Stratford School Addition

Access Driveway

DES/CPHD/DPR/ACFD
May 14, 2016

Presentation Overview

- Environmental Impacts
- Fire Access
- Transportation Impacts
- Staff Recommendations

Environmental Impacts

Impact	Driveway	Non-Driveway
Impervious Area (Pavement)	20,000 SF	6,000 SF
Open Space* (Total on Site**)	277,000 SF	291,000 SF
Sitework- Cut and Fill	12,000 CY	8,000 CY
Sitework- Grading	22,000 SF	6,000 SF
Trees Removed (Total on Site**)	166	112
Tree Replacement Calculation	211	126

*Includes Walkways/Sidewalks

**APS + DPR Property

Note: A non-driveway option has not been engineered; these numbers are approximations provided by APS Staff.

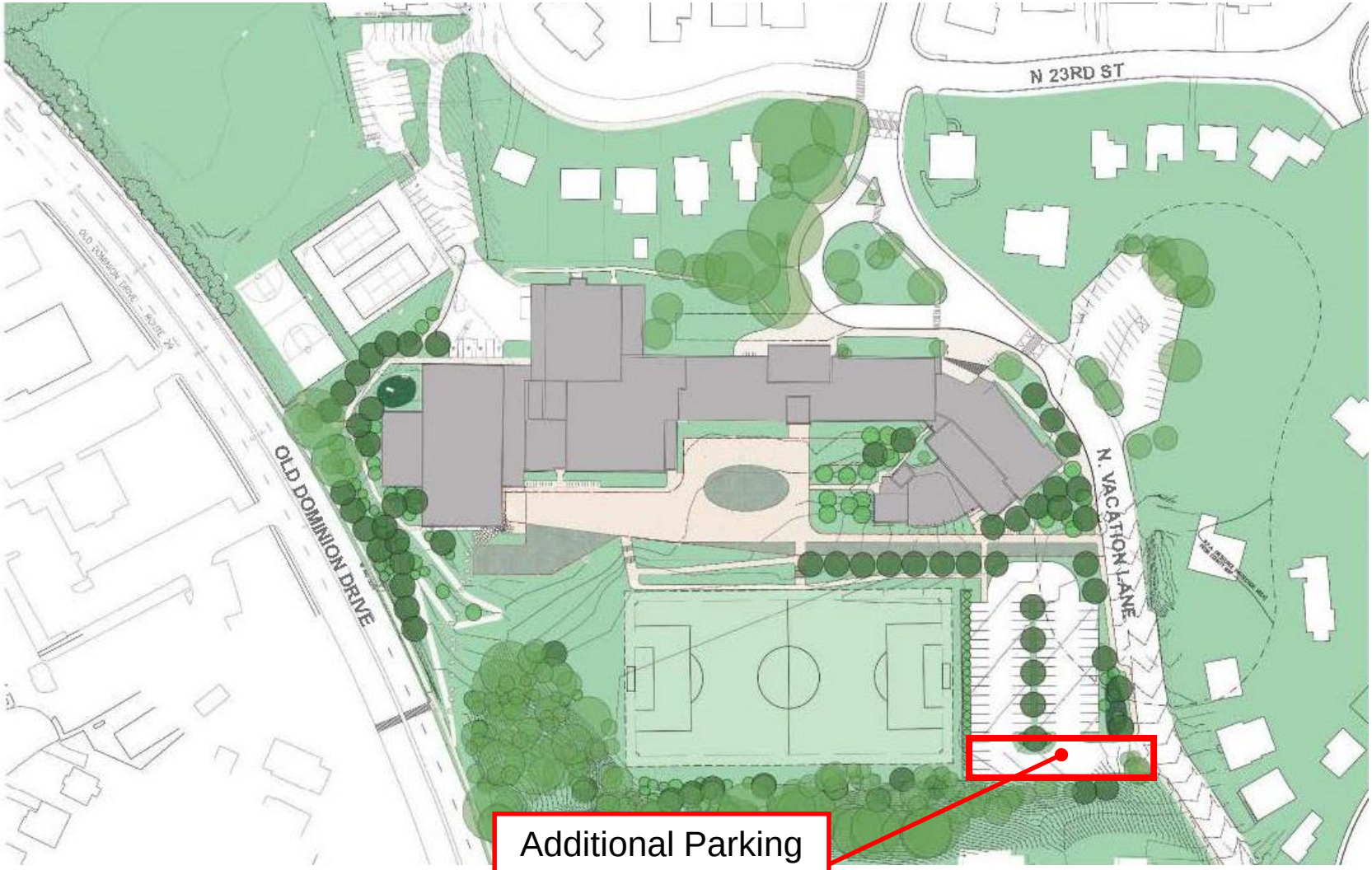
QEA- PFRC 03.16.2016;
DPR Staff; APS Staff

Limits of Grading

With Driveway Connection to Old Dominion

Limits of Grading

No Driveway Connection to Old Dominion



Additional Parking Lot Area

Driveway Tree Impact

Urban Forestry Staff counts about 54 trees to be impacted due to a proposed driveway with an equivalent replacement value of approximately 85 trees.

