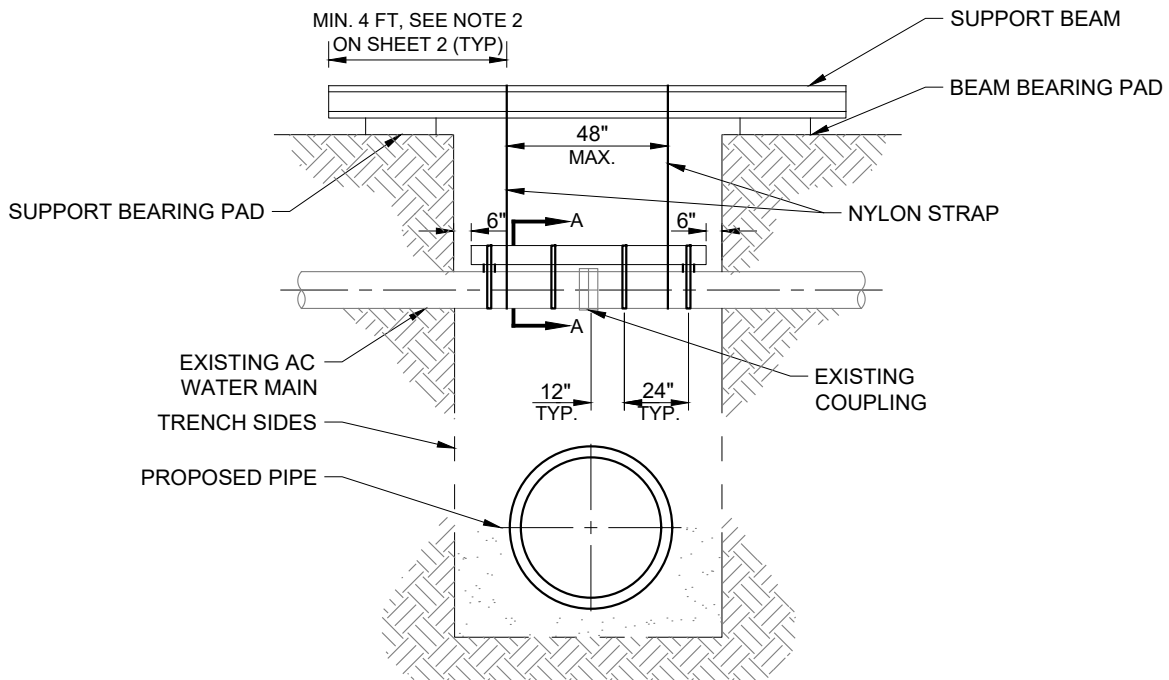


**DUCTILE OR CAST IRON & STEEL CYLINDER
CONCRETE WATER MAINS**



**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.

SUPPORTS FOR EXISTING WATER MAIN

WDS - 123



Long Beach Water
Exceptional Water • Exceptional Service

RECOMMENDED

Robert Johnson

DIRECTOR OF ENGINEERING

APPROVED

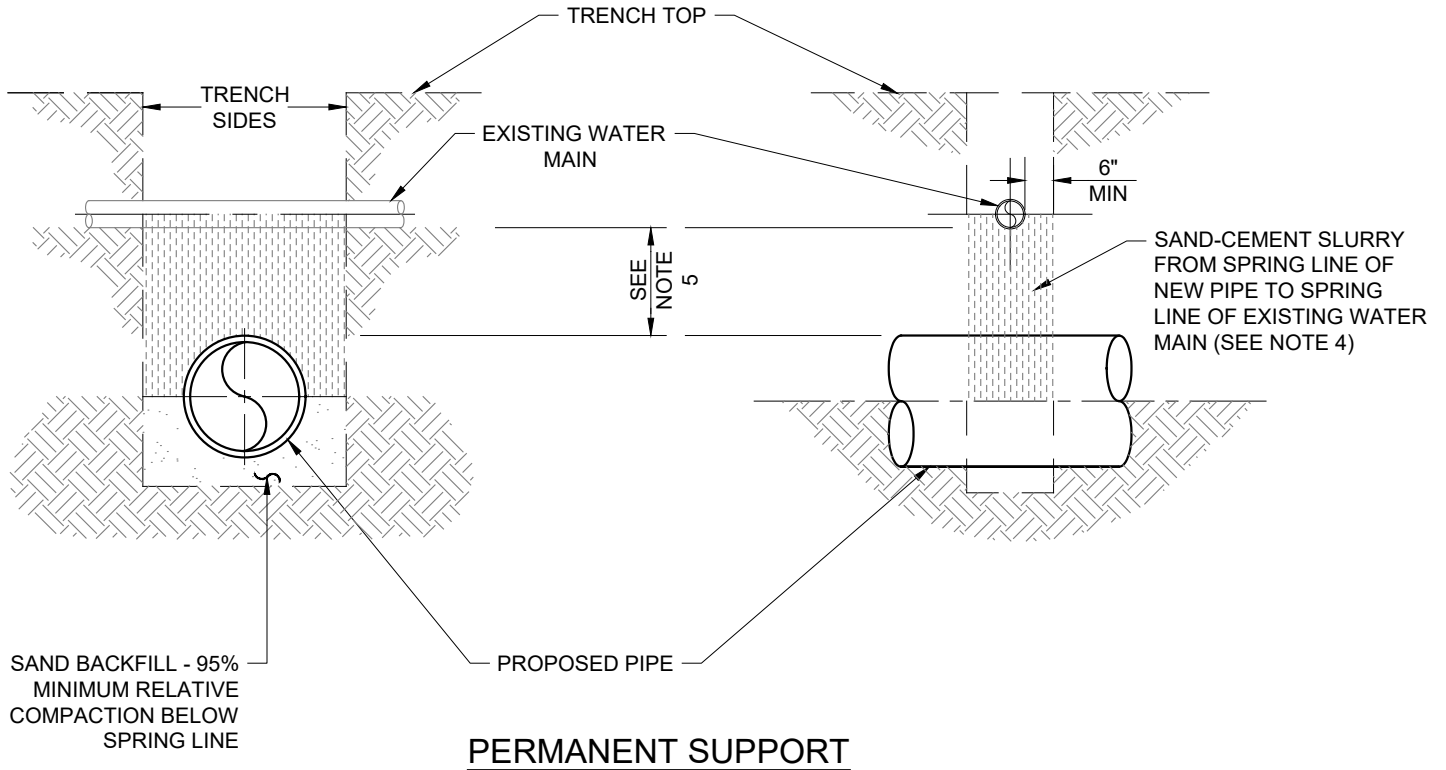
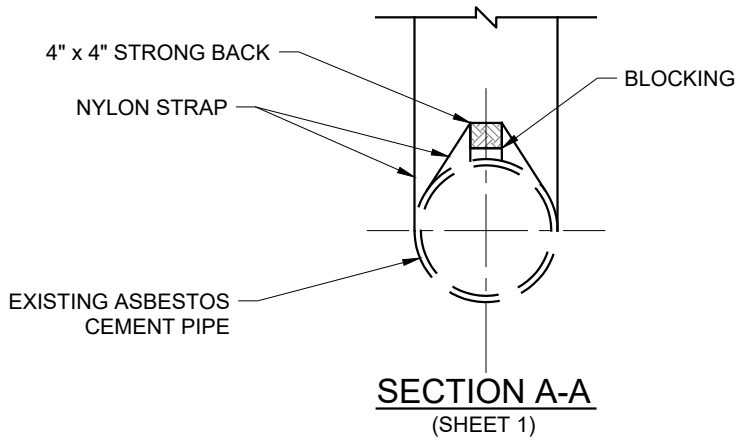
Shirley Padgett

DEPUTY GENERAL MANAGER / CHIEF ENGINEER

DATE: 02-2020

SCALE: N.T.S.

SHEET 1 OF 2



NOTES:

1. PROVIDE TEMPORARY AND PERMANENT SUPPORTS FOR ASBESTOS CEMENT WATER MAINS WHEN TRENCH WIDTH EXCEEDS 6' AND FOR STEEL CYLINDER CONCRETE PIPE WHEN TRENCH WIDTH EXCEEDS 9'.
2. DRAWINGS OF TEMPORARY SUPPORTS SHOWING SIZE OF BEAM, SIZE AND TYPE OF BEAM BEARING PAD, STRAP SIZE, WIDTH OF TRENCH AT WATER MAIN AND SPAN OF SUPPORTING BEAM SHALL BE SUBMITTED FOR LBWD APPROVAL PRIOR TO EXCAVATION.
3. WIRE ROPE SLINGS OR NYLON STRAPS 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 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE MACHINE MIXED.
5. PERMANENT SUPPORTS SHALL BE CONSTRUCTED IN TWO POURS IF THE DISTANCE BETWEEN THE BOTTOM OF THE EXISTING WATER MAIN AND TOP OF THE NEW PIPE IS GREATER THAN 4'. THE FIRST POUR SHALL BE TO A POINT 1' BELOW THE BOTTOM OF THE EXISTING WATER MAIN.

SUPPORTS FOR EXISTING WATER MAIN

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SHEET 2 OF 2