

# Bear Creek Parkway & Keller Smithfield Traffic Signal Warrant Study Update

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February 5, 2019



# Background

- Original 2010 Warrant Study as part of the 2013 Bond proposal
- New 2017 Warrant Study as part of 2019 Budget Development
- City Council Discussion About:
  - Need at this intersection
  - Needs of other intersections
  - Operation of overall signal system
- 2019 Budget Approved
  - Stipulation this project would be revisited again
  - The warrant Study be updated with 2018 data



# Minimum Traffic Signal Warrants\*

- 1) 8 Hour Vehicular Volume
- 2) 4 Hour Vehicular Volume
- 3) Peak Hour Vehicular Volume
- 4) Pedestrian Volume
- 5) School Crossing
- 6) Coordinated Signal System
- 7) Crash Experience
- 8) Roadway Network
- 9) RR Proximity

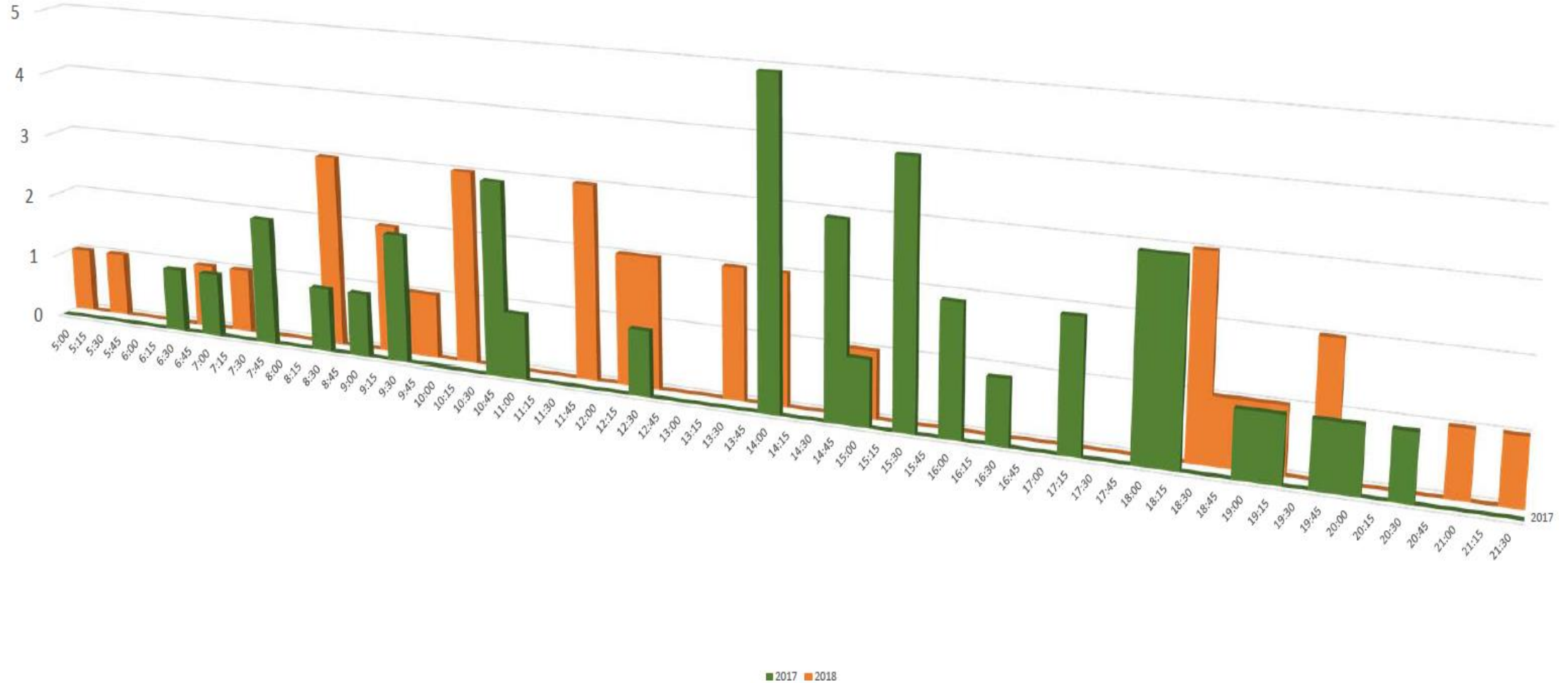
*\* - "The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal."  
Chapter 4B of the Texas Manual of Uniform Traffic Control Devices, Revision 2, October 2014*

