HOMEOWNER'S PACKET

Requirements for the installation and repair of private house sewers

Delta Diablo
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TRANSFORMING WASTEWATER TO RESOURCES

Rev. 09/16

The Homeowner's Packet was put together to assist property owners in following the District's requirements for the installation, alteration, and repair of private house sewers. All work must be done in accordance with the Standard Specifications of the District. Please read the attached information before performing work on your sewer.

Basic Sewer Service Policy

Each property with a separate assessor's parcel number shall have a public sewer extended to it, unless the property is the last lot that can reasonably be served from a public sewer with a private side sewer installed within a recorded, appurtenant easement across the property adjacent to the public sewer. Public sewers are maintained by the District. Private sewers, i.e., the sewer pipeline from the building to the public sewer, including the connection tap or wye at the public sewer, are owned and maintained by the Property Owner. (3-05)

The Line Size and Service Policy

The minimum nominal size of any new public gravity sewer shall be eight (8) inches in diameter.

Private Side Sewers shall be four (4) inches in diameter for single-family residences. Other side sewers shall be six (6) inches in diameter or larger. Side Sewers shall be connected to public sewers six (6), eight (8), ten (10) and twelve (12) inches in diameter at manholes or by installation of approved taps, wyes or sanitary tees. Side Sewer connections to public sewers over twelve (12) inches in diameter shall only be made at manholes unless a specific written Special Approval for installation for installation of a tap is obtained from the District. Joint use of a Side Sewer to serve more than one property will not be permitted. All Side Sewers shall be equipped with an approved Overflow Protection Device. (3-06)

Inspection Scheduling Procedure

<u>All contractors and property owners doing work shall use the following procedure when scheduling inspections.</u>

Inspections shall be scheduled in sequential order, on a first call, first serve basis beginning at the first available time slot, by calling the District at the number provided on the attached business card at least three (3) days before beginning or resuming work, or to schedule an inspection. You must receive a verbal confirmation for all inspection times and dates.

Other Information

For information on items not included in this Homeowner's Packet, please contact the District's Engineering Services Department at (925) 756-1900.

List of Attachments

A. Definitions

B. General Information

C. Side Sewer Construction Requirements

D. Excerpts from CCCSD Standard Specifications

E. Approved Materials List

Attachment A

Definitions

Definitions

1. A.B.S. - Acrylonitrile Butadiene Styrene

2. Backfill - Earth or other special material used to replace material removed from trenches during construction, which is above the pipe bedding or concrete trench slab.

3. Bedding - That portion of the trench backfill which encases the sewer pipe to a minimum of three (3) inches above and below the barrel of the pipe for the purpose of properly supporting the pipe.

4. Building Drain - The building drain is the lowest part of a wastewater piping system and connects other wastewater pipes from within a building with the side sewer, which begins no more than two (2) feet outside the building wall (building foundation).

5. C.I. - Cast Iron

6. Definitions of Words - Wherever, in these specifications, the words **directed**, **required**, **permitted**, **ordered**, **designated**, or words of like importance are used, they shall be understood to mean the direction, requirement, permission, or order of designation of the Engineer. Similarly, the words **approved**, **acceptable**, **satisfactory**, shall mean approved by, acceptable to, or satisfactory to the Engineer.

7. D.I. - Ductile Iron

8. District - The Delta Diablo Sanitation District

9. Easements - Easements are rights in real property granted or dedicated to the District for purposes stated in the document which creates the easement. Generally, these rights include the right to construct, alter, replace, repair, maintain, and operate sewer pipes, appurtenances, and appliances together with the reasonable right of access to such easement for said purposes over the remaining lands of the grantor.

10. Homeowner - A person(s) who owns and occupies or will occupy the residence on which sewer work will be personally performed.

11. House Sewer - That portion of the side sewer (in cases where there is a lateral sewer) between the lateral sewer and the point of connection to the building drain of the structure.

12. Inspector - The person for the District duly authorized by the Engineer and responsible for inspections and enforcement of District regulations

relating to construction of public and private sewers, including pipelines, structures, materials, instruments, and appurtenances.

13. Lateral Sewer - The privately owned and maintained portion of the side sewer between the main sewer and five (5) feet inside the property or easement line.

14. Plumbing System - All plumbing fixtures and traps, or soil, waste, special waste, and vent pipes within a building and to a point two (2) feet outside the building foundation thereof.

15. Public Sewer - A sewer which has been or is being constructed to accommodate more than one (1) side sewer or main sewer and is located within a public right-of-way.

16. P.V.C. - Polyvinyl Chloride

17. Right-Of-Way - All land or interest therein which by deed, conveyance, agreement, easement, dedication, usage, or process of law is reserved for or dedicated to the use of the general public, within which the District shall have the right to construct, alter, replace, repair, maintain, and operate sewer pipes, appurtenances, and appliances together with the reasonable right of access to such easement for said purposes over the remaining lands of the grantor.

18. Sewer Profiles - Sewer profiles (Scale: 1" = 100' Horiz. And 1" - 10' Vert.) are detail drawings which show the vertical relationship between the sewer line invert, the ground surface at time of construction and the finish surface, and other existing and/or proposed underground facilities.

19. Side Sewer - The privately owned and maintained sewer line which links the sanitary or waste plumbing (building drain) of a house or other building with the main sewer. The side sewer begins at its point of connection (including the connection) with the main sewerage system and terminates at its point of connection to the building drain. The point of connection to the building drain shall be two (2) feet or less from the building foundation at the point where the plumbing first extends outside the foundation (Normally four (4) or six (6) inches in diameter).

20. Site Collector System - A privately owned and maintained side sewer system normally six (6) or eight (8) inches in diameter, installed to serve multi-unit structures on single ownership properties such as apartments, mobile home parks, planned unit developments, schools, etc.

21. Standard Specifications - The Central Contra Costa Sanitary District Standard Specifications for Design & Construction and all subsequent additions, deletions or revisions.

22. V.C. - Vitrified Clay

23. Work - All the work to be done under District permit or inspection, in accordance with the Plans, Specifications, and/or permit conditions.

Attachment B

General Information

General Information

1. A sewer construction/repair permit is required prior to the installation of, or repair to, any sanitary sewer.

2. Materials and construction of sanitary sewers and facilities shall conform to the Standard Specifications (latest edition) and Approved Materials List, as administered by Delta Diablo Sanitation District, except as noted below. Any exceptions shall require prior approval by the District.

3. An encroachment permit may be required from the County prior to the issuance of the construction/repair permit. It is the homeowner's responsibility to obtain all required permits.

4. Side sewers that tie into main sewers in easements, alleys, or otherwise away from public access, may require dedication of "Access" and "Sewer" easements if such easements do not exist.

5. Any work to be done within a public right-of-way, street, road, property, or other right-of-way, by law, must be performed by a duly licensed contractor. Acceptable State Contractor's Licenses are: 1.) General Engineering Contractor, 2.) C-34 Pipeline Contractor, 3.) C-36 Pipeline Contractor, or 4.) C-42 Sanitation System Contractor.

6. All contractors doing sewer work within the District shall be properly licensed in accordance with the provisions of Division 3, chapter 9, Business and Professions Code, of the State of California, as amended, and shall be registered or bonded to the District in accordance with Standard Specifications Section 10-1.

7. Prior to the installation and/or connection of any side sewer, the building roof must be complete and the building plumbing must be installed and vented through the roof.

8. It is the property owner's responsibility to locate the sewer lateral at the curb line. Prospective property owners are advised to have the sewer lateral location verified as a condition of sale of the property.

9. The District's wastewater sewer system is for the collection and treatment of domestic waste only.

10. In a new subdivision, the District will not issue construction/connection permits until the main sewers and laterals in that subdivision have been accepted by the District.

Attachment C

Side Sewer Requirements

Side Sewer Construction Requirements

1. Each individual building shall be connected by a separate side sewer. (4-03.B)

2. All trenches for sewers must be protected and shored in accordance with District requirements and existing State and Federal Safety Laws in effect at the time work is started or in progress.

3. Acceptable side sewer materials are shown on the "Approved Materials List", (see Attachment E).

4. The minimum inside diameter of side sewer pipe shall be four (4) inches and shall be equal to or greater than the building plumbing stub diameter. The minimum inside diameter serving multi-family dwellings or commercial buildings shall be six (6) inches.

5. It is the responsibility of the permittee to establish that sufficient slope exists to install the side sewer. The permittee shall obtain the invert elevations of the manholes upstream and downstream of the point of connection and provide a drawing of the installation showing the elevations of the main and side sewer connection, as well as the slope of the side sewer and lateral to the building line. A readable sketch is all that is required, not a professional drawing.

6. Minimum fall (slope), is two (2%) percent or one-quarter (1/4) inch per foot. Maximum allowable slope is 150% or eighteen (18) inches per foot. (4-03.B.1)

7. Cleanouts - Cleanouts shall be provided in the side sewer system at the following locations:
    a. At the point of connection to the building drain within two (2) feet of building foundation.
    b. At any single bend greater than forty-five degrees (45°).
    c. At intervals along the side sewer system where the cumulative total of deflection from the point of connection to the main sewer or from another cleanout exceeds forty-five degrees (45°).
    d. At intervals not to exceed one hundred (100) feet.

    (Cleanout risers shall conform to the requirements specified on DWG-26.) (4-03.B.7)

8. Overflow Protection Devices - No person shall construct, alter, or repair a side sewer without confirming that an approved overflow protection device has been properly installed on the side sewer in conformance to the requirements specified on DWG-23.

