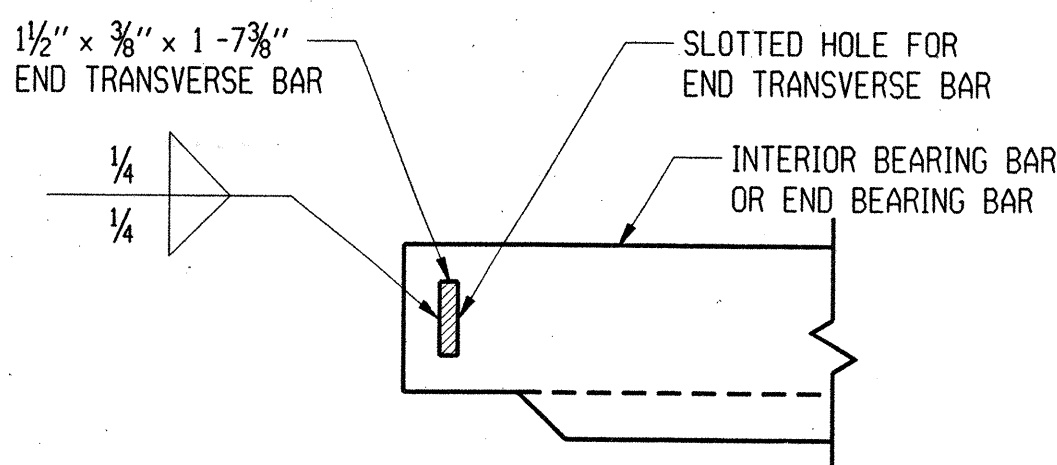
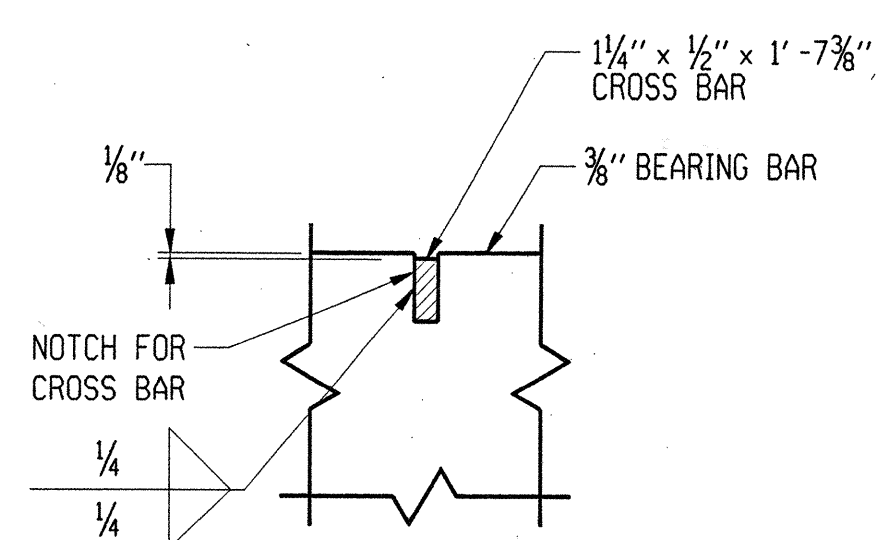


NOTE:
5/8" DIA. ROUND BAR SHALL CONTACT BEARING BAR AT BOTTOM AND BE FLUSH AT TOP.

