# NEW ELEMENTARY SCHOOL

REED SITE,  ARLINGTON PUBLIC SCHOOLS  CONCEPT DESIGN

VMDO

# BLPC + PFRC JOINT MEETING

BUILDING LEVEL PLANNING COMMITTEE
PUBLIC FACILITIES REVIEW COMMITTEE

1. **Welcome / Opening remarks**
2. **Updates**
3. **County Update**
4. **Transportation and Parking**
   a. **Vehicular traffic to/from school**
   b. **Traffic capacity at nearby intersections**
   c. **School buses**
   d. **Potential Improvements**
   e. **Follow-up from Meeting #1**
5. **BLPC/PFRC Discussion**
6. **Public Comments**
7. **Next Steps & Adjourn**

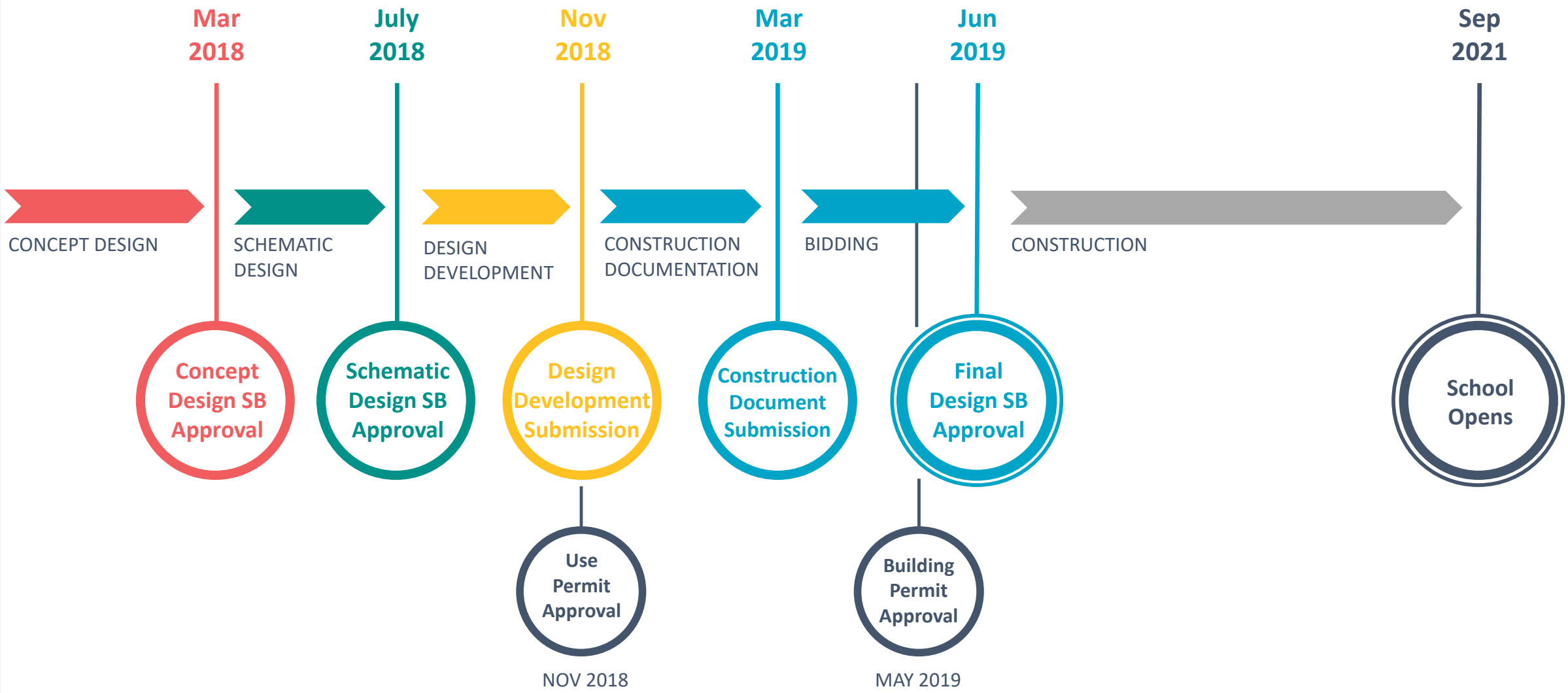
VMDO

**April 4, 2018**

# WELCOME / OPENING REMARKS

# PROJECT PARAMETERS

1. Create a **new neighborhood elementary school** with an attendance zone
2. Support APS Strategic Plan Goals, specifically **Goal #4 – Provide Optimal Learning Environments**
3. Address capacity by providing at least **725 seats**
4. Open by start of school **2021**
5. Spend a maximum project cost **$49 million, with options for less**

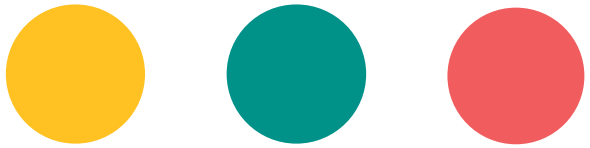





# OVERALL PROJECT TIMELINE

# UPDATES

# COUNTY UPDATE



# TRANSPORTATION AND PARKING

# TRANSPORTATION SCHEDULE

## Overall Schedule

**March 22nd**
Information Item to School Board

**April 5th**
Action Item to School Board

**April through June**
Schematic Design

## Transportation Schedule

**January 24th**
Finalized Scoping Agreement

**February 8th**
Traffic Data Collection

**February 21st**
BLPC/PFRC Transportation Meeting

**April 4th**
BLPC/PFRC Transportation Meeting

**Early May**
Draft Transportation Report Released

**May & June**
Transportation Report Comments and Revisions

**After Schematic Design**
TDM, Parking and Arrival/Dismissal Plans

# TOPICS

## MEETING 1: 02-21-2018

**APS Go! Survey data**
What is it telling us?

**Pedestrian access and walking routes**
How can we improve and expand the walk zone?

**Parking demand**
Estimates and thoughts on supply needs

**Parent drop-off and pick-up**
Estimates and thoughts on accommodations and operations

## MEETING 2: 04-04-2018

**Vehicular traffic to/from school**
How much and when?

**Traffic capacity at nearby intersections**
Implications on school access

**School buses**
Initial thoughts on routing and maneuvering

**Potential Improvements**
Roadway geometry & operations

**Responses to comments from Meeting #1**

# BEFORE WE GET STARTED…

## Goal:

Recommend ways that a new 725 seat ES can have an efficient and safe transportation network, and minimize impacts to the surrounding street network and neighborhood.

## Transportation Planning Principles

Spread out transportation demand
--- over modes
--- over time
--- over location (routing)

Minimize conflicts between
--- modes
--- user groups
--- vehicle types

Minimize impact of site traffic on adjacent street traffic

## Definitions:

**Vehicular Trip –** a car traveling to or from the site

*Teacher parking = one trip*
*Parent dropping off student = two trips*

**Peak Traffic –** a distinct time frame where traffic levels are higher than average (e.g. AM and PM commuter peak)

*Site peak = peak traffic from Reed site*
*Adjacent street peak = traffic within study area in general*

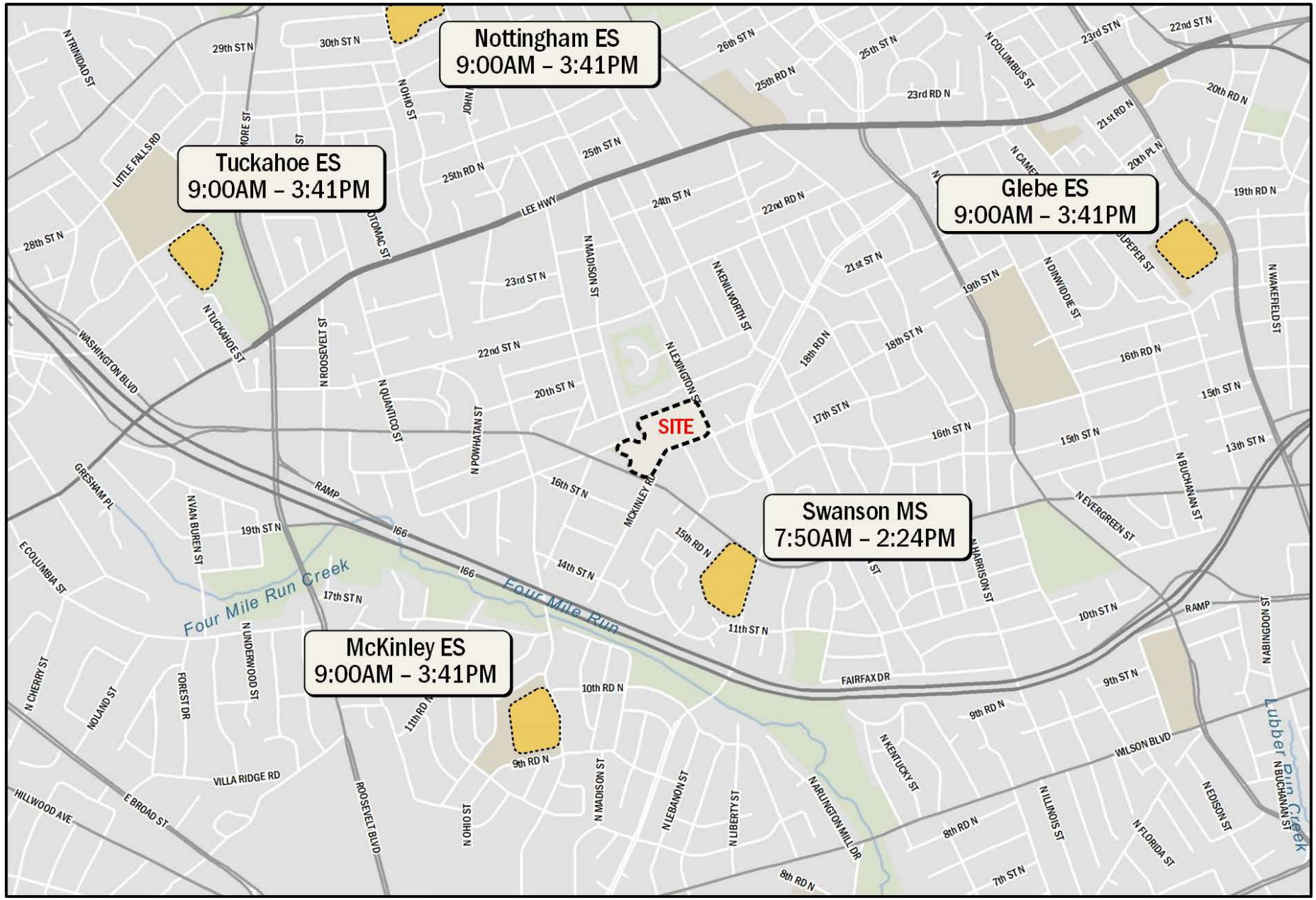
**Volume –** number of cars over a certain timeframe

**Capacity –** maximum volume that can be accommodated in system

# NEW ES VEHICULAR TRAFFIC

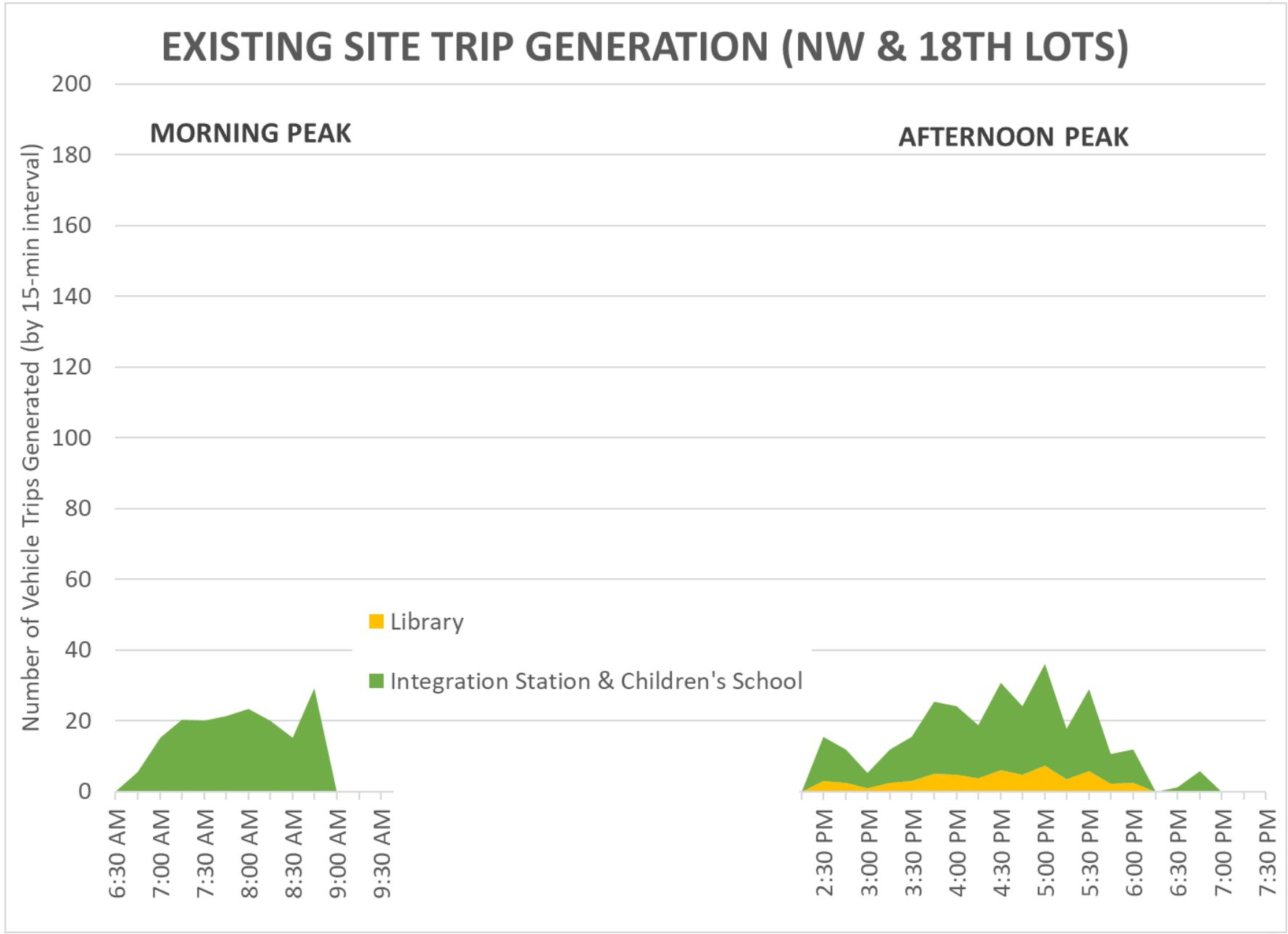
# Bell Times

- Nearby ESs have bell times of 9am to 3:41pm
- Swanson MS, the closest school to the site has bell times of 7:50am to 2:24pm
- **Starting assumption** for the new ES at Reed is bell times of 9am to 3:41pm



