



# J·DRAIN®

Prefabricated Drainage Composites

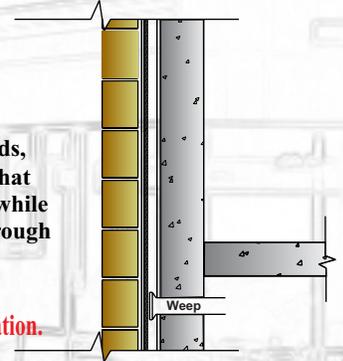
# Highway Construction



## Lagging Walls

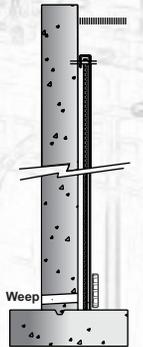
Proper drainage is extremely important when building a lagging wall. In order to avoid the high costs to build the wall to handle heavier loads, **J-Drain 400** series can be installed to reduce the hydrostatic pressure that can build up against the built wall. These products create an air void while the filter fabric retains the soil and particles to allow water to pass through and flow efficiently down the wall to weep holes or the **J-Drain SWD** collection system.

*Note: J·DRAIN CD Series available in 12, 18, & 24" widths for chimney application.*



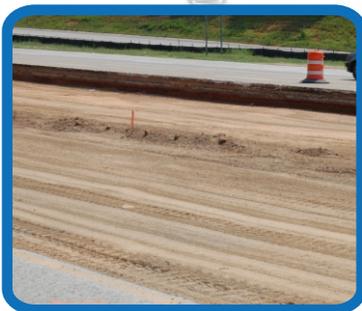
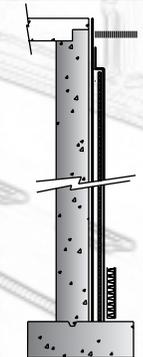
## Retaining Walls

**J-Drain 200 series, 400 series, & SWD** provides a truly unique drainage and collection system when building a retaining wall. Since proper drainage is a critical part of retaining wall construction, the **J-Drain** system consisting of either vertical chimneys or full wall coverage and a base collection system can be installed at a fraction of the cost of pipe and gravel french drains, which can clog and offer low flow rates. These products create an air void while the filter fabric retains the soil and particles to allow water to pass through and flow efficiently down the wall to weep holes or the **J-Drain SWD** collection system. This system helps address hydrostatic pressure or additional pressure caused from water freezes which can cause leaks and failures.



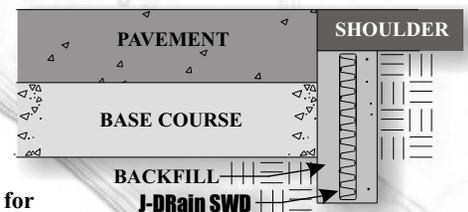
## Bridge Abutments

**J-Drain 200, 300, & 400 series** provides a revolutionary drainage and collection system when constructing bridge abutments. Since proper drainage is a critical part of bridge abutment construction, the **J-Drain** system which combines a wall composite drainage system along with a base collection system can be installed at a fraction of the cost of pipe and gravel french drains, which can clog and offer low flow rates. These products create an air void while the filter fabric retains the soil and particles to allow water to pass through and flow efficiently down the wall to the **J-Drain SWD** collection system. This system helps address hydrostatic pressure or additional pressure caused from water freezes which can cause leaks and failures.



## Highway Edge Drain

**J-Drain SWD** is a technically advanced cost effective alternative for highway edge drains. This composite drainage system consisting of a 3-dimensional, high flow, drainage core and a non-woven filter fabric requires only narrow trenches which eliminates the need for major equipment and reduces the amount of excavation to be removed. The filter fabric is wrapped and bonded to the drainage core, preventing intrusion into the flow channels during the backfilling process. Soil particles are held back by the filter fabric allowing water to pass through to the drainage core to be collected and conveyed to the discharge point.



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**Dimple Drain Core**

**J-DRAIN 200/220\***

[DIMPLE DRAIN CORE / NON-WOVEN GEOTEXTILE]

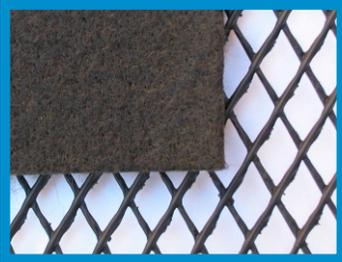
An excellent choice for light commercial and residential construction. Maintains a very high flow rate for shallow depths (less than 20'). Use with **J-DRAIN SWD-6 or SWD-12** Collection System for best results.  
Flow rate: 18 gpm Compression: 11,000 psf

**J-DRAIN 400/420\***

[DIMPLE DRAIN CORE / NON-WOVEN GEOTEXTILE]

Maintains a very high flow rate while providing a higher compressive strength for greater depths. A very popular choice for vertical and horizontal single sided drainage applications. Use with **J-DRAIN SWD-6 or SWD-12** Collection System for best results on vertical applications.  
Flow rate: 21 gpm Compression: 15,000 psf

