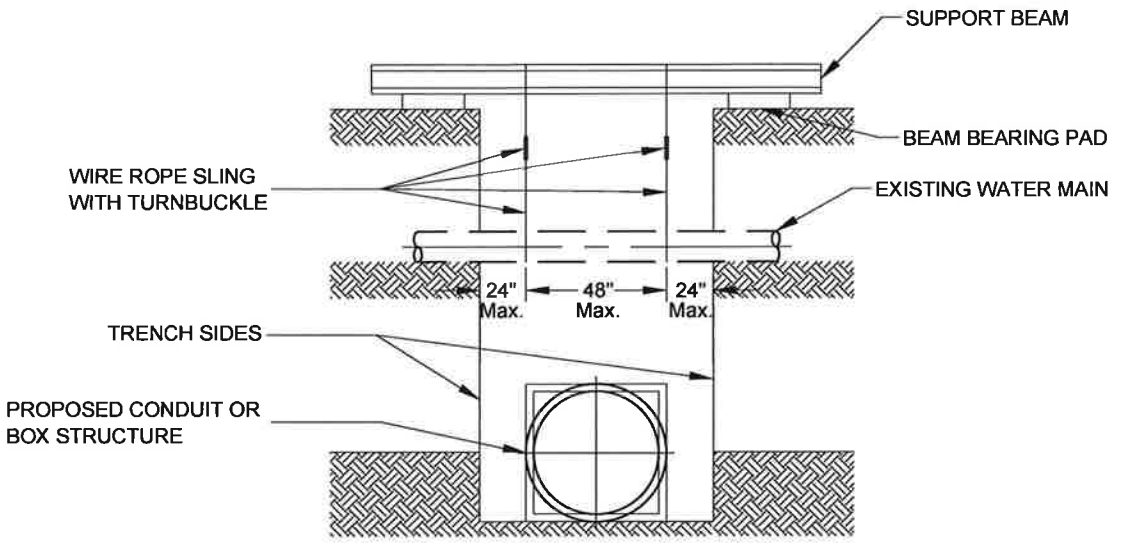
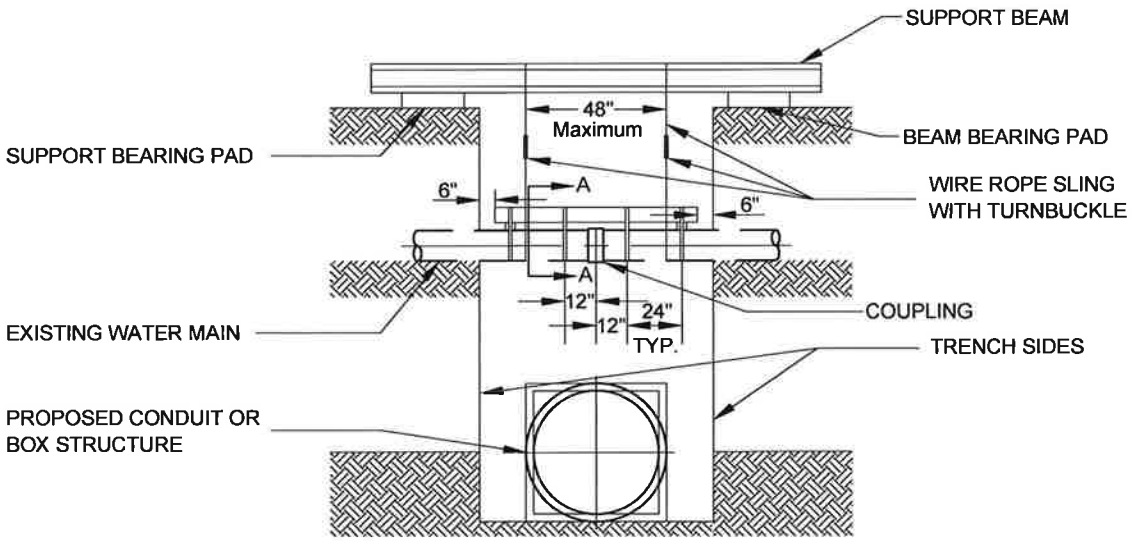


