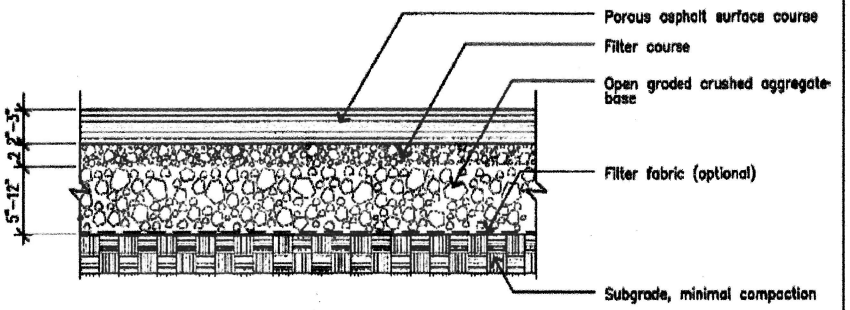
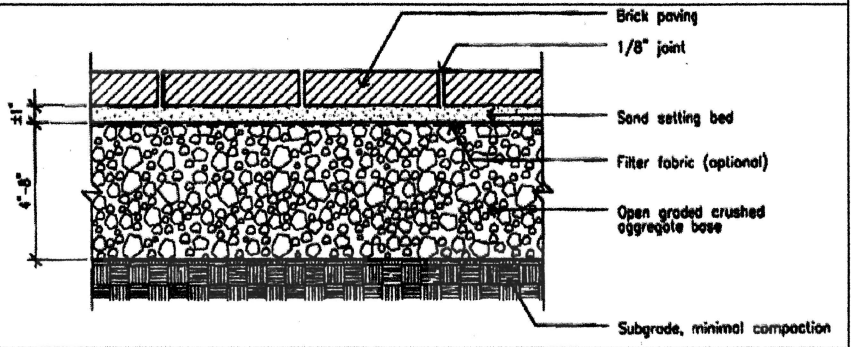
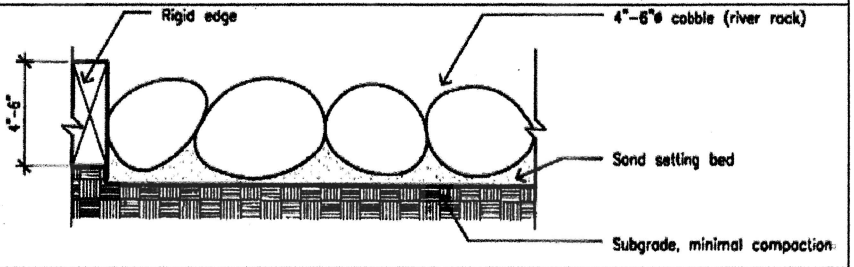
Pavement Permeability Chart[1]

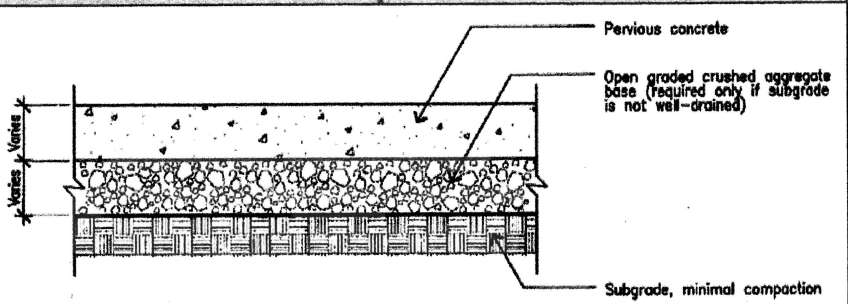
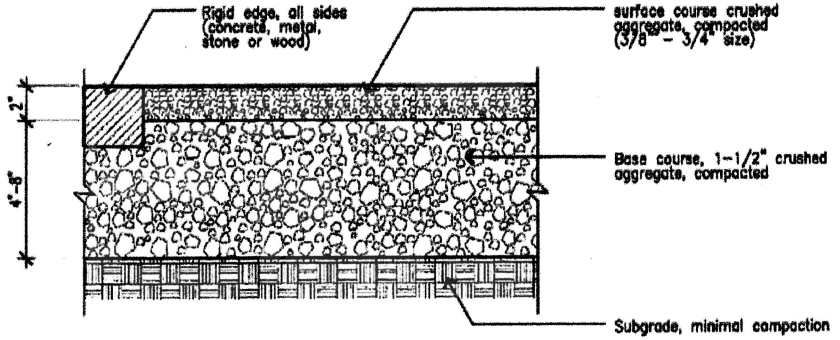
Material	Description	Possible Applications[2]	Percent Permeable[3]	Example
Asphalt (conventional)	Impervious cemetitious material in which the predominating constituents are bitumens. Contains fine aggregate (dust or sand) that fill the voids between larger particles making it impermeable.	• High volume and/or speed traffic areas • If feasible, slope towards infiltration basins instead of into directly-connected collection structures	Negligible	
Asphalt (porous)	Open-graded asphalt concrete over an open-graded aggregate base, over a draining soil. Contains very little fine aggregate (dust or sand) and is comprised almost entirely of stone aggregate and asphalt binder;	• Flat sites (slopes <6%) with uniform, permeable subgrade • Low traffic use, such as parking lots, travel lanes, parking stalls • Surface may be too rough for	25 to 40%	

[1] This chart was generally derived from Start at the Source: Design Guidance Manual for Stormwater Quality Protection (1999 edition)

[2] Permeable pavements are not appropriate for gas stations, truck stops, or areas in which high concentrations of hydrocarbons or other pollutants can be leached into soil.

[3] Percentages are based largely on runoff coefficients that determine the portion of rainfall or irrigation that will run off the surface based on the permeability and water-holding capacity of the material. The runoff coefficient value, expressed as C, can vary from close to zero to up to 1.0. A low C value indicates that most of the water is retained for a time on the site, as by soaking into the ground or forming puddles, whereas a high C value means that most of the water runs off rapidly. These estimates are only approximate and should not be used for flood control sizing.

Material	Description	Possible Applications[2]	Percent Permeable[3]	Example
	surface void content of 12-20%.	bicycle path		
Brick	Solid unit paver laid on a permeable base with sand joints.	• Flat sites (slopes <6%) • Driveways, walkways, patios, public sidewalks, plazas, low volume streets	25 to 85%, depending on joint spacing (larger joints have greater permeability). Mortared joints on a concrete base have 0% permeability	
Cobbles	Natural stones of various sizes generally consisting of larger granular material ranging from 6 inches to 24 inches diameter set on soil.	• Garden areas (i.e., around bases of trees), parkway planter strips and median island, decorative landscaping	10 to 40%, depending on joint spacing and stone size	
Concrete (conventional)	Impervious composite building material made from the combination of aggregate (generally gravel and sand) and cement binder.	• High volume driveways, sidewalks • If feasible, slope towards infiltration basins instead of into directly-connected collection structures	Negligible	

Material	Description	Possible Applications[2]	Percent Permeable[3]	Example
Concrete (pervious) also called Portland cement pervious pavement	A discontinuous mixture of coarse aggregate, hydraulic cement and other cementitious materials, admixtures, and water which has a surface void content of 15-25% allowing water to pass through.	• Flat sites (slopes <6%) with uniform, permeable subgrade • Sidewalks and patios • Low traffic volume and low speed (less than 30 mph limit) bikeways, streets, travel lanes, parking stalls, and residential driveways	30 to 50%	
Crushed aggregate (gravel)	Crushed stone ranging from sand-sized fines to 2-inch diameter stone.	• Parking stalls, driveways, walkways, plazas, patios, street shoulder • Low volume and low speed vehicle traffic areas • Areas of low erosion • For surfaces subject to vehicular use, crushed gravel sizes between 3/8" and 3/4" make a stable surface that is also easy to walk on	60 to 90%, permeability increases with larger aggregate sizes