

31 70 00 Tunnels

Revision 01/04/2019

Purpose:

The Architect and/or Engineer shall incorporate the Rice specific requirements indicated in this standard's section into their design. The Architect and/or Engineer shall further produce project specifications in line with industry standards that are updated to reflect these Rice specific requirements.

1. General Requirements

- a. The standard design is for poured in place tunnels. Prefab tunnels are not acceptable.
- b. Tunnels will have an exterior bentonite waterproofing.
- c. Conduits for lighting and power shall be surface mounted inside tunnel. Do not bury in concrete.
- d. Tunnel lighting shall be dual switched.
- e. Top of tunnel to be minimum 3 feet below top of grade.
- f. Architect/Engineer shall coordinate with Rice Project Manager and University Architect regarding at-grade hatches and ventilation assemblies prior to 50% Design Development.
- g. Entrances to tunnels shall be secured with cage doors similar to those currently in use. Coordinate with Rice Project Manager to visit an example.
- h. Walk paths in new tunnels shall be sufficiently sized to allow a person to walk upright unobstructed. Exceptions may be granted by the University where there is a conflict with gravity sloped pipes.

2. At Buildings Basements

- a. Where tunnels meet buildings there shall be a floodlight door (submariner door).
- b. For security, a caged door shall be installed just inside the tunnel.
- c. Penetrations into building basements will require double linkseals.