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# **ESTIMATE OF QUANTITIES**

Bid Item Number	ltem	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
100E0100	Clearing	Lump Sum	LS
110E0600	Remove Fence	181,639	Ft
620E0030	Type 3 Right-of-Way Fence	123,991	Ft
620E0230	Modified Type 3 Right-of-Way Fence	672	Ft
620E0260	Modified Type 6 Right-of-Way Fence	56,976	Ft
620E1020	2 Post Panel	238	Each
620E1030	3 Post Panel	178	Each
620E1110	Wood Fence Post	50	Each
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

# TABLE OF FENCE QUANTITIES

				MODIFIED	MODIFIED			
			TYPE 3	TYPE 3	TYPE 6	2	3	WOOD
	<b>INTERSTATE 90</b>	REMOVE	R/W	R/W	R/W	POST	POST	FENCE
LANE	MRM TO MRM	FENCE	FENCE	FENCE	FENCE	PANEL	PANEL	POST
	(LOCATION)	Ft	Ft	Ft	Ft	Each	Each	Each
EB	341.98 to 342.9	4858			* 4858	8	3	
EB	343.1 to 343.8	3696	3696			3	3	
EB	345.5 to 346.3	4224	4224			2	2	
EB	346.3 to 346.67	1954			1954	6	4	
EB	346.67 to 349.06	12620	12620			16	8	
EB	349.06 to 349.66	3168			* 3168	2	2	
EB	350.24 to 350.57	1742			1742	1	3	
EB	350.57 to 350.9	1743	1743			2	1	
EB	350.9 to 351.04	719			719	1	1	
EB	351.57 to 351.8	1215			1215	1	1	
EB	351.8 to 352.74	4963			4963	11	6	
EB	352.74 to 353.05	1637	1637			1	1	
EB	353.05 to 353.95	4752	4752			5	5	
EB	354.0 to 354.7	3696	3696			7	4	
EB	354.7 to 354.99	1505			1505	4	2	
EB	356.5 to 357.6	5808	5808			8	4	
EB	358 (Exit 357)	940			** 940	2	3	
EB	359.1 to 359.5	2112			2112	3	2	
EB	359.5 to 359.6	528	528			1	0	
EB	359.9 to 360.2	1056	1056			3	1	
EB	360.4 to 361.02	3274	3274			5	3	
EB	361.02 to 361.2	950			950	1	2	
EB	361.2 to 362.0	4224	4224			3	2	
EB	365.5 to 366.05	2904	2904			3	2	
EB	366.5 to 367.1	3168	3168			4	0	
EB	367.5 to 368.0	2640	2640			2	3	
EB	368.06 to 369.6	8131	8131			8	5	
EB	372.1 to 372.34	1267			1267	4	1	
EB	372.34 to 374.00	8765	8765			10	4	
EB	374.06 to 374.17	581	581			0	2	
EB	374.9 to 375.0	528			528	1	2	
EB	375.2 to 375.7	2640			2640	3	4	
EB	377.5 to 378.7	6336			6336	18	16	
EB	Wide Depression	336		336				25
	EB TOTALS:	108680	73447	336	34897	149	102	25

\* The Existing Fence from MRM 342.50 to 342.56 EBL and from MRM 349.52 to 349.66 EBL is to be removed and new fence installed 0.5' inside of the Right-of-Way line.

\*\* South ramp (470' per side).