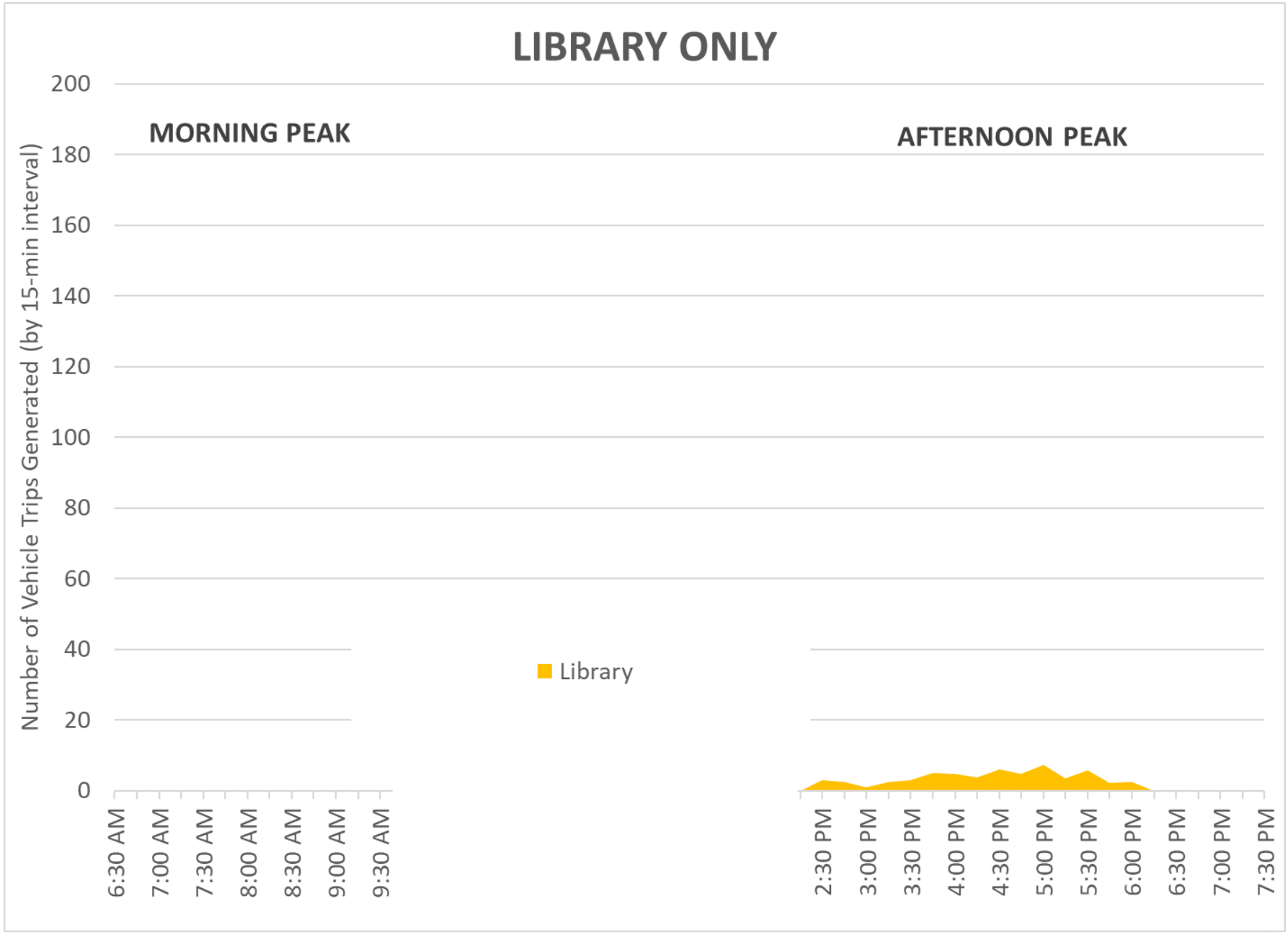
# Existing Trip Generation

- Current vehicular trips into and out of the Reed site
- Includes all traffic to /from the Northwest and 18th Street parking lots



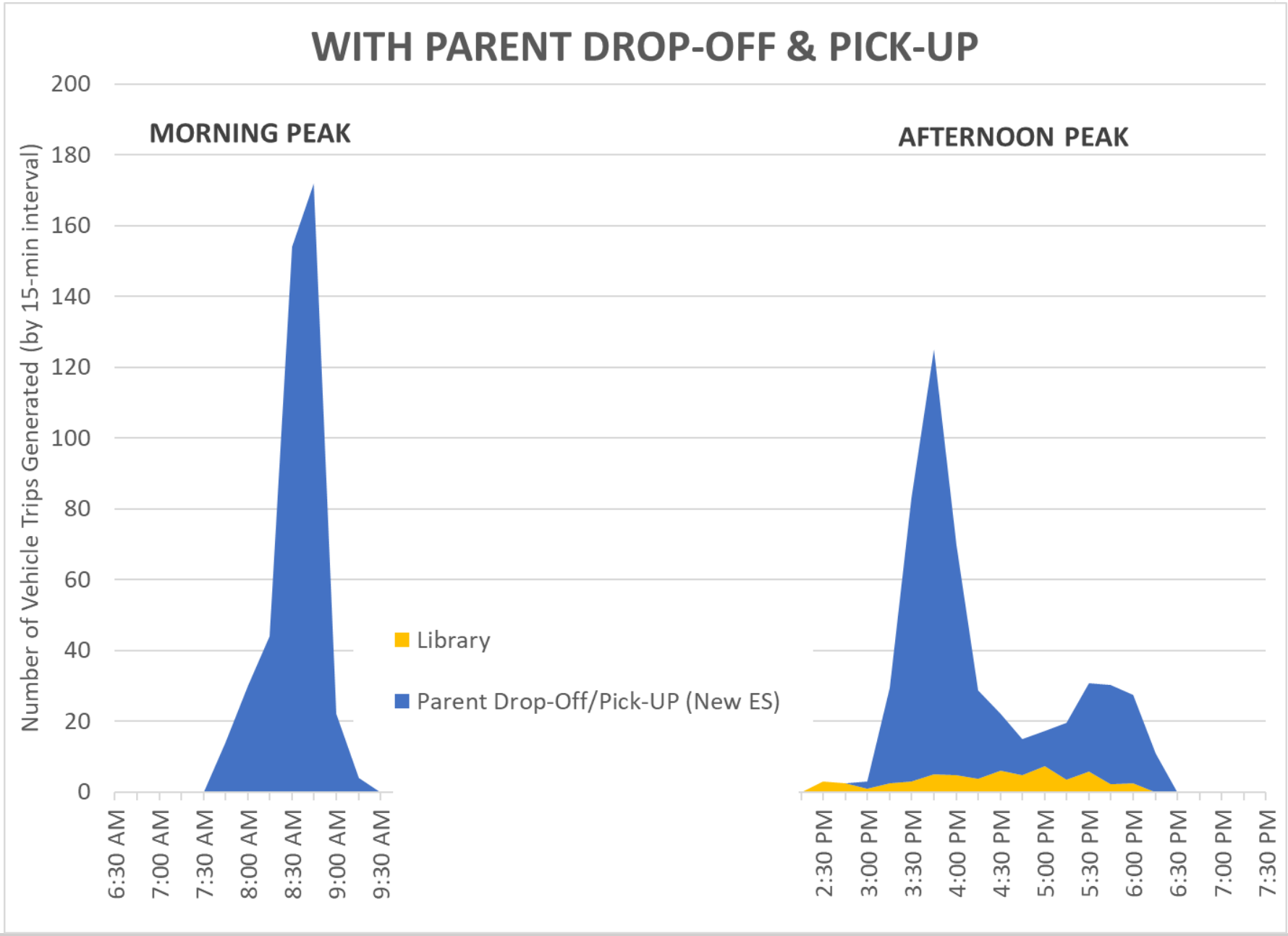
# Just Library Traffic

- The library currently doesn't generate a lot of traffic to/from and site
- This is partly due to some patrons parking on-street



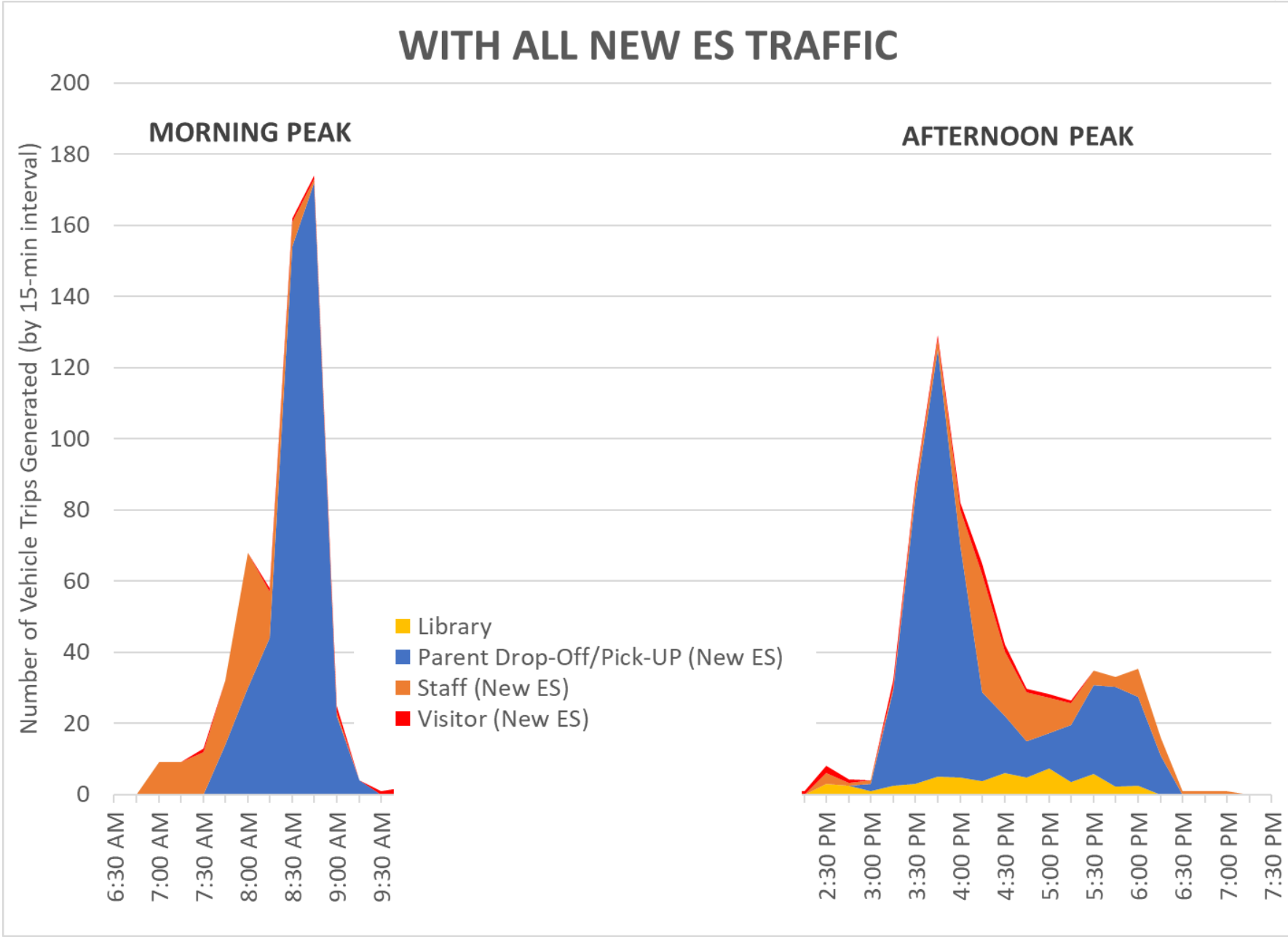
# With Parent Drop-off & Pick-up

- New trips estimates based on data from similar APS schools
- Most new trips to and from the school will be from parents dropping-off and picking-up students
- This traffic is acute - significant but short
- Morning peaks higher than afternoon due to after-school activities and after care programs
- Noticeable traffic impacts from Schools are usually from this type of traffic



