

The transition from gravel to grass has the same slope.

3' wide

2' tall

10.15.2007

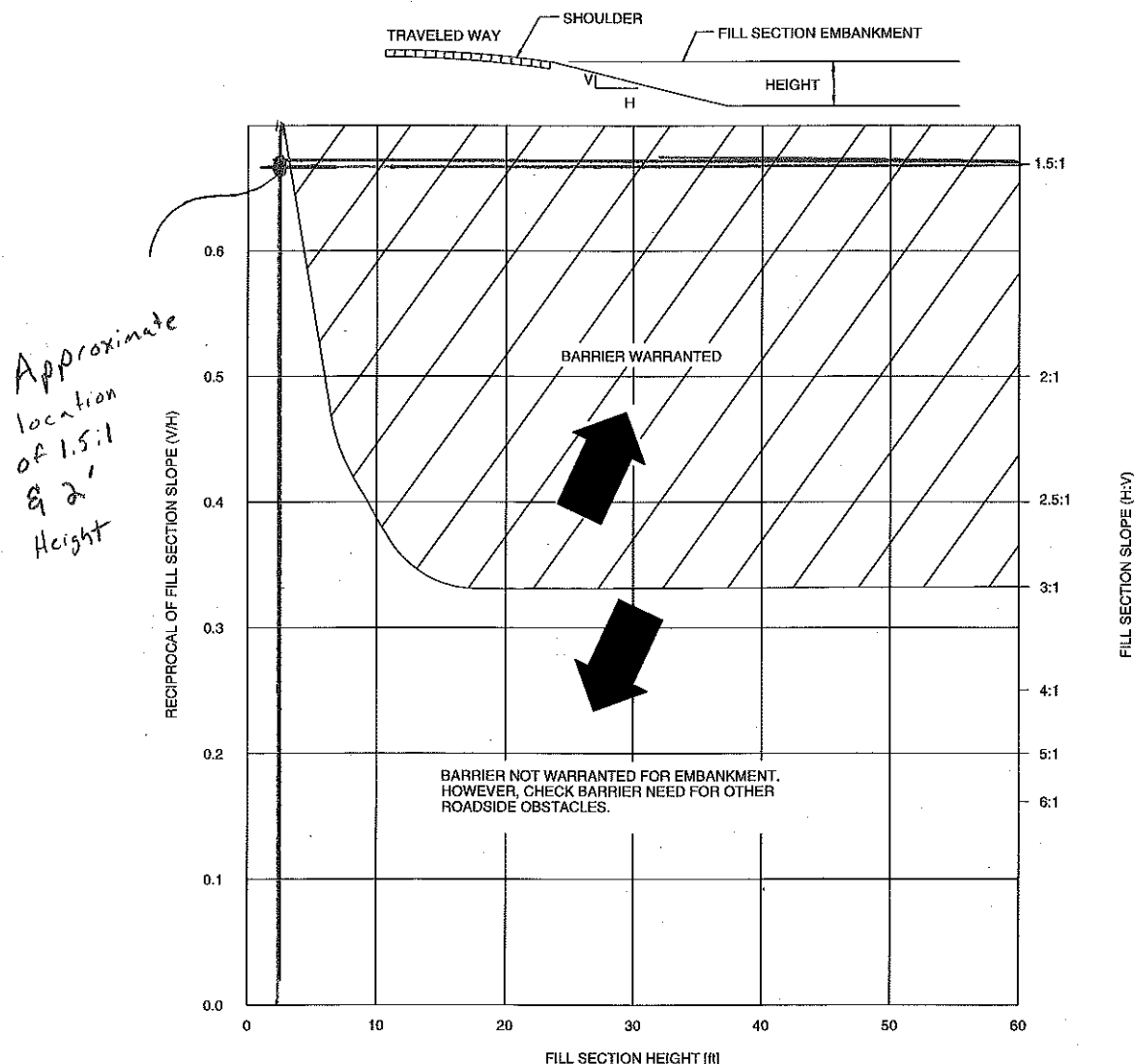


FIGURE 5.1b Comparative risk warrants for embankments [U.S. customary units]

cases, the conventional criteria presented in the previous sections cannot be used to establish barrier needs. For example, a major street, highway, or freeway may adjoin a schoolyard, but the boundaries are beyond the clear distance. There are no criteria that would require that a barrier be installed. If, however, a barrier is installed, it could be placed near the school boundary to minimize the potential for vehicle contact. Reference should be made to Section 5.6.1 for lateral placement criteria. Consideration might also be given to installing a barrier to shield businesses and residences that are near the right-of-way, particularly at locations having a history of run-off-the-road crashes.

Pedestrians and cyclists are another category of concern that should be given design consideration. The most desirable solution is to separate them from vehicular traffic. Since this solution is not always practical, alternate means of protecting them are sometimes necessary. As in the case of bystander warrants, there are no objective criteria to draw on for pedestrian and cyclist barrier warrants. On low-speed streets, a vertical faced curb will usually suffice to separate pedestrians and cyclists from vehicular traffic. However, at speeds over 40 km/h [25 mph], a vehicle may mount the curb for relatively flat approach angles. Hence, when sidewalks or bicycle paths are adja-