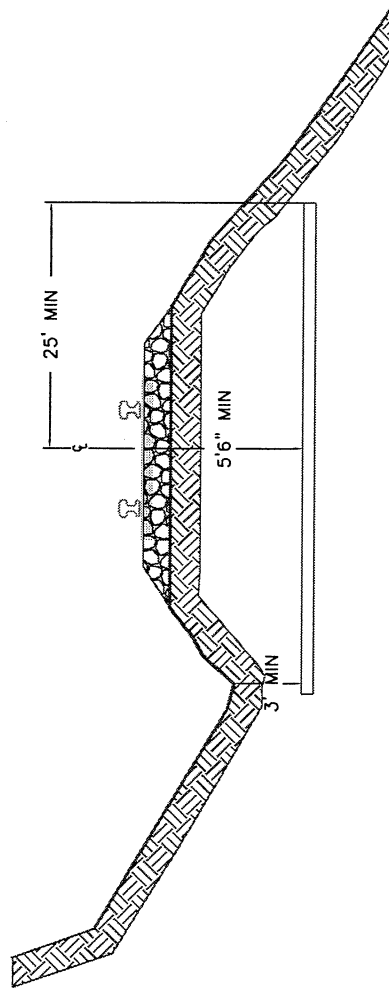


**CROSS-SECTION OF CASING
UNDER RAIL ROAD TRACKS**



PIPE LINES SHALL BE INSTALLED UNDER TRACKS BY BORING OR JACKING IF PRACTICAL. BORING EXCAVATION SHALL NOT EXCEED OUTSIDE DIAMETER OF PIPE.

PIPE LINES SHALL BE LOCATED PREFERABLY AT RIGHT ANGLES TO THE TRACK, BUT NOT LESS THAN 45'. THE LINE(S) SHALL NOT BE PLACED WITHIN CULVERTS, UNDER RAILWAY BRIDGES OR CLOSER THAN 45' TO ANY PORTION OF A RAILWAY BRIDGE.

PIPE LINES LAID LONGITUDINALLY ON THE RAIL ROAD RIGHT OF WAY SHALL BE BURIED NOT LESS THAN 5' FROM THE GROUND SURFACE TO TOP OF PIPE.

PIPE LINES CARRYING NON-FLAMMABLE SUBSTANCES INCLUDES WATER OR ANY OTHER SUBSTANCE THAT MIGHT CAUSE DAMAGE IF ESCAPING ON OR IN THE VICINITY OF RAIL WAY PROPERTY. SEWERS AND DRAINS DO NOT REQUIRE CASING PIPE UNLESS CONDITIONS EXIST WHICH WILL ENDANGER SECURITY OF THE TRACK, BUT SHOULD BE OF SUFFICIENT STRENGTH TO HANDLE E-80 RAILWAY LOADING.

INSIDE DIAMETER OF CASING PIPE SHALL EXCEED OUTSIDE DIAMETER OF CARRIER PIPE JOINTS OR COUPLINGS BY 2" FOR CARRIER PIPE LESS THAN 6" IN DIAMETER, AND 4" FOR CARRIER PIPE OVER 6" IN DIAMETER.

MINIMUM WALL THICKNESS OF STEEL CARRIER PIPE LESS THAN 14" DIAMETER IS 0.188 INCHES, AND MUST HAVE A MINIMUM YIELD STRESS OF 35,000 PSI.

CONSTRUCTION OF PIPE LINES ON RAIL WAY RIGHT OF WAY

WATER STANDARD DETAIL

**SNOQUALMIE PASS
UTILITY DISTRICT**

FILE	SCALE	DATE
SPUDTW22	NTS	7/22/04