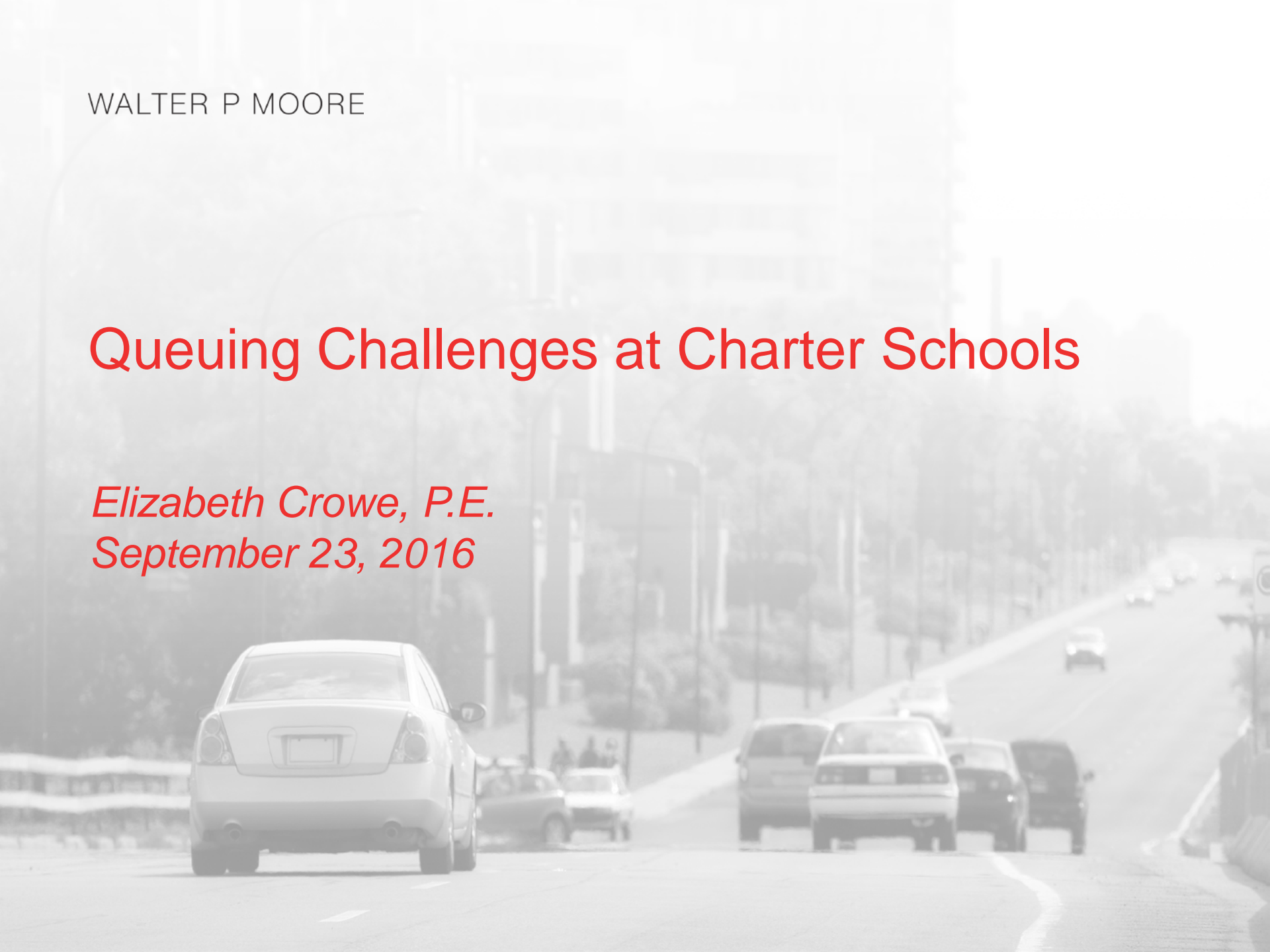


WALTER P MOORE

Queuing Challenges at Charter Schools

*Elizabeth Crowe, P.E.
September 23, 2016*

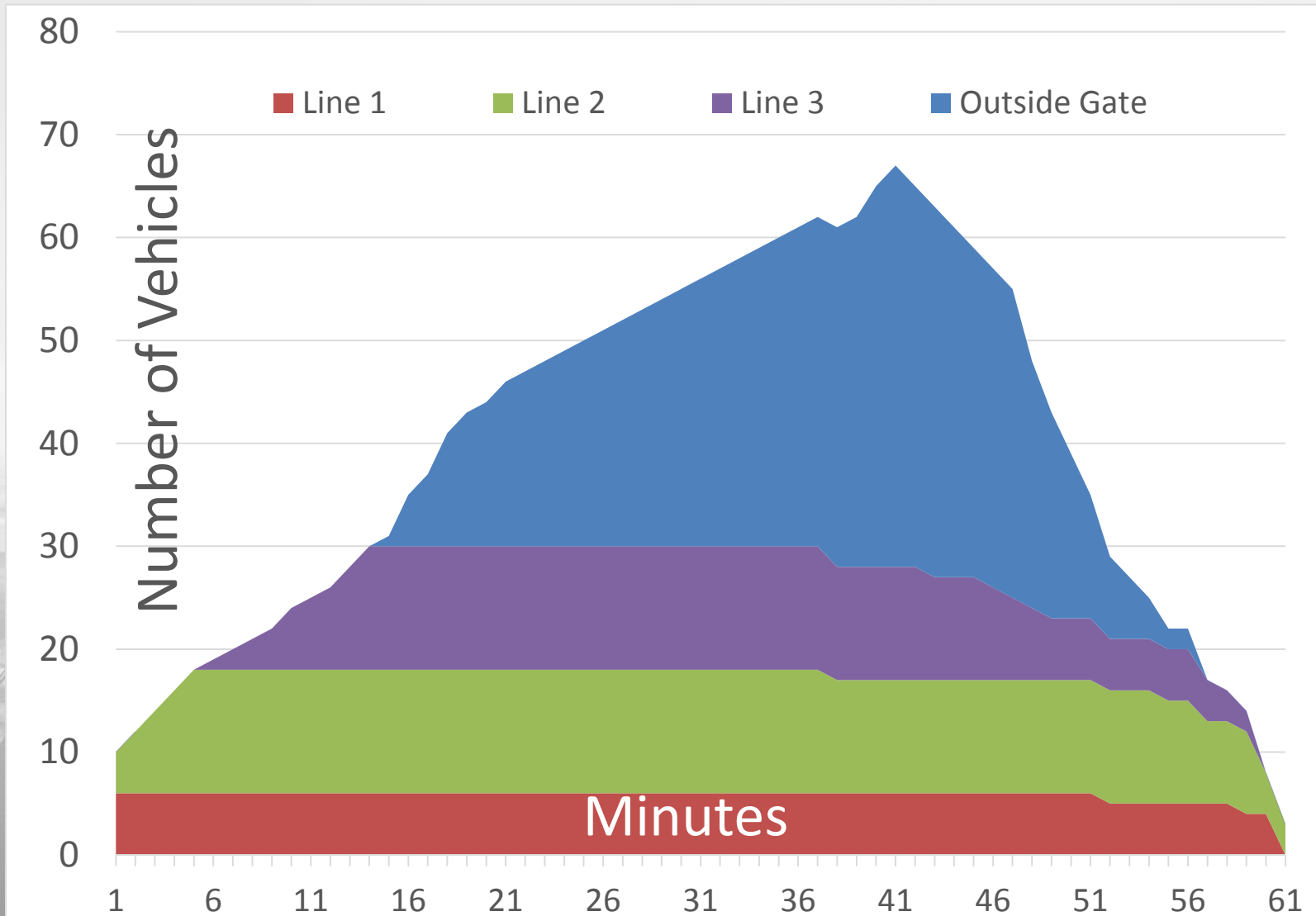


“AH-HA’S” FOR CITIES TO UNDERSTAND

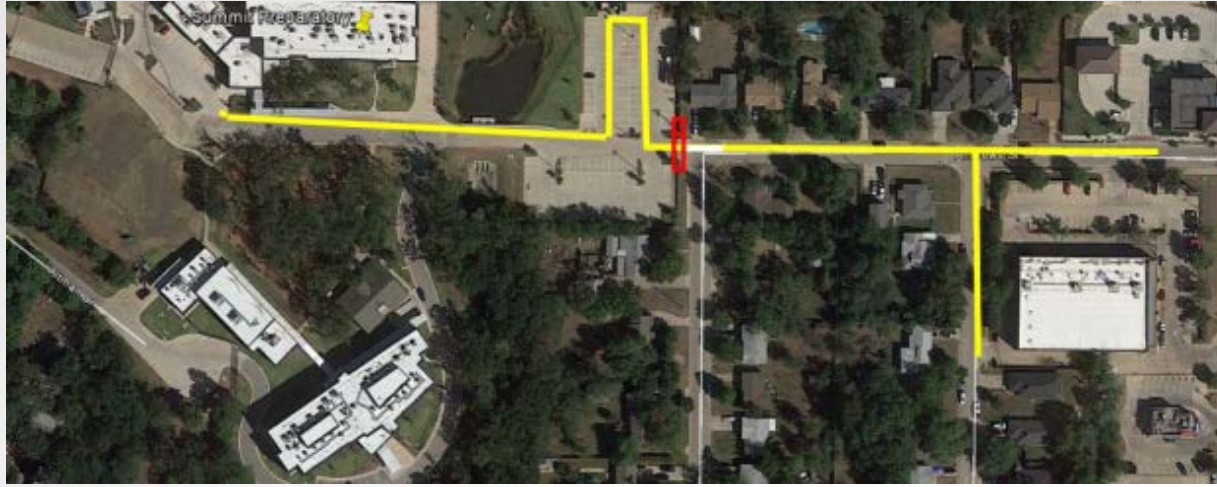
- ITE Trip Generation Rates for Charter Schools not published.
- Charter Schools typically draw student population from a larger geographical area than “public neighborhood schools”.
- Results of a Traffic Impact Study (“LOS C”) do not necessarily address the *QUEUING conditions* that may occur during pick-up operations for a school (Charter, Public or Private).
- Traffic Management Plan and Review are recommended.
- Peak Queuing Conditions (Linear length) for Initial year(s) with “X” # Students do not necessarily correlate to 2 times Peak Queuing Length with 2X # students.
- Characteristics for each school are unique.

ELEMENTARY SCHOOL VEHICLE ACCUMULATION

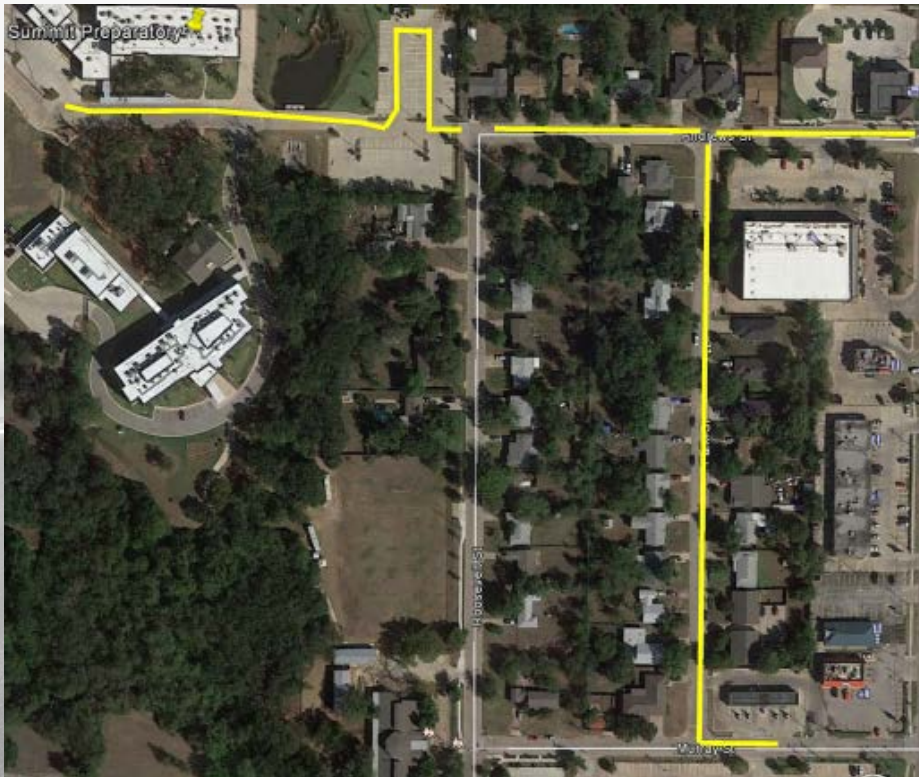
OPENING YEAR: GRADES K, 1 AND 2 - 280 STUDENTS



