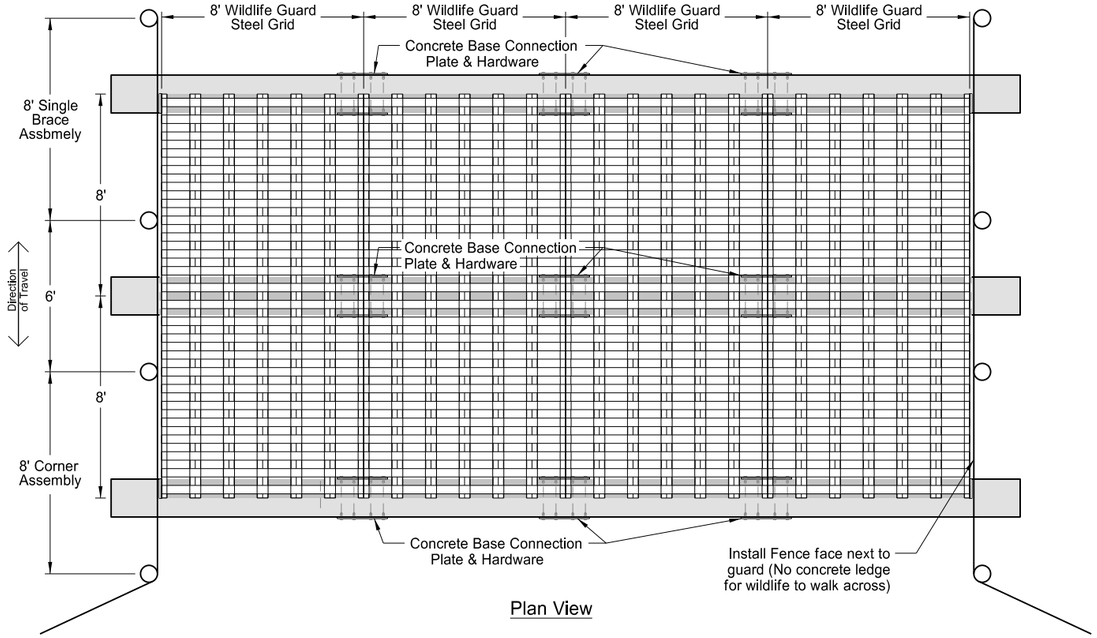
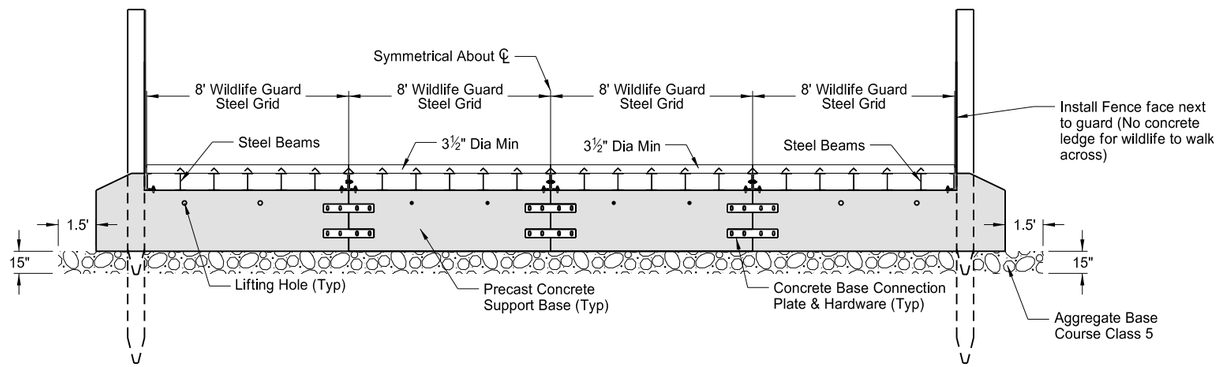
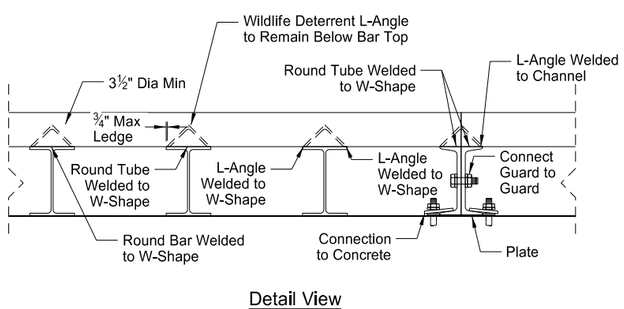
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	Project Number	20	sheet



