

Background

Since 1990, total population growth of the Phoenix metropolitan area has been the highest of any metro area in the U.S. By 2030, the Maricopa Association of Governments (MAG) projects population within Maricopa County will increase by about 70% to 6.1 million.

Impacts of traffic congestion and commute times in the West Valley of Maricopa County have been of major concern for some time.

Solutions to these issues remain challenging, as MAG, ADOT, and individual municipality officials investigate mass-transit alternatives.

Park-and-ride facilities offer a reprieve from traffic congestion, escalating gas prices, long commute times, and contribute to the reduction emissions, giving rise to their promise as a vital component of the Valley's mass transit future.

About the Facility

Carved from a 22-acre vacant land parcel situated along the northeast quadrant of Glendale Avenue and 99th Avenue purchased from ADOT by the City, Glendale's first park-and-ride is designed to operate as both a bus rapid transit facility and a local transit stop.

The 12.70 acre facility opened in March 2008 with 388 parking spaces including motorcycle and ADA compliant spaces and has become successful beyond expectations.

With ridership exceeding initial projections, it serves transit patrons along east and westbound Glendale Avenue, the "Luke Link" and express service to and from Phoenix.

Phase 2 of the park-and-ride has provisions for an additional 254 spaces, ranking the Glendale park-and-ride among the largest in the Valley at full build-out.

Redefining



A Security Building strategically positioned on the platform for heating and cooling requirements, and the use of large shaded perimeter fenestration allows for maximum sight lines. Low VOC (Volatile Organic Compounds) interior paint and recycled rubber flooring was used in the security room.



Angled profile, high solar reflectance shade canopies over parking areas, passenger walkways and the main platform. The angled profile allows heat to escape while capturing and diverting rainwater into landscaped areas.

Native, drought resistant landscape architecture designed to capture rainwater runoff and provide a cooling effect at passenger platforms which have been located to take advantage of the prevailing westerly winds.



Pervious concrete parking areas totaling 15,271 square yards, or nearly 2.5 NFL football fields making it the largest area of this pavement type in the State. The lower density of the material (15 to 25% void spaces) reduces heat storage capacity significantly reducing the urban heat island effect phenomenon typically experienced in large paved areas. The use of pervious concrete discharging to soil or underground storage facilities permits stormwater to be "cleaned" of its pollutants before discharge to surface waters and aids in reducing land capacity demands associated with conventional pavement applications requiring more extensive drainage systems, thus allowing site designers to optimize land use potential in an environmentally prudent manner.

ACEC Arizona

28th Annual Engineering Excellence Awards

CATEGORY H: TRANSPORTATION

City of Glendale Park-and-Ride at Glendale Avenue and 99th Avenue

Client/Owner: City of Glendale, Arizona

Entering Firm: JACOBS Engineering Group, Inc., Phoenix, Arizona

Concrete Subcontractor
Progressive Concrete Works
DrainScape.com

JACOBS

American Council of Engineers
2008 Grand Award Winning Project
Drainscape Pervious Concrete
Installed by Progressive Concrete

Jacobs Engineering Group, Inc.

Client: City of Glendale Transit
Owner: City of Glendale
Transportation Department
Glendale Park & Ride –



With a goal to design and construct a transit facility to curb the urban heat island effect, the City of Glendale retained Jacobs to design their Park-and-Ride facility. Jacobs incorporated pervious concrete in parking areas, drought resistant landscape design, angled profile, high solar reflectance shade canopies, and a “green design” security building. This sets a new standard for a user-friendly, environmentally sensitive

park-and-ride facility. The 12.7 acre facility has 388 parking spaces and has become highly successful. Congratulations Jacobs Engineering Group, Inc.!