

# OPEN BOTTOM STREAM & WETLAND CROSSING STRUCTURES

*StormTech Chambers Provide An Economical Solution to  
Maintaining a Natural Streambed in Low Velocity Waterways*



## STORMTECH CHAMBERS OFFER A MORE ECONOMICAL AND ECOLOGICAL SOLUTION

Utilizing open bottomed chambers as stream and wetland crossing structures is an excellent, cost-effective alternative to closed bottom structures. The open bottom allows for less disruption to the natural substrates within the streambed, as it is not necessary to embed the invert within the channel.

The open bottom allows for unimpeded stream flow, minimizing issues of stream disruption and eliminating the corrosive effects on water quality that can be a result of designing with CMP.

StormTech chambers are ideal for low velocity waterways. The large interior bottom widths of up to 80" make it easier to maintain streambed continuity and allows for easy placement of the correct bedding materials for the crossing's hydraulic design.

Maintaining the existing streambed also promotes stream and wetland continuity, normalizes transport, and preserves the natural flow regime. A natural streambed within a crossing is ideal for aquatic organism and amphibian passage, minimizing habitat fragmentation. By creating a wide open and well-illuminated crossing, critters and other wildlife are able to safely pass underneath roadways.





### **STORMTECH: ENGINEERED TO LAST**

With safety, durability and longevity in mind, StormTech chambers are engineered and manufactured to conform to ASTM F2418, ASTM F2922 and ASTM F2787 standards. They also exceed AASHTO 12.12 LRFD requirements for both live load and dead loads that require a 2-1 safety factor. The chambers are made of polypropylene resin eliminating corrosion which can lead to structural failure and the need for replacement

### **ADVANTAGES OF OPEN BOTTOM STREAM CROSSING**

- Promotes stream and wetland continuity
- Provides unimpeded stream flow
- Normalizes stream transport
- Minimizes habitat fragmentation
- Maintains natural streambed substrates
- Ideal for aquatic organism & amphibian passage
- Eliminates embedded culvert invert
- Reduces likelihood of plunging jet scour hole formation, which create fish breaks

### **CRITTER & WILDLIFE CROSSING APPLICATIONS**

Highway construction, timber harvesting, agricultural conversion, urban/residential development, and other factors have contributed to habitat loss and fragmentation over time. These issues threaten all species that need to cross roads to meet their biological needs. Utilizing open bottom chambers as underpasses or tunnels can assist with creating critter and wildlife crossings, safely linking habitat areas while enhancing new development.



**Visit [StormTech.com](http://StormTech.com) for a copy of  
Tech Sheet 8—Utilizing Chambers for Stream Crossings  
or call ADS Technical Services at 1.888.892.2694**

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