DUCTILE OR CAST IRON & STEEL CYLINDER CONCRETE WATER MAINS

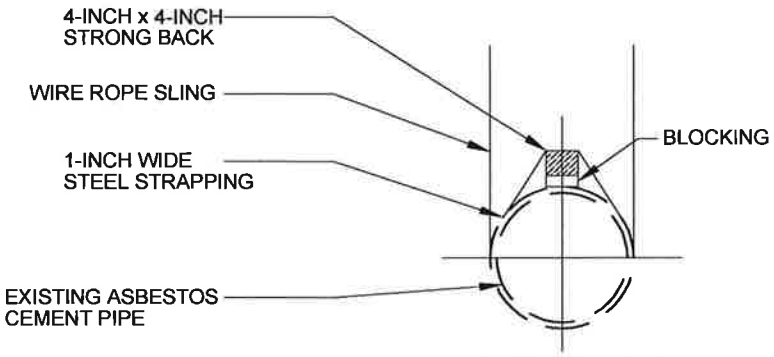


ASBESTOS CEMENT WATER MAIN TEMPORARY SUPPORT

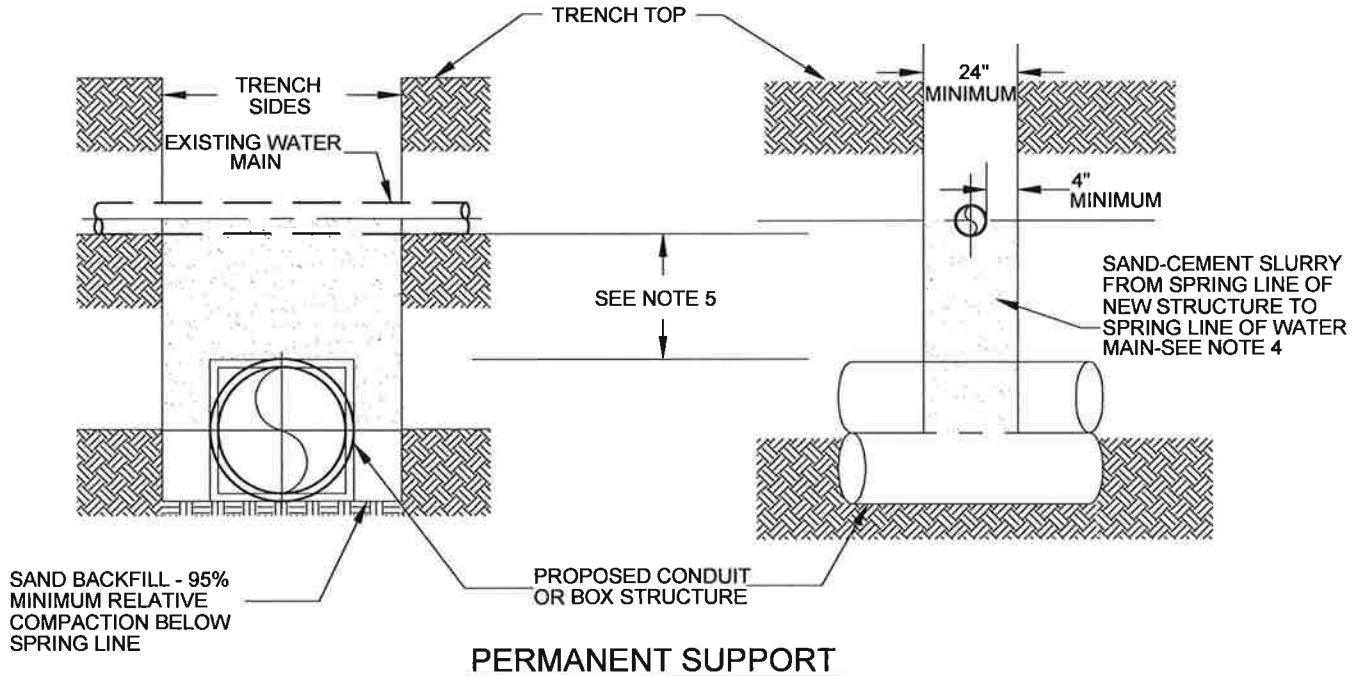
NOTES:

1. IF MORE THAN ONE COUPLING IS EXPOSED, ADEQUATE LATERAL RESTRAINT SHALL BE DESIGNED AND SUBMITTED FOR APPROVAL

WATER MAIN SUPPORTS		WDS - 123
LONG BEACH WATER DEPARTMENT	RECOMMEND DIVISION ENGINEER	APPROVED DIRECTOR OF ENGINEERING
	DATE: 12/2/14	SCALE: N.T.S.
		SHEET 1 OF 2



SECTION A-A
(SHEET 1)



PERMANENT SUPPORT

NOTES:

1. PROVIDE TEMPORARY AND PERMANENT SUPPORTS FOR ASBESTOS CEMENT WATER MAINS WHEN TRENCH WIDTH EXCEEDS SIX (6) FEET AND FOR STEEL CYLINDER CONCRETE PIPE WHEN TRENCH WIDTH EXCEEDS NINE (9) FEET.
2. DRAWINGS OF TEMPORARY SUPPORTS SHOWING SIZE OF BEAM, SIZE AND TYPE OF BEAM BEARING PAD, CABLE SIZE, WIDTH OF TRENCH AT WATER MAIN AND SPAN OF SUPPORTING BEAM SHALL BE SUBMITTED FOR WATER DEPARTMENT APPROVAL PRIOR TO EXCAVATION.
3. WIRE ROPE SLINGS FOR TEMPORARY SUPPORTS SHALL BE INSTALLED AND TIGHTENED SUFFICIENTLY TO TAKE THE FULL LOAD OF PIPE PRIOR TO REMOVING SUPPORTING SOIL FROM WATER MAINS. SUPPORTING BEAMS SHALL HAVE ADEQUATE BEARING ON A FIRM FOUNDATION.
4. PERMANENT SUPPORTS SHALL BE CONSTRUCTED OF SAND-CEMENT SLURRY CONSISTING OF PORTLAND CEMENT AND WASHED CONCRETE SAND. SLURRY SHALL CONTAIN TWO (2) SACKS OF CEMENT PER CUBIC YARD AND SHALL BE MACHINE MIXED.
5. PERMANENT SUPPORTS SHALL BE CONSTRUCTED IN TWO (2) POURS IF THE DISTANCE BETWEEN THE BOTTOM OF THE WATER MAIN AND TOP OF THE NEW STRUCTURE IS GREATER THAN FOUR (4) FEET THE FIRST POUR SHALL BE TO A POINT ONE (1) FOOT BELOW THE BOTTOM OF THE WATER MAIN.

WATER MAIN SUPPORTS		WDS - 123
LONG BEACH WATER DEPARTMENT	RECOMMEND DIVISION ENGINEER	APPROVED DIRECTOR OF ENGINEERING
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