

HOWDY!

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Alternative Intersection Analysis

The Do's & Don'ts on Selling the Public

TRAFFIC IS HORRIBLE!!!!

**Fun
Mansion.com**

Alternative Intersection Design?

What is that???

Alternative Intersection Design?

The FHWA in 2009 published

- Alternative Intersections/Interchanges: Informational Report (AIIR)
- AKA: Publication Number: FHWA-HRT-09-060 April 2009

Alternative Intersection Design?

Today's transportation professionals, with the limited resources available to them, are challenged to meet the mobility needs of an increasing population.

At many highway junctions, congestion continues to worsen, and drivers, pedestrians, and bicyclists experience increasing delays and heightened exposure to risk.

Today's traffic volumes and travel demands often lead to safety problems that are too complex for conventional intersection designs to properly handle. Consequently, more engineers are considering various innovative treatments as they seek solutions to these complex problems.

Alternative Intersection Design?

Common Denominators:

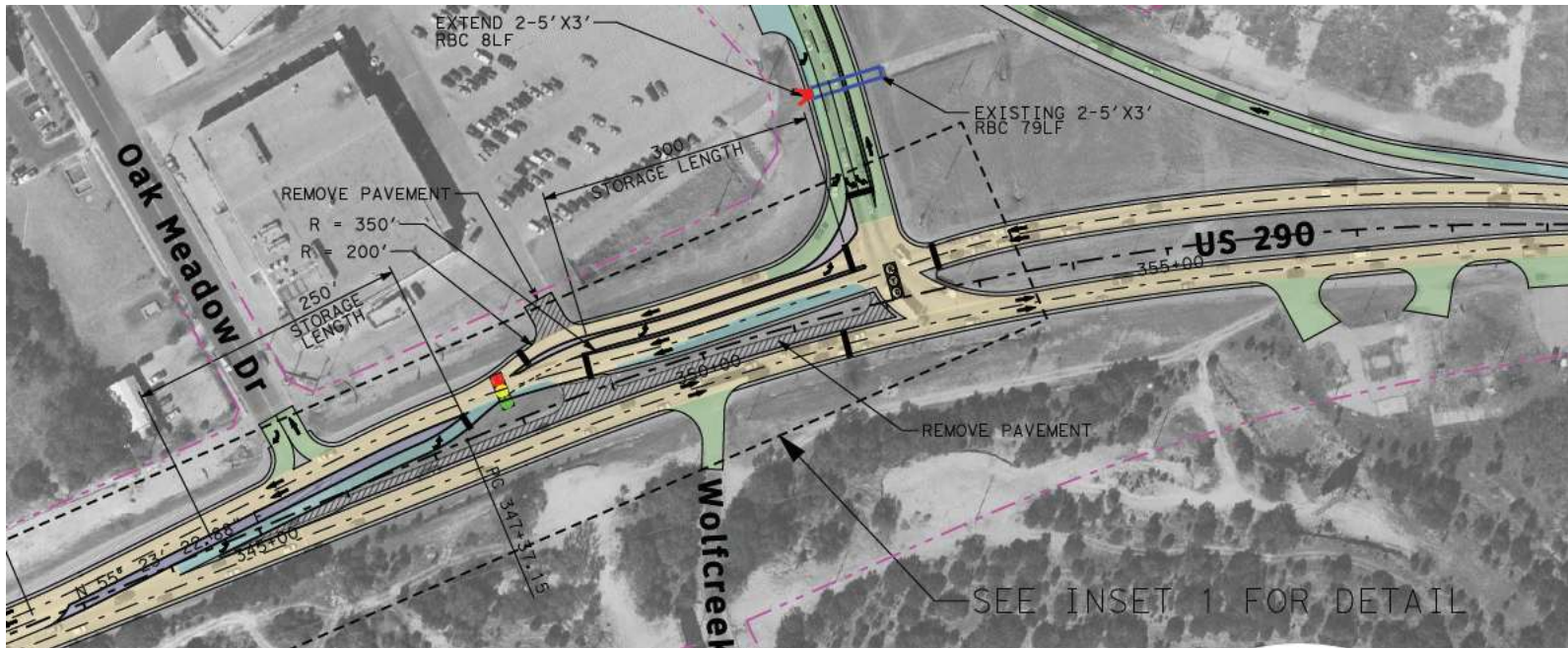
- Reduce signal phases
- Reduce Delay
- Improve LOS
- Improve Travel Times (for most users)
- Reduce Intersection Conflict Points
- Cost Savings
 - Little or no ROW required
 - Minimal Utility Impacts
 - PCE type ENV document
 - Quick construction duration
- **THEY ARE NOT WHAT OUR CUSTOMERS ARE USED TO OR EXPECT.**

Alternative Intersection Design?