Where reasonably possible, overflow protection devices shall be located in areas away from vehicular and foot traffic. If an overflow protection device must be located in an area which will have concrete or asphalt paving, such as a driveway or sidewalk, the device shall be installed in a CCCSD approved reinforced concrete utility box fitted with a metal grate.

Where the sewage cannot overflow on the area surrounding an overflow protection device without damage to property, a CCCSD-approved check valve shall be installed. (4-03.B.8)

9. Side sewers shall have the following pipe cover:
   a. Minimum and maximum allowable cover for laterals shall be as specified in DWG-19.
   b. Minimum cover for side sewers in driveways, parking, and all other traffic areas within properties shall be as specified in DWG-19 for laterals.
   c. The minimum cover for side sewers outside of traffic areas from the property line to a point within eight (8) feet of the building waste plumbing connection shall be as specified in DWG-19.
   d. Minimum cover for side sewers at the point of connection to the building waste plumbing (within two (2) feet of the foundation) shall be eighteen (18) inches.
   e. Where available grade for side sewer installation is less than two percent (2%) and where the side sewer is more than one hundred (100) feet in length, field staking of cuts by a licensed surveyor, submittal of cut sheets and installation using an industrial-standard laser grade control system to confirm that the pipe is installed to the proper grade shall be required. Requirements for operation of laser grade control systems shall be as specified in Section 15.15000 of these Specifications.

10. All pipe except cast iron and ductile iron is required to be installed on four (4) inches of compacted standard bedding material, (3/4 inch minus rock) and backfilled with the same to six (6) inches minimum above the pipe. Any overexcavation must be backfilled to pipe grade with compacted standard bedding material. CAST IRON OR DUCTILE IRON PIPE INSTALLATIONS DO NOT REQUIRE BEDDING BUT DO NEED A UNIFORM TRENCH BOTTOM. Bell holes for pipe joints are required for all the pipe until pipe has been inspected and approved by the Inspector.

11. All sewer installations must be air tested for joint tightness in the presence of the Inspector.

12. No other utility service or drainage pipelines, conduits or cables are permitted in the same trench with the sewer.

13. No sewer laterals are allowed under driveway slabs without prior approval from the District Engineer.

14. Sewers shall not be located under structures, footings, or concrete slabs.

15. Vertical and Horizontal Deflections - Lateral sewers shall have an alignment that provides an angle of intersection with the downstream section of main sewer of no less than ninety degrees (90°). The maximum allowable deflection at any point in a side sewer shall be ninety degrees (90°). Consecutive bends shall be separated by a straight pipe segment at least two (2) feet in length. (4-03.B.5)

16. Sewer pipeline trenches shall be graded at a constant slope from the building drain to the point of connection with the existing sewer/stub.

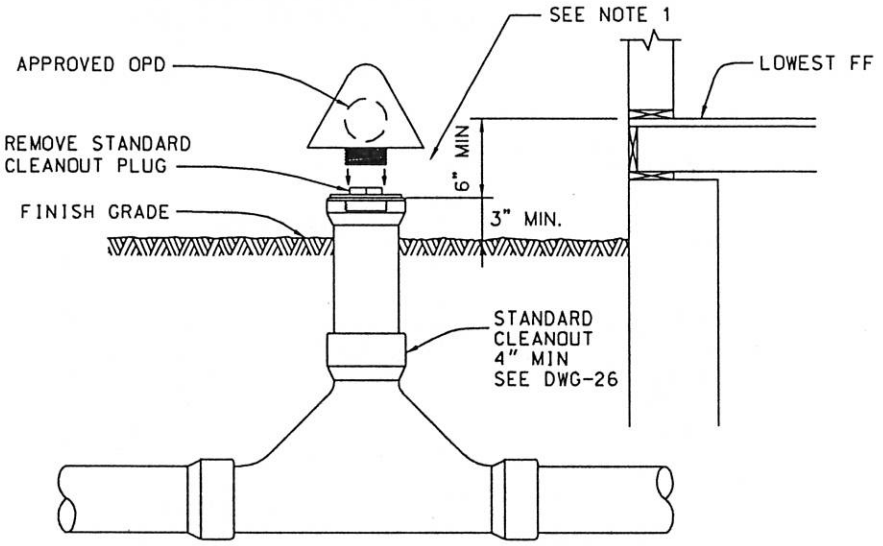
Attachment D

Excerpts from CCCSD
Standard Specifications

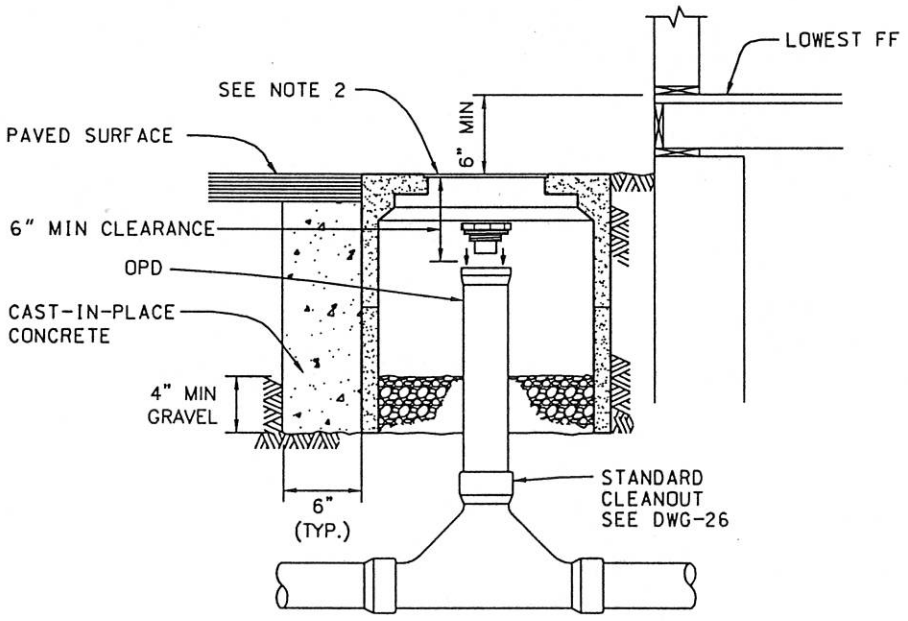
CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

OVERFLOW PROTECTION DEVICES



(TYPE 1)



(TYPE 2)

NOTES:

1. AN OVERFLOW PROTECTION DEVICE, PER CCCSD'S APPROVED MATERIALS LIST, IS REQUIRED ON ALL SIDE SEWERS. SPECIFIC LOCATION SHALL BE DETERMINED BY THE CONTRACTOR AND THE PROPERTY OWNER.

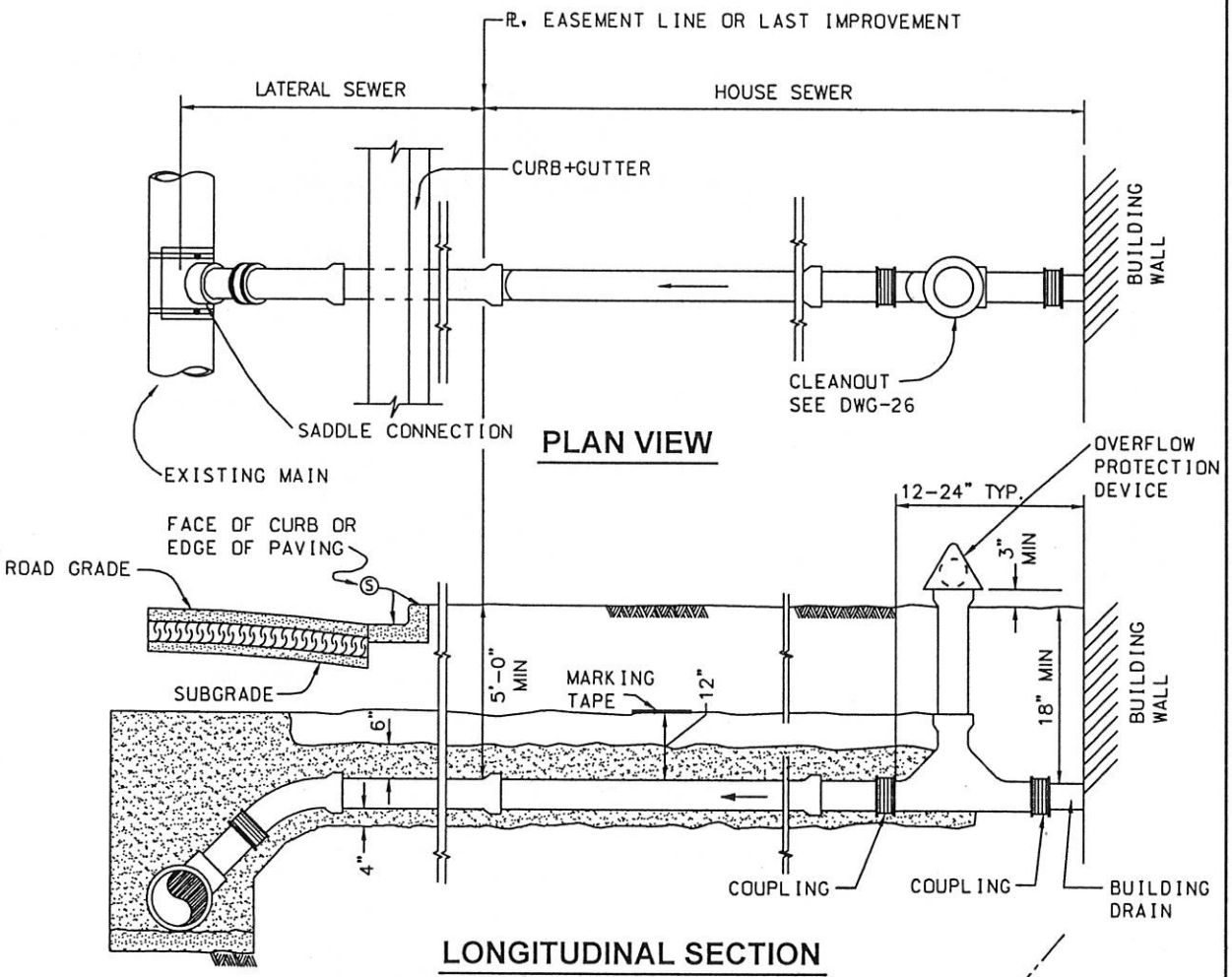
2. SEE APPROVED MATERIALS LIST FOR TRAFFIC AND NON-TRAFFIC AREA PRECAST UTILITY BOXES AND GRATED LIDS.

