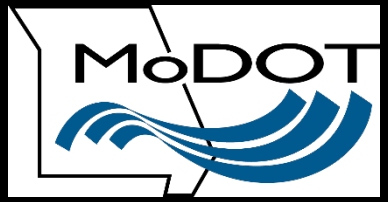


HDR

Route 30 in St. Louis - Impact of Road Diets with Signal Optimization

TEAM – March 2019

Presenters

Matthew Volz, PE
HDR Project Manager
matthew.volz@hdrinc.com

Eddie Watkins Jr.
Senior Traffic Studies Specialist
MoDOT St. Louis District
Eddie.Watkins@modot.mo.gov

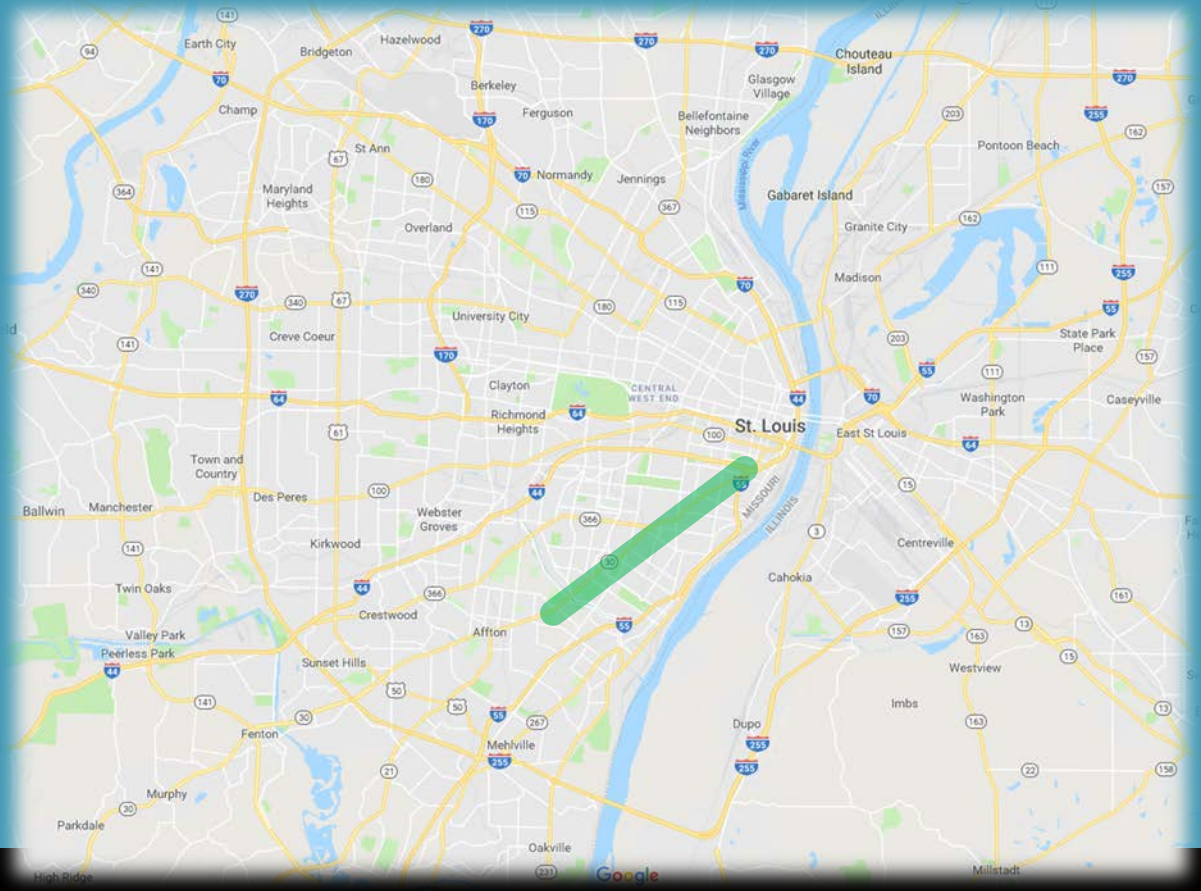
01 Route 30 Basics

02 What was Done?

03 Results

01

Route 30 Basics



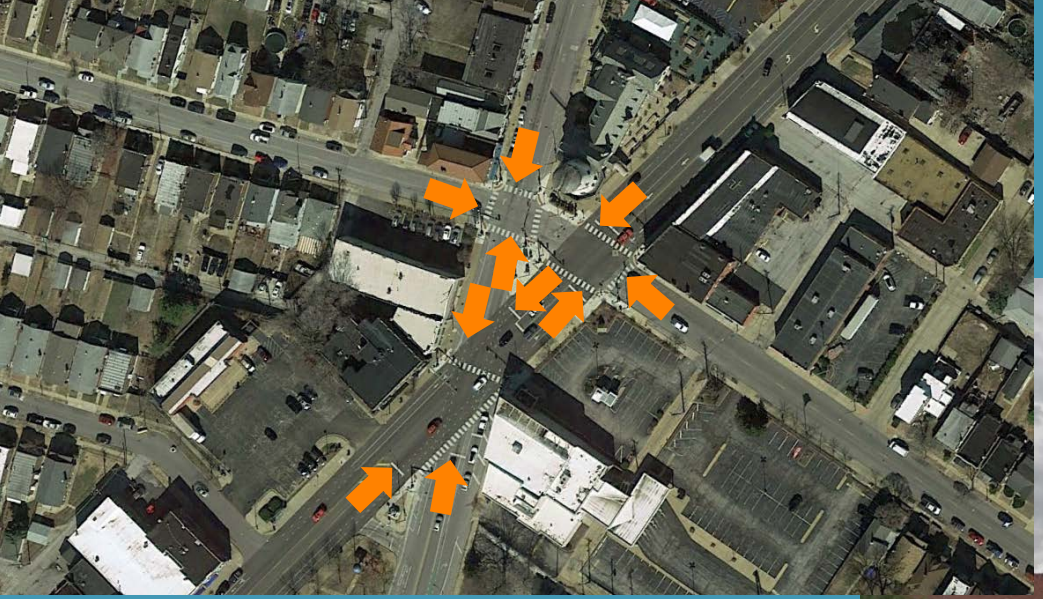
- 6 MILES
- 29 SIGNALIZED INTERSECTIONS
- ODD CONFIGURATIONS
- “ROAD DIET? WHAT ROAD DIET?”