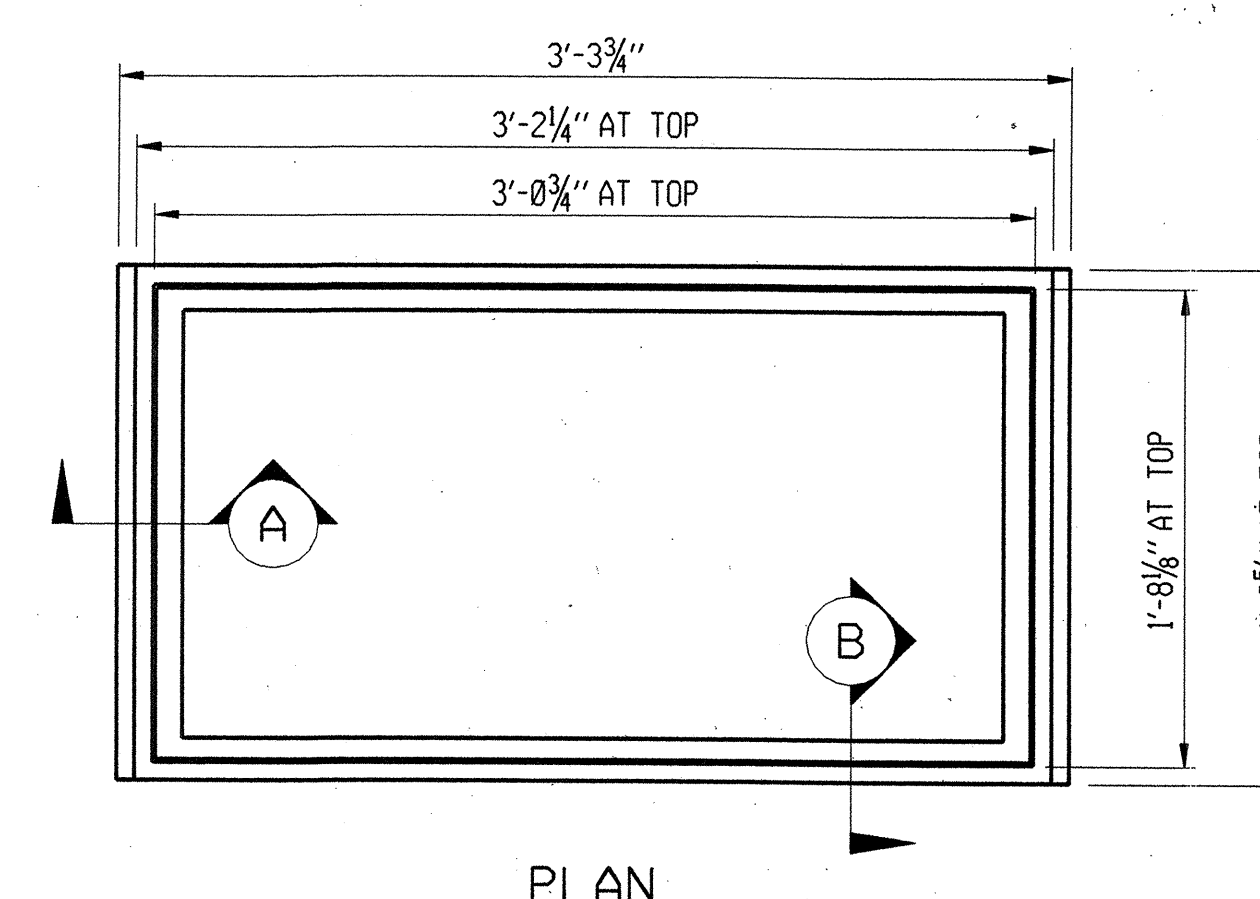
ROUND BAR ATTACHMENT
CATCH BASIN GRATE
TYPE A



