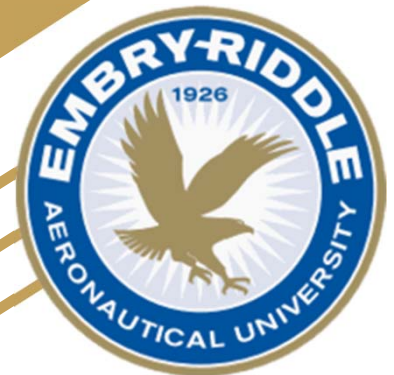


# Traffic Study of Atlantic High School

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# Problems Observed

Atlantic High School - South Daytona, FL

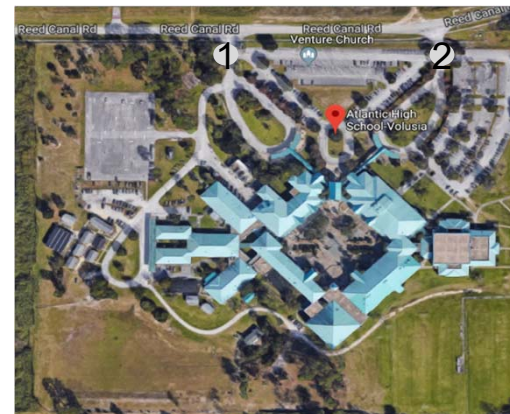
## Location 1:

- Back-up entering the school
- Back-up exiting the school
- Drivers exiting force two lanes



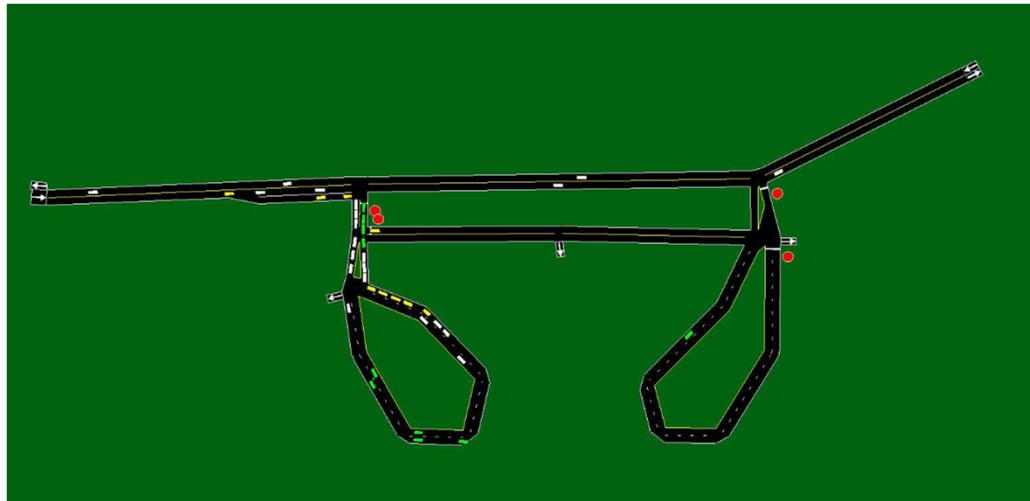
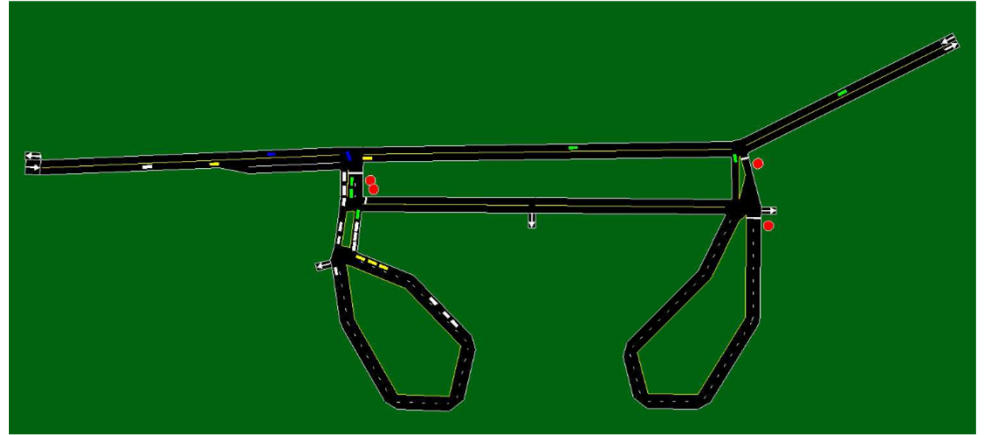
## Location 2:

- Back-up entering the school
- Under use of loop



# Base Case Model

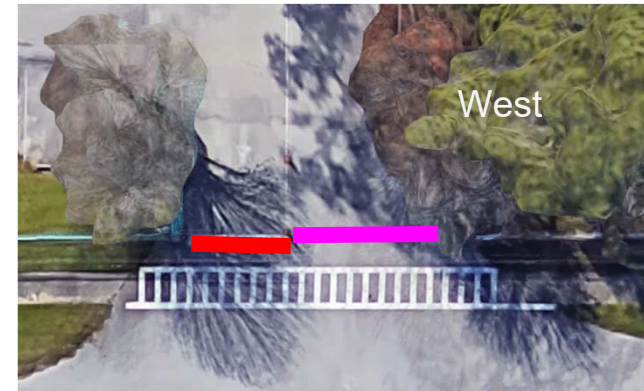
Current Situation



Proposed Situation

## Proposed Solution Model

- Average Speed: 5.45 MPH
- Delay Time: 7.07 Minutes per Mile
- By isolating turns we have maximized all available space and eliminated any need for a separate turn lane
- **Right turn** into West entrance has 26 feet of clearance
- **Left turn** out of West entrance has 18 feet of clearance
  - Not enough space for two lanes as used now
- **Left turn** into East entrance has 27 feet of clearance
- **Right turn** out of East entrance has 16 feet of clearance



### Inform Parents



### Control Exit

- Left and Right Turn Only Signs
- One at the east and west exit
- Cost: \$15-\$20

### Restrict Entrances

- Blocks unwanted turn movements
- Cones Cost:\$10-\$20 based on weight
- Barrier Poles Cost: \$20

# Conclusion

Pros:

- Easy implementation
- Low Cost
- Prevents the creation of two lane exit

Cons:

- Increase in delay time
- Increase in total vehicles per mile

Results	Base Model	Solution Model	Alternative Solution Model
Highest Number of Vehicles in Network	55	119	71
Total Vehicle Miles	264.97	368.35	335.33
Average Speed (mph)	12.08	5.45	7.81
Delay Time (min)	1.41	7.07	3.92
Near Misses	36	30	30

*The proposed solution prevents accidents.*