Route 30 Corridor in St. Louis, MO

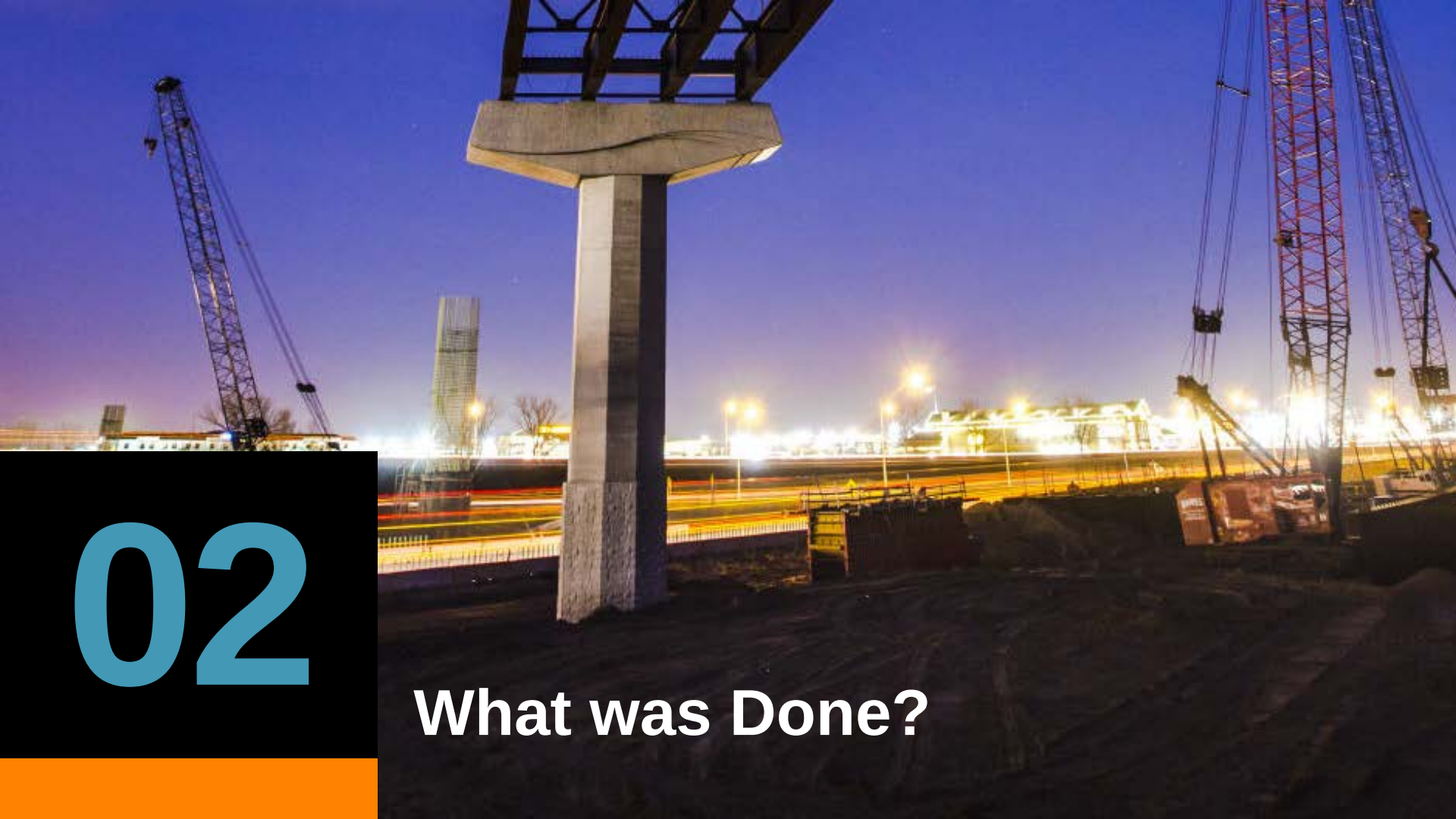
MO Route 30 (Gravois Road)