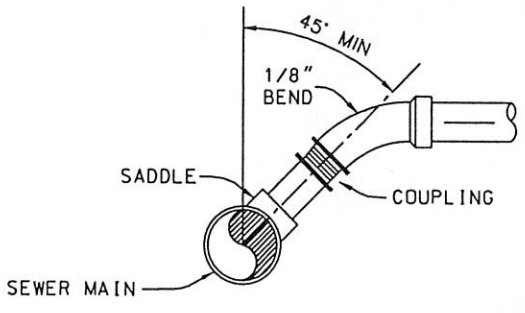
CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

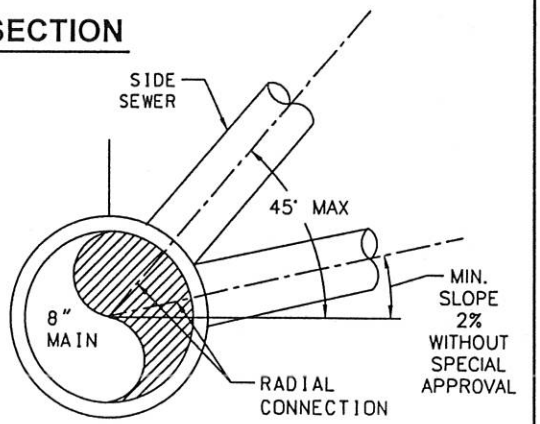
SIDE SEWER LAYOUT

(CONNECTION TO EXISTING MAIN)





SADDLE CONNECTION DETAIL



CONNECTION AT MAIN

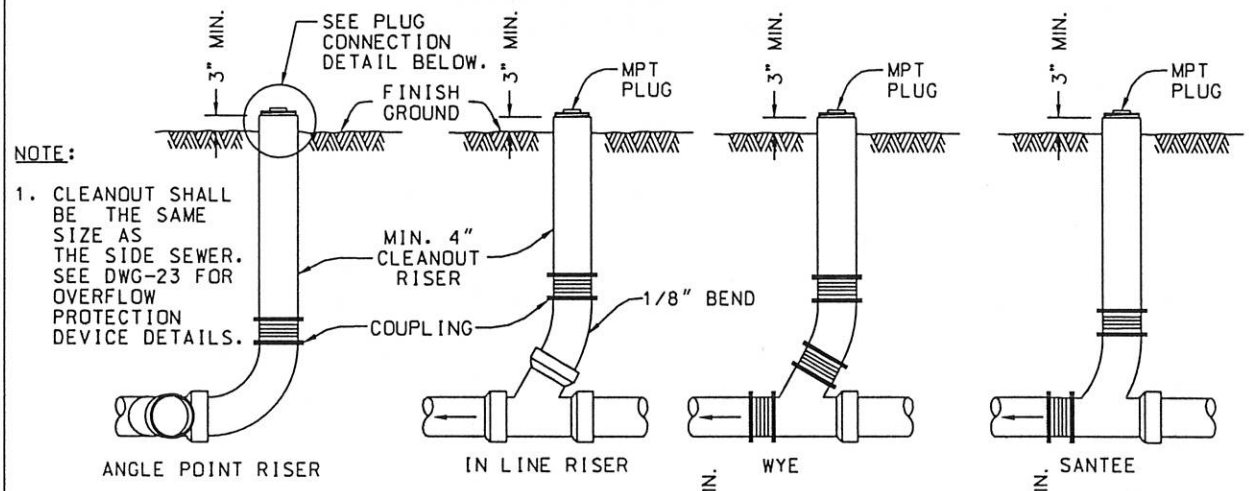
NOTES:

1. WHEN A LATERAL SEWER IS INSTALLED IN ADVANCE OF THE BUILDING SEWER, IT SHALL BE TERMINATED WITH A CAP OR PLUG 5' PAST THE PROPERTY LINE, EASEMENT LINE OR LAST IMPROVEMENT AND THE CONTRACTOR SHALL MARK THE LOCATION OF THE CAPPED/PLUGGED END WITH A 2X4 PRESSURE TREATED STAKE PAINTED GREEN.
2. REFER TO SECTION 15.02205 FOR BEDDING AND BACKFILL REQUIREMENTS.
3. SEE NOTE 2 ON DWG-25 FOR COVER REQUIREMENTS.

CENTRAL CONTRA COSTA SANITARY DISTRICT

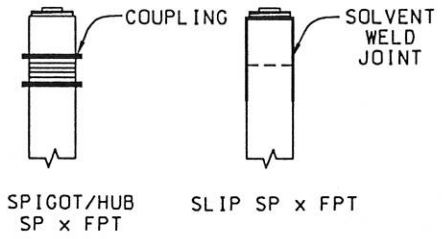
MARTINEZ, CALIFORNIA

CLEANOUT RISERS

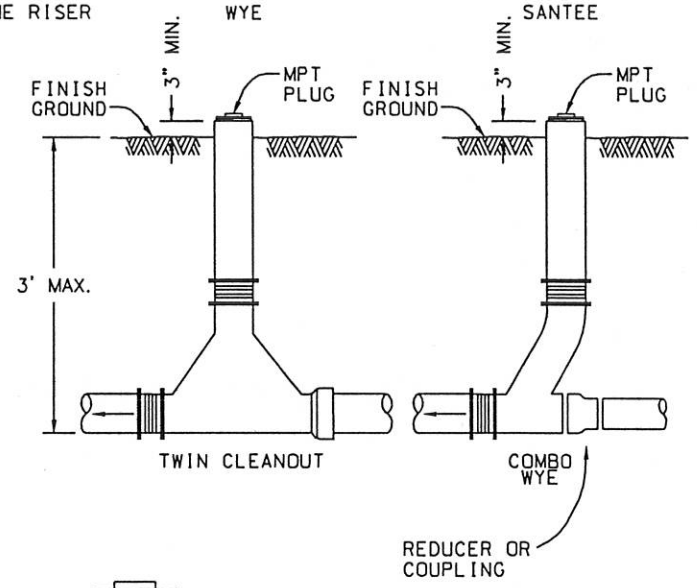


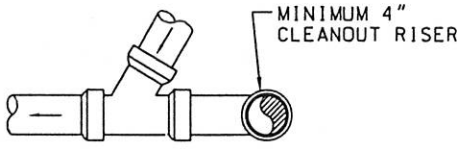
NOTE:

1. CLEANOUT SHALL BE THE SAME SIZE AS THE SIDE SEWER. SEE DWG-23 FOR OVERFLOW PROTECTION DEVICE DETAILS.



PLUG CONNECTION DETAIL





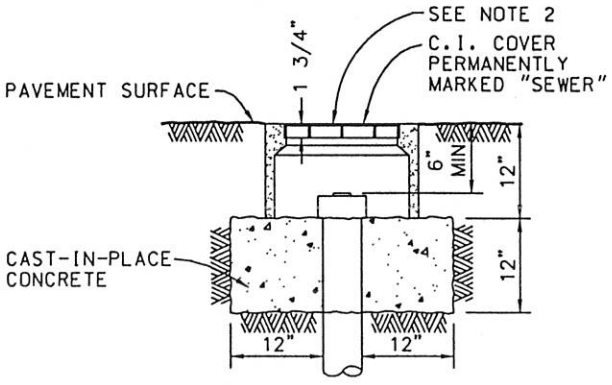
ANGLE POINT CLEANOUT

PLAN VIEW

NOTES:

1. ANGLE POINT CLEANOUT REQUIRED IF SIDE SEWER DEFLECTIONS EQUALS OR EXCEEDS 90°.
2. SEE APPROVED MATERIALS LIST FOR TRAFFIC AND NON-TRAFFIC AREA PRECAST UTILITY BOXES AND GRATED LIDS.

