



Lisa E. DeMeo, P.E.  
City Engineer

Date: May 31, 2017  
TO: Kevin J. Murphy, City Manager  
VIA: Tom Bellegarde, Assistant City Manager/DPW Commissioner  
FROM: Lisa E. DeMeo, P.E., City Engineer

**SUBJECT: 3017-03-21 11.18 M. Kennedy Request City Manager report to City Council regarding anticipated costs due to infrastructure and traffic improvement necessary if the High School were to move out of downtown including any sidewalks, road improvements and traffic lights that were needed.**

Infrastructure improvements that may be necessary if the High School is built at the Cawley Site include new ADA compliant sidewalks and wheelchair ramps, installation of new drainage pipe and structures, and possibility of paving. For this exercise, it was assumed that Clark Road and Douglas Road would get new sidewalks installed on one side only. The side chosen would be determined by various criteria including the location of existing utilities in relation to the sidewalk and the Right of Way (ROW). Be aware that the construction of the new sidewalks will require the removal of trees that are within the sidewalk area and are within the ROW. This would include historic trees, as well.

To estimate the costs of these improvements, we used prices from the most recent city contracts for sidewalk installation. Cost estimates for Clark Road, Douglas Road, Village Street, and Andover Street are listed below. Estimates are based on the best information we have available to us at this time.

- ADA compliant wheelchair ramps: estimate \$1,200/ramp;
- Granite curbing: \$30/L.F.;
- Concrete Sidewalks: \$45/L.F.;
- Paving: \$220,000/mile;
- Clark Road sidewalk; some of this sidewalk will be in Tewksbury. Their permission will be needed;
- Tree Removal: several factors will influence the estimate, i.e., number and diameter of the trees as well as the health of the tree;
- Drainage: There is some existing drainage infrastructure. A study will need to be done to determine if the new sidewalks will warrant additional infrastructure to be installed;
- Walls/Fences/Gardens: Several properties have landscaping that extends beyond their property line into the city's ROW. These will need to be relocated back on to private property;
- Yards/Driveways: Access to private driveways would be part of construction contract;
- Water main vs. Utility Poles: Issues stated above.



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	<b>Clark Road</b>	<b>Douglas Road</b>	<b>Village Street</b>	<b>Andover Street</b>
Length (l.f.)	3,400	5,950	1,700	200
Sidewalk & Curb (\$)	255,000	450,000	34,000	15,000
Ramps (\$)	12,000	16,800	4,800	0
Paving (\$)	Done in 2015	247,900	19,000	0
Trees (qty.)	50 +/-	5 +/-	0	0
	\$267,000	\$714,700	\$59,500	\$15,000
TOTAL = \$1,056,200				

- Douglas Road will require an analysis of drainage impacts of installing the sidewalks. This area already has surface water issues.
- Clark Road was recently paved. Any sidewalk work could be done with care so as to not disturb the existing pavement. Therefore, the cost of repaving Clark Road is not included. There is sidewalk installation and tree removal that would be required in Tewksbury. They will need to approve the work.
- Andover Street is included in the Traffic Study because a small section does not have a sidewalk. This small estimate is included here.
- Village Street is approximately 1,700' long and there is already a sidewalk along most of it. The remainder of the sidewalk would be installed along with the building of the school. The portion of Village Street that is in Tewksbury would require that the city fund sidewalks there.

Please let me know if there are any questions regarding this information.