



KEEP OMAHA
moving

205TH ST & CUMBERLAND DR TRAFFIC STUDY

PROPERTY OWNER OUTREACH MEETING

September 2, 2021



PROJECT/MEETING PURPOSE

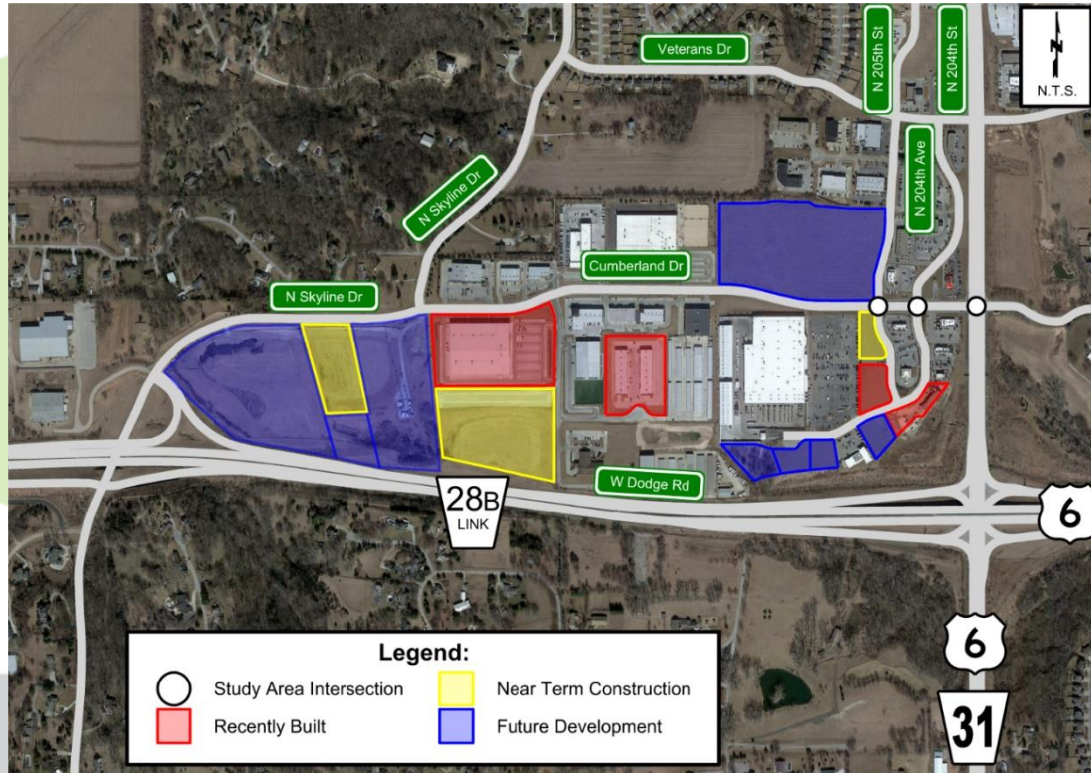
Project Purpose

- Improve Operations and Safety at 205th Street/Cumberland Drive Intersection without Negatively Impacting the Adjacent Street Network.

Meeting Purpose

- Report Project Progress
- Engage Property Owners
 - Identify Issues/Concerns
 - Feedback on Alternatives

PROJECT AREA



EFFORTS TO DATE

- **Data Collection**

Traffic Counts

Crash Data

Area Development

- **Existing Conditions Analysis**

Traffic Operations and Queues

Crash Review

- **Traffic Forecasts**

Short Term (Next 5 years)

Long Term (Full Area Buildout)

- **Alternatives Development**

Interim

Full Buildout

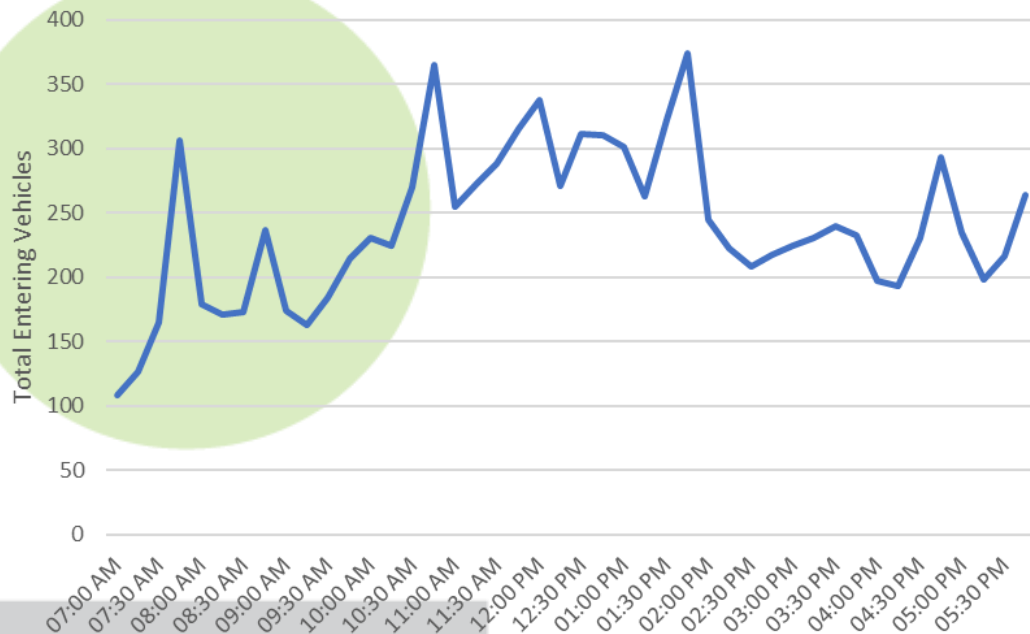
- **Alternatives Analysis**

Traffic Simulations

EXISTING CONDITIONS

(WEEKDAY TRAFFIC PATTERNS)