MPT PLUG

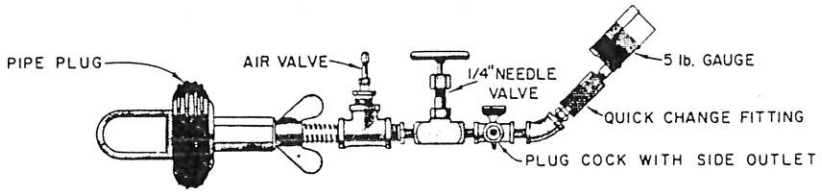


CLEANOUT RISER IN PAVED AREA

CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

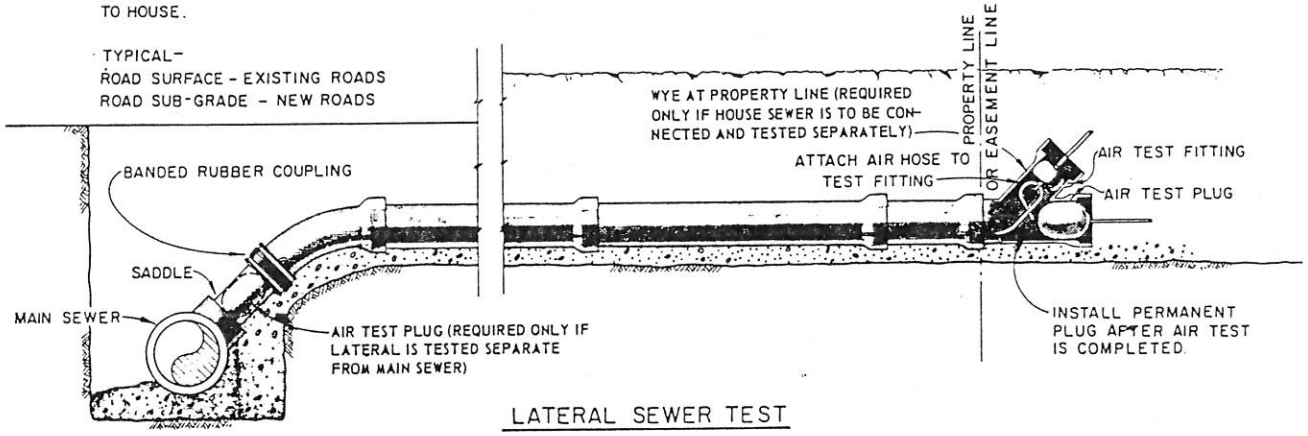
SIDE SEWER AIR TEST DETAILS



AIR TEST FITTING

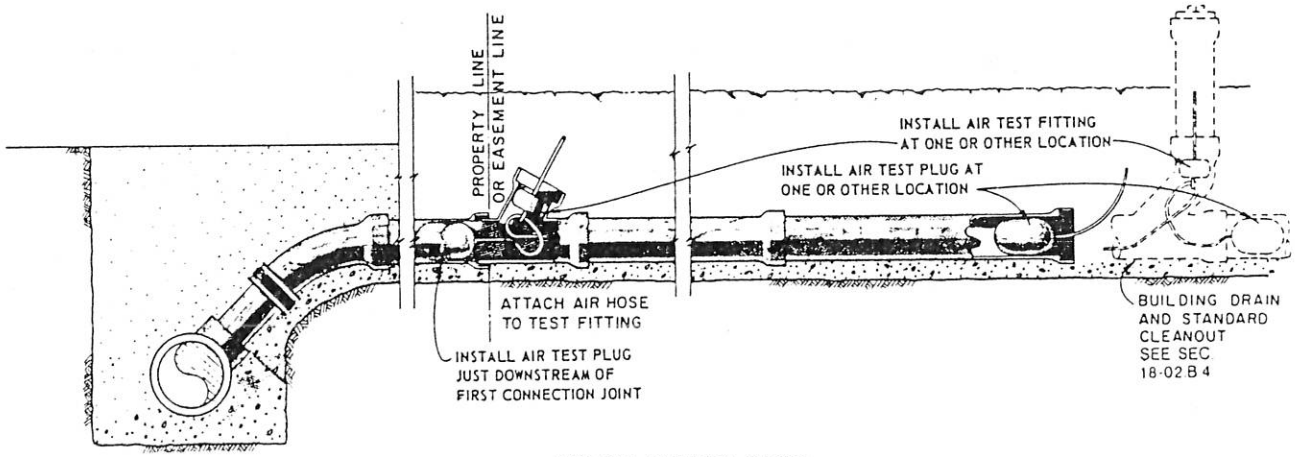
FITTING SHOWN ABOVE CONSISTS OF THE MINIMUM HARDWARE REQUIRED AND SUGGESTS A RECOMENDED CONFIGURATION ONLY.

LAY PIPE FROM SADDLE TO PROPERTY LINE, INSERTING AIR HOSE INSIDE AS IT IS BEING LAID TO THE WYE BRANCH AT PROPERTY LINE INSTALL TEST EQUIPMENT AND PRESSURIZE LINE TO 4 P.S.I. IF TEST IS SATISFACTORY REMOVE PLUGS AND CONTINUE PIPE LAYING TO HOUSE.



LATERAL SEWER TEST

INSTALL TEST PLUGS AND TEST FITTINGS AS SHOWN AND PRESSURIZE LINE TO 4 P.S.I. AFTER APPROVAL, TEST EQUIPMENT MAY BE REMOVED AND HOUSE CONNECTION SHALL BE MADE.



HOUSE SEWER TEST

CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

AIR TEST CHART

(GRAVITY SEWERS ONLY)

DIAMETER OF PIPE (INCHES)	LENGTH OF LINE (FEET)	LENGTH OF TEST (MINUTES)
4	ALL	4
6	ALL	4
8	ALL	4
10	0 TO 215	4
10	215 AND GREATER	5
12	0 TO 155	4
12	155 TO 190	5
12	190 AND GREATER	6
15 & 16	0 TO 120	5
15 & 16	120 TO 165	7
15 & 16	165 AND GREATER	8

NOTES:

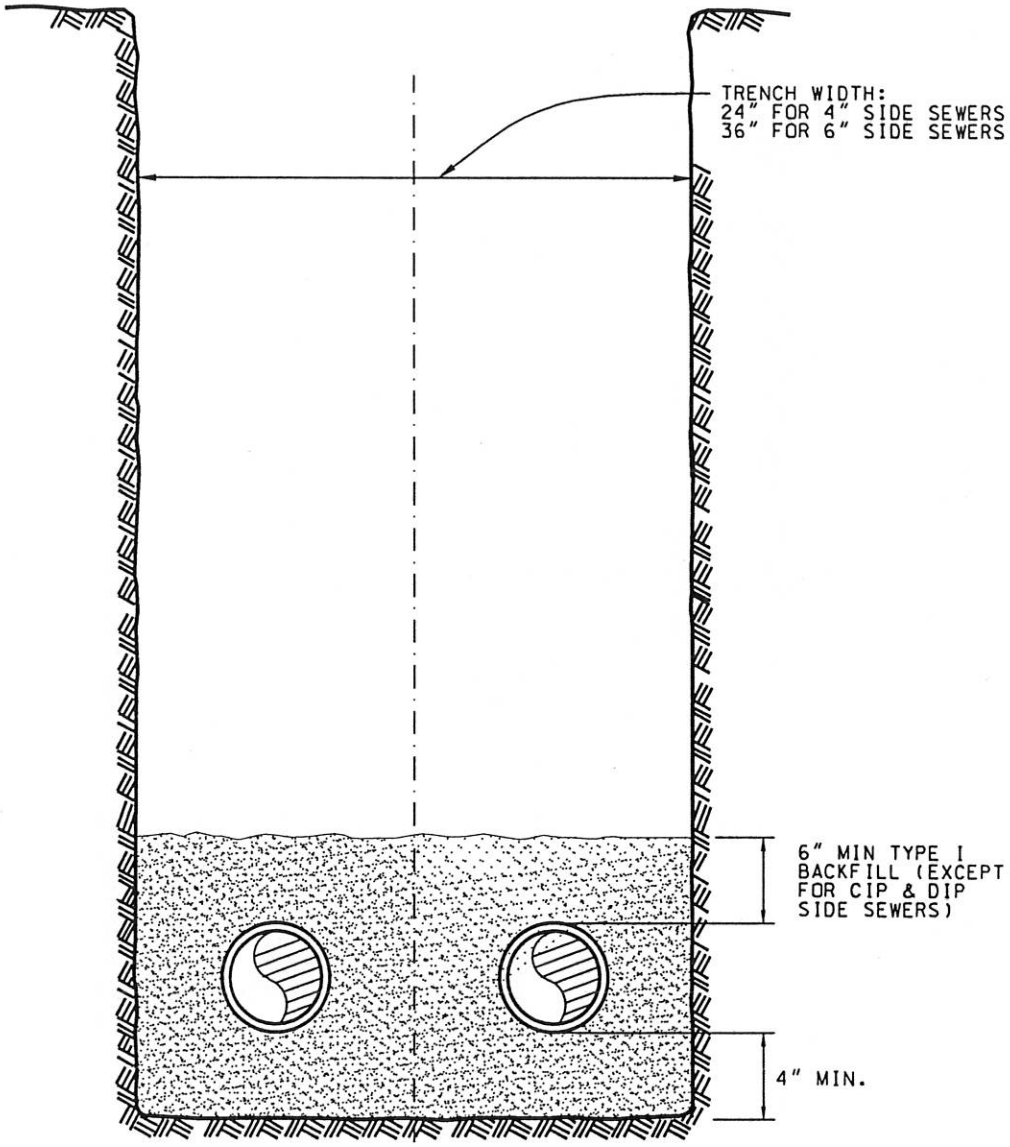
1. ALL TESTS TO BE PERFORMED @ 4psi USING A 5 lb. GAGE.
2. ALL PIPE GREATER THAN 16 INCHES IN DIAMETER SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH PROVISIONS CONTAINED IN SECTION 15.02730.

CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

SHARED TRENCH DETAIL

TWO SIDE SEWERS IN ONE TRENCH
(SPECIAL APPROVAL REQUIRED)



NOTES:

1. TRENCH WIDTH, PIPE BEDDING AND BACKFILL SHALL CONFORM TO THE REQUIREMENTS OF SECTION 15.02205.

2. IN THE EVENT THAT SIDE SEWERS ARE TO BE CONNECTED TO A V.C. MAIN BY TAPPING, SUCH TAPS SHALL BE BE SPACED A MINIMUM OF 5 FEET APART.

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CENTRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CALIFORNIA

STANDARD BEDDING AND COVER REQUIREMENTS FOR GRAVITY SEWER INSTALLATIONS

PIPE COVER LIMITATION TABLE

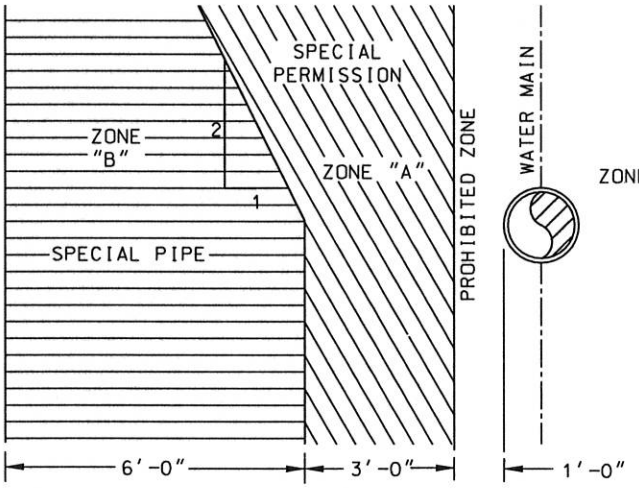
PIPE SPECIFICATIONS SEE SEC. 15.15000			MIN.- MAX. COVER IN FT.	
SIZE	MATERIAL	TYPE AND MINIMUM CLASS		
BUILDING SEWERS				
4"-6"	VC	-	2.5	30
4"-6"	CI	SOIL PIPE	1.5	30
4"-6"	DI	CLASS 52	1	30
4"-6"	ABS	SCHEDULE 40	2.5	24
4"-6"	PVC	SDR 26	2.5	24
4"-6"	HDPE	SDR 17	2.5	24
LATERAL SEWERS				
4"	VC	-	5	30
6"	VC	-	5	20
4"-6"	CI	SOIL PIPE	1.5	30
4"-6"	DI	CLASS 52	1	30
4"-6"	ABS	SCHEDULE 40	5	24
4"-6"	PVC	SDR 26	5	24
4"-6"	C900	DR 25	5	24
4"-6"	C900	DR 18	4	24
4"-6"	C900	DR 14	3	24
4"-6"	HDPE	SDR 17	5	24
MAIN SEWERS UNDER ROAD WAY				
8"	VC	-	6	30
10"	VC	-	6	15
8"-10"	DI	CLASS 52	1	35
8"-10"	PVC	SDR 26	5	24
8"-10"	C900	DR 25	5	24
8"-10"	C900	DR 18	4	24
8"-10"	C900	DR 14	3	24
8"-10"	HDPE	SDR 17	5	24
MAIN SEWER NOT UNDER ROAD WAY				
8"-10"	DI	CLASS 52	1	30
8"-10"	C900	DR 14	3	24
SMALL TRUNK SEWERS				
12"	VC	-	6	18
15"	VC	-	6	25
12"	DI	CLASS 52	1	30
14"	DI	CLASS 52	1	30
16"	DI	CLASS 52	1	30
12"-15"	PVC	SDR 26	6	24
14"-24"	C905	DR 51	6	24
14"-24"	C905	DR 41	6	24
14"-24"	C905	DR 32.5	6	24
14"-24"	C905	DR 25	6	24
14"-24"	C905	DR 21	6	24
14"-24"	C905	DR 18	6	24

CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

CRITERIA FOR THE SEPARATION OF WATER MAIN AND GRAVITY SANITARY SEWERS

(REFERENCE: CALIFORNIA DOHS GUIDANCE MEMO NO. 2003-02)



PARALLEL CONSTRUCTION

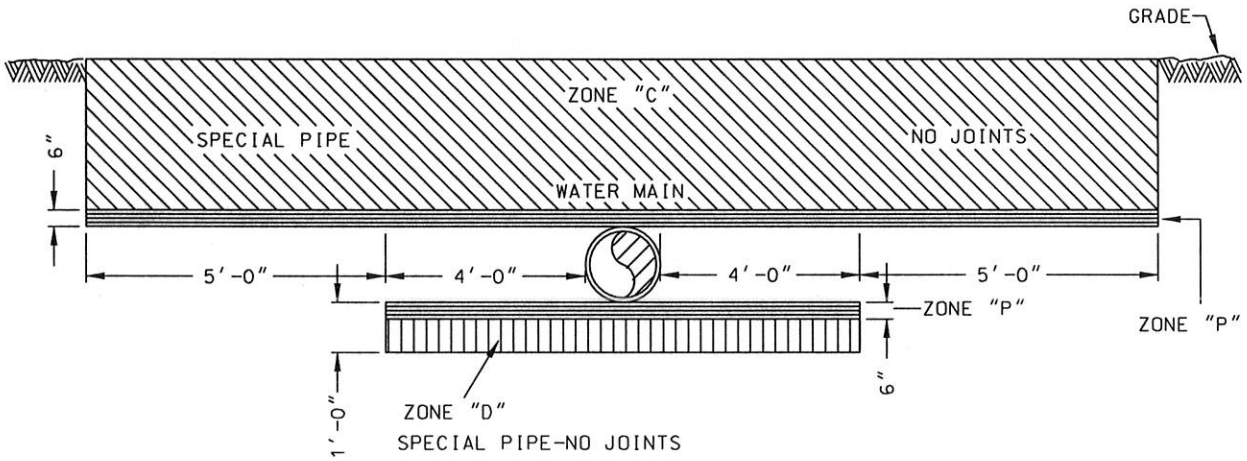
ZONE "A": SEWER LINES NOT PERMITTED WITHOUT APPROVAL OF WATER AGENCY

ZONE "B": PERMITTED MATERIALS
- -VC PIPE WITH COMPRESSION JOINTS
- -PVC PIPE WITH RUBBER RING JOINTS (ATSM 3034)
- -CI OR DI PIPE WITH COMP. JOINTS
- -RC PRESSURE PIPE WITH COMP. JOINTS
- -HDPE PIPE WITH FUSION WELDED JOINTS (AWWA C906-99)
- -SPIRALLY-REINFORCED HDPE PIPE WITH GASKETED JOINTS (ASTM F-984)

ZONE "C": PERMITTED MATERIALS
- -DI PIPE WITH HOT DIP BITUMINOUS COATING
- -C-900 PVC (DR 14). CONTINUOUS SECTION CENTERED OVER PIPE BEING CROSSED
- -RC PRESSURE PIPE. CONTINUOUS SECTION CENTERED OVER PIPE BEING CROSSED
- -ANY SEWER PIPE WITHIN A CONTINUOUS SLEEVE
- -HDPE PIPE WITH FUSION WELDED JOINTS (AWWA C906-99)

ZONE "D": PERMITTED MATERIALS
- -DI PIPE WITH HOT DIP BITUMINOUS COATING AND MECHANICAL JOINTS
- -HDPE PIPE WITH FUSION-WELDED JOINTS (AWWA C906-99)
- -C-900 PVC (DR 14) CONTINUOUS SECTION CENTERED OVER PIPE BEING CROSSED
- -RC PRESSURE PIPE CONTINUOUS SECTION CENTERED OVER PIPE BEING CROSSED
- -ANY SEWER PIPE WITHIN A CONTINUOUS SLEEVE

