



Feasibility Study

Traffic Volume Analysis



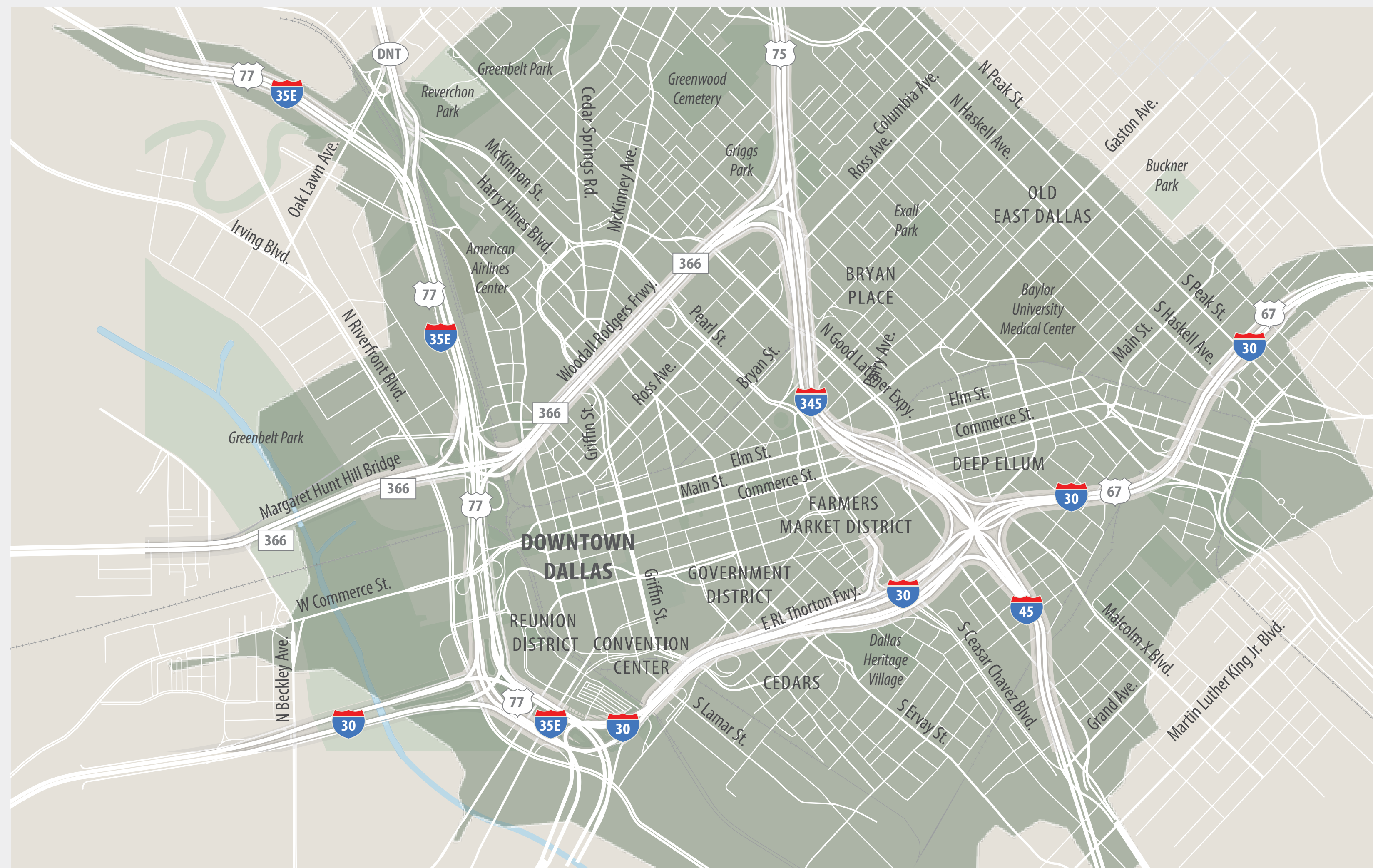
Feasibility Study

Traffic Volume Analysis Introduction



Volume Difference Area

The following boards will demonstrate how traffic is expected to increase or decrease within the area shown below in green.



WHO?

Who collected this data?

NCTCOG and TxDOT coordinated to confirm traffic models appropriately represented existing and expected future 2045 conditions.

WHEN?

When was this data collected?

The modeled data represent daily and peak period conditions in the year 2045.

WHAT?

What is volume difference and travel time analysis?

Models representing study area travel patterns were used to evaluate changes in the routes used. These models are known as travel demand models, or macrosimulation models. Among many other results, the one presented today is:

Where does the traffic go?

The following exhibits include the changes in traffic volumes for each alternative relative to the no build/leave I-345 as-is alternative. Segments in red indicate an increase in traffic. Segments in green indicate a decrease in traffic. Line thickness increases with the amount of change. The morning peak period is on the left and the afternoon peak period is on the right.

WHERE?

Where was this data collected?

The model used the study area bounded by I-635, I-20, and Loop 12. The focus area presented is around the downtown area as shown in the map to the right and the following exhibits.

WHY?

Why is this information important to the I-345 Feasibility Study?

