

# **APPROVED MATERIALS LIST**

**STANDARD SPECIFICATIONS**

**2014 EDITION**

**CENTRAL CONTRA COSTA SANITARY DISTRICT**

Revised 09/2014

## TABLE OF CONTENTS

APPROVED MATERIALS LIST .....	1
BEDDING AND BACKFILL MATERIALS .....	3
GEOTEXTILE FABRIC.....	4
CAST IRON FITTINGS.....	5
CAST METAL PRODUCTS.....	6
COUPLINGS .....	7
HIGH DENSITY POLYETHYLENE COUPLINGS.....	9
HOUSE SEWERS: 4" AND 6" .....	10
OVERFLOW PROTECTION DEVICES .....	11
MAIN SEWERS: LESS THAN 18" .....	12
JOINT RESTRAINT SYSTEMS.....	12
PIPE FITTINGS: LESS THAN 18" SEWERS .....	13
TAPS.....	14
READY-MIX DESIGNS.....	15
PRECAST PRODUCTS.....	15
CONCRETE CURING COMPOUNDS .....	16
REINFORCED CONCRETE UTILITY BOXES .....	17
PUMP SYSTEMS .....	18
GREASE TRAPS .....	19
MISCELLANEOUS APPROVED MATERIALS .....	20
MISCELLANEOUS APPROVED MATERIALS .....	21

## Bedding and Backfill Materials

**Material Type(s):** Bedding Type, Backfill

**Description:**

TYPE	MATERIAL DESCRIPTION
<b>CLSM</b>	<ul style="list-style-type: none"> <li>• Controlled Low Strength Material</li> </ul>
<b>Coarse</b>	<ul style="list-style-type: none"> <li>• Drain or Foundation Rock</li> <li>• Crushed stone or gravel (Not mined alluvial material)</li> <li>• Minimum of 95% crushed particles</li> <li>• Durability Index of 40</li> </ul>
<b>Type 1</b>	<ul style="list-style-type: none"> <li>• Class 2 Aggregate Base</li> <li>• Newly quarried or recycled material (Not mined alluvial material)</li> <li>• Three-quarter (3/4) inch maximum grading</li> </ul>
<b>Type 3</b>	<ul style="list-style-type: none"> <li>• Native material from trench excavation</li> <li>• Free of vegetable matter, debris and refuse, concrete, stones or clods larger than four (4) inches</li> </ul>
<b>Type 3 Select</b>	<ul style="list-style-type: none"> <li>• Native Material from trench excavation</li> <li>• Particles must not exceed three-quarter (3/4) inch in diameter</li> <li>• Free of vegetable matter, debris and refuse, concrete, stones or clods larger than four (4) inches</li> </ul>

## Geotextile Fabric

**Material Type(s):** Geotextile fabric

**Description:** Geotextile fabric for paving and wrapping foundation rock.

	<b>Manufacturer</b>	<b>Product</b>
<b>FABRIC FOR WRAPPING FOUNDATION ROCK</b>	Mirafi	600X
	US Fabrics	US 315
	Webtec	HD
	Carthdage Mills	FX-66
	Amoco	2006
	Propex	300 ST
	SKAP	W315
	Thrace/Linq	GTF 300
<b>FABRIC FOR PAVING</b>	Mirafi	Mirapave 400
	US Fabrics	US 90P
	Webtec	OL
	Carthdage Mills	FX-38 OL
	Amoco	4599 Petromat
	Propex	381
	SKAP	GC 130
	Thrace/Linq	130 EX

# 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.

## Cast Metal Products

**Material Type(s):** Manhole frames, Covers, Rodding Inlets, Adjustment Rings

**Manufacturer:** Cast Metal Products such as Manhole Frames, Covers, Rodding Inlets and Adjustment Rings can be obtained from but are not limited to the following approved manufacturers:

