

DRAFT

**S-523E
Gated Round Culverts**

Revision 28 December 2000 - Original Submission

XY Coord 832770 506970

Location Located at intersection of C-504S and Bird Drive Road canal.

Purpose Control return seepage and future backpumping of drainage basin.

Notes 1. Riprap requirements have not been verified with Geotech.

Design Conditions

Discharge (CFS)	200 cfs
Headwater Elevation	5.60 ft,NGVD
Tailwater Elevation	5.20 ft,NGVD

Maximum Expected Stages

Headwater Elevation	7.50 ft,NGVD
Tailwater Elevation	8.50 ft,NGVD

Maximum Head Difference

Maximum Headwater Elevation	4.00 ft,NGVD
Minimum Tailwater Elevation	7.00 ft,NGVD

Culvert Data

Number of Barrels	2
Barrel Type	Concrete
Barrel Diameter	6.0 feet
Barrel Length	60.0 feet
Barrel Invert Elevation	-2.50 ft, NGVD
Type of Control	Slide Gate

Canal Data

Side Slopes Cotangent	1
Upstream Bottom Width	15.00 feet
Upstream Bottom Elevation	-1.00 ft,NGVD
Downstream Bottom Width	Pool feet
Downstream Bottom Elevation	-3.00 ft,NGVD

Riprap Requirements

Design Barrel Velocity	3.54 fps
Design Riprap Velocity	6.00 fps
Riprap Protected Area	1,100 sq-ft
Riprap Thickness	1.5 feet
Riprap Bedding Thickness	1.0 feet

Control Protection Elevation 10.00 ft,NGVD