gr	0	7	19	28	+			4.0 gr								1.0 sd							116	0.5	11.5 RS	0	0	5	19	+	
		1.0 sd								2.0 sd sh								1.0 sd sh															
		3.0 gr								1.0 FS								1.0 gr							117	1.0	5.0 RS	0	13	21	34	+	
		1.0 sd								2.0 sd								3.0 sd															
		2.0 gr								6.0 gr						110	3.0	9.0 gr	0	8	21	31	+			10.5 gr							
93	1.0	3.0 gr	0	6	16	25	+	102	0.5	9.5 RS	0	2	10	23	+			2.0 gr sh							118	2.0	1.0 gr	0	5	14	26	+	
		1.0 sd								5.0 gr								1.0 gr															
		4.0 sd								1.0 gr sh								1.0 sd															
		1.0 sd								1.0 gr								1.0 FS															
		1.0 gr								1.0 sd								2.0 sd															
		1.0 sd								1.0 gr						111	0.5	1.0 gr	0	5	15	26	+			2.0 sd							
		3.0 gr						103	0.5	10.5 RS	0	0	5	17	+			1.0 sd															
		2.0 sd								2.0 SS								9.5 gr															
		1.0 gr								1.0 gr								1.0 sd															
		1.0 sd								1.0 sd								5.0 gr															
94	2.0	14.0 gr	0	7	20	32	+			2.0 gr								2.0 sd															
		1.0 gr SiCl								1.0 sd						112	5.0	3.0 gr	0	5	14	25	+			2.0 sd							
		1.0 gr								1.0 CS								2.0 sd															
		1.0 gr sh						104	0.5	9.5 RS	0	6	14	30	+			2.0 gr															
95	2.0	1.0 gr	0	9	19	29	+			2.0 gr sh								1.0 sd															
		1.0 sd								1.0 gr								4.0 gr															
		1.0 gr								1.0 gr sh								1.0 sd															
		1.0 sd								1.0 gr SiCl								1.0 gr															
		12.0 gr								2.0 gr																							

RANGE 84 TWP 151 SEC. SE1/4 16  
COUNTY Ward Jul-93  
PROSPECTED BY W. Heinrich  
INSPECTED & APPROVED

PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES							
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
119	1.0	5.0 RS 3.0 SS 10.0 gr	0	4	13	25	+																								
120	0.5	8.5 7.0 1.0 1.0	0	2	8	22	Si Cl																								
121	1.0	1.0 gr 1.0 sd 1.0 gr 2.0 sd 5.0 gr	0	9	20	34	+WL11.0																								
122	1.0	5.0 gr 1.0 gr sh 2.0 gr 4.0 sd 2.0 gr 3.0 sd 1.0 gr	0	10	21	31	+																								
123	3.0	8.0 gr 2.0 sd 3.0 gr 1.5 sd 1.5 gr	0	8	20	32	+																								
124	2.5	4.5 gr 1.0 sd 3.0 gr 2.0 sd 6.0 gr	0	6	18	30	+																								
125	1.0	6.0 gr 5.0 sd 2.0 gr 1.0 sd 4.0 gr	0	3	12	22	+																								
A	0.5	1.5 gr					+WL 2.0																								
B	1.0	1.5 gr 1.5 gr SiCl					+WL 4.0																								
C	0.5	1.0 sd					Si Cl																								
																								RANGE	84	TWP	151	SEC.	SE1/4 16		
																								COUNTY	Ward	Jul-93					
																								PROSPECTED BY	W. Heinrich						
																								INSPECTED & APPROVED							