Six examples of Alternative Intersection Designs are :

- Displaced Left-Turn (DLT)
- Restricted Crossing U-turn (RCUT)
- Median U-turn (MUT)
- Double Crossover Diamond (DCD) Interchanges
- DLT interchanges.
- Quadrant Roadway (QR)

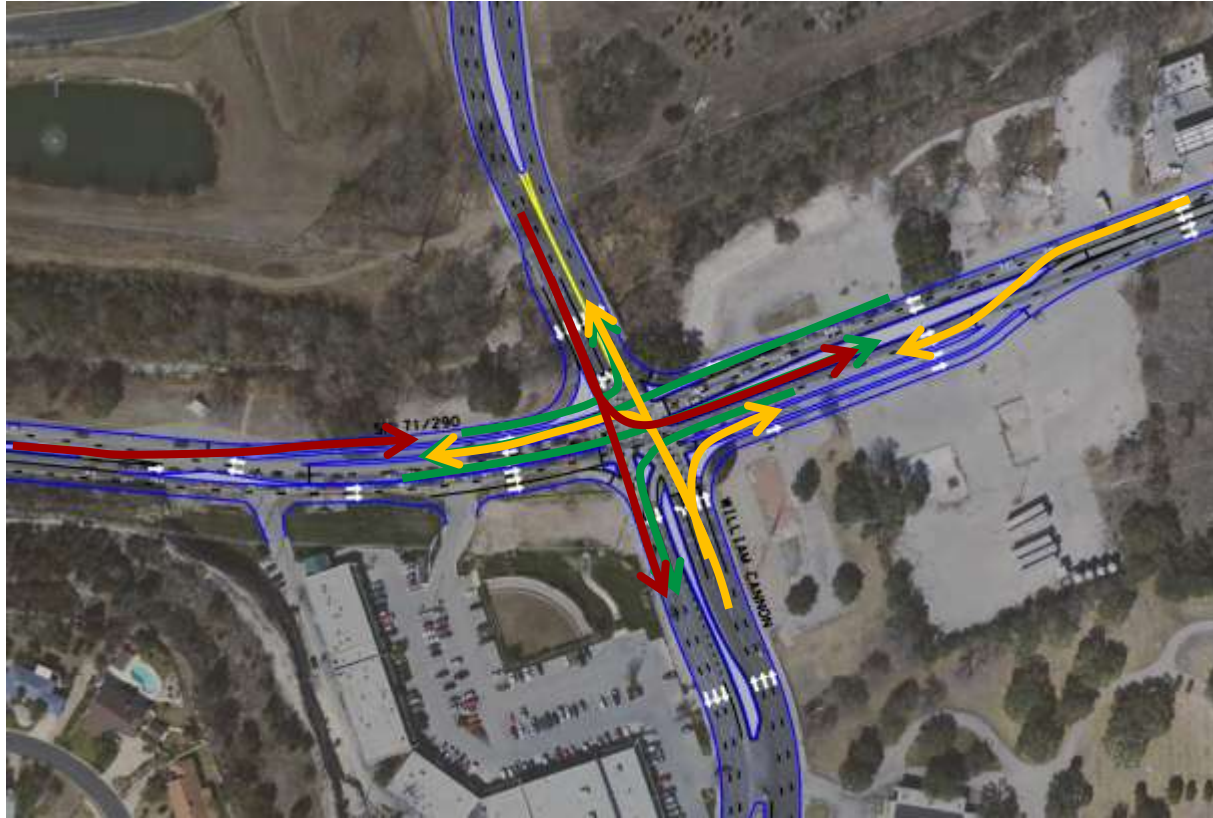
Displaced Left-Turn (DLT)



The "Y" in Oakhill
Austin - \$640k



Displaced Left-Turn (DLT)



Phase I
Phase II
Phase III



William Cannon
Austin - \$832k



Median U-Turn (MUT)



