

Culvert Analysis Report

Culvert-1

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|---------------------------|------------------|------------------------|----------------|
| Culvert Summary | | | |
| Computed Headwater Elev. | 7,013.10 ft | Discharge | 1.56 cfs |
| Inlet Control HW Elev. | 7,012.97 ft | Tailwater Elevation | N/A ft |
| Outlet Control HW Elev. | 7,013.10 ft | Control Type | Outlet Control |
| Headwater Depth/Height | 0.52 | | |
| Grades | | | |
| Upstream Invert | 7,012.31 ft | Downstream Invert | 7,012.08 ft |
| Length | 59.30 ft | Constructed Slope | 0.003879 ft/ft |
| Hydraulic Profile | | | |
| Profile | M2 | Depth, Downstream | 0.47 ft |
| Slope Type | Mild | Normal Depth | 0.70 ft |
| Flow Regime | Subcritical | Critical Depth | 0.47 ft |
| Velocity Downstream | 3.31 ft/s | Critical Slope | 0.016725 ft/ft |
| Section | | | |
| Section Shape | Circular | Mannings Coefficient | 0.024 |
| Section Material | Aluminum | Span | 1.50 ft |
| Section Size | 18 inch | Rise | 1.50 ft |
| Number Sections | 1 | | |
| Outlet Control Properties | | | |
| Outlet Control HW Elev. | 7,013.10 ft | Upstream Velocity Head | 0.06 ft |
| Ke | 0.70 | Entrance Loss | 0.04 ft |
| Inlet Control Properties | | | |
| Inlet Control HW Elev. | 7,012.97 ft | Flow Control | Unsubmerged |
| Inlet Type | Mitered to slope | Area Full | 1.8 ft² |
| K | 0.02100 | HDS 5 Chart | 2 |
| M | 1.33000 | HDS 5 Scale | 2 |
| C | 0.04630 | Equation Form | 1 |
| Y | 0.75000 | | |