ZONE "P": NOT PERMITTED



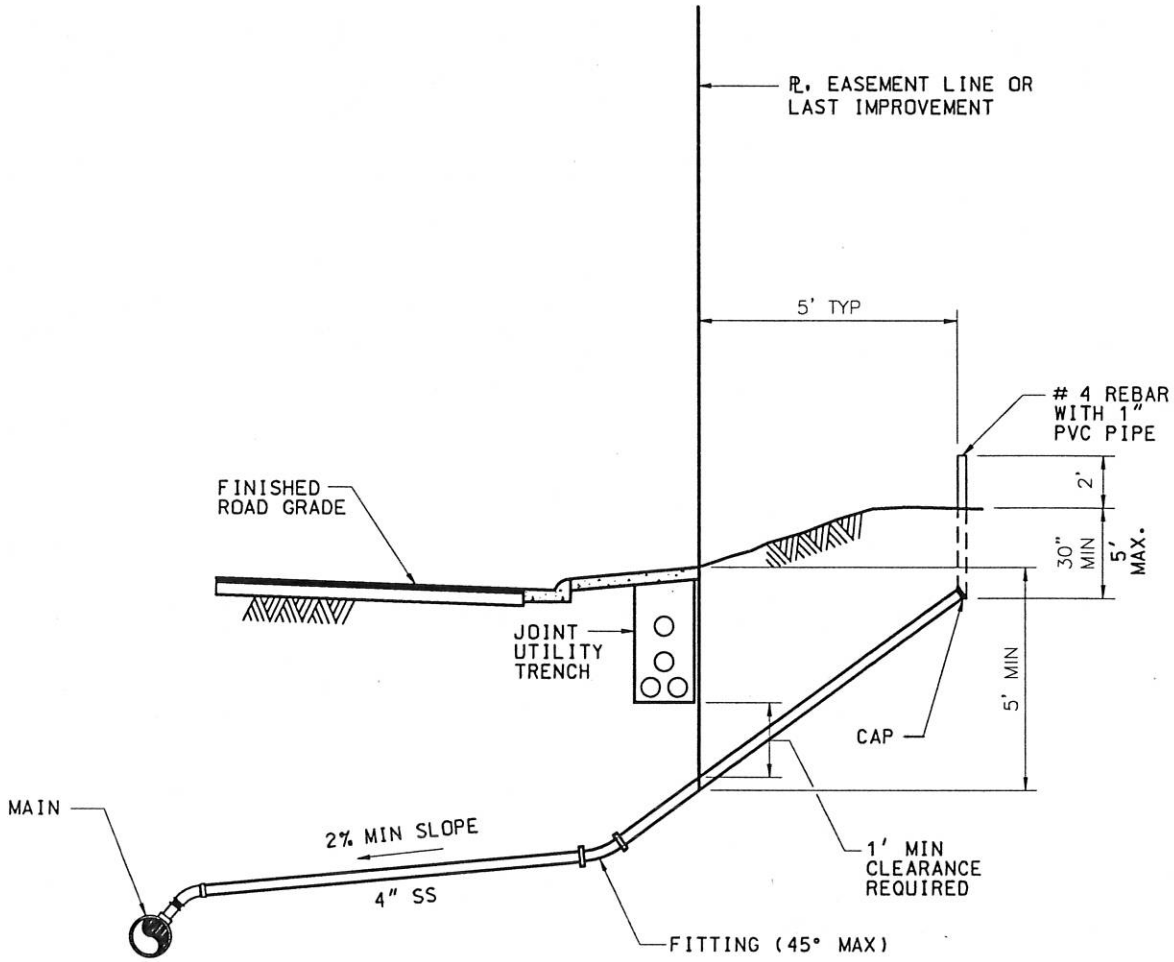
CROSSING

CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

LATERAL LAYOUT

(NEW SEWER MAIN CONSTRUCTION)



NOTES:

1. REFER TO SECTION 15.02205 FOR BEDDING AND BACKFILL REQUIREMENTS.
2. MINIMUM COVER FROM THE POINT OF CONNECTION TO THE BUILDING WASTE PLUMBING (WITHIN TWO FEET OF THE FOUNDATION) SHALL BE 18 INCHES. COVER REQUIREMENTS FROM THE PROPERTY LINE TO A POINT WITHIN 8 FEET OF THE BUILDING WASTE SHALL BE IN CONFORMANCE WITH DWG-19.

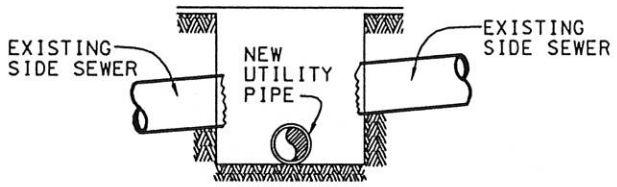
25-Jul-2011 K:\specs\colsys\Standard_Specs_updated_8-2010\DWG_25.dwg

CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

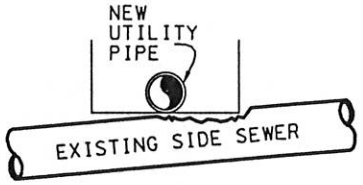
SIDE SEWER REPAIRS

SIDE SEWER BREAK NO CONFLICT IN GRADE

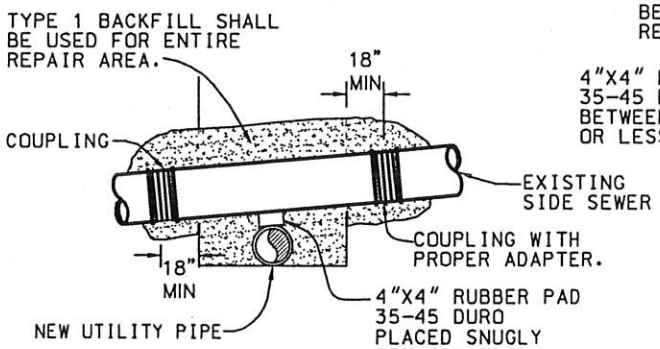


BREAK

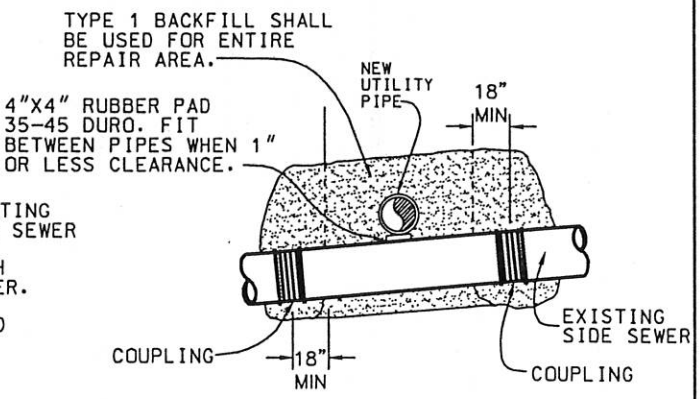
SIDE SEWER BREAK NO CONFLICT IN GRADE



BREAK



REPAIR

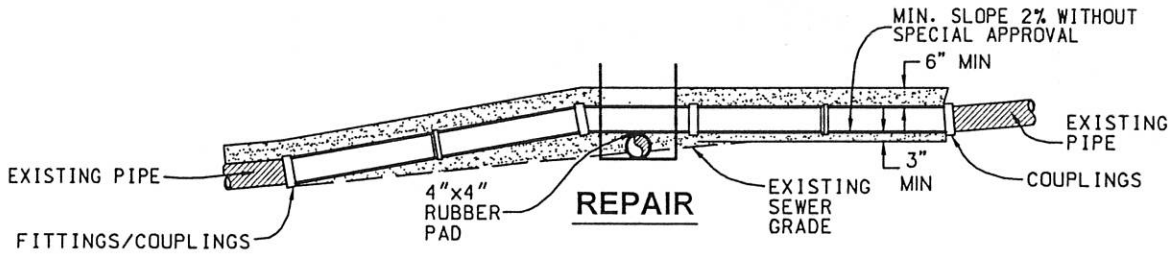


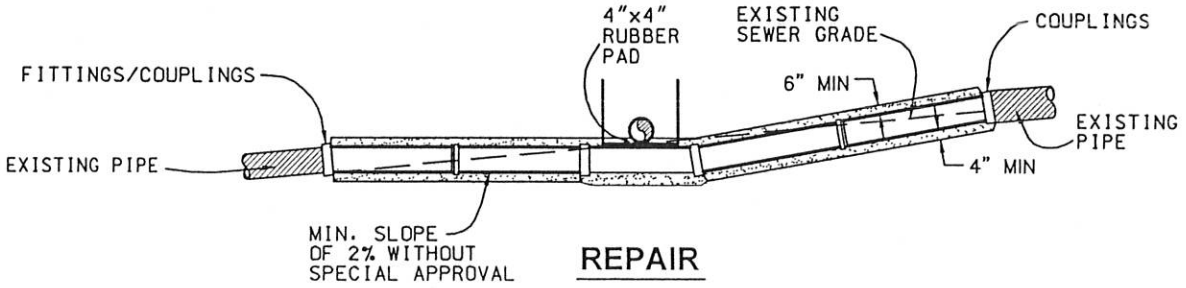
REPAIR

NOTES: 1. REFER TO SECTION 15.02600 LATERALS AND BUILDING SEWERS FOR SIDE SEWER DETAILS.

