## **Solving the Concord-Carlisle School Bus Problem**

Good news! There is not now and never has been a "requirement" to remove our transportation facility to construct the new high school. We could have *avoided* a large confrontational meeting with the School Administration on February 1, as well as that emotional Special Town Meeting on April 24.

Last winter we all learned that the School Committee planned to outsource our school bus transportation. They said it was because the new high school construction "requires" the removal of our current transportation facility. Their quiet plan, belatedly and reluctantly disclosed, led to strong opposition from the citizens, evident from up to 371 signatures on petitions that led to Articles 3, 4, and 5 of the Special Town Meeting on April 24, as well as more than 500 signatures online. Solid votes blocked the outsourcing plan for a year and created a Citizens' Transportation Committee to study options to keep busing in house.

While safety, costs, social issues, and various alternative sites were being considered by that committee, and by another one working for the School Committee, I took a look at the actual problem we were all trying to solve. The new school site was selected by the Building Committee on June 15, 2011, and is shown in the OMR Architects plans of June 27 and August 1, 2012. I copied an aerial view of our transportation facility from Google Earth, adjusted it to the same scale and orientation, and used Adobe Photoshop to paste it onto the OMR site plan.

The result shocked me. The transportation facility and the new school do not overlap, and are not even close together! Our large maintenance building is nearly 60 yards, *more than half the length of a football field*, from the nearest point of the school! The smaller administration building is 30 yards from another corner of the school. When I discussed this situation with Stan Durlacher (newly appointed Chair of the Building Committee) at the site on July 15, he confirmed these actual distances, and agreed that the architects could have worked around our transportation buildings easily *if they had been asked to*. He provided me copies of topographic charts of the existing site and some limited information about the site grading they plan to do. Stan expressed a concern about how my plan to work around the transportation buildings could be carried out in three dimensions, and said that some fill dirt would probably be left over.

Pictured here is my combined site plan showing their road and then the road with my corrections. The white square building with the circle around it at the bottom is the bus maintenance building. The long gray rectangle to the upper right of it is the bus administration building. I derived and analyzed vertical sections through the existing site in three areas that matter; then I compared them with the elevations planned for the school and the ring road behind it. I found that all the required new grades can be gentle, without any need for new retaining walls. Elevations along the ring road can be just about as they were planned, if the road is redrawn a little as in the corrected illustration on the right. No parking spaces are lost; they are just placed along the road farther to the left. If there is any fill dirt left over, we have options of placing it in a small hollow above the railroad near the western corner of the property, spreading it out and raising the whole school a couple of inches, or simply selling it to some other contractor who is running short.

Some individuals don't want to see transportation buildings "so close" to the "main entrance" of the school, even though they are fairly new, well maintained, and painted nicely in subdued colors. But the town, not the Building Committee, should decide whether to spend a couple million more dollars of our money to "improve" the view by putting our transportation facility elsewhere. For the past fifty years the main entrance to the high school has been on the northeast side, and we could even continue to call that entry the main one to avoid any problem about what a visitor will see.

I will be pleased to share my findings with the architects. I have discussed this information with the Citizens' Transportation Committee, and have offered to explain it if they like during their presentations to the Town in September or to the School Committee on October 2.

Submitted by William T. Plummer, 129 Arena Terrace, Concord, a physicist and engineer.