**Note: J-DRAIN CD Series available in 12, 18, & 24" widths for chimney application.**



**Geonet Drain Core**

**J-DRAIN 300/302**

[VERY HEAVY DUTY GEONET DRAIN CORE / NON-WOVEN GEOTEXTILE]

This very heavy duty Geonet Composite has long been the choice of Architects and Engineers for the most rigorous and demanding applications requiring heavy duty vehicular traffic. Most suitable for under slab, split-slab, and other demanding applications. **302** provides for two sided drainage with fabric on both sides for applications such as roadways. Flow rate: 9 gpm Compression: 40,000 psf

**J-DRAIN 1000**

[VERY HEAVY DUTY GEONET DRAIN CORE / NON-WOVEN GEOTEXTILE. INCLUDES A MEMBRANE PROTECTION FABRIC BONDED TO BOTTOM SIDE]

**1000** is a modified version of **302** with the same demanding applications. It has a special heavy grey geotextile bonded to the bottom side for membrane protection.  
Flow rate: 9 gpm Compression: 40,000 psf



**Strip Drain Core**

**J-DRAIN SWD**

**J-DRAIN SWD** provides a very economical drainage system for retaining & foundation walls. Fittings are used at corners and transitions to pipe for transferring water to daylight or interior sump. The base collection system is very suitable to be used with other **J-DRAIN** wall drainage composites.

**J-DRAIN SWD** is also used as an interceptor drain or highway edge drain system consisting of a 3-dimensional, high flow, drainage core and a non-woven, needle-punched filter fabric. The filter fabric is wrapped and bonded to the drainage core, preventing intrusion of the filter fabric into the flow channels during the backfilling process. Soil particles are held back by the filter fabric allowing water to pass through to the drainage core, allowing water to be collected and conveyed to the discharge point.

ESR-1901



## PHYSICAL PROPERTIES

<b>DRAINAGE CORE</b>	<b>WIDTH</b>	<b>THICKNESS</b>	<b>COMPRESSION</b>	<b>FLOW</b>
<b>PRODUCTS</b>	feet (meters)	(ASTM D 1777) inch (mm)	(ASTM D 1621) psf (kNm <sup>2</sup> )	(ASTM D 4716) gal/min/ft (L/min/m)
<b>200/220</b>	4, 6.5, 8 (1.22, 1.98, 2.44)	.40 (10.16)	11,000 (527)	18 (223) (HG=1)
<b>400/420</b>	4, 6.5, 8 (1.22, 1.98, 2.44)	.40 (10.16)	15,000 (718)	21 (261) (HG=1)
<b>300/302</b>	4, 7 (1.22, 2.13)	.25 (6.35)	40,000 (1915)	8.5 (106) (HG=1)
<b>1000</b>	4 (1.22)	.25 (6.35)	40,000 (1915)	8.5 (106) (HG=1)
<b>SWD</b>	6", 12", 18", 24", 36"	1.0 (25.4)	9,500 (455)	30 (372) (HG=.1)

<b>FILTER FABRIC</b>	<b>APPARENT OPENING SIZE</b>	<b>WATER FLOW RATE</b>	<b>GRAB TENSILE</b>	<b>GRAB ELONGATION</b>	<b>CBR PUNCTURE</b>
<b>PRODUCTS</b>	(ASTM D 4751) U.S. STAND. SIEVE (mm)	(ASTM D 4491) gal/min/ft <sup>2</sup> (l/min/m <sup>2</sup> )	(ASTM D 4632) lbs. (Kn)	(ASTM D 4632) %	(ASTM D 6241) lbs. (Kn)
<b>200/220 (4ozNW)</b>	70 (0.21)	140 (5704)	100 (0.45)	50	250 (1.11)
<b>400/420 (4ozNW)</b>	70 (0.21)	140 (5704)	100 (0.45)	50	250 (1.11)
<b>300/302 (4ozNW)</b>	70 (0.21)	140 (5704)	100 (0.45)	50	250 (1.11)
<b>1000 (grey6ozNW)</b>	70 (0.18)	110 (4481)	160 (0.712)	50	410 (1.83)
<b>SWD (4ozNW)</b>	70 (0.21)	140 (5698)	100 (0.45)	50	250 (1.11)

The information contained herein is believed by JDR Enterprises, Inc. to be accurate and is offered solely for the customer's consideration, investigation and verification. Determination of suitability for use is the responsibility of the user. JDR's Limitations, Limited Warranty, & Disclaimer along with Standard Terms & Conditions apply. See www.j-drain.com for more info. Limitations: J-DRain is resistant to chemicals in normal soil environments. However, some reagents may affect the performance of J-DRain. A JDR representative should be contacted for further information to determine the suitability of use of J-DRain in unusual soil environments. J-DRain should be limited to its exposure to ultra-violet sunlight. J-DRain should be backfilled or covered within seven days of installation. Disclaimer: All information, drawings and specifications are based on the latest published information at the time of printing. JDR reserves the right to make changes due to manufacturing improvements and engineering at any time. All physical properties are minimum average roll values (MARV). Standard variations of 10% in mechanical properties and 15% in hydraulic properties are normal.