Tree Impact

Total trees to be removed on site ***with driveway***: **166**

Replacement value: **211**

Total trees to be removed on site ***without driveway***: **112**

Replacement value: **126**

Highest number trees removed/replaced on recent APS project: **147 removed; 150 replaced**

Contiguous Tree Canopy

"Preserve existing wooded parks and natural areas, and plant trees in parks, natural areas and other public open spaces to improve Arlington's overall tree canopy."

- Objective VI of *Urban Forest Master Plan (2004)*

Preserving small forest patches plays an important role in ecological health for wildlife, reducing water and air pollution, and carbon sequestration.

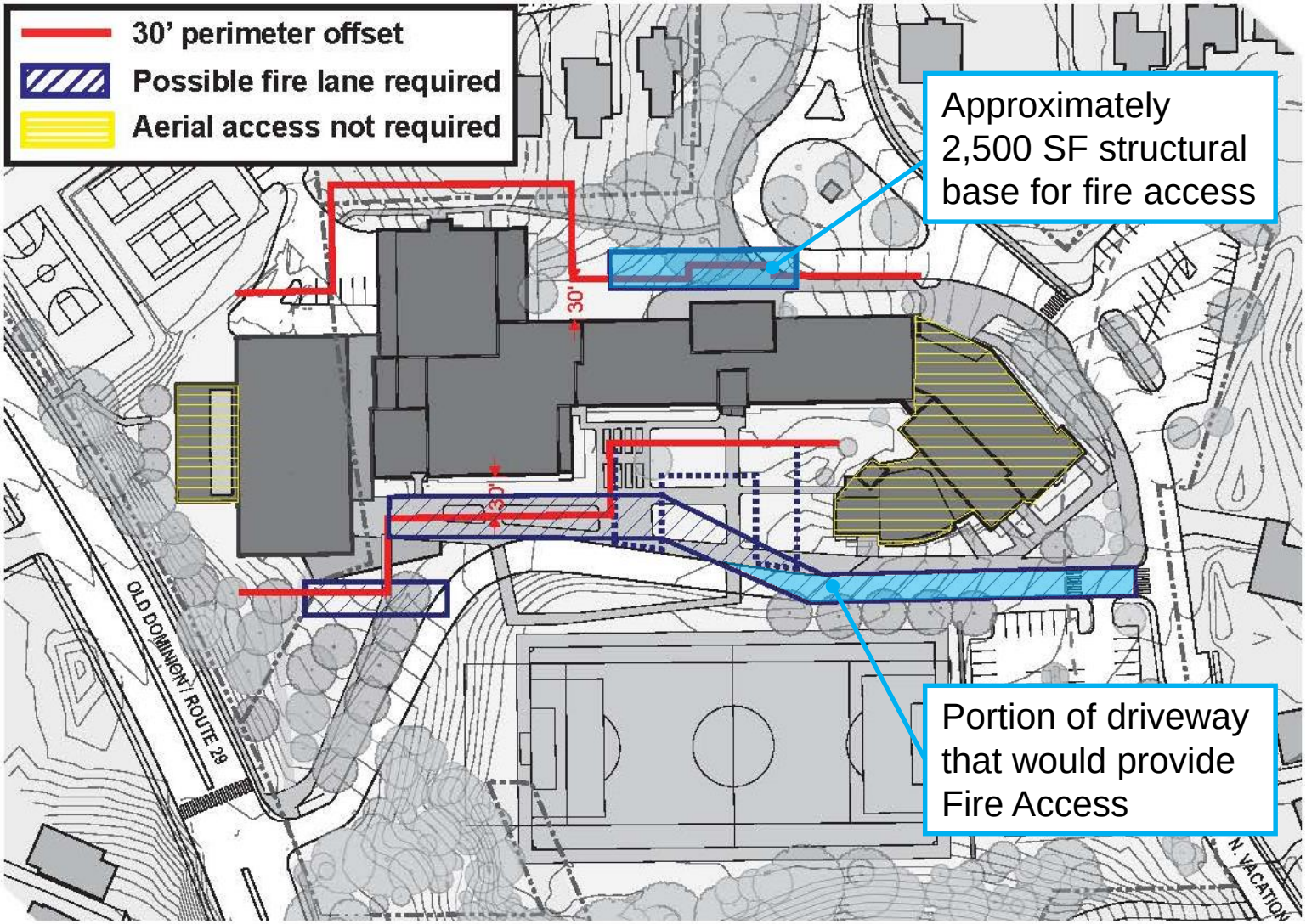
Trees impacted are of high value native species, such as Northern Red Oak, Slippery Elm, Black Cherry, and Swamp White Oak.