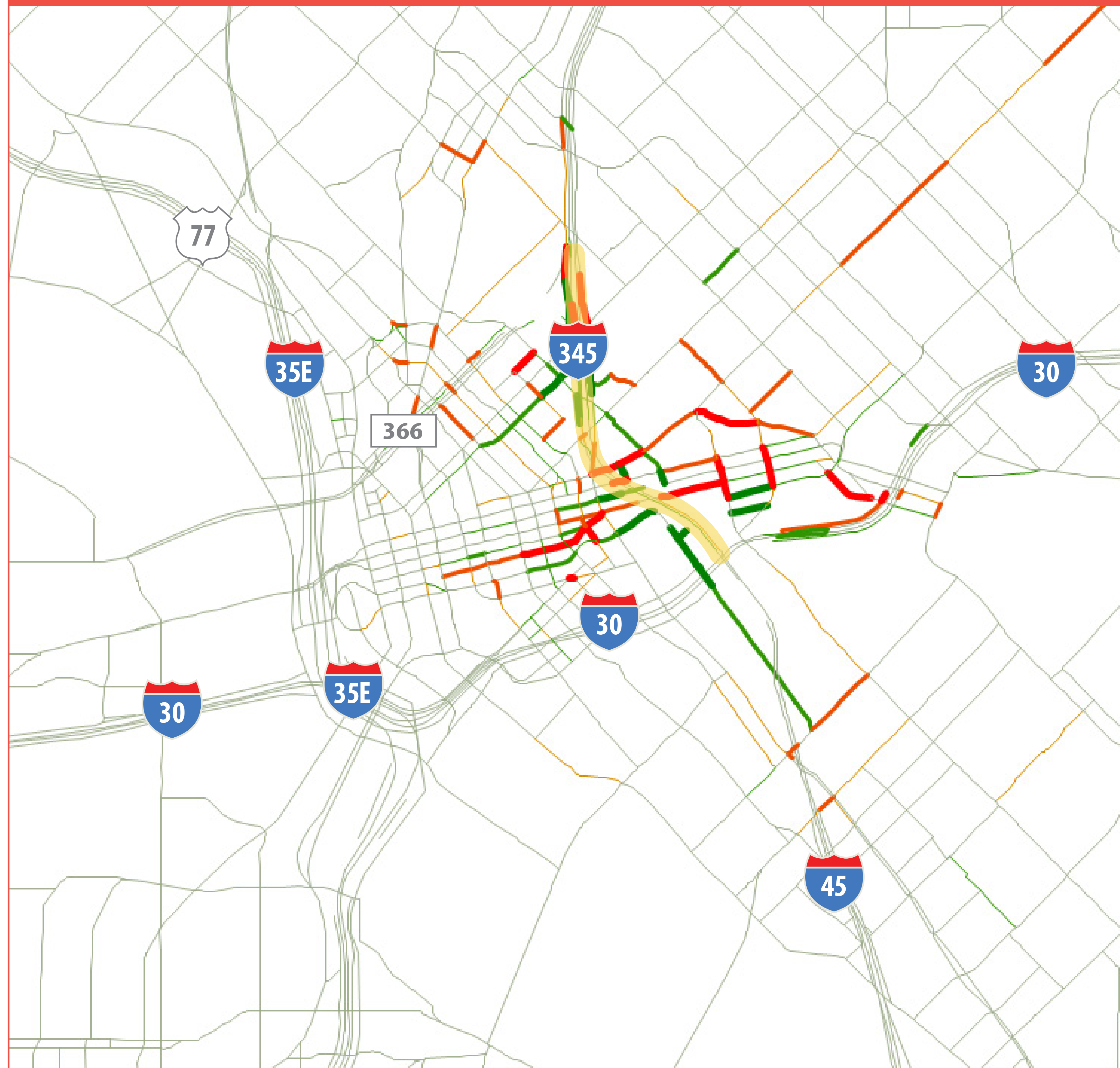
The high-level analysis captures regional shifts in travel and provides guidance on where the next level of analysis should concentrate. The next level of analysis, also known as microsimulation, will utilize a traffic software called Vissim.