Joe Tanner
Austin - \$440k



US 290 Corridor Existing



The "Y" in Oakhill



US 290 Corridor Improvements

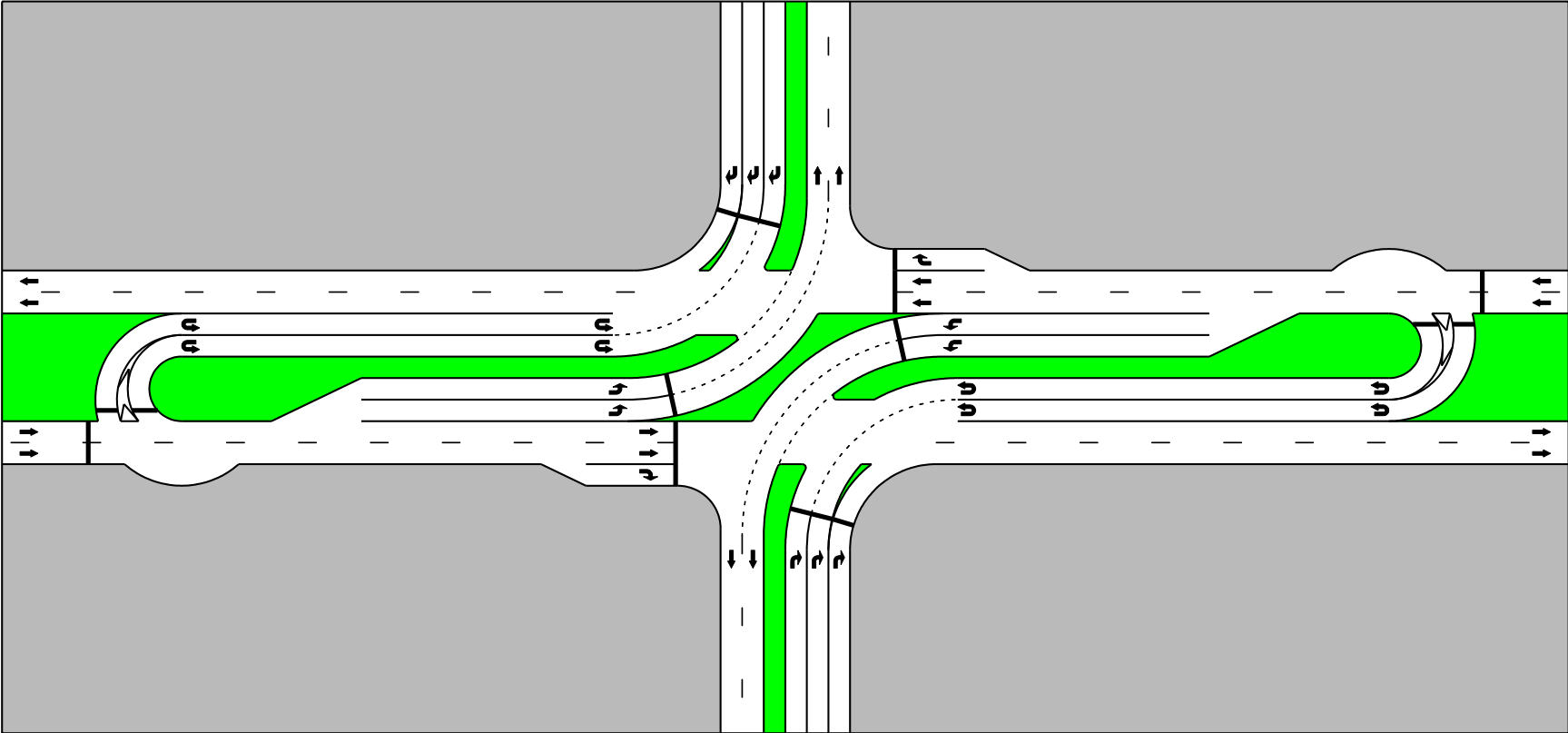


Letting Feb 2013 \$4.92M

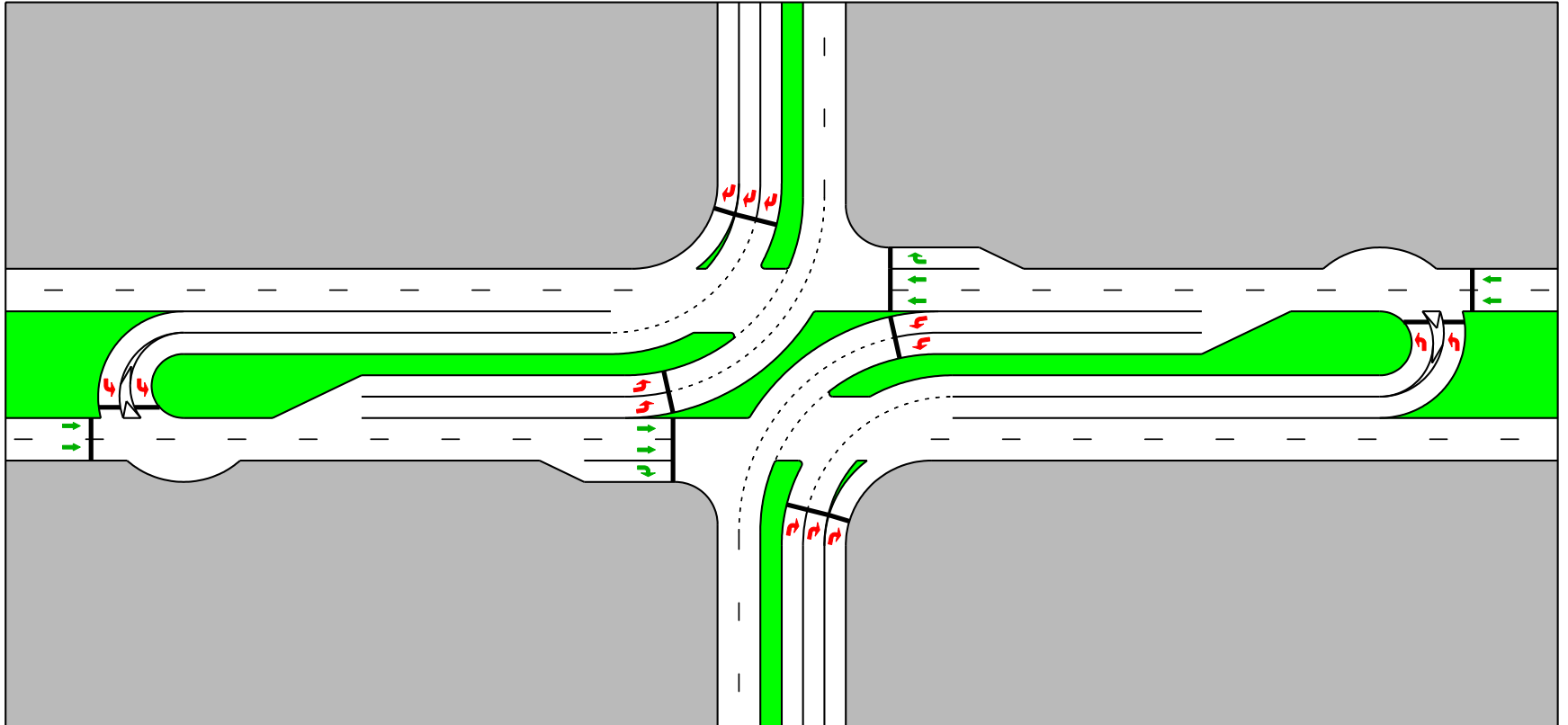
Delay Reduction \approx 45% (2015)