END TRANSVERSE BAR ATTACHMENT
CATCH BASIN GRATE
TYPE A & B



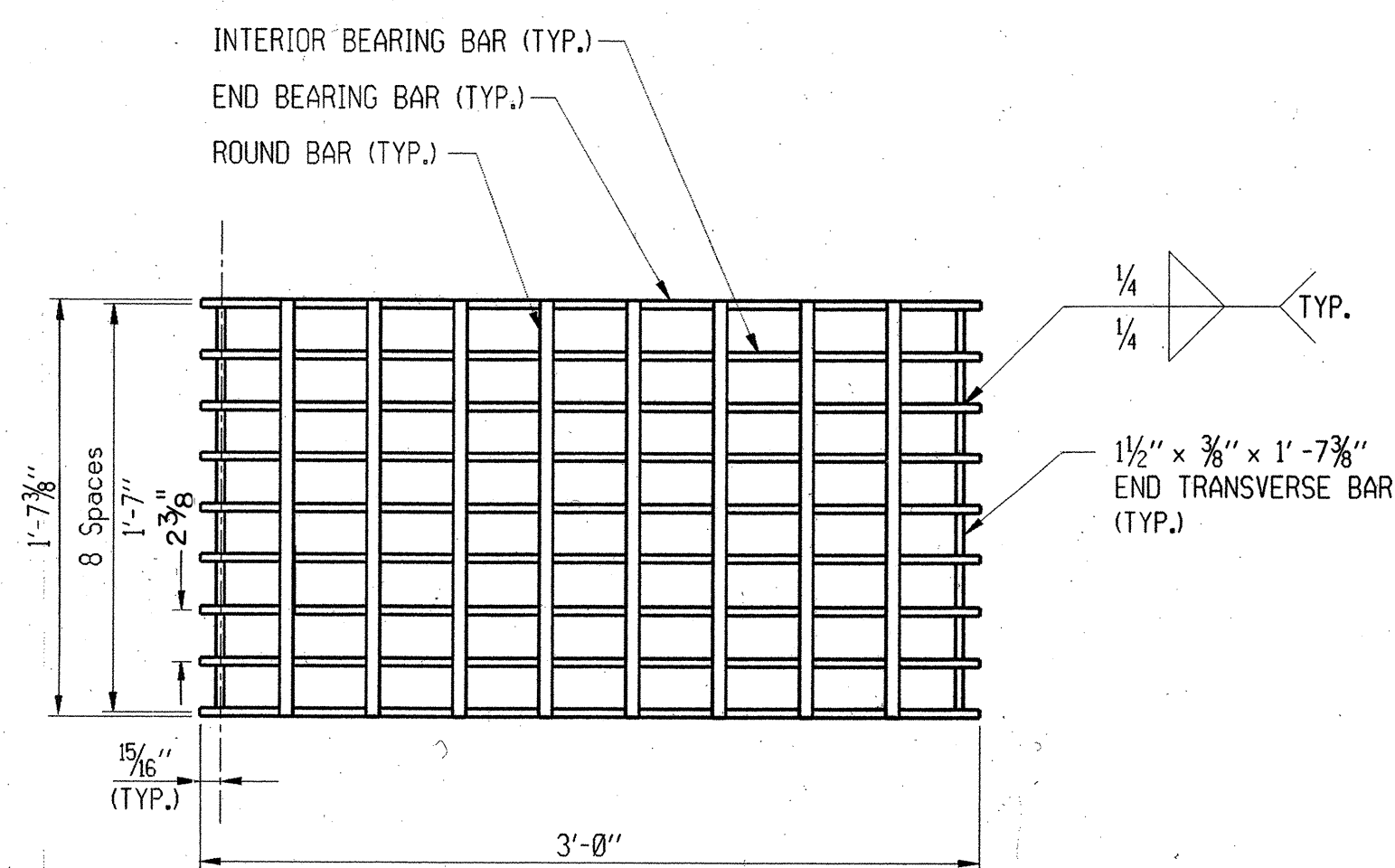
CROSS BAR ATTACHMENT
CATCH BASIN GRATE
TYPE B



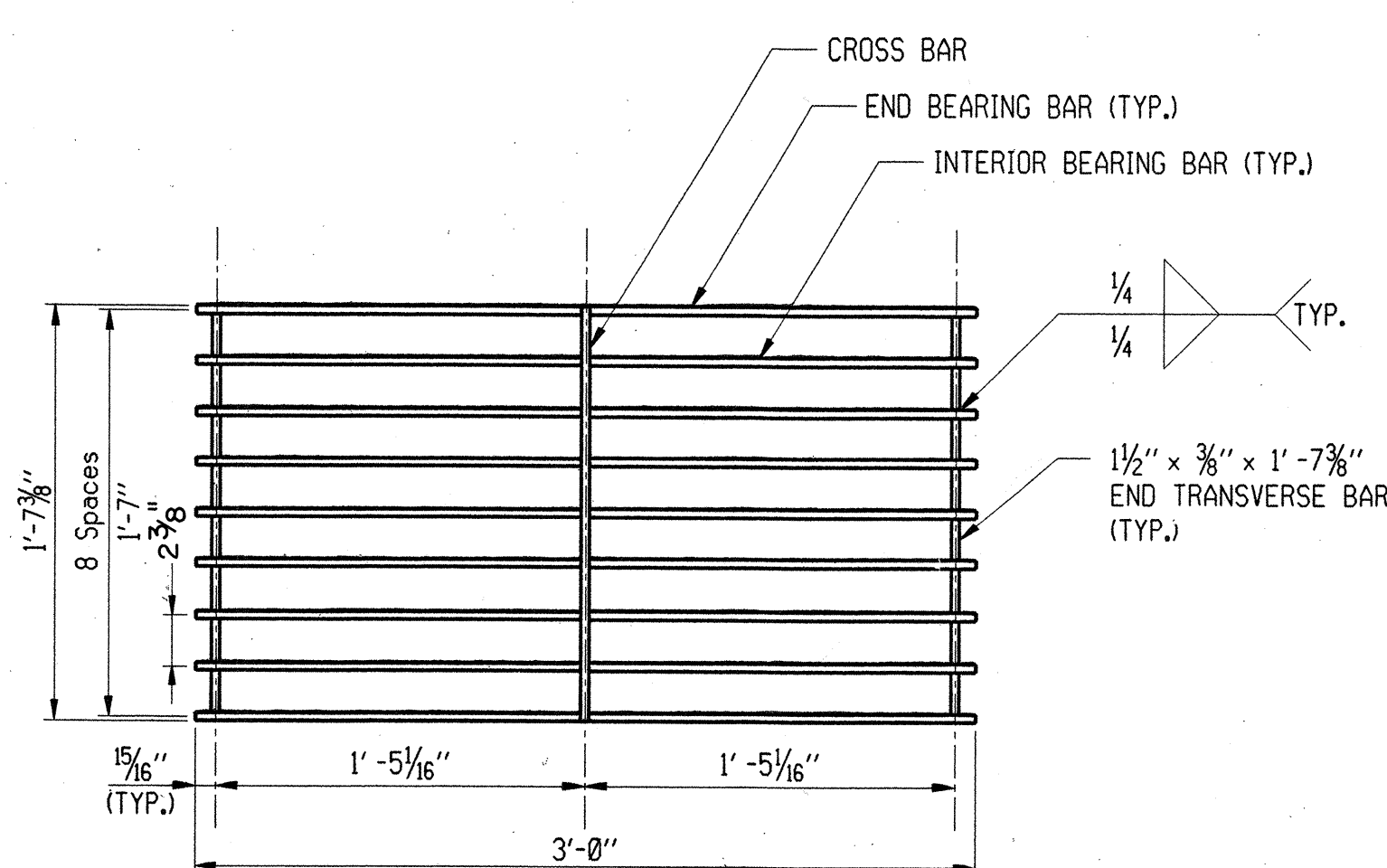
PLAN

GENERAL NOTES:

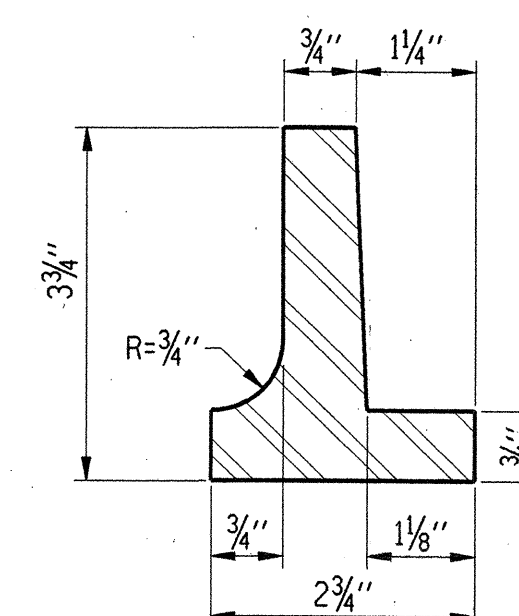
1. STEEL OR CAST IRON SHALL BE USED FOR FRAMES. STEEL SHALL BE USED FOR TYPE "A" & "B" GRATES.
2. TYPE "A" GRATES SHALL BE USED ON ALL ROADWAYS WHERE BICYCLE TRAFFIC IS ALLOWED OR AS DIRECTED BY THE ENGINEER.
3. TYPE "B" GRATES SHALL BE USED ON ALL LIMITED ACCESS HIGHWAYS, RAMPS AND WHERE BICYCLE TRAFFIC IS NOT ALLOWED OR AS DIRECTED BY THE ENGINEER.
4. STEEL FRAMES AND GRATES SHALL BE GALVANIZED IN ACCORDANCE WITH ARTICLE M.06.03.
5. DO NOT GALVANIZE CAST IRON FRAMES.
6. DIMENSIONAL TOLERANCES SHALL BE ±1/16".
7. ALL STEEL BARS SHALL BE WELDED AT ALL INTERSECTIONS.
8. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF AWS STRUCTURAL WELDING CODE, D1.1.