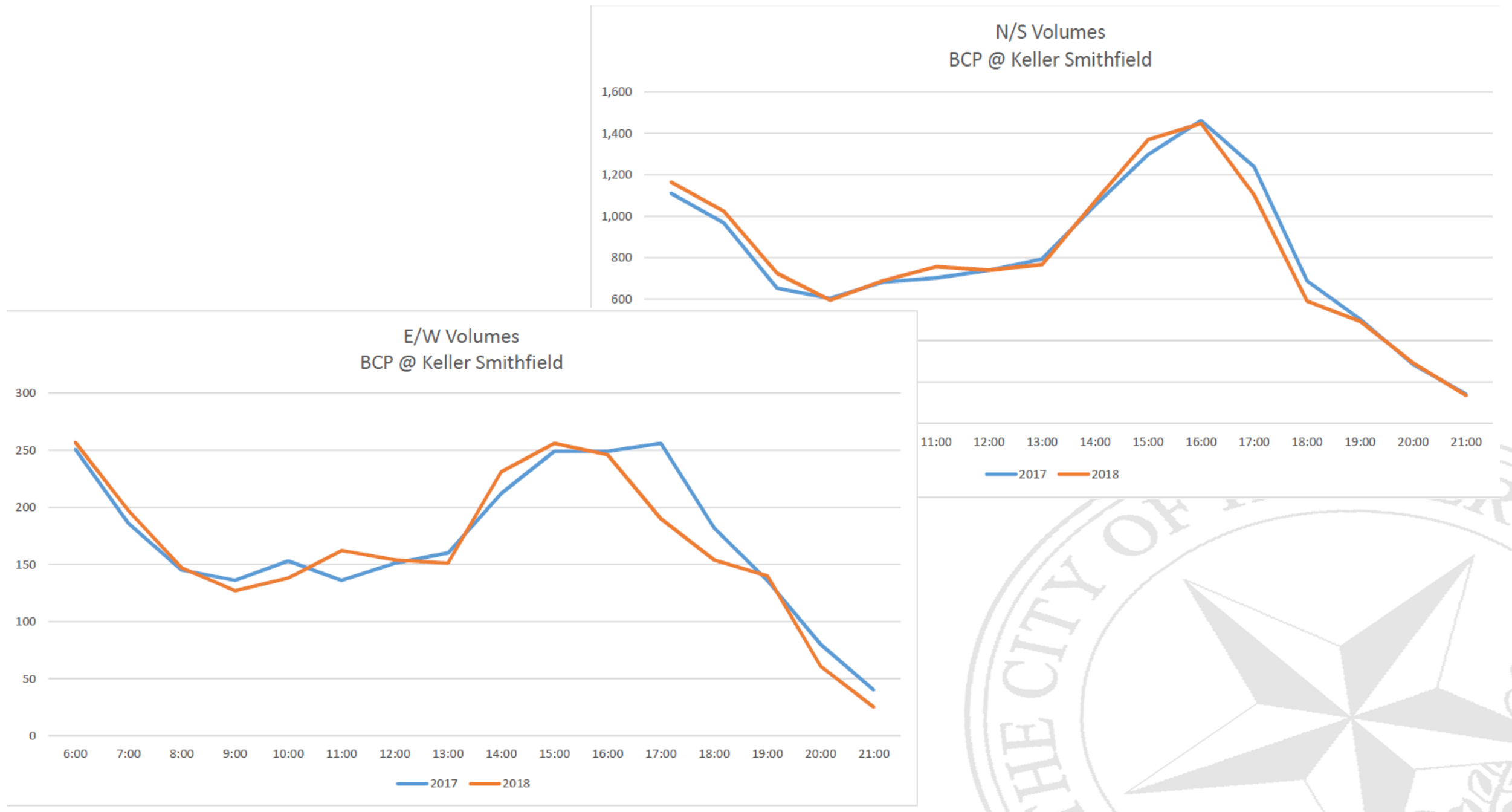
# Comparison of Warrant Study Results

Warrant #	Warrant Description	2010	2017	2018
1	Eight-Hour Vehicular Volume	Fail	Pass	Pass
1a	Condition A (Total Amount of Traffic)	Fail	Fail	Fail
1b	Condition B (Excessive Side Street Delay)	Fail	Fail	Fail
1a & b	80% of Both A & B	Fail	Pass	Pass
2	Four-Hour Vehicular Volume	Fail	Pass	Pass
3	Peak Hour	Not Evaluated	Pass	Pass
4	Pedestrian Volume	Not Evaluated	Fail	Fail
5	School Crossing	N/A	N/A	N/A
6	Coordinated Signal System	Not Evaluated	Not Evaluated	Not Evaluated
7	Crash Experience	Fail	Fail	Fail
8	Roadway Network	Pass	Pass	Pass
9	Intersection Near a RR Crossing	N/A	N/A	N/A

