**Design Description**

The main uses of the new design are retail and restaurants, a 500-room hotel, a botanical garden, and an Astrodome museum. The concourse areas are maintained as existing, but occupied partially to reduce operational energy. The outer most layer of the building is converted to sizable 20’ deep semi-outdoor spaces that act a buffer zone perimeter. The remaining semi-outdoor space between the botanical garden and the concourse areas has semi-open open, and fully open, and is a hybrid of closed, semi-closed, and fully-open. The remaining semi-outdoor space between the botanical garden and the concourse areas has spot cooling and displacement ventilation. Water from condensate is collected, treated and used for irrigation. An extensive array of photovoltaics is designed in the surface parking lot to the outdoors. All areas’ parking needs are served by an underground parking area that uses the existing below-grade structure.

**Energy Savings Strategies**

The skylights are replaced with ETFE with a fritted translucent layer with a SGHC of 25 and a VLT of 62%. The LPD was reduced between 30% to 40% as compared to the current building. The skylights are replaced with ETFE with a VLT of 62%. The LPD was reduced between 30% to 40% as compared to the current building.