				MODIFIED	MODIFIED			
			TYPE 3	TYPE 3	TYPE 6	2	3	WOOD
	INTERSTATE 90	REMOVE	R/W	R/W	R/W	POST	POST	FENCE
LANE	MRM TO MRM	FENCE	FENCE	FENCE	FENCE	PANEL	PANEL	POST
	(LOCATION)	Ft	Ft	Ft	Ft	Each	Each	Each
WB	379.1 to 378.7	2112	2112			3	2	
WB	378.6 to 378.5	528	528			2	0	
WB	375.6 to 375.4	1056	1056			4	2	
WB	372.4 to 371.5	4752	4752			5	6	
WB	370.9 to 370.6	1584	1584			5	8	
WB	368.6 to 368.3	1700			# 1700	1	3	
WB	368.3 to 368.0	1450	1450			3	2	
WB	367.3 to 366.8	2745	2745			4	2	
WB	361.8 to 360.6	5900	5900			6	4	
WB	359.8 to 358.5	6850	6850			8	4	
WB	357.7 to 357.5	1180	1180			2	0	
WB	357.0 to 355.0	10560	10560			10	6	
WB	355.0 to 354.4	3168			3168	3	6	
WB	354.5 to 354.0	2640	2640			4	3	
WB	353.97 to 353.5	2480			2480	2	3	
WB	350.57 to 350.07	2640	2640			2	3	
WB	348.6 to 348.2	2112			2112	2	2	
WB	347.7 to 347.55	792	792			2	2	
WB	346.5 to 346.3	1056			1056	2	4	
WB	346.03 to 344.94	5755	5755			5	3	
WB	344.0 to 343.97	160			## 160	1	1	
WB	343.97 to 343.0	5120			5120	2	3	
WB	341.2 to 340.01	6283			6283	11	7	
WB	Wide Depression	336		336				25
	WB TOTALS:	72959	50544	336	22079	89	76	25
	TOTALS:	181639	123991	672	56976	238	178	50
				-			-	

# **TABLE OF FENCE QUANTITIES**

# # MODIFIED TYPE 6 RIGHT-OF-WAY FENCE (APPLICABLE ONLY AT MRM 368.6 to 368.3 WBL)

The Contractor shall install two applications of woven wire at this location in order to achieve a woven wire height of 45 inches. One strand of barbed wire shall be placed above the woven wire. The top application of woven wire shall overlap the bottom application by a minimum of 15 inches. Woven wire shall be stapled to the existing posts. The woven wire shall be attached by staples to every line post and be stapled at every line wire. The top and bottom of the woven wire overlap shall be stapled at every line post. The existing 2 Post and 3 Post Panels shall be removed and replaced.

Cost for removing fence shall be included in the contract unit price per foot for Remove Fence.

Cost for post panels shall be included in the contract unit prices per each for 2 Post Panel and 3 Post Panel.

Cost for the second application of woven wire including material and labor shall be incidental to the contract unit price for Modified Type 6 Right–of-Way Fence.

## Use existing line posts.

# **SPECIFICATIONS**

Standard Specifications for Roads and Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

# COMPLETION DATE

All work shall be completed on or before June 18, 2010.

# **UTILITIES**

The Contractor shall contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It shall be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities.

# HISTORICAL PRESERVATION OFFICE CLEARANCES

To obtain State Historic Preservation Office (SHPO) clearance, a cultural resources survey may need to be conducted by a qualified archaeologist. The Contractor shall arrange and pay for this survey. In lieu of a cultural resources survey, the Contractor could request a literature search on the site and provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that no artifacts have been found on the site. Jim Donohue, State Archaeological Research Center at 605-394-1937 shall be contacted for a literature search.

If borrow material is furnished from within the current geographical reservation boundaries or historic boundaries of the Lake Traverse, Yankton, or Flandreau-Santee reservations, the Contractor shall obtain THPO (Tribal Historical Preservation Office) clearance from the Tribal Cultural Resources Officer. This requirement is in addition to the SHPO clearance. If no Tribal contact exists, the required SHPO clearance shall suffice, with documentation of Tribal contact efforts provided to SHPO.

To facilitate SHPO and THPO responses, the Contractor should submit a cultural resources survey report or the results of the literature search along with a legal description of the site, a topographical map with the site clearly marked, and evidence of prior site disturbance to Terrence G. Keller, DOT Environmental Supervisor, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3721). Allow 30 days from the date this information is submitted to the Environmental Engineer for SHPO approval. The Contractor is responsible for obtaining all required permits and clearances for the borrow and/or waste disposal site(s) prior to commencing construction activities at the borrow and/or waste disposal site(s). The Contractor shall provide the required permits and clearances to the Engineer at the preconstruction meeting.

# WASTE DISPOSAL SITE

The Contractor will be required to furnish a site(s) for the disposal of construction/demolition debris generated by this project.

Construction/demolition debris may not be disposed of within the State ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

1. Construction/demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction/demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating No Dumping Allowed.

# WASTE DISPOSAL SITE (CONTINUED)

 Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

Cost for furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs) and reclamation of the waste disposal site(s) shall be incidental to the contract unit prices for the various items.