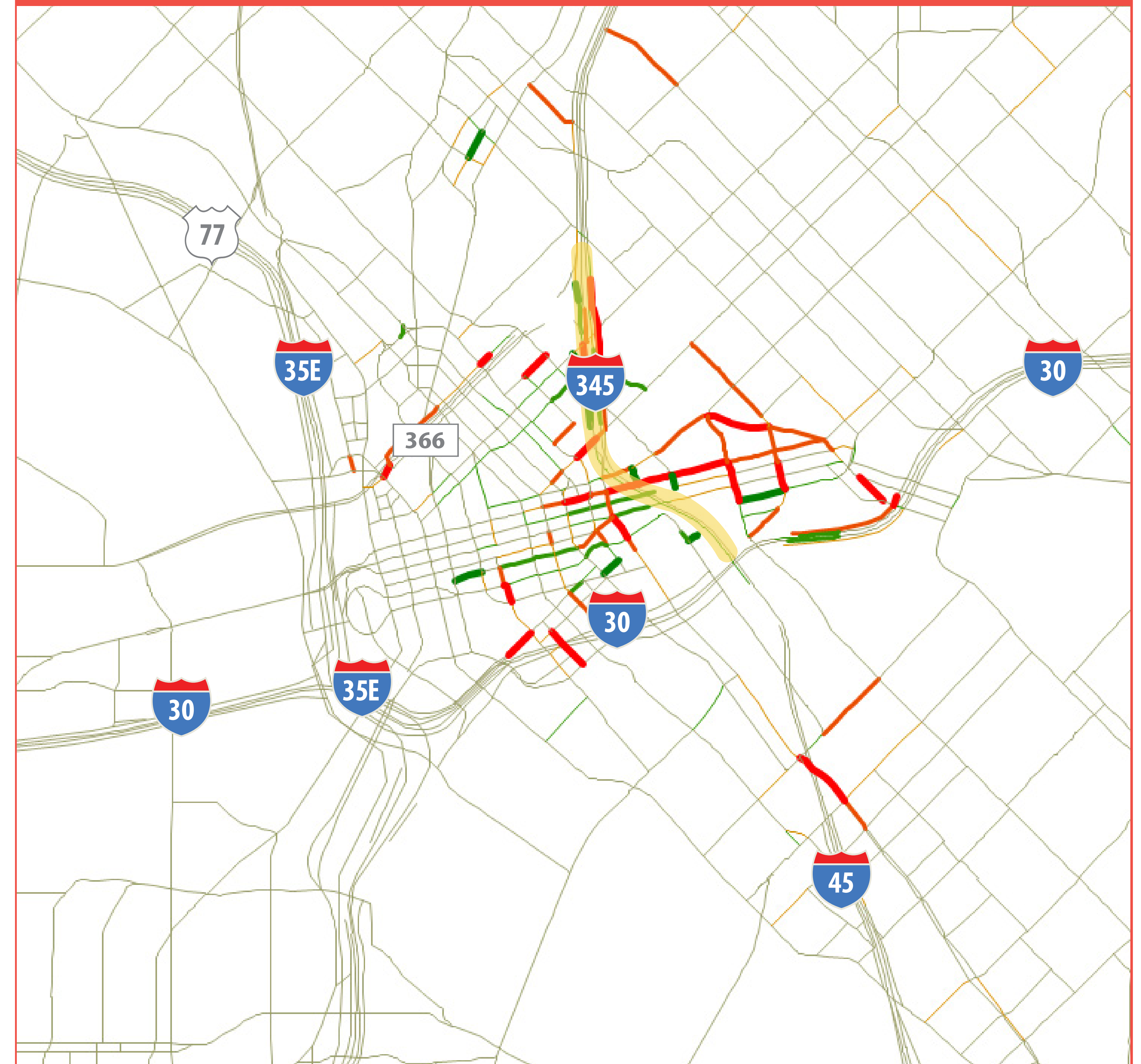
Takeaway

Red shows an increase in traffic volumes. Green shows a decrease in traffic volumes. Due to the changes in access with the depressed alternative, traffic patterns will change traffic volumes on various roadways.

AM Peak Period



PM Peak Period



LEGEND

Percent change using future 2045 traffic volumes compared to no build/leave I-345 as-is

