The Sunnen Station serves an inner-ring suburban community with a very mixed development pattern. The area immediately surrounding the station is developed with a planned development, the Sunnen Business Park, which contains several large office buildings. The remainder of the quarter-mile area around the MetroLink Station is split almost evenly between one- and two-story commercial and industrial uses with large footprints, and one- and two-story single-family homes. There also are a limited number of two- and three-story garden apartment buildings along Laclede Station Road, north of the Burlington Northern railroad. Hanley Road and Big Bend Boulevard serve as major north-south thoroughfares for the station area, while Manchester Road carries traffic east-west just north of the quarter-mile station area.

*There is no Park-Ride Lot at this station.*