

STANDARD SPECIFICATIONS

AND

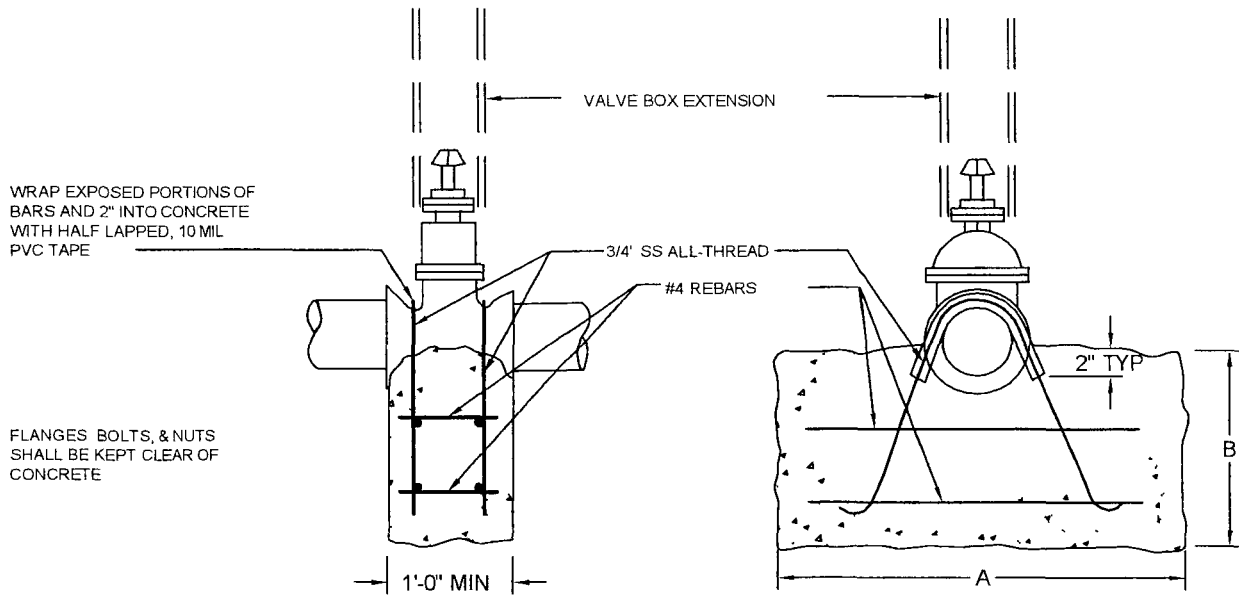
CONSTRUCTION DETAILS

AUGUST 2006

NORTH COAST COUNTY WATER DISTRICT
2400 FRANCISCO BOULEVARD, POST OFFICE BOX 1039
PACIFICA, CALIFORNIA 94044

NCCWD STANDARD DETAILS

Detail	Title
NC-01	RESIDENTIAL SERVICE CONNECTION (NEW CONSTRUCTION)
NC-02	RESIDENTIAL SERVICE WITH FIRE SERVICE UPGRADE
NC-03	STANDARD SERVICE SADDLE REQUIREMENTS
NC-04	STANDARD SERVICE RECONNECTION
NC-05	DOUBLE DETECTOR CHECK BACKFLOW UNIT FOR A FIRE SERVICE CONNECTION
NC-06	¾" – 2" REDUCED PRESSURE BACKFLOW PREVENTER
NC-07	STANDARD UNDERGROUND PRV VAULT
NC-08	4X2 PRESSURE REDUCING STATION INLET PRESSURES OF 250 PSI OR LESS
NC-09	6X4X2 PRESSURE REDUCING STATION
NC-10	8X4 PRESSURE REDUCING STATION
NC-11	2" BLOWOFF ASSEMBLY
NC-12	TRANSMISSION LINE BLOWOFF ASSEMBLY
NC-13A	2" COMBINATION AIR RELEASE/VACUUM VALVE (INSTALLATIONS WITHIN IMPROVED/UNIMPROVED AREAS)
NC-13B	2" COMBINATION AIR RELEASE/VACUUM VALVE (INSTALLATIONS WITHIN IMPROVED AREAS)
NC-14	SAMPLE STATION
NC-15A	STANDARD FIRE HYDRANT WITH CHECK VALVE ASSEMBLY INSTALLATION
NC-15B	STANDARD FIRE HYDRANT INSTALLATION (EXISTING HYDRANTS ONLY)
NC-16	FIRE HYDRANT GUARD POSTS (4 POST CONFIGURATION) INSTALLATIONS IN COMMERCIAL / UNIMPROVED AREAS
NC-17	INSTALLATION OF PORTABLE WATER METERS
NC-18	WATER VALVE BOX-TRAFFIC
NC-19	GATE VALVE ASSEMBLY/TRACER WIRE DETAIL
NC-20	STANDARD THRUST BLOCK DETAILS
NC-21	STANDARD PIPE INSTALLATION
NC-22	TYPICAL SERVICE INSTALLATION TRENCH
NC-23	SEPARATION OF WATER MAINS & SANITARY SEWERS
-----	TYPICAL PRIVATE ATMOSPHERIC VACUUM BREAKER
-----	CITY OF PACIFICA STANDARD TRENCH DETAIL NOTES
-----	CITY OF PACIFICA STANDARD TRENCH DETAIL (DWG 301)
-----	CITY OF PACIFICA STANDARD TRENCH DETAIL (DWG 301A)
-----	CITY OF PACIFICA SLURRY SEAL DETAIL (A) (PLAN NO. 301 B)
-----	CITY OF PACIFICA SLURRY SEAL DETAIL (B) (PLAN NO. 301 C)
-----	CITY OF PACIFICA SLURRY SEAL DETAIL (LONGITUDINAL) (301D)
-----	CITY OF PACIFICA SLURRY SEAL DETAIL (NO CEN. LINE) (301 E)
-----	CITY OF SAN BRUNO TYPICAL TRENCH CROSS SECTION