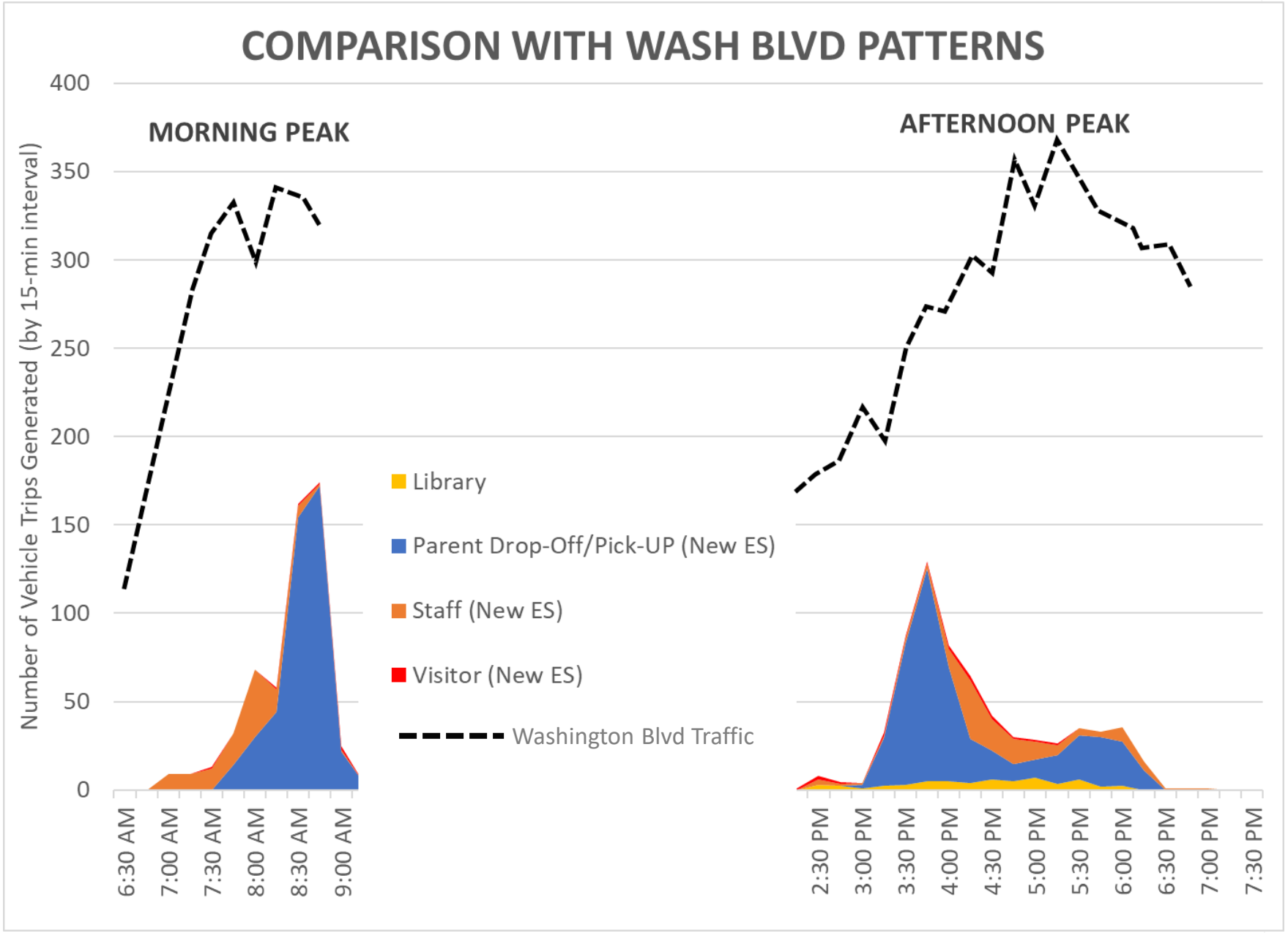
# Full Reed Site

- Staff trips are much less significant than drop-off & pick-up trips
- Majority of staff arrive before and depart after parent traffic peaks
- Visitor traffic is negligible compared to other sources



# Patterns vs. Wash Blvd

- Morning peak on Wash Blvd is pretty level between 7:30 and 9:00 AM
- Morning ES traffic will overlap regardless of bell time
- Impacts from ES will likely be noticeable during this time
- Afternoon peak on Washington Blvd is 4:45 to 6:00 pm
- Afternoon ES traffic will avoid this peak
- ES traffic could extend peak but will likely not increase it

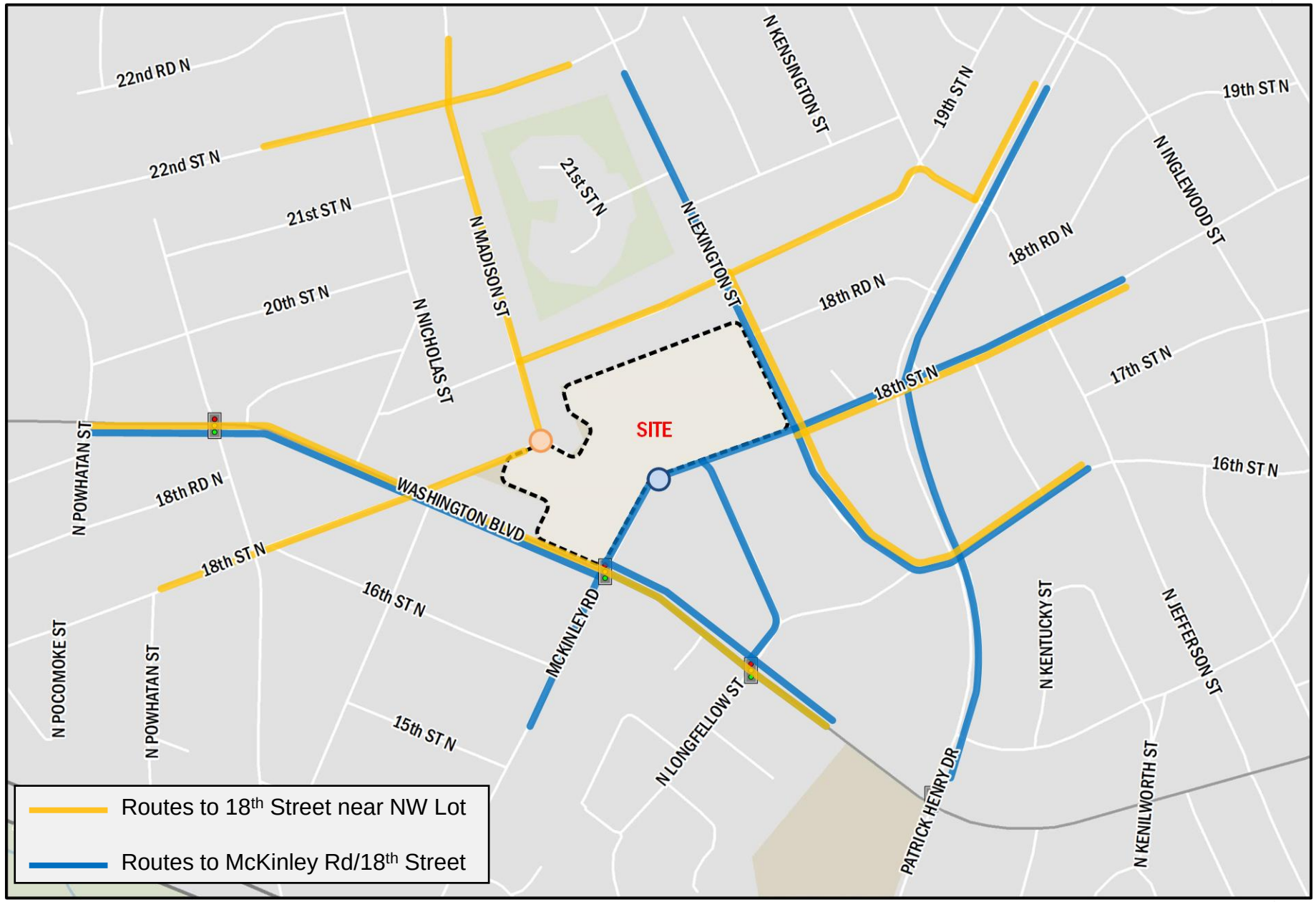


# Routing & Access

- Location of access impacts how traffic arrives and departs the site
- Staff and parent drop-off/pick-up have very different traffic patterns, and thus different access needs
- Parent drop-off/pick-up access should be located on streets higher in the hierarchy, avoiding residential streets
- Staff parking access can be located on a ‘quieter’ street, as it is less intense and contains regular drivers

# McKinley/18th

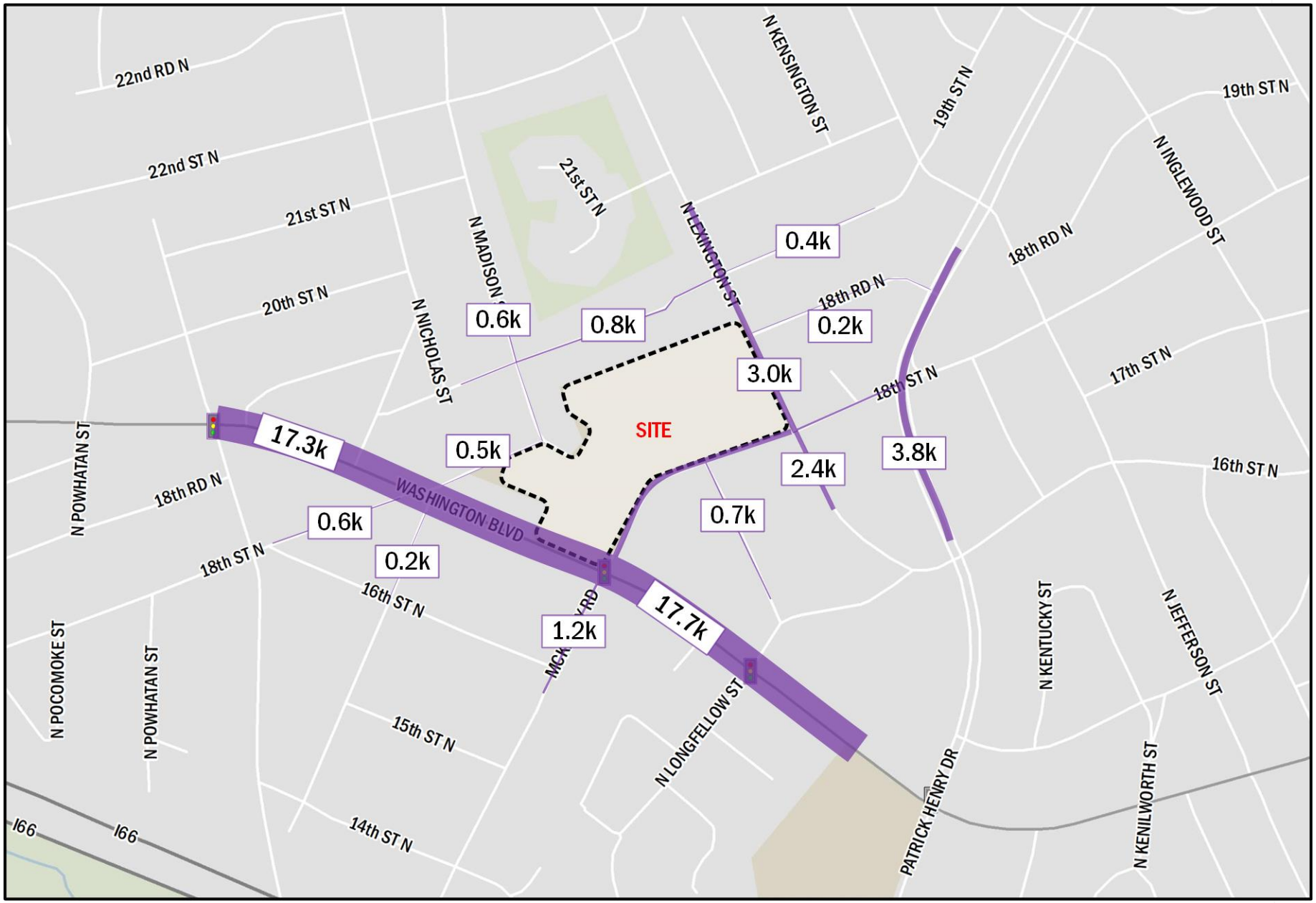
- The Site has 4 frontages, McKinley/18th, Lexington, Washington, and 18th Street behind the library
- Access on McKinley & 18th St avoids residential streets more than access behind library
- Only staff parking should be accessed where NW lot is today (without mitigation)
- Access off Lexington would be acceptable, though not as preferred as 18th/McKinley
- Access on Washington is less desirable



# INTERSECTION CAPACITY

# Overview of Traffic Volumes

- Counts taken 2/1/18, during morning, afternoon, and evening peak periods
- Daily volumes estimated using counts of peak periods
- Data collected per industry standards (a single Tuesday, Wednesday or Thursday, when schools are in session)
- Washington Blvd has by far the highest amount of traffic in the study area




1,000 veh/day

5,000 veh/day

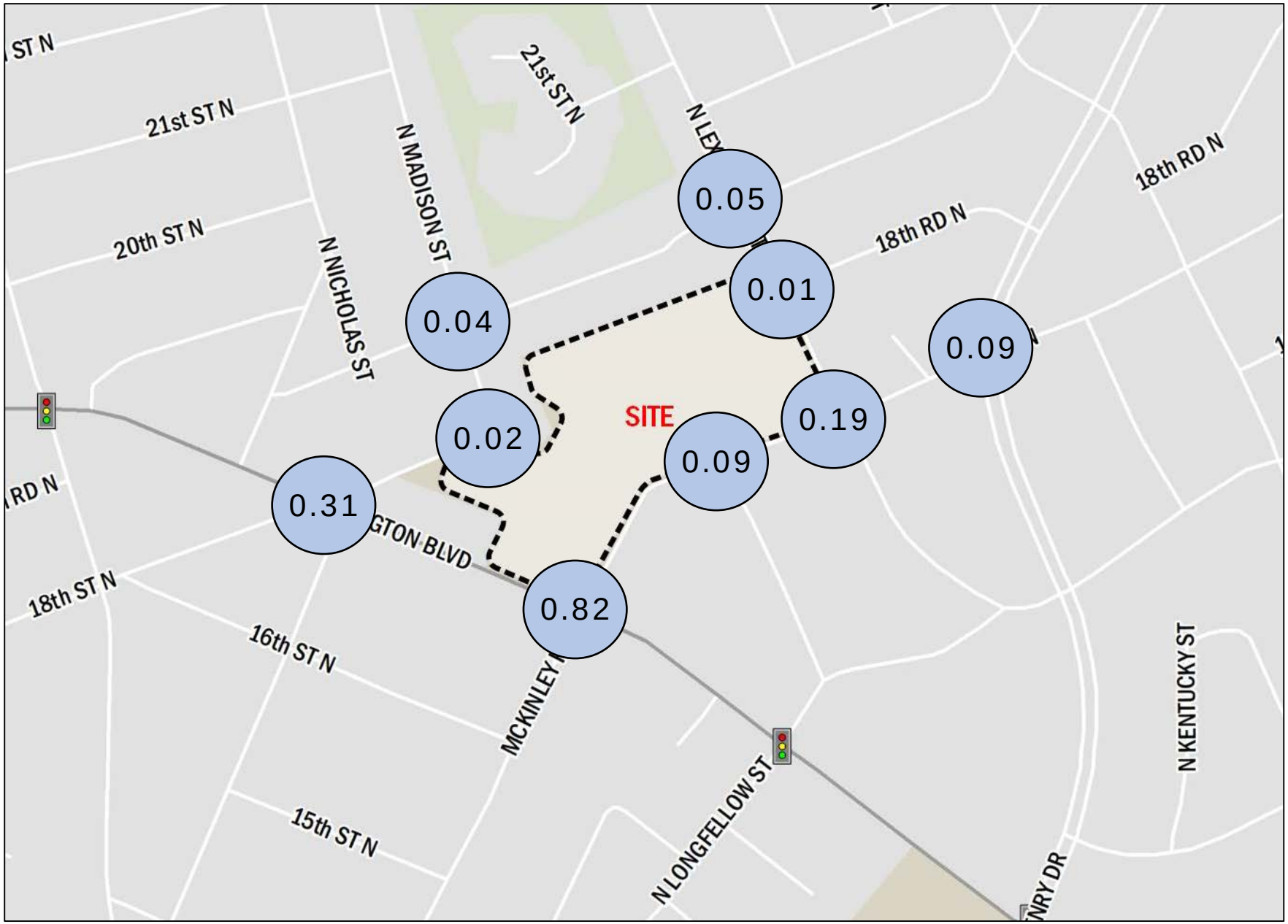
10,000 veh/day

15,000 veh/day

# AM Traffic Capacity

- Highest Volume to Capacity ratio at each study intersection
- Quick way to see what intersections have room to accommodate more traffic
- Regular drivers to a site tend to use routes that have available capacity

