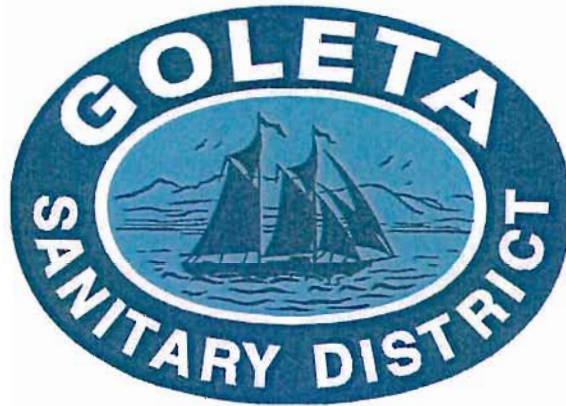


Goleta Sanitary District

Sewer System Management Plan



Revised September 2013

Updated: August, 2011
Updated: January 2010
Created: November, 2006

Approved and Adopted
Goleta Sanitary District Board of Directors
September 25, 2013

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Executive Summary

The Goleta Sanitary District provides sanitary sewer service for the Goleta Valley community in Santa Barbara County, California. The District owns and operates the wastewater treatment plant that has a design capacity of 9.7 MGD. The current NPDES permit, R3-2010-0012, issued by the Central Coast Regional Water Quality Control Board limits daily treatment capacity to 7.2 MGD. Current Average Daily Dry Weather flows are at approximately 4.8 MGD. The treatment plant receives and treats wastewater from the Santa Barbara Municipal Airport, UCSB, Goleta West Sanitary District and facilities of the County of Santa Barbara. The District owns and maintains approximately 130 miles of gravity sewer pipes, ranging in size from 4-inch to 36-inch diameter. The District owns and maintains two (2) lift stations. One lift station, originally built in 1957, is in a residential area and handles flows from 14 residential units. The second lift station, completed in 2010 replaced a lift station originally built in 1961, handles flows of approximately 0.1 MGD from an industrial basin and portions of the Santa Barbara Municipal Airport. There is a total of 2,300 linear feet of pressurized force main pipe from these two lift stations, 2,000' of which was installed in 2010. The sewer laterals are owned and maintained by the individual property owner.

This document presents the Goleta Sanitary District's Sewer System Management Plan (SSMP) prepared pursuant to the Waste Discharge Requirements Order No. 2006-0003 DWQ (as amended or revised), issued by the State Water Resources Control Board (SWRCB). The District's goals, organizational structure, and legal authority are described. Specific provisions, programs and plans are also described. The District strives to maintain and operate these collection system facilities in an efficient and cost-effective manner while maintaining its historical record of zero to near zero Sanitary Sewer Overflows on a continual basis.

Abbreviations and Acronyms

The following abbreviations and acronyms, when used in this Sanitary Sewer Management Plan, shall have the designated meanings:

AB	Assembly Bill
BMP	Best Management Practice
Cal OES	California Office of Emergency Services
CCTVI	Closed Circuit Television Inspection
CFR	Code of Federal Regulations
CIP	Capital Improvement Plan, Capital Improvement Project or Capital Improvement Program
CMMS	Computerized Maintenance Management System
CSRMA	California Sanitation Risk Management Authority
CWEA	California Water Environment Association
CIWQS	California Integrated Water Quality System Online SSO Database
District	Goleta Sanitary District
DS	Data Submitter
EPA	Environmental Protection Agency
ERP	Emergency Response Plan or OERP
FOG	Fats, Oils and Grease
FSE	Food Service Establishment

GIS	Geographical Information System
GSD	Goleta Sanitary District
GWDR	General Waste Discharge Requirements or Waste Discharge Requirements (WDR)
GWSD	Goleta West Sanitary District
I/I	Inflow and Infiltration
IWC	Industrial Waste Control
LRO	Legally Responsible Official
MGD	Million Gallons per Day
mg/L	milligrams per liter
MRP	Monitoring and Reporting Program as revised September 9, 2013
MS4	Municipal Separate Storm Sewer System
NOV	Notice of Violation
NPDES	National Pollution Discharge Elimination System
O&M	Operation and Maintenance
Order	SWRCB Order No. 2006-0003-DWQ adopted May 2, 2006
PM	Preventive Maintenance
POTW	Publicly Owned Treatment Works
RWQCB	Regional Water Quality Control Board
SOP	Standard Operating Procedure
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SSS WDR	Sanitary Sewer System Waste Discharge Regulation Order No. 2006-0003-DWQ adopted May 2, 2006
Spill	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
USA	Underground Service Alert
WEF	Water Environment Federation

Supporting Documents

SWRCB Order No. 2006-0003-DWQ – Statewide General Waste Discharge Regulations for Sanitary Sewer Systems
SWRCB Order No. WQ 2013-0058-EXEC – Revised Monitoring and Reporting Program
RWQCB NPDES Permit R3-2010-0012
District Ordinance # 77
Goleta Sanitary District Standard Specifications for Design and Construction of Sanitary Sewers (2008)
Goleta Sanitary District Cleaning, Repair and Maintenance Procedures Manual
Goleta Sanitary District FOG and Source Control Program
Goleta Sanitary District Master Plan 2000
Goleta Sanitary District Overflow Emergency Response Plan

Element 1. Goals

Regulatory Requirement-The WDR/SSMP requires that the goal of the SSMP provides a plan and schedule to properly manage, operate and maintain all parts of the sanitary sewer system. This will help reduce and prevent Sanitary Sewer Overflows (SSO), as well as mitigate any SSOs that do occur.

The goal of the District's SSMP is to prevent overflows and to provide a plan and schedule to maintain and update existing programs and measures in order to prevent overflows within the Goleta Sanitary District (GSD) in accordance with SWRCB Orders, current RWQCB NPDES Permit and District policies and procedures.

Element 2. Organization

Regulatory Requirement- The SSMP must identify:

- (a) The name of the responsible or authorized representative as described in Section J of this Order,
- (b) The names and telephone numbers for management, administrative and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation and,
- (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable.

A. Legally Responsible Officials (LRO), CIWQS Data Submitters and District Staff

1. Mr. Kamil Azoury (LRO), P.E., General Manager and District Engineer. The general manager is responsible for the overall operation and performance of the District and SSMP development and implementation.
2. Mr. Jeffrey Salt (LRO), District Operations Manager. Mr. Salt manages District plant treatment, collection system, industrial waste control, laboratory and plant maintenance staff and assists Mr. Azoury in SSMP development and implementation.
3. Mr. John Corral (LRO), Collections System Supervisor and Inspector, performs day to day supervision of collection system staff and is responsible for SSMP implementation and maintenance and reporting and certification of SSOs in accordance with District procedures.

Data Submitters

1. Mr. Luis Astorga, Collection System Maintenance Technician II, assist in the implementation and daily activities of the SSMP. Reports SSOs in the absence of Mr. Corral.
2. Mr. Juan Ramirez, Collection System Maintenance Technician II, assist in the implementation and daily activities of the SSMP. Reports SSOs in the absence of Mr. Corral.

District Supervisors

1. Mr. Chuck Smolnikar, Facilities Maintenance Supervisor, supervises the treatment plant maintenance staff and is responsible for the maintenance of District pump stations and District vehicles.
2. Ms. Kathleen Werner, Technical Services Supervisor, supervises the laboratory staff and assists the Collection System staff with water quality sampling and testing on an as-needed basis.

Industrial Waste Control

Ms. Teresa Kistner is the District's Industrial Waste Control Officer and is responsible for the FOG and Source Control program.

Collection System Staff

District collection system staff, under direct supervision of the Collection System Supervisor, clean, repair, operate Closed Circuit Television Inspection (CCTVI) equipment and maintain the District's collection system facilities in accordance with District procedures and guidelines developed as part of the SSMP.

All of the above-referenced District personnel can be contacted at the District's telephone number (805) 967-4519 during normal business hours.

The California Water Environment Association (CWEA) certification and grade of collection system personnel is shown on Table 2-1.

The District's Organization Chart is shown on Table 2-2.

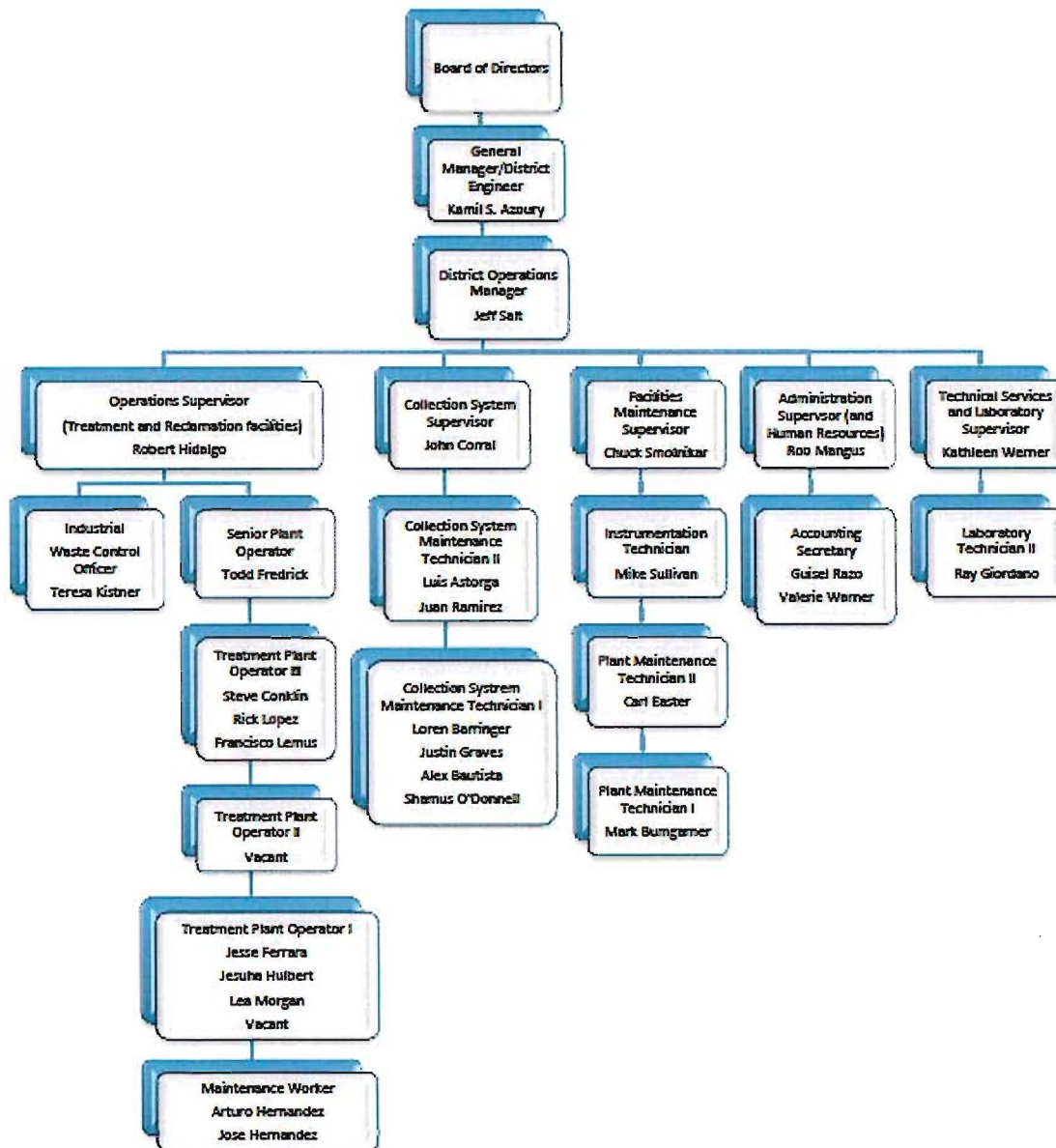
**Table. 2-1. CWEA Certification-Collection System Staff, 2013
Collection System Maintenance**