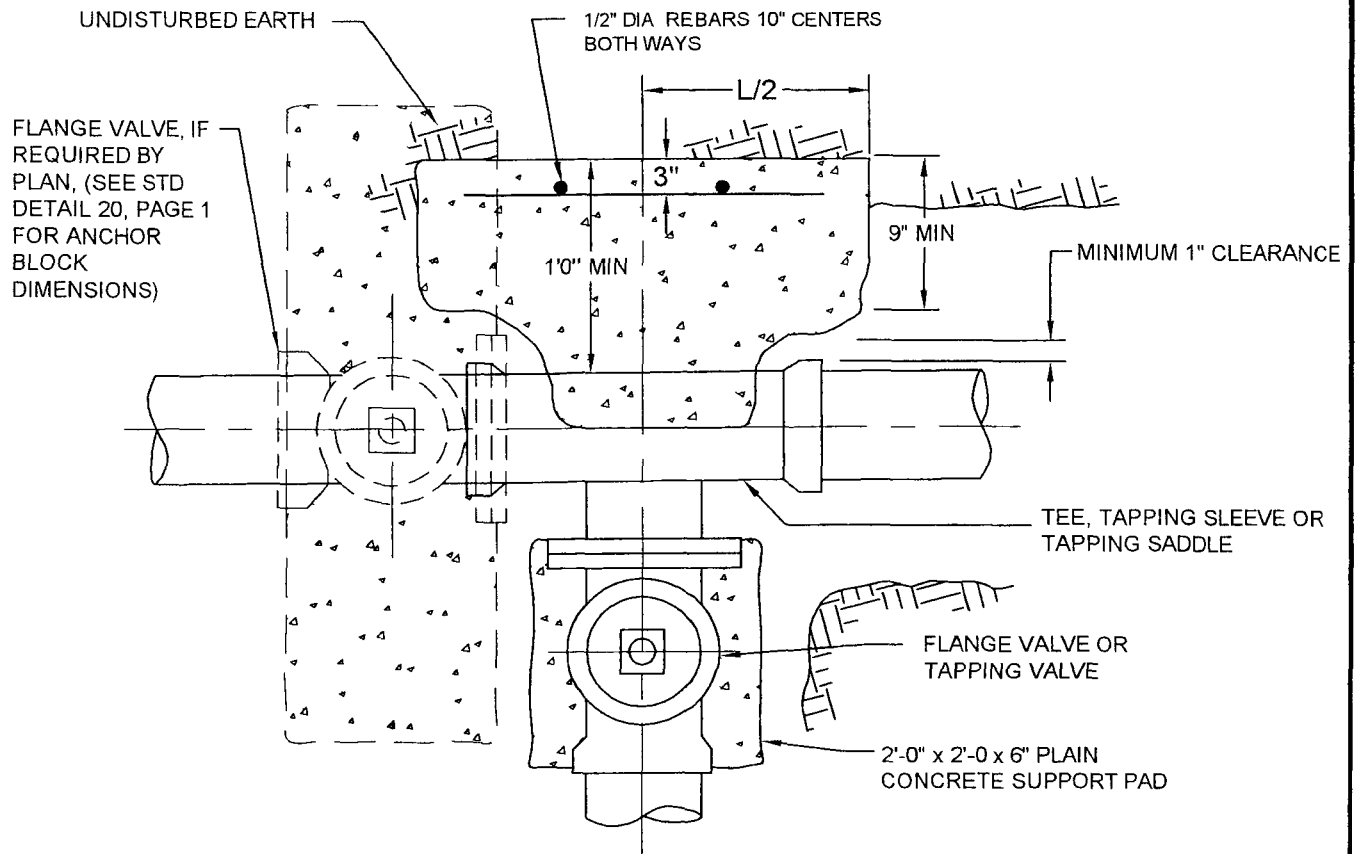
SIZE OF GATE VALVE	ANCHOR BLOCK DIMENSIONS (FT)		
	A	B	
		200 PSI TEST	250 PSI TEST
3"	1 5"	1 5"	2 0"
4"	2 0"	1 5"	2 0"
6"	3 0"	1 5"	2 0"
8"	3 0"	1 5"	2 0"
10"	3 0"	2 0"	2 5"
12"	3 5"	2 0"	2 5"