#### **RESTORATION OF INSLOPES AND DITCHES**

Any slope area or ditch that is rutted or otherwise unduly disturbed during fencing operations shall be restored and seeded by the Contractor, at no expense to the State. Cost for this work shall be incidental to the contract unit prices for the various items.

## REMOVE FENCE

The Contractor shall remove the existing right-of-way fence that is to be replaced as designated in the plans and/or as ordered by the Engineer.

Limited Access Security - All fence removed during any one working day is to be replaced during the same day if livestock are being restrained.

There are approximately 100 Steel Post that have been used to supplement deteriorated wood posts. These posts are to be salvaged and delivered to the Salem DOT Maintenance Yard.

# **CLEARING**

Prior to installing right-of-way fence, the fence alignment shall be cleared of all trees, tree branches, tree stumps, brush, vegetation, debris, bladed and leveled to the satisfaction of the Engineer. Sod cleared from the fence alignment may be disposed on the interstate ditch back slope. Lumps or clods over 3 inches in diameter shall be broken up.

Clearing will be paid for at the contract lump sum price. Payment shall be full compensation for labor and equipment necessary to clear the entire line for fence and smooth ground irregularities.

#### FENCE ALIGNMENT

Where fence is being removed and replaced, fence shall be installed on the same alignment as existing except as noted below. It shall be the Contractor's responsibility to preserve the fence alignment.

The Existing Fence from MRM 342.50 to 342.56 EBL and from MRM 349.52 to 349.66 EBL is to be removed and new fence installed 0.5' inside of the Right-of-Way line.

#### **TYPE 3 RIGHT-OF-WAY FENCE**

The Contractor shall furnish new posts. Install alternate wood and steel posts at 16'-6" spacing for Type 3 Rightof-Way Fence.

#### MODIFIED TYPE 3 RIGHT-OF-WAY FENCE

Modified Type 3 Right-of-Way Fence shall be installed at wide depressions subject to flooding.

The Contractor shall furnish new 5" x 8' wood posts. Install wood posts at 14' spacing for Modified Type 3 Rightof-Way Fence. Cost for 5" x 8' wood posts shall be included in the contract unit price per each for Wood Fence Post.

#### MODIFIED TYPE 6 RIGHT-OF-WAY FENCE

The Contractor shall furnish new posts. Install alternate wood and steel posts at 14' spacing for Modified Type 6 Right-of-Way Fence.

Note specification change for Modified Type 6 Woven Wire Fence to Design No. 832-6-11.

# NEW POST PANELS

Existing post panels shall be replaced. Existing 5 Post and 4 Post Panels shall be replaced with a combination of 2 Post and 3 Post Panels as determined by the Engineer.

The number of 2 Post and 3 Post Panels will be the actual number installed and will be paid for at the contract unit price per each.

#### **GENERAL MAINTENANCE OF TRAFFIC**

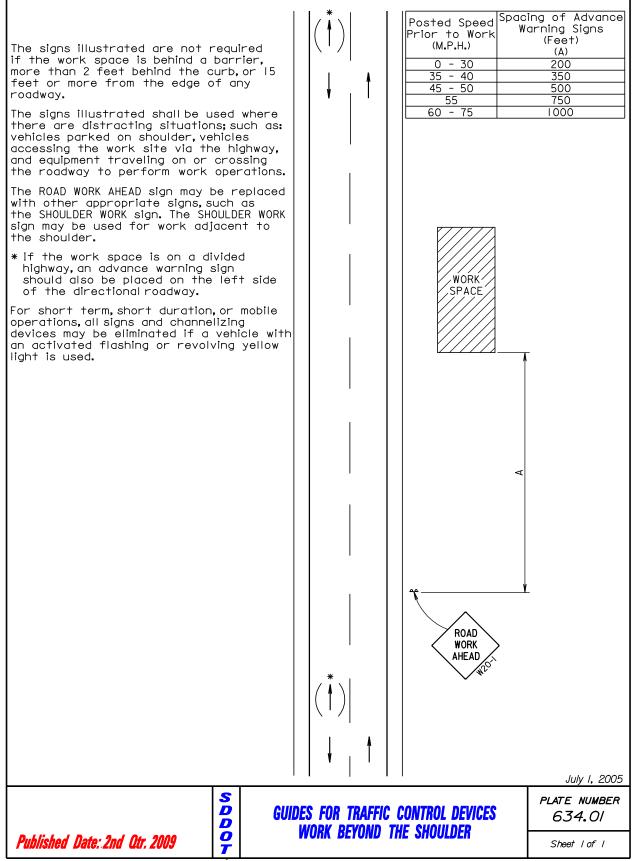
Removing, relocating, covering, salvaging and resetting of permanent traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost for this work shall be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

