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- **M5 to M7.5 Grades:** Ideal for non-load-bearing structures, such as garden paths and fence post footings. These mixes are unsuitable for supporting buildings but great for small DIY projects.
- **M10 to M15 Grades:** These grades are commonly used in residential construction for elements that support moderate loads. They are perfect for building foundations and internal floors.
- **M20 to M25 Grades:** This high-strength concrete is suitable for significant structural applications, including support columns and beams bearing heavy loads.

CONCRETE SLAB

Concrete slabs are a popular choice for sidewalks due to their durability and ease of installation. A concrete slab is a flat, horizontal surface made of cast concrete. A typical sidewalk slab is usually about 4 inches thick, providing sufficient strength for pedestrian use. A thicker slab, around 6 inches, is recommended for areas with potential vehicular traffic.

Expansion joints, which are full-depth gaps filled with flexible material, accommodate the slab's expansion and contraction, preventing damage from temperature fluctuations. Using gravel or crushed stone as a foundation for concrete slabs is also essential. The stones absorb moisture that could turn into pooling water that can erode the surface from the bottom.

REFERENCE:

<https://www.ultratechcement.com/for-homebuilders/home-building-explained-single/descriptive-articles/what-is-concrete-mix-ratio#:~:text=Common%20ratios%20like%201:2,durability%20is%20not%20a%20priority.>

<https://lonestarpavingtx.com/best-concrete-for-sidewalks/>