1. D&L Foundry and Supply  
Phone Number: (707) 557-4525
2. South Bay Foundry  
Phone Number: (209) 367-1940

# 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**



**Husky® 4 Clamp Coupling  
(80 in-lb)**



**Fernco® Stainless Steel Shear Rings  
(60 in-lb)**



**Fernco® Strong Back RC Couplings  
(60 in-lb)**



**Fernco® 5000 Series RC Couplings  
(60 in-lb)**



**Fernco® No-Hub Couplings  
Silver (60 in-lb)  
Yellow & Green (80 in-lb)**



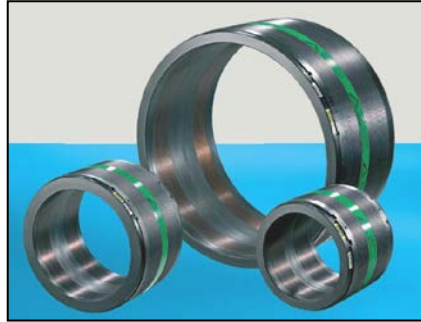
**Mission® Adjustable Repair Coupling**



**Anaco No Hub  
(60 in-lb)**



## High Density Polyethylene Couplings



**Friatec® Frialen  
Electrofusion Coupling**

## House Sewers: 4” and 6”

**Material Type(s):** Pipe

**Description:** Pipe material for house sewers in four (4) and six (6) inch in diameter.

1. PVC Solid Wall–SDR 26  
(Solvent Welded Joints)  
(Bell & Spigot Joints)
2. ABS Solid Wall Schedule 40  
(Solvent Welded Joints)
3. Vitrified Clay Pipe (VCP)  
(Bell & Spigot Joints)  
(Plain Ended Joints) – Repairs Only
4. DIP Class 52- Epoxy Lined and Bituminous Coating  
(Bell & Spigot Joints)
5. Cast Iron Soil Pipe (CIP) Class SV  
(Bell & Spigot Joints)  
(No-Hub) – Repairs Only
6. HDPE SDR 17 Gray (Ductile Iron Pipe O.D.)  
(Butt Thermal Fused Joints, Debeaded)  
(Pipe Bursting or Directional Drilling only or at Inspector’s discretion)
7. PVC Solid Wall C900  
(Bell & Spigot Joints)  
(DR-14, DR-18, DR-25)

**Note:** HDPE SDR 17 shall be purchased in longest length practicable in order to achieve the minimum amount of pipe joints during construction. A maximum of ten (10) joints per one hundred foot (100) length of laid pipe shall be achieved, unless all joints are de-beaded.

# 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 (6" Clean Outs Only)	Unlimited Home Solutions LLC (www.unlimitedhomesolutions.com)	Sewer Relief Cap

## Extendable Backwater Valves



**ABS**



**PVC**



**"Mushroom" OPD**



**Sewer Popper™ OPD**



**Sewer Relief Cap  
(6" Clean Outs Only)**

## Main Sewers: Less than 18”

**Material Type(s):** Pipe

**Description:** Pipe material for sewers less than eighteen (18) inches in diameter.

1. PVC Solid Wall–SDR 26  
(Bell & Spigot Joints)
2. Ductile Iron CL52 – Epoxy Lined and Bituminous Coated  
(Bell & Spigot Joints)
3. PVC Solid Wall C900 or C905  
(Bell & Spigot Joints)
4. HDPE SR 17 Gray (Ductile Iron Pipe Size O.D.)  
(Butt Fused Joints, de-beaded)
5. Vitrified Clay  
(Bell & Spigot Joints)

**Note:** Special approval may be granted by CCCSD for other materials as necessary for the specific application. Material shall be purchased in longest length practicable in order to achieve the minimum number of pipe joints.

## Joint Restraint Systems

	MANUFACTURER	JOINT RESTRAINT SYSTEM
<b>DIP</b>	American Ductile Iron Pipe	“Lok-Fast” Restrained Joint
	U.S. Pipe	“TR FLEX” Restrained Joint
	U.S. Pipe	“Field-Lok 350 Gaskets”
<b>PVC</b>	BullDog Restraint System	BullDog PVC Pressure Pipe Integrated Joint Restraint System
	Certain Teed	Certa-Lok restrained joint system

# 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**

# Taps

**Material Type(s):** Taps

**Description:** Tap materials for the corresponding type of main line sewer.

PIPE MATERIAL	MAINLINE TAP
<b>ABS</b>	<ul style="list-style-type: none"> <li>• Sealtite Type “S” Saddle with four (4) band coupling</li> <li>• ABS Saddle with solvent weld and two (2) stainless steel straps</li> </ul>
<b>ACP</b>	<ul style="list-style-type: none"> <li>• Fowler Saddle</li> </ul>
<b>CIP, DIP</b>	<ul style="list-style-type: none"> <li>• Fowler Saddle</li> <li>• Sealtite Type “S” Saddle with four (4) band coupling</li> </ul>
<b>HDPE</b>	<ul style="list-style-type: none"> <li>• Thermal-Fused Saddle</li> </ul>
<b>Insituform Liner</b>	<ul style="list-style-type: none"> <li>• PVC Saddle with Rubber Gasket and two (2) stainless steel straps</li> </ul>
<b>PVC</b>	<ul style="list-style-type: none"> <li>• Sealtite Type “S” Saddle with four (4) band coupling</li> <li>• PVC Saddle with Rubber Gasket and two (2) stainless steel straps</li> <li>• PVC Saddle with solvent weld and two (2) stainless steel straps</li> </ul>
<b>VCP</b>	<ul style="list-style-type: none"> <li>• Fowler Saddle</li> <li>• Sealtite Type “S” Saddle with four (4) band coupling</li> </ul>

**Note:** PVC taps may be done by any General Engineering (“A”) Contractor registered with CCCSD. All other taps must be done by either Tap-Tite Company or Roto-Rooter.