205th Street and Cumberland Drive



Peak Traffic Hours

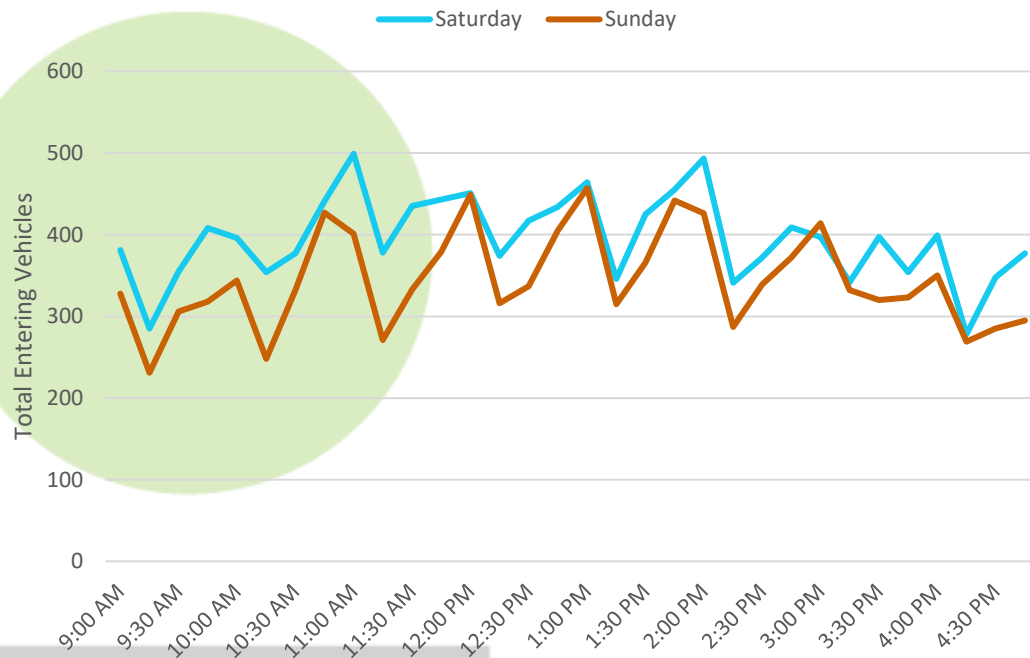
1. 1:00 PM to 2:00 PM
2. 11:45 AM to 12:45 AM
3. 4:30 PM to 5:30 PM
4. 7:45 AM to 8:45 AM

Entering Daily Traffic

Weekday = 13,882 vehicles
Truck % = 1.3%

EXISTING CONDITIONS

(WEEKEND TRAFFIC PATTERNS)

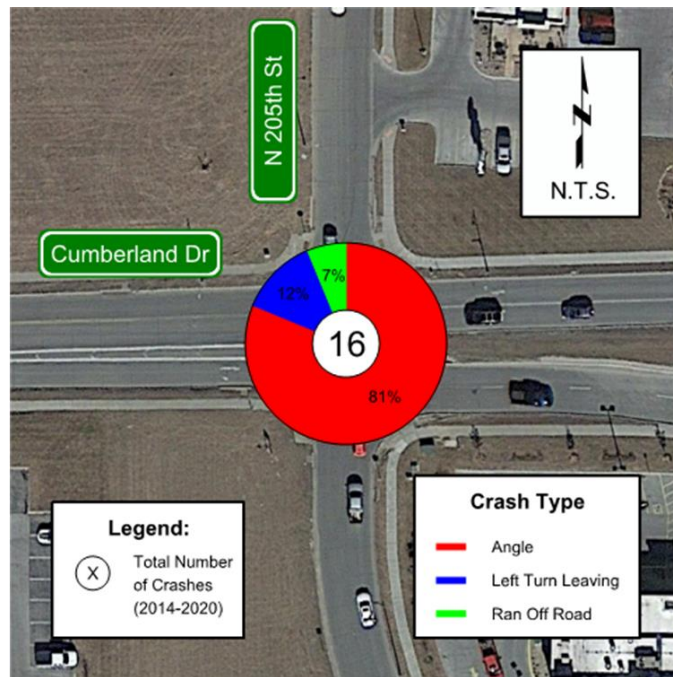
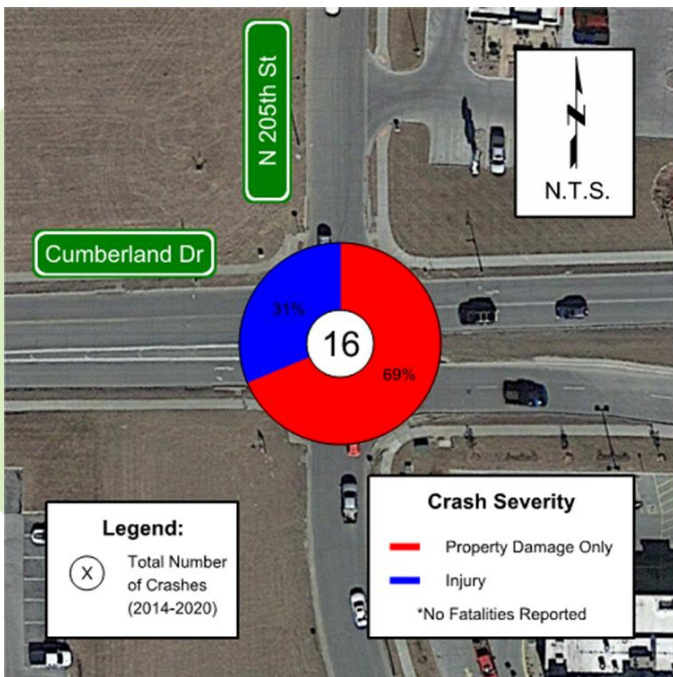