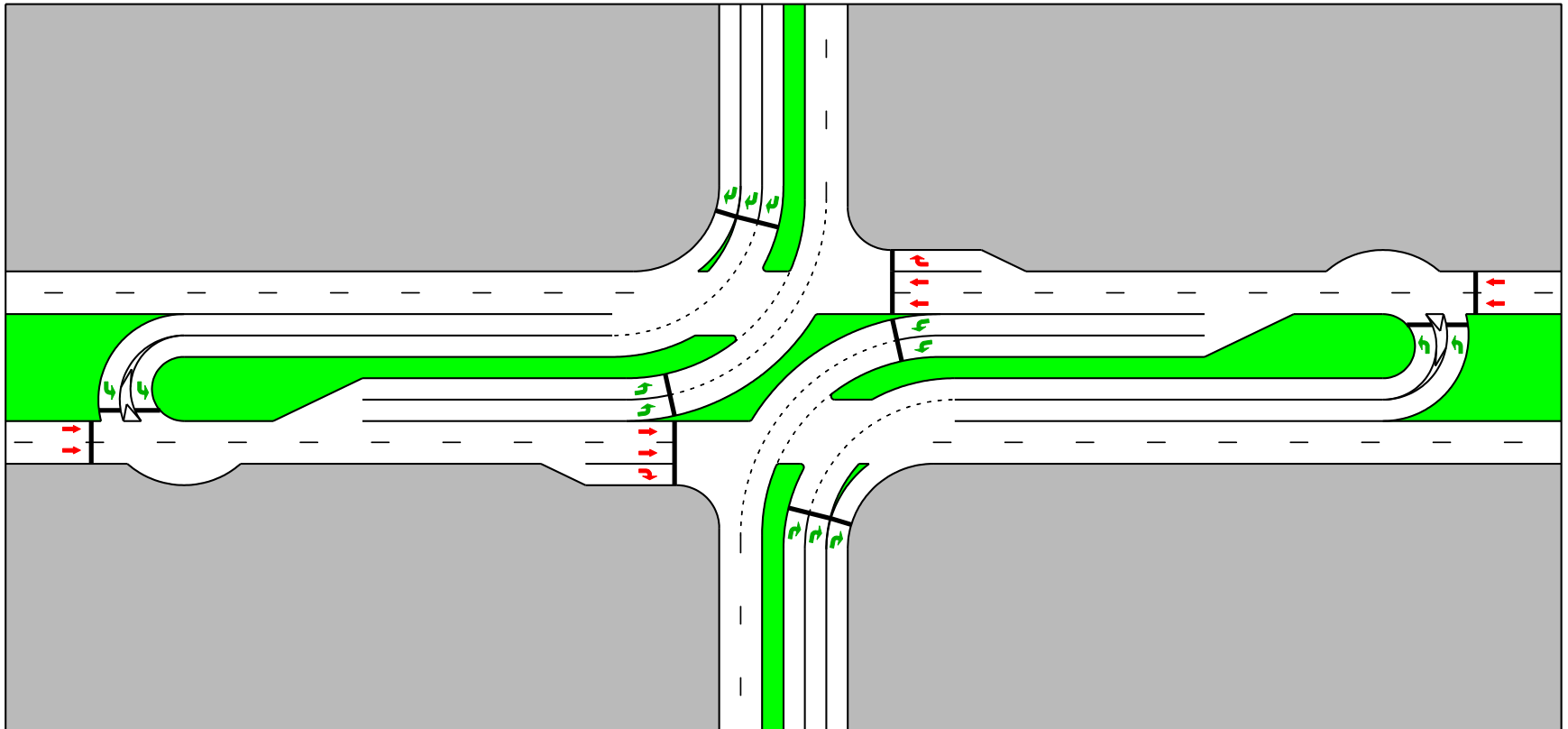
Restricted Crossing U-turn (RCUT)