- 29 intersections with signals
- 37 separate signalized intersections

GRAVOIS & MORGANFORD



Route 30 Corridor in St. Louis, MO



02

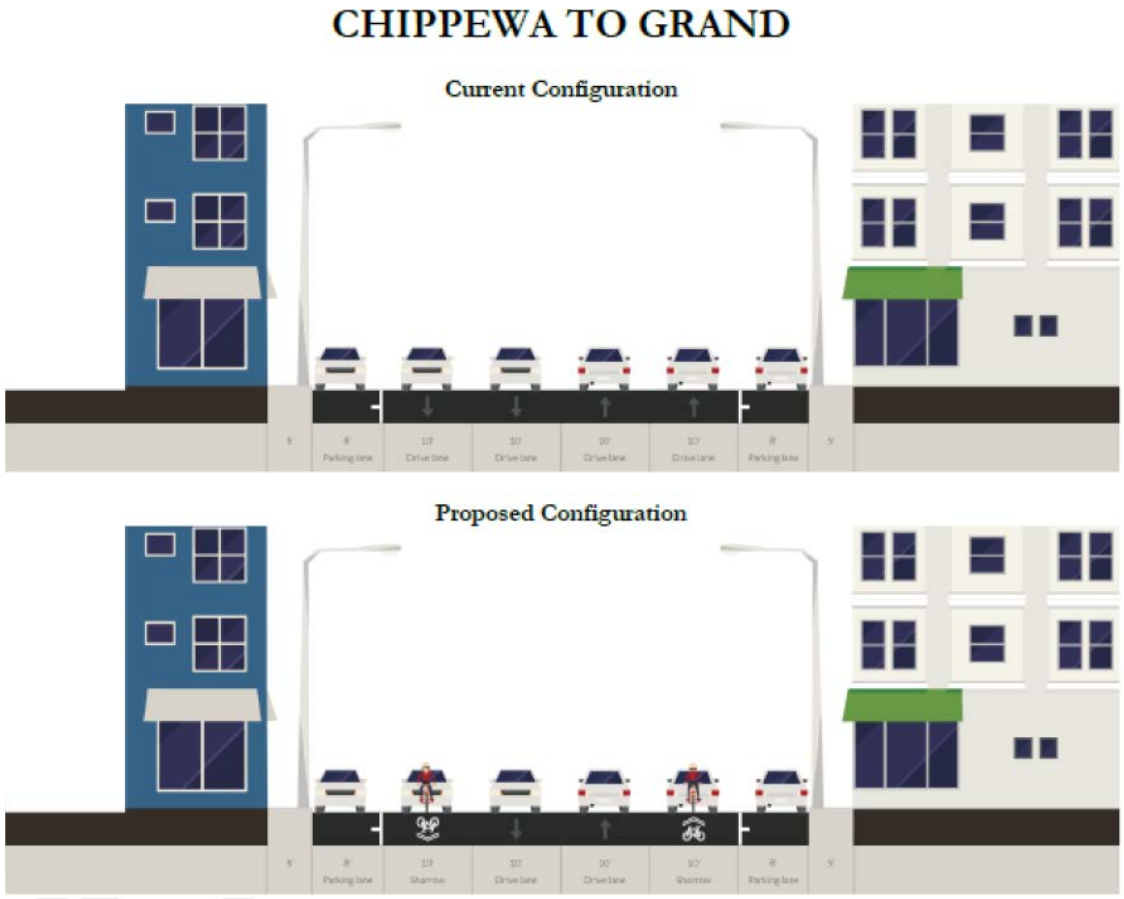
What was Done?

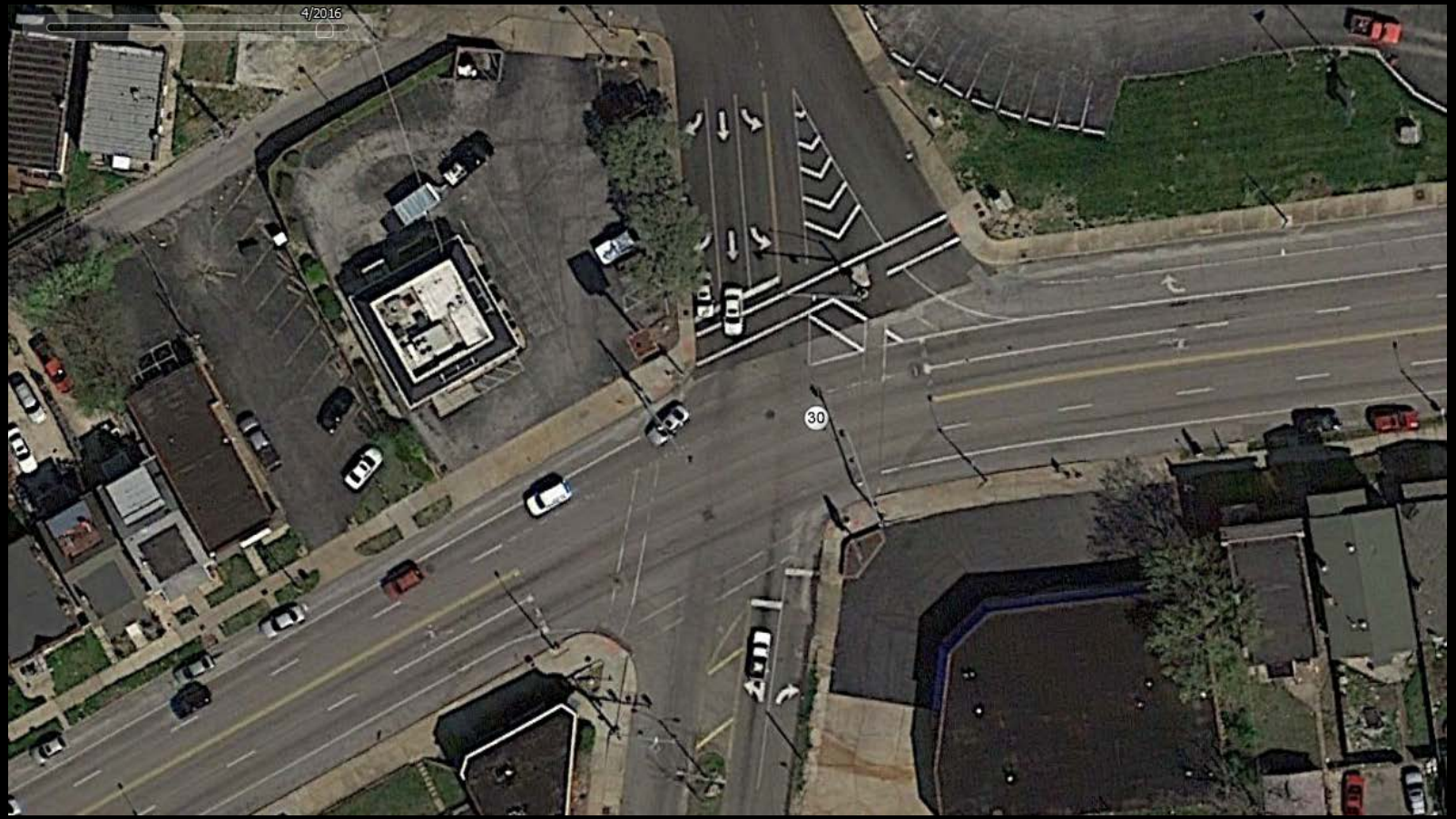
WHAT WAS DONE?