Peak Traffic Hours

1. 11:00 AM to 12:00 PM
2. 1:00 PM to 2:00 PM

Entering Daily Traffic
Saturday 24,994 vehicles
Sunday 21,756 vehicles
Truck % = 1.3%

EXISTING CONDITIONS (CRASH PATTERNS)



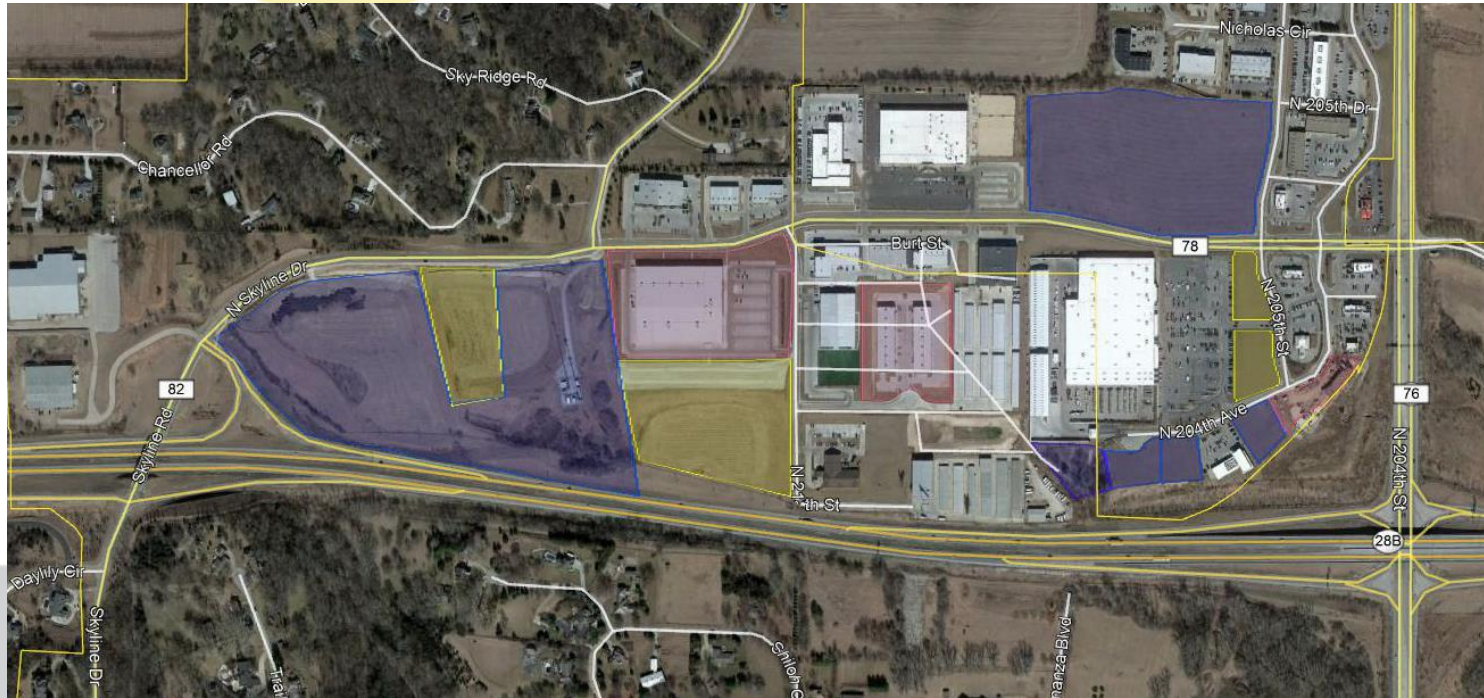
EXISTING CONDITIONS (OPERATIONS)



- 1 Closely Spaced Intersections
- 2 Challenging Operations at NB and SB 205th Street Approaches
- 3 Extensive Queueing at EB 204th Street Approach
- 4 Challenging Operations at NB Dual Lefts (205th Street Approach)
- 5 Lane Choice Challenges for NB to WB Movements
- 6 Multiple Access Points with Limited Spacing

