

Crossing treatment yield rate sources:

- (1) Fitzpatrick, K., S.M. Turner, M. Brewer, P.J. Carlson, B. Ullman, N.D. Trout, E.S. Park, J. Whitacre, N. Lalani, and D. Lord. NCHRP Report 562: Improving Pedestrian Safety at Unsignalized Crossings. Transportation Research Board of the National Academies, Washington D.C., 2006.
- (2) Lewis, R., J.R. Ross, D.S. Serpico : Assessment of Driver Yield Rates Pre- and Post-RRFB Installation, Bend, Oregon. Oregon Department of Transportation, Washington D.C., 2011.
- (3) Bolton & Menk Field Data Collection
- (4) Transportation Research Board, HCM 2010 Highway Capacity Manual, Washington D.C.: National Academy of Sciences, 2010.
- (5) Brewer, Marcus A., Kay Fitzpatrick. Before-and-After Study of the Effectiveness of Rectangular Rapid-Flashing Beacons Used with School Sign in Garland, Texas. Texas Transportation Institute, College Station, TX, April 2012.
- (6) Kipp, Wendy M.E., Jennifer M. V. Fitch. Evaluation of SmartStud In-Pavement Crosswalk Lighting System and BlinkerSign Interim Report. Vermont Agency of Transportation, Report 2011-3, Montpelier, VT, February 2011. (Rate Normalized to High Visibility Markings and Signs at 35 mph)

Step 6: Calculate Average Pedestrian Delay and Determine LOS

Sum the delay for each stage of a two stage crossing or use the delay from a one-stage crossing and use the following table to determine the level of service (LOS) for the crossing movement. [12]

LOS	Control Delay (sec/pedestrian)	Comments
A	0-5	Usually no conflicting traffic
B	5-10	Occasionally some delay due to conflicting traffic
C	10-20	Delay noticeable to pedestrians, but not inconveniencing
D	20-30	Delay noticeable and irritating, increased likelihood of risk taking
E	30-45	Delay approaches tolerance level, risk-taking behavior likely
F	>45	Delay exceeds tolerance level, high likelihood of pedestrian risk-taking

Table 6.3 Pedestrian Mode Level of Service

LOS F indicates that there are not enough gaps of suitable size to allow pedestrians to cross through traffic on the major street safely. LOS F may result in pedestrians selecting smaller than usual gaps, indicating a safety concern that warrants further study.

Evaluation Worksheets are provided on the following pages.