

Project Scope

The John F. Kennedy Rd. (JFK) corridor is located in the western portion of Dubuque, Iowa. It stretches from Highway 20 to the NW Arterial Rd. Our project was given to us by Justine Hull, the traffic engineer for the city of Dubuque.

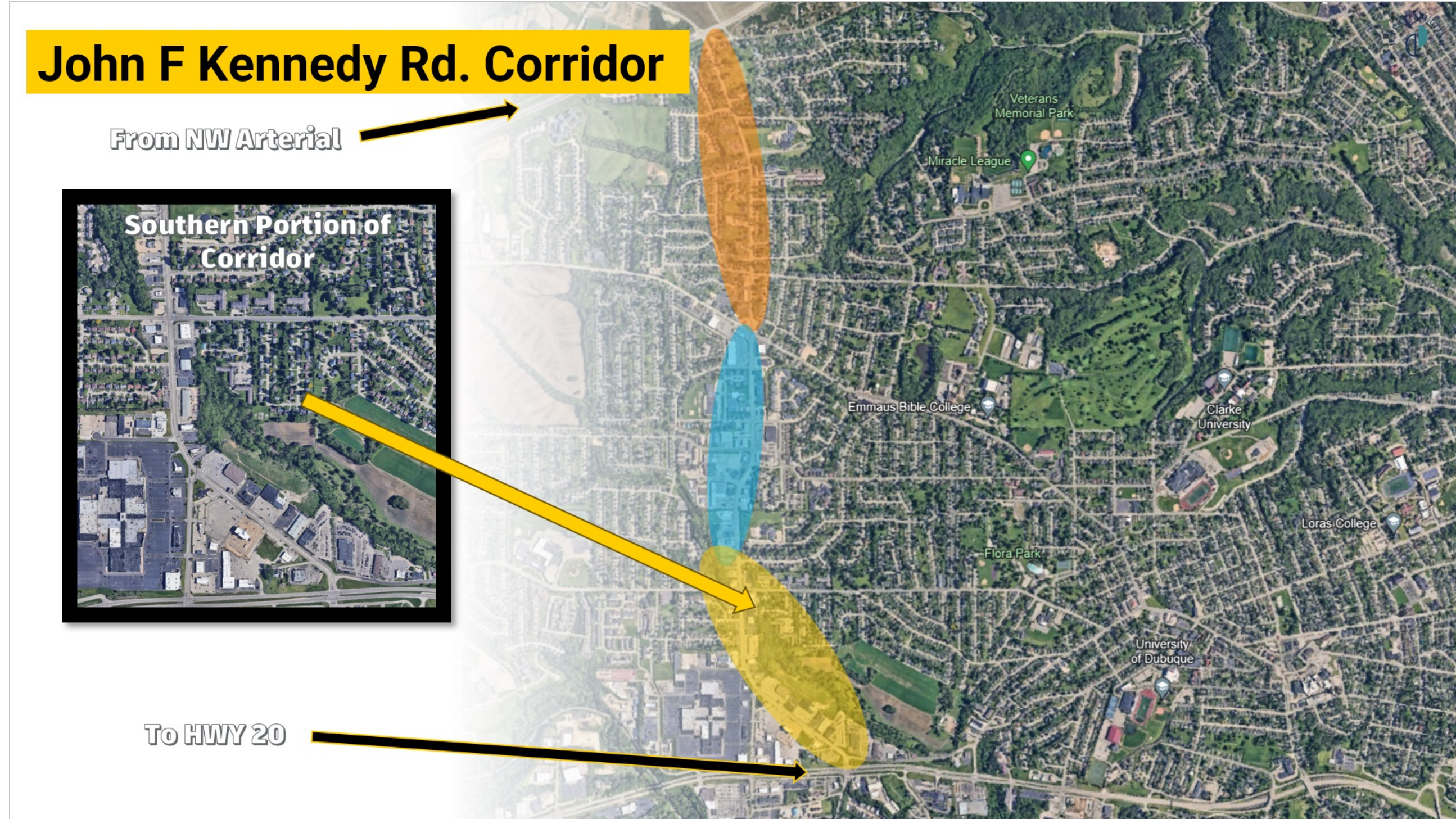


Figure 1. Overhead view of the whole John F Kennedy Rd (JFK) Corridor

Design Objectives

The main objective for our project was to analyze a stretch of John F. Kennedy Road to determine if any operational or geometric changes are necessary as well as improving the pedestrian mobility along this stretch of road.



Figure 2. Section of the corridor that the group looked at.

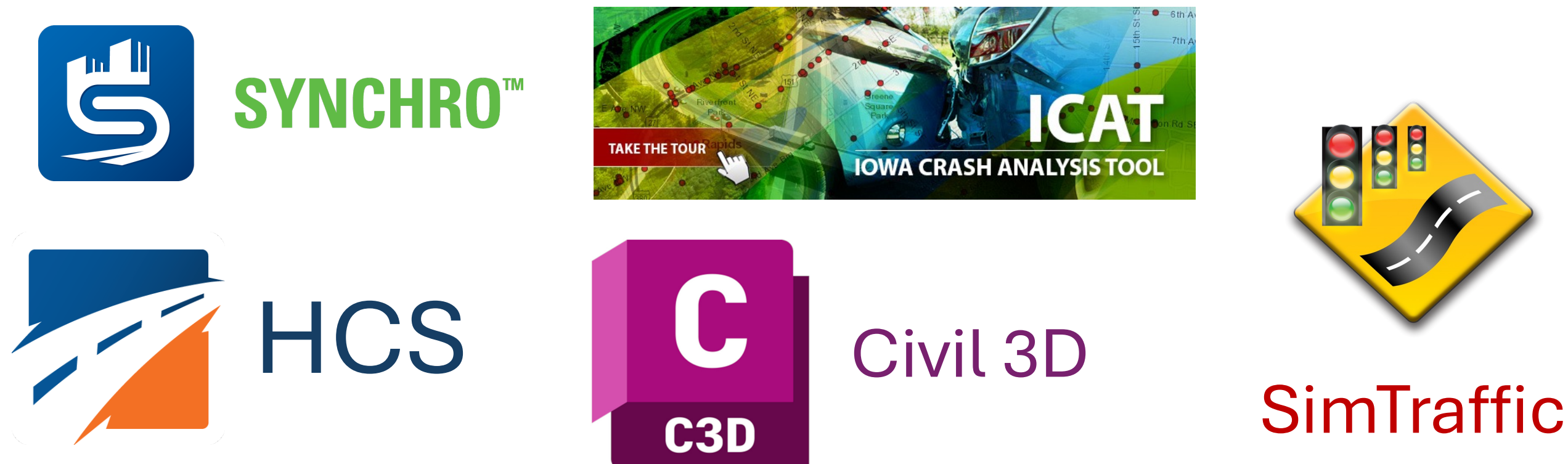


Figure 3. Analysis Tools used.

Recommendations

One recommendation that we have is continuing the sidewalk on the west side of JFK to Wacker and adding crosswalks. Another recommendation is to add a pedestrian median at the intersection of JFK and Carter