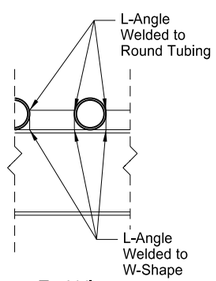
Plan View



Section View



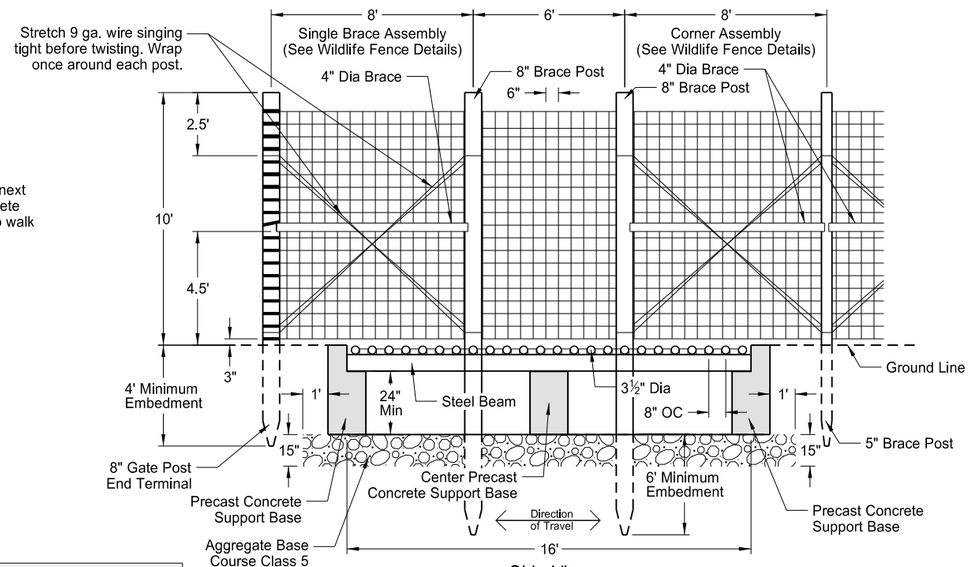
Detail View



End View

Notes:

1. Submit Working Drawings for design of Wildlife Guard. Design shall be signed, sealed, and dated by a professional engineer per North Dakota Century Code Title 43.
2. Manufacture and install wildlife guard and concrete support bases that meet HL-93 Loading per AASHTO LRFD bridge design specifications. Provide Grade 50 Structural steel. Provide A53 Grade B steel pipe. Use A36 steel or better for miscellaneous steel. Provide bolts that meet ASTM A325 or A490 and washers that meet ASTM F436. Weld according to ASW D1.5M. Use concrete that meets Class AE concrete as specified in Section 802 "Portland Cement Concrete" and provide concrete reinforcement that meets Section 836.02 "Reinforcing Steel".
3. Furnish and install all material needed to create the wildlife guard. This includes but is not limited to: the guard, concrete, reinforcing steel, aggregate, hot mix asphalt, and other materials and hardware needed.
4. Design, fabricate, and install precast concrete support bases and aggregate base grade to fit the wildlife guard steel grid. Chamfer exposed concrete edges. If casting the concrete support bases in place, phase work to allow access. If using a concrete strut between the concrete bases, place the strut at least 24-inches below the bottom of the 3.5-inch diameter pipe. Place and compact aggregate base per standard specification 714.04 A.10.
5. Fabricate the wildlife guard steel grid and precast concrete support bases in Sections to meet the 16-ft x 32-ft clear width. Provide appropriate steel and concrete connections accordingly.
6. Use only round tubing for the 3.5-inch diameter pipe.
7. Do not install blade rails or grater rails on top of the 3.5-inch diameter pipe.
8. Prime and paint the wildlife guard steel grid using paint that meets AMS Standard 595. Color: Black 17038 or Black 27038.
9. Install object markers on the end fence posts. Place OM3-L marker on the left side and OM3-R marker on the right side for the direction of travel.
10. Install front face of fence next to Wildlife Guard to prevent animals from accessing the highway.
11. Method of Measurement and Payment. Measurement and payment for Wildlife Guard will be made at the contract unit price per each. Price includes materials, labor, and equipment to supply and install wildlife guards and bases at locations shown in the plans or as directed by the Engineer in the contract unit bid price for "WILDLIFE GUARD 16FT X 32FT"
12. No deduction in measured pay length of woven wire fence for corner assembly, single brace, double brace, or fence terminals. Additional material and labor for each corner assembly, single brace, double brace, or fence terminal will be paid for at the bid price for that Assembly or Terminal.



Side View

WILDLIFE GUARDS 32' WIDTH (FOR INFORMATION PURPOSES ONLY)			
Chain	Station	Offset	Quantity
			EA
XXXX	??+??	Rt	1
	??+??	Lt	1
	??+??	Rt	1
	??+??	Lt	1
	??+??	Lt	1
	??+??	Rt	1
	??+??	Lt	1
		TOTAL =	7

32' Width Wildlife Guard

Project Description

Project Location

This document is preliminary and not for construction or implementation purposes.

PRELIMINARY