NOTES:

- 1 THRUST BLOCKS SHALL BE CONSTRUCTED OF CONCRETE USING 5-SACK MIX, TYPE II CLASS B WITH 3/4" AGGREGATE
- 2 ALL THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH
- 3 FLANGES, NUTS & BOLTS SHALL BE CLEAR OF CONCRETE
- 4 ENCASE ALL BURIED METALLIC SURFACES WITH POLYETHYLENE WRAP AS SPECIFIED IN AWWA C105
- 5 AT ALL TEE CONNECTIONS, VALVES SHALL BE FLANGED BY HUB, BOLTED TO TEE.
- 6 ALL REQUIREMENTS ARE SUBJECT TO CHANGE BY DISTRICT ENGINEER ALL PLANS MUST BE APPROVED BY THE DISTRICT

**NORTH COAST COUNTY WATER DISTRICT
STANDARD THRUST BLOCK DETAILS**

**STANDARD
DETAIL
NC-20
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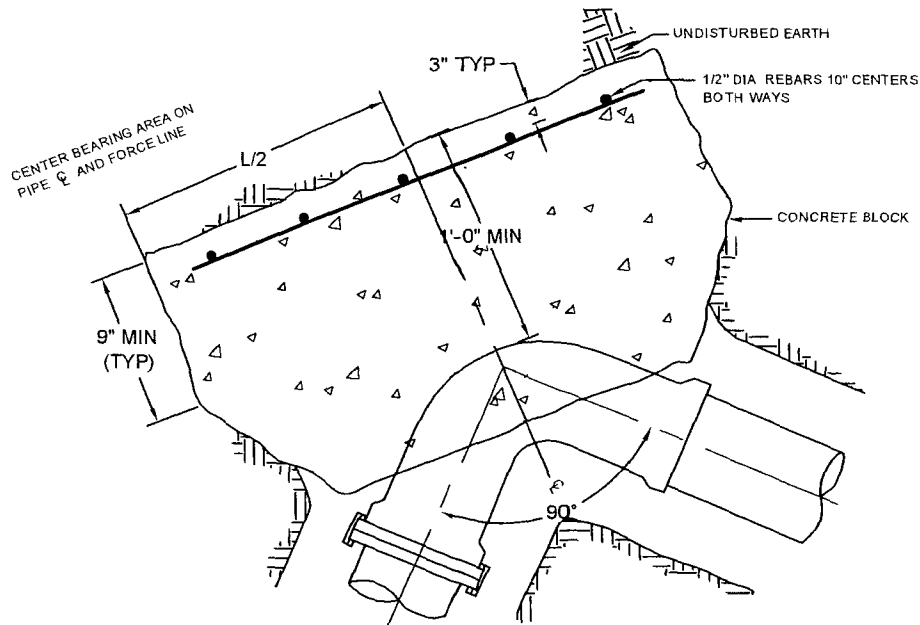
BRANCH PIPE SIZE	L x H	
	200 PSI TEST	250 PSI TEST
3" OR 4"	1'5" x 1'5"	1'7" x 1'7"
6"	1'9" x 1'9"	2'0" x 2'0"
8"	2'3" x 2'3"	2'6" x 2'6"
10"	3'0" x 3'0"	3'6" x 3'6"
12"	3'10" x 3'10"	4'4" x 4'4"
18"	5'10" x 5'10"	6'6" x 6'6"