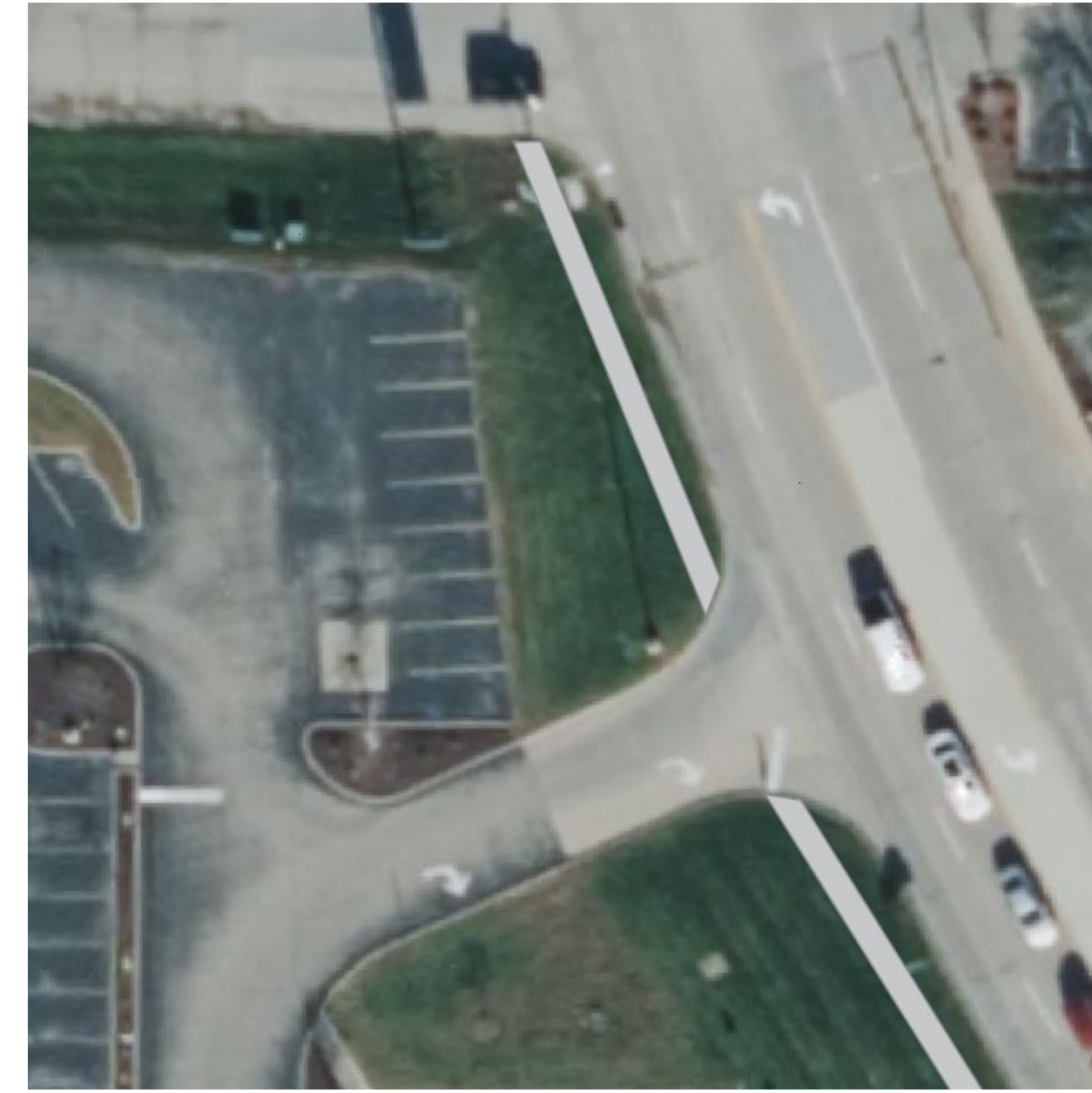


Figure 4. Proposed Sidewalk

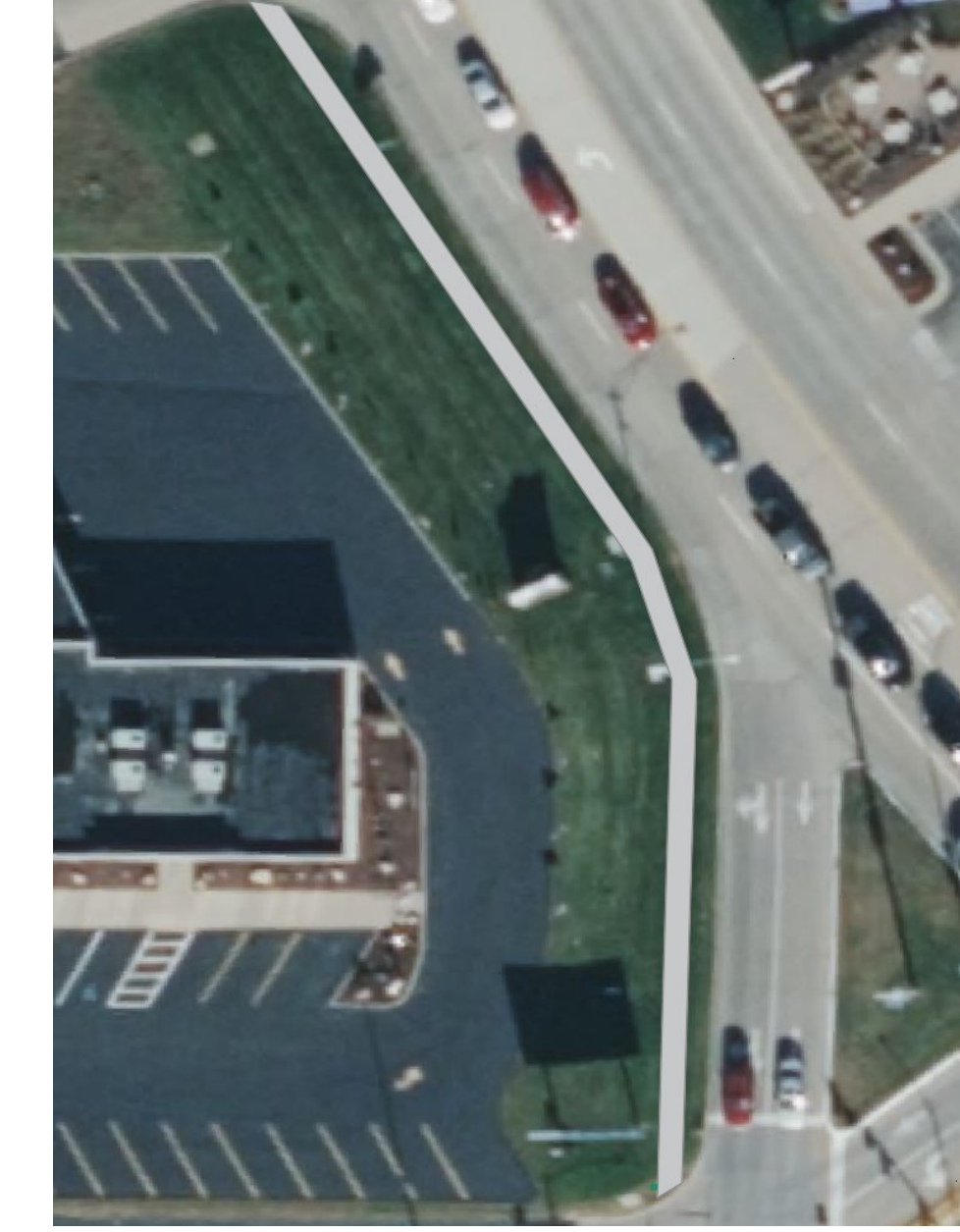


Figure 5. Proposed Sidewalk



Figure 6. Proposed Sidewalk and Crosswalks

Another recommendation is to add a pedestrian median at the intersection of JFK and Carter to allow pedestrians to cross JFK safer.