Staff	Grade	Certificate No.
John Corral	III	04012304
Luis Astorga	III	04012302
Juan Ramirez	II	04012259
Loren Barringer	I	060721043
Justin Graves	I	080721163
Alex Bautista	I	120621012
Shamus O'Donnell	I	120721016

Table 2.2 Goleta Sanitary District Organization Chart

GOLETA SANITARY DISTRICT

Organization Chart



**Table 2-2
Table of Element Responsibilities**

Element Number	Element Title	Responsible Party	Contact Information
1	Goals	Kamil Azoury	805-967-4519
2	Organization	Kamil Azoury	805-967-4519
3	Legal Authority	Kamil Azoury	805-967-4519
4	Operations and Maintenance Program	John Corral	805-967-4519
5	Design and Performance Provisions	Kamil Azoury	805-967-4519
6	Overflow Emergency Response Plan	John Corral	805-967-4519
7	Fats, Oils and Grease Control Program	Teresa Kistner	805-967-4519
8	System Evaluation and Capacity Assurance Plan	Kamil Azoury	805-967-4519
9	Monitoring, Measurement and Plan Modification	John Corral	805-967-4519
10	SSMP Program Audits	John Corral	805-967-4519
11	Communications Plan	John Corral	805-967-4519

B. Chain of Communication for Reporting Overflows

The SSMP must identify the chain of communication for reporting overflows.

When the District is notified of sewer line emergencies, such as overflows, the Collection System Supervisor or the first available Collection System Maintenance Technician II (CSMT II) is immediately contacted. Documentation of the reported problem begins with this initial notification. The Supervisor or CSMT II determines the personnel and equipment to dispatch to the reported problem site. If a spill has or is occurring, District staff will take immediate corrective action in accordance with GSD Emergency Spill Response and Clean up Procedures. The Supervisor or CSMT II initiates the SSO notification process by contacting Cal OES, the Santa Barbara County Public Health Department, the District Operations Manager and the District General Manager. The Supervisor or CSMT II will also initiate the California Integrated Water Quality Systems (CIWQS) on-line reporting program and will verify that the District Service Call Response form has been completed by the responding Collection System staff.

Weekend, After Hours and Holiday Calls

All District-related sewer line emergency calls (including those originating from the Firestone Lift Station and the El Sueno Lift Station Auto-Dialer) that are received by the District's answering service after normal working hours on weekdays, and on Saturdays, Sundays and holidays are immediately forwarded to the District Collection System On Call Person. The On Call Person provides initial notification to the Collection System Supervisor, responds to the emergency call to eliminate the SSO and begin spill cleanup procedures. In the absence of the Supervisor and CSMT II, the On Call Person also makes the initial notification to Cal OES for Category 1 spills, the District Operations Manager and the District General Manager. The On Call Person will make an entry in the District Operation log documenting the response to the SSO and will complete the District Service Call Response form. If the Supervisor or CSMT II has not been contacted, the On Call Person will continue to contact the Supervisor, a CSMT II, the District Operations Manager or the District General Manager to inform them of the SSO.

If the On Call Person does not respond to the answering service, the following personnel are contacted in the listed order:

1. Loren Barringer	683-0071	5. Alex Bautista	816-6357
2. Luis Astorga	760-4426	6. Shamus O'Donnell	570-0207
3. Juan Ramirez	558-4007	7. John Corral	448-7517
4. Justin Graves	588-9501	8. Jeff Salt	569-7653

The first person contacted assumes the duties of the On Call Person to contact the Collection System Supervisor, respond to the emergency, eliminate the SSO, begin cleanup procedures and make the initial notification to Cal OES, the District Operations Manager and the District General Manager. The responding District staff member will make an entry in the District Operation log documenting the response and will complete the District Service Call Response form. The responding person will continue to contact the Supervisor, CSMT II, the District Operations Manager or the District General Manger to inform them of the SSO.

Upon notification of a SSO, the Collection System Supervisor or the CSMT II will make the initial notification to Cal OES within the required two hour time frame of becoming aware of a Category 1 SSO. The Supervisor will contact the District Operations Manager and the District General Manager. The Supervisor reviews the initial response documentation, SSO volume calculation, initiates SSO monitoring procedures and makes any revised reports to Cal OES and CIWQS. The Collection System Supervisor has the primary responsibility to certify all CIWQS reports and technical reports completed for SSOs as the District's Legally Responsible Official (LRO). The Operations Manager or General Manager will certify all CIWQS reports and technical reports in the absence of the Collection System Supervisor.

C. Reporting Procedures

In accordance with the District's current OERP, State Water Resources Control Board Order No. WQ 2013-0058-EXEC and State Water Resources Control Board Statewide General Waste Discharge Requirements for Sanitary Sewers, Order No. 2006-0003-DWQ, the following notifications are to be completed within the specified timeframes when a Sanitary Sewer Overflow (SSO) occurs within the jurisdiction of the District.

Initial Notification to be completed as soon as possible by the following District personnel:

John Corral, Collection System Supervisor, if not available, then:

Luis Astorga, CSMT II, if not available, then:

Juan Ramirez, CSMT II, if not available, then:

The District On Call Person or First Responding Person, or

Jeff Salt, District Operations Manager, or

Kamil Azoury, District General Manager

The District adheres to the SWRCB WDR reporting requirements for the four (4) categories of SSOs:

Notification for Category 1 SSOs – Category 1 SSOs are defined as discharges of untreated or partially treated wastewater of **any volume** resulting from the District's sanitary sewer system failure or flow condition that:

- Reach surface water and/or reach a drainage channel tributary to a surface water; or
- Reach a municipal separate storm sewer system (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the municipal separate storm sewer system is considered to have reached surface water unless the storm drain system discharges to a dedicated water or ground water infiltration basin.

In the event of a Category 1 SSO that is greater than or equal to 1,000 gallons that has discharged to surface water or spilled in a location where it will probably be discharged to surface water, Cal OES shall be notified as soon as possible without substantially impeding response or clean up measures, but no later than two (2) hours of becoming aware of the SSO:

Cal OES 1-800-852-7550

Obtain a Notification Control Number and the name of the person spoken to at Cal OES

All Category 1 SSOs are to have a draft report submitted to California Integrated Water Quality System (CIWQS) Online Database (<http://ciwqs.waterboards.ca.gov/>) within 3 business days of the District becoming aware of the SSO.

These reports are to be certified by a District Legally Responsible Official (LRO) within 15 calendar days of the SSO end date.

In the event of a Category 1 SSO that is 50,000 gallons or greater, the District is to submit and certify in the CIWQS Online Database System a SSO Technical Report within 45 calendar days of the SSO end date. Additionally, the District shall conduct water quality sampling within 48 hours of the spill according to the District Water Quality Monitoring Program per Section D. of the MRP. This program is detailed in Section III of the District's OERP.

Notification for Category 2 SSOs – Category 2 SSOs are defined as discharges of untreated or partially treated wastewater of **1,000 gallons or greater** resulting from the District's sanitary sewer system failure or flow conditions that do not reach surface water, a drainage channel, or a municipal separate storm sewer system unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

All Category 2 SSOs are to have a draft report submitted to CIWQS within 3 business days of the District becoming aware of the SSO.

These reports are to be certified by a District LRO within 15 calendar days of the end date of the SSO.

Notification for Category 3 SSOs – Category 3 SSOs are defined as all other discharges of untreated or partially treated wastewater resulting from the District's sanitary sewer system failure or flow conditions.

All Category 3 SSOs are to have a certified report submitted to CIWQS within 30 calendar days of the month in which the SSO occurred.

Notification for a Private Lateral Sewage Discharge (PLSD) – PLSD are defined as discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the District's sanitary sewer system or from other private sewer assets.

PLSDs that the District is aware of are to be reported to Santa Barbara County Public Health
1-805-681-4900

Amended CIWQS Reports – The District LRO will amend CIWQS reports if any significant changes to the initial report have occurred, as detailed in Section II of the District's OERP.

No Spill Certifications – The District LRO will certify on the CIWQS system, on a monthly or quarterly basis, those months or quarters in which a SSO has not occurred. This certification shall occur within 30 calendar days of the month or quarter in which no SSOs occurred.

SSO Review and Corrective Actions – The District will review SSOs in an effort to prevent SSO reoccurrence and to minimize future SSO frequency and volume. This review is detailed in Section 5 of the District’s OERP.

Collection System Questionnaire - The District LRO will complete and update the Collection System Questionnaire on the CIWQS system on an annual basis.

Element 3. Legal Authority

Regulatory Requirement- The SSMP shall include legal authority through sewer use ordinances, service agreements, or other legally binding procedures to:

- (a) Prevent illicit discharges,
- (b) Require that sewers and connections be properly designed and constructed,
- (c) Ensure access for maintenance, inspection or repairs for portions of the lateral owned or maintained by the District
- (d) Limit fats, oils, greases and other debris that may cause blockages in the collection system and
- (e) Enforce any violation of District Ordinances.

District Ordinance #77 is the legal authority regulating the use of the District's Publicly Owned Treatment Works (POTW). Ordinance #77 sets forth uniform requirements for users of the POTW and enables the District to comply with all applicable State and Federal laws, including the Clean Water Act (33 United States Code section 1251 et seq.) and the General Pretreatment Regulations (Title 40 of the Code of Federal Regulations Part 403). The objectives of Ordinance #77 are to prevent the introduction of pollutants that will interfere with the operation of the POTW or pass through the POTW inadequately treated or otherwise be incompatible with the POTW; to protect both the POTWs personnel and the general public; to promote reuse and recycling of industrial wastewater and biosolids from the POTW and to enable the District to comply with its National Pollutant Discharge Elimination System (NPDES) permit conditions, sludge use/disposal requirements and any other Federal or State laws to which the POTW is subject. District Ordinance #77 applies to all users of the POTW and provides for monitoring, compliance and enforcement activities as well as establishes administrative review procedures.

A. Prevent Illicit Discharges

The District has full authority and the responsibility to prevent the discharge of illicit discharges to the sanitary sewer system. District Ordinance #77, an Order of the Governing Board of the Goleta Sanitary District Adopting an Ordinance and Regulating the Use of the Goleta Sanitary District Sewerage System, adopted by the District's Governing Board on April 16, 2012 is the current District sewer use ordinance. Section 4.1 Prohibited Discharge Standards list those substances that shall not be discharged to the sewer or Publicly Owner Treatment Works (POTW). Section 4.2 and 4.3 state that users shall comply with National Categorical Pretreatment Standards and State Pretreatment Standards. Section 4.4 establishes local limits for discharges into the District's sewer system and treatment works.

B. Require That Sewers and Connections be Properly Designed and Constructed

District Ordinance # 77, Section 3 addresses Building Sewers and Connections. Section 3.7 states the Specifications of building sewers and requires that all sewers shall be constructed in accordance with the Goleta Sanitary District Specifications for Design and Construction of Sanitary Sewers (2008). District Ordinance # 77 Section 3.8 states that all plumbing fixtures shall conform to the provisions and codes of the City of Goleta, County of Santa Barbara and State of California.

Goleta Sanitary District Standards and Specifications for Design and Construction of Sanitary Sewers (2008) address proper construction and connection in the following sections: Section 4 Sewer Permit Application, Section 5 Sewer Feasibility Studies, Section 6 Improvement Plans, Section 7 Design Criteria, Section 8 Legal Relations and Responsibilities, Section 9 Construction Materials, Section 10 Open Trench Construction Methods, Section 11 Inspection and Testing.

C. Maintenance and Repairs of Sewer Laterals.

The District does not maintain or own any portion of the sewer laterals. District Ordinance # 77 specifies in Section 3.3 that “The property owner is responsible for maintaining the building sewer from the building up to and including the WYE connection.” The District Standards and Specification for the Design and Construction of Sanitary Sewers Section 4.10 states that “The side sewer is private from the connection to the public sewer, including the wye, to its connection with the building. The Owner is responsible for maintaining the side sewer. The District is not responsible for damage caused by breaks or leaks in the side sewer.”

D. Limit the Discharge of Fats, Oils and Greases (FOG) and other Debris

The District employs a full-time Industrial Waste Control Officer who is responsible for implementing the District’s Source Control Program. This program was originally implemented under 40 CFR 403 and approved by the EPA in July of 1983. It has since evolved into the District’s current FOG/Source Control Program that the District utilizes to ensure compliance of local users with Federal and State regulations as well as District local limits. There are currently 50 industrial users, 10 groundwater remediation sites, and over 90 Food Service Establishments that are monitored by the District.

District Ordinance # 77, Section 4 is the General Use Requirements, Section 4.1 B 6 specifically addresses Fats, Oils and Greases. Section 5 – Pretreatment of Wastewater, Section 6 – Individual Wastewater Discharge Permits, Section 7 – Individual Wastewater Discharge Permit Issuance, Section 8- Reporting Requirements, Section 9 – Compliance Monitoring and Section 12 – Administrative Enforcement Remedies have all been implemented in to the FOG/Source Control Program to limit the discharge of FOG and other debris that may cause blockages in the District’s sewer system.

E. Enforcement of District’s Sewer Ordinances

District Ordinance # 77, Section 12 – Administrative Enforcement Actions list the actions that the District may take to enforce compliance with this ordinance. These actions include but are not limited to Consent Orders, Compliance Orders, Cease and Desist Orders and Termination of Service. Section 13 – Judicial Enforcement Remedies provide the District the ability to seek civil and criminal penalties for those actions that would require civil penalties and criminal prosecution.

Element 4. Operation and Maintenance Program

Regulatory Requirement- The SSMP must include the following elements:

- (a) Maintain an up-to-date map of the sanitary sewer system,
- (b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary system with more frequent cleaning and maintenance at known problem areas. The Preventive Maintenance program should have a system to document scheduled and conducted activities, such as work orders,
- (c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. That plan shall include a time schedule for implementing short and long term plans plus a schedule for developing the funds needed for the capital improvement plan,
- (d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained, and
- (e) Provide equipment and replacement parts inventories including identification of critical replacement parts.

A. Maintain an Up-To-Date Map of the Sewer System

The District has a geographic information system (GIS) showing the location of all sewer line segments and manholes. This computerized system is linked to the District's Computerized Maintenance Management Program (CMMP) and billing programs so that detailed information regarding the District sewerage facilities and parcels that are served by the District is readily available. The District also maintains record drawings of these facilities and all District owned and maintained pumping facilities and pressure pipes. The Collection system staff maintains a list of map updates that are added to the CMMP and the GIS Map on an as-needed basis. All new collection system facilities are added to the CMMP and GIS after the District reviews and accepts the Project Record Drawings. Other updates, such as software and computer hardware updates of the GIS system is done on an as-needed basis.

The District does not maintain maps of storm water conveyance facilities because it does not have jurisdiction over such facilities and the storm drain facilities within the District's service area are the responsibility of the County of Santa Barbara, Public Works Department, Water Resources Division (Flood Control). The District has established a close working relationship with County Flood Control and routinely request copies of what information that Flood Control does have of its storm drain system. The District in the next few years will work to obtain mapping of these facilities as they become available.

B. Operation and Maintenance Activities

The Goleta Sanitary District is continuously improving and updating its proactive, condition based sewer system maintenance program. The District's maintenance schedule allows staff to clean, and inspect every sewerline and manhole using a schedule that is flexible enough to adjust to conditions found during cleaning. Every inspection and cleaning is documented and entered into the District's CMMP. The District's operations and maintenance programs have resulted in limiting priority area responses and decreasing the amount of high frequency maintenance segments and potential SSOs. The District maintains records and a database using the HANSEN Information Technologies software package as its CMMP. The HANSEN database meets the District's needs as well as the needs for reporting activities. This CMMP maintains District records in a readily available format for O&M and management analysis and trending/predictive scenarios development.

All daily routine and priority lines cleaning and maintenance information is entered into the database and monthly reports summarizing the data are generated with the District's CRYSTAL reporting software. The CMMP is used to schedule routine maintenance of the pipelines in the District collection system and CCTV inspections. Most (approximately 95%) of the pipelines in the District's collection system are on a 36-month cleaning frequency and do not require enhanced maintenance. District crews are able to complete the cleaning schedule within this 36 month timeline on a routine basis. The remaining 5% of District sewer lines are on an enhanced maintenance scheduled due to root intrusion, FOG or debris build up that require additional cleaning. These District "priority areas" are on scheduled cleaning cycles designed to minimize the occurrence of an SSO. Approximately 3 percent are on a 12-month cycle, 1 percent are on a 6-month cycle and only 0.5 percent are on a 3-month cycle. The work orders for these "priority areas are scheduled throughout the year and generated on monthly basis. These work orders are routinely completed within the first week or two of each month. The CCTV schedule of the District collection system is on a 5-year timeline. CCTV is also done in conjunction with Capital Improvement projects and to verify the need for spot repairs. The District utilizes contractors for specialized work such as chemical root treatment. Approximately 10,000 feet to 12,000 feet of sewer line are scheduled on an annual basis for chemical root treatment. The District reviews monthly and annual performance data to ensure the scheduled completion of each 36 month cleaning cycle and the completion of all priority area cleaning within its scheduled month. The two District lift stations are inspected by staff on a scheduled basis. Repairs are coordinated with the District's Facilities Maintenance Department.

The Goleta Sanitary District Collection System Cleaning, Repair, and Maintenance Procedures include the following programs that the District utilizes as part of its Operation and Maintenance Program in an effort to minimize the frequency and volume of SSOs:

- Lift Station Routine Maintenance
- Mechanical and Hydraulic Cleaning
- Hand Rods
- CCTV Operations
- Smoke Testing
- Manhole Raising
- Excavation, Trenching and Point Repairs
- Creek and Bridge Crossing Inspections
- Easement Clearing

Given these enhanced maintenance programs and the addition of District owned and operated flow monitors for I&I identification, the District continues to be in a better position to make continuous improvements and maintain the goal of zero overflows.

C. Rehabilitation and Replacement Plan

The District’s Collection System Master Plan, the annual maintenance plan, the District’s hydraulic model and the HANSEN/CRYSTAL Reports Programs are combined as part of the detailed methodology used to develop the District’s capital improvement plan. Each of the pipelines within the District’s service area has been assessed on structural and hydraulic condition, risk of failure consequences and operation and maintenance factors. Results from visual and CCTV inspections of District sewer facilities are also utilized as part of this assessment.

A specialized computer program called SAPP (Sewer Assessment and Prioritization Program) was developed to aid in the evaluation of the District collection system. Pipelines are grouped into categories for each of the evaluation methods. The program is used to combine the score for each evaluation criteria and refresh prioritization of the capital improvement program using recent data. The evaluation methods used by SAPP include operations and maintenance, structural condition, risk of failure and hydraulic capacity. These four databases are combined and queried to establish a ranking with larger diameter pipes in environmentally sensitive areas with structural and hydraulic deficiencies being ranked with the highest priority. Detailed information regarding the SAPP assessment methodology is located in Section 10 of the District’s Sewer Master Plan.

Table 4-1 list the scheduled capital improvement projects for Fiscal Years 2013-14 through 2018-19.

TABLE 4-1. SCHEDULED FIVE-YEAR CIP PLAN

CIP PROJECT	SCHEDULED YEAR	PROJECTED COST
Modoc Road	2013	\$853,442
La Ramada	2014	\$607,664
Vega Drive South	2015	\$596,192
Via Los Santos	2016	\$686,862
Moreton Bay	2017	\$320,667

Additional project information is located in Capital Improvement Program Section 12 of the Sewer Master Plan.

D. Training

The District is committed to the training and certification of its collection system staff. Training consists of in-house training for District procedures and equipment, training by the local section and California Water Environment Association (CWEA) conferences and workshops, vendor training for equipment specific needs, and the use of California Sanitation Risk Management Authority provided training materials and workshops. It is mandatory that all employees attend and participate in monthly safety / training meetings. District Collection System employees are required to obtain CWEA certification as Collection System Technicians, Grade I for Technicians I; Grade II for Technicians II and Grade III for the Collection System Supervisor.

The District maintains records of training conducted in-house and of training records provided by outside contractors and through CWEA and Water Environment Federation (WEF).

