HOMEOWNER'S PACKET

Requirements for the installation and repair of private house sewers
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**

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

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.

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

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.
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.
CENRAL 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.

ANGLE POINT RISER
IN LINE RISER
WYE
SANTEE

PLUG CONNECTION DETAIL

SPIGOT/HUB
SLIP SP x FPT

COUPLING
SOLVENT WELD JOINT

MINIMUM 4" CLEANOUT RISER

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.

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 RECOMMENDED 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 PSI. 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 PSI. AFTER APPROVAL, TEST EQUIPMENT MAY BE REMOVED AND HOUSE CONNECTION SHALL BE MADE.

HOUSE SEWER TEST

BUILDING DRAIN AND STANDARD CLEANOUT
SEE SEC 18-02 B 4
# AIR TEST CHART

(GRAVITY SEWERS ONLY)

<table>
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<tr>
<th>DIAMETER OF PIPE (INCHES)</th>
<th>LENGTH OF LINE (FEET)</th>
<th>LENGTH OF TEST (MINUTES)</th>
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<td>ALL</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>ALL</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>ALL</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>0 TO 215</td>
<td>4</td>
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<tr>
<td>10</td>
<td>215 AND GREATER</td>
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<td>12</td>
<td>0 TO 155</td>
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<td>155 TO 190</td>
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<td>15 &amp; 16</td>
<td>165 AND GREATER</td>
<td>8</td>
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</table>

**NOTES:**

1. ALL TESTS TO BE PERFORMED @ 4ps; 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 15.02750.
CENTRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CALIFORNIA

SHARED TRENCH DETAIL
TWO SIDE SEWERS IN ONE TRENCH
(SPECIAL APPROVAL REQUIRED)

TRENCH WIDTH:
24" FOR 4" SIDE SEWERS
36" FOR 6" SIDE SEWERS

6" MIN TYPE I BACKFILL (EXCEPT FOR CIP & DIP SIDE SEWERS)

4" MIN.

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 SPACED A MINIMUM OF 5 FEET APART.
# Central Contra Costa Sanitary District
## Martinez, California

### Standard Bedding and Cover Requirements for Gravity Sewer Installations

#### Pipe Cover Limitation Table

<table>
<thead>
<tr>
<th>Pipe Specifications</th>
<th>Min.-Max. Cover in ft.</th>
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<td><strong>Building Sewers</strong></td>
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<td>4&quot;-6&quot; PVC</td>
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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)

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 (ASTM 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

PARALLEL CONSTRUCTION

CROSSING
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.
CENRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CALIFORNIA

SIDE SEWER REPAIRS

SIDE SEWER BREAK
NO CONFLICT IN GRADE

BREAK

EXISTING SIDE SEWER
NEW UTILITY PIPE
EXISTING SIDE SEWER

NEW UTILITY PIPE
EXISTING SIDE SEWER

18" MIN

COUPLING
COUPLING

EXISTING SIDE SEWER
EXISTING SIDE SEWER

18" MIN

4"X4" RUBBER PAD
35-45 DURO. FIT BETWEEN PIPES WHEN 1" OR LESS CLEARANCE.

4"X4" RUBBER PAD
35-45 DURO. PLACED SNUGLY BETWEEN THE PIPES WHEN D.D. OF CROSSING PIPES ARE WITHIN 1"
OF EACH OTHER.

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

EXISTING PIPE
FITTINGS/COUPLINGS

MIN. SLOPE 2% WITHOUT SPECIAL APPROVAL
MIN. SLOPE OF 2% WITHOUT SPECIAL APPROVAL
4"X4" RUBBER PAD
EXISTING SEWER
GRADE

EXISTING PIPE
COUPLINGS

EXISTING PIPE
COUPLINGS

MIN. SLOPE 2% WITHOUT SPECIAL APPROVAL
6" MIN

3" MIN

4" MIN
CENTRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CALIFORNIA

INDIVIDUAL LOT PUMPING SYSTEM
(CCCSD REVIEW AND APPROVAL REQUIRED)

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
   GRADED LIDS.

