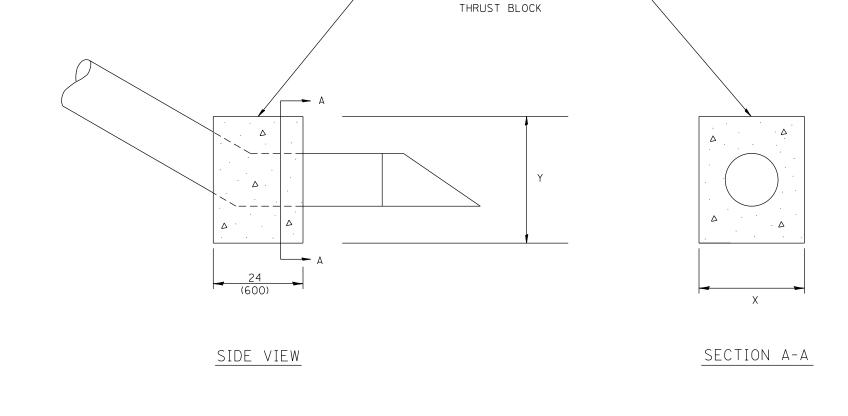
## DESIGNER NOTES: 1. A THRUST BLOCK SHALL BE INSTALLED WHEN THE DIFFERENCE BETWEEN THE UPSTREAM AND DOWNSTREAM INVERT ELEVATIONS EXCEEDS 36(900) AND GRADE EXCEEDS 10%. 2. USE WITH DISTRICT CADD STANDARDS: "DITCH CHECK, IF NEEDED, DO NOT USE WITH DISTRICT CADD STANDARDS: "SLOPE DRAIN DETAILS FOR BURIED PIPE" "SLOPE DRAIN DETAILS FOR EXPOSED PIPE".

## CONCRETE THRUST BLOCK BILL OF MATERIALS

_				
	PIPE SIZE	X	Y	CLASS SI CONCRETE cu. yd. (m³)
	12(300)	24(600)	24(600)	0.2(0.2)
	15(375)	27(675)	27(675)	0.3(0.2)
	18(450)	30(750)	30(750)	0.3(0.2)
	24(600)	36(900)	36(900)	0.4(0.3)
	30(750)	3′-6′′ (1.07m)	3′-6′′ (1.07m)	0.8(0.6)

The contract unit price each for CONCRETE THRUST BLOCK shall include the cost of excavation, CLASS SI CONCRETE and compacted backfill.



Cast in place CLASS SI CONCRETE -

QUANTITIES								
CALC. BY: CHECKED BY:	DATE:							
QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION								

DOCUMENTATION SECTION

All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97 RENUM. J-10.04, NEW REVISION BOX, ADDED QUANTITY T.P.			F.	A. SECTION	COUNTY	TOTAL SHEET
CALCULATION BOX	STATE OF ILLINOIS	CONCRETE THRUST BLOCKS				SHEETS NO.
10-16-06 REVISED TO 2007 SPEC. M.A.	DEPARTMENT OF TRANSPORTATION				CONTRACT	Γ NO.
		NOT TO SCALE CADD STD. (	609001-D4 🕝	ED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT	