

PRESTRESSED HOLLOWCORE CONCRETE SLABS

Used As Vertical Walling







ADVANTAGES

- Successful fast track solution expected to be used more in future.
- Projects complete up to 4 weeks ahead of schedule.
- The quality of the panels after 11 years of exposure to the elements is still of good quality no wear visible.
- Panels are installed straight from the delivery trucks.
- Wall panels are delivered to site with ready made holes to facilitate lifting into position.
- Maintenance and trouble free.
- · Hollow core panels are resistant to hammer and chisel.
- No requirements for shuttering or on site curing.
- Electric fencing or barbed wire fixtures are easily accommodated because of the available open cores.

SECURITY FEATURES

- 1. Wall panels are cast using a 50MPa concrete mix.
- Panels are stripped off the casting bed only once 35MPa is achieved, ensuring the bond between concrete and prestressed wire or strand.
- 3. Minimum concrete strength at 28 days is 50MPa
- 4. Slabs can be designed for:
- 4.1 Impact resistance
- 4.2 Wind resistance
- 4.3 Water drainage without compromising security
- 5. No foot hold at all both sides smooth
- 6. Additional safety measures like electric fencing and razor wire can be fitted to the walls without a problem.

WHERE WOULD PRECAST SLABS BE USED AS VERTICAL WALLING?

- Security walling for prisons, airports, military bases or for any other buildings with high security requirements.
- Used as walls to construct a building. This application is installed between structural steel or concrete columns.
- Also used as retaining walls.









THE PRESTRESSED HOLLOW CORE FLOOR SLABS ARE ADAPTED AS FOLLOWS TO BE USED AS WALL SLABS:

- The panels are equally stressed top to bottom, equal number of prestressing wire or cables are used – top and bottom.
- 2. The side formation is adapted so that panels, when placed side by side, butt flush with one another with a neat V joint. A void is created between each panel with a special side formation. This void can be grouted or left ungrouted whichever the design may call for.
- Designs are varied to accommodate various heights of walls, security requirements, wind resistance, water drainage requirement's etc.
- 4. Any slab depth may be used: 120mm, 150mm, 200mm and 250mm
- 5. Security walling mainly uses 120mm and 150mm deep slabs.

TYPICAL DESIGN

- 1. 120mm deep hollow core
- 2. Manufactured 4 000mm long
- 3. 1m into the ground, 3m above ground
- 4. Foundation size 900mm wide, 1 200mm deep with 200mm of compacted gravel 95% MOD. AASHTO
- 5. Balance is soil and cement (4% cement min) Compacted in layers of 150mm 93% MOD AASHTO
- 6. GM>1,5
- 7. PI > 12

Designs are adapted to suit soil conditions and heights are varied to the client's requirements.

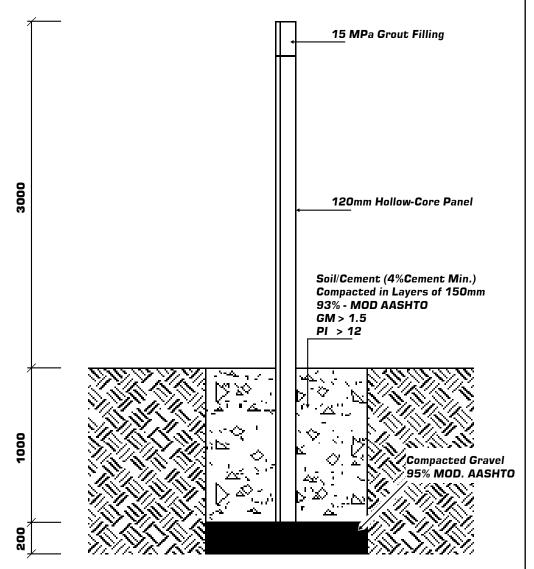








SECURITY WALL TYPICAL SECTION



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