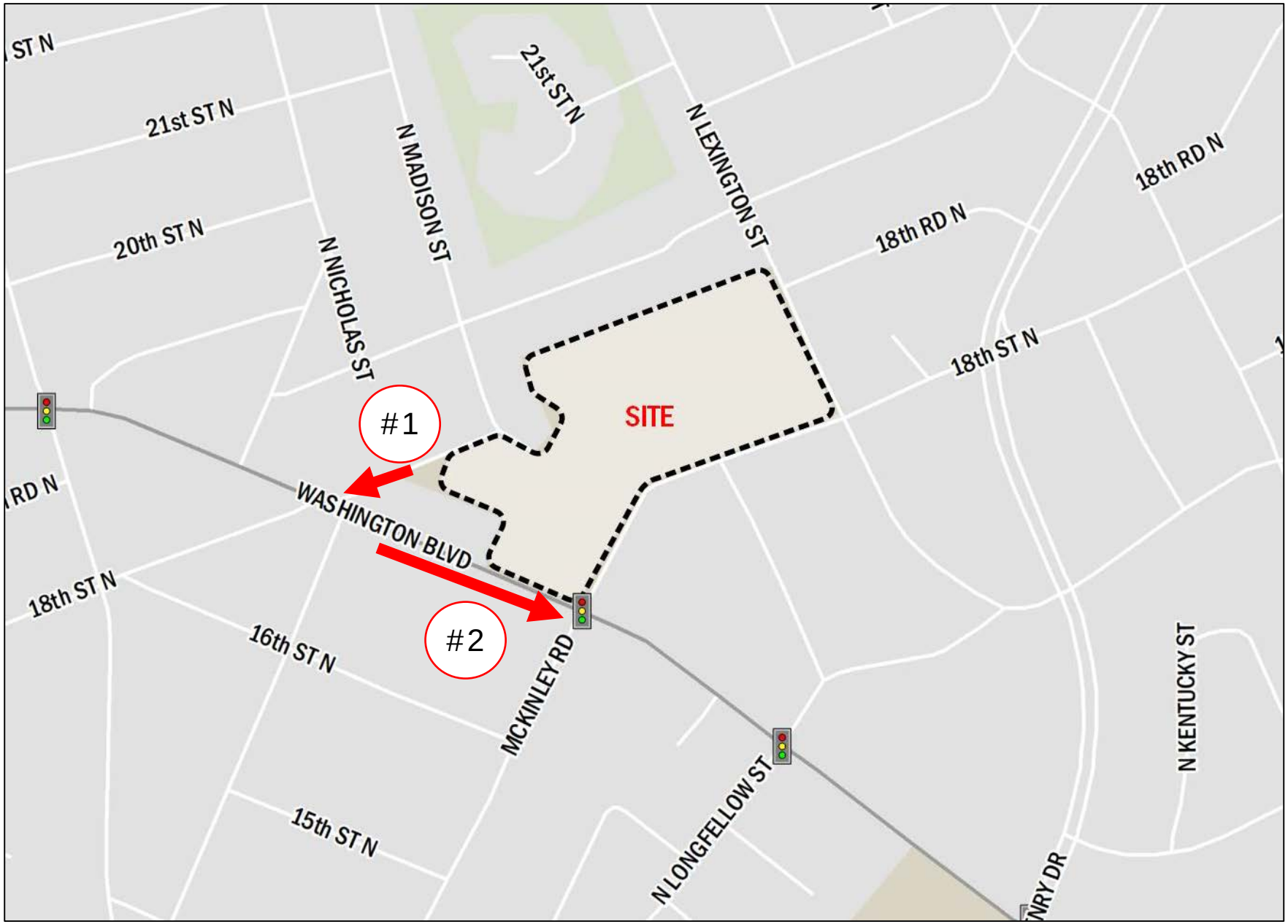
x.xx Highest volume to capacity ratio at intersection



# AM Traffic Capacity

- Traffic models have more detailed metrics than volume to capacity ratios. Most commonly used are delay/car due to intersection control and queuing
- AM models show two issues of concern

  (1) southbound traffic on 18th trying to turn onto westbound Washington Blvd, and (2) queuing going westbound on Washington Blvd from traffic signal at McKinley

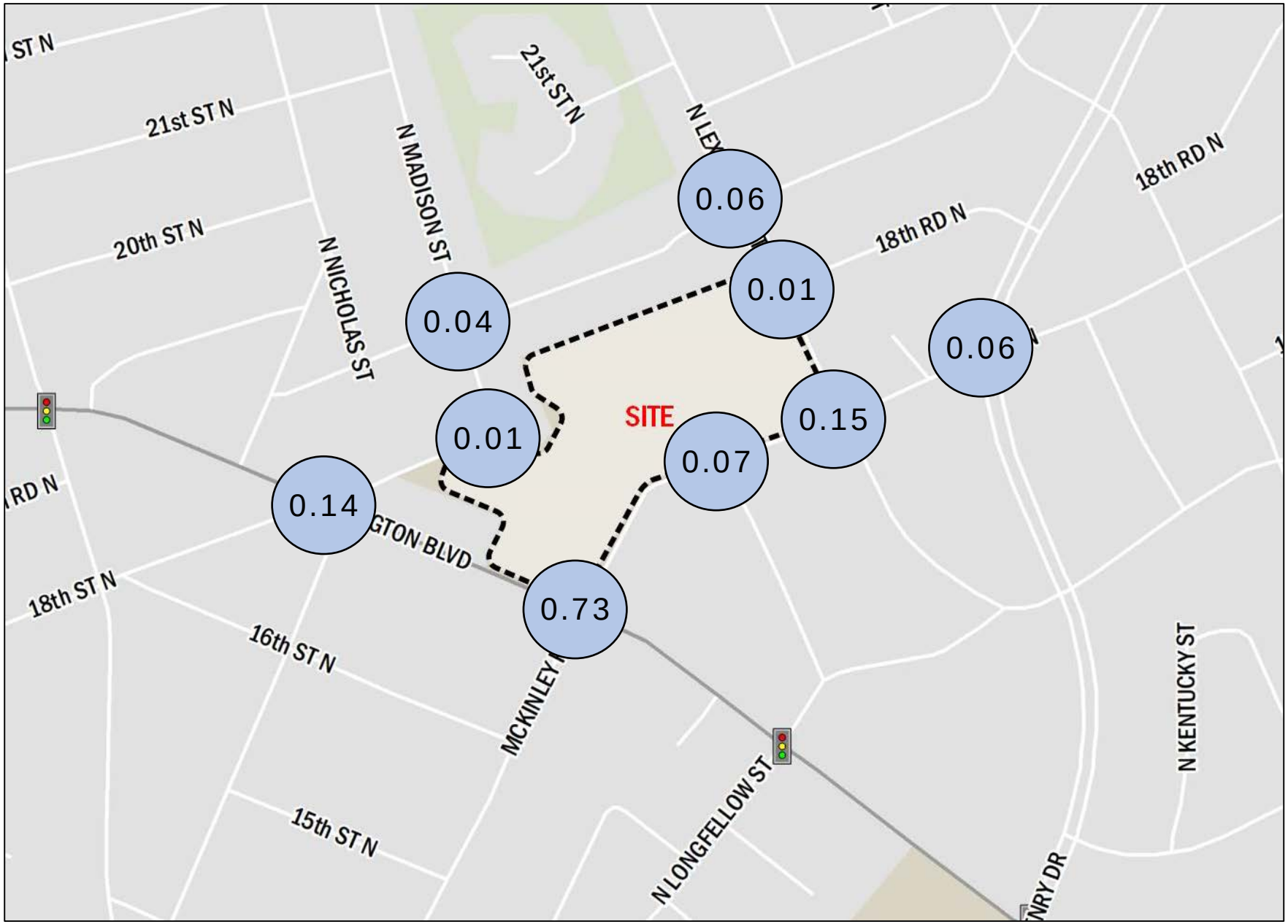


# AM Traffic Capacity

- Observations showed that conditions in the study area matched traffic models, except that the traffic signal at Washington Blvd & McKinley Road looks better than the traffic models
- Traffic models have difficulty with ‘grey’ areas (e.g. cars going around cars waiting to turn left, ambiguously marked asphalt, etc…)
- Need to keep this in mind when interpreting the numbers

# PM Traffic Capacity

- Similar results as AM peak
- More detailed metrics had similar findings as AM also




x.xx Highest volume to capacity ratio at intersection

# BUS LOADING/UNLOADING

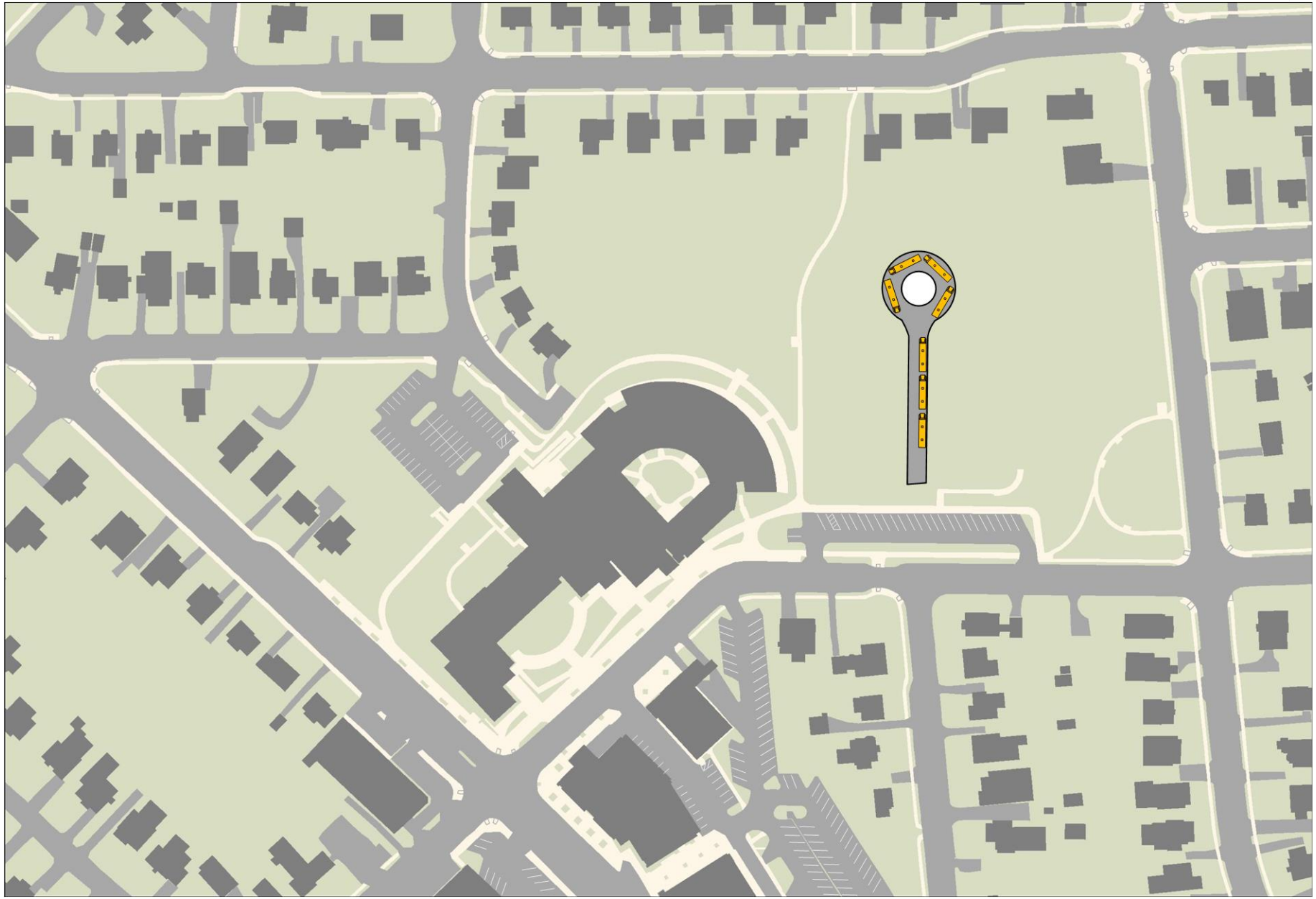
# BUSES

- Loading/unloading – how much room to buses need, and where's the best place to put them on site?
- Routing – what's the best way to approach the site?
- Maneuvering– what adjacent streets are best suited to handle bus traffic?