ROAD DIET (WAIT, WHAT?)

- 2016-2017
- NEW OVERLAY
- CURBS, ISLANDS
- FLASHING PED
- BIKE LANES
- TURN LANES
- AND LOTS OF STRIPING…

WHAT WAS DONE?
ROAD DIET

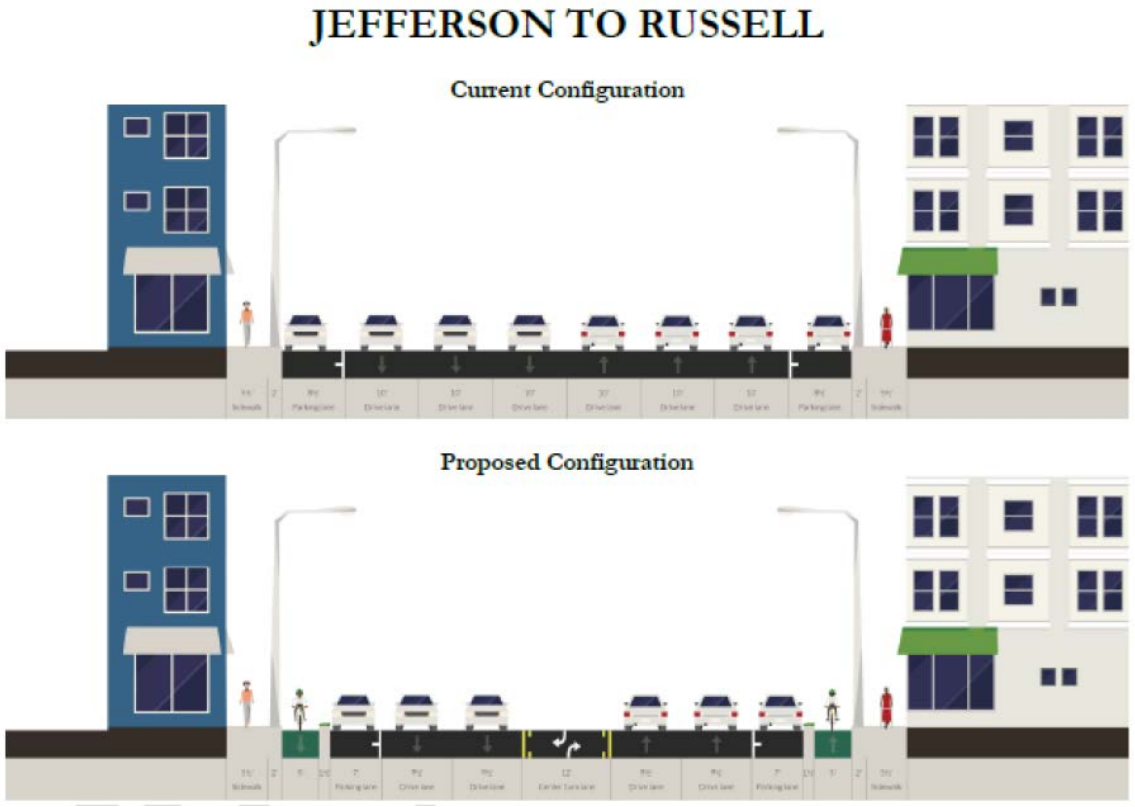




Route 30 Corridor in St. Louis, MO - BEFORE

Route 30 Corridor in St. Louis, MO - AFTER

WHAT WAS DONE?
ROAD DIET



Route 30 Corridor in St. Louis, MO - BEFORE

