



HORIZONTAL CURVE GEOMETRY SHEET

 HNTB NORTH CAROLINA, P.C. 243 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1524	PROJECT REFERENCE NO.	SHEET NO.
	U-5724	RR-2B
DATE: OCTOBER 13, 2022		R/W SHEET NO.
		RAILROAD DESIGN ENGINEER
		 10/13/2022

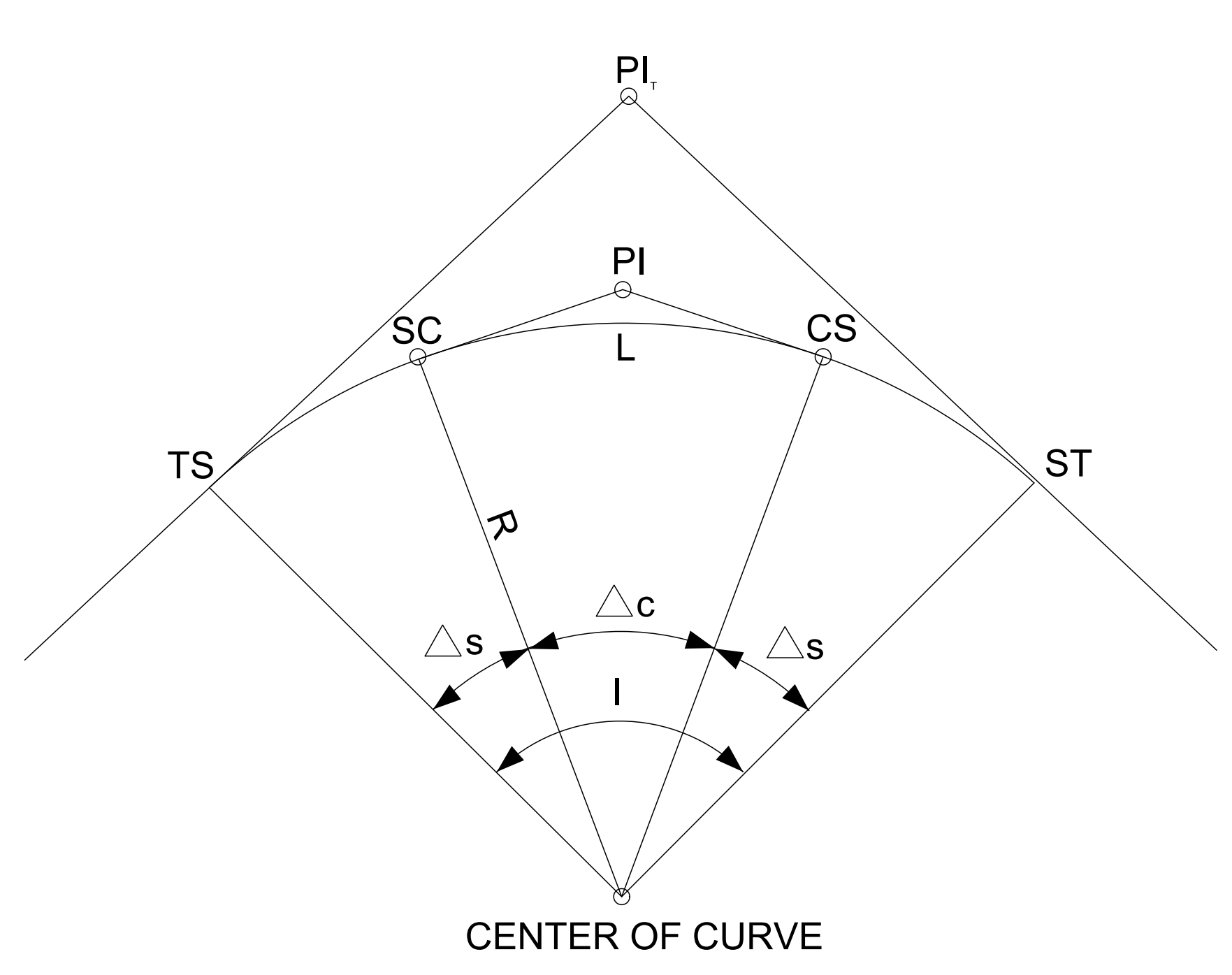


FIGURE A
CIRCULAR CURVE WITH SPIRAL TRANSITION CURVES

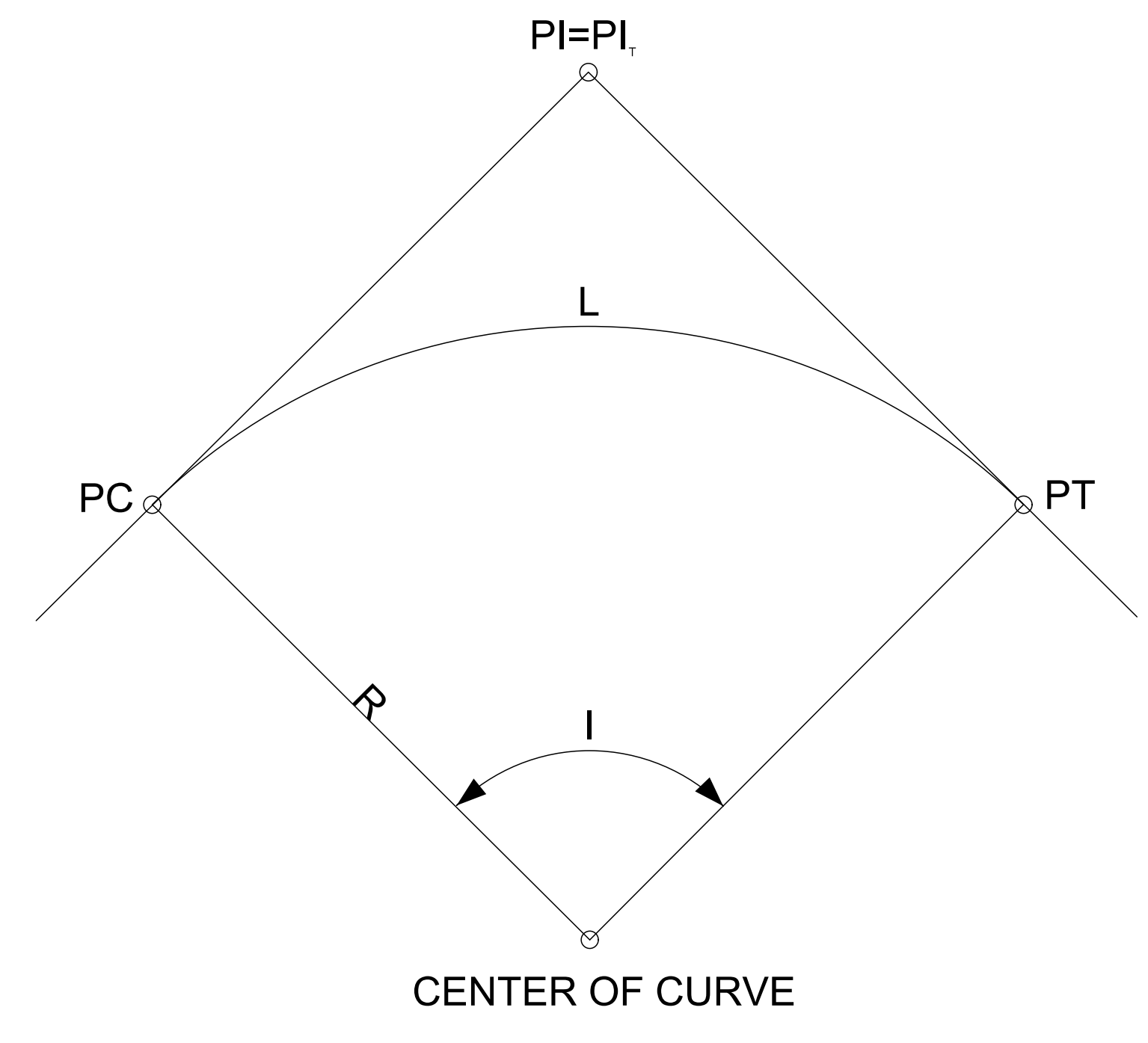


FIGURE B
SIMPLE CIRCULAR CURVE

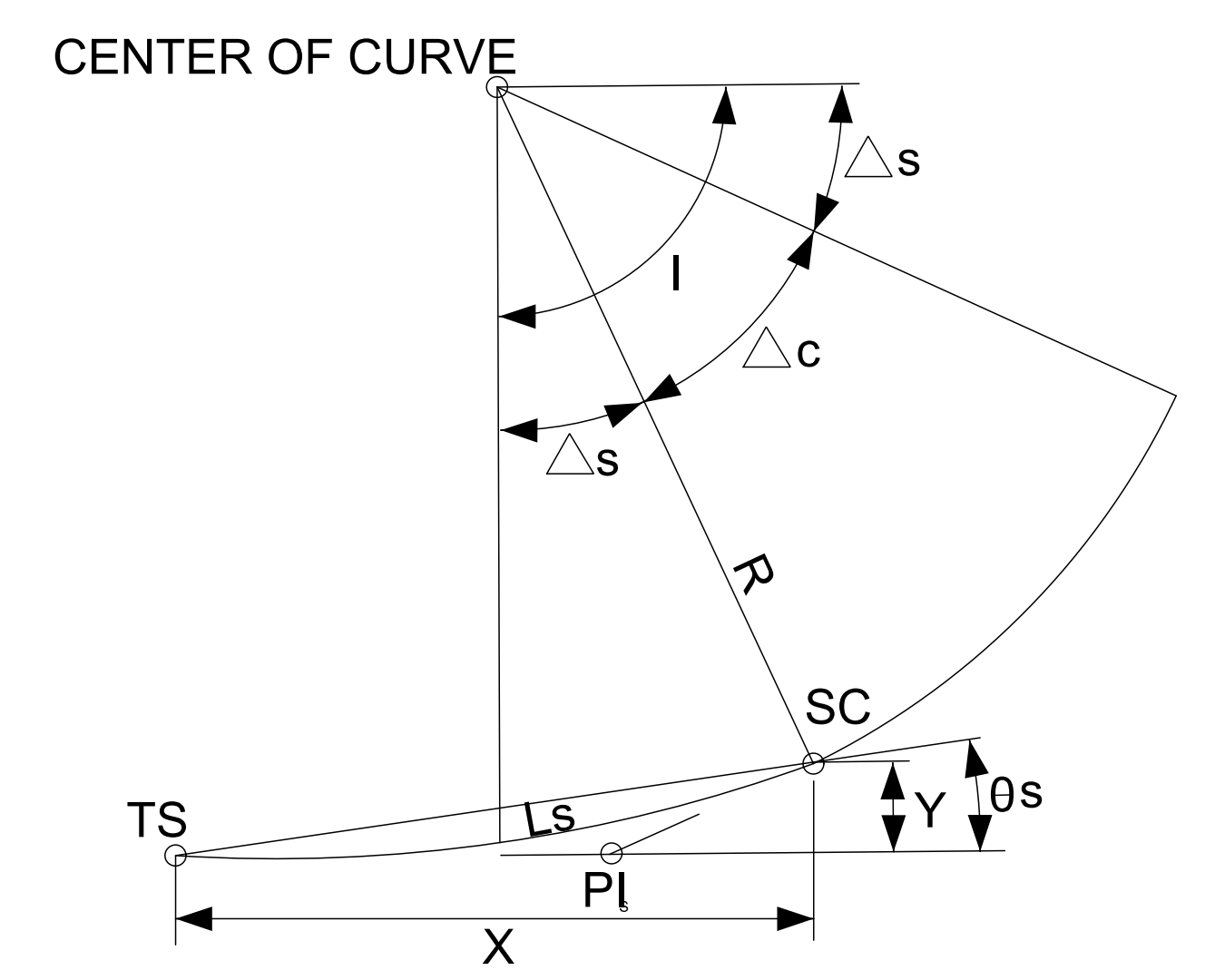