# School Buses

A bus turn-around takes up substantial room

May be viable as part of a parking lot, but given space constrains on site, a curbside solution may be best



# School Buses

Seven (7) school buses can fit on western blockface of Lexington Street

Addition of “No Parking” signs during certain hours would be needed

Adequate street width to accommodate school buses exists

Could require wider sidewalks to facilitate loading/unloading

Long walk to the school site

# School Buses

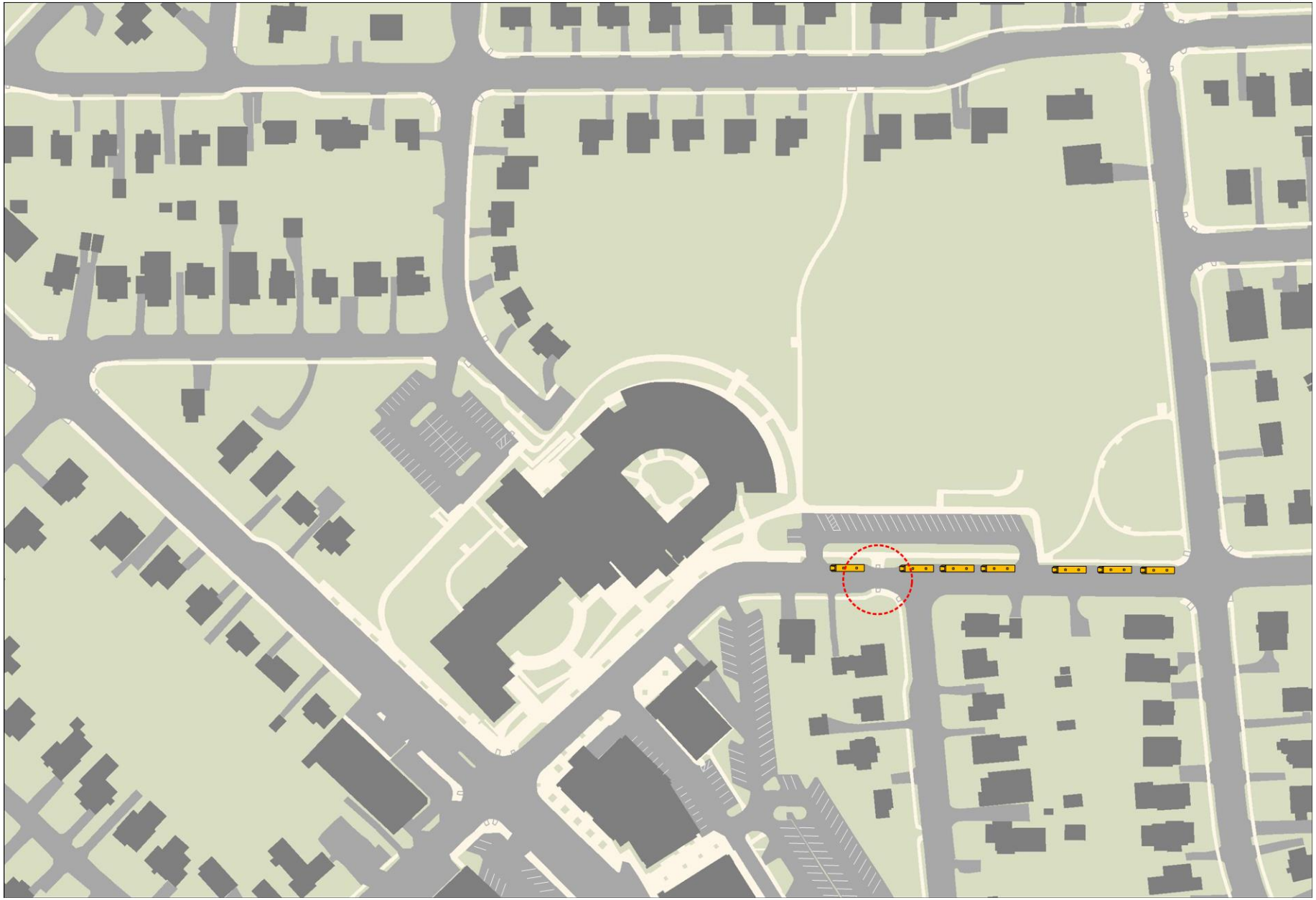
Seven (7) school buses can fit on northern blockface of 18th Street

Addition of “No Parking” signs during certain hours would be needed

Adequate street width to accommodate school buses exists

Could require wider sidewalks to facilitate loading/unloading

Possible issue with of the crosswalk at 18th Street and Longfellow



# School Buses

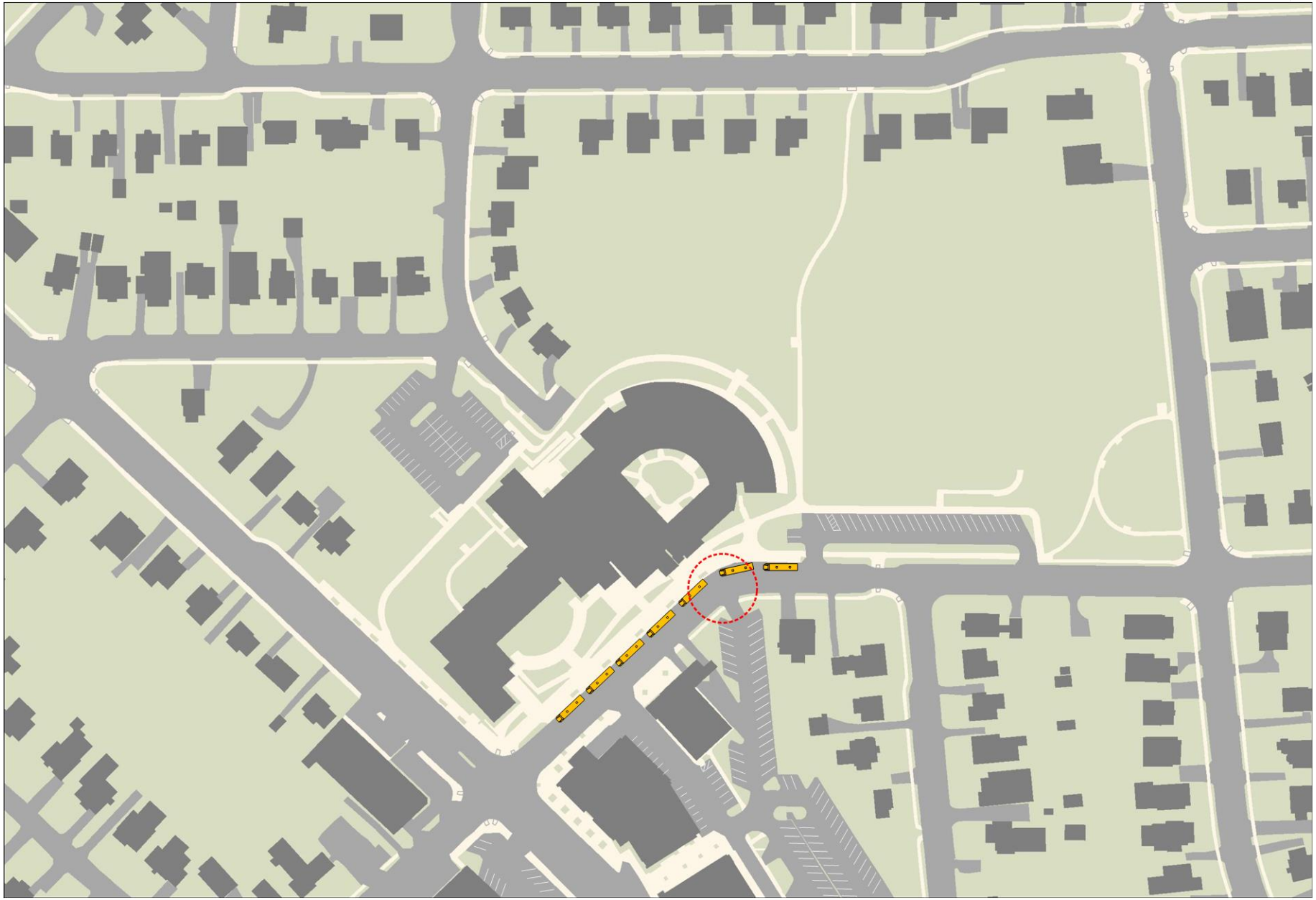
Seven (7) school buses can fit on northern blockface of McKinley Road

Currently accommodates buses at curbside

Adequate street width to accommodate school buses exists

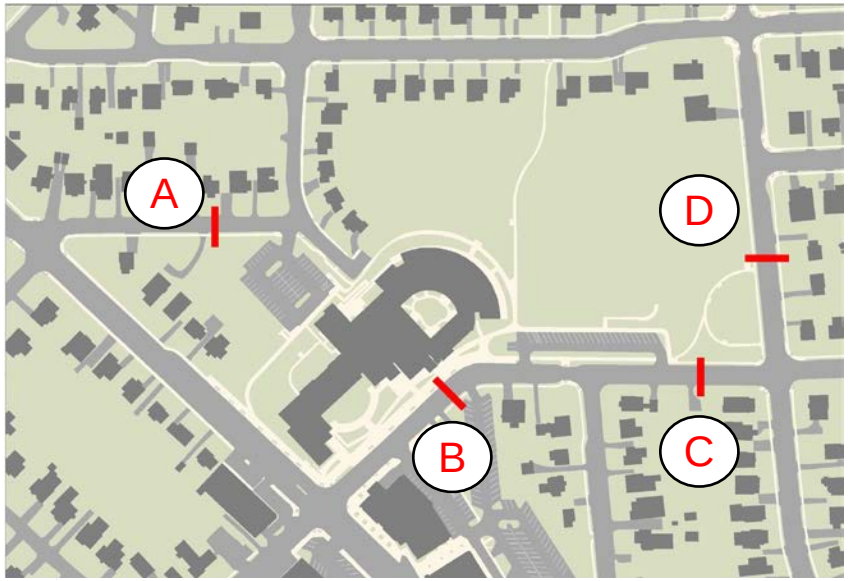
Has wide sidewalks to facilitate loading/unloading

Issue with curve in roadway



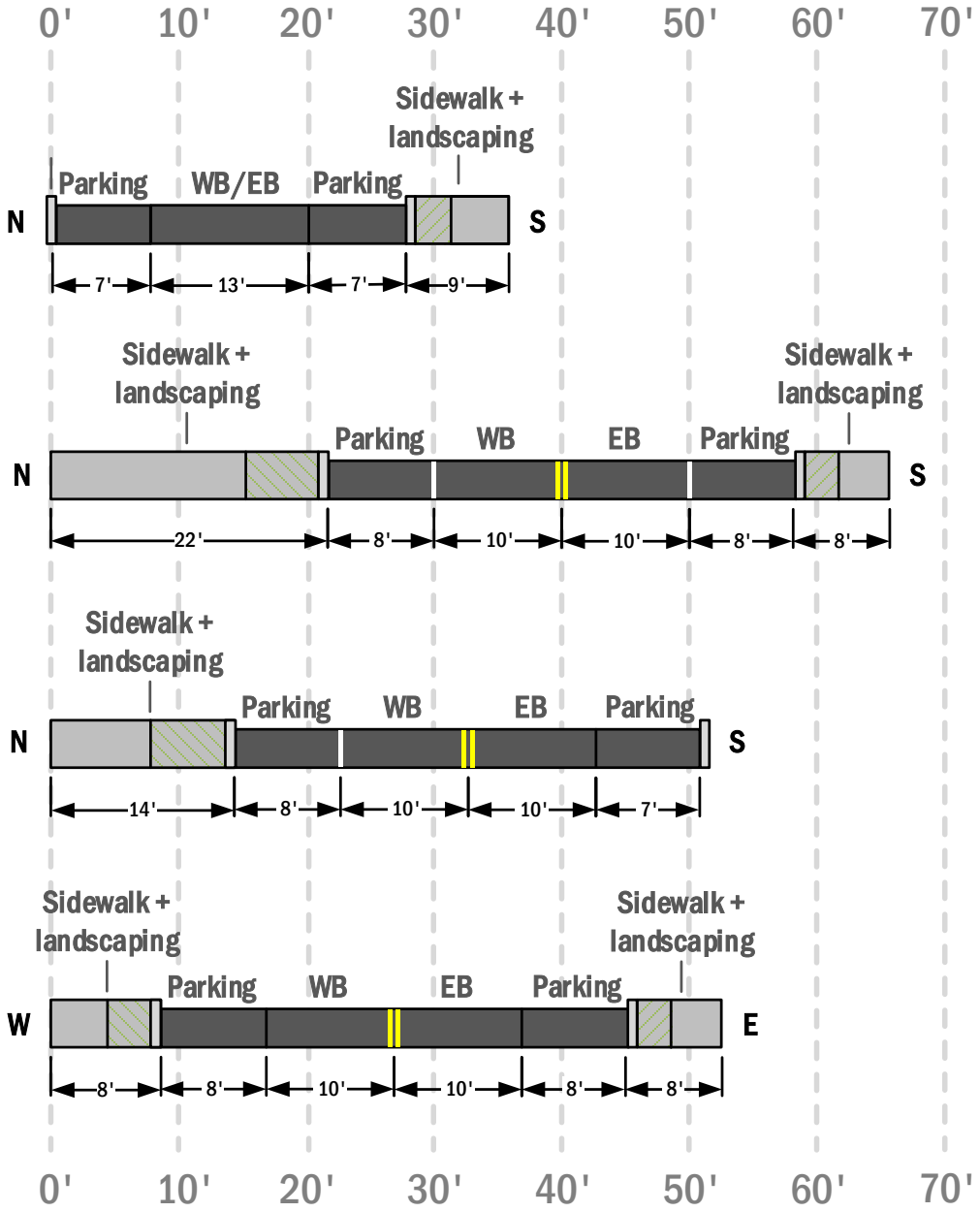
# Adjacent Streets

- 18th Street north of the site is too narrow for buses
- Remaining adjacent streets have similar cross-sections, with adequate room to accommodate buses at the curb




## Cross Section A

(18th Street N)




## Cross Section B

(McKinley Road)

## Cross Section C

(18th Street N)

## Cross Section D

(N Lexington Street)

# Issues with Curve on McKinley Road

Lane restriping on McKinley likely needed in any scenario
Detailed recommendation to mitigate this will be included in traffic study

Tight spacing for two cars passing each other

Buses cannot make it through without encroaching

# SUMMARY

# Summary of Findings

Current location of NW parking lot – only good for staff parking (without mitigation)

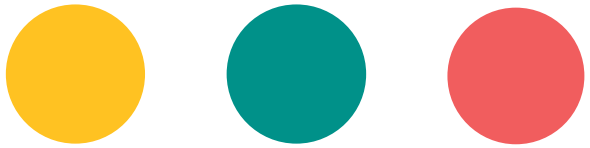
18th Street lot – good location for additional parking, parent drop-off/pick-up, and buses