DETAIL A
RESIDENTIAL SEWERAGE PUMPING SYSTEM

HYDRAULIC PROFILE
(See standard drawing for detail layout)

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 ________________, RPM ________________, PHASE ________________, VOLTS ________________
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

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

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.
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:**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>MATERIAL DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLSM</td>
<td>Controlled Low Strength Material</td>
</tr>
</tbody>
</table>
| 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:

<table>
<thead>
<tr>
<th>MANUFACTURER</th>
<th>PRODUCT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extendable Backwater Valve</td>
<td>Adapt-a-valve Inspection Chamber with Test-Eze Gate Feature</td>
</tr>
<tr>
<td>Rector Seal</td>
<td>Clean Check Backwater Valve</td>
</tr>
<tr>
<td>&quot;Mushroom&quot;</td>
<td>Kelly Backwater Device (No-Hub &amp; IPS)</td>
</tr>
<tr>
<td>Sewer Popper™</td>
<td>Sewer Popper™ Model S62-304</td>
</tr>
<tr>
<td>Relief Cap</td>
<td>Sewer Relief Cap</td>
</tr>
</tbody>
</table>

(www.unlimitedhomesolutions.com)

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.

<table>
<thead>
<tr>
<th>PIPE MATERIAL</th>
<th>FITTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIP</td>
<td>Wye, Tee, 11 ¼ ° Fitting, Mechanical Fittings</td>
</tr>
<tr>
<td>PVC Solid</td>
<td>Wye, Tee, Closure Coupling</td>
</tr>
<tr>
<td></td>
<td>Saddle Tee, 3° Fitting, 11 ¾ ° Fitting</td>
</tr>
<tr>
<td></td>
<td>90° Sweep Elbow</td>
</tr>
<tr>
<td>VCP</td>
<td>Wye, Tee</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MANUFACTURER</th>
<th>FLEXIBLE FITTING</th>
<th>MAXIMUM ALLOWABLE FITTING DEFLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic Trends</td>
<td>SDR 26 Gasketed Sewer Fitting</td>
<td>4°</td>
</tr>
<tr>
<td>CertainTeed</td>
<td>Cast Iron O.D.</td>
<td>5°</td>
</tr>
<tr>
<td></td>
<td>Iron Pipe Size O.D.</td>
<td>5°</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MIX DESIGNATION</th>
<th>MIX DESIGN #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlled Low Strength Material</td>
<td>F35138AA</td>
</tr>
<tr>
<td>Cast-in-place Concrete</td>
<td>1EF115Q1</td>
</tr>
<tr>
<td></td>
<td>163115C1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MIX DESIGNATION</th>
<th>MIX DESIGN #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlled Low Strength Material</td>
<td>4212893</td>
</tr>
<tr>
<td>Cast-in-place Concrete</td>
<td>4212798</td>
</tr>
</tbody>
</table>

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

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

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
   Phone Number: (334) 277-8520
3. Schier Products  
   Phone Number: 1-800-827-7119
4. Dormont  
   Phone Number: 1-800-376-6668

<table>
<thead>
<tr>
<th>MANUFACTURER</th>
<th>PRODUCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zurn</td>
<td>Z1165, Z1170, Z1172, GT2700</td>
</tr>
<tr>
<td></td>
<td>Grease Interceptors</td>
</tr>
<tr>
<td>Jay R. Smith Manufacturing</td>
<td>8000-8100 Series</td>
</tr>
<tr>
<td>Company</td>
<td></td>
</tr>
<tr>
<td>Schier</td>
<td>PATG-2025, PATG-2420</td>
</tr>
<tr>
<td>Dormont</td>
<td>WD Series PDI Certified Grease Intercepter</td>
</tr>
</tbody>
</table>

**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