

Enclosure Design Considerations for Burrowing Animals

Burrowing animals rely on underground networks of tunnels, nests, food stores, and defecation sites. They provide shelter, a thermally stable environment, and protection against predators.



Site Selection

- Avoid sites that are prone to flooding.
- A gentle slope provides good drainage without too much erosion.
- Soil texture and density must be appropriate for the species. Most burrowing animals are best equipped to create structurally stable tunnels in tightly packed, medium-textured soil.



Reinforcement

- Hardy or turf grasses can reinforce the soil to better support burrowing activities.
- Sturdy building materials like PVC or gutter piping can be used to stabilize burrows, particularly at entrances, which are at greater risk for collapse.

Containment

- Prevent underground escape routes by burying steel mesh or fencing or by pouring concrete below grade.
- Wall surfaces should be smooth and unclimbable.

Secondary Enclosure

Adding a secondary enclosure, or night house, combined with positive reinforcement training, allows staff to shift the entire group on and off exhibit daily. This provides an opportunity to effectively monitor the health of each animal on a daily basis. It can also serve as backup housing to ensure the colony's safety during exhibit maintenance or extreme weather.

Access

People walking on top of burrows during enclosure maintenance is one of the more common causes of tunnel collapse, particularly near burrow entrances. Creating a path with large stones or pavers provides a means for staff to access different areas within the enclosure without disrupting the burrow system.



PRAIRIE DOGS

Burrow collapse most commonly impacts captive prairie dog colonies.

Building structurally sound tunnels is a behavior that young animals learn from adults. Young prairie dogs that do not have access to adults tend to build burrows that are prone to collapse. Including adult animals is crucial when establishing prairie dog colonies.

