INDIANA DEPARTMENT OF TRANSPORTATION

INTER-DEPARTMENT COMMUNICATION
Standards Section – Room N642

Writer's Direct Line
232-6775

December 5, 2002

DESIGN MEMORANDUM No. 02-11
TECHNICAL ADVISORY

TO: **All Design, Operations, District Personnel, and Consultants**

FROM: */s/ Anthony L. Uremovich*
                      Anthony L. Uremovich
                      Acting Design Policy Engineer
                      Contracts and Construction Division

SUBJECT: **General Equations for Sag Vertical Curve Lengths at Undercrossings**

EFFECTIVE: **Immediately**

The general equations for sag vertical curve lengths at undercrossings shown in *Indiana Design Manual* Section 44-3.02(04) should be revised to read as follows:

1.   Sight distance greater than length of vertical curve (S > L)

$$L = 2S - \left\{ \frac{800 \cdot [C - 0.5(h_1 + h_2)]}{A} \right\}$$ (Equation 44-3.5)

2.   Sight distance less than or equal to length of vertical curve (S ≤ L)

$$L = \frac{AS^2}{800[C - 0.5(h_1 + h_2)]}$$ (Equation 44-3.6)

alu