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Form-a-Drain Drainage Capacity vs. HDPE Drain Pipe

The 6", 8", & 10" Form-A-Drain system exceeds all applicable code requirements for foundation drainage systems *and meets those code requirements in superior fashion to HDPE corrugated pipe.*

Form-A-Drain is a dual footing form that creates parallel dedicated drainage pathways tight to both sidewalls of the footing. This unique arrangement of large, connected drainage pathways ensures that water is channeled around the building perimeter at the optimal height relative to footings and slabs (the configuration of Form-A-Drain lineals ensures that the bottom of the drain path is at least 6" below the bottom of the basement slab); in practice, HDPE corrugated pipe is seldom installed at a consistent height relative to footings. Furthermore, corrugated pipe is often installed in discontinuous sections that may not be visible at the time of inspection. Because Form-A-Drain is installed prior to footing pour, the entire continuous system is fully visible at the time of footing inspection.

Form-A-Drain is available with lateral components that connect the lineals to daylight (where the site configuration will permit such) or the sump pit required by IRC 405. This same section does not require a dedicated interior footing drain pathway, only a porous layer of sand or gravel with a provision for mechanical discharge – i.e. the sump pit and pump. Form-A-Drain exceeds this code requirement by creating a dedicated pathway tight to the footing, channeling water at exactly the position where it can be the most effective – at the outside perimeter of the basement slab.

As a result of high rain volume or existing subsurface conditions, groundwater can enter both sides of the drainage system simultaneously, either by moving upwards from below or by migrating from the outside to the inside of the wall. A fully connected system such as Form-A-Drain is the best way to manage this type of ground water for the following reasons:

- A critical penetration point in the foundation assembly is the intersection between the footing and wall. In a system using HDPE pipe, the inside pipe is often loosely placed several feet to the inside of the footing – or not at all, allowing water to accumulate in the porous layer at the critical wall-footing intersection. The position of Form-A-Drain lineals tight to the footing protects this intersection by placing the drainage pathway much closer to (and below) the intersection, drawing water directly away from the intersection and reducing volume where a reduction is needed most.
- With capacity the same or as much as 32% greater than a range of commercially available 4" round corrugated HDPE pipe, Form-a-Drain will meet or exceed IRC P3302.1 code requirements for flow capacity, and do a superior job of channeling that water directly to the discharge point. This is significant where increased groundwater accumulates along a specific section of the foundation wall – a normal occurrence.
- Optional crossover pipes connecting outside and inside drains, common practice in the industry, equalize water volume between outside and inside drainage channels. These crossover components do not affect the structural integrity of footings and they allow the connected system to manage water quickly and efficiently. In situations where daylight drains are practical, the crossovers create a back-up path so that water can drain to the sump pit if the daylight path is clogged or frozen. In situations where daylight drains are not practical, the crossovers allow outside water to flow quickly and efficiently to the sump pit where it can be discharged to the outside.