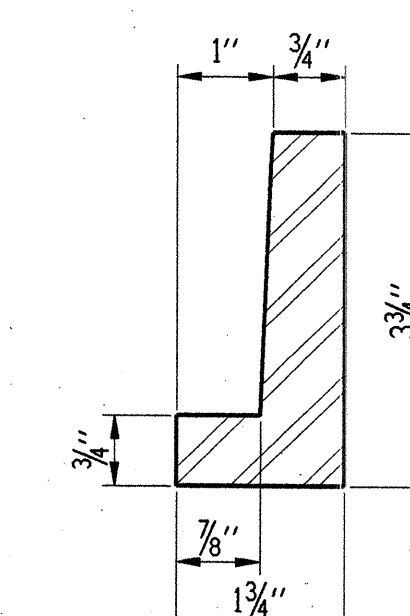
PLAN



PLAN

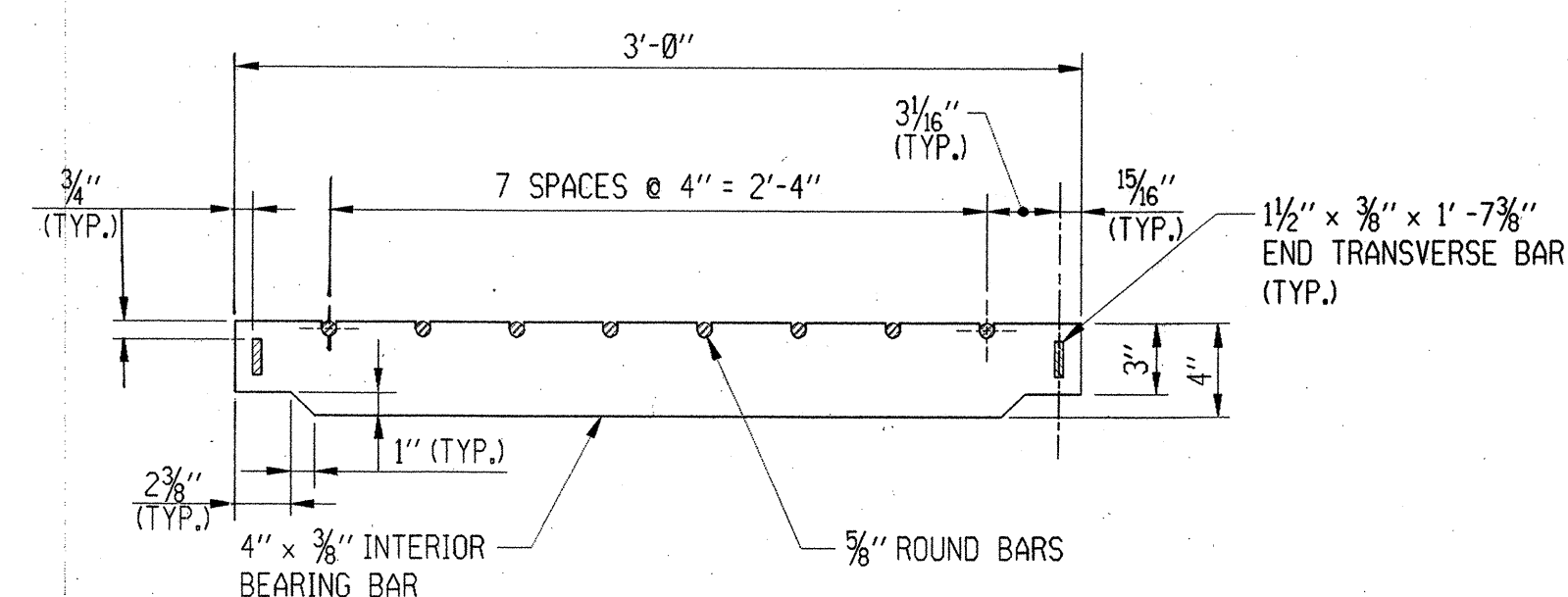


SECTION A

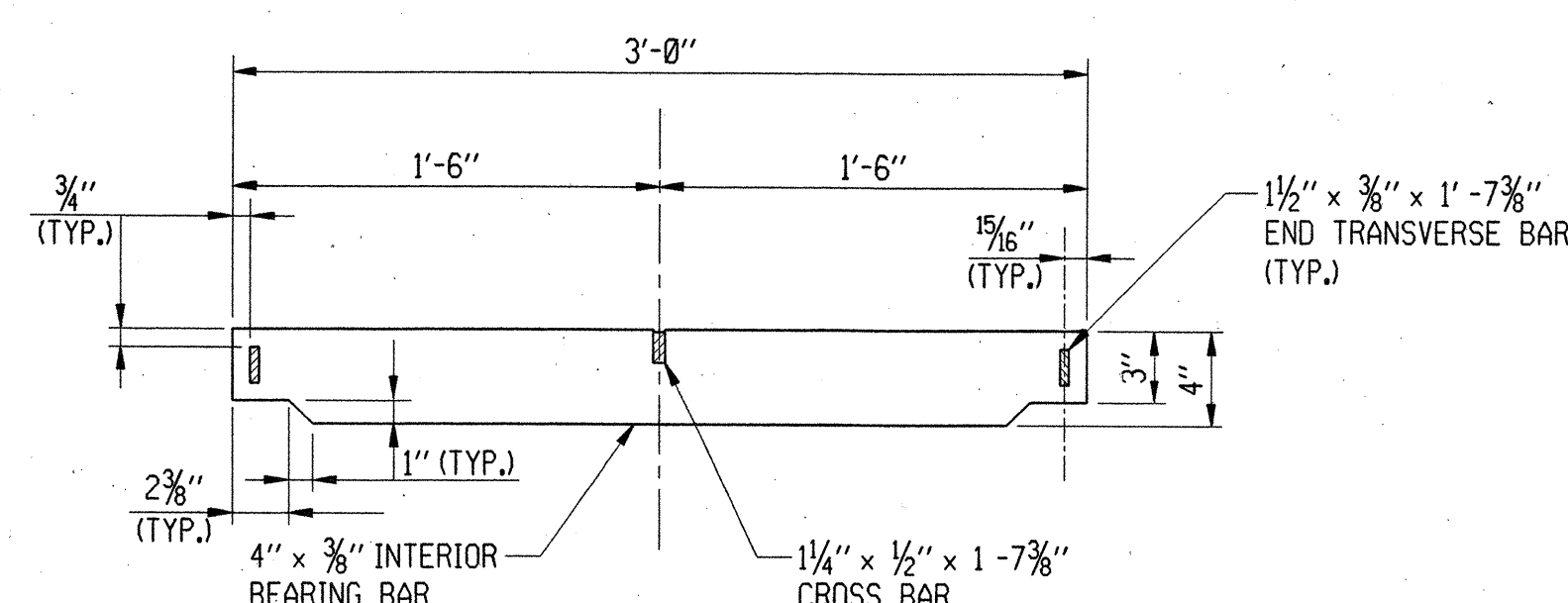


SECTION B

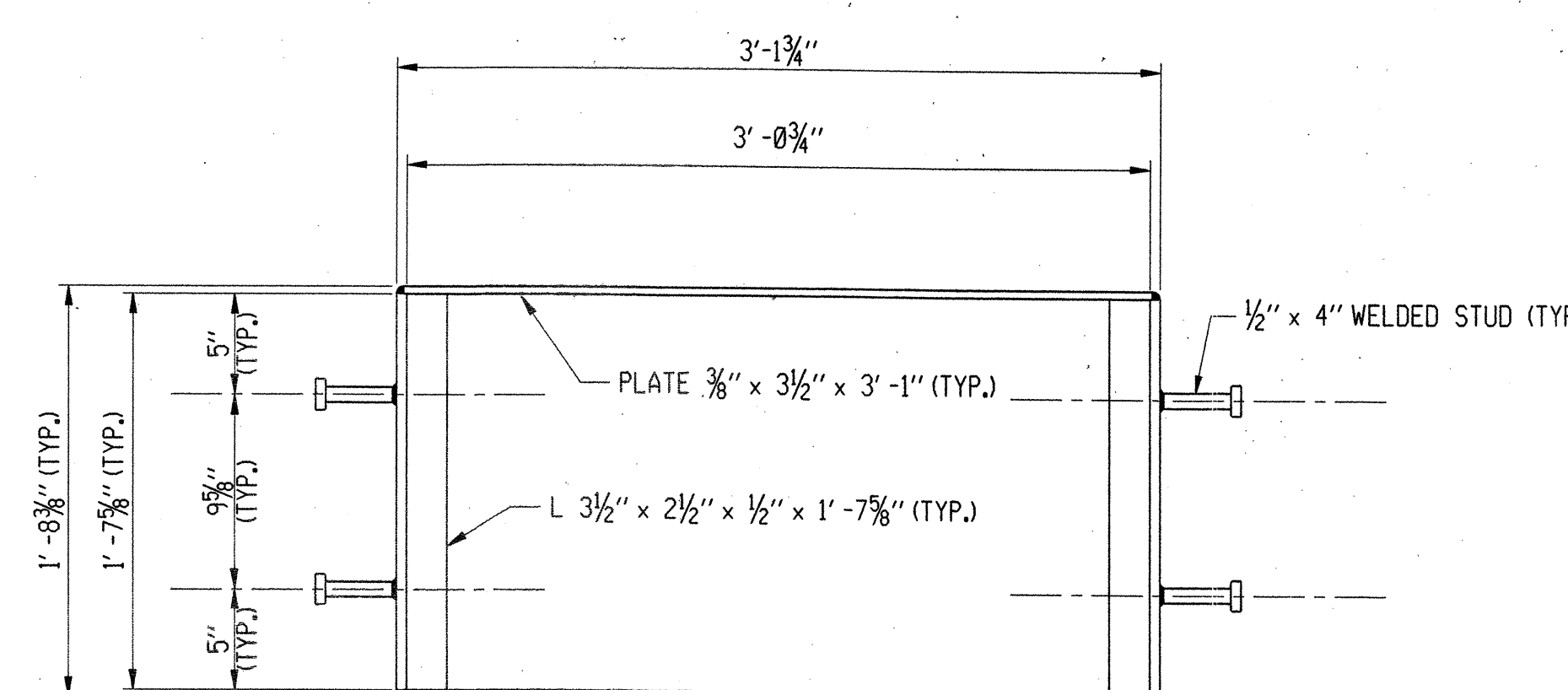
CAST IRON FRAME ALTERNATE



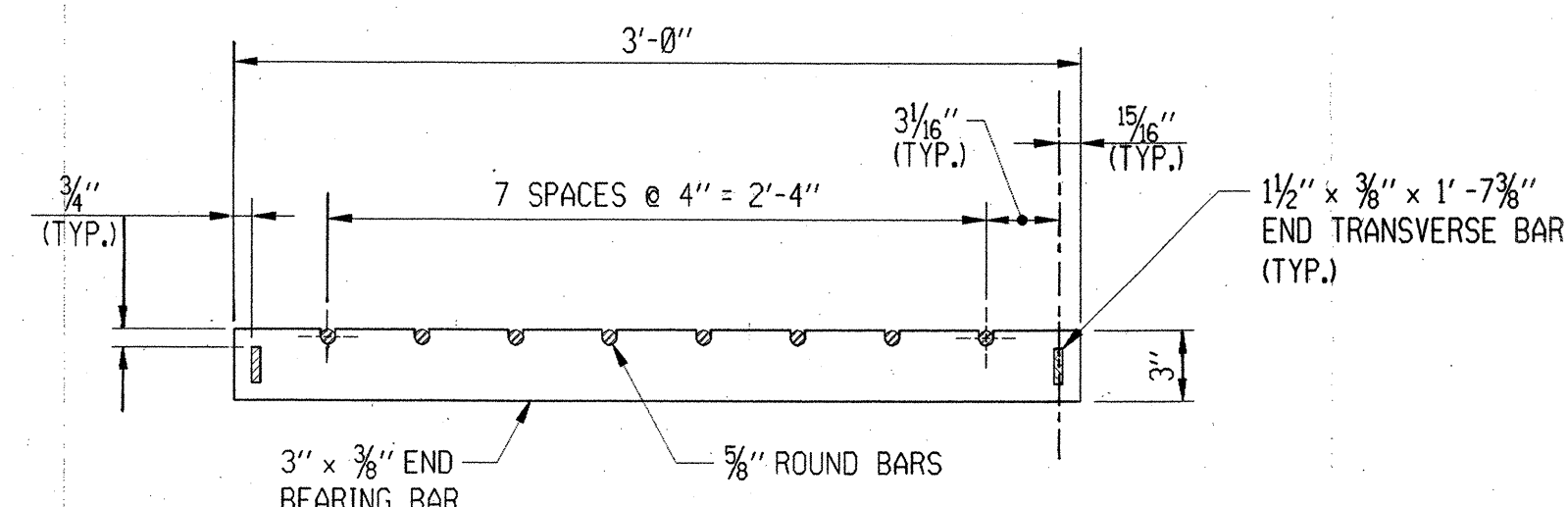
