

# Alternative transportation considerations

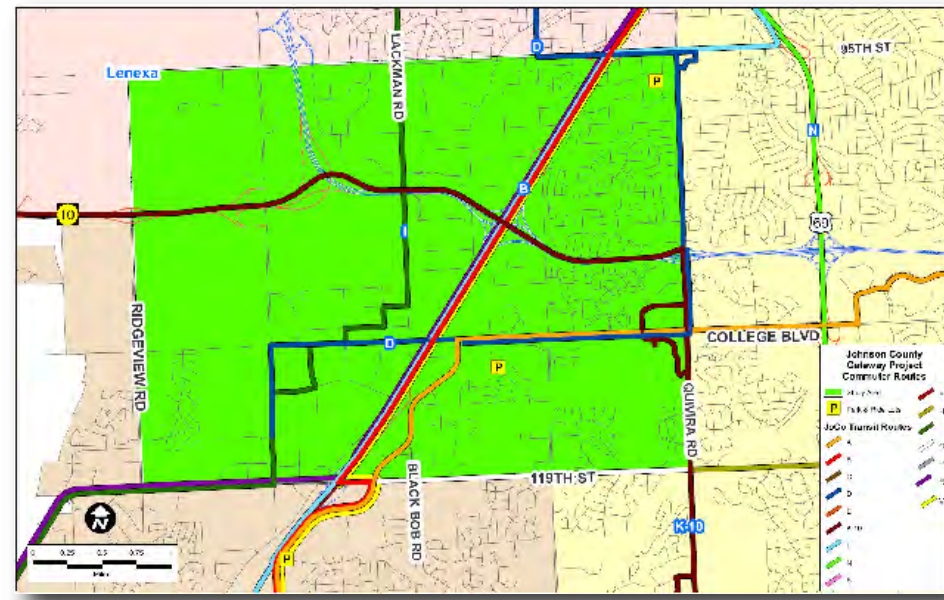
## Intelligent Transportation Systems



## Managed Lanes



## Transit Routes



## Freight/Truck



## Pedestrian/Bicycle



## Current multimodal study considerations

### ITS

Intelligent transportation systems (ITS) are deployed on the freeways that pass through the I-435/I-35/K-10 interchange:

- Vehicle detectors and closed-circuit television (CCTV) cameras -- allow operators at the KC Scout traffic management center to monitor traffic flow approaching and within the interchange complex.
- Dynamic message signs (DMS) provide traveler information services on traffic conditions so drivers can make an educated decision on what route to take.
- Ramp metering regulates the amount of traffic that can enter the freeway. There is potential to add ramp metering in the future.

### Managed Lanes

Managed lanes restrict access to designated highway lanes based on the number of people in the vehicle, vehicle type, or other objectives. Preferential service is provided by limiting the number of vehicles on designated lanes to levels where a desirable level of traffic service can be maintained. Managed lanes are separated from general-purpose lanes either with pavement striping or physical barriers, with entry limited to designated vehicles only.

### Johnson County Transit

Johnson County Transit (JCT) operates two types of transit services on a daily basis, fixed route services and paratransit service. JCT does not operate night or weekend service. Routes are noted on the map at the left.

- During weekday peak periods approximately 31 vehicles are dispatched to provide fixed route service.
- JCT runs a K-10 connector service from Johnson County to Lawrence.
- JCT is currently evaluating Bus Only Shoulder service on I-35. (During peak congestion, buses would be allowed to use the shoulders as a lane to bypass traffic.)

### Freight/Truck

Freight movement in Kansas is growing and will become a greater part of the traffic mix in the years to come. Today over 1,000 trucks travel within the Johnson County Gateway Interchange during either morning or afternoon peak hour. With the opening of the Gardner Intermodal facility, 50 percent more trucks are anticipated through this interchange by 2040.

### Pedestrian/Bicycle Crossing

The Mid-America Regional Council (MARC) has a stated regional goal to, "Create a region where the quality of life is rising for everyone."

- We need to consider accommodations for pedestrian and bicycle crossings with any investment options.

## Other multimodal considerations

# Project schedule

## Phase 1: Regional Study

The regional study will review and evaluate the interchange area to:

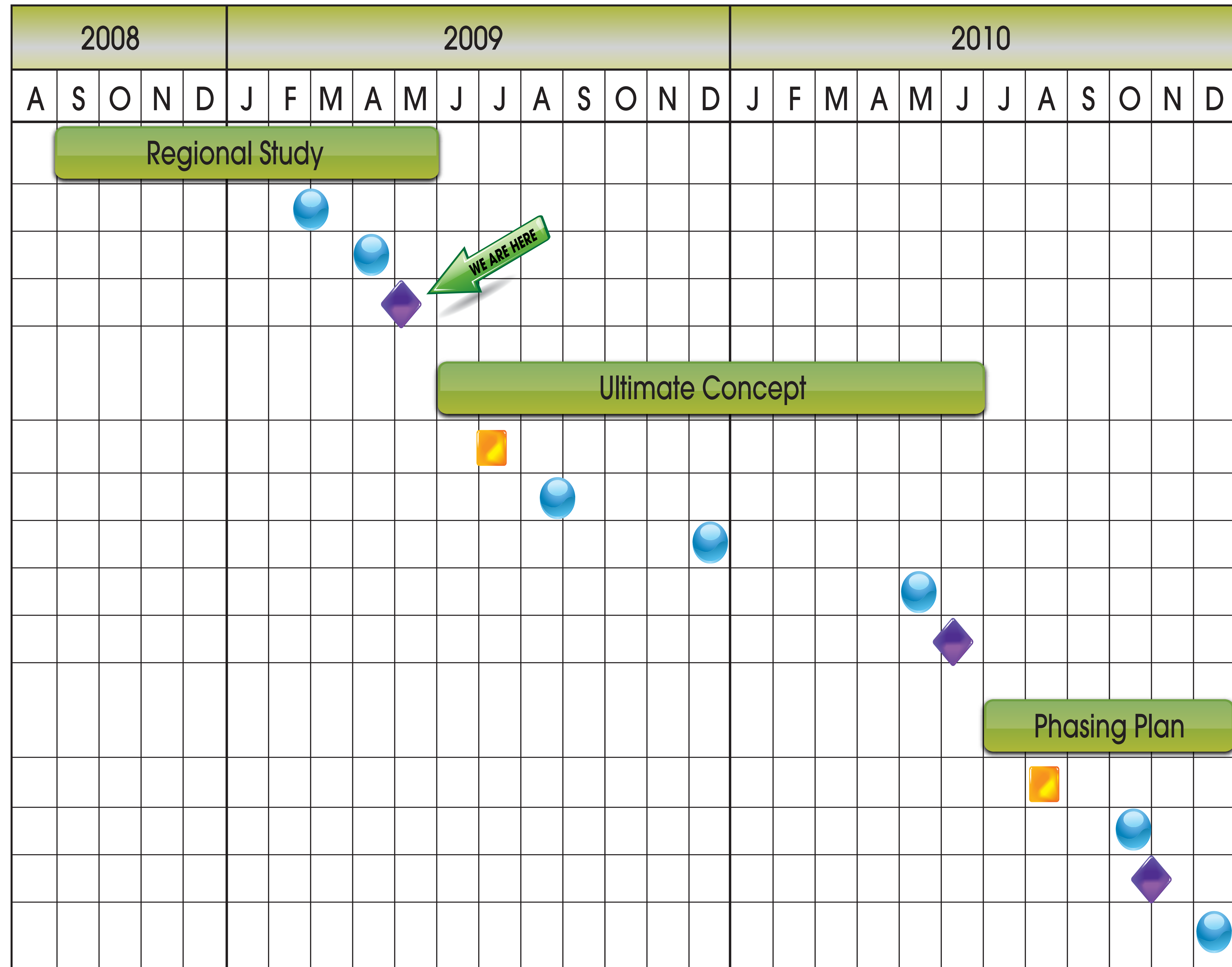
- Better understand the existing conditions and to determine areas for improvement,
- Better understand the influence of the regional and localized traffic generators throughout the area,
- Better understand future traffic levels
- Develop a simulation model within the immediate limits of the proposed interchange area which will be used in evaluating the ultimate design concept.

## Phase 2: Ultimate Concept

The next step will develop an ultimate design concept for the interchange area. The concept will accommodate projected 2040 traffic levels as determined by the traffic model analysis.

## Phase 3: Phasing Plan

The last component of the study will identify and prioritize phased construction projects which eventually will lead to construction of the ultimate concept. It also will identify interim projects which are cost-effective and targeted solutions to existing problems that fit within the ultimate design concept. Finally, a study report will summarize the overall findings and recommendations.



# The study process and next steps

This is the general process for how transportation studies move toward construction.