Restricted Crossing U-turn (RCUT) 2-Phase Cycle Illustration



Restricted Crossing U-turn (RCUT) 2-Phase Cycle Illustration



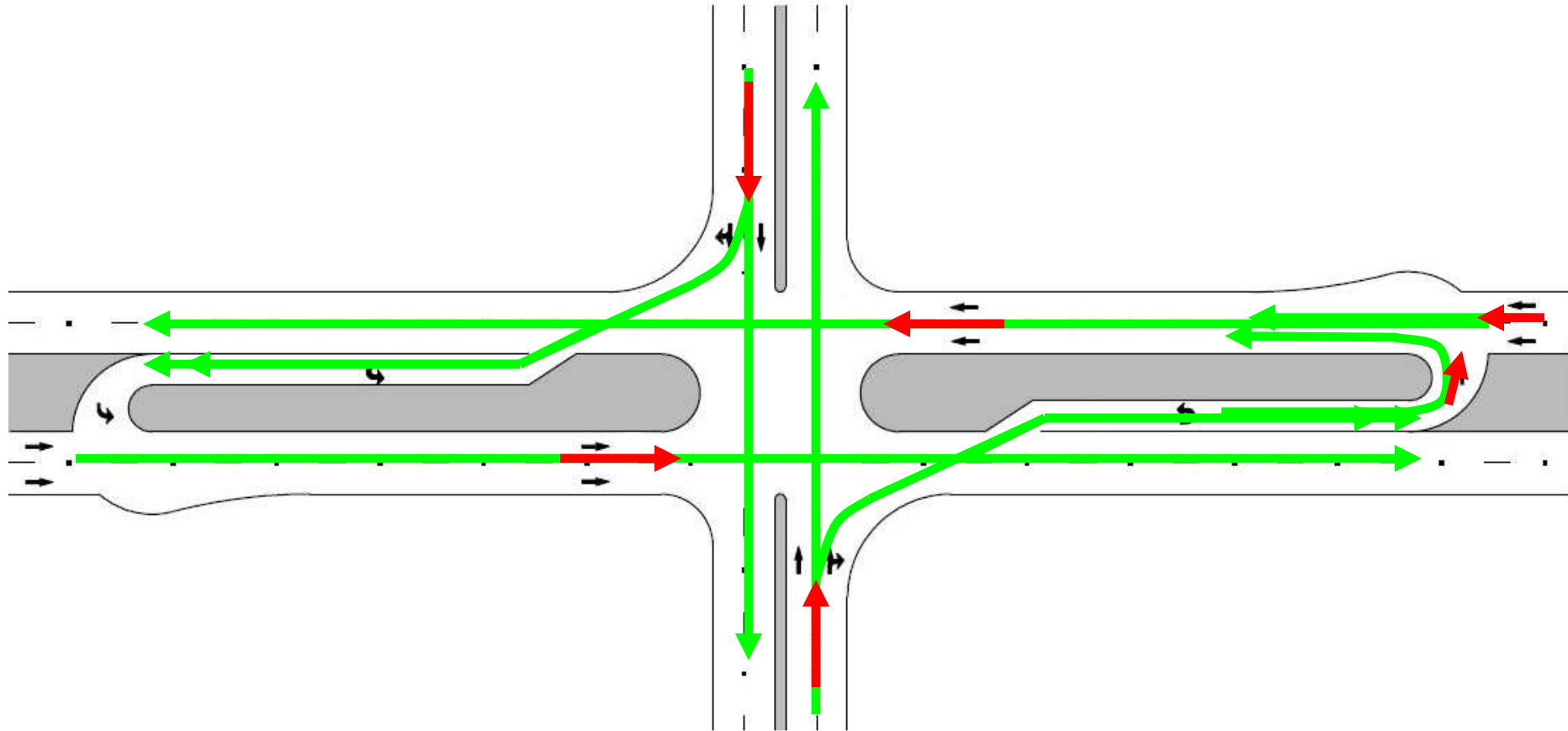
Restricted Crossing U-turn (RCUT)



Let Dec 2011-\$3.4 M
Delay Reduction \approx 80% (PM)



Median U-turn (MUT)



Median U-turn (MUT)