ELEVATION - INTERIOR BEARING BAR



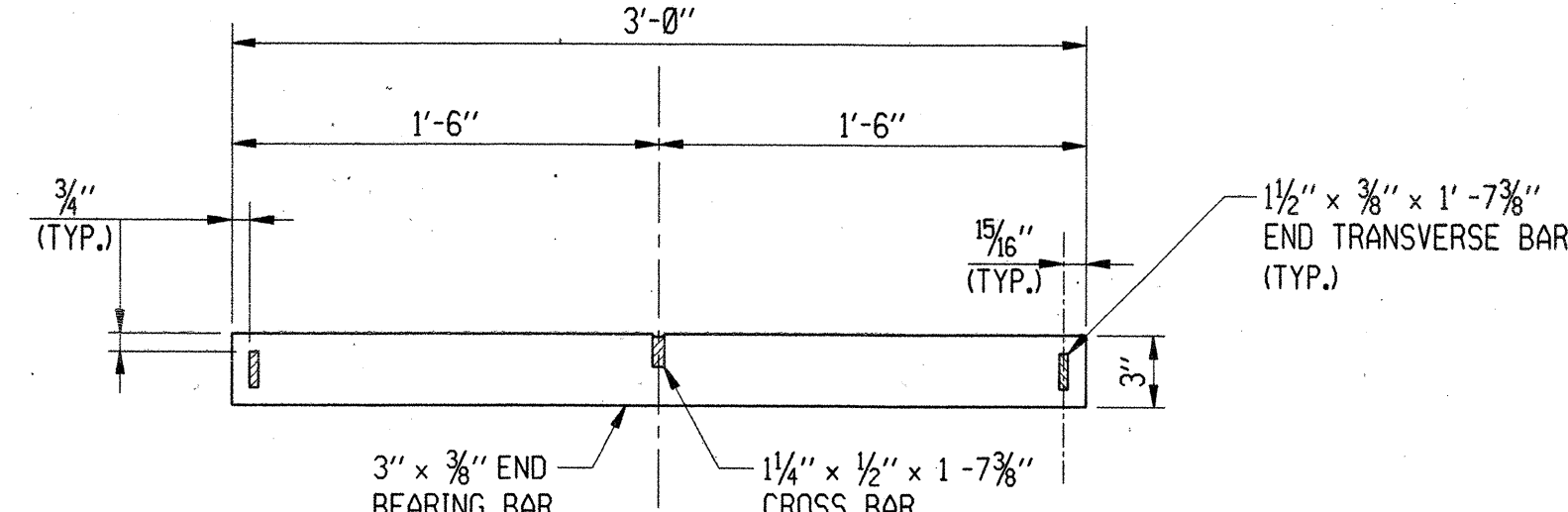
ELEVATION - INTERIOR BEARING BAR



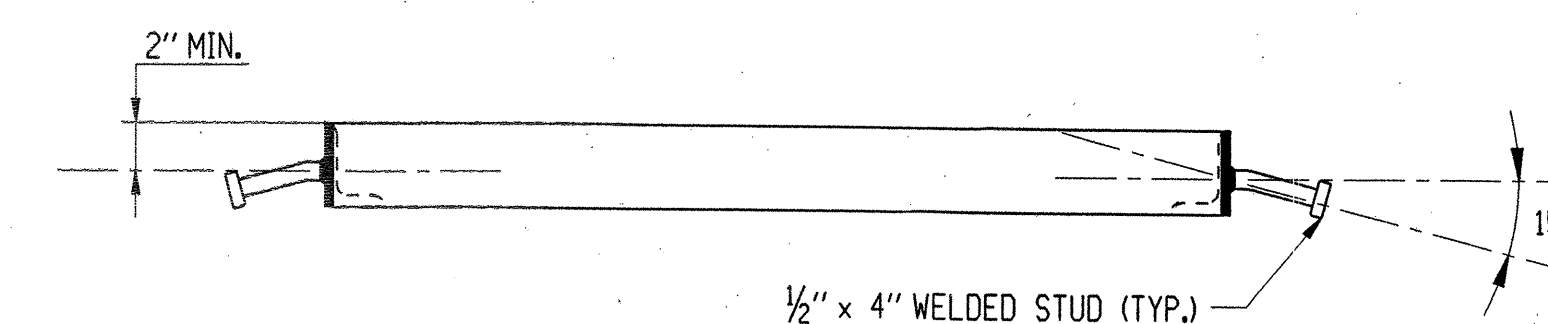
PLAN



ELEVATION - END BEARING BAR
CATCH BASIN GRATE TYPE A



ELEVATION - END BEARING BAR
CATCH BASIN GRATE TYPE B



WELDED STUD ANCHOR DETAILS
STEEL FRAME

REVISION NO. DATE DESCRIPTION	SUBMITTED BY: TIMOTHY M. WILSON TRANSPORTATION PRINCIPAL ENGINEER	DATE: 12/01/03	CADD FILE: 507k.dgn			DRAWING TITLE: CATCH BASIN FRAMES AND GRATES	STANDARD NO.: 507-K
1 1F-404 REVISE DIMENSION	APPROVAL REC. [Signature] MANAGER OF DESIGN	DATE: 1-05-04	PLOTTED DATE: 05-Jan-04				
	APPROVED: [Signature] TRANSPORTATION ENGINEERING ADMINISTRATOR	DATE: 6/20/04	SCALE: NOT TO SCALE				
	F.H.W.A. APPROVAL: [Signature] DIVISION ADMINISTRATOR	DATE: 1-14-04					