

APPENDIX

J. EXFILTRATION DESIGN - HYDRO-GEOTECHNICAL AIDS - K FOR SATURATED AND COMPACTED LAB SOIL SPECIMENS

Table J-1: Coefficient of Permeability (k) for Saturated and Compacted Laboratory Soil Specimens

| SOIL TYPICAL NAME | SOIL CLASSIFICATION | | PERMEABILITY (ft/day) |
|--|---------------------|--------|---|
| | UNIFIED | AASHTO | |
| Well-graded gravels or gravel-sand mixtures with little or no fines | GW | A-3 | 300 to 0.3 Pervious |
| Poorly graded gravels or gravel-sand mixtures with little or no fines | GP | A-3 | 3×10^4 to 30 Very pervious |
| Silty gravels, gravel-sand-silt mixtures | GM | A-2-4 | 3 to 3×10^{-3} Semi-pervious to pervious |
| Clayey gravels, gravel-sand-clay mixtures | GC | A-2-6 | 3×10^{-3} to 3×10^{-5} Impervious |
| Well-graded sands or gravelly sands with little or no fines | SW | A-3 | 30 to 0.3 Pervious |
| Poorly graded sands or gravelly sands with little or no fines | SP | A-3 | 300 to 3 Pervious |
| Silty sands, sand-silt mixtures | SM | A-2-4 | 3 to 3×10^{-3} Semi-pervious to pervious |
| Clayey sands, sand-clay mixtures | SC | A-6 | 3×10^{-3} to 3×10^{-5} Impervious |
| Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slightly plasticity | ML | A-6 | 3 to 3×10^{-3} Semi-pervious to pervious |
| Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays | CL | A-7 | 3×10^{-3} to 3×10^{-5} Impervious |
| Organic silts and organic silty clays of low plasticity | OL | A-6 | 0.3 to 3×10^{-3} Semi-pervious to pervious |
| Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts | MH | A-6 | 0.03 to 3×10^{-4} Semi-pervious to pervious |
| Organic clays of high plasticity, fat clays | CH | A-8 | 3×10^{-3} to 3×10^{-6} Impervious |

NOTE: Table adapted from Drainage Manual Volume 2, FDOT 1987.

Table J-2: Coefficient of Permeability (k) for SCS Hydrological Soils

| HYDROLOGICAL SOIL CLASSIFICATION | | PERMEABILITY (ft/day) |
|----------------------------------|--|--------------------------|
| TYPE | CHARACTERISTICS | |
| A | Soils that have high infiltration rates even when thoroughly wetted and a high rate of water transmission | 60 |
| B | Soils that have moderated infiltration rates when thoroughly wetted and a moderated rate of water transmission | 48 |
| C | Soils that have slow infiltration rates when thoroughly wetted and a slow rate of water transmission | 24 |
| D | Soils having very slow infiltration rates when thoroughly wetted and a very slow rate of water transmission | 12 |
| A/D | Soils Type A under saturated natural conditions that can be adequately drained, considering that drainage is feasible and practical. | 60 |
| B/D | Soils Type B under saturated natural conditions that can be adequately drained, considering that drainage is feasible and practical. | 36 |
| C/D | Soils Type C under saturated natural conditions that can be adequately drained, considering that drainage is feasible and practical. | 12 |

NOTE: Table adapted from Applicant's Handbook: Regulation of Stormwater Management Systems. SJRWMD, 2005