

- I. GRP ladders and cages shall have the dimensions and design criteria enumerated in Drawings.

2.2.2 Glass Reinforced Plastic (GRP) Hand railing Materials

- A. GRP hand railing shall be formed from a structural core of glass rich laminate of chopped strand mat of Advantex or similar corrosion resistant glass and vinyl ester resin. The surface of the hand railing shall be coated with a protective layer of resin-rich vinyl ester resin reinforced with 'C' glass tissue.
- B. GRP hand railing shall be in prefabricated lengths complete with fittings. The Contractor shall ensure that unless otherwise specified, all hand railing shall be of uniform appearance and manufacture.

2.2.3 (GRP) Grab Handles

- A. GRP grab handles shall be constructed from 20mm diameter formed mild steel bars and coated with a resin rich GRP laminate. Handles shall have 150mm x 150mm square openings in their final position. They shall be positioned 400mm apart and centrally over the ladder as directed by the Engineer and securely anchored into concrete or block work

2.2.4 Accessories

SEARCH ALL DOCUMENT - For all hardware (nuts, bolts, washers, etc.) it shall be grade 316 and for all other applications it shall be grade 316L.

- A. **ANCHOR BOLTS:** All anchor bolts shall be 316 stainless steel, and fabricated as shown on the Drawings, or as specified by the manufacturer. Expansion bolts may be used in lieu of anchor bolts at locations designated and approved by the Engineer.
- B. **BONDING LUGS:** The bonding lugs shall have a roughened surface to provide adequate bond with concrete and shall project a minimum of 100 mm into the concrete. The lugs shall be designed such that it shall not dislocate from either the rail or its fixing point in the concrete.
- C. **HANGING CHAINS:** Ladders and other openings shall be closeable with hook ended hanging chains.

2.3 Part 3 Execution

2.3.1 Examination

- A. Verify site conditions under provisions of Section 01039.