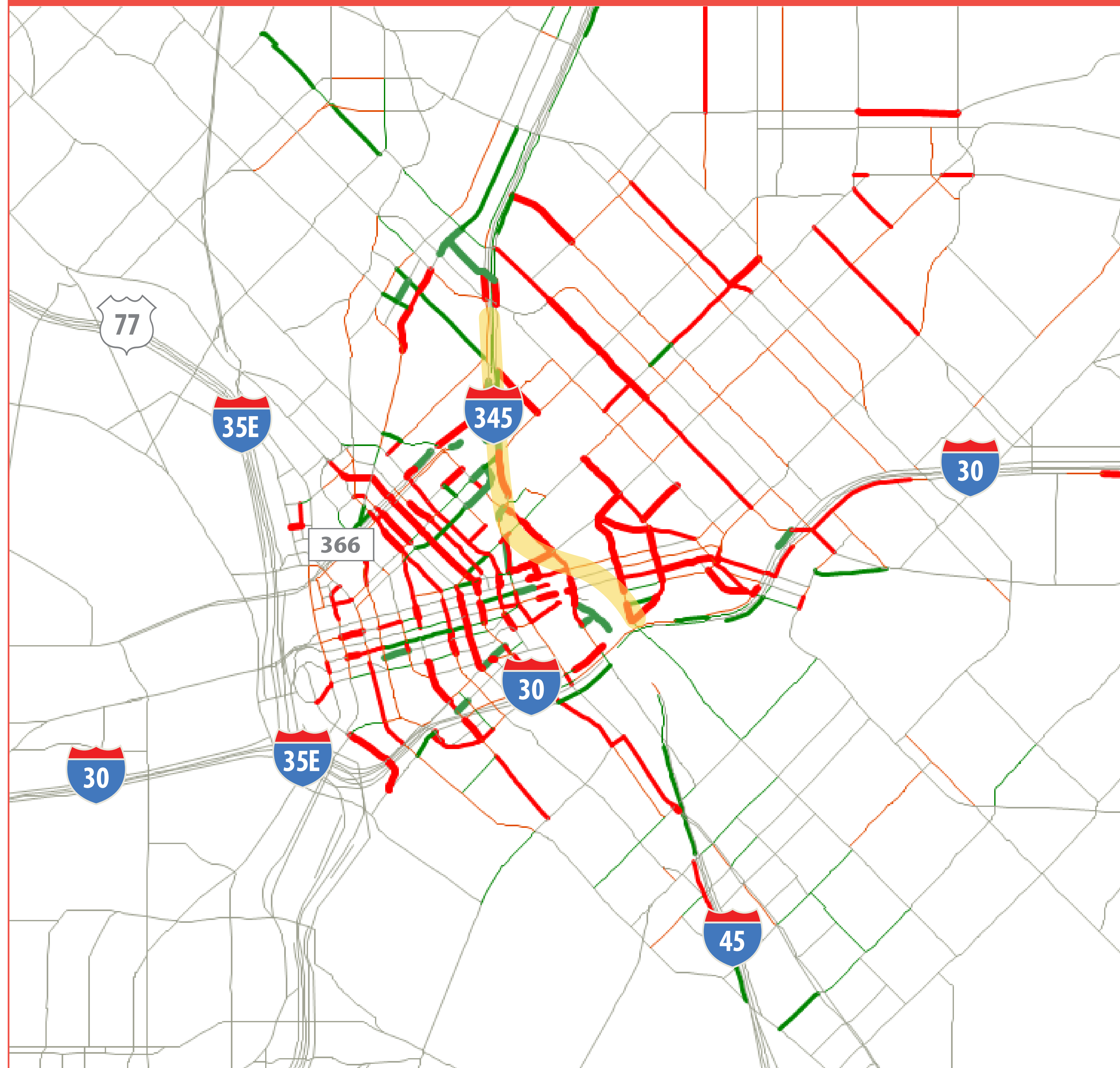
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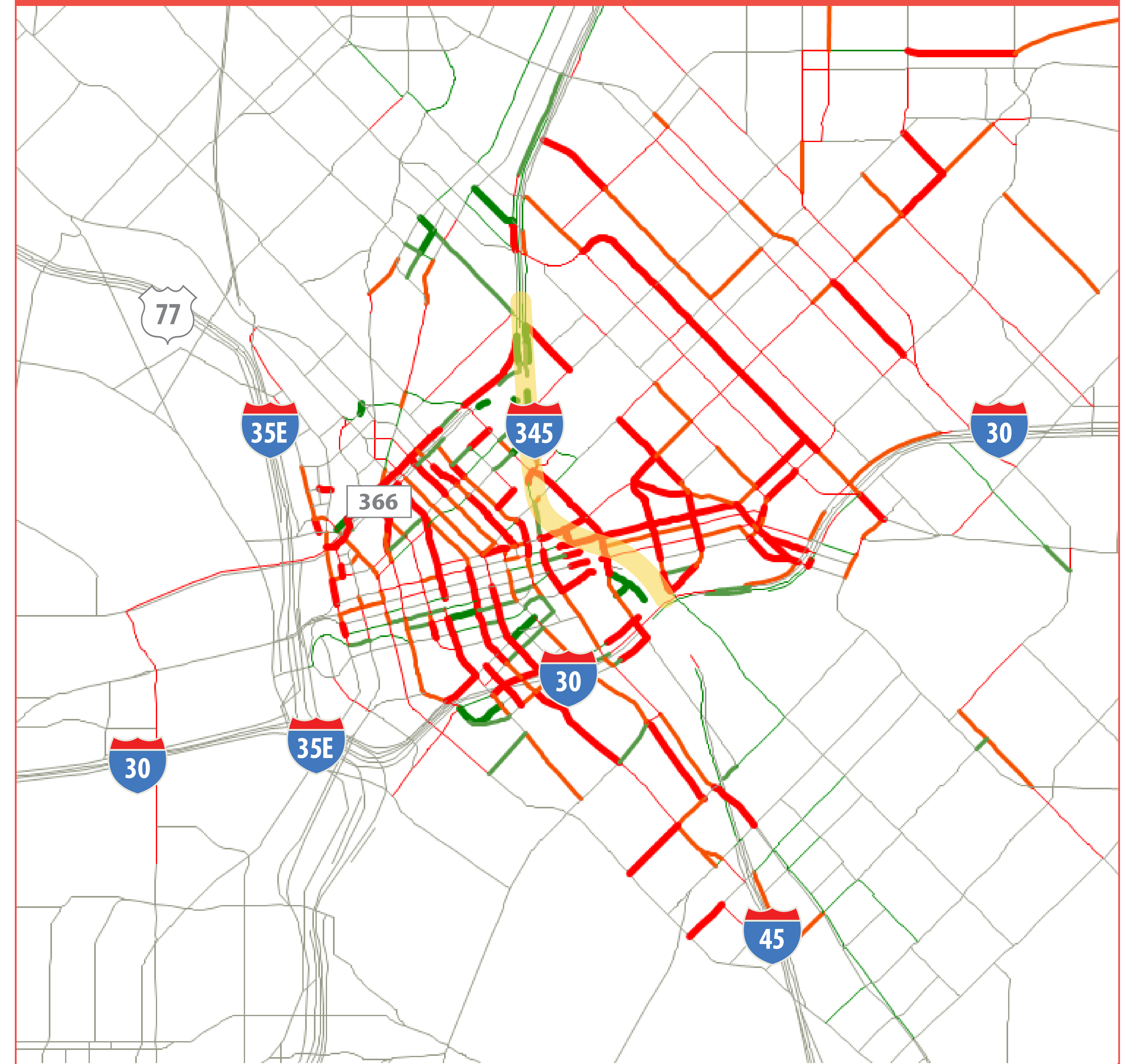
Takeaway

Red shows an increase in traffic volumes. Green shows a decrease in traffic volumes. With the freeway connection removed, traffic patterns will change and traffic volumes on the local roads are anticipated to increase.