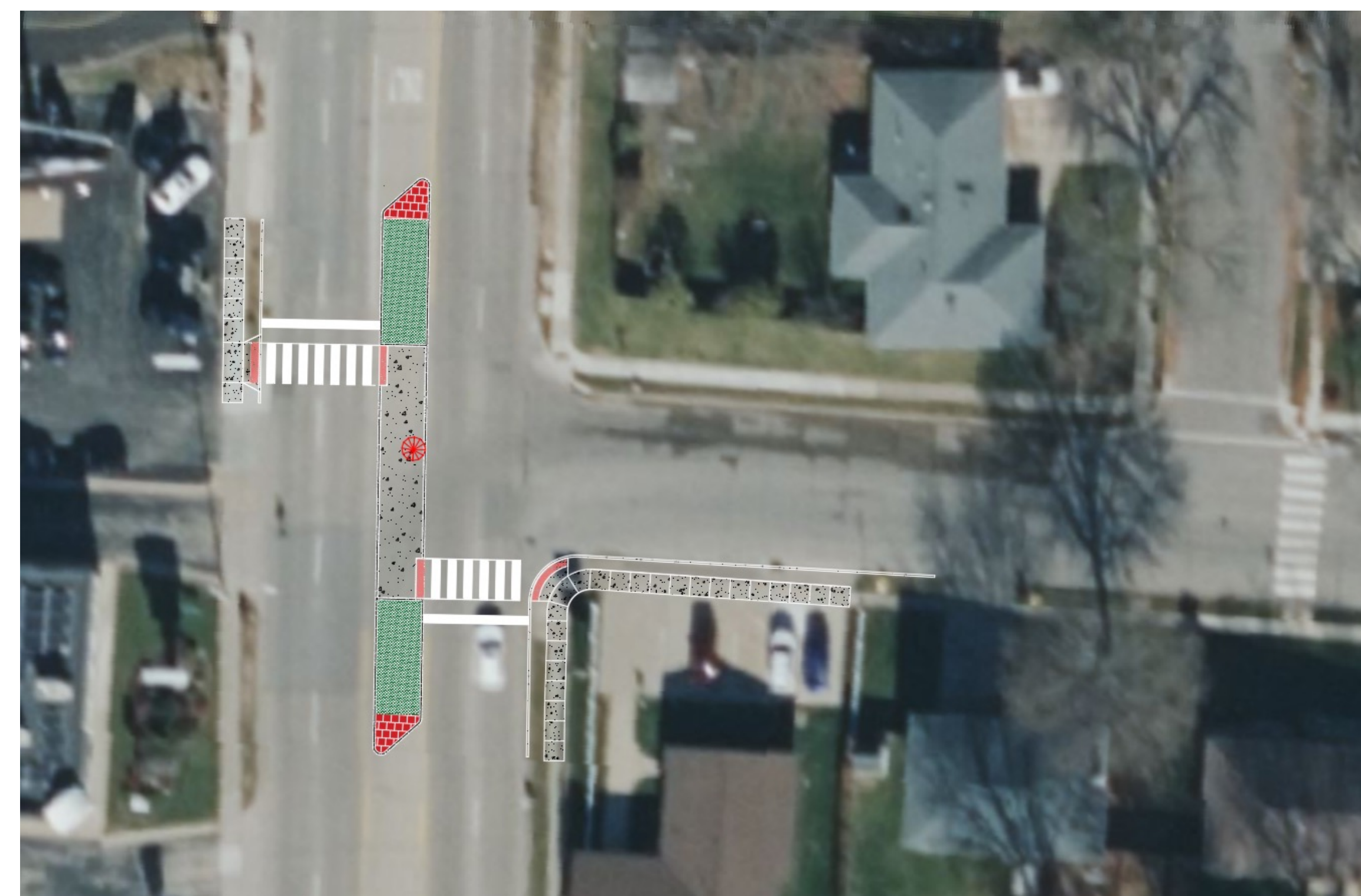


Figure 7. Proposed Median at Carter Rd.

Project Cost

Sidewalk Cost Estimate				
Item	Quantity	Unit	Unit Price	Total
Removal of sidewalk	194.90	SY	35	\$ 6,821.50
Sidewalk PCC, 4"	443.57	SY	125	\$ 55,446.0
Right of way Acquisition	1629.06	SF	3.89	\$ 6,337.04
Crosswalk pavement markings	114	LF	1.27	\$ 144.78
Pedestrian crosswalk signs	3	EACH	45.9	\$ 137.70
Push button with sign and post	2	EACH	4715	\$ 9,430.00
Sub-Total				\$ 78,317.01
Pedestrian Median Cost Estimate				
Item	Quantity	Unit	Unit Price	Total
Brick Pavers	141.86	SF	11.09	\$ 1,573.23
PCC	162.52	SY	125	\$ 20,315.6
Detectable Warnings	20	EACH	162	\$ 3,240.00
Top Soil 6"	656.8	SF	5.58	\$ 3,664.94
Stop Signs 24" Octagon	2	EACH	34.25	\$ 68.50
Sub-Total				\$ 28,862.23
Total w/o Contingency				\$107,179.24
20% Contingency				\$ 21,435.85
Total				\$128,615.08