Bluffstone/Spicewood Springs ± \$1M

Existing/Proposed PM Delay 93.6/16.7 Sec

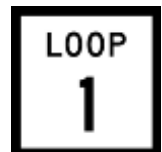


Double Crossover Diamond (DCD) Interchanges

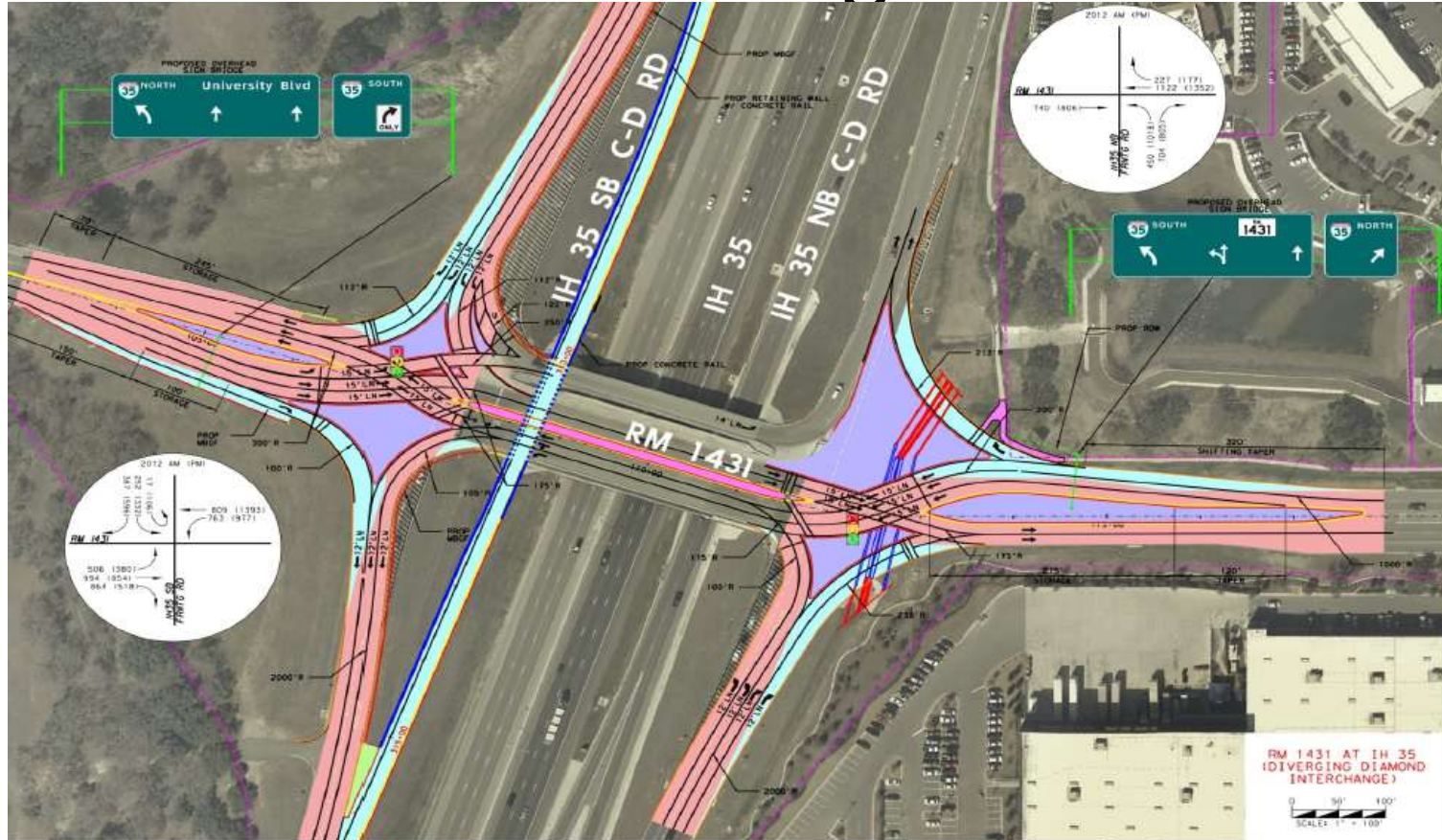


Slaughter Ln- \$5.7 M

Delay Reduction \approx 70 %



Double Crossover Diamond (DCD) Interchanges



University Blvd.



Double Crossover Diamond (DCD) Interchanges



University Blvd
Existing Travel Time AM Peak **11.1** Min.