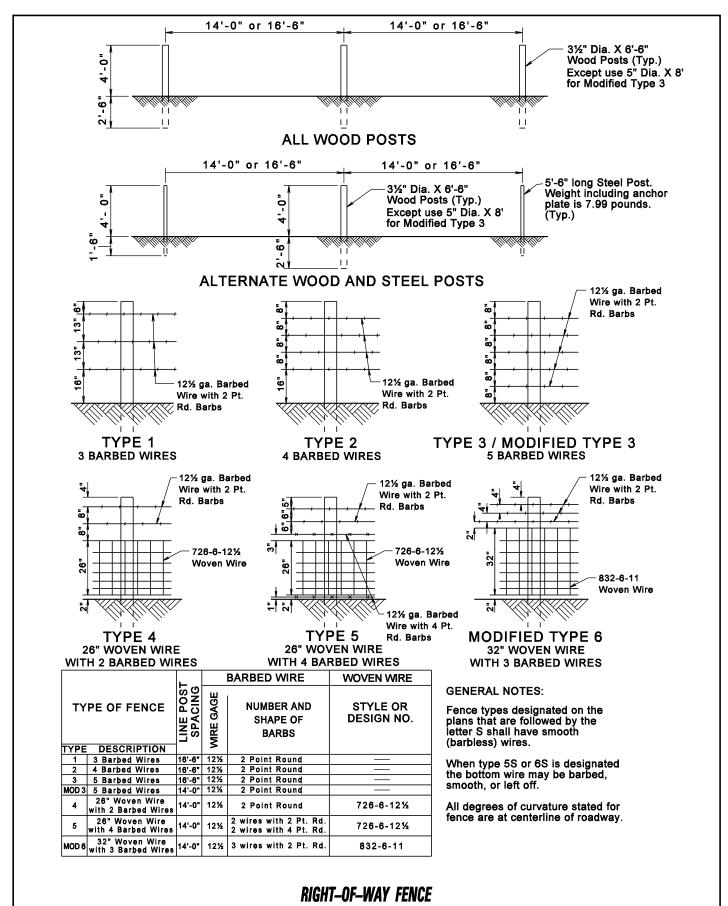
Storage of vehicles and equipment shall be outside the clear zone and as near as possible to the right-of-way line. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work.

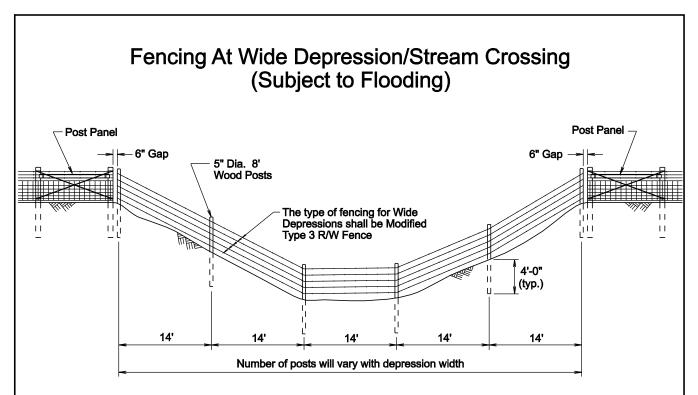
Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP 350 crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

Cost for traffic control, including signs, shall be included in the contract lump sum price for Traffic Control Miscellaneous.







#### **GENERAL NOTES:**

Cost for fencing through stream crossing(s) and/or wide depression(s) shall be included in the contract unit price per foot for Modified Type 3 Right-of-Way Fence.

The Wood Fence Posts used in stream crossing(s) and/or wide depression(s) shall be 5" x 8' Wood Fence Posts. The designated fencing location(s) for the stream crossing(s) and/or wide depression(s) will be directed by the Engineer.

Cost for furnishing and installing the  $5" \times 8'$  Wood Fence Posts in stream crossing(s) and/or wide depression(s) shall be included in the contract unit price per each for Wood Fence Post.