2. ALL EXCAVATIONS FOR REPAIRS SHALL BE EQUAL TO THE REQUIRED TRENCH WIDTH PLUS 18" ON EACH SIDE.

SIDE SEWER WITH CONFLICT IN GRADE





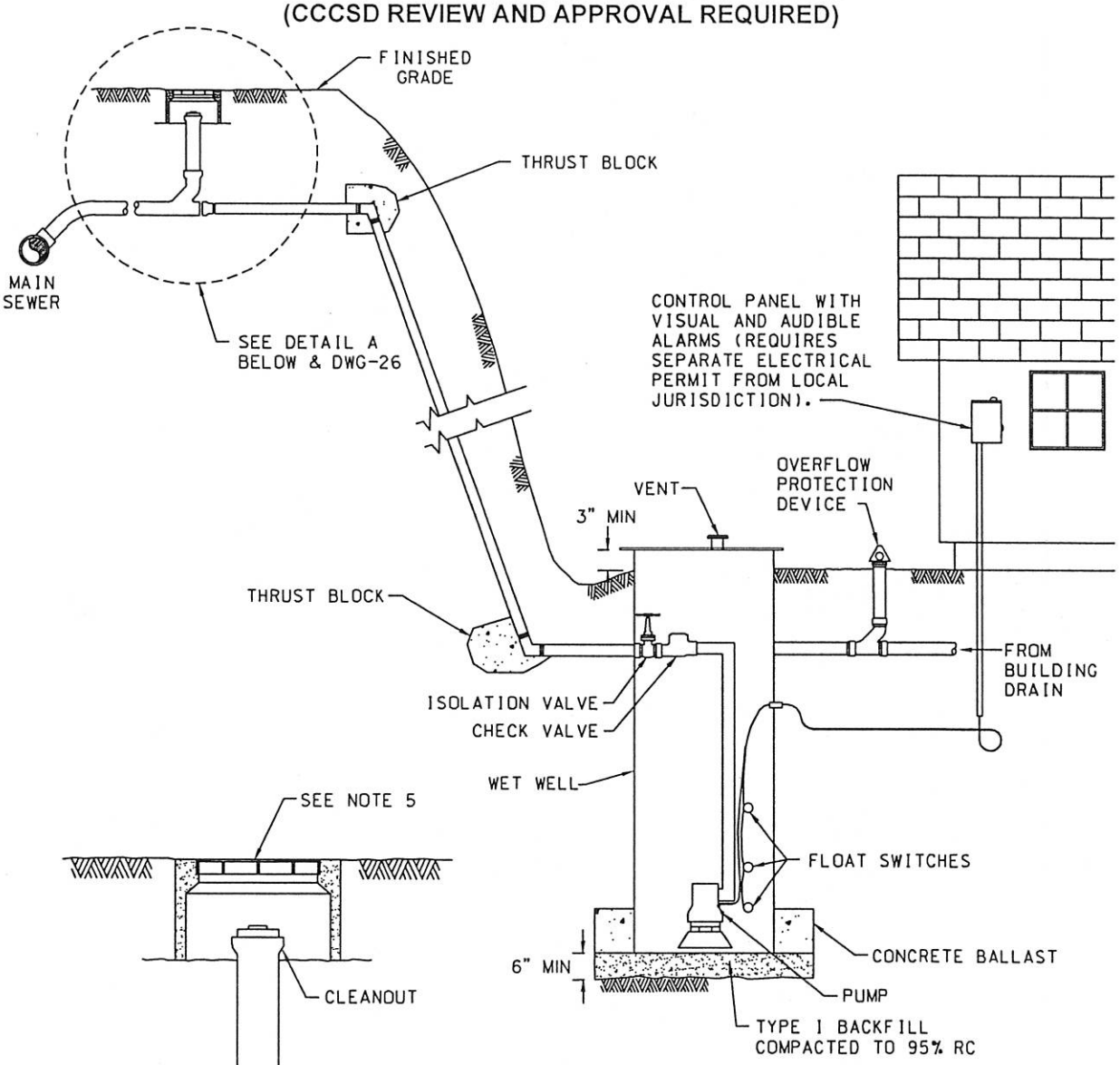
REPAIR

CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

INDIVIDUAL LOT PUMPING SYSTEM

(CCCSD REVIEW AND APPROVAL REQUIRED)



ELEVATION

(N.T.S.)

DETAIL A

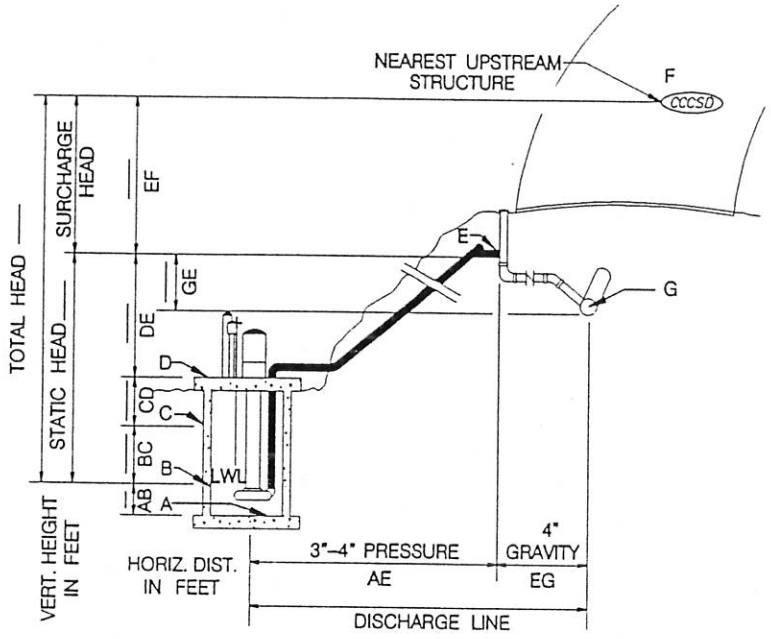
NOTES:

1. SEE APPROVED MATERIALS LIST FOR PRE-APPROVED PUMP PACKAGES.
2. CLEANOUT WITH OVERFLOW PROTECTION DEVICE SHALL BE INSTALLED AT BUILDING CONNECTION.
3. PUMP INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 15.13100.
4. SEE SECTION 15.02205 FOR BEDDING AND BACKFILL REQUIREMENTS.
5. SEE APPROVED MATERIALS LIST FOR TRAFFIC AND NON-TRAFFIC AREA PRECAST UTILITY BOXES AND GRATED LIDS.

CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

RESIDENTIAL SEWERAGE PUMPING SYSTEM



HYDRAULIC PROFILE
(See standard drawing for detail layout)

Owner: _____

_____

Address: _____

_____

_____

Site Location: _____

_____

Sewer Contractor: _____

_____

Do you have a Garbage Disposal? _____

Do you have a Septic Tank? _____

PUMP HEAD REQUIREMENTS

Static Head _____ Ft.

Surcharge Head _____ Ft.

Friction Head _____ Ft.

Total Dynamic Head _____ Ft.

EQUIPMENT DATA

1. Pump Manufacturer _____ Model # _____
2. Pump Capacity _____, GPM @ _____, TDH (Attach Pump Curve) _____
3. Pump Size _____, Type _____, Built for _____ deep sump.
4. Pump Discharge size _____ inches and will pass a _____ inch sphere.
5. Pump Brake Horsepower _____
6. Motor HP _____, RPM _____, PHASE _____, VOLTS _____
7. Pump Sump Manufacturer _____, Diameter x Height – _____ x _____
   Tank Material _____, Cover Material _____

DISTRIBUTOR NAME: _____ BY: _____ DATE: _____

PHONE # _____

DISTRICT USE ONLY (Do not write below this line)

Procedure	Date	By
1. Plot plan submitted:		
2. Elevation and distances checked:		
3. Equipment data submitted:		
4. Reviewed and approved:		
5. Associate Engineer plan review:		

APPROVED MATERIALS LIST

STANDARD SPECIFICATIONS

2011 EDITION

CENTRAL CONTRA COSTA SANITARY DISTRICT

Revised 08/17/11

Bedding and Backfill Materials

Material Type(s): Bedding Type, Backfill

Description:

TYPE	MATERIAL DESCRIPTION
CLSM	• Controlled Low Strength Material
Coarse	• Drain or Foundation Rock • Crushed stone or gravel (Not mined alluvial material) • Minimum of 95% crushed particles • Durability Index of 40
Type 1	• Class 2 Aggregate Base • Newly quarried or recycled material (Not mined alluvial material) • Three-quarter (3/4) inch maximum grading
Type 3	• Native material from trench excavation • Free of vegetable matter, debris and refuse, concrete, stones or clods larger than four (4) inches
Type 3 Select	• Native Material from trench excavation • Particles must not exceed three-quarter (3/4) inch in diameter • Free of vegetable matter, debris and refuse, concrete, stones or clods larger than four (4) inches

Cast Iron Fittings

Combination Wye and (1/8) Bend

1/8 Bend

Long Sweep Quarter Bend

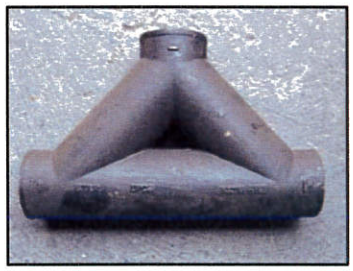
P Trap

Reducer

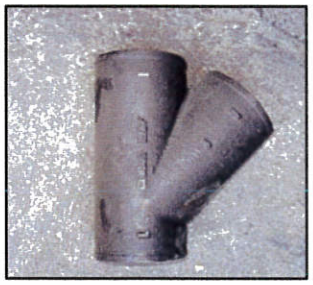
Reducing Combination

San Tee

1/16 Bend



Two Way Combination (Clean Out Only)



Wye

Twin Cleanout

Note: Other fittings may be accepted under special use approval. Contact the District Inspector for such circumstances. All fittings to be four inch (4") or larger.

Couplings

Material Type(s): Banded Rubber Couplings

Description: For repairs, alterations and house sewers with connections of dissimilar materials. Banded rubber couplings shall have four (4) clamps and metal shear bands.

Manufacturer: Manufacturers included but are not limited to:

1. Fernco®
2. Mission®
3. Husky®

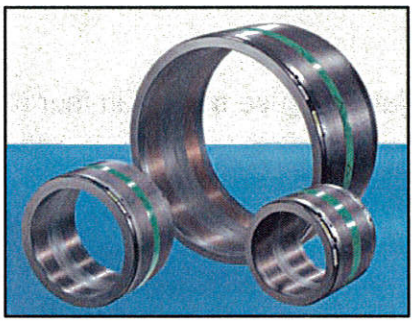
Note: Check with Inspector prior to purchase of material to insure proper coupling is selected for the different pipe types encountered.