Fire and Emergency Access

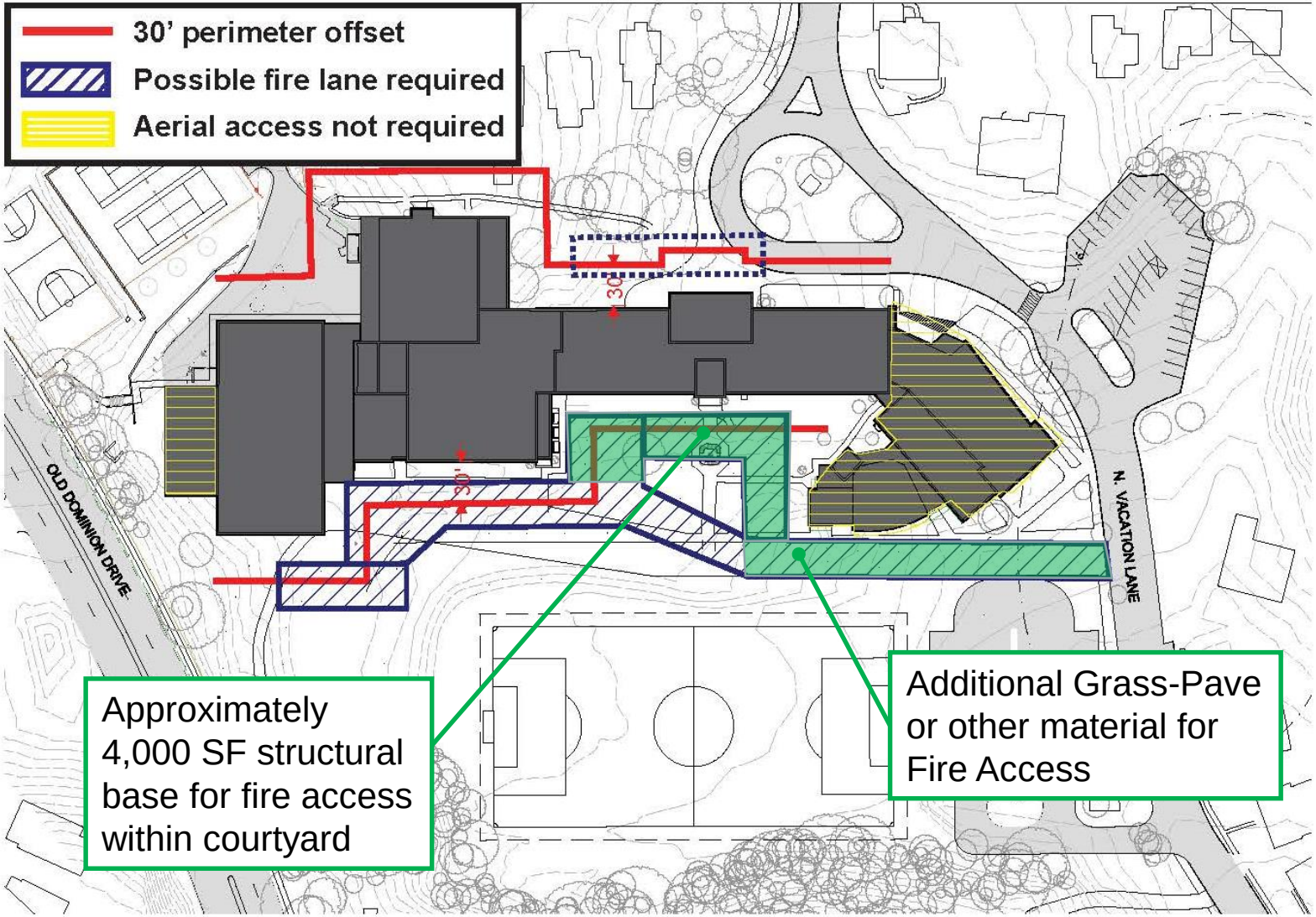
- Proposed addition requires entire building be updated to current Fire Code standards.

- Fire access can be achieved with or without driveway.
  - Driveway connection to Old Dominion is not required by the Fire Code.
  - Proposed driveway is not close enough to building to provide required ladder truck access.