Double Crossover Diamond (DCD) Interchanges



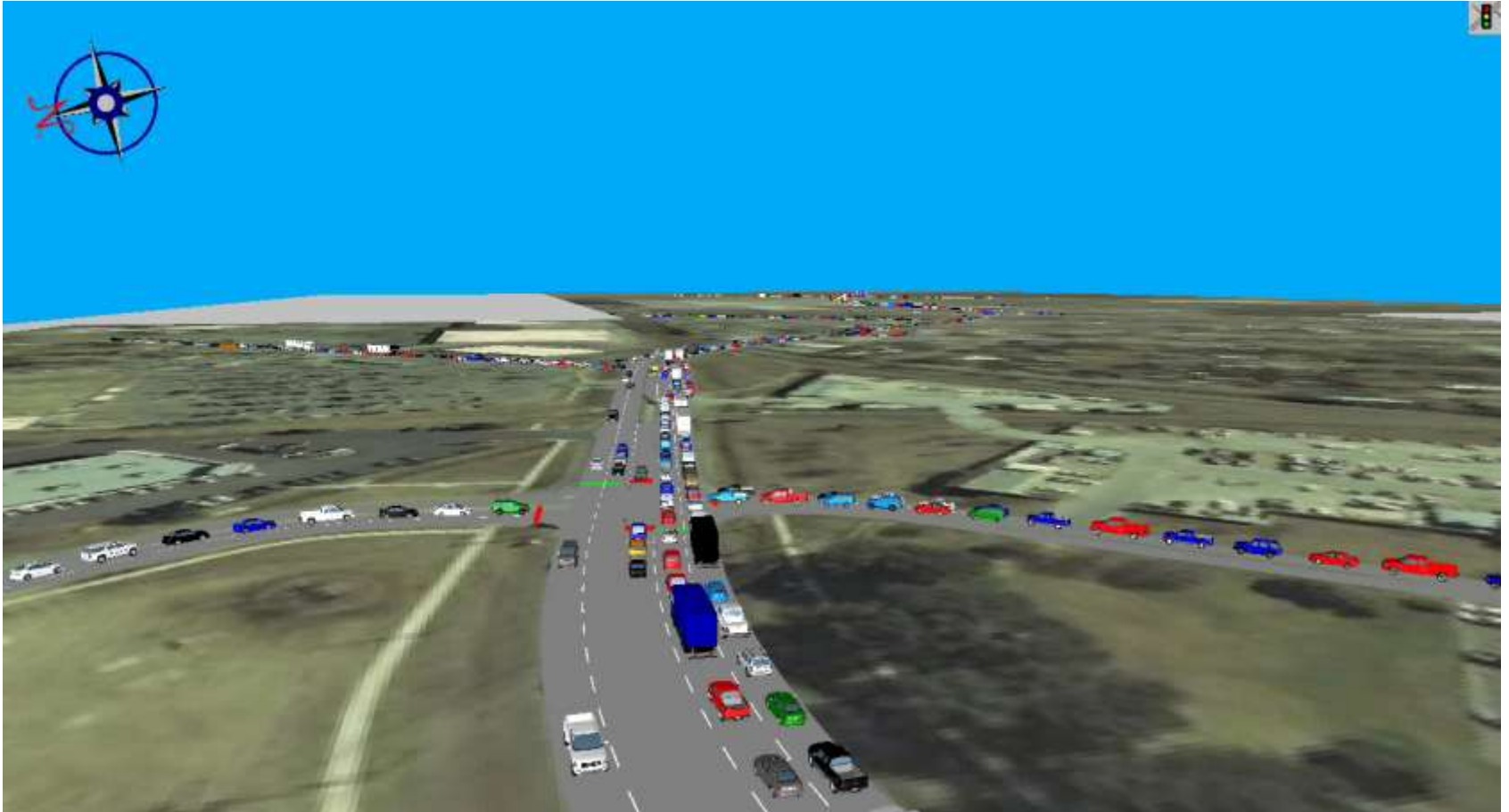
University Blvd - \$3.6 M

Proposed Travel Time AM Peak **2.3** Min.

Delay Reduction \approx ????



DLT interchanges.



Hopkins Street
2020 PM LOS= F.



DLT interchanges.



Hopkins Street - \$1.1M

2020 PM LOS= C

80% delay reduction



Lessons Learned

Loop 360

- Unsolicited proposal
- Good results confirmed
- Good response for similar project at SH 71 and FM 973
- Prop 12 dollars assigned for project development
- Prop 12 dollars and Cat 12 assigned for construction
- “Small” project, short fuse, hurry to Open House public meeting...roll plots/no animation.....
- Big turnout; major controversy...sophisticated audience
- Legislative involvement and frustration for lack of communication

Regroup

- Plan modification based on input, animation and new plan for outreach
- Web page
- Moderate levels of support but vocal and organized opposition.
- Mass 1 line e-mail responses and Prop 12 deadline lead to cancellation of project and reallocation of funds



Lessons Learned

- Keep legislators informed!
- Assess risk and gauge outreach
- Define problem and parameters for solution; establish expertise
- Animation; good quality; good resources; anticipate skeptics
- Meet with neighborhood associations/small groups; find champions
- Understand audience/travel patterns,
- Involve commuters
- Need positive examples (negatives (Plano) are killers!!!!)
- Have thick skin and plenty of stamina
- Exit strategy

The Do's for Success

- Engage Local Official and City leaders Early on.
- Meet with local business groups
- Use graphics that illustrate
- Engage the public to encourage involvement in the solution.
- The standard Open House and public meeting formats do not convey the concepts well
- Host or attend smaller meetings more frequently. HOA, Chamber of Commerce, ...
- Control of misinformation. Is it possible?



Consultant Partners

- CN14-148P5005 - I. S. Engineers, LLC (ISE) .
- CN 32-132P5001 – Pape-Dawson Engineers
- CN 32-132P5002 HDR Engineering
- CN 32-132P5003 KLOTZ & Associates



Questions & Comments



Thank You!!!!

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