Probably best to accommodate buses at the curb

Traffic will likely approach from Patrick Henry side, avoiding Washington Blvd

Significant capacity exists on nearby roadways to accommodate school traffic

# UPDATES FROM MEETING #1



# Public Comments

161 Survey responses and several detailed emails (THANKS!). Meeting on March 19th to review comments.

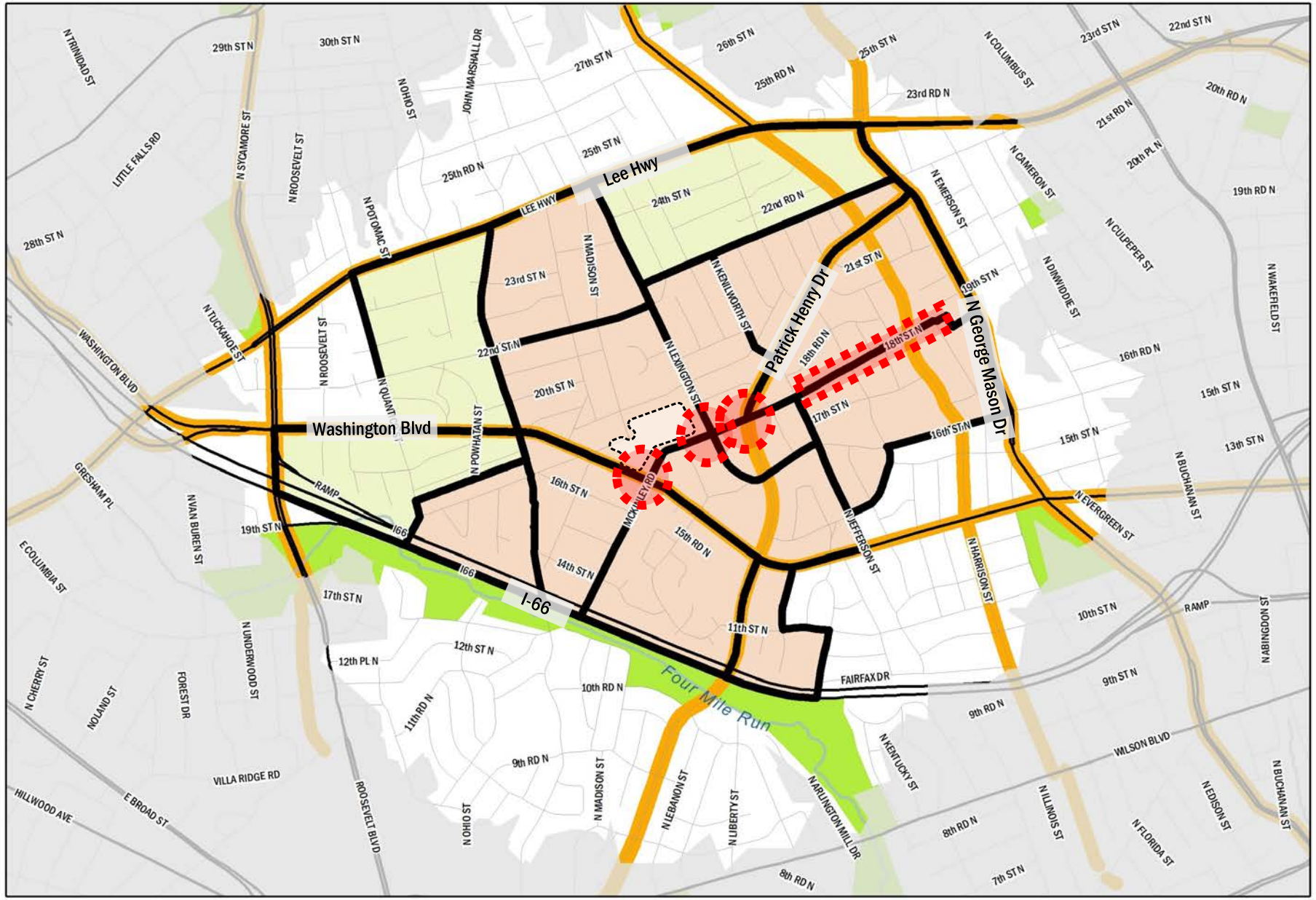
**<u>Concerns</u>**:

Crossing with 18th Street and:

- Washington Blvd
- Lexington St
- Patrick Henry Drive

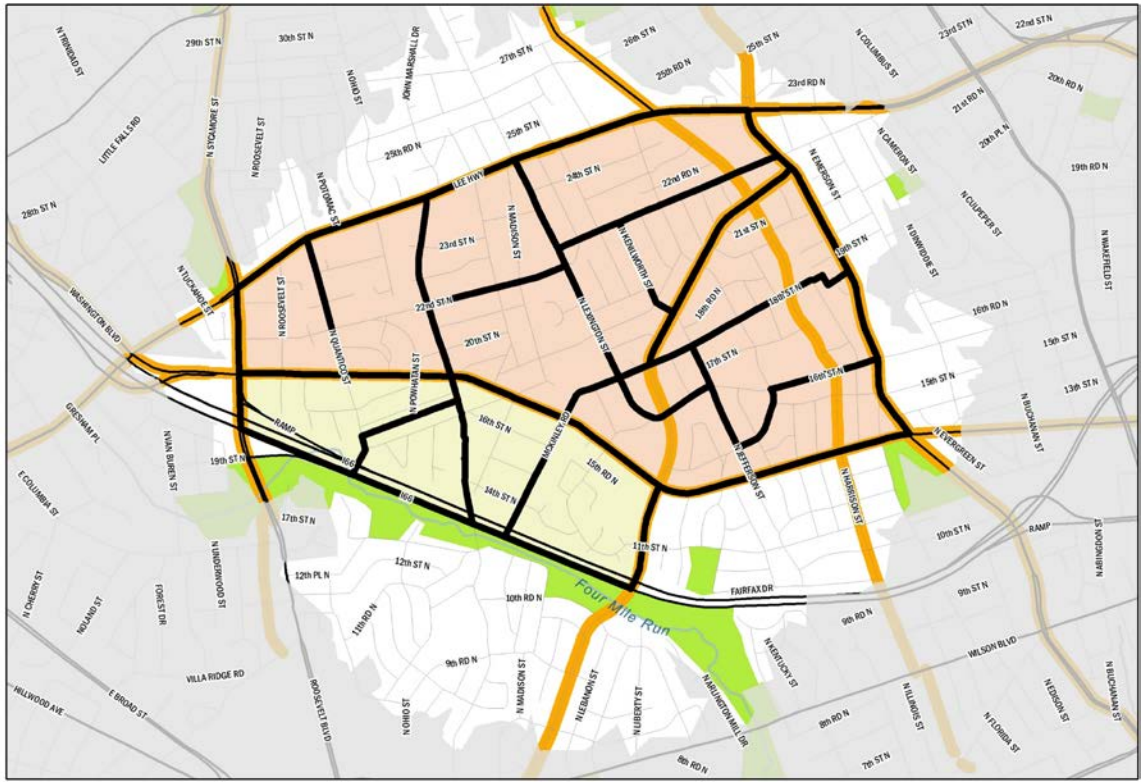
Missing sidewalks

- Community noted missing sidewalks in PUs 15010, 15020, 16090 (on western area of potential Walk Zone)
- 18th Street west of Reed site



# Updated Pedestrian Walk Zones

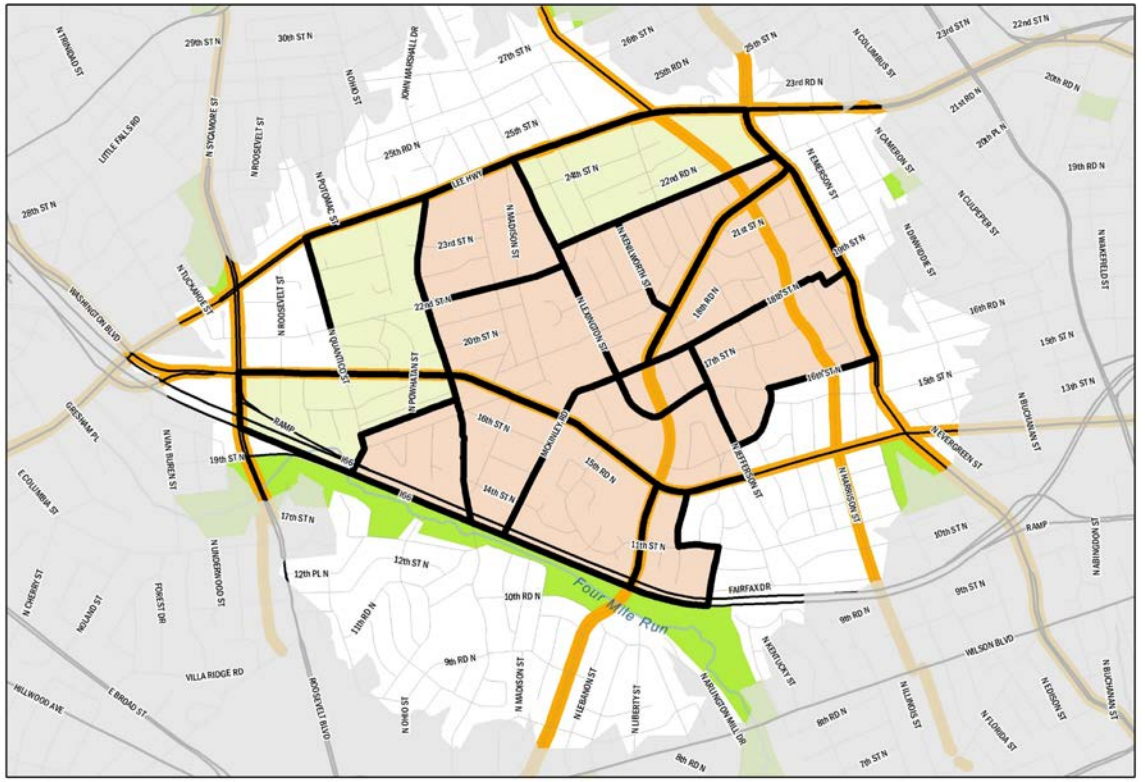
## Original Preliminary Walk Zones




*Preliminary Walk Zone*

*Expandable Walk Zone*

## Revised Preliminary Walk Zones




*Collaborative Walk Zone (PUs with general agreement)*

*Walk Zones for Further Evaluation (for splitting PU)*

# PARKING COUNTS

Additional parking counts are planned

Waiting for after Spring Break and good weather

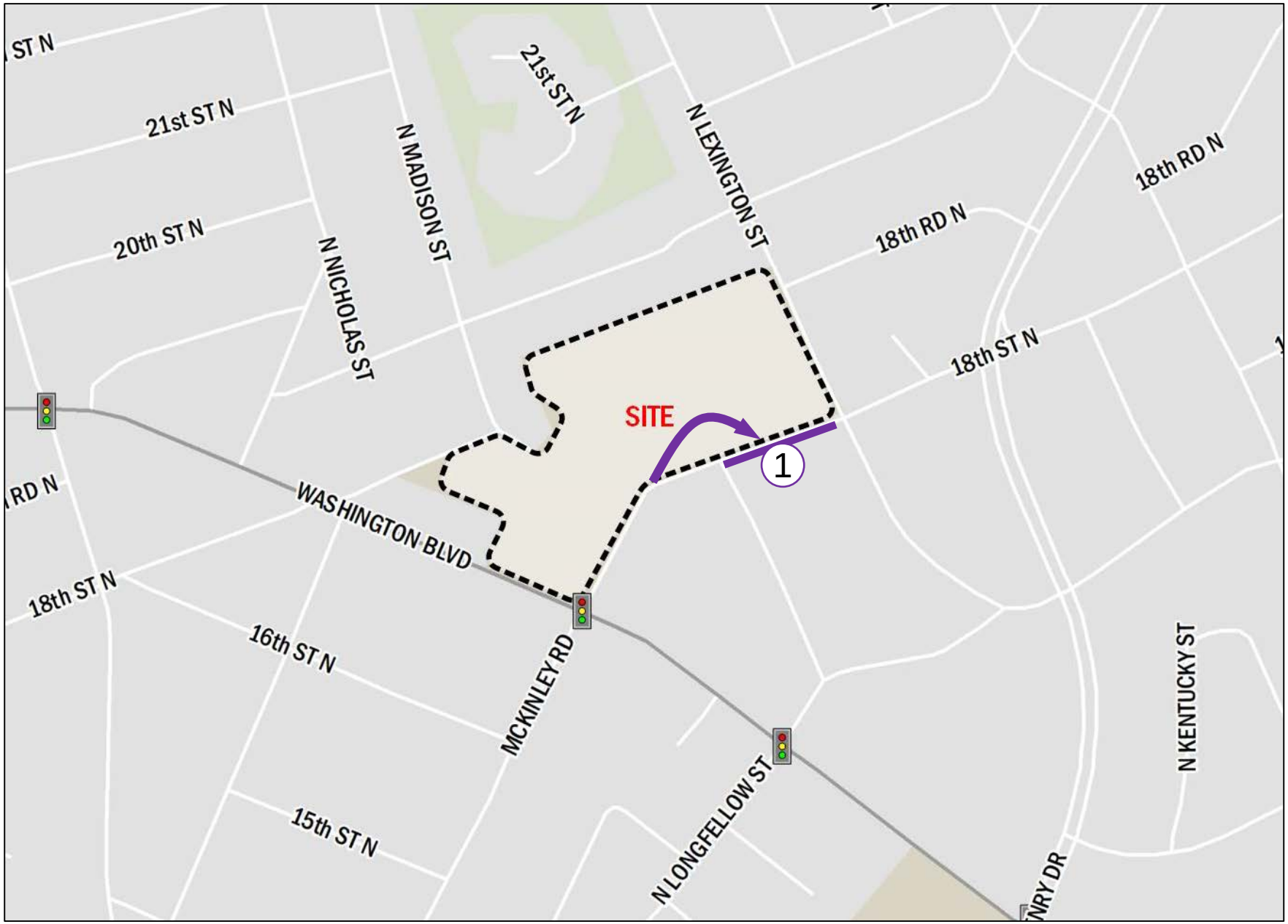
Plan to cover ‘Story-time’ at the Library

Will revise/update parking demand estimates with the new data

# Parking Strategy

Updated thoughts on overall parking strategy:

(1) Accommodate buses further away from retail/library to free up on-street parking