## Pedestrian Counts by Year

at Keller Smithfield & Bear Creek Parkway (North)





# Issues & Concerns

- Vehicular Visual Obstruction of the NW Corner
- Pedestrian Vulnerability Crossing Keller Smithfield
- Eastbound Vehicular Delay
- Proximity to a Park



# Considerations

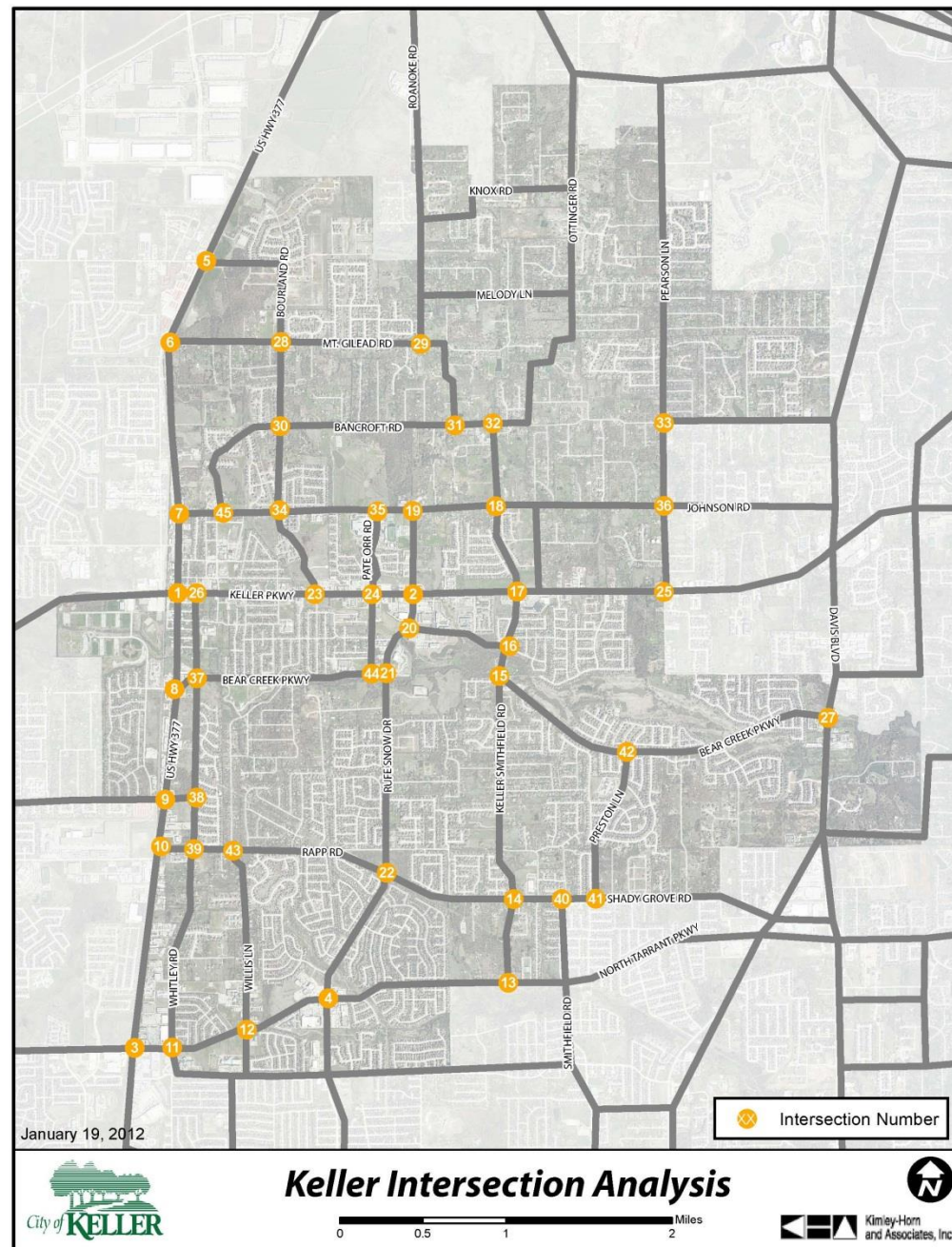
- Roundabout
- SB Lane Drop
- RRFB / Pedestrian Hybrid Signal
- East Bound Left Turn Restriction
- Operational Impacts
- Existing Intersection Infrastructure
- Coordination with other Signals
  - Alignment with a Future Signal System Plan
  - Flash Operation
  - ...

