COMPARISON OF ROADS (PAVEMENTS) MADE BY PAVER BLOCKS, REINFORCED CEMENT CONCRETE (R.C.C.) & BITUMEN (ASPHALT)

FEATURES	PAVER BLOCKS	REINFORCED CEMENT CONCRETE (R.C.C.)	BITUMEN (ASPHALT)
Life Expectancy	>20 years	>20 years	5-10 years (with frequent resurfacing)
Initial Cost	Medium	High	Low
Construction Time	Medium as pavers are laid manually. After construction immediate use is possible.	Very High as after construction 15-20 days required for curing	Low. After construction, use possible within 1-2 days.
Rainwater Drainage	Permeable Pavers allow water to pass through to the base thereby reduce pooling or flooding in heavy rain	Surface is impermeable and drainage must be achieved by proper surface camber and slope.	Surface is impermeable and drainage must be achieved by proper surface camber and slope.
Safety	Good slip and skid resistance, helps reduce braking distances.	Prone to slippage and skidding during rain and due to spills.	Good traction and skid resistance.
Surface Cracks	Not affected by rainwater or thermal heat of expansion (due to small unit size and mass).	Prone to cracks due to large thermal mass (which requires provision of expansion joints) and due to poor base preparation.	Heavy rains, extreme temperatures and wear and tear result in cracks and rutting leading to potholes.
Repairs	Easy, fast, and inexpensive as even a single paver block can be removed, and re-laid/ replaced. Repaired area is available for immediate use.	Difficult, time consuming and expensive as whole concrete slab may have to be replaced and re-cast.	Cracks, potholes can be repaired inexpensively and quickly by patch work. But repaired area is often not durable due to poor work quality.
Reuse	Same blocks can be removed and reinstated after repairs.	Cannot be reused but can be crushed for recycling.	Cannot be reused but can be crushed for recycling.
Quality	Factory produced in large volumes to meet stringent specifications and Indian Standards for strength, water absorption, abrasion resistance and dimensional tolerances.	Cast at site and hence dependant on quality of concrete and compaction at the site.	Since asphalt is a flexible pavement, its strength relies heavily on the subgrade, subbase and base materials being well compacted and the right material.
Environmental Issues	Paver block usage has no harmful effects on the environment.	Concrete pavement construction has no harmful effects on the environment.	Process of melting bitumen creates greenhouse gases that contribute to environmental pollution.

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