Mission® Band Seal

Joints® Calder Coupling

Fernco® Proflex Coupling

High Density Polyethylene Couplings



Friatec® Frialen
Electrofusion Coupling

Overflow Protection Devices

Material Type(s): Overflow Protection Devices (OPD)

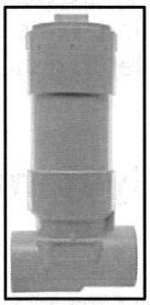
Description: Overflow protection devices prevent sewage from entering homes and businesses and reroute the spill outside the building.

Manufacturer:

	MANUFACTURER	PRODUCT NAME
Extendable Backwater Valve	Mainline Backflow Products	Adapt-a-valve Inspection Chamber with Test-Eze Gate Feature
	Rector Seal	Clean Check Backwater Valve
"Mushroom"	Genplex	Kelly Backwater Device (No-Hub & IPS)
Sewer Popper™	Stephens Corp	Sewer Popper™ Model S62-304
Relief Cap	Unlimited Home Solutions LLC (www.unlimitedhomesolutions.com)	Sewer Relief Cap

Extendable Backwater Valves

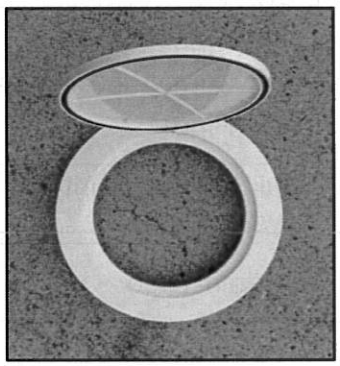
ABS



PVC

"Mushroom" OPD

Sewer Popper™ OPD



Sewer Relief Cap

Pipe Fittings: Less than 18" Sewers

Material Type(s): Pipe fittings

Description: Pipe fittings for pipelines that are less than eighteen (18) inches in diameter.

PIPE MATERIAL	FITTING
DIP	Wye, Tee, 11 ¼ ° Fitting, Mechanical Fittings
PVC Solid	Wye, Tee, Closure Coupling
	Saddle Tee, 3° Fitting, 11 ¼ ° Fitting
	90° Sweep Elbow
VCP	Wye, Tee

MANUFACTURER	FLEXIBLE FITTING	MAXIMUM ALLOWABLE FITTING DEFLECTION
Plastic Trends	SDR 26 Gasketed Sewer Fitting	4°
CertainTeed	Cast Iron O.D.	5°
	Iron Pipe Size O.D.	5°

90° Sweep Elbow for pressure side sewers

Saddle Tee Fitting

Wye, Tee Fitting

SDR 26 Heavy Wall Gasketed Sewer Fitting

Ready-Mix Designs

Material Type(s): Concrete mix

Manufacturer:

1. Central Concrete Supply
   Phone Number: (408) 404-1030

MIX DESIGNATION	MIX DESIGN #
Controlled Low Strength Material	F35138AA
Cast-in-place Concrete	1EF115Q1
	163115C1

2. Cemex
   Phone Number: (650) 333-5357

MIX DESIGNATION	MIX DESIGN #
Controlled Low Strength Material	4212893
Cast-in-place Concrete	4212798

Precast Products

Material Type(s): Precast Products such as Manhole Bases, Barrels, Cones, Grade Rings, Paving Rings, Adjustment Rings, Gaskets, Top Slabs, Grease Interceptors, Sampling Boxes and Sand-Oil Interceptors can be obtained from the following approved manufacturers.

Manufacturer:

1. Central Precast (US Concrete Precast Group)
   Phone Number: (925) 960-8740

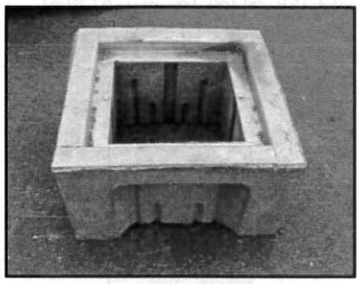
2. Jensen Precast
   Phone Number: (707) 429-5500

3. Cook Concrete Products
   Phone Number: (530) 243-2562

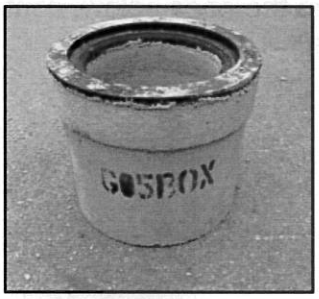
Reinforced Concrete Utility Boxes

Material Type(s): Utility boxes for traffic and non-traffic areas

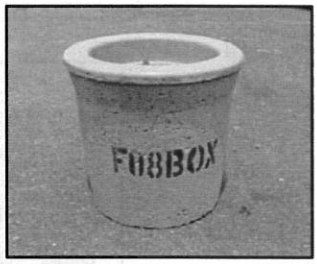
	ITEM DESCRIPTION	PRODUCT
Traffic Area	12" x 12" Drain Box	Christy® V12 Box
	10-3/8" I.D. x 12" Valve Box	Christy® or Jensen® G5 Traffic Valve
	Cast Iron Grate (3/8" Max Spacing) H/20 Loading	Christy® V12-71W Welded Grate
Non-Traffic Area	8" I.D. x 12" Valve Box	Christy® or Jensen® F8 Box
	8-1/2" I.D. x 11-3/4" Drain Box	Christy® V1 Drain Box
	10-5/8" I.D. x 17-1/4" Drain Box	Christy® V9 Drain Box
	Cast Iron Grate 3/4" Max Spacing	Christy® V1-71C Grate and V9-71C Grate



Christy® V12 Box



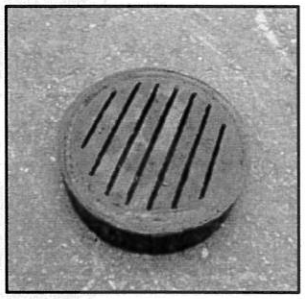
Christy® G5 Box



Christy® F8 Box

Christy® V12-71W Welded Grate

Christy® K-6004 Grate (Special Order)



Christy® V1-71C Grate

Grease Traps

(Referred to in the UPC as Hydromechanical Grease Interceptors)

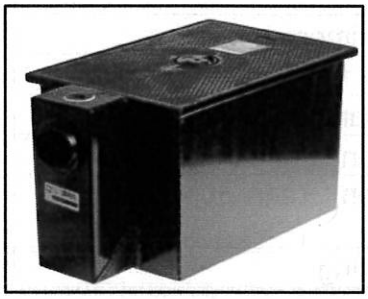
Material Type(s): Grease Traps

Description: Grease traps for trash enclosures with a 4" connector

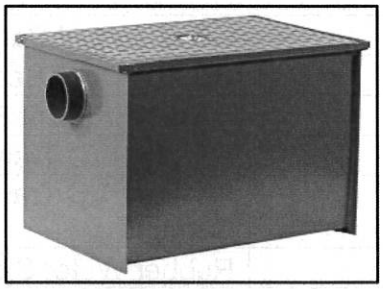
Manufacturers:

1. Zurn
   Phone Number: (805) 238-7100
2. Jay R. Smith Manufacturing Co.
   Phone Number: (334) 277-8520
3. Schier Products
   Phone Number: 1-800-827-7119
4. Dormont
   Phone Number: 1-800-376-6668

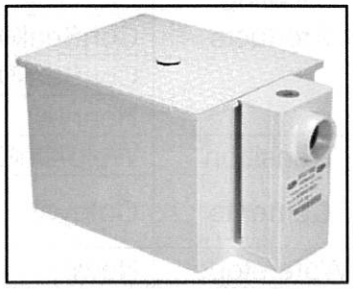
MANUFACTURER	PRODUCT
Zurn	Z1165, Z1170, Z1172, GT2700 Grease Interceptors
Jay R. Smith Manufacturing Company	8000-8100 Series
Schier	PATG-2025, PATG-2420
Dormont	WD Series PDI Certified Grease Interceptor



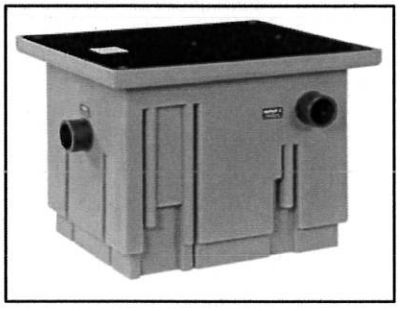
Jay R. Smith
800-8100 Series



Dormont
WD Series



Zurn
Z1170



Schier Products Trapper II*
PATG-2025 or PATG-2420
*Designed for indoor use only

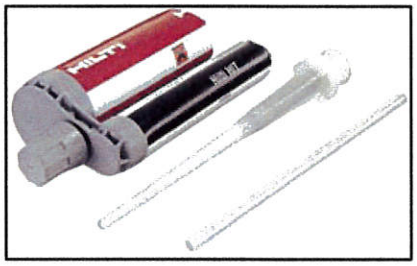
Note: Models without a standard 4" connector shall be upgraded to 4".

Miscellaneous Approved Materials

Anchors

Trubolt Wedge Anchor

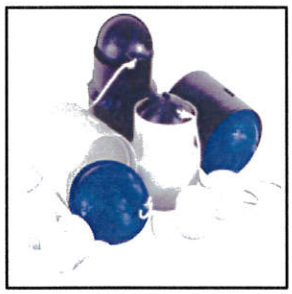
HVU Adhesive Capsule



HIT HY150 Adhesive Anchor

Miscellaneous

Waterstop Rings



HubSett™

Transition Cements

Oatey® ABS-PVC Cement

Weld-On® ABS-PVC Cement