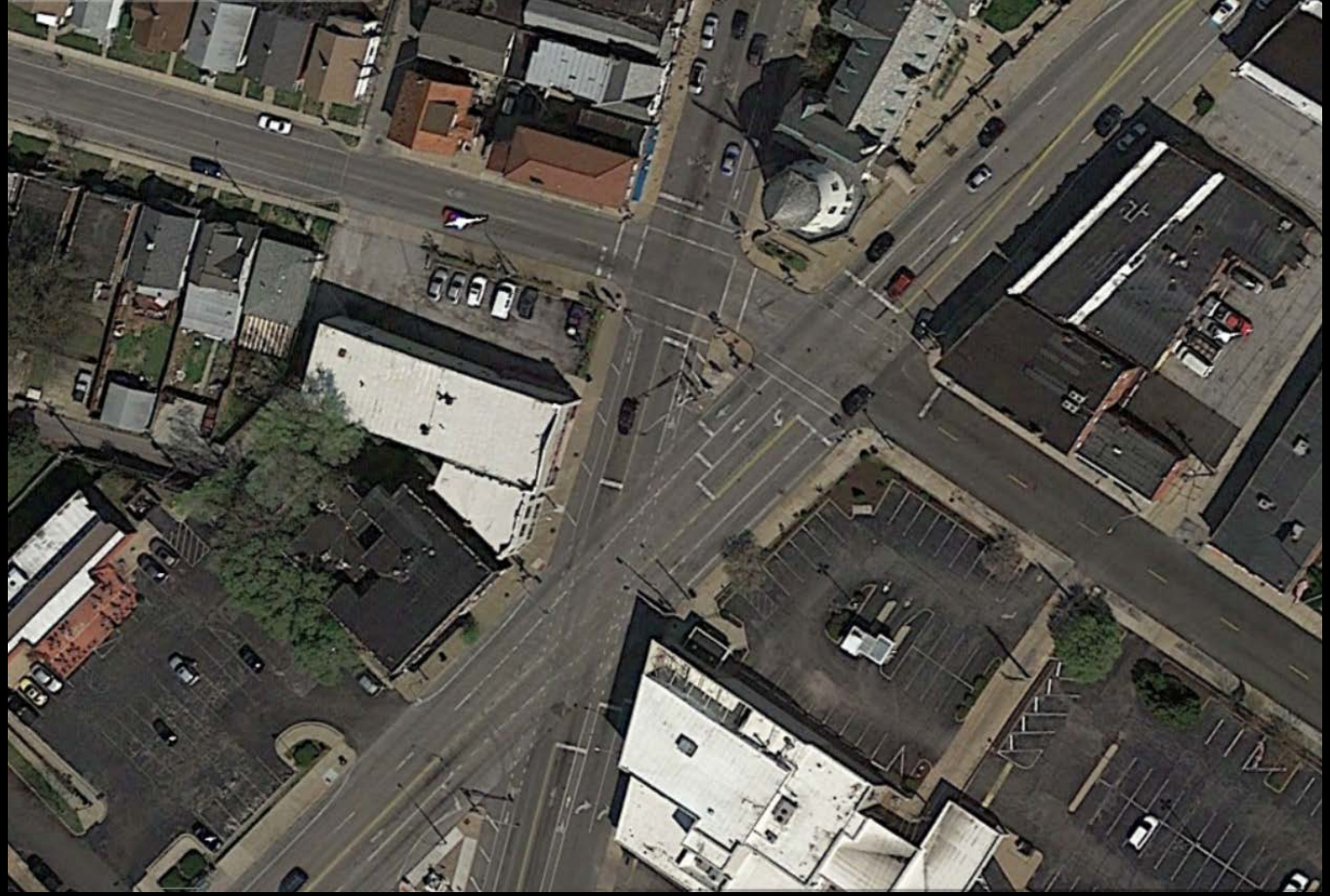
Route 30 Corridor in St. Louis, MO - AFTER

Route 30 Corridor in St. Louis, MO - BEFORE

Route 30 Corridor in St. Louis, MO - AFTER

Route 30 Corridor in St. Louis, MO - BEFORE

Route 30 Corridor in St. Louis, MO - AFTER



Route 30 Corridor in St. Louis, MO - BEFORE

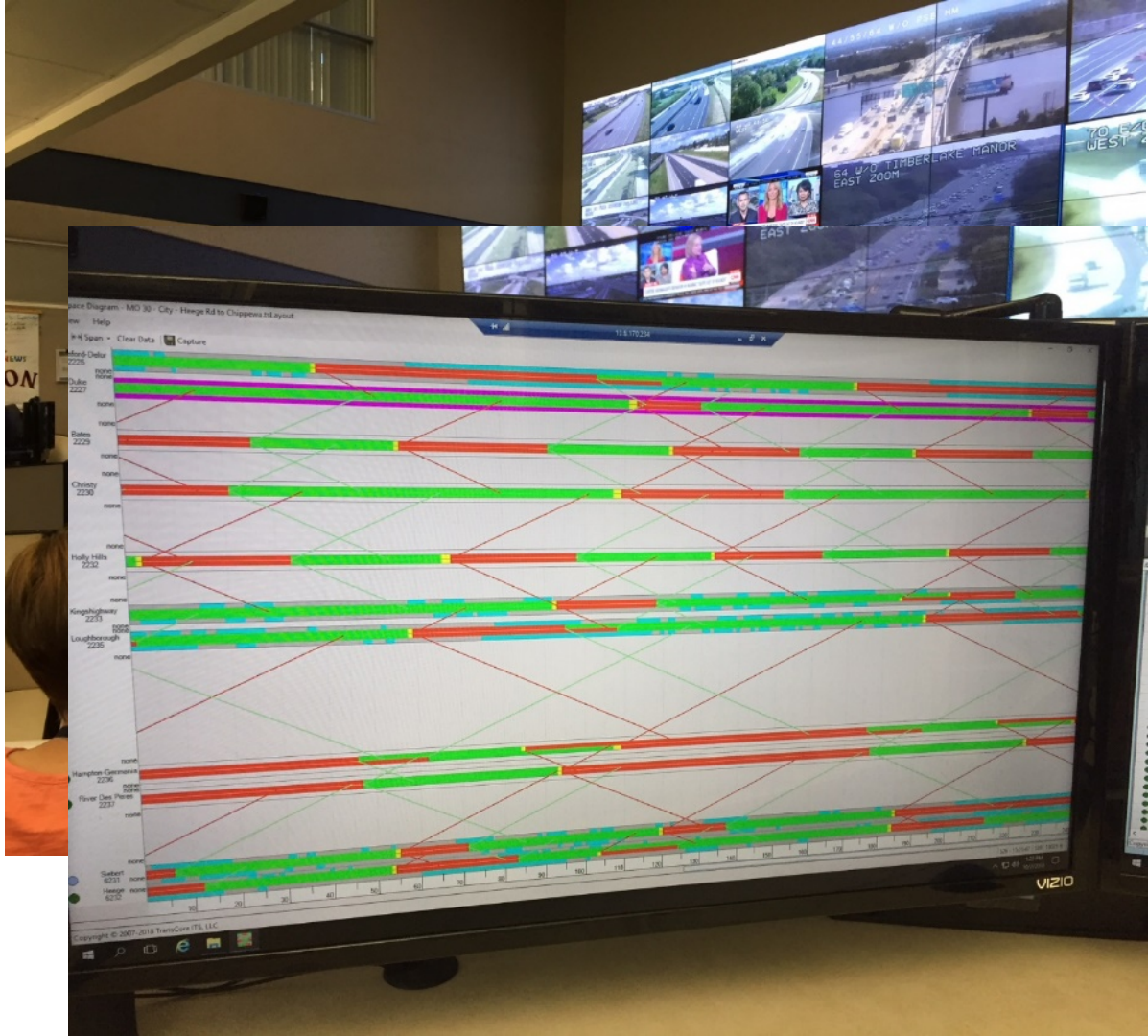
Route 30 Corridor in St. Louis, MO - AFTER