FIGURE C
SPIRAL TRANSITION CURVE

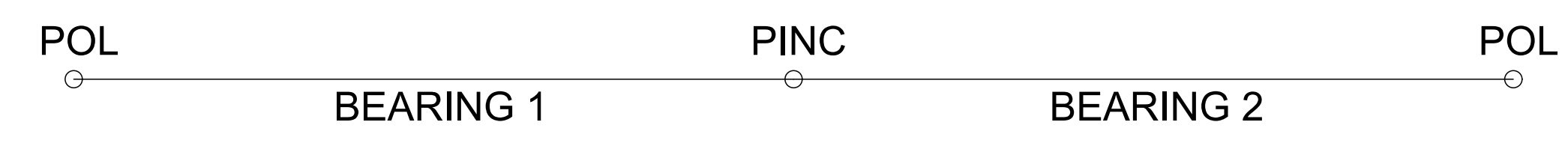


FIGURE D
DEFLECTION BETWEEN TANGENTS

- | | | | |
|----------------|-------------------------------------|-----------------|--|
| R | RADIUS OF CURVATURE | PI _c | POINT OF INTERSECTION (CIRCULAR CURVE) |
| D _c | DEGREE OF CURVATURE (CHORD DEFINED) | PI _i | POINT OF INTERSECTION (TANGENT) |
| L | LENGTH OF CURVE (CHORD DEFINED) | PI _s | POINT OF INTERSECTION (SPIRAL) |
| I | TOTAL INTERSECTION ANGLE | PC | TANGENT TO CIRCULAR CURVE |
| Δ _c | CURVE ANGLE | PT | CIRCULAR CURVE TO TANGENT |
| Δ _s | SPIRAL ANGLE | TS | TANGENT TO SPIRAL |
| θ _s | SPIRAL DEFLECTION | SC | SPIRAL TO CIRCULAR CURVE |
| L _s | LENGTH OF SPIRAL | CS | CIRCULAR CURVE TO SPIRAL |
| X | SPIRAL TANGENT LENGTH TO OFFSET | ST | SPIRAL TO TANGENT |
| Y | SPIRAL TANGENT OFFSET | PINC | POINT OF INTERSECTION NO CURVE |