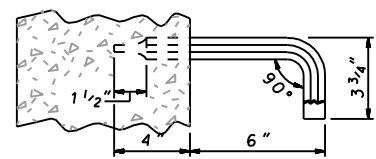
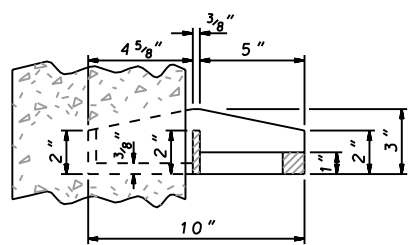


① PLAN

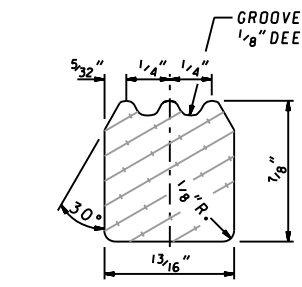
② PLAN



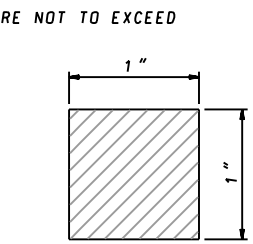
SECTION A-A



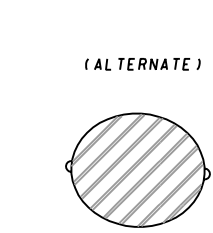
SECTION C-C



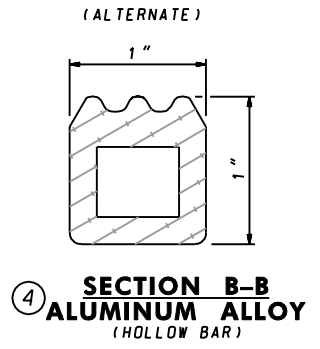
① SECTION B-B ALUMINUM ALLOY (SOLID BAR)



② SECTION D-D CAST IRON



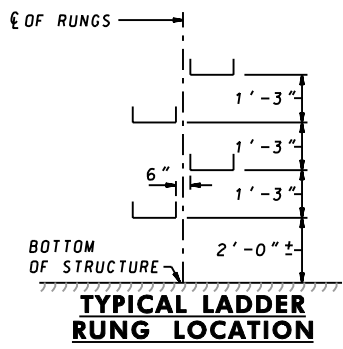
③ SECTION B-B STEEL



④ SECTION B-B ALUMINUM ALLOY (HOLLOW BAR)

NOTES

- METAL LADDER RUNGS ARE TO BE USED IN INLETS, MANHOLES, AND JUNCTION BOXES OVER THREE FEET IN DEPTH OR AS DIRECTED BY THE ENGINEER. USED EITHER WITH BRICK OR CONCRETE CONSTRUCTION. (WHERE BRICK CONSTRUCTION IS EMPLOYED, THE MORTAR JOINTS SHALL BE ADJUSTED TO ACCOMMODATE LADDER RUNGS.) METAL LADDER RUNGS MAY BE COMPRISED OF ONE OF THE FOLLOWING.
- ①&④ ALUMINUM ALLOY- SHALL CONFORM TO A.S.T.M. DESIGNATION B 221 ALLOY 6061-T6. THAT PORTION EMBEDDED IN THE STRUCTURE SHALL BE COATED WITH ZINC CHROMATE OR APPROVED EQUIVALENT COATING.
- ② CAST IRON- SHALL CONFORM TO A.S.T.M. A- 48 CLASS 30 B.
- ③ STEEL- SHALL CONFORM TO A.S.T.M. DESIGNATION A-615 GRADE 40. GALVANIZED AFTER FABRICATION AS PER A.S.T.M. DESIGNATION A-153.



TYPICAL LADDER RUNG LOCATION

SPECIFICATION	CATEGORY CODE ITEMS	
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 10-27-70	APPROVAL 11-19-70
	REVISED 10-1-01	REVISED 2-8-83
	REVISED	REVISED
	REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
STANDARD METAL LADDER RUNGS
MISCELLANEOUS STRUCTURES
STANDARD NO. MD 383.91