WHAT WAS DONE?
SIGNAL OPTIMIZATION

- Optimize efficiency
- MoDOT's goal:
  - Maximize mainline green bands
  - Minimize intersection delays
- Data Collection post Road Diet
- Optimization using Synchro
- Implemented May 2018

WHAT WAS DONE?

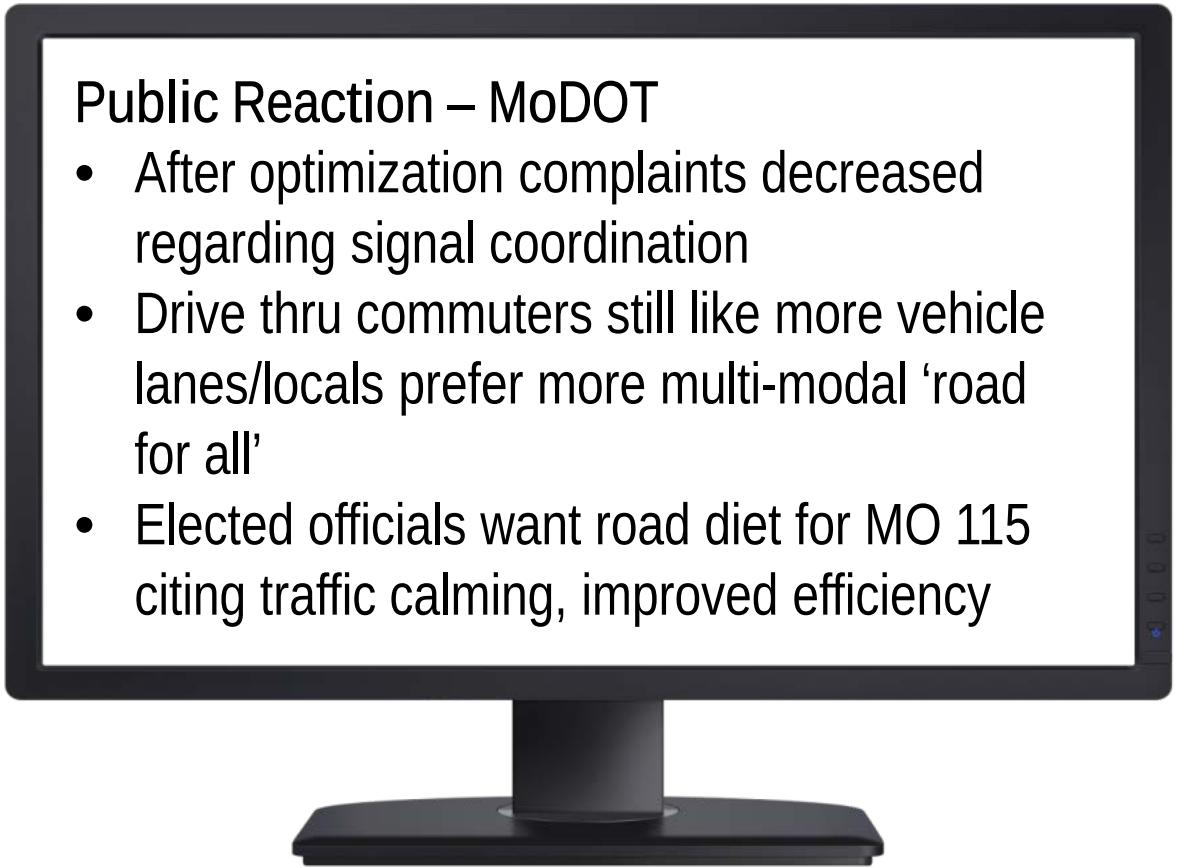
SIGNAL OPTIMIZATION



