



MEMO

Date: 2-26-10
To: City of Rapid City, Growth Management
From: FourFront Design Inc, Neil Eichstadt *NE*
Project: Eagle Ridge PRD-Phase 2
Subject: Site Triangle Diagram

As part of the fence exception application FourFront Design is submitting on behalf of Eagle Ridge Properties, LLC, a site triangle diagram has been completed. The diagram is included with the submittal. This diagram shows all intersections in close proximity to the proposed fence height exception location to determine if sight triangles at the intersections will be affected. The basis for developing the site triangles are based on the City of Rapid City Street Design Criteria and AASHTO design guidelines.

The intersections in question include the entrance to the Eagle Ridge property from Stumer Road and the Stumer Road-Enchantment Road intersection. The posted speed limit of these streets is 25 mph. Figure 2-2-Intersection Sight Distance Stop-Controlled Intersection in the City of Rapid City Street Design Criteria shows the dimensions of the required sight triangles. Since the area is zoned as residential, the distances used for the triangles are based on the passenger car distances. The distances shown in Figure 2-2 have been adjusted due to street grades that are greater than 3%. The adjustments are based on AASHTO-Geometric Design of Highways and Streets, Exhibit 9-53-Adjustment Factors for Sight Distance Based on Approach Grade.

Based on this criterion and the provided sight triangle diagram, it has been determined that the installation of fence at the proposed location will have no affect on the sight triangles, vehicular or pedestrian, at nearby intersections.