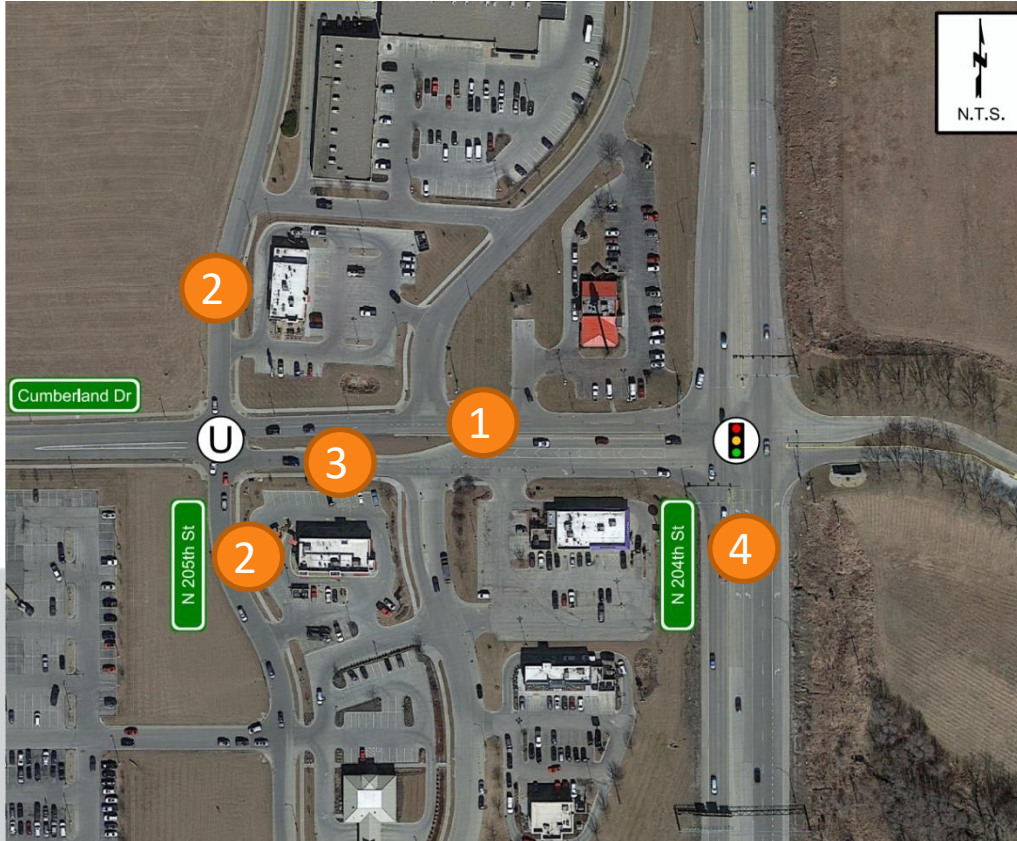


FUTURE TRAFFIC (DEVELOPMENT)



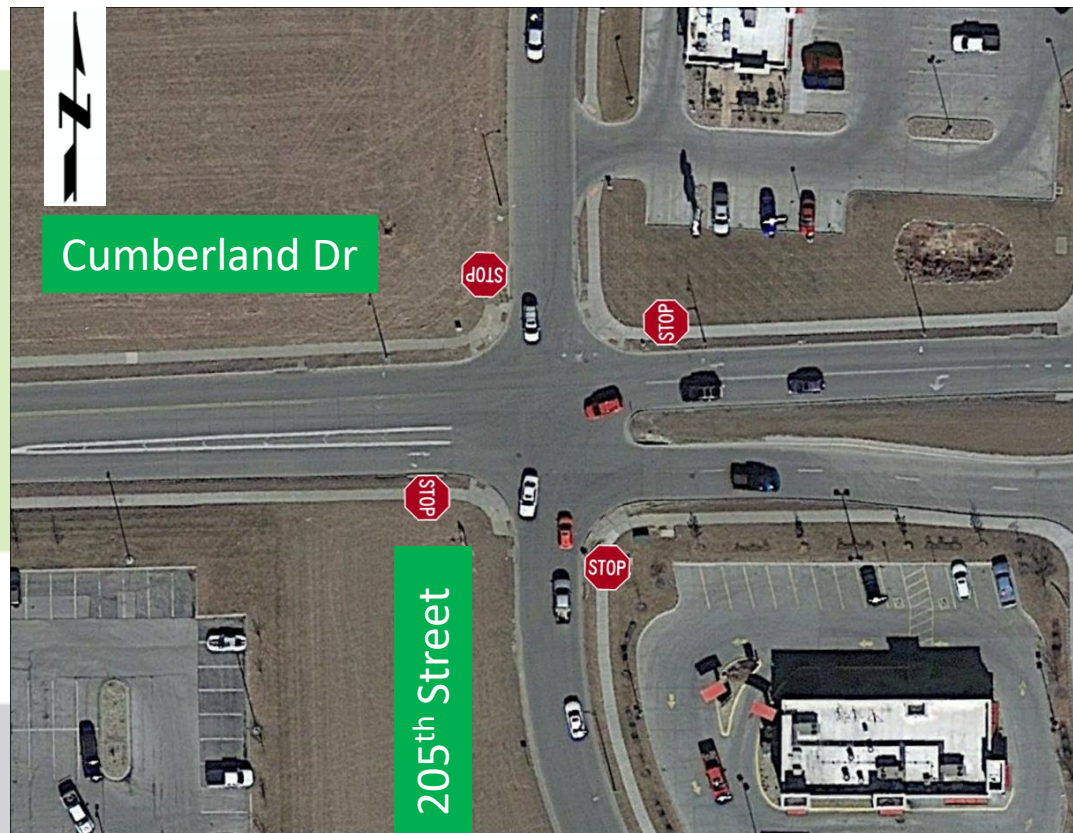
- Recent Construction
- Near Term Construction
- Long Term Construction

FUTURE CONDITIONS (OPERATIONS)

