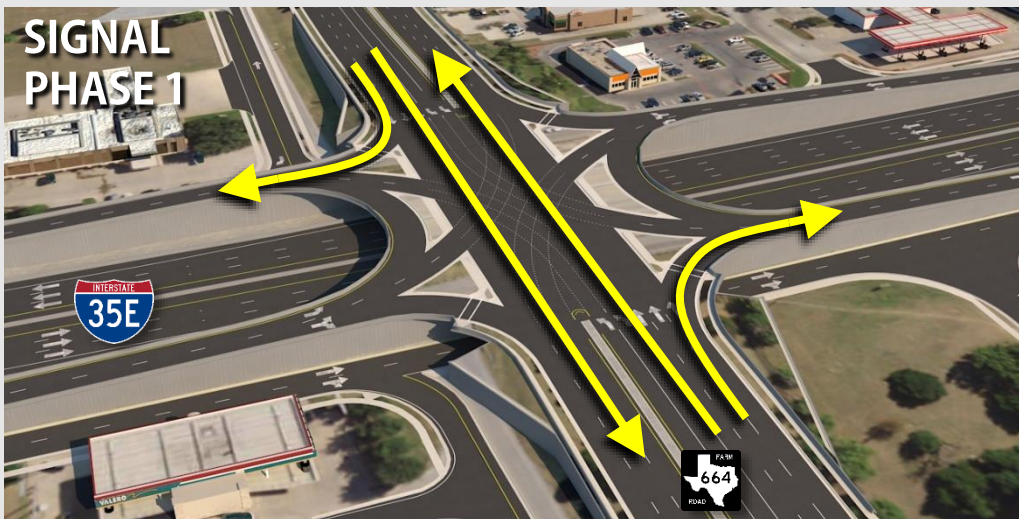


# Fact Sheet – Single Point Urban Interchange

## SIGNAL PHASE 1

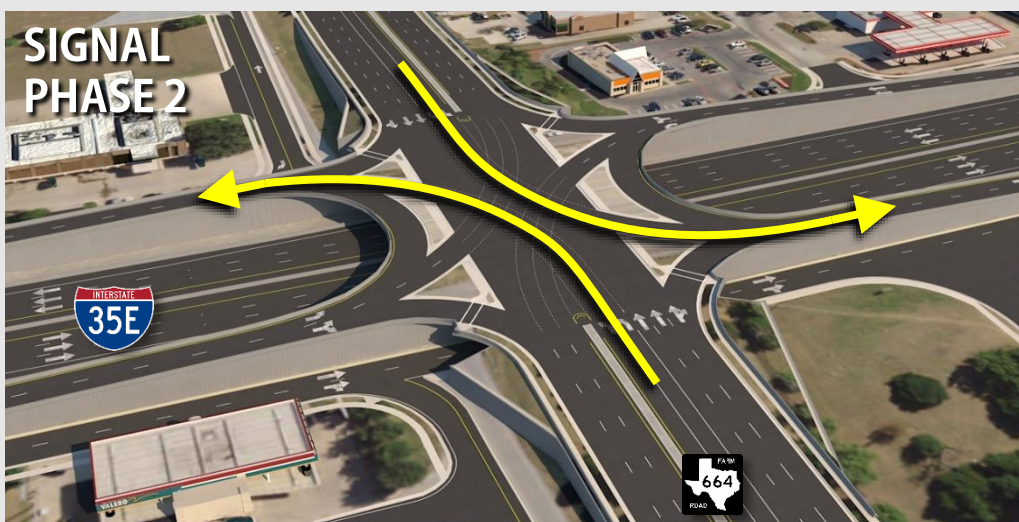


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FM 664 traffic moves through the intersection with free right turns to IH35E