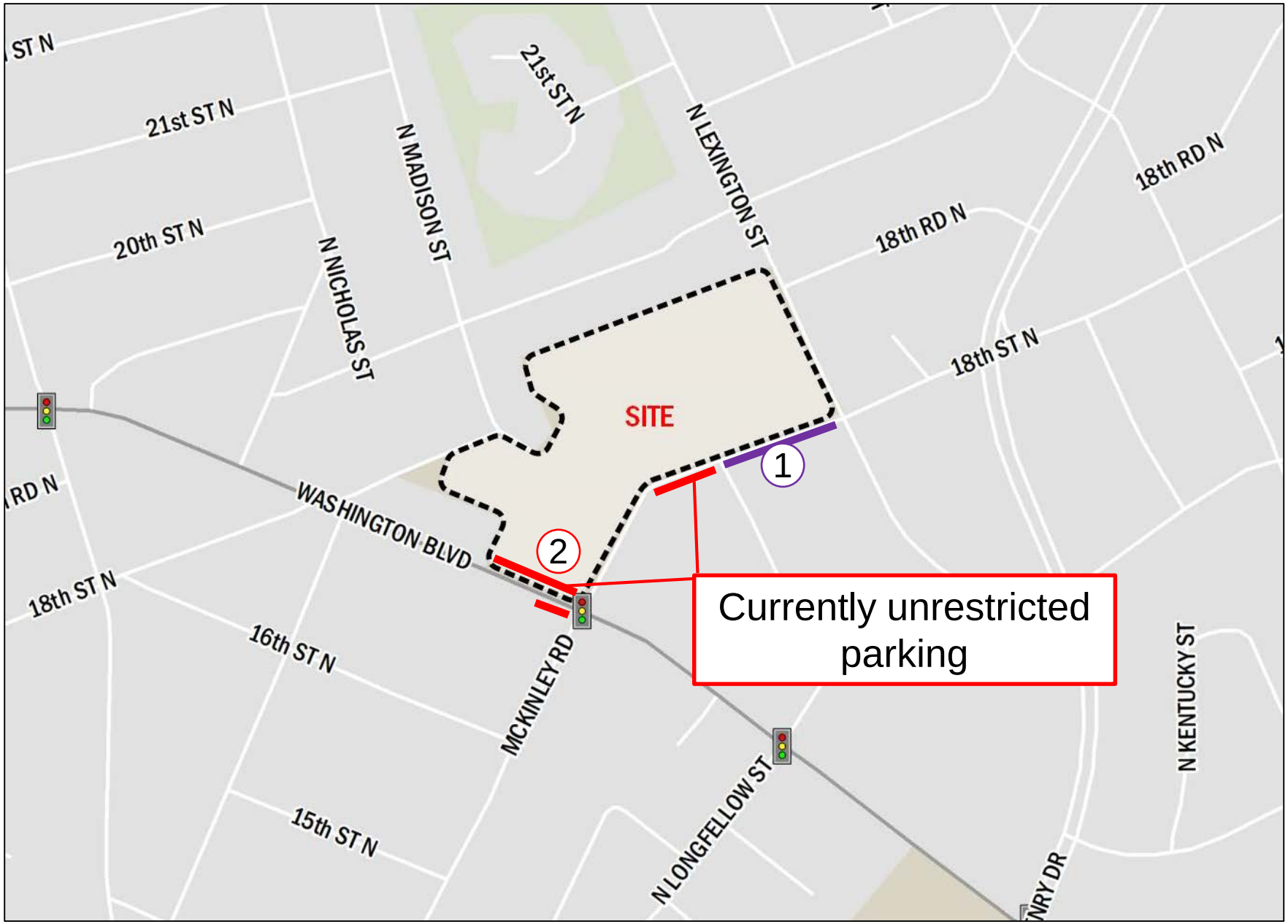


# Parking Strategy

Updated thoughts on overall parking strategy:

(1) Accommodate buses further away from retail/library to free up on-street parking

(2) Use time limits on on-street parking close to library/retail



# Parking Strategy

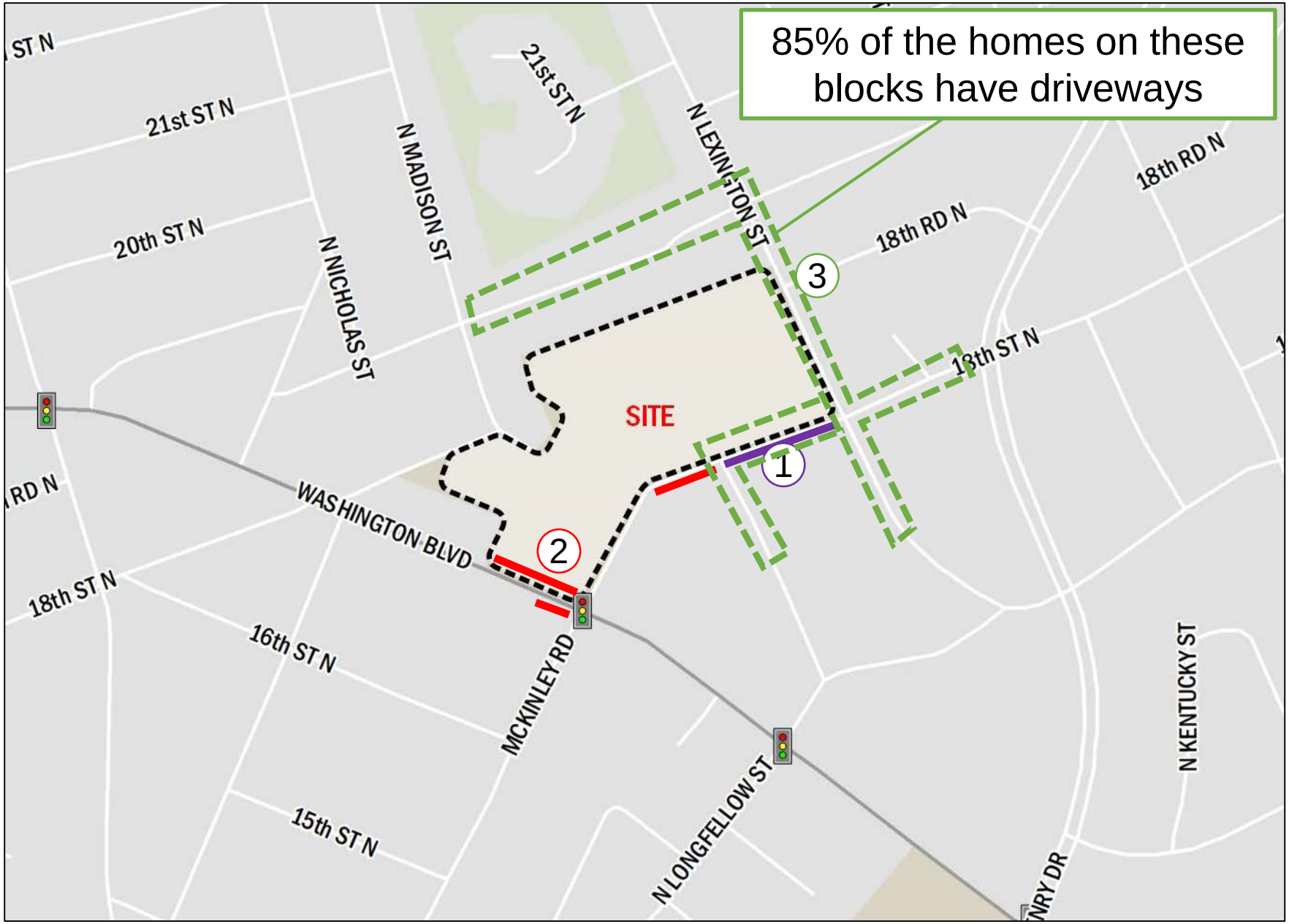
Updated thoughts on overall parking strategy:

(1) Accommodate buses further away from retail/library to free up on-street parking

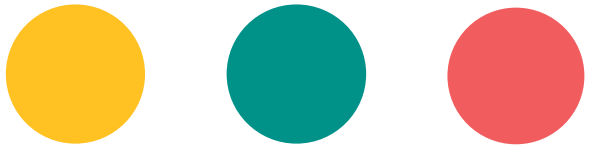
(2) Use time limits on on-street parking close to library/retail

(3) Take advantage of on-street parking available nearby for overflow staff parking

(4) Sign on-site parking supply so it can accommodate ES visitors and library patrons



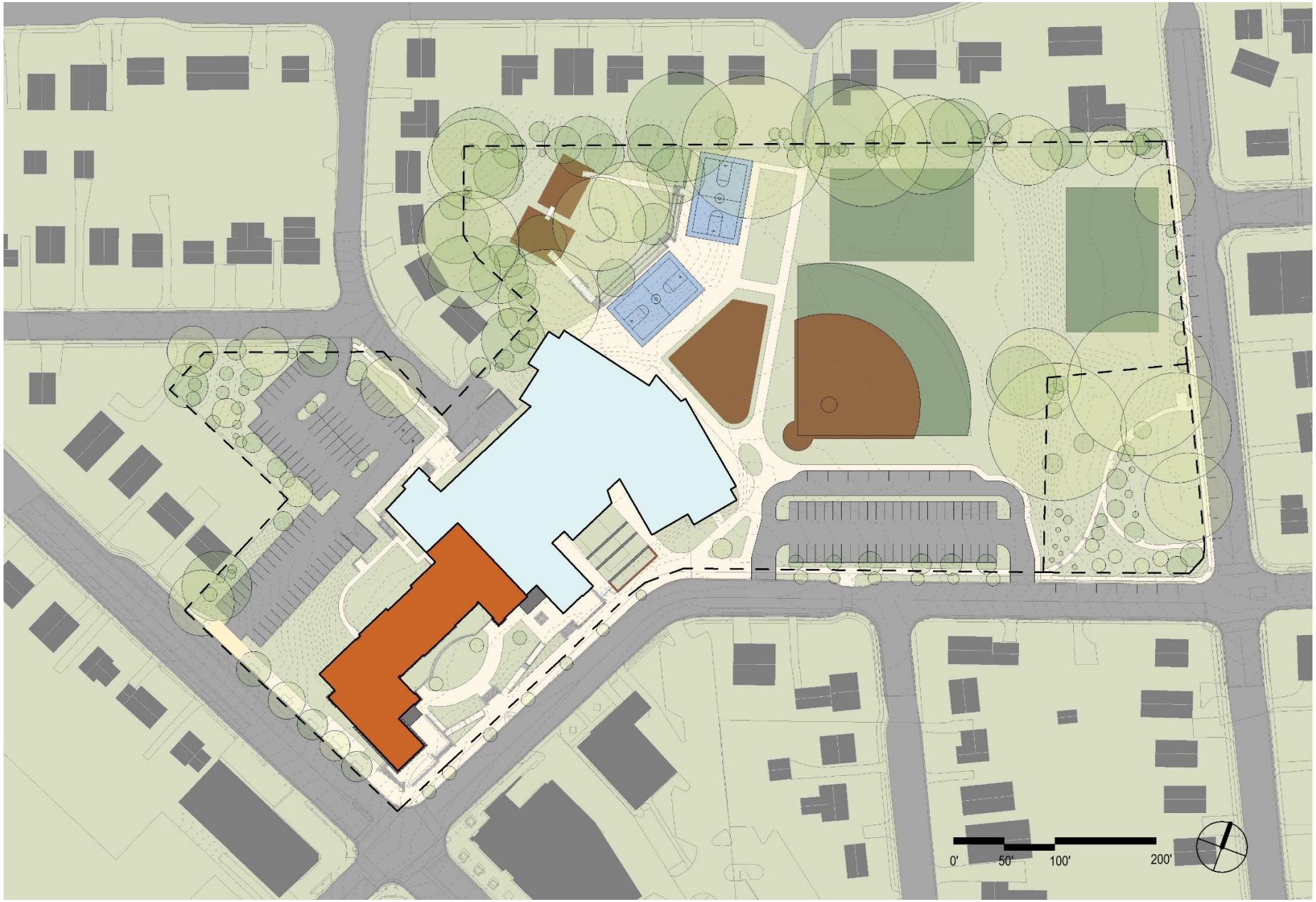
# RECOMMENDED PLAN



# Combined Strategy

First take at compiling all of the individual thoughts per topic onto the recommended plan

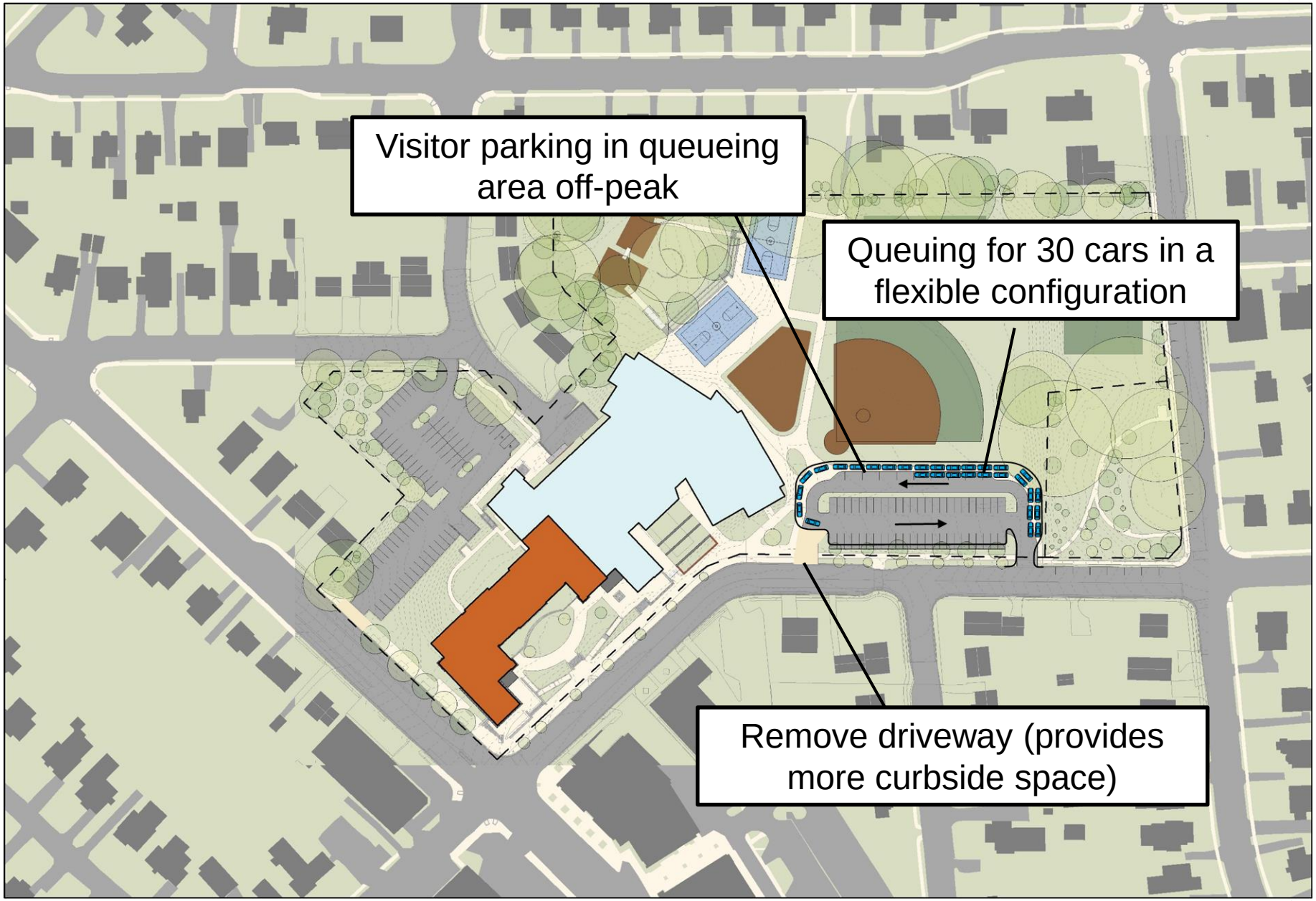
All numbers and ideas presented tonight are first passes. We will need to go back and forth with the design team a few more times before finalizing designs (including final numbers).