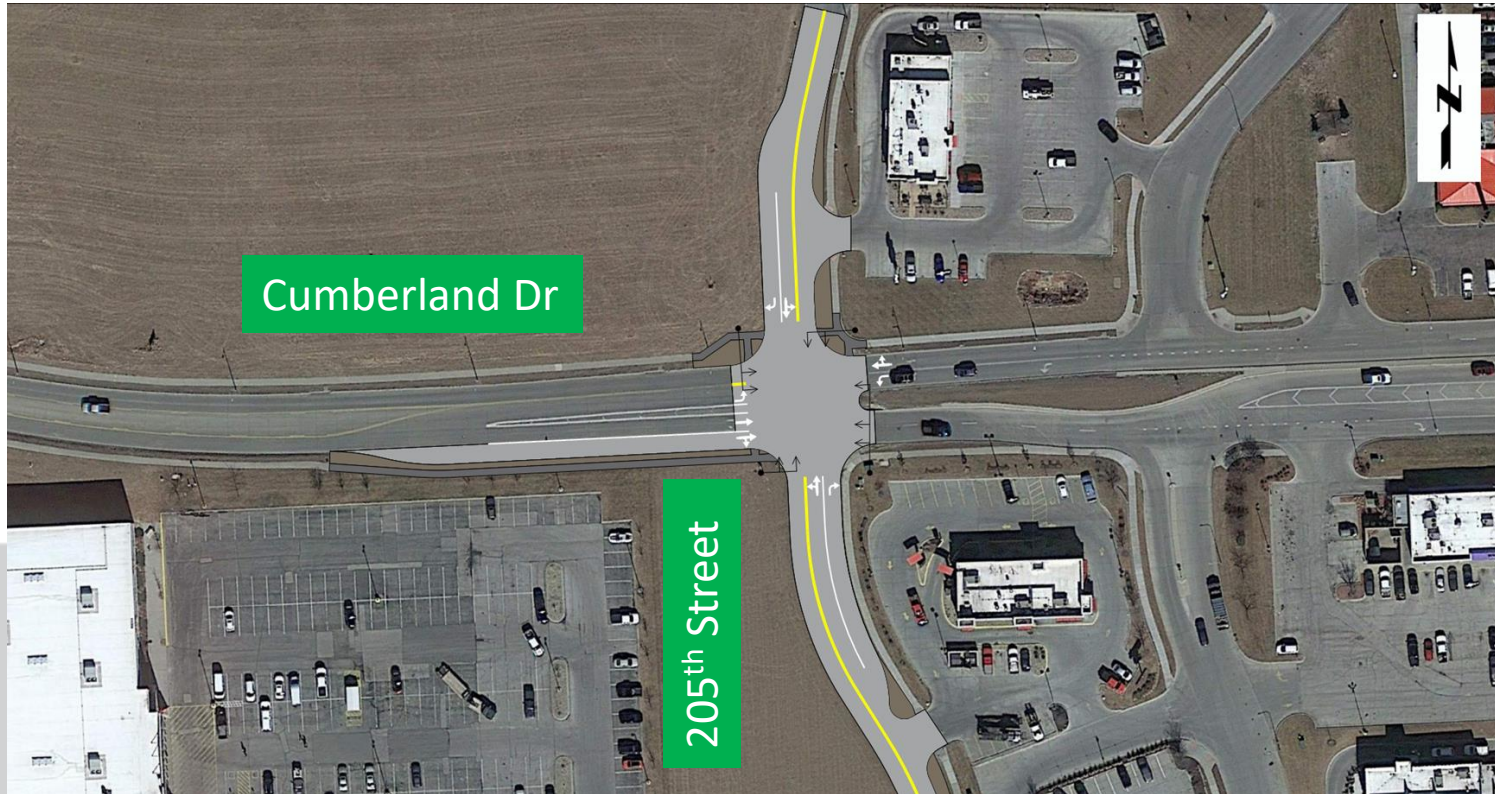


- 1 Increased Congestion at WBL 205th Street Approach
- 2 Continued Challenging Operations at NB and SB 205th Street Approaches
- 3 Increased Queues at EB 204th Street Approach
- 4 Challenging Operations at EB Left (204th Street Approach)