District Standard Specifications for Design and Construction of Sanitary Sewers (2008) Section 8 details the Contractor responsibilities for compliance with safety requirements as set forth in OSHA, state and local laws and regulations. The District requires that contractors submit Experience Qualifications that document minimum standards for the general contractor and contractors' field foremen for work done on behalf of the District. Pre-Construction meetings with contractors include the discussion of safety, traffic control and the review of the contractors confined space procedures as a project submittal. Additionally, collection system personnel are encouraged to participate in continuing education programs offered through California State University Sacramento (Ken Kerri courses), Santa Barbara City College classes and others. The District compensates employees for tuition and textbooks and provides financial incentives for CWEA certification above and beyond the District mandated requirement.

E. Equipment and Replacement Parts Inventories

The collection system maintains an inventory of repair and replacement parts at the District's treatment plant facility. The inventory is part of a formal record of repairs and consists of replacement parts of multiple sizes, types, and descriptions/application detailed in the District's Cleaning, Repair and Maintenance Procedures, Appendix B. Included within this inventory are replacement nozzles, sewer hose mending kits, pump parts, pump hoses, assorted vehicle replacement parts, CCTV replacement parts and sewer pipe sections of various types and sizes. The District owns and maintains equipment for sewer line repair, pump by-pass operations and SSO response. This equipment includes a backhoe, front-end loader, dump truck, trailer mounted air compressor, shoring, trash pumps of various sizes, portable generators and various power tools. The District maintains a resource list of contractors and vendors who stock materials and are available for emergency and short notice deliveries. Materials and parts inventory is a crucial component of the District's maintenance program.

Element 5. Design and Performance Provisions

Regulatory Requirement- The District shall implement:

- (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer system, and
- (b) Procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects.

A. Develop Design and Construction Standards and Specifications for New and Rehabilitated Sewer Systems

The District has adopted the Goleta Sanitary District Standard Specifications for the Design and Construction of Sanitary Sewers (2008) for all new construction and rehabilitation of existing sewer facilities. The design standards are detailed in Section 7, Design Criteria. Construction Materials are detailed in Section 9, Open Trench Construction Methods are detailed in Section 10, Manhole Rehabilitation is detailed in Section 12 and Boring and Jacking is detailed in Section 13.

These standards govern the requirements, design and construction of sewer facilities within the jurisdiction of the District for all sewer facilities under private and public contract. In addition, all developers, engineers and contractors must comply with the applicable sections in the latest edition of the Standard Specifications for Public Works Construction (SSPWC), “The Green Book”, the latest edition of the California Uniform Plumbing Code and the District approved plans for the new sewer facilities. These Standards are reviewed and updated on a periodic basis to ensure that current construction means and methods are included as appropriate.

B. Develop Procedures and Standards for Inspecting and Testing New Sewers, Pumps, and Rehabilitation and Repair Projects

Inspection requirements for new and rehabilitated sewers are detailed in Section 11 (Inspection and Testing) of the Goleta Sanitary District Standard Specifications for the Design and Construction of Sanitary Sewers. Section 4, Sewer Permit Application and Section 12, Manhole Rehabilitation also detail inspection requirements. District Ordinance # 77 provides additional procedures and standards in Section 3 Building Sewers and Connections.

Element 6. Overflow Emergency Response Plan

Regulatory Requirement- The District shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, the plan must include the following:

- (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner,
- (b) A program to ensure an appropriate response to all overflows,
- (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities of all SSOs that potentially affect public health or reach waters of the State in accordance with MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification,
- (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained,
- (e) Procedures to address emergency operations such as traffic and crowd control and other necessary activities and,
- (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSO, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

A. Notification Procedures

The District receives notifications of SSOs through a variety of methods including but not limited to: direct observation by District staff, lift station Supervisory Control And Data Acquisition (SCADA) and dialer alarms, the District answering service, USA Dig-Alert notifications, the general public and from other agencies. The District's Overflow Emergency Response Plan details the corrective action that shall be taken by District staff to contain the overflow and protect the public, photograph, stop the SSO, return flows to normal conditions, mitigate or begin spill mitigation, begin the notification process as required by SWRCB WDR and the District's NPDES permit. The District OERP Sections II and III detail the roles and responsibilities of District personnel to ensure compliance with the WDR and to minimize the volume and environmental effect of a SSO.

B. Response to All Overflows

Upon notification of a SSO, the responding District personnel address the SSO in accordance with the District Overflow Emergency Response Plan (attached as Appendix F of the SSMP). During normal business hours, the Collection System Supervisor will assess the SSO and direct sufficient District personnel and equipment to address the SSO in a most timely and efficient method. After hours notifications will be addressed by the Collection System Stand-By Person. Additional personnel, equipment or resources required will be contacted by the Stand-By Person or the Collection System Supervisor. Appendix G and H of the OERP lists District assets, private contractors and other public agencies that can be utilized for SSO response. The responding District staff will either immediately remedy the SSO in accordance with District procedures, notify the property owner of his/her need to address a private property concern or contact the appropriate agency if the SSO is outside the jurisdiction or responsibility of the District.

C. Notification Procedures to Appropriate Agencies

The District OERP, Sanitary Sewer Overflow Emergency Notification List (Appendix E) lists the Agency names, addresses, telephone and fax numbers, contact names and the timeline in which they must be contacted. The format and contents of the initial report is provided on this form. The Collection System Supervisor, District Operations Manager and the District General Manager are to be notified immediately of a SSO to ensure that the notification process is completed in accordance with the SWRCB WDR.

D. Emergency Response Plan Training

The District conducts emergency response plan training each year. This training consists of an initial training for all new Collection System employees, annual review of the response plan and periodic training on the individual elements of the plan such as confined space training, operation of emergency generators and by-pass pumps and spill calculation. This training is documented in the individual employee training record and as part of the CWEA certification process for each Collection System employee. Contractors are informed of District policies and procedures in regards to Emergency Response Training. Section 8 of the District's Standard Specifications provides details of contractor safety responsibilities.

E. Emergency Operations Procedures

The District's OERP, Section II, III and IV list the actions that must be taken in addition to stopping the overflow. These include containment, traffic control, spill mitigation, pump by-pass operations, sampling and monitoring procedures and District and Agency notifications.

F. Procedures to Prevent and Contain the Discharge of Wastewater to Waters of the US and to Minimize Environmental Impacts of SSOs

The OERP, Section II lists those actions to be taken to contain and prevent a SSO from reaching a creek or ocean. These measures include the use of vacuum systems, pumps, spill control pillows, sandbags and diversion of SSO flows away from waterways. Section II also describes the mitigation measures to be used if a SSO has reached a creek or waterway. Water Quality Sampling and Monitoring measures are described in Section III of the OERP.

Element 7. Fats, Oils and Grease Control Program

Regulatory Requirement- The District shall evaluate its service area to determine whether a FOG control program is needed. If the District determines that a FOG control program is not needed, the District must provide justification for why it is not needed. If FOG is found to be a problem, the District must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

- (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG,
- (b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area,
- (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG,
- (d) Requirements to install grease removal devices, design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements,
- (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the District has sufficient staff to inspect and enforce the FOG ordinance,
- (f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section, and
- (g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

As detailed in Legal Authority Section 3, Paragraph C, the District has developed and implemented a comprehensive FOG program. There currently are more than 90 Food Service establishments in the District service area that are inspected on a regular basis by the District Industrial Waste Control Officer and Collection System staff. The District Standard Specifications list the design and installation specifications for FOG control items such as grease interceptors, sampling manholes and wells and District Ordinance # 77 limit the amount of FOG that can be discharged to the District facilities. The monitoring section of the fat, oil and grease program entails field inspections, sample collection and analysis for grease and oil concentrations. Laboratory results are evaluated to determine compliance or noncompliance by the establishment. The inspection and laboratory results are used to delegate correction and/or enforcement actions as needed. Results of monthly grease and oil analyses on the influent and final effluent indicate that the treatment plant is in compliance with all grease and oil limitations. Final effluent concentrations are consistently well below the NPDES permit limitations.

A. Public Education Outreach

The District has developed an extensive Public Outreach Program that has greatly assisted the District's ability to reduce the amount of FOG within the collection system and treatment plant. This program has included a variety of FOG workshops hosted by the District to inform and educate restaurant owners about grease in the sanitary sewer system, its consequences and the District's Ordinances related to FOG disposal. The District publishes a newsletter in which the topic of FOG from residential and commercial establishments is discussed. The District conducts an annual open house in which information and demonstrations are provided to the public regarding FOG disposal and District efforts to protect the environment from FOG related SSOs. The District has purchased grease scrapers to be given to the public during open house and plant tour demonstrations.

The District Industrial Waste Control Officer has also distributed a “Restaurant Best Management Practices” DVD to District restaurants in an effort to reduce FOG disposal into the collection system. These items are also available at the District office.

B. FOG Disposal

The District Industrial Waste Control Officer and Collection System staff work together to inspect more than 90 Food Service Establishments (FSEs) within the District. District efforts include the monitoring of grease interceptor pump-outs to ensure that the private disposal companies are cleaning grease interceptors in accordance with AB 1333 (2005-06). FSEs found to be in violation of District FOG discharge limits are required to submit receipts of grease interceptor pump-outs as part of the District Notice of Violation. Table 7-1 list the grease interceptor pumping companies and grease rendering service companies within the District service area.

TABLE 7-1. GREASE INTERCEPTOR AND RENDERING COMPANIES

Grease Interceptor Pumping Companies	Telephone Number
Oscar’s Grease Trap Service	805-403-1509
Buron’s Preferred Pumping Company	805-579-9226
Lee & Neal	805-884-1023
Shoemaker’s Enviro-Tech	661-296-2394
County Sanitation Company	805-682-3568
Baker Commodities, Inc.	800-427-0696
All Valley Environmental	559-498-8378
Ameriguard Maintenance Services	800-347-7876
Grease Rendering Service Companies	Telephone Number
One More Time	800-624-5504
Ventura Rendering	805-485-2217
Salinas Tallow	800-621-9000

C. Legal Authority to Prohibit FOG Discharges

District Ordinance # 77 Section 4.1 (6) lists the FOG discharge limitations for businesses within the District’s jurisdiction, currently at 100mg/L. This section also sets the maximum FOG and solids accumulation of grease interceptors at 25% of design hydraulic depth.

D. Grease Interceptor Design and Installation Requirements, BMP Requirements, Record Keeping and Reporting

The District Standard Specifications, Section 7.16 and Standard Drawing 25 describe the design, installation, and testing procedures that shall be used for grease interceptors and sampling manholes. District Ordinance # 77 Section 8.1 through 8.8 detail the reporting requirements, Section 8.13, Recordkeeping and Section 8.14, Certification of Statements detail BMP requirements and record keeping requirements.

E. Authority to Inspect

The authority of the District to inspect the sewer system, sewer connections and to inspect the appurtenances that are used for FOG control are detailed in Section 1.1 of the Goleta Sanitary District Standard Specifications. District Ordinance # 77, Section 9.1 Right of Entry: Inspection and Sampling also details this requirement.

F. Identification of District Sewer Facilities subject to FOG related issues and District Maintenance Requirements

The District has identified those collection system areas that are subject to FOG discharge. CCTV inspections and results from routine cleaning are used to ensure that any collection system area that has FOG issues is included in the District's priority area cleaning program. FOG related priority cleaning areas are identified in the District's CMMP and through CRYSTAL reports. The results of this priority cleaning are adjusted as necessary to minimize FOG issues.

G. Source Control Measures for FOG Discharged into Identified District Facilities

When FOG is identified as a major contributor to maintenance issues, the collection system works with the District's IWC to locate the source of the FOG and take appropriate measures such as increased monitoring, the requirement to implement BMP or the need to install and maintain grease interceptors for specific FSE locations.

Element 8. System Evaluation and Capacity Assurance Plan

Regulatory Requirement- The District shall prepare and implement a capital improvement plan that will provide hydraulic capacity of key sewer system elements for dry weather peak flow conditions as well as the appropriate design storm or wet weather event. At a minimum, the plan must include the following:

- (a) Evaluation, actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to a SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events,
- (b) Design Criteria, where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria,
- (c) Capacity Enhancement Measures, the steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding,
- (d) Schedule, the District shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D.14.

The District has prepared a computer hydraulic model of the wastewater collection system using the HYDRA hydraulic modeling program, developed by Pizer, Inc. All sewer lines are included in the hydraulic model. The semi-dynamic model routes flows through the sewer system by accounting for the time delays of peak flows from various basins as the flow passes through the collection system. The results of the hydraulic modeling are detailed in Section 8 of the 2000 Sewer Collection System Master Plan. Table 12-3 of the 2000 Sewer Master Plan lists the Pipelines nearing Hydraulic Capacity.

A. Evaluation

The sewer line segments that have been preliminarily identified as having hydraulic deficiencies by the District's HYDRA program are reviewed by District staff to collaborate these initial assessments. In-House flow monitoring in conjunction with field inspections conducted during routine CCTV and cleaning are used to verify the preliminary findings. Sewer line segments that have been determined by the District to have hydraulic and or structural deficiencies are added to the Capital Improvement Projects list based upon their assessment and risk of failure.

B. Design Criteria

The District had adopted the current edition of the Goleta Sanitary District Standards and Specifications for the Design and Construction of Sanitary Sewers to govern the requirements, design and construction of sewer facilities within the jurisdiction of the District. Used in conjunction with the District's Sewer Master Plan and the HYRDA program, the District has established the design criteria for sewer facility improvements required for hydraulic and structural deficiencies and projected growth within the District service. Section 10 of the 2000 Sewer Master plan describes in detail the design criteria for these improvements.

C. Capacity Enhancement Measures

The District employs the Collection System Master Plan to develop a capital improvement program. Specifically, Section 10 of the District's Sewer Collection System Master Plan 2000 presents the detailed methodology used to develop the District's capital improvement plan. Each of the pipelines within the District's service area has been assessed on structural and hydraulic condition, risk of failure consequences and operation and maintenance factors. A series of capital improvement projects were created from these assessments. These capital improvement projects have been identified and prioritized to correct structural and hydraulic deficiencies in the District collection system.

A specialized computer program called SAPP (Sewer Assessment and Prioritization Program) was developed to aid in the evaluation of the District collection system. Pipelines are grouped into categories for each of the evaluation methods. The program is used to combine the score for each evaluation criteria and update prioritization of the capital improvement program using O&M data. These groups are categorized into priorities ranked from 1 through 6. Priority 1 being the larger diameter pipelines with the highest potential for failure and Priority 6 being those pipelines with relatively minor defects that would not be put out for public contract. As Capital Improvement Projects are completed, the next ranking projects are moved up on the list of scheduled projects. Table 8-1 lists the Capital Improvement projects that have been completed in the last five years.

TABLE 8-1. CAPITAL IMPROVEMENT PROJECTS COMPLETED SINCE 2008

Project Name	Linear Footage	Year of Completion
Force Main Replacement Project	2,100 LF of 10-inch pipe	2008
Firestone Lift Station Project	Lift Station 2,000 LF of 15-inch pipe	2009
Fairview Avenue Sewer Relocation Project	3,500 LF of 30-inch pipe installed 2,300 LF of 15-inch pipe rehabilitated	2013

D. Schedule and Funding

Based upon the previously discussed System Evaluation and Capacity Assurance Plan, the District has implemented the Capital Improvement Plan of the Sewer Master Plan. The District has completed most of these projects. These completed Capital Improvement Projects include most of the priority 1, 2 and 3 projects identified in the Master Plan. The remaining projects are scheduled for completion as funding and resources are allocated during the District's annual budget development process. The Sewer Master Plan has a 20 year schedule for the funding and completion of these projects.

Element 9. SSMP Monitoring, Measurement and Program Modifications

Regulatory Requirement- The District shall:

- (a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities,
- (b) Monitor the implementation and where appropriate, measure the effectiveness of each element of the SSMP,
- (c) Assess the success of the preventive maintenance program,
- (d) Update program elements as appropriate, based on monitoring or performance evaluations and
- (e) Identify and illustrate SSO trends, including frequency, location and volume.

A. Maintain Relevant Information for Prioritization of SSMP Activities

The District has established through its Annual Maintenance Program that the cleaning, CCTV, facility inspection programs will continue to be used as the primary goal of minimizing and eliminating the occurrence of SSOs. The standards that the District has historically maintained to achieve this goal include the following:

- A daily cleaning production of 2,500' per crew per day.
- The completion of all monthly Preventive Maintenance activities within the first ten days of each month.
- Annual Root Foaming of 10,000 to 12,000 Linear Feet of sewer line.
- The completion of Bridge, Creek Crossings and Easement clearing/inspection programs on an annual basis.

The 2000 Sewer Master Plan has identified Priority 6 (isolated spot repairs) repair projects that are completed in-house. This prioritization through the Annual Maintenance Program has greatly contributed to the zero SSO rate the District has maintained since 2010.

B. Monitor the Effectiveness of SSMP Elements

The District will review each element of its SSMP and make corrections on an as-needed basis through audits and program reviews to ensure the effectiveness of the SSMP. These annual reviews shall be completed and attached in Appendix B of this SSMP. In addition, the review shall be shared with the Board of Directors at a regular Board meeting and placed on the District website for public information.

C. Preventive Maintenance Program Assessment

The District utilizes CRYSTAL reports to track the progress of the annual maintenance plan elements that are instrumental parts of the District's SSMP. Current timeframes for the completion of each program have been vital for the District's ability to maintain its zero to near zero spill rate.

D. Update of Program Elements

The District will update each SSMP element as part of an annual review process to ensure that improvements are made due to new technology, equipment, regulatory code changes, FOG program enhancements, and collection systems rehabilitation through implementation of the Capital Improvement Program. The collection system supervisor in conjunction with his staff updates the SSMP via regular performance measurement assessments. All changes, additions and modifications to the SSMP will be tracked and logged in Appendix A of the SSMP.

E. SSO Identification and Tracking

The District maintains records of all SSOs that have occurred within District jurisdiction in accordance with District retention policies and legal requirements. When an SSO occurs, all appropriate information including, location, volume and cause is entered into the District’s CMMP. The SSO location is identified as an enhanced preventive maintenance location until District assessment determines the priority of that facility rehabilitation/replacement. The District has been enrolled in the State Water Resource Control Board CIWQS program since April of 2007. CIWQS provides a publically accessible tracking map of SSO location, reported volume and SSO report summaries. Table 9-1 provides a listing of the SSOs that have occurred in the last five years within the District service area.

TABLE 9-1. Sanitary Sewer Overflows 2008-2013

LOCATION	VOLUME (GALLONS)	YEAR
None to date	0 to date	2013
None	0	2012
None	0	2011
Antone Road near Foothill	1,000	February 27, 2010
Lassen Drive near Hollister	300	October 16, 2009
Corta Street near S. Fairview	1,000	November 9, 2008
Via Los Padres easement	150	July 31, 2008
Calle Real near Old Mill Road	1,000	March 9, 2008

Element 10. SSMP Program Audits

Regulatory Requirement – As part of the SSMP, the District shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the District's compliance with the SSMP requirements identified in subsection (D.13) of State Water Resources Control Board Order No. 2006-0003-DWQ including identification of any deficiencies in the SSMP and steps to correct them.

The District will evaluate the SSMP on a bi-annual basis using the sample audit form. The District's annual update process includes review by senior staff to ensure the most current legal authority, response plans, organizational charts, equipment lists, and contact/notification information is included. When the District makes operational, maintenance, management, and administrative changes, the SSMP will be updated. The District review process may include the use of outside auditors as deemed necessary. The District is responsible for maintaining the SSMP program as required by the State Water Resources Control Board. All completed audit forms shall be attached to this SSMP in Appendix B.

Element 11. Communication Program

Regulatory Requirement – The District shall communicate on a regular basis with the public on the development, implementation and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the District as the program is developed and implemented.

The District shall also create a plan of communication with systems that are tributary and/or satellite to the District's sanitary sewer system.

In an effort to facilitate public awareness of the District's SSMP, the District will make copies of the full SSMP available to the general public on its website. The District routinely communicates with the general public through a variety of methods including District newsletters, mailings, website and Proposition 218 public notices that seek and encourage public input for the various operations of the District. The District newsletters have focused on specific topics that comprise the SSMP such as Capital Improvement Projects and funding. The District has historically maintained an "Open Door" policy in which members of the public can discuss issues of concern with District staff, District management and Governing Board members during District special events, normal business hours and at regularly scheduled meetings of the District's Governing Board.

The District routinely communicates with the four contractual users of the District (the County of Santa Barbara, UCSB, Goleta West Sanitary District and Santa Barbara Municipal Airport) on a regular and on-going basis. This communication is in the form of telephone calls, letters and regularly scheduled meetings.