03

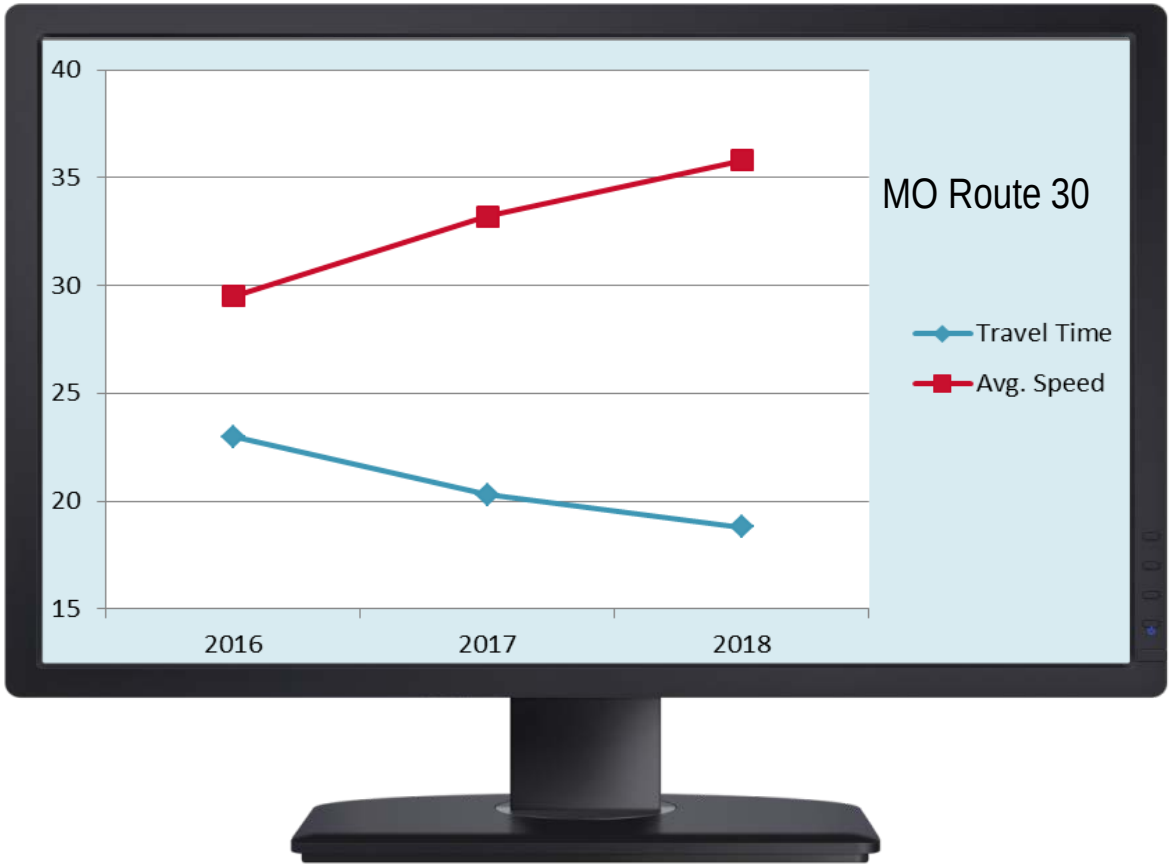
Results

PROJECT METRICS

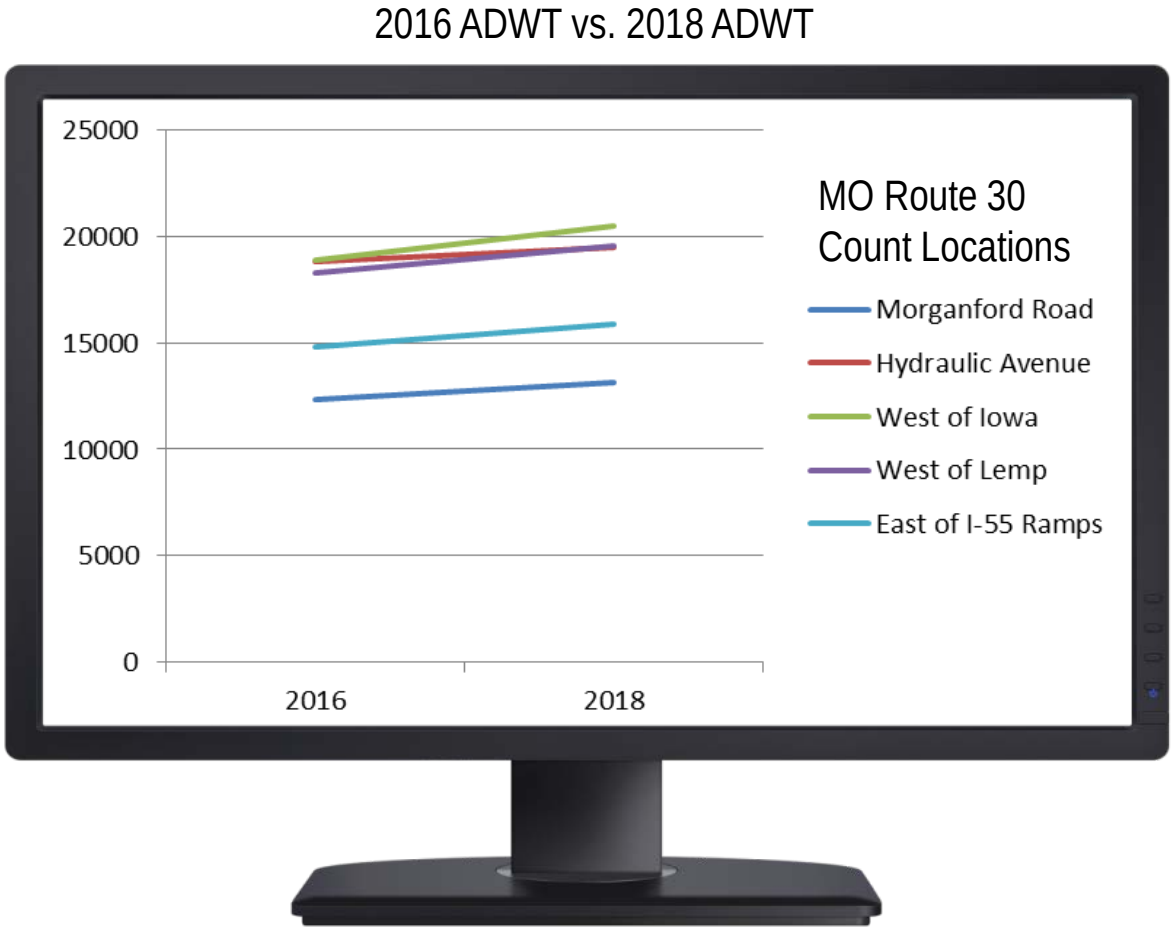


PROJECT METRICS

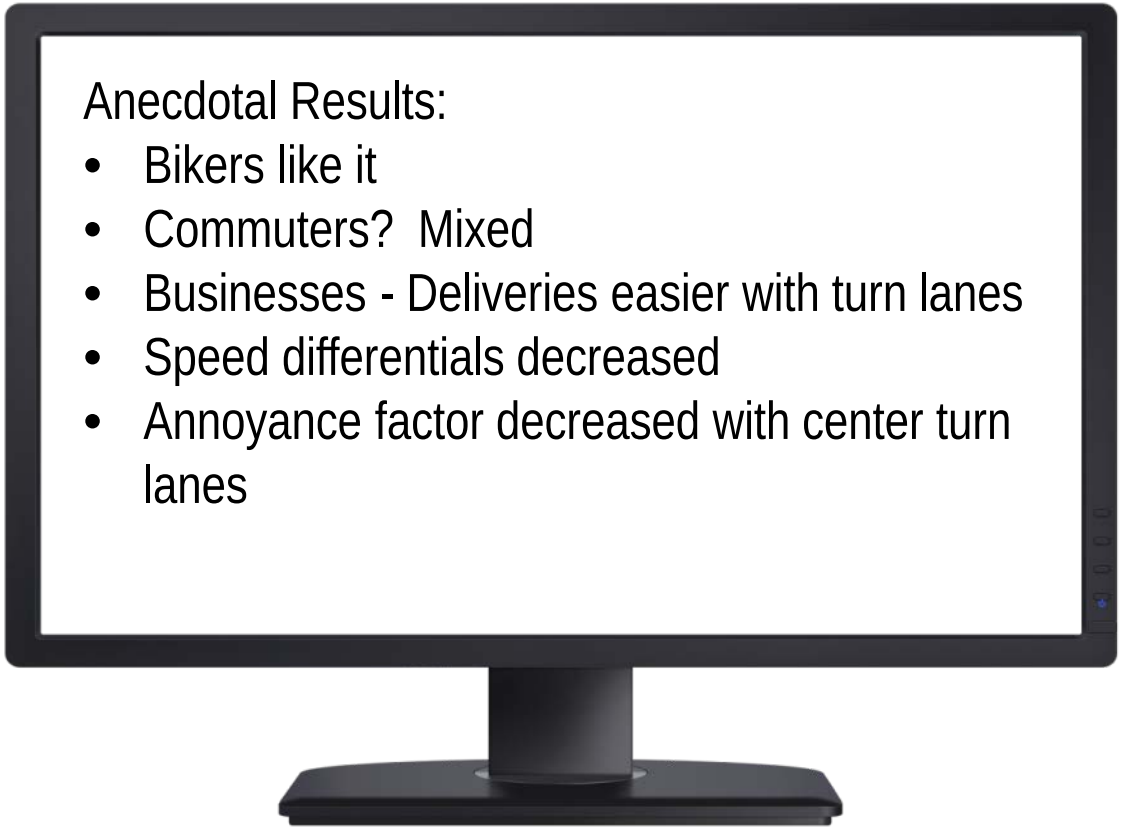
- Average Speed
  - Road Diet: +13%
  - Optimization: +8%
- Travel Time
  - Road Diet: -12%
  - Optimization: -7%



PROJECT METRICS