NOTES

- 1 THRUST BLOCKS SHALL BE CONSTRUCTED OF CONCRETE USING 5-SACK MIX, TYPE II CLASS B WITH 3/4" AGGREGATE
- 2 ALL THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH
- 3 FLANGES, NUTS & BOLTS SHALL BE CLEAR OF CONCRETE
- 4 ENCASE ALL BURIED METALLIC SURFACES WITH POLYETHYLENE WRAP AS SPECIFIED IN AWWA C105
- 5 AT ALL TEE CONNECTIONS, VALVES SHALL BE FLANGED BY HUB, BOLTED TO TEE
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**NORTH COAST COUNTY WATER DISTRICT
STANDARD THRUST BLOCK DETAILS**

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PIPE SIZE	DIMENSIONS - L x H *			
	11-1/4°	22-1/2°	45°	90°
6"	1'0" x 1'0"	1'5" x 1'5"	1'9" x 1'9"	2'3" x 2'3"
8"	1'0" x 1'0"	1'5" x 1'5"	2'0" x 2'0"	2'10" x 2'10"
10"	1'5" x 1'5"	2'0" x 2'0"	2'8" x 2'8"	3'5" x 3'5"
12"	1'9" x 1'9"	2'3" x 2'3"	3'0" x 3'0"	4'2" x 4'2"
14"	1'9" x 1'9"	2'8" x 2'8"	3'6" x 3'6"	4'10" x 4'10"
16"	2'0" x 2'0"	2'10" x 2'10"	4'0" x 4'0"	5'5" x 5'5"
18"	3'0" x 3'0"	4'0" x 4'0"	5'0" x 5'0"	6'6" x 6'6"

* H = HEIGHT
* L = WIDTH

PIPE SIZE	DIMENSIONS - L x H *			
	11-1/4°	22-1/2°	45°	90°
6"	1'3" x 1'0"	1'8" x 1'8"	2'0" x 2'0"	2'6" x 2'6"
8"	1'3" x 1'0"	1'8" x 1'8"	2'3" x 2'3"	3'0" x 3'0"
10"	1'8" x 1'8"	2'3" x 2'3"	3'0" x 3'0"	3'10" x 3'10"
12"	2'0" x 2'0"	2'6" x 2'6"	4'0" x 3'0"	5'0" x 4'0"
14"	2'0" x 2'0"	3'0" x 3'0"	4'0" x 4'0"	6'0" x 5'0"
16"	2'6" x 2'0"	3'0" x 3'0"	5'0" x 4'0"	6'0" x 6'0"
18"	3'9" x 3'0"	5'0" x 4'0"	7'6" x 4'0"	8'0" x 6'0"

* H = HEIGHT
* L = WIDTH

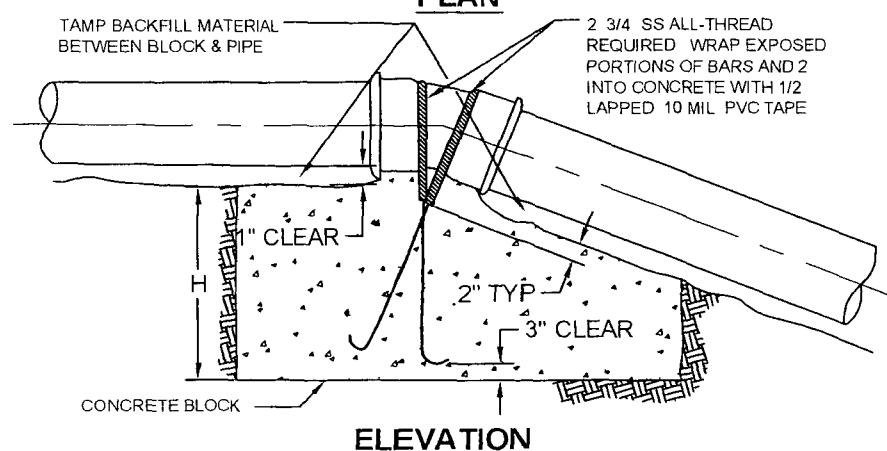
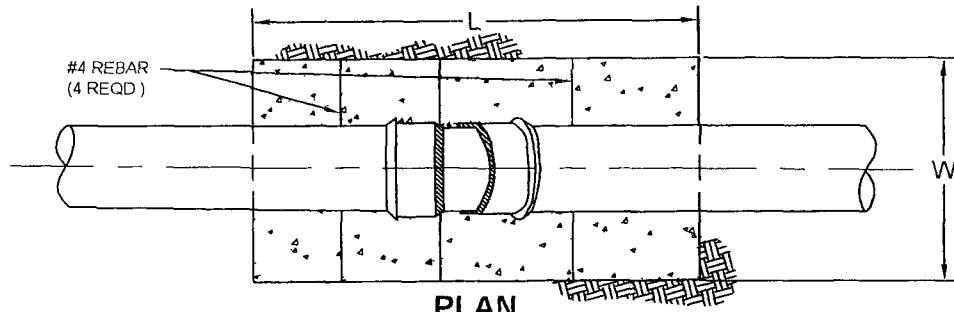
NOTES:

1. THRUST BLOCKS SHALL BE CONSTRUCTED OF CONCRETE USING 5-SACK MIX, TYPE II CLASS B WITH 3/4" AGGREGATE
2. ALL THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.
3. FLANGES, NUTS & BOLTS SHALL BE CLEAR OF CONCRETE
4. ENCASE ALL BURIED METALLIC SURFACES WITH POLYETHYLENE WRAP AS SPECIFIED IN AWWA C105
5. CENTER OF H COINCIDES WITH CENTERLINE OF PIPE
6. ALL REQUIREMENTS ARE SUBJECT TO CHANGE BY DISTRICT ENGINEER. ALL PLANS MUST BE APPROVED BY THE DISTRICT.
7. RESTRAINED JOINTS WITH RETAINER GLANDS (EBBA) MAY BE USED AS AN ALTERNATIVE WHEN APPROVED BY THE DISTRICT

**NORTH COAST COUNTY WATER DISTRICT
STANDARD THRUST BLOCK DETAILS**

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NC-20
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AUGUST 2006



DIMENSIONS (200 PSI TEST)

PIPE SIZE	11 1/4° BEND			22 1/2° BEND			45° BEND		
	L	W	H	L	W	H	L	W	H
6"	2'0"	2'0"	1'0"	2'0"	2'0"	2'0"	2'0"	2'0"	2'0"
8"	2'0"	2'0"	1'0"	2'0"	3'0"	2'0"	2'0"	4'0"	2'0"
10"	2'0"	3'0"	2'0"	2'0"	4'0"	2'0"	2'0"	4'0"	3'0"
12"	2'0"	3'0"	2'0"	2'0"	6'0"	2'0"	2'0"	6'6"	3'0"
18"	3'0"	3'0"	3'0"	3'0"	6'0"	3'0"	3'0"	5'0"	5'0"

DIMENSIONS (250 PSI TEST)

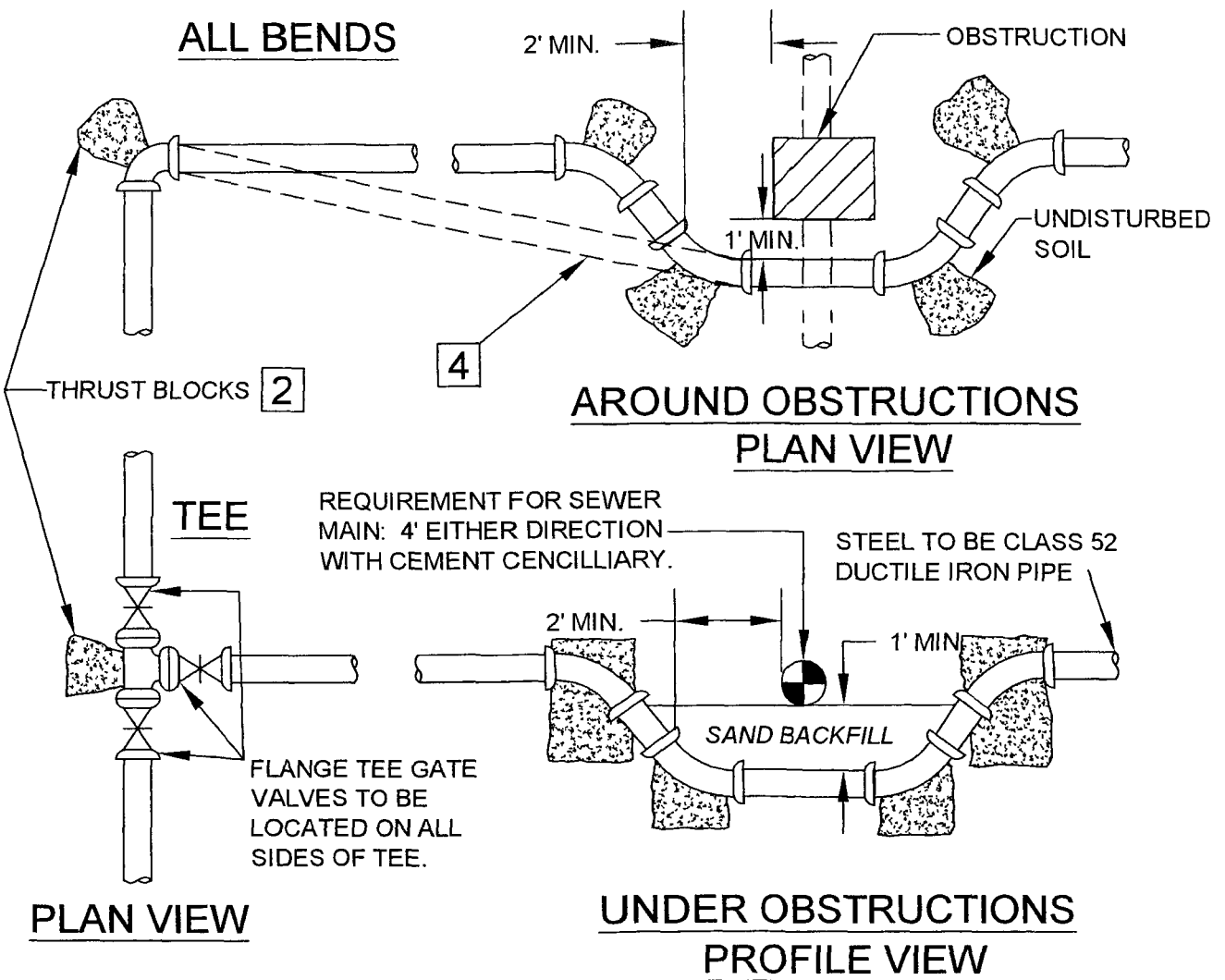
PIPE SIZE	11 1/4° BEND			22 1/2° BEND			45° BEND		
	L	W	H	L	W	H	L	W	H
6"	2'0"	2'6"	1'0"	2'0"	2'6"	2'0"	2'0"	3'0"	2'0"
8"	2'0"	2'6"	1'0"	2'0"	3'9"	2'0"	2'0"	5'0"	2'0"
10"	2'0"	2'6"	2'0"	2'0"	5'0"	2'0"	2'0"	3'0"	3'0"
12"	2'0"	3'9"	2'0"	2'0"	6'0"	2'6"	2'0"	6'0"	4'0"
18"	3'0"	3'9"	3'0"	3'0"	5'6"	4'0"	3'0"	7'0"	5'0"

NOTES

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- 2 ALL THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH
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- 4 ENCASE ALL BURIED METALLIC SURFACES WITH POLYETHYLENE WRAP AS SPECIFIED IN AWWA C105
- 5 ALL REQUIREMENTS ARE SUBJECT TO CHANGE BY DISTRICT ENGINEER ALL PLANS MUST BE APPROVED BY THE DISTRICT

**NORTH COAST COUNTY WATER DISTRICT
STANDARD THRUST BLOCK DETAILS**

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NC-20
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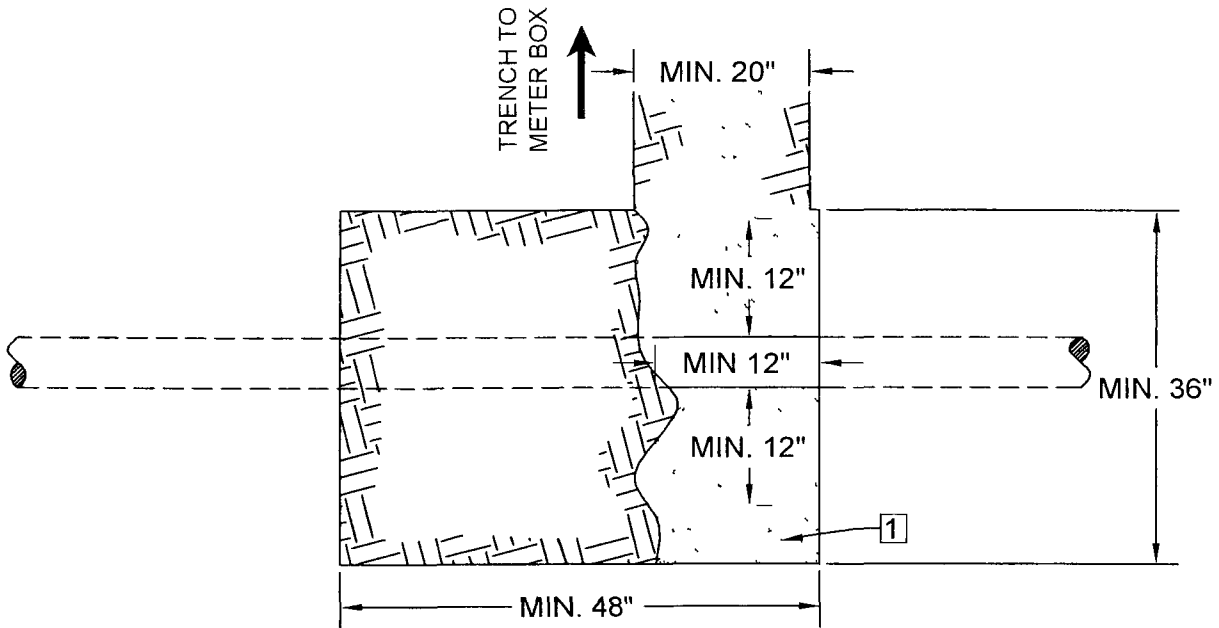


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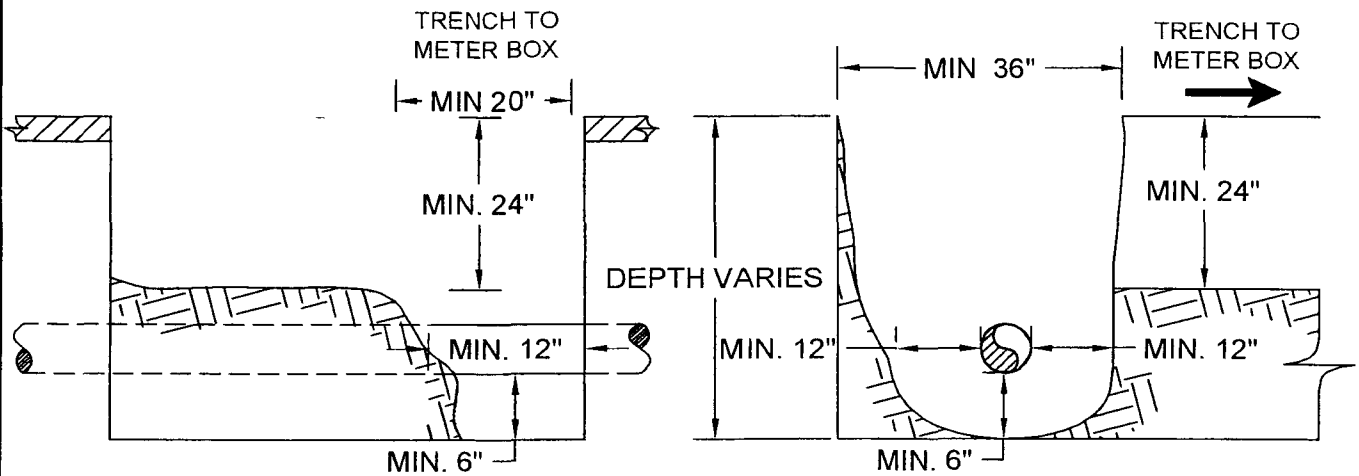
- 1 THRUST BLOCKS ARE REQUIRED PER DESIGN OR AS REQUIRED BY THE DISTRICT ENGINEER
- 2 REFER TO NC-20 FOR DETAILS RELATED TO USE OF THRUST BLOCKS
- 3 USE OF ALTERNATE RESTRAINT SYSTEMS MAY BE REQUIRED IN ADDITION TO OR IN THE PLACE OF THRUST BLOCKS AT THE DISCRETION OF THE DISTRICT
- 4 DO NOT EXCEED AWWA C600 ALLOWABLE DEFLECTION IN ANY CASE
USE NECESSARY FITTINGS
- 5 PUSH-ON JOINTS WITH FIELD GASKETS ARE REQUIRED FOR ALL PIPE JOINTS
- 6 ALL PIPES TO BE LOCATED WITHIN RIGHT-OF-WAY
- 7 REFER TO SECTION 2, 4.6.3, PAGE 9 FOR MINIMUM DEPTH REQUIREMENTS
- 8 ALL REQUIREMENTS ARE SUBJECT TO CHANGE BY DISTRICT ENGINEER ALL PLANS MUST BE APPROVED BY THE DISTRICT

**NORTH COAST COUNTY WATER DISTRICT
STANDARD PIPE INSTALLATION**

**STANDARD
DETAIL
NC-21**



PLAN



ELEVATION

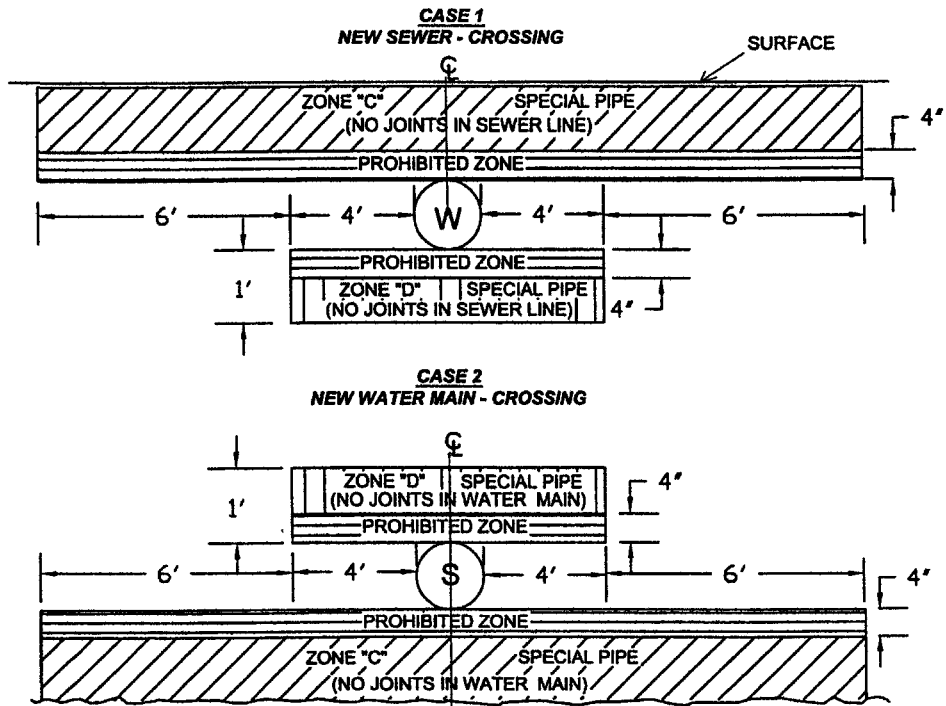
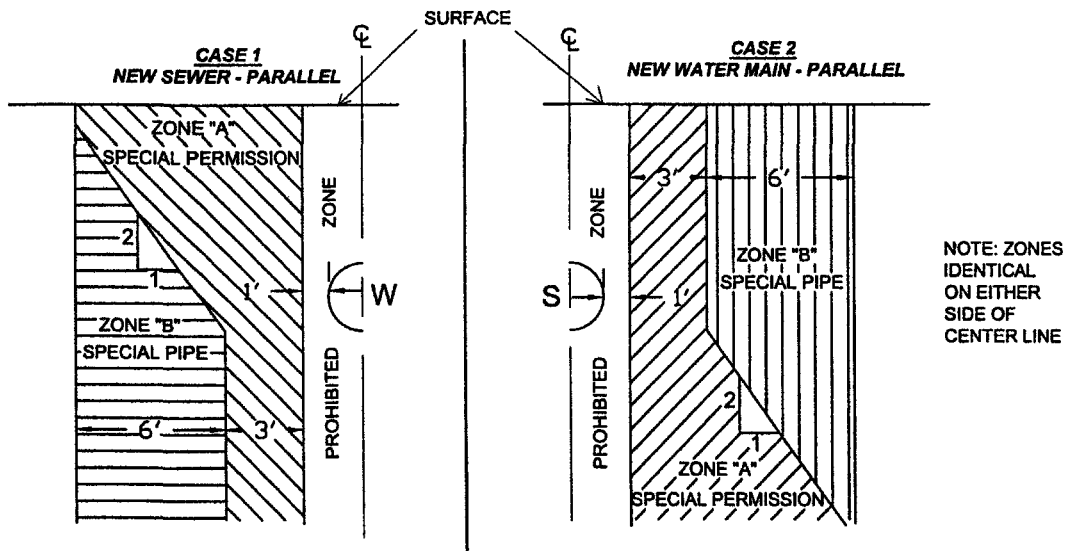
NOTES:

- 1 4" THICK SAND BOTTOM (AFTER INSTALLATION OF SERVICE TAP)
- 2 BACKFILL PER CITY OF PACIFICA STANDARDS

**NORTH COAST COUNTY WATER DISTRICT
TYPICAL SERVICE INSTALLATION TRENCH**

**STANDARD
DETAIL
NC-22**

**CRITERIA FOR THE SEPARATION OF
WATER MAINS AND SANITARY SEWERS**



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**NORTH COAST COUNTY WATER DISTRICT
CRITERIA FOR THE SEPARATION OF WATER MAINS & SANITARY
SEWERS**

**STANDARD
DETAIL
NC-23**

OCTOBER 2006