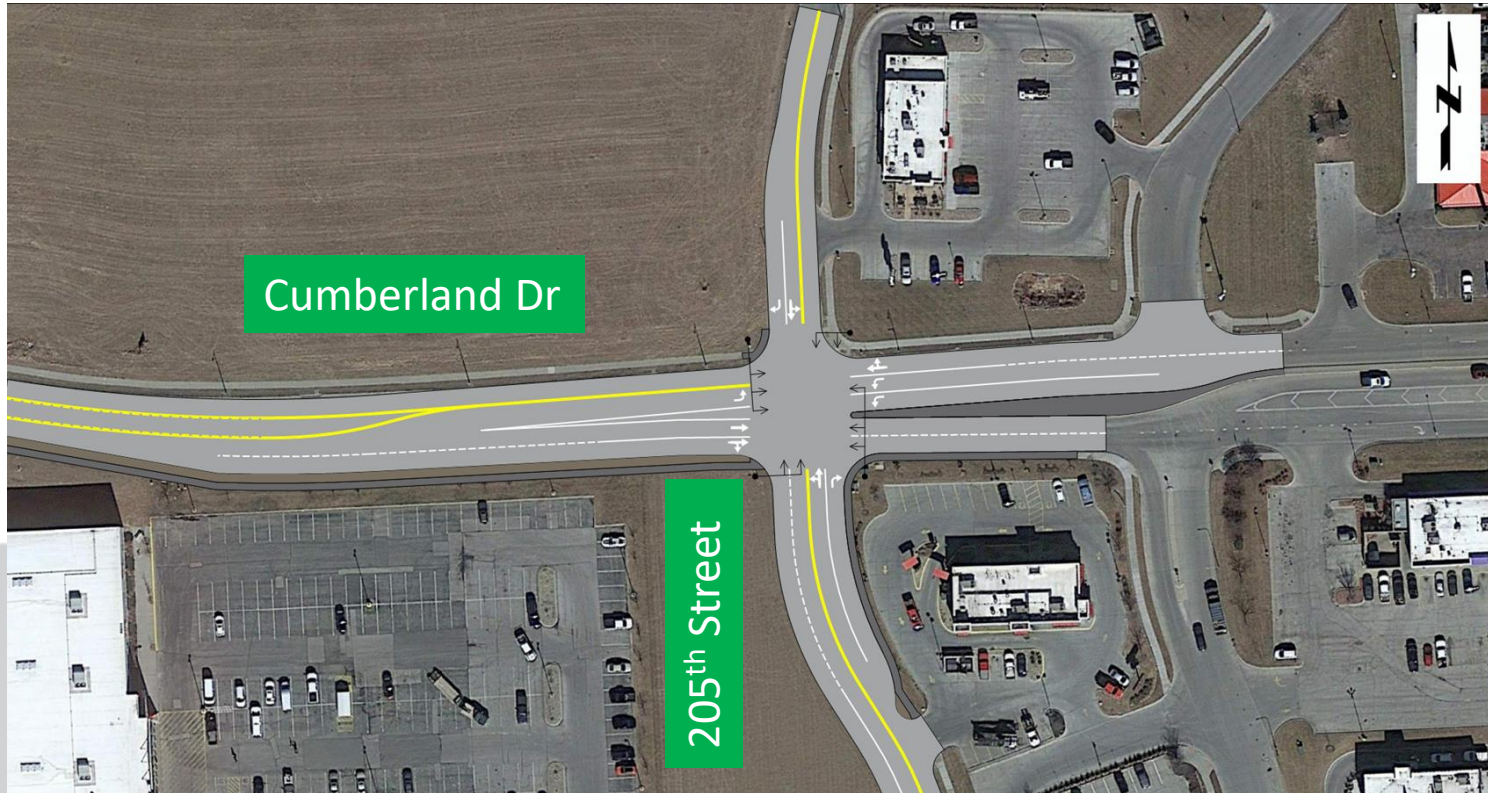
ALTERNATIVES (ALL WAY STOP CONTROL – INTERIM)



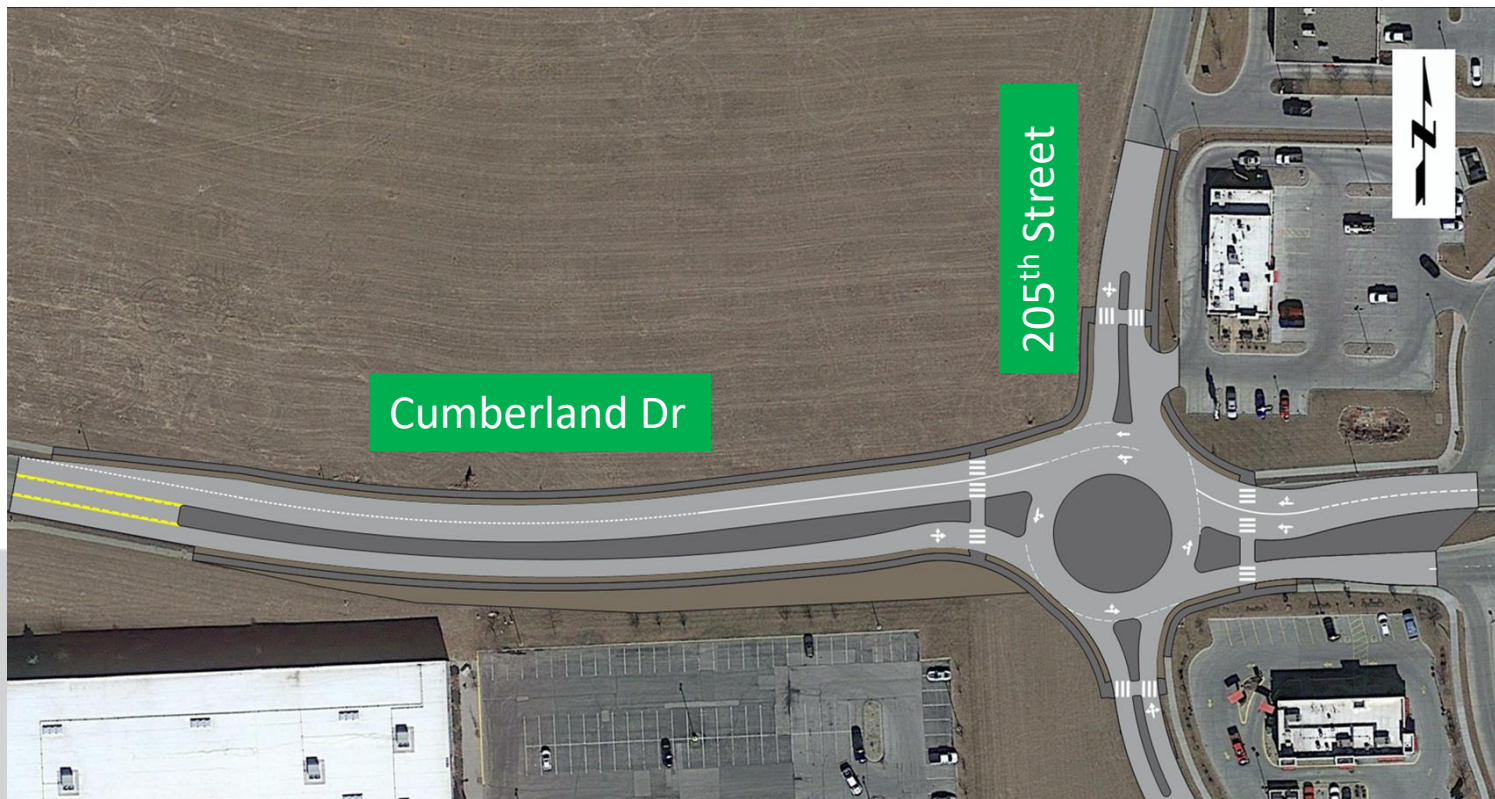
ALTERNATIVES (SIGNAL – OPTION 1)



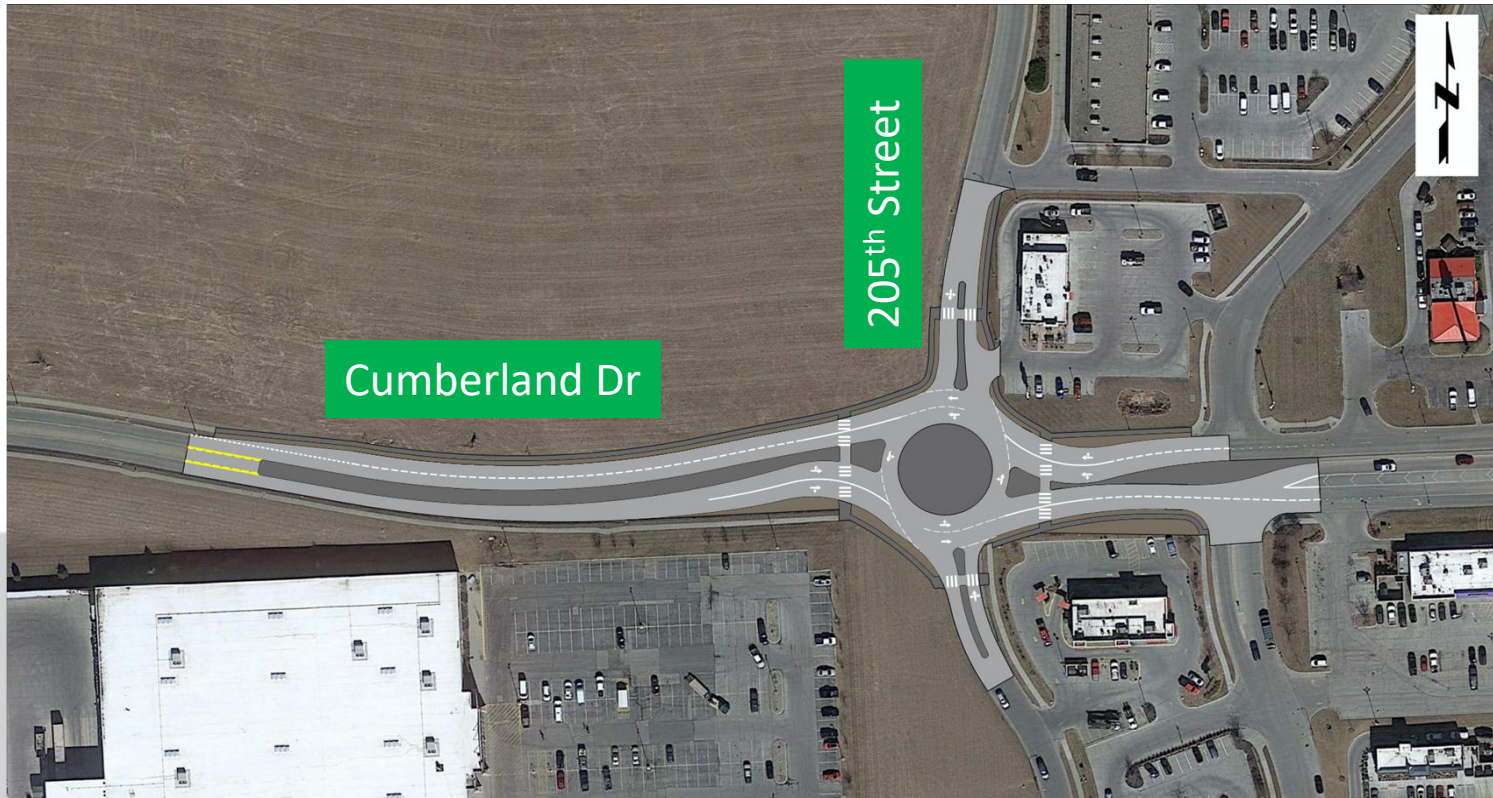
ALTERNATIVES (SIGNAL – OPTION 2)



ALTERNATIVES (ROUNDBABOUT – OPTION 1)



ALTERNATIVES (ROUNDBOUT – OPTION 2)



SIMULATION RESULTS

(ALL WAY STOP CONTROL – INTERIM WEEKEND PEAK)



- 1 Significant Delay and Queues EB at 205th Street
- 2 WB Queues at 205th St Extend to 204th Street
- 3 SB Right-Turn Queues Extend into Through Lane
- 4 NB Left-Turn Queues Extend into Through Lane
- 5 SB Movements on 204th Ave Cannot Enter Cumberland
- 6 NB Movements at 205th and 204th Ave are Improved

SIMULATION RESULTS

(SIGNAL OPTION 1 – FUTURE WEEKEND PEAK)



- 1 Less Delay and Queues EB at 205th Street than Roundabout – Option 1
- 2 At times WB Queues Will Extend to 204th Street
- 3 Delays and Queueing are Increased on 205th Street Compared to both Roundabouts
- 4 Side Street at 204th Ave and 205th St are Improved Compared to No Build
- 5 At Times EB Queues at 204th Street Almost Reach 205th Street

SIMULATION RESULTS

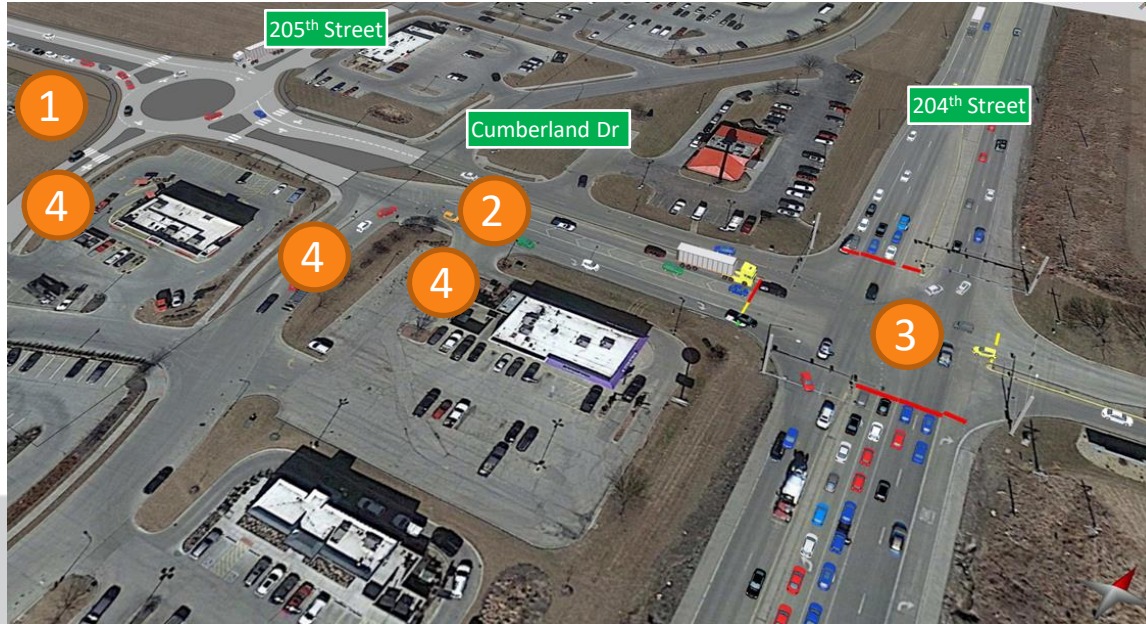
(SIGNAL OPTION 2 – FUTURE WEEKEND PEAK)



- 1 EB Operates Slightly Worse than Signal Option 1 with Greater Delays and Queues
- 2 WB Queues Still Extend to 204th Street
- 3 Delays and Queueing are Increased on 204th Street Compared to Roundabout Options
- 4 Side Street Delays at 204th Ave and 205th St are Improved over Signal Option 1
- 5 EB Queues at 204th Street At Times Almost Reach 205th Street

SIMULATION RESULTS

(ROUNDBABOUT OPTION 1 – FUTURE WEEKEND PEAK)



- 1 EB Operates with Greatest Delays and Queues Compared to All Other Options
- 2 Queues Between 204th and 205th are Much Less Than Signal Options
- 3 Minimal Operational Impact to 204th Street
- 4 Metering of EB Traffic Allows NB Side Street Traffic to Enter Cumberland

SIMULATION RESULTS

(ROUNDBABOUT OPTION 2 – FUTURE WEEKEND PEAK)



- 1 EB Operates with Less Delays and Queues than Small Footprint Options
- 2 Queues Between 204th and 205th are Much Less than Signal Options
- 3 Greater EB Throughput Increases Delays and Queues on at NB 204th Avenue and 205th Street Intersection

ALTERNATIVES COMPARISON

	No Build Alternative	Signal Option 1 (Small Footprint)	Signal Option 2 (Large Footprint)	Roundabout Option 1 (Small Footprint)	Roundabout Option 2 (Large Footprint)
Area Traffic Operations	⊖	⊖	⊖	⊕	●
Safety	⊖	⊖	●	⊕	⊕
Property and Right-of-Way	⊕	⊕	●	●	⊖
Constructability	⊕	⊕	⊕	●	●
Cost	⊕	⊕	●	●	⊖



Negative Impact



Neutral Impact



Positive Impact



NEXT STEPS

- **Finalize Alternatives Analysis**
Cost Estimates
Rank Alternatives
- **Summarize Property Owner Feedback**
- **Traffic Study Report**
Draft and Final (August-September)
- **Determine Funding Sources**
- **Design/Construction**

PROJECT WEBSITE & CONTACT

- <https://www.keepomahamoving.com/projects/205th-street-cumberland-drive-traffic-study>

If you have questions, please contact:

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DISCUSSION & QUESTIONS