Appendix A

Log of SSMP Changes/Corrections/Updates

APPENDIX B

HISTORICAL ANNUAL REPORTS



Causey Consulting
 73 Cree Court
 Walnut Creek, CA 94598
 925-323-6520
 causeywc@comcast.net

April 16, 2013

RECEIVED

APR 22 2013

Mr. John Corral, Collection System Supervisor
 Goleta Sanitary District
 PO Box 906
 One William Moffett Place
 Goleta, CA 93117

Goleta Sanitary District

CC	_____
BD	_____
KA	_____
JS	_____
RM	_____
RH	_____
KW	_____
CS	_____
TK	_____
JC	_____
LA	_____
RB	_____

Subject: Wastewater Collection System Management Plan Audit
 November 2006 Plan as Revised August 2011

Dear Mr. ~~Corral~~: *John*

Attached hereto are the final reports pursuant to Purchase Order No. A13072 and the scope of work between Causey Consulting and the Goleta Sanitary District dated November 30, 2012 to conduct an audit of the Districts Sanitary Sewer Management Plan and sanitary sewer overflow recordkeeping files. The final documents we are submitting include the following:

1. Goleta Sanitary District Sewer Collection System Pre-Inspection Questionnaire dated April 16, 2013.
2. Sanitary Sewer Management Plan Audit Comments and Recommendations dated April 16, 2013.
3. Sanitary Sewer Overflow Recordkeeping Audit Observations and Recommendations and Detailed File Audit Results.

The Pre-Inspection Questionnaire was completed based upon our discussions and represents the breadth and data information that a collection system inspection will expect to receive. Some information was not readily available when we met, but as discussed, would need to be available when the inspection team arrived at the District. The current questionnaire should be saved in the file and serve to assist the District when preparing for a surprise inspection. We would also encourage the District to annually review this questionnaire to see that the staff can easily locate the required information.

During our discussions on April 9th you asked that we identify the missing fields in the four SSO CIWQS reports. Please look at the final row in the detailed File Audit Results for this information. It would be appropriate for you to contact the SSO Office to determine if these fields warrant the filing of amendments to the certified CIWQS reports on each of the SSOs.

We very much appreciate the time and input received on the draft documents from you and your staff during our April 8th and 9th field visit to the District offices. We have revised the documents based



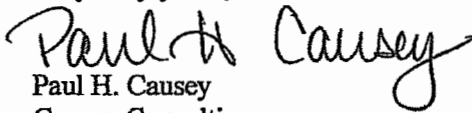
*Causey Consulting
73 Cree Court
Walnut Creek, CA 94598
925-323-6520
causeywc@comcast.net*

April 16, 2013

upon our discussions during those meetings. I am impressed with the commitment and concern that the District staff exhibited during our meetings and know that as a result of the current effort, you will be able to meet your goal of being well prepared if and when the State or the Regional Board determine to conduct a field inspection of the District collection system.

We appreciate the opportunity to assist the District in assuring that your collection system plans and procedures conform to the State Waste Discharge Regulations. We are available to answer any questions that you or your staff may have from these final audit observations and recommendations. Please also be reminded that I will be out of the country until May 1, 2013. Again thanks for allowing Causey Consulting to be of assistance to the District. We would be happy to review the Districts final revised SSMP once you have completed all updates and before consideration and approval by the District Board of Directors.

Very truly yours,


Paul H. Causey
Causey Consulting

Cc Mr. Kamil Azoury, Goleta Sanitary District

Attachments

APPENDIX C

DISTRICT ORDINANCE NO. 77

ORDINANCE NO. 77

**ORDER OF THE GOVERNING BOARD OF THE GOLETA SANITARY DISTRICT
ADOPTING AN ORDINANCE AND GENERAL REGULATION REGULATING THE USE
OF THE GOLETA SANITARY DISTRICT SEWERAGE SYSTEM AND REPEALING
ORDINANCES NOS. 44 AND 74**

BE IT ORDAINED by the Governing Board of the Goleta Sanitary District of the County of Santa Barbara, State of California, that the following ordinance and general regulation be adopted:

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Section 1 – GENERAL PROVISIONS

- 1.1 Purpose and Policy
- 1.2 Administration
- 1.3 Abbreviations
- 1.4 Definitions

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- 2.3 Wastewater
- 2.4 Buildings
- 2.5 Compliance with Notice
- 2.6 Private System
- 2.7 Exemption
- 2.8 Private System Failures
- 2.9 Waiver of 200-foot Requirement

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- 3.3 Connection to Main
- 3.4 Costs
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- 3.6 Use of Existing Lateral by New Building
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- 4.3 State Pretreatment Standards
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Section 4 (Continued)

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Section 5 – PRETREATMENT OF WASTEWATER

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SECTION 1 - GENERAL PROVISIONS

1.1 Purpose and Policy

This ordinance sets forth uniform requirements for Users of the Publicly Owned Treatment Works of the Goleta Sanitary District (the District) and enables the District to comply with all applicable State and Federal laws, including the Clean Water Act (33 United States Code section 1251 et seq.) and the General Pretreatment Regulations (Title 40 of the Code of Federal Regulations Part 403).

The objectives of this ordinance are:

- A. To prevent the introduction of pollutants into the Publicly Owned Treatment Works, POTW, that will interfere with its operation;
- B. To prevent the introduction of pollutants into the Publicly Owned Treatment Works that will pass through the Publicly Owned Treatment Works, inadequately treated, into receiving waters, or otherwise be incompatible with the Publicly Owned Treatment Works;
- C. To protect both (i) Publicly Owned Treatment Works personnel who may be affected by wastewater and sludge in the course of their employment and (ii) the general public;
- D. To promote reuse and recycling of industrial wastewater and sludge from the Publicly Owned Treatment Works; and
- E. To enable the District to comply with its National Pollutant Discharge Elimination System permit conditions, sludge use and disposal requirements, and any other Federal or State laws to which the Publicly Owned Treatment Works is subject.

This ordinance (i) shall apply to all Users of the Publicly Owned Treatment Works; (ii) authorizes the issuance of individual wastewater discharge permits; (iii) provides for monitoring, compliance, and enforcement activities; (iv) establishes administrative review procedures; and (v) requires User reporting.

1.2 Administration

Except as otherwise provided herein, the Manager shall administer, implement, and enforce the provisions of this ordinance. Any powers granted to or duties imposed upon the Manager may be delegated by the Manager to the District's Environmental Compliance Program Officer or to other duly authorized District employees.

1.3 Abbreviations

The following abbreviations, when used in this ordinance, District permits, reports and/or correspondence shall have the designated meanings:

BOD – Biochemical Oxygen Demand	NOV – Notice of Violation
BMP – Best Management Practice	NPDES – National Pollutant Discharge Elimination System
BMR – Baseline Monitoring Report	POTW – Publicly Owned Treatment Works
CFR – Code of Federal Regulations	RCRA – Resource Conservation and Recovery Act
CIU – Categorical Industrial User	SIU – Significant Industrial User
EPA – U.S. Environmental Protection Agency	SNC – Significant Non-compliance
ERP – Enforcement Response Plan	TDS – Total Dissolved Solids
FOG – Fats, Oil & Grease	TSS – Total Suspended Solids
FSE – Food Service Establishment	ug/L – micrograms per liter
GPD – gallons per day	U.S.C. – United States Code
IU – Industrial User	
mg/L – milligrams per liter	

1.4 Definitions

Unless a provision explicitly states otherwise, the following terms and phrases, as used in this ordinance, District permits, reports and/or correspondence shall have the meanings hereinafter designated.

A. **Act or the Act.** The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. section 1251 et seq.

B. **Approval Authority.** The California Regional Water Quality Control Board.

C. **Authorized or Duly Authorized Representative of the User.**

(1) If the User is a corporation:

(a) The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(b) The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for individual wastewater discharge permit requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) If the User is a partnership or sole proprietorship: a general partner or proprietor, respectively.

(3) If the User is a Federal, State, or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.

(4) The individuals described in paragraphs 1 through 3, above, may designate a Duly Authorized Representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company or facility, and the written authorization is submitted to the District.

D. **Biochemical Oxygen Demand or BOD.** The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five (5) days at 20 degrees centigrade, usually expressed as a concentration (e.g., mg/l).

E. **Best Management Practices or BMPs.** Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in Section 4.1 A and B of this ordinance [40 CFR 403.5(a)(1) and (b)]. BMPs include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage. BMPs also include alternative means (i.e., management plans) of complying with, or in place of certain established categorical Pretreatment Standards and effluent limits.

F. **Categorical Pretreatment Standard or Categorical Standard.** Any regulation containing pollutant discharge limits promulgated by EPA in accordance with sections 307(b) and (c) of the Act (33 U.S.C. section 1317) that apply to a specific category of Users and that appear in 40 CFR Chapter I, Subchapter N, Parts 405-471.

G. **Categorical Industrial User.** An Industrial User subject to a categorical Pretreatment Standard or Categorical Standard.

H. **Chemical Oxygen Demand.** A measure of the oxygen required to oxidize all compounds, both organic and inorganic, in water.

I. **Control Authority.** The Goleta Sanitary District

J. **Daily Maximum.** The arithmetic average of all effluent samples for a pollutant collected during a calendar day.

K. **Daily Maximum Limit.** The maximum allowable discharge limit of a pollutant during a calendar day. Where Daily Maximum Limits are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where Daily Maximum Limits are expressed in terms of a concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

L. **District.** The Goleta Sanitary District or the Governing Board of the Goleta Sanitary District.

M. **Enforcement Response Plan.** A plan including detailed procedures indicating how the District will investigate and respond to instances of industrial user noncompliance.

N. **Environmental Protection Agency or EPA.** The U.S. Environmental Protection Agency or, where appropriate, the Regional Water Management Division Director, the Regional Administrator, or other duly authorized official of said agency.

O. **Equivalent Residential Unit.** An annual WWTP capacity allocation for one single family residence equal to 74,095 gallons used to calculate sewer use fees based on the industrial user category.

P. **Existing Source.** Any source of discharge that is not a "New Source."

Q. **Grab Sample.** A sample that is taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed fifteen (15) minutes.

R. **Gravity Separation Interceptor.** A tank or basin in which Wastewater is held for a period of time during which the heavier solids settle to the bottom and the lighter materials float to the water surface. Gravity Separation Interceptor shall also mean a settling tank or sedimentation basin that is designed to treat the Pollutant(s) of concern.

S. **Grease Interceptor.** A plumbing device designed to separate and retain most fats, oils, grease and solids, excluding sanitary wastes, before entering the public sewer collection system.

T. **Hazardous Waste.** A waste that meets any of the criteria for identification of a Hazardous Waste adopted by any Federal or State agency, whichever criteria is most stringent.

U. **Indirect Discharge or Discharge.** The introduction of pollutants into the POTW from any nondomestic source.

V. **Infectious Waste.** Wastes which contain pathogenic organisms that can invade the tissues of the body and cause disease.

W. **Instantaneous Limit.** The maximum concentration of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.

X. **Interference.** A discharge that, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the POTW, its treatment processes or operations or its sludge processes, use or disposal and therefore is a cause of a violation of the District's NPDES permit or of the prevention of sewage sludge use or disposal in compliance with any of the following statutory/regulatory provisions or permits issued thereunder, or any more stringent State or local regulations: section 405 of the Act; the Solid Waste Disposal Act, including

Title II commonly referred to as the Resource Conservation and Recovery Act (RCRA); any State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the Solid Waste Disposal Act; the Clean Air Act; the Toxic Substances Control Act; and the Marine Protection, Research, and Sanctuaries Act.