**ABS Saddle**



**Fowler Saddle**



**HDPE Saddle**



**PVC Saddle**

# 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

## Concrete Curing Compounds

**Material Type(s):** Concrete curing compounds

**Description:** Curing compounds shall be white pigmented and resin based.

<b>MANUFACTURER</b>	<b>COMPOUND</b>
Master Builders	MB-429
Burke Company	Spartan Cote Cure-Seal Hardener
Euclid Chemical Company	Super Rez Seal

**Note:** Sodium silicate compounds shall not be used.



# Reinforced Concrete Utility Boxes

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

	ITEM DESCRIPTION	PRODUCT
<b>Traffic Area</b>	10-3/8" I.D. x 12" Valve Box	Christy® or Jensen® G5 Traffic Valve
<b>Non-Traffic Area</b>	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
	Cast Iron Grate 3/4" Max Spacing and Max 1/4" wide slots	Christy® V1-71C Grate



**Christy® G5 Box**



**Christy® F8 Box**



**Christy® K-6004 Grate  
(Special Order)**



**Christy® V1-71C  
Grate**

# Pump Systems

**Material Type(s):** Pre-Approved Pump Systems, Pipe

Description:	VENDOR	SYSTEM	PIPE MATERIAL
	E-One	D-Series, W-Series, I-Series and G-Series	HDPE (SDR 11) or PVC (Sch 40 or 80)
	Liberty	2448- Series, Pro370 Series, Pro380 Series	HDPE (SDR 11) or PVC (Sch 40 or 80)
	Aqua Pro Pump Systems	E-Series, EDP Series, ESP-Series, SG-Series, DG-Series	HDPE (SDR 11) or PVC (Sch 40 or 80)

**Note:** Complete packages are required for Pre-Approved Pump Systems. This includes a pump, alarm panel, isolation and check valves, sump and sump extensions (as required). Individual parts of Pump System are not pre-approved by CCCSD. Models include but are not limited to the ones below, contact CCCSD for special approval of all others.



**E-One® Model D-H071**



**Liberty® 2448 Series**



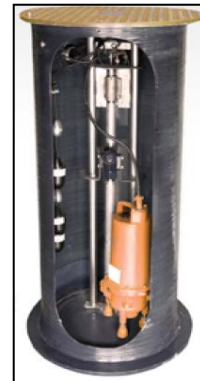
**E-One® Model Gator Grinder**



**Liberty® Pro370-Series**  
(2" discharge system,  
Required Access Riser)



**Liberty® Pro380 Series**  
(2" discharge system,  
Required Access Riser)



**Aqua Pro SG-1182-2**

# 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

	MANUFACTURER	PRODUCT
D.E. Separation Tanks	Pentair Pool Products	Product # 60 SEP
	Hayward Pool Products	Model # C9002 SEP
Epoxy Adhesive Anchors	Sika	FI System with Sikadur® Injection Gel Epoxy
	Hilti	HIT HY150 Adhesive Anchors
	BASF	Concresive® 1420 Gel Epoxy Adhesive
	BASF	Concresive® Paste LPL
Expanding - Type Anchors	ITW	Red Head®, Trubolt Wedge Anchor
	Hilti	Kwik-Bolt 3 Expansion Anchor
Galvanizing Field Repairs	Carboline®	Galvanox
Glass Capsule Polyester Resin Adhesive Anchors	Hilti	HVU Adhesive Capsule
HubSett™	Rector Seal®	HubSett™
Manhole Sealing Products	J-K Polysource®	External Joint Wrap M-860
	Henry®	Rubr-Nek External Joint Wrap
	ConSeal®	CS-50 Liquid Butyl Primer
	ConSeal®	CS-101 Butyl Sealant for Precast Structures
	Henry®	RAM-NEK Joint Sealant
Transition Cements	Weld-On®	ABS to PVC Transition Cement
	Oatey®	ABS to PVC Transition Green Solvent Cement
Waterstops	Newby	Rubber Water Stop Ring

# 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