FAZSIGHT Version 1.0
A faithful computer program representation
of intersection sight distance determination methods in
A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS 2011
AMERICAN ASSOCIATION OF STATE HIGHWAY AND
TRANSPORTATION OFFICIALS
Washington, District of Columbia, USA 2011
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I. Variables mentioned in intersection sight triangles methodologi
  a1 is the longitudinal distance between the decision point on the subject minor approach and major approach vehicle left of the subject minor approach in feet.
  a2 is the longitudinal distance between the decision point on the subject minor approach and major approach vehicle right of the subject minor approach in feet. This distance includes major road median width, if any, and lane widths of the major egress right of the subject minor approach.
  b_left is the lateral distance between the decision point on the subject minor approach and left major approach vehicle.
  b_right is the lateral distance between the decision point on the subject minor approach and right major approach vehicle.
  Do_major_left is the lateral obstruction distance between decision point and obstacle edge right of the major approach that is left of the subject minor approach in feet.
  Do_major_right is the lateral obstruction distance between decision point and obstacle edge left of the major approach that is right of the subject minor approach in feet.
  Do_minor_left is the lateral obstruction distance between decision point and obstacle edge left of the subject minor approach in feet.
  Do_minor_right is the lateral obstruction distance between decision point and obstacle edge right of the subject minor approach in feet.
  fG_left is grade adjustment factor for major approach left of decision point.
  fG_minor is grade adjustment factor for subject minor approach.
  fG_right is grade adjustment factor for major approach right of decision point.
  G_left is the major approach grade left of the subject minor approach in percent.
  G_minor is the subject minor approach grade in percent.
  G_right is the major approach grade right of the subject minor approach in percent.
  Nl is number of major road approach lanes left of decision point on subject minor road approach in ln.
  SD_major is unadjusted sight distance for major approaches in feet.
  SD_minor is unadjusted sight distance for subject minor approach in feet.
  Vmajor is the major road design speed in mi/h.
  Vminor is the minor road design speed in mi/h.
  Wl is average major road lane width in feet.
  Wm is median width on major road, if any, in feet.

II. Worksheet information
II.1 General Information
  Analyst: Any_Name
  Agency or Company: Fazio_Engineerware
  Analysis Date: 30February2018
II.2 Intersection Information
  Major Road Name: North_Ave.
  Minor Road Name: York_Road
  Jurisdiction: Any_jurisdiction
  Forecast Year: 2018

III. Intersection Sight Triangle Methodology
  Step 1 - Input Data
            Case: A
    MAJOR ROAD:
         Vmajor =   50 mi/h
         G_left =   4 percent
        G_right =   -4 percent
             Wm =   0.0 ft
             Nl =   2 ln
             Wl =   12.0 ft
    MINOR ROAD:
         Vminor =   45 mi/h
        G_minor =   0 percent
    OBSTACLE left of decision point, if any:
       Do_minor_left =   80.0 ft
    OBSTACLE right of decision point, if any:
      Do_major_right =   80.0 ft

   Step 2 - Output
IV.1 Approach Sight Triangle left of decision point on subject minor approach
    SDbase_minor =   220 ft
        fG_minor =   1.0
              a1 =   220 ft
    SDbase_major =   245 ft
         fG_left =   0.9
          b_left =   220 ft
   Do_major_left =   140 ft

IV.2 Approach Sight Triangle right of decision point on subject minor approach
    SDbase_minor =   220 ft
        fG_minor =   1.0
              a2 =   244 ft
    SDbase_major =   245 ft
        fG_right =   1.1
         b_right =   270 ft
  Do_minor_right =   181 ft

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This concludes FAZSIGHT V.1.00
Intersection Sight Triangle Application, U.S. customary units
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