OBSERVED QUEUING CONDITIONS - ELEMENTARY

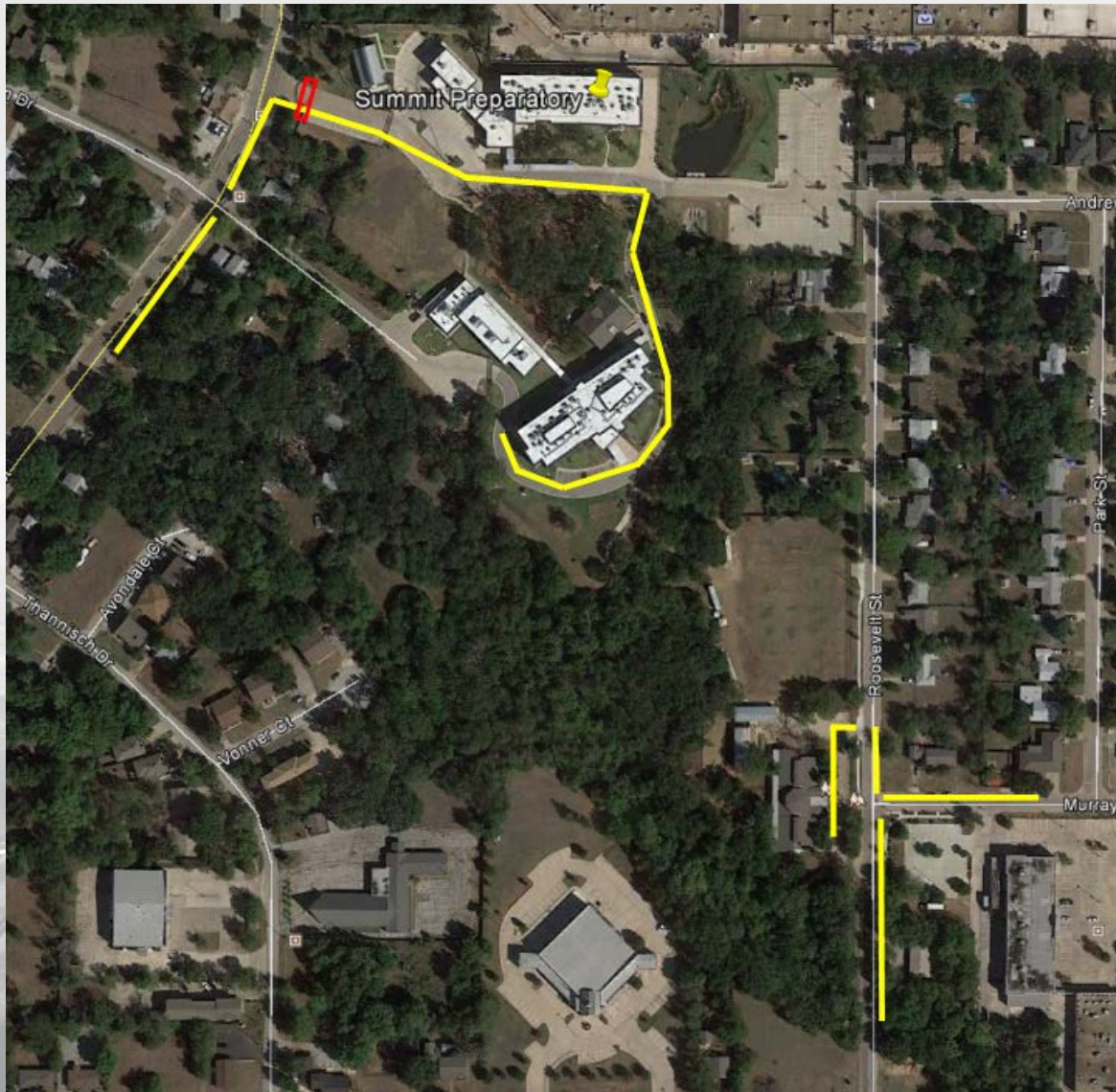


Day 1
1900 Linear Feet



Day 2
2570 Linear Feet

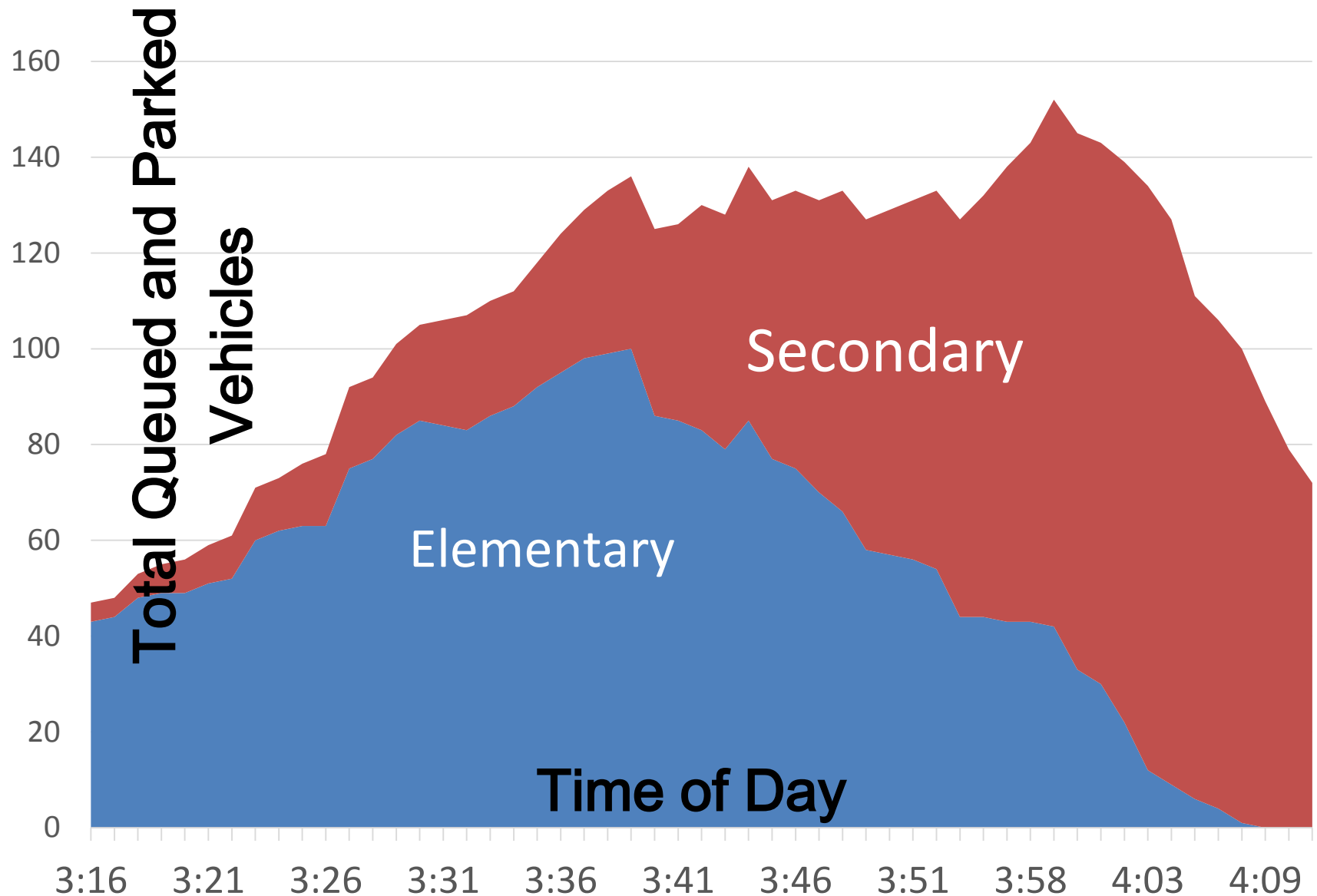
OBSERVED QUEUING CONDITIONS - SECONDARY SCHOOL



2560 Linear Feet
815 Students

**+ “Renegade”
parking**

QUEUEING PROFILE: K-12 SCHOOL WITH 2 DISMISSALS



CONTRIBUTING FACTORS TO LENGTHIER QUEUES

→ Students drawn from larger geographical area

- Limits walking and biking to school
- Typically less opportunity for school bussing
- Less Carpooling

→ Initial Years of Operation

- Fewer grade levels = greater # of one student per family
- Staff, parents and students are ALL learning a system
- Families don't know each other to form carpools

→ After School Sports Programs and Activities?

