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February 13, 2008  
File 34012-01

Mr. Art Kunkel  
Chair, Parkside Steering Committee  
Holy Spirit Catholic Church  
2232 Smallhouse Road  
Bowling Green, KY 42104-4141

**RE: Holy Spirit Catholic Church Parkside Traffic Impact Study Issues**

Dear Art:

We have completed as part of the traffic impact study for the subject site a review of the traffic volumes and speeds on Smallhouse Road in front of the church's proposed Parkside development at 4754 Smallhouse Road across from an entrance to the Basil Griffin County Park site. The two-way weekday volume is about 2,500 vehicles per day, a comparably low volume county road. The 85<sup>th</sup> percentile speed of westbound traffic approaching the 58 degree curve in front of the property is 42 mph in most hours of the day, while the eastbound traffic coming out of the curve has an 85<sup>th</sup> percentile speed of 39 mph in most hours.

These speeds have significant implications on the location of access points on Smallhouse Road to serve this site. The distance from the point of intersection (P.I.) of the tangents comprising the curve to the easternmost property line of the parcel is only about 440 feet. Since an exit lane would need to be at least 100 feet from the eastern boundary, the maximum available measured sight distance from the west is 350 feet, even assuming the county park fence is relocated and any trees and bushes are removed from the line of sight. This implies an 85<sup>th</sup> percentile speed for 30 mph for traffic in the curve, and that is too low to be supported by the field data we collected.

The existing access is located in the curve, about 65 feet west of the point of intersection of the right of way lines on the north side (which are also the property lines for the parcel). An access located near the point of intersection of the right of way lines would place an exiting driver at a point where he or she could see at least 500 feet in either direction, a distance sufficient for an 85<sup>th</sup> percentile speed condition of 45 mph.

We recommend that a single access point be assumed for the site at a location about 50-70 feet from the existing access road. Once we have obtained more survey information we will make specific recommendations regarding location, elevation, grading, and the possible need to swap portions of land with the neighboring church to the west.

As part of the traffic impact study, and using information from the off-site survey work, we will be making specific recommendations for relocation by the county of portions of the park fence on the south side of the road, modification of traffic warning signs, and installation of one or more street lights to provide illumination of the curve at night. While we may recommend the county consider reconstruction and realignment of the curve, the construction of the church site is not dependent on such a project. We recommend proceeding with design, construction, and occupancy of the Parkside project with the expectation that the curve itself will remain in its

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present condition for some time to come, even while we request that the county take certain steps immediately to improve safety conditions.

We do not consider the reconstruction of the curve as the responsibility of the church or any other developer on this parcel. However, we recommend that all adjacent property owners cooperate with the county in granting easements and conveying necessary land for such a reconstruction and realignment in the future. Moreover, we recommend that any entrances to the site and any proposed use of the property anticipate the reconstruction and realignment of the curve in the future. Our design plans for the entrance will include a preliminary realignment of the horizontal and vertical profile of the curve, including recommended super elevation.

Please let me know if you have any questions.

Sincerely,



William B. Hays, Jr., P.E., PTOE  
Senior Project Engineer

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Mr. David Moss, P.E., BWSC, Principal-in-Charge  
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