Figure 8. Project Cost

Model used for analysis from SimTraffic

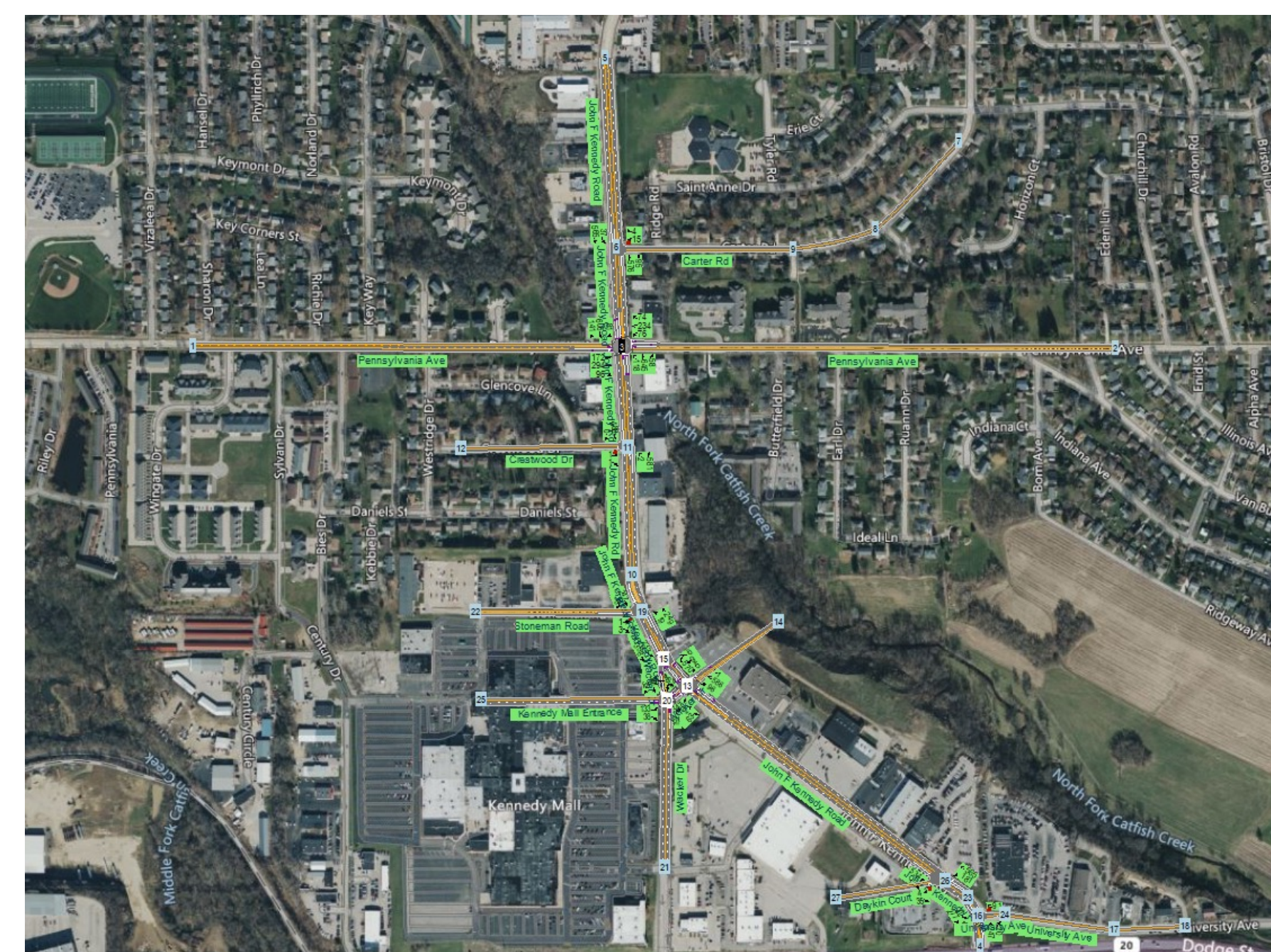


Figure 9. SimTraffic model used for analysis.

References

