

GENERAL:

The scope of this document is to provide instruction for the installation of concrete steam tunnels.

DESIGN GUIDELINES:

A. General

1. All concrete reinforcement bars shall be fabricated with ChromX 9100 (ASTM A 1035, 100 ksi yield grade, deformed steel bars, unfinished).
2. All reinforcing bars shall be deformed conforming to ASTM A305 "Specifications for Minimum Requirements for the Deformation of Deformed Steel Bars for Concrete Reinforcements".
3. Wire fabric for reinforcement shall conform to ASTM A185 "Specifications for Welded Steel Wire Fabric for Concrete Reinforcement". Wire fabric shall be furnished in flat sheets not rolls.
4. Tie wire shall be plastic coated 16 gauge black annealed wire.
5. Provide spacers, chairs, bolsters, and other devices to properly space and support reinforcing bars and welded wire fabric. Use plastic tipped accessories at exposed surfaces.
6. Reinforcing bars supported from formwork shall rest on coated wire bar supports or on bar supports made of dielectric material or other acceptable materials. Wire bar supports shall be coated with dielectric material, compatible with concrete, for a minimum distance of 2 inches from the point of contact with the reinforcing bars. Proprietary combination bar clips and spreaders used in walls with reinforcing bars shall be made of corrosion-resistant material or coated with dielectric material.

B. Installation

1. All work shall comply with provisions contained in the following documents:
 - 1.1. "Manual of Standard Practice" of the American Concrete Institute (ACI 315).
 - 1.2. "Manual of Standard Practice" of the Concrete Reinforcing Steel Institute (CRSI).
 - 1.3. "Building Code Requirements for Reinforced Concrete" (ACI 318).
2. Reinforcing steel shall be stored off the ground and protected from oil, or other deleterious materials.
3. Clean oil, mud, loose rust and scale from reinforcing steel before concrete is placed. Locate accurately in forms and hold firmly with approved supports and spacers.
4. Use metal accessories to keep reinforcing clear distance from finish face of concrete surface as required by applicable standards.
5. Cutting of bars shall be with mechanical saw only. Torch cutting will not be allowed.
6. Provide supervision during placing of concrete to watch reinforcing and reset any bars displaced by pouring operation.

7. For welded wire fabric lap adjoining pieces one full mesh and lace splices with 16 gauge wire. Offset end laps in adjacent widths to prevent continuous laps

REFERENCES