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## SIGNAL PHASE 2

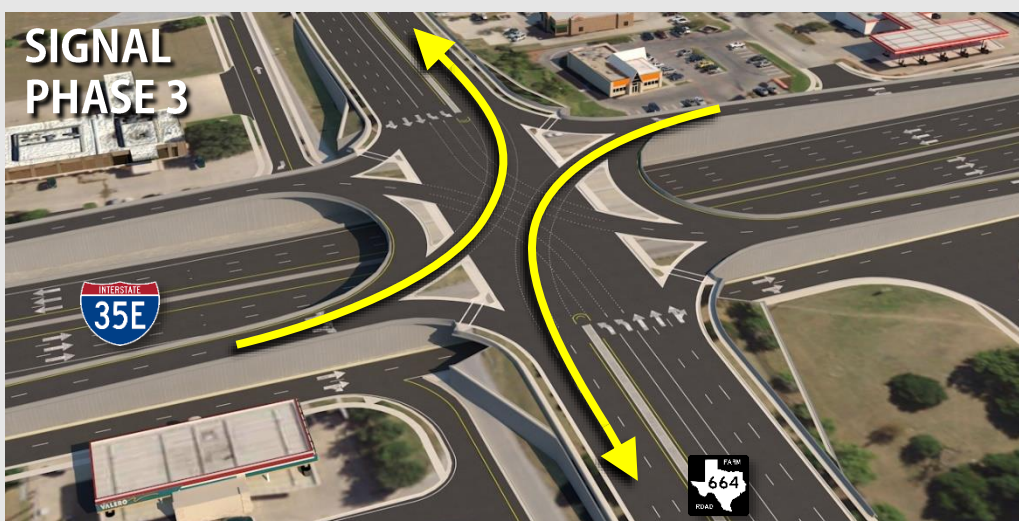


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Left turn traffic from FM 664 to the Frontage Roads. This phase will also allow right turn yield from FM 664 to IH35E.

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## SIGNAL PHASE 3



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Left turn Traffic from the Frontage Roads to FM 664. This phase will also allow right turn yield from the IH35E to FM 664. Through movements will utilize a bypass roadway.

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# Fact Sheet – Single Point Urban Interchange

A **Single Point Urban Interchange (SPUI)** is an innovative intersection design that improves mobility by allowing vehicles to travel more quickly, safely and efficiently through an intersection.

## How Does it Work?

The SPUI interchange operates similar to other interchanges on freeways. The primary difference drivers notice is larger radii moving through the interchange, one signal for left turn travel (instead of a left and a through light), and a larger intersection area.

## How does it improve Efficiency?

Generally speaking, traffic signals have green time, yellow time and red time. The typical freeway interchange in Texas has 4 of these cycles: One for the through movement in each direction (2 total), and one for each left turn movement in each direction (2 total). In a SPUI, the frontage road through movement bypasses the intersection, and effectively eliminates one traffic signal cycle. This results in the total time from yellow and red moving to green time on other phases. More green time = more cars moving through the interchange per hour.

## Are there any SPUI's elsewhere in Texas?

Other SPUI interchanges can be found at Eldorado Parkway at US 75 (McKinney), Parker Road at US 75 (Plano) and Legacy Drive at Main Street in Frisco.

## Why put a SPUI Here?

The SPUI interchange is best suited for locations which see heavy turning movements and light to moderate through movements. FM 664 is a major arterial roadway that serves the City of Red Oak and Ovilla, and these cities utilize IH35E heavily. The region has already seen substantial residential and commercial growth over the years, and that trend is expected to continue. A typical interstate interchange will not sufficiently meet the future travel demands.

## Advantages of a Single Point Urban Interchange

- A SPUI enhances safety, mobility and connectivity by reducing potential crash points at intersections and by allowing more cars to move through an intersection. This means a reduction in both delay and travel time.
- Through-traffic is able to bypass the intersection without stopping at a traffic signal
- Additional “green time” at traffic signals improves travel time by allowing more vehicles to pass through the intersection

For additional information, please contact TxDOT Dallas District Project Manager, Rakhshanda Mahar at (214) 320-6244 or [rakhshanda.mahar@txdot.gov](mailto:rakhshanda.mahar@txdot.gov).