Parking symposium

North Central Texas Council of Government
OLD TOWN TRANSIT ORIENTED DEVELOPMENT (TOD) PLAN
Artist rendering of water feature and plaza space by night
Analysis

Accessibility
The downtown core of Lewisville is divided into two, one-way couplets; Main Street and Church Street. The plaza will be located between these two main corridors. The main north-south connection downtown is Mill Street, which defines the east edge the plaza.

Public Parking
A study conducted in 2006 by DeShazo, Tang and Associates Inc. indicate the number of parking spaces which occur in the Lewisville downtown core. These parking areas have been shown in yellow. The study also included a survey of how the parking lots were utilized during weekday and weekend peak usage, shown in the analysis chart.

A notable lack of signage throughout the downtown core creates an unclear understanding of where public parking is available. This, combined with a lack of street lighting, most notably in the new parking lot at the intersection of Elm Street and Mill Street, creates a perceived unsafe area that discourages the use for parking during night-time hours.

Another example of underutilized parking is the City Hall parking lot, consisting of nearly 175 spaces, which is notably empty during evening hours. However, this parking lot is available for general public use.
Analysis

Human Comfort

The chart below tracks the average temperature and humidity levels throughout the calendar year. High temperatures, combined with high levels of humidity result in time periods which are uncomfortable for most individuals. This area highlighted occurs during the months of May through August. Average surface temperatures of the existing surface of the future plaza, observed in these months, exceed 120 degrees. This creates a poor pedestrian environment. In order to provide an enjoyable experience for guests of the plaza, the design will need to respond to these site conditions and be designed in a way to direct breezes into the plaza as well as provide shade.

An understanding of solar patterns indicate that the plaza will be in sun nearly all day, unless shade-providing structures such as trellises, awnings and shade trees are implemented into the design. This level of concern of poor human comfort and lack of shade is also conveyed along Main Street.

Not to Scale
Overall Signage and Parking Study

In developing the alternatives for the future plaza, a comprehensive 6-block, or 2 minute walking radius from the Old Town core, was analyzed. Approximately 432 existing spaces were counted. However, with efficiency in off-street parking lots and properly-striping roads, an additional 150 spaces can be created, bringing the total to approximately 583 spaces. This takes into account spaces lost upon the development of the proposed plaza.

In addition, pedestrian enhancements such as street trees, sidewalks, and Old Town entry enhancements were taken into consideration. On-street motorbike parking was considered in applicable areas along Main Street.

LEGEND

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<th>Block</th>
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<th>Proposed Spaces</th>
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<td>TOTAL</td>
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Overall Directional Signage Plan
Walking Radius Study

The location for the future plaza will require the loss of an existing parking lot. It is therefore, important to understand how parking will be distributed around the plaza in order to mitigate for the loss.

Traditional standards indicate that pedestrians are able to walk 1500 feet in approximately 5 minutes, equating to 300 feet a minute. The drawing above indicate two projects located within miles of the project; the Vista Ridge Mall and the Lowe's Home Improvement Store located at Valley Ridge Boulevard and Interstate 35. The circles on each diagram represent a one minute walking radius. A large portion of parking areas are located between one and two minute walking distances.

When compared to the Old Town Plaza and downtown area of Lewisville, most areas are reachable within the same walking distance of one to two minute walk.