AM Peak Period



PM Peak Period



LEGEND

Percent change using future 2045 traffic volumes compared to no build/leave I-345 as-is

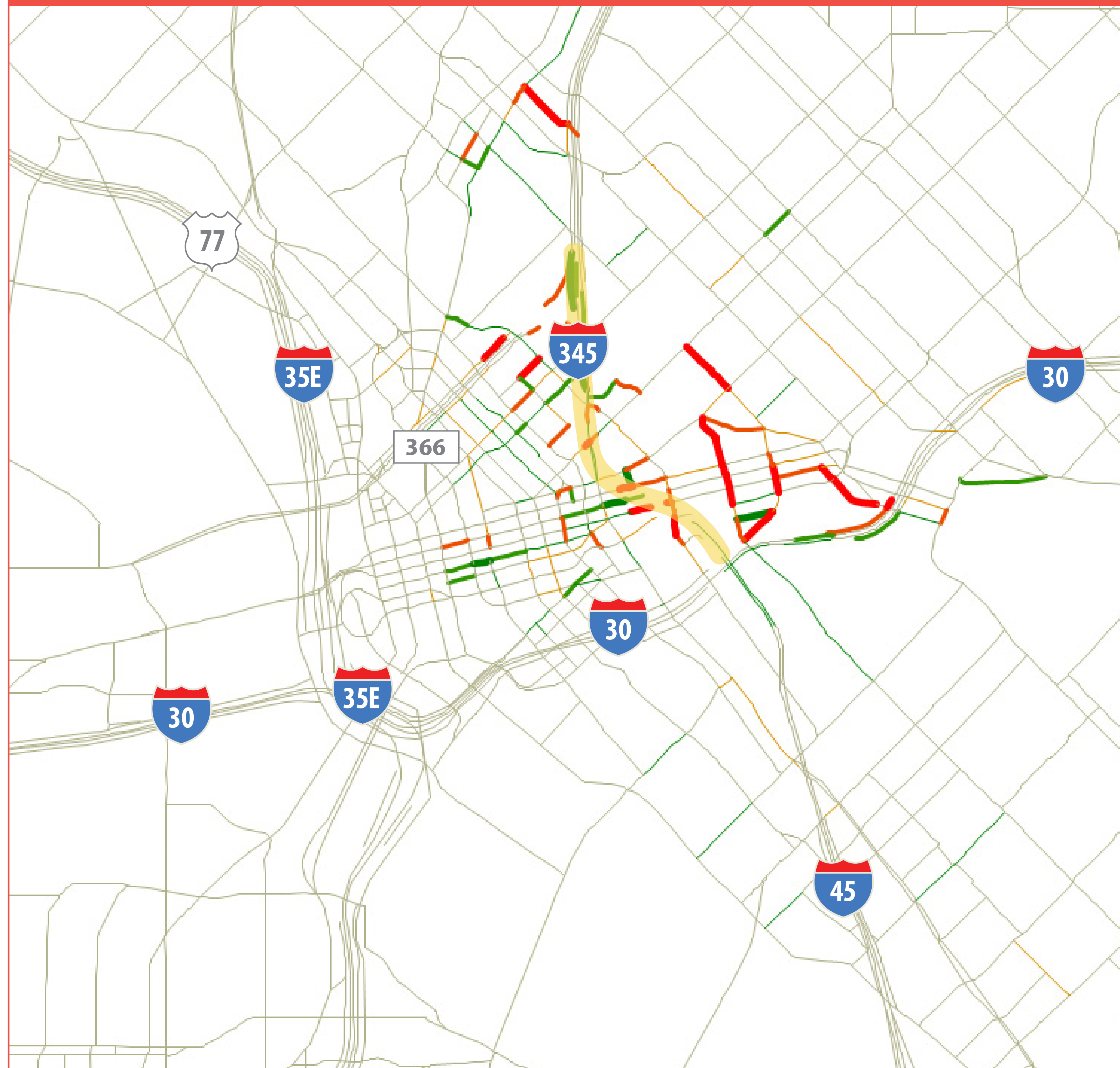
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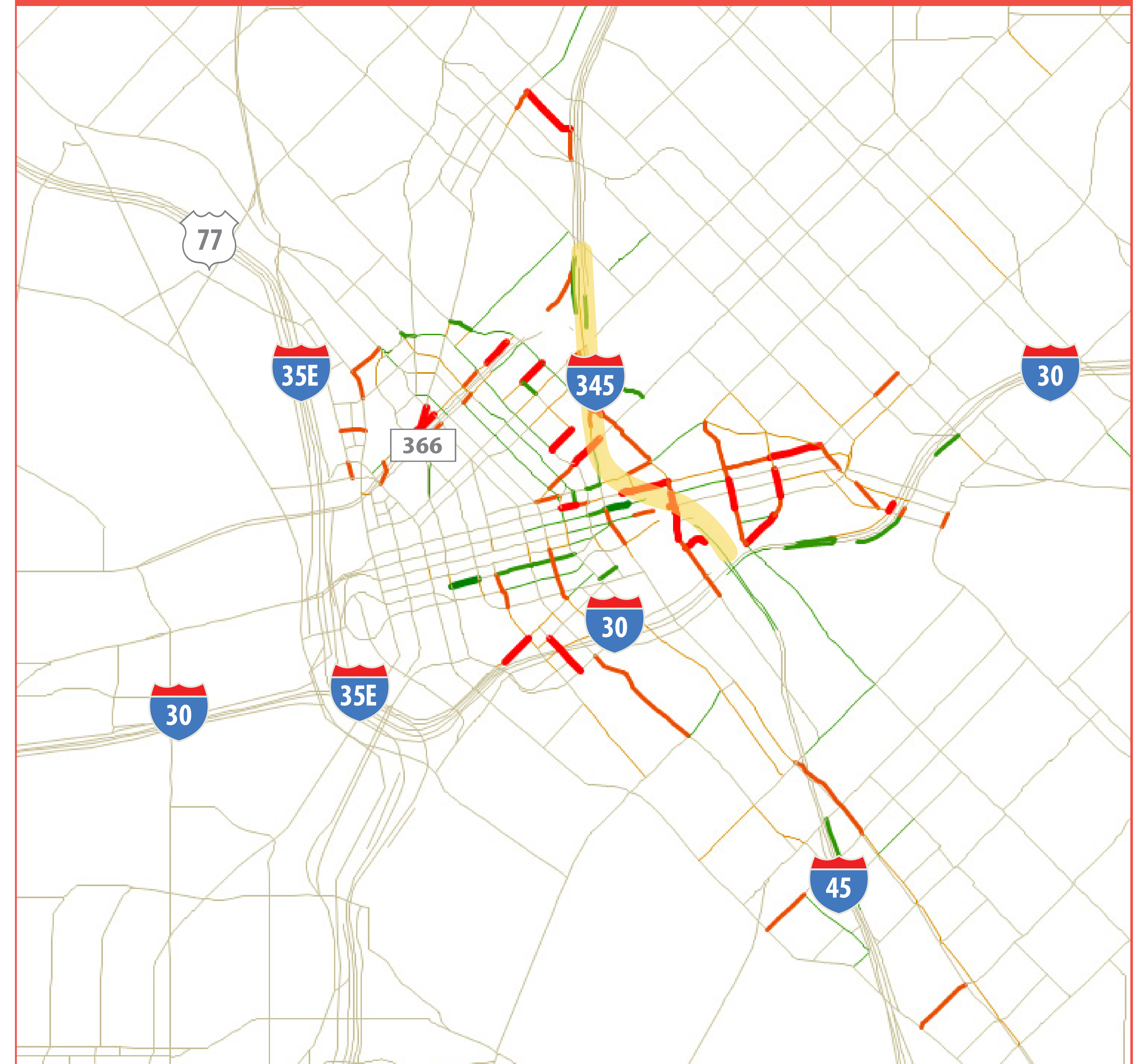
Takeaway