Fire Access with Driveway



Fire Access without Driveway



Transportation Policy

Master Transportation Plan (MTP)

- **Goal 2 – Move More People Without More Traffic.** *"Provide more travel choices and reduce the relative proportion of single-occupant-vehicle (SOV) travel"*
- **Goal 6 – Advance Environmental Sustainability.** *"Reduce the impact of travel on community resources including air and water quality"*

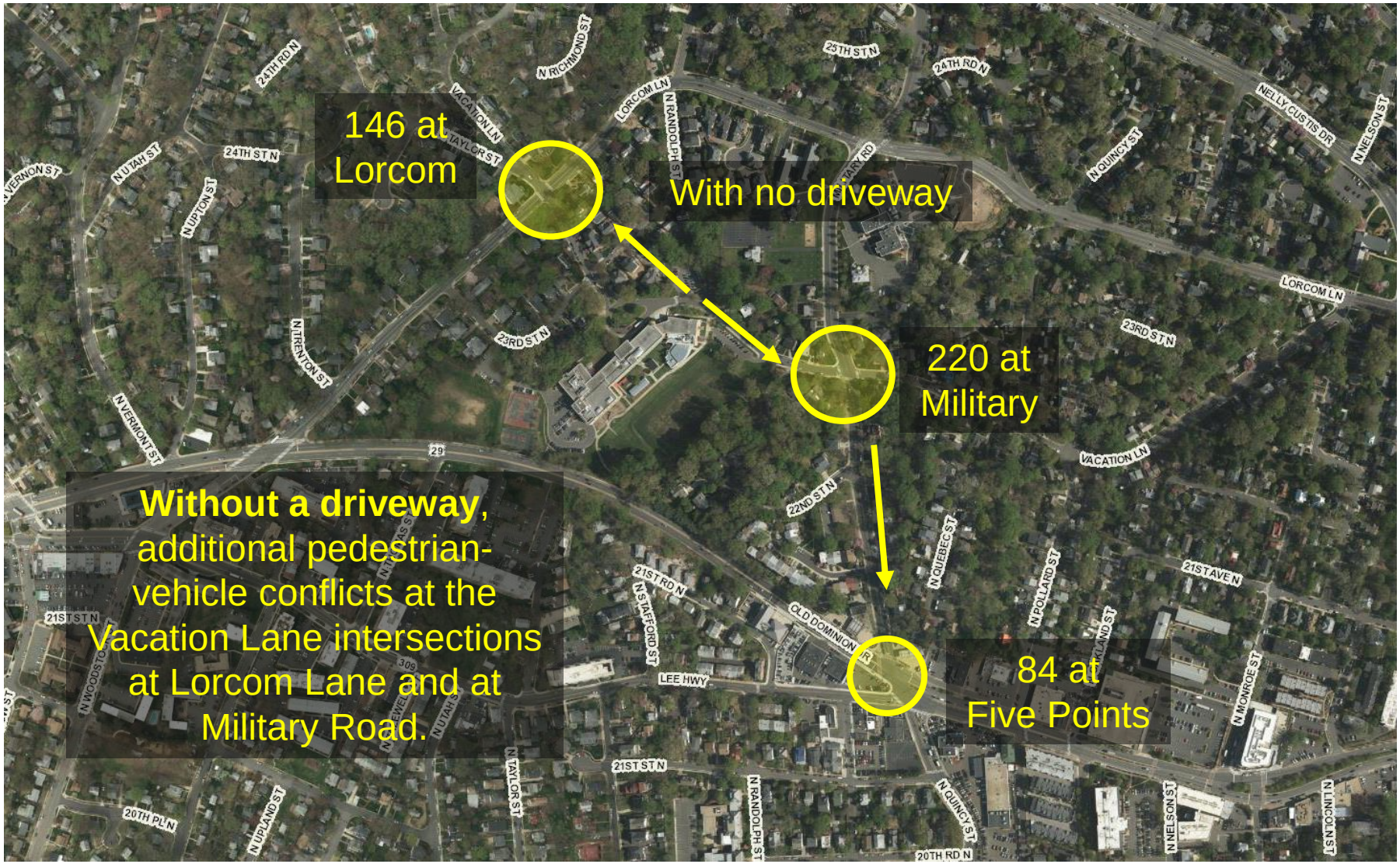
The proposed driveway prioritizes parent-student drop-off activity over other modes of travel: walking, biking, school bus, transit, and remote drop-off.

Transportation Tradeoffs

AM Outbound With Driveway (7:15 AM – 8:15 AM)

Transportation Tradeoffs

AM Outbound With No Driveway (7:15 AM – 8:15 AM)



Staff Recommendations

The objective of either access option is to minimize the additional traffic at the school site, which adversely impacts access by other modes.

- Robust Transportation Demand Management (TDM) Plan
- Pedestrian and bicycle infrastructure improvements near school
- Crossing guards at challenging intersections
- Promotion of remote drop-off locations
- Exploration of new transit opportunities for students including ART bus fare cards
- Analyze limiting Vacation Lane drop-off activities 20 minutes prior to first bell

Staff Recommendation

The driveway causes adverse environmental impacts to the site and is not essential for transportation access.