# Parent Queuing

Make room for queuing in the expanded 18th Street lot.

Convert the lot to a one-way loop and remove one of the driveways, to provide more curbside spaces and fewer pedestrian conflict points.

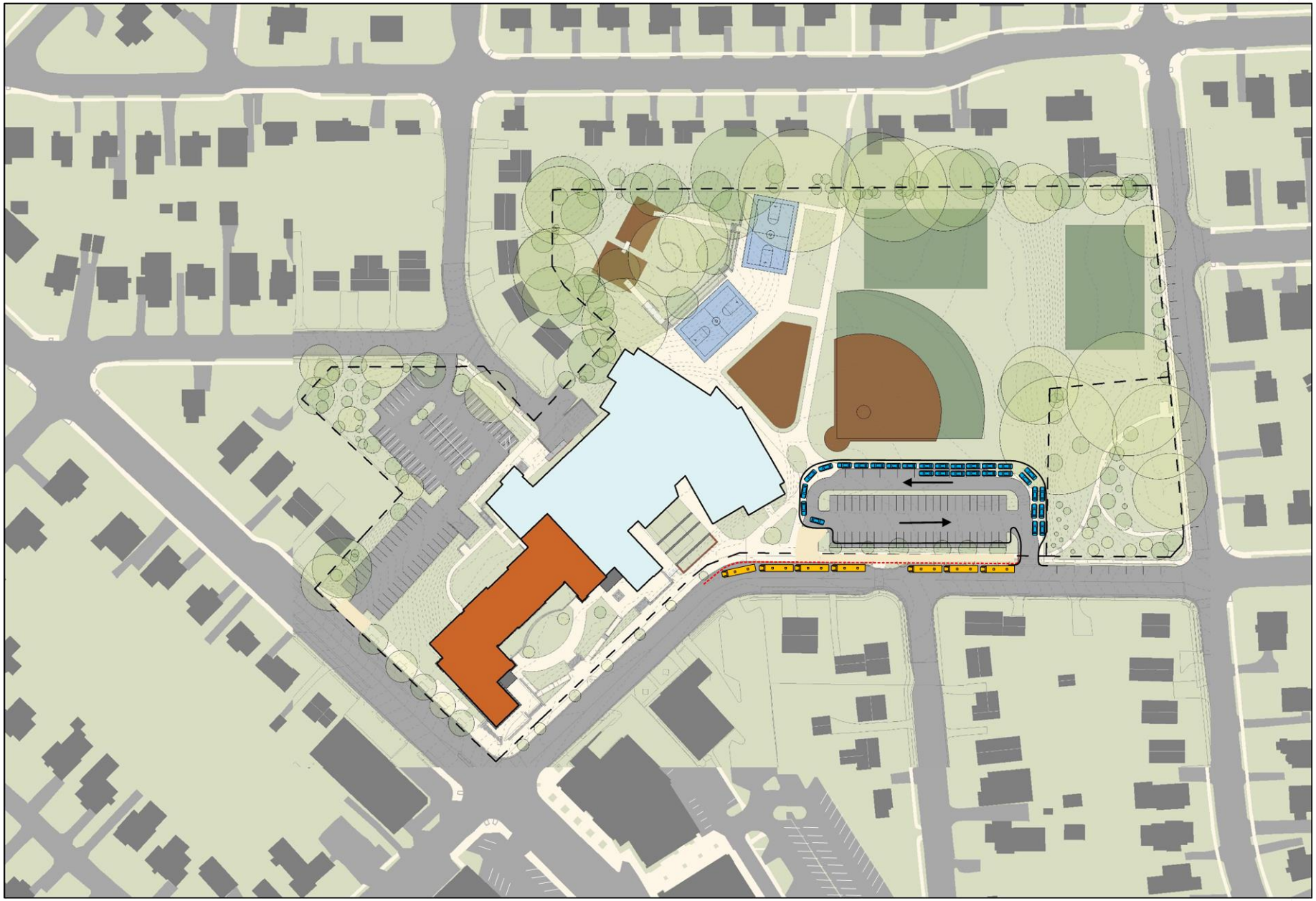


# Buses

Place bus queuing on 18th, but further away from Washington Blvd

Explore altering curb to provide more maneuvering room for buses.

Widen sidewalks to accommodate bus passenger queuing/movement

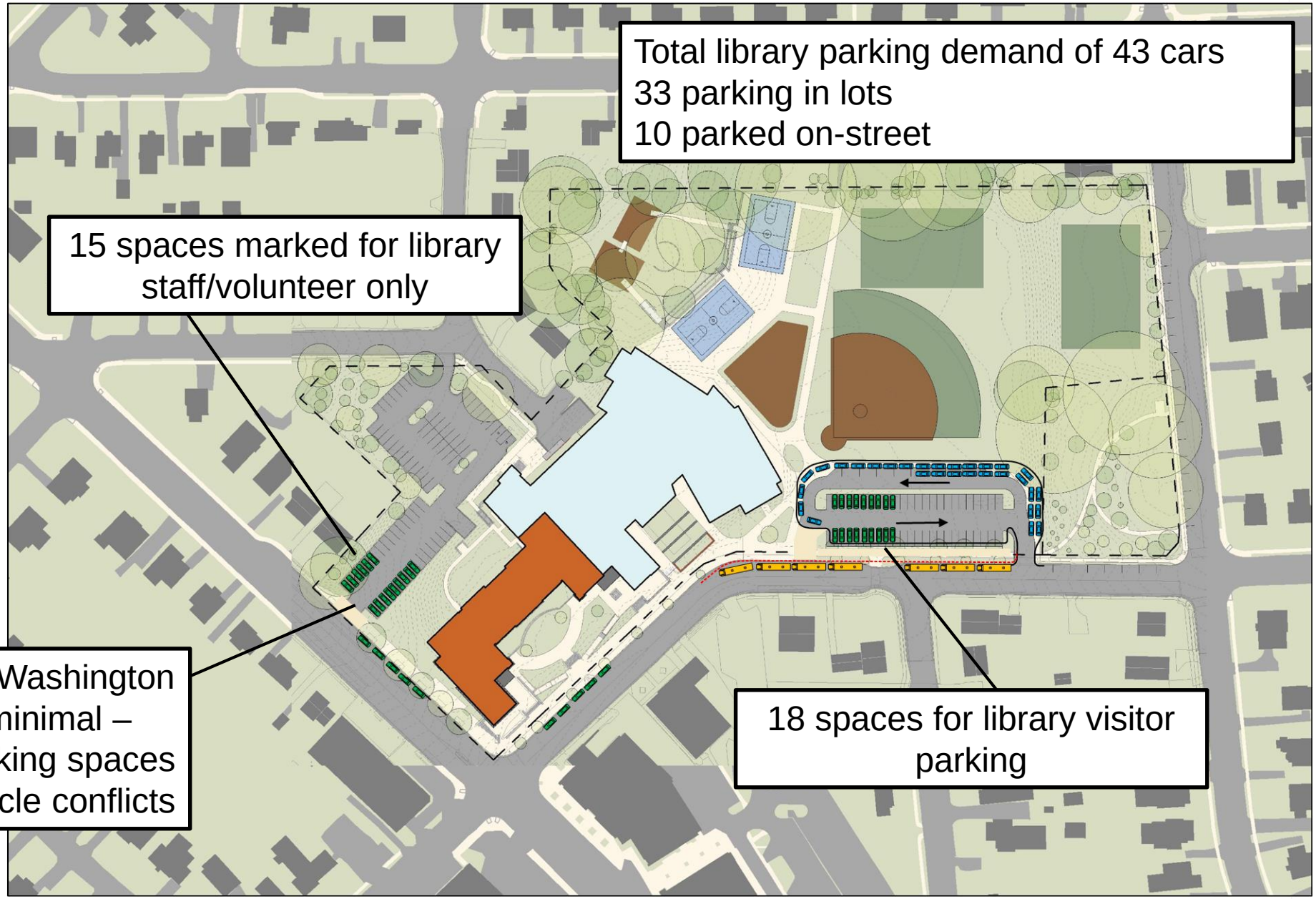


# Library Parking

Dedicate some parking in expanded NW lot to library staff/volunteers

Dedicate some library visitor/patron parking in the expanded 18th St lot

Some library visitor/patron parking expected to take place on-street in front of the library

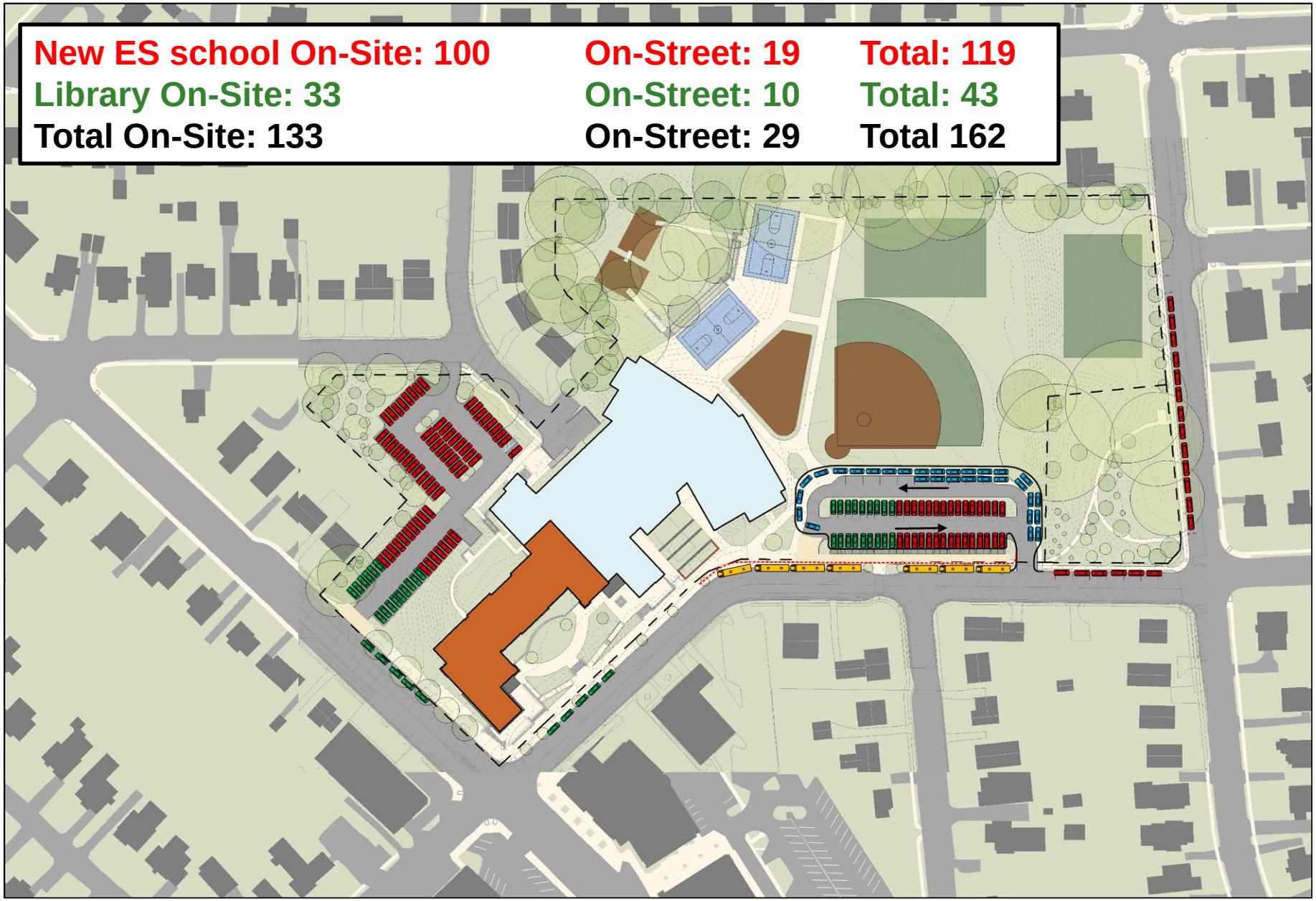


# New ES Parking

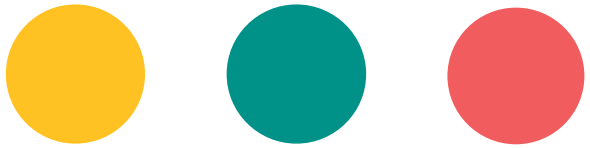
Park ES staff in expanded NW lot and expanded 18th Street lot

Some use of on-street parking, occurring further away from Washington Blvd

Visitor parking in expanded 18th St lot, including time restricted visitor spaces in the queuing area (minimum of 10 spaces)



# BLPC / PFRC DISCUSSION



# PUBLIC COMMENTS

# NEXT STEPS
# & ADJORN

# NEXT STEPS

- Transportation:
  - Work with design team to refine parking/access components of site plan
  - Conduct second parking occupancy count
  - Run traffic models with Recommended Plan (including parking locations and access per our discussion tonight)
  - Develop recommendations for external improvements based on traffic model results
  - Develop recommendations for pedestrian improvements based on latest walk zone analysis
  - Draft report (expected approximately one month from now)

# ADJOURN

- Provide feedback to APS via project email: ***engage@apsva.us***
- For further information, please contact:


APS Project Manager

**Ajibola (Aji) Robinson PMP**
703-228-7738
*ajibola.robinson@apsva.us*

County Project Manager

**Nicole Boling**
703-228-3945
*nboling@arlingtonva.us*


- BLPC, PFRC, and Community Meeting dates are scheduled and posted on the APS project website: https://www.apsva.us/design-and-construction/new-elementary-school-at-reed-building/
- Provide feedback and comments to Arlington County: https://commissions.arlingtonva.us/planning-commission/public-facilities-review-committee-pfrc/school-projects/walter-reed/