Y. **Local Limits.** Specific discharge limits developed and enforced by the District upon industrial or commercial facilities to implement the general and specific discharge prohibitions listed in 40 CFR 403.5(a)(1) and (b), as set forth in Section 4.4 of this ordinance.

Z. **Manager.** The person designated by the District to supervise the operation of the POTW, and who is charged with certain duties and responsibilities by this ordinance. The term also means a Duly Authorized Representative of the Manager.

AA. **Lower Explosive Limit.** The point where the concentration of a gas in air is sufficient to result in an explosion if an ignition source is present.

BB. **Medical Waste.** Isolation wastes, infectious agents, human blood and blood products, pathological wastes, sharps, body parts, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes, and dialysis wastes.

CC. **Monthly Average.** The sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.

DD. **Monthly Average Limit.** The highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.

EE. **New Source.**

(1) Any building, structure, facility, or installation from which there is (or may be) a discharge of pollutants, the construction of which commenced after the publication of proposed Pretreatment Standards under section 307(c) of the Act that will be applicable to such source if such Standards are thereafter promulgated in accordance with that section, provided that:

(a) The building, structure, facility, or installation is constructed at a site at which no other source is located; or

(b) The building, structure, facility, or installation totally replaces the process or production equipment that causes the discharge of pollutants at an Existing Source; or

(c) The production or wastewater generating processes of the building, structure, facility, or installation are substantially independent of an Existing Source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the Existing Source, should be considered.

(2) Construction on a site at which an Existing Source is located results in a modification rather than a New Source if the construction does not create a new building, structure, facility, or installation meeting the criteria of Section (1)(b) or (c) above but otherwise alters, replaces, or adds to existing process or production equipment.

(3) Construction of a New Source as defined under this paragraph has commenced if the owner or operator has:

(a) Begun, or caused to begin, as part of a continuous onsite construction program

(i) any placement, assembly, or installation of facilities or equipment; or

(ii) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(b) Entered into a binding contractual obligation for the purchase of facilities or equipment which is intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

FF. **NPDES Permit.** A National Pollutant Discharge Elimination System Permit, which is the regulatory document issued by the State of California as authorized by the EPA.

GG. **Noncontact Cooling Water.** Water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product, or finished product.

HH. **Pass Through.** A discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the District's NPDES permit, including an increase in the magnitude or duration of a violation.

II. **Person.** Any individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns. This definition includes all Federal, State, and local governmental entities.

JJ. **pH.** A measure of the acidity or alkalinity of a solution, expressed in standard units.

KK. **Pollutant.** Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, Medical Wastes, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, municipal, agricultural and industrial wastes, and certain characteristics of wastewater (e.g., pH, temperature, TDS, TSS, turbidity, color, BOD, chemical oxygen demand toxicity, chlorides or odor).

LL. **Pretreatment.** The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to, or in lieu of, introducing such pollutants into the POTW. This reduction or alteration can be obtained by physical, chemical, or biological processes, except bacterial enzymes; by process changes; or by other means, except by diluting the concentration of the pollutants unless allowed by an applicable Pretreatment Standard.

MM. **Pretreatment Requirements.** Any substantive or procedural requirement related to pretreatment imposed on a User, other than a Pretreatment Standard.

NN. **Pretreatment Standards or Standards.** Pretreatment Standards shall mean prohibited discharge standards, categorical Pretreatment Standards, Local Limits and any regulation containing pollutant discharge limits promulgated by the EPA in accordance with Section 307(b) and (c) et seq. of the Act which applies to industrial users. These include "categorical standards" which establish specific concentration limits for certain pollutants and total prohibitions of other pollutants as specified in 40 CFR 403 et seq., as well as Local Limits adopted by the Goleta Sanitary District including, but not limited to, those discharge limitations contained in this ordinance.

OO. **Prohibited Discharge Standards or Prohibited Discharges.** Absolute prohibitions against the discharge of certain substances; these prohibitions appear in Section 4.1 of this ordinance.

PP. **Publicly Owned Treatment Works or POTW.** A treatment works, as defined by section 212 of the Act (33 U.S.C. section 1292), which is owned by the District. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sewage or industrial wastes of a liquid nature

and any conveyances, which convey wastewater to a treatment plant.

QQ. **RCRA.** Resource Conservation and Recovery Act which is defined in 42 U.S.C. 6901 et seq.

RR. **Sampling Manhole.** A structure provided at the user's expense for the District or user to measure and record wastewater constituent mass, concentrations, collect a representative sample, or provide access to plug or terminate the discharge.

SS. **Secondary Containment.** A second barrier or an outer wall of a double enclosure, which is designed to contain any leak or spill from a storage container.

TT. **Septic Tank Waste.** Any sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.

UU. **Sewage.** Human excrement and gray water (household showers, dishwashing operations, etc.).

VV. **Significant Industrial User (SIU).**

Except as provided in paragraphs (3) and (4) of this Section VV, a Significant Industrial User is:

- (1) An Industrial User subject to Categorical Pretreatment Standards; or
- (2) An Industrial User that:
 - (a) Discharges an average of twenty-five thousand (25,000) gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater);
 - (b) Contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or
 - (c) Is designated as such by the District on the basis that it has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement.
- (3) The District may determine that an Industrial User subject to categorical Pretreatment Standards is a Non-Significant Categorical Industrial User rather than a Significant Industrial User on a finding that the Industrial User never discharges more than 100 gallons per day of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:
 - (a) The Industrial User, prior to District's finding, has consistently complied with all applicable categorical Pretreatment Standards and Requirements;
 - (b) The Industrial User annually submits the certification statement required in Section 8.14 A of this ordinance [see 40 CFR 403.12(q)], together with any additional information necessary to support the certification statement; and
 - (c) The Industrial User never discharges any untreated concentrated wastewater.
- (4) Upon a finding that a User meeting the criteria in Subsection (2) of this Section VV has no reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement, the District may at any time, on its own initiative or in response to a petition received from an Industrial User, and in accordance with procedures in 40 CFR 403.8(f)(6), determine that such User should not be considered a Significant Industrial User.

WW. **Slug Load or Slug Discharge.** Any discharge at a flow rate or concentration, which could cause a violation of the prohibited discharge standards in Section 4.1 of this ordinance. A Slug Discharge is any Discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch Discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the POTW's regulations, Local Limits or Permit conditions.

XX. **Slug Discharge Control Plan.** A plan designed to prevent the uncontrolled discharge of raw pollutants into the POTW.

YY. **Storm Water.** Any flow occurring during or following any form of natural precipitation, and resulting from such precipitation, including snowmelt.

ZZ. **Total Suspended Solids or Suspended Solids.** The total suspended matter that floats on the surface of, or is suspended in, water, wastewater, or other liquid, and that is removable by laboratory filtering.

aaa. **Toxic Pollutant.** Pollutants or combination of Pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism either directly from the environment or indirectly by ingestion through the food chain, will, on the basis of information available to the Administrator of the EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, or malfunctions in reproduction or physical deformations in such organisms or their offspring. Such Pollutants that have been identified as toxic are listed in 40 CFR 122, Appendix D.

bbb. **Twenty-five percent (25%) Rule.** Requirement for grease interceptors to be maintained such that the combined FOG and solids accumulation does not exceed 25% of the design hydraulic depth of the grease interceptor. This is to ensure that the minimum hydraulic retention time and required available hydraulic volume is maintained to effectively intercept and retain FOG so it is not discharged to the public sewer collection system.

ccc. **User or Industrial User.** A source of indirect discharge.

ddd. **Wastewater.** Liquid and water-carried industrial wastes and sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, which are contributed to the POTW.

eee. **Wastewater Treatment Plant or Treatment Plant.** That portion of the POTW which is designed to provide treatment of municipal sewage and industrial waste.

SECTION 2 - PUBLIC SEWERS REQUIRED

2.1 Introduction

This Section 2 is applicable only to areas within the boundaries of the District.

2.2 Sanitation

No person shall place, deposit, or discharge or permit to be placed, deposited, or discharged in an unsanitary manner upon public or private property within the District, any human or animal excrement, garbage, or other objectionable waste.

2.3 Wastewater

No person shall discharge or permit to be discharged any sewage to any natural outlet within the District.

2.4 Buildings

The owners of all houses, buildings, or properties used for human occupancy, employment, recreation, or other purposes and located within two hundred (200) feet of a public street, alley, or right-of-way where a public sewer exists or is installed in the future shall within ninety (90) days after date of written notice to do so, at such owner's expense, install suitable toilets and sanitary facilities in said houses, buildings, or properties situated within the District and connect such facilities to a public sewer, except where said houses, buildings, or properties are separated from the public sewer by U.S. Highway 101, a railway right-of-way, watercourse, lagoon, or other natural barrier.

2.5 Compliance with Notice

It shall be unlawful for any person to maintain within the District any privy, cesspool, septic tank, or other facility for disposal of sewage ninety (90) days after the date of written notice provided for in Section 2.4 of this ordinance.

2.6 Private System

It shall be unlawful for any person to construct within the District any privy, cesspool, septic tank, or other facility for disposal of sewage within two hundred (200) feet of a public street, alley, or right-of-way where a public sewer exists at the time of such construction, except where said houses, buildings, or properties are separated from the public sewer by U.S. Highway 101, a railway right-of-way, watercourse, lagoon, or other natural barrier.

2.7 Exemption

Where public sewers are not available within two hundred (200) feet of a house, building, or property situated within the District, the owner may install facilities for disposal of sewage temporarily until public sewers are extended to within two hundred (200) feet of said house, building, or property; provided that any such facilities shall meet the standards of and be approved by the Health Departments of the County of Santa Barbara and the State of California.

2.8 Private System Failures

In the event any owner of any house, building, property used for human occupancy, employment, recreation, or other purpose situated within the District, receives notice from the District or the Health Department of the County of Santa Barbara that any privy, cesspool, septic tank, or other facility for disposal of sewage is not operating to the satisfaction of the District or said Health Department, then, and in that event such owner shall, if public sewers are not available within two hundred (200) feet of said house, building, or property immediately repair said privy, cesspool, septic tank, or other facility for disposal of sewage to the satisfaction of the District and the Health Department of the County of Santa Barbara. If not so repaired, any use of said facilities shall be unlawful.

2.9 Waiver of 200-foot Requirement

The Governing Board of the District may at its sole discretion, by minute order of said Board, approve an exemption given to any facility meeting the conditions of Section 2.7 of this ordinance even after a public sewer is installed within the 200-foot zone.