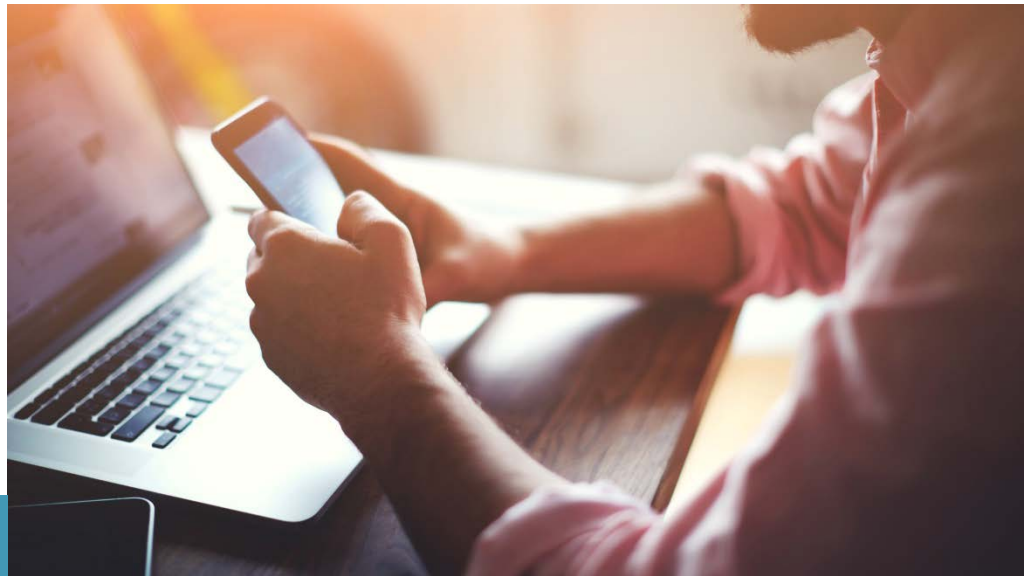


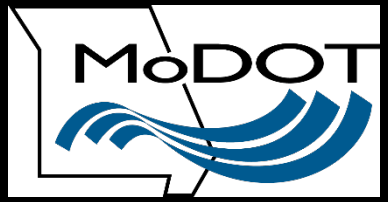
PROJECT METRICS



Conclusions

- Road Diets not as bad as people assume
- Signal Optimization is good… even better with a Road Diet
- Throughput: +5%
- Average speed: +21%
- Travel Time: -18%
- Applying to other routes





HDR