Red shows an increase in traffic volumes. Green shows a decrease in traffic volumes. Due to the changes in access with the elevated alternative, traffic patterns will change traffic volumes on various roadways.

AM Peak Period



PM Peak Period



LEGEND

Percent change using future 2045 traffic volumes compared to no build/leave I-345 as-is

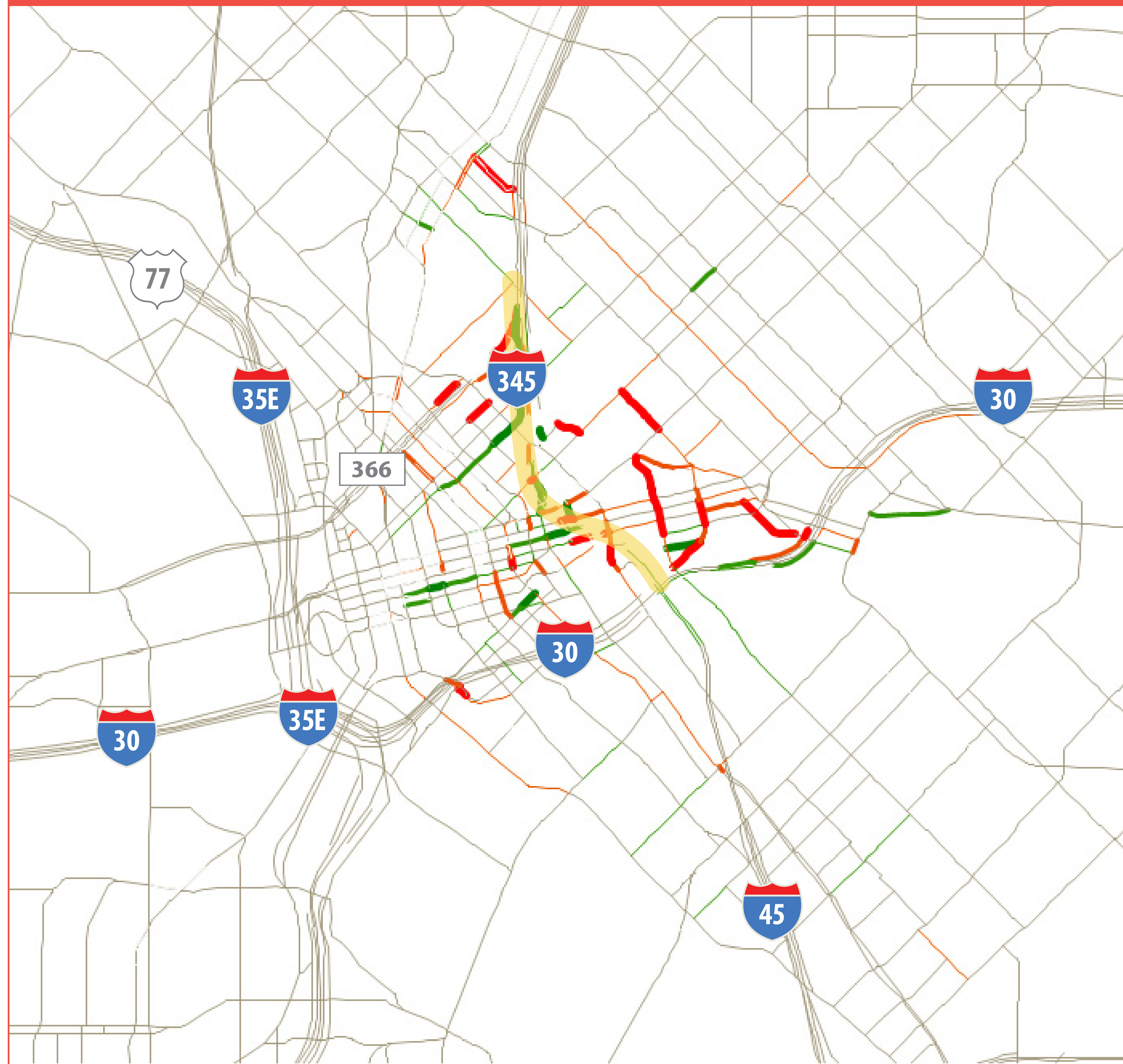
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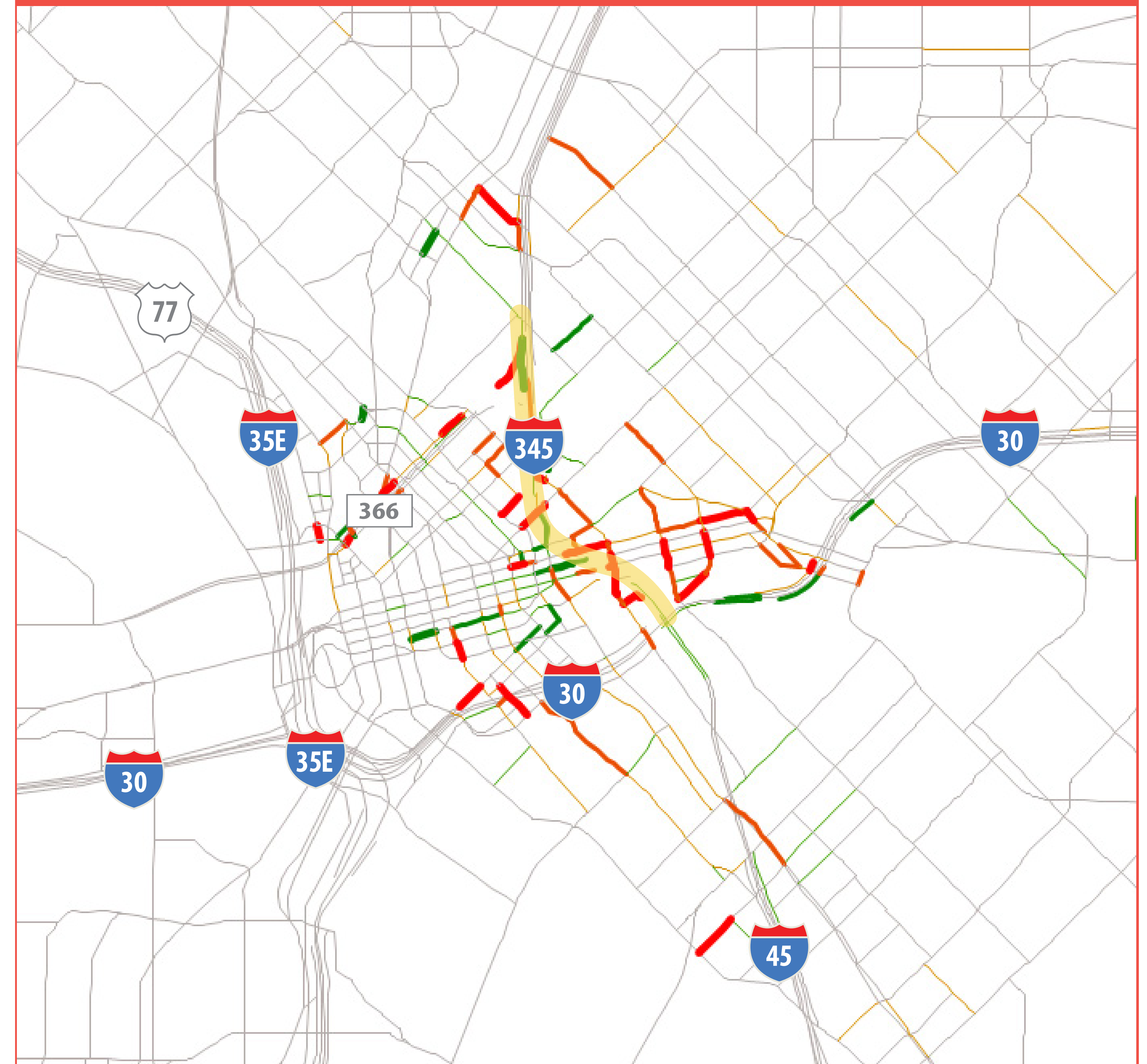
Takeaway

Red shows an increase in traffic volumes. Green shows a decrease in traffic volumes. Due to the changes in access with the hybrid alternative, traffic patterns will change traffic volumes on various roadways.