SECTION 3 - BUILDING SEWERS AND CONNECTIONS

3.1 Introduction

This Section 3 is applicable only to areas within the boundaries of the District.

3.2 Connection Permission

No unauthorized person shall uncover, make any connections with or openings into, use, alter, or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the Manager.

3.3 Connection to Main

All connections to the public sewer shall be made at the WYE branch where possible, and by workmen experienced and competent in making such connections. In the event it is not possible to make a connection at a WYE branch, then the connection shall be made in the manner prescribed by the Manager. The property owner is responsible for maintaining the building sewer from the building up to and including the WYE connection.

3.4 Costs

All costs and expenses incident to the installation, connection, and maintenance thereof, of the building sewer shall be borne by the owner. The owner shall indemnify the District from any loss or damage that may directly or indirectly arise from the installation or maintenance of the building sewer.

3.5 Separate Laterals

A separate and independent building sewer shall be provided for every building; except where one building stands at the rear of another on the same lot and is under the same ownership, the building sewer from the front building may be extended to the rear building and the whole considered as one building sewer, as in the case of a guest cottage or apartment.

3.6 Use of Existing Lateral by New Building

Old building sewers may be used in connection with new buildings only when they are found on examination and test by the Manager to meet all requirements of this Section 3.

3.7 Specifications

The building sewer shall be cast iron soil pipe, ASTM Specification (A74-42) or equal; vitrified clay sewer pipe, ASTM Specification (C1344T) or equal; or other suitable material permitted in the current edition of the District's Standard Specifications for Design and Construction of Sanitary Sewers. Joints shall be tight and waterproof. Any part of the building sewer that is located within ten (10) feet of a water service pipe shall be constructed of cast iron soil pipe with coupling joints. All sewers shall be constructed in accordance to and in compliance with the current edition of the District's Specifications for Design and Construction of Sanitary Sewers.

3.8 Compliance with Standards

In every building hereafter erected within the limits of the District, all plumbing fixtures shall conform to the provisions of the ordinances and codes of the City of Goleta, County of Santa Barbara, State of California, applying thereto.

3.9 Classes of Service

There shall be four (4) classes of building sewer connection permits: (1) residential, (2) commercial establishments, (3) establishments producing industrial wastes, and (4) institutional facilities. In all cases, the owner or his agent shall make application on a special form furnished by the District. The permit application shall be supplemented by plans, specifications, and other information considered pertinent in the judgment of the Manager. A permit and inspection fee for each connection to the sewer lines of the District shall be paid to the District at the time the application is filed.

SECTION 4 - GENERAL SEWER USE REQUIREMENTS

4.1 Prohibited Discharge Standards

A. **General Prohibitions.** No User shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes Pass Through or Interference. These general prohibitions apply to all Users of the POTW whether or not they are subject to categorical Pretreatment Standards or any other National, State, or local Pretreatment Standards or Requirements.

B. **Specific Prohibitions.** No User shall introduce or cause to be introduced into the POTW the following pollutants, substances, or wastewater:

- (1) **Explosive Mixtures.** Liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the sewerage facilities or to the operation of the system, in accordance with 40 CFR 403.5(b)(1); and Pollutants which create a fire or explosive hazard in the POTW, including, but not limited

to, wastestreams with a closed-cup flashpoint of less than 140 degrees F (60 degrees C) using the test methods specified in 40 CFR 261.21. Prohibited materials include, but are not limited to: gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, sulfides or any other substances which the District, the State or EPA has notified the user is a fire hazard or a hazard to the system;

(2) **Corrosive Wastes.** Wastewater having a pH less than 6.0 or more than 9.5, or otherwise causing corrosive structural damage to the POTW or equipment. Prohibited materials include, but are not limited to, acids, caustics, sulfides, concentrated chloride and fluoride compounds, and substances which will react with water to form acidic products.

(3) **Solid or Viscous Wastes.** Solid or viscous substances which will or may cause obstruction to the flow in a sewer, or otherwise interfere with the proper operation of the wastewater treatment system, but in no case solids greater than one-half (1/2) inch in any dimension. Prohibited materials include, but are not limited to, grease, uncomminuted garbage, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, polishing compounds, resin beads, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastic, tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, and similar substances;

(4) **Excessive Discharge Rate.**

a. **Hydraulic:** A rate of flow which results from the averaging of the flow rates over a period of 15 consecutive minutes and which is greater than five (5) times the twenty-four (24) hour total volume expressed in million gallons per day (MGD) shall be considered excessive.

b. **Loadings:** Those concentrations of pollutants such as toxics, BOD's, suspended solids, grease and oil, and other constituents, which in a grab sample are greater by a factor of five (5) than the average 24-hour concentration allowed in the Industrial Wastewater Discharge Permit or that concentration permitted in the effluent of the treatment plant to the ocean. Any greater concentration will be considered as excessive.

c. **Interference:** Under no conditions shall any pollutant, including oxygen-demanding pollutants (BOD, etc.), be released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause Interference with the POTW.

d. **Unpolluted waters:** Any unpolluted waters including, but not limited to storm water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, and unpolluted wastewater which will increase the hydraulic load on the POTW, unless specifically authorized by the Manager.

(5) **Heat.** Wastewater having a temperature greater than 104 degrees F (40 degrees C), or which will inhibit biological activity in the treatment plant resulting in Interference, but in no case heat in wastewater quantities which causes the temperature at the introduction into the treatment plant to exceed 104 degrees F (40 degrees C);

(6) **Fats, Oils and Grease.**

a. Oil and grease concentrations or amounts from industrial facilities violating federal pretreatment standards, or local standards, whichever is more stringent.

b. Wastewater from industrial facilities containing floatable fats, wax, grease or oils.

c. Wax, grease, non-biodegradable cutting oil, or oil concentration of mineral or petroleum origin (non-living sources) of more than 100 mg/L whether emulsified or not, or containing substances which may solidify or become viscous at temperatures between 32 and 150 degrees F (0 and 65 C) at the point of discharge into the system or in amounts that will cause Interference or Pass Through.

d. Total fat, wax, grease, or oil concentration of animal or vegetable origin (living sources) of more than 100 mg/L, whether emulsified or not, or containing substances which may solidify or become

viscous at temperatures between 32 and 150 degrees F (0 and 65 C) at the point of discharge into the system or in amounts that will cause interference or pass through.

e. No additives may be introduced into a wastewater system for the purpose of emulsifying FOG or biologically/chemically treating FOG for remediation or as a supplement to interceptor maintenance, unless specific written authorization from the District is obtained. To ensure that the minimum hydraulic retention time and required available hydraulic volume is maintained to effectively intercept and retain FOG so it is not discharged to the District's wastewater collection system, pretreatment interceptors shall be maintained such that the combined FOG and solids accumulation does not exceed 25% of the design hydraulic depth of the interceptor;

(7) **Toxic Substances.** Any toxic substances in amounts exceeding standards promulgated by the Administrator of the United States Environmental Protection Agency pursuant to Section 307(a) of the Act, and chemical elements or compounds, phenols or other taste or odor-producing substances, or any other substances which are not susceptible to treatment or which may interfere with the biological processes or efficiency of the treatment system or which may cause abnormal increase in the operation costs of the treatment system. Any pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

(8) **Nuisance.** Any waste which will cause, threaten to cause, or is capable of causing either alone or by interaction with other substances a detrimental environmental impact or a nuisance in the waters of the state or a condition unacceptable to any public agency having regulatory jurisdiction over the District;

(9) **Trucked or Hauled Waste.** Any trucked or hauled pollutants are prohibited, except at discharge points designated by the District;

(10) **Noxious Material.** Noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or a hazard to life, or to prevent entry into the sewers for maintenance or repair;

(11) **Discolored Materials.** Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently causes the plant effluent to fail to meet State or EPA standards for turbidity or light transmittance, causes aesthetically undesirable discoloration of the ocean surface and/or causes, or threatens to cause a violation of the District's NPDES permit;

(12) **Improperly Shredded Garbage.** Garbage that has not been ground or comminuted to such a degree that all particles will be carried freely in suspension under flow conditions normally prevailing in the public sewers, with no particle greater than one-half (1/2) inch in any dimension;

(13) **Radioactive Wastes.** Radioactive wastes or isotopes of such half-life or concentration that they do not comply with regulations or orders issued by the appropriate authority having control over their use and which will or may cause damage or hazards to the sewerage facilities or personnel operating the system. Radioactive wastes are not to exceed limits specified in Sections 30285 and 30287 of the California Administrative Code;

(14) **Reclamation or Reuse.** Any waste which will cause, threaten to cause, or is capable of causing either alone or by interaction with other substances the District's effluent or any other product of the treatment process, residues, sludges, or scum to be unsuitable for reclamation and reuse or to interfere with the reclamation process;

(15) **Suspended Solids.** Sludges, screenings, or other residues from the pretreatment of industrial wastes;

(16) **Medical/Infectious Wastes**, except as specifically authorized by the Manager in an individual wastewater discharge permit;

(17) **Pass-through**: Wastewater causing, alone or in conjunction with other sources, the treatment plant's effluent to fail toxicity test;

(18) **Interference**: Detergents, surface-active agents, or other substances which that might cause excessive foaming in the POTW;

(19) **Perchloroethylene**: Perchloroethylene and its derivatives and like compounds (collectively, "PCE"), including, but not limited to, chemicals and/or solvents used in the dry cleaning process, by automobile and mechanical repair facilities and other industries, where such chemicals and/or solvents contain PCE. Any discharge containing PCE shall be subject to the same concentration limitations that apply to drinking water within the jurisdiction where the User is located;

(20) **Volatile Organic Compounds**: Volatile organic compounds found in petroleum derivatives such as gasoline and diesel fuel, including, but not limited to, benzene, toluene, ethylbenzene and xylenes (collectively "VOCs"). Any discharge containing VOCs shall be subject to the same concentration limitations that apply to drinking water within the jurisdiction where the User is located;

(21) **Storage of Prohibited Waste**: Pollutants, substances, or wastewater prohibited by this Section 4.1 shall not be processed or stored in such a manner that they could be discharged to the POTW.

4.2 *National Categorical Pretreatment Standards*

Users must comply with the categorical Pretreatment Standards found at 40 CFR Chapter I, Subchapter N, Parts 405–471. When wastewater subject to a categorical Pretreatment Standard is mixed with wastewater not regulated by the same Standard, the Manager shall impose the combined wastestream formula to calculate an alternate or adjusted categorical limit in accordance with 40 CFR 403.6(e).

4.3 *State Pretreatment Standards*

The EPA has delegated the responsibility to oversee Federal pretreatment programs to the California State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCB). The SWRCB and RWQCB are responsible for the review and approval of the District's pretreatment program. Users must comply with California pretreatment requirements as