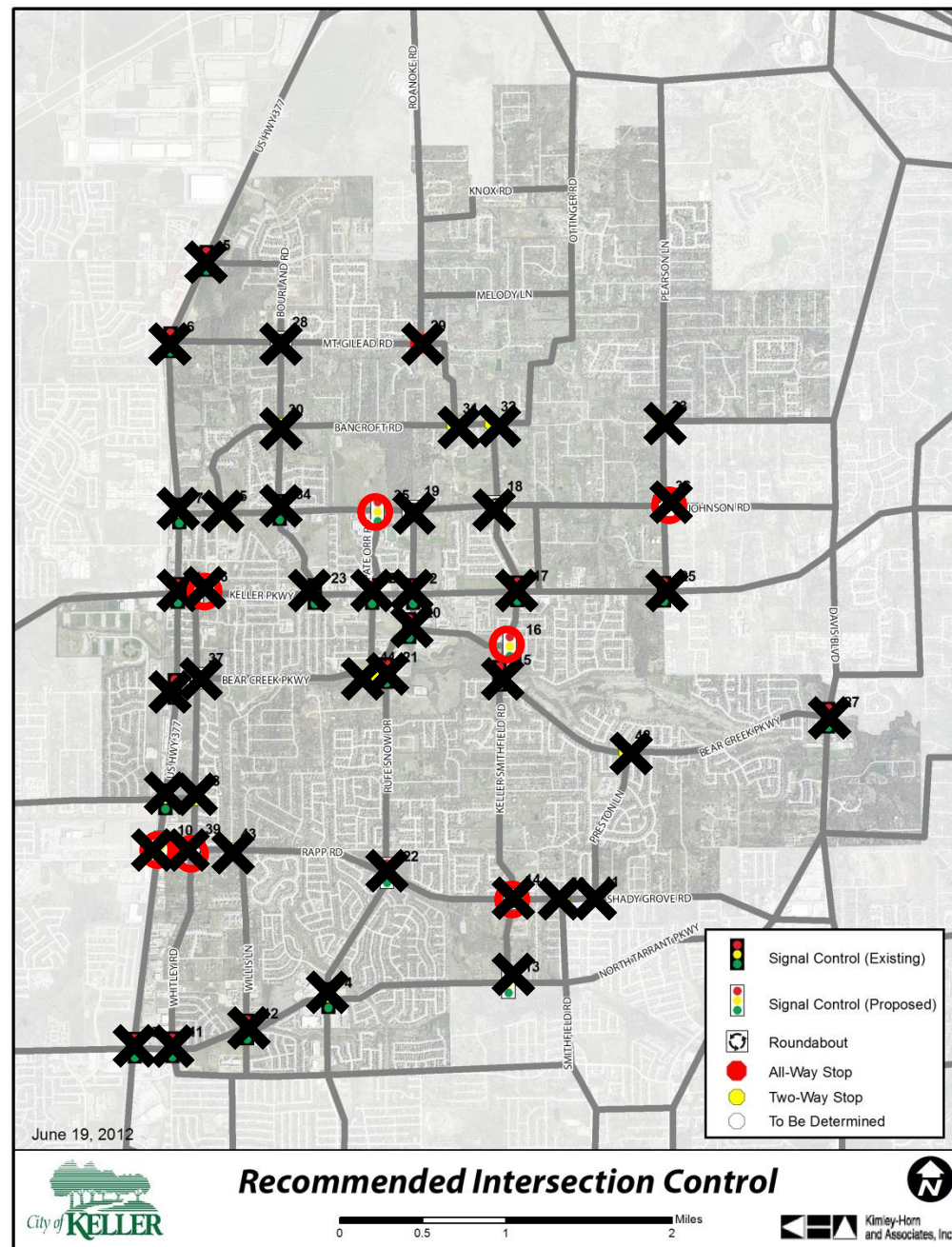












# Recommendation

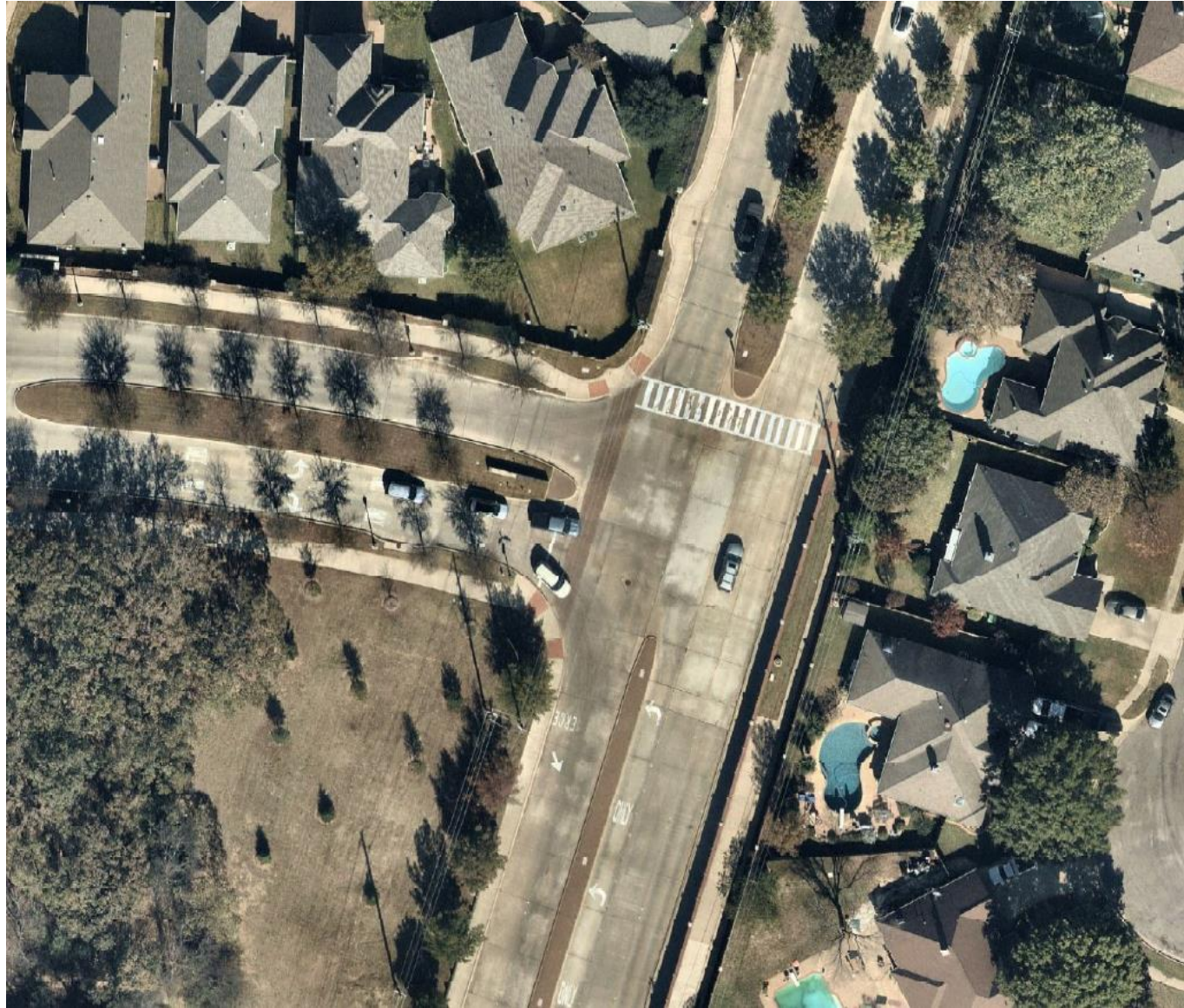
## Installation of a Traffic Signal

- NW Corner Visibility Obstructed
- 4 of 9 warrants met
- Consistent Consecutive Study Results
- Pedestrian Use Throughout the Day
- Proximity to the Park
- Existing Infrastructure





# Questions?



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