AM Peak Period



PM Peak Period



LEGEND

Percent change using future 2045 traffic volumes compared to no build/leave I-345 as-is

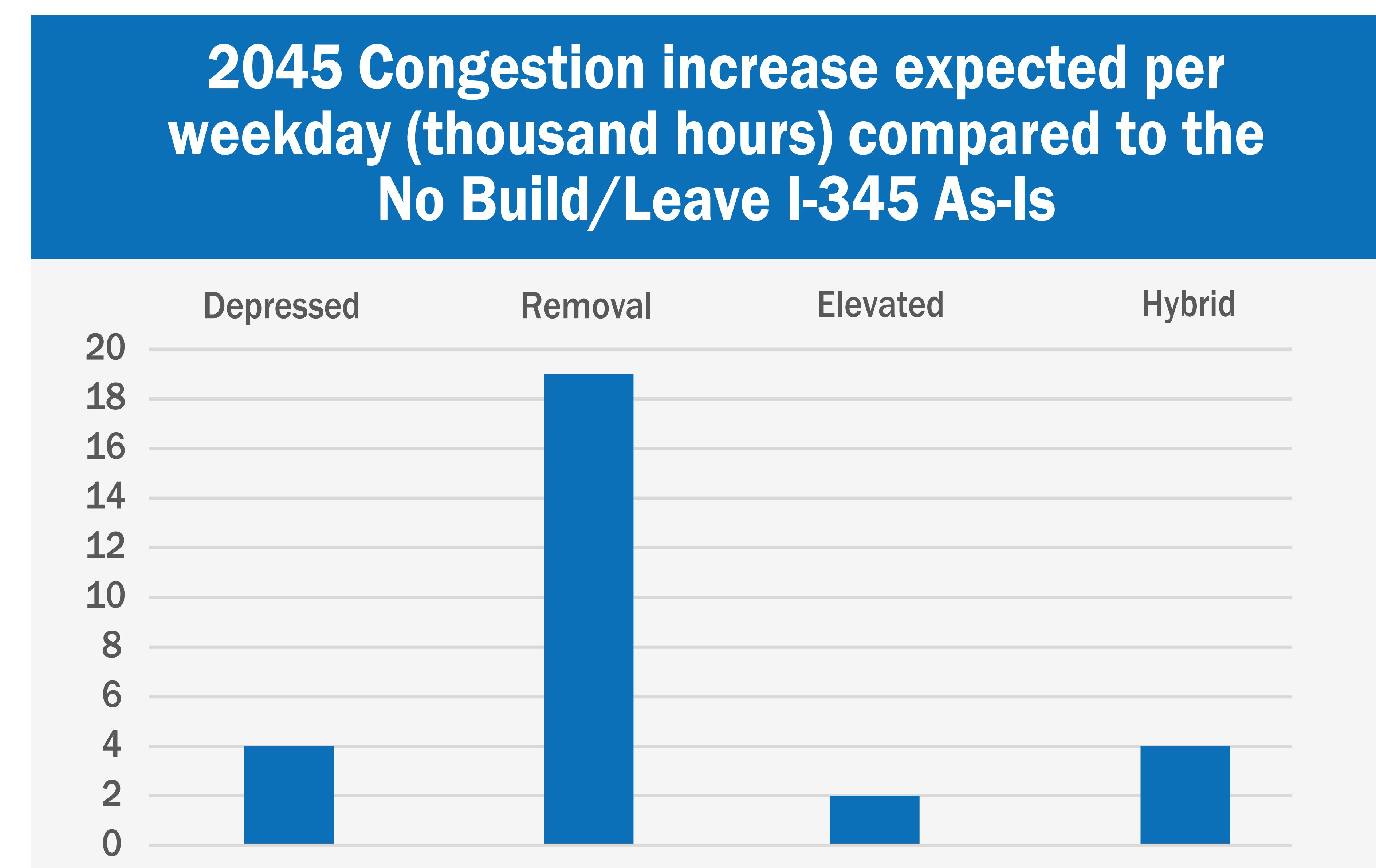
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Key Takeaway

The Depressed, Elevated, and Hybrid alternatives add additional hours of congestion per weekday compared to the No Build/Leave I-345 As-Is due to changes in access to and from the freeway. The Removal alternative adds a significant amount of additional hours of congestion per weekday compared to the No Build/Leave I-345 As-Is due to the elimination of the freeway connection from I-30 to Woodall Rodgers Freeway.

Alternative	2045 Congestion increase expected per weekday (thousand hours) compared to the No Build/Leave I-345 As-Is
Depressed	4
Removal	19
Elevated	2
Hybrid	4



In coordination with NCTCOG, TxDOT may consider the following next steps to refine the traffic models if further analysis is needed:

- Focus and evaluate all transportation modes, including transit, etc.
- Evaluate path choice, mode choice, destination choice, and residential choice.