- Yes.....Yields distribution of pick-ups, reduction in peak period
- Yes.....Families meet, form friendships, form carpools

→ Parents arriving EARLY to campus

CONTRIBUTING FACTORS TO QUEUES (CONTINUED)

- Plan not always followed
 - Fewer pick-up areas than planned
 - Not enough staff members
- Slow Loading/Unloading
 - Staff not trained/instructed on best practices for efficient/safe/quick loading/unloading
 - Younger students do not know their “Carpool Number”
 - Staff/Administration on Duty not always assisting



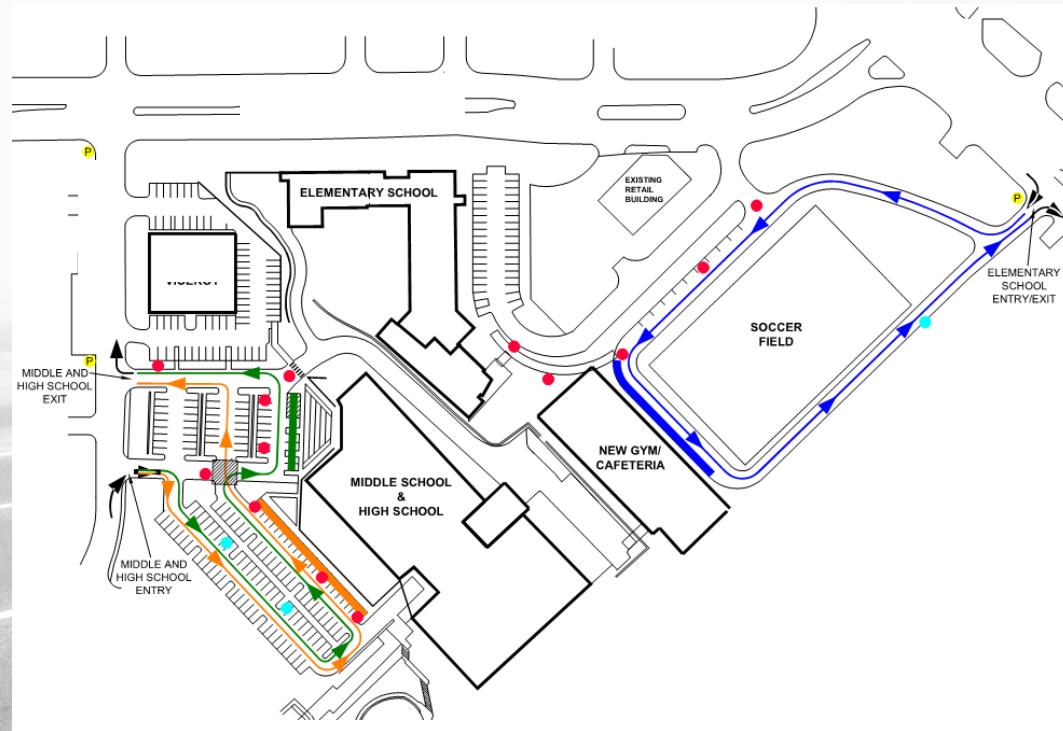
CONTRIBUTING FACTORS TO LENGTHIER QUEUES CONT.

- Delay in Dismissal: Couple of minutes yields additional vehicles arriving joining queue
- Staggered Dismissal Times?
- Renegade Pick ups (Students walk out of campus and meet parents down the block)
 - Pedestrian activity slows down “organized operations”
 - Parents parked within neighborhood – issues with neighbors
- Fewer High School students driving vehicle to school

LESSONS LEARNED

→ School must have a Traffic Management Plan (Carpool Circulation Route, Access Points, Designated Pick-Up Areas and Procedures) and **COMMUNICATE** it to...

- Parents
- Students
- Staff
- Administration
- Volunteers
- Security



LESSONS LEARNED

- Peak queueing ratio (length per student) during opening years is higher than at established schools
- **You can double stack through a parking lot!**



- Neighbors who do not have children in the school are very vocal (even if they are creating similar situations in another neighborhood area...!)

RECOMMENDATIONS FOR CITIES

- Require Schools to prepare and submit TMP
- Realize that no 2 schools will operate the same
- Provide Resources and Potentially Training for Loading/Unloading Best Practices
- Be patient at the start of the school year – allow the school to work out any kinks in the system and react with modifications
- Realize (quoting from yesterday's presentation by Lloyd Neal)
 - *“The Best Ideas Require Trade Offs”*
- Remember - you can't please EVERYONE!!

QUESTIONS?



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