

Cast-In-Place Culvert Checklist

Plan

- Centerline Culvert
- Skew and Complement
- Longitudinal Dimensions
- Parapet/Curb/Cutoff Wall Widths
- Reinforcing Size/Spacing/Location/Lap/Typ Row/Call-outs
- Dowel Bar Size/Number Required/Call-outs (extensions)
- Showing Top Slab/Bottom Slab Call-outs
- Construction Joint/Keyway Call-outs
- Optional Construction Joint Base Call-out
- See Cutwater Angle Detail Call-out
- Section Symbols
- Line Styles/Patterning

Longitudinal Section

- Detail Projected from Plan (preferred)
- Cutoff Wall Dimensions
- Reinforcing Size/Spacing/Location/Lap/Typ Row/Call-outs
- Bottom Slab Edge Bars (on skewed culverts with transverse reinforcing steel placed perpendicular to centerline culvert)
- Dowel Bar Size/Number Required/Call-outs (extensions)
- Elevations
- Slope in Percent (new)/Slope to Match Existing (extensions)
- Flow Line
- Top Slab Bevel Call-out
- Construction Joint/Keyway Call-outs
- Optional Construction Joint Base Call-out
- See Parapet Detail Call-out
- Line Styles/Patterning
- Showing Reinforcing Steel in Walls (under title)

Section Thru Barrel

- Width/Height/Thickness Dimensions
- Reinforcing Size/Spacing/Location/Clearance/Lap/Call-outs
- Construction Joint/Keyway Call-outs
- Line Styles/Patterning

Parapet Detail

- Width/Height Dimensions
- Reinforcing Size/Location/Clearance/Call-outs
- Line Styles/Patterning

Wingwall Plan

- Centerline Culvert
- Dimensions
- Angles
- Footing Reinforcing Size/Spacing/Location/Call-outs
- Weep Hole Pipe Call-out
- Line Styles/Patterning

Wingwall Elevation

- Centerline Weep Hole Pipe
- Dimensions
- Wingwall Reinforcing Size/Spacing/Location/Call-outs
- Construction Joint/Keyway/Joint Filler Call-out
- Line Styles/Patterning

Wingwall Section

- Dimensions
- Reinforcing Size/Clearance/Call-outs
- RF Wingwall Call-out
- Construction Joint/Keyway Call-out
- Weep Hole Pipe Call-out
- Line Styles/Patterning

Location Plan

- Detail to Scale
- Centerline Survey w/Stationing
- Bearing of Centerline Survey
- Centerline Culvert
- Skew and Complement at Centerline Survey
- Horizontal Dimensions
- Center of Culvert Call-out
- Station Call-out at Centerline Culvert
- Flow Arrow w/Name of Channel
- North Arrow
- Utilities w/Name of Owner (if available)
- Right-of-Way Lines Call-out
- TO X (destination)

Location Plan (Cont'd)

- Riprap/Gabions Call-out
- Culvert Subexcavation Call-out
- Existing Structure Call-out
- Section Symbols
- Line Styles/Patterning

Miscellaneous

- Optional Construction Joint Base Detail
- Eyebolt Detail (4 req'd per wingwall)
- Weep Hole Assembly Detail
- Riprap/Gabions Details
- Railing Details
- Cutwater Angle Details
- Horizontal Curve Data
- Bill of Reinforcement

Notes

- Alternate Legs Left and Right (multiple barrels, if not shown in section)
- Bars Shown are Not Included in the Quantity (optional construction joint base)
- Reinforcing Steel Placement
- Center Dowel Bars (extension)
- Place Edge Bars In Bottom Slab Symmetrical About Centerline Culvert
- Weep Hole Assembly Consists Of
- Prefix Numbers (multiple locations)
- Estimated Quantity of Concrete (multiple locations)
- For Bridge Railing Details

Precast Culvert Checklist

(See Cast-In-Place Checklist if Cast-In-Place End Sections are required)

Longitudinal Section

- Culvert Length
- Precast Culvert Sections Length
- Cast-In-Place Lengths
- Precast End Section Lengths
- Parapet/Cutoff Wall Dimensions
- Cast-In-Place Bottom Slab Reinforcing/Size/Location/Call-out
- Precast Reinforcing Extension/Call-out
- Elevations
- Slope in Percent
- Male/Female/Normal Section Call-outs
- Flow Line
- See Lap Joint Detail Call-out
- Haunch Call-out
- See Parapet Detail Call-out
- Line Styles/Patterning

Section Thru Barrel

- Width/Height/Thickness Dimensions
- Haunch Dimensions/Call-out
- Optional Construction Joint Call-out
- Patterning

Parapet Plan (when no skew)

- Centerline Culvert
- Parapet Width
- Reinforcing Size/Spacing/Location/Call-out
- Line Styles/Patterning

Parapet Detail

- Width/Height Dimensions
- Reinforcing Size/Location/Call-out
- Precast End Section Call-out
- Line Styles/Patterning

Wingwall Plan

- Centerline Culvert
- Dimensions
- Angles
- Footing Reinforcing Size/Spacing/Location/Call-outs
- Weep Hole Pipe Call-out
- Line Styles/Patterning

Wingwall Elevation

- Centerline Weep Hole Pipe
- Dimensions
- Wingwall Reinforcing Size/Spacing/Location/Call-outs
- Construction Joint/Keyway/Joint Filler Call-out
- Line Styles/Patterning

Wingwall Section

- Dimensions
- Reinforcing Size/Clearance/Call-outs
- RF Wingwall Call-out
- Construction Joint/Keyway Call-out
- Weep Hole Pipe Call-out
- Line Styles/Patterning

Location Plan

- Detail to Scale
- Centerline Survey w/Stationing
- Bearing of Centerline Survey
- Centerline Culvert
- Skew and Complement at Centerline Survey
- Horizontal Dimensions
- Center of Culvert Call-out
- Station Call-out at Centerline Culvert
- Flow Arrow w/Name of Channel
- North Arrow
- Utilities w/Name of Owner (if available)
- Right-of-Way Lines Call-out
- TO X (destination)
- Riprap/Gabions Call-out
- Culvert Subexcavation Call-out
- Existing Structure Call-out
- Section Symbols
- Line Styles/Patterning

Miscellaneous

- Lap Joint Detail
- Section Thru Precast Sloped End Section
- Eyebolt Detail (4 req'd per wingwall)
- Weep Hole Assembly Detail
- Riprap/Gabions Details
- Railing Details
- Cutwater Angle Details
- Horizontal Curve Data
- Bill of Reinforcement

Notes

- Fill Lifting Holes with Grout
- Mechanically Anchor Cutoff Walls and Parapets (precast sloped end sections)
- Weight of Each Precast Culvert Section
- Reinforcing Steel Placement
- Center Dowel Bars (extension)
- Weep Hole Assembly Consists Of
- Prefix Numbers (multiple locations)
- Estimated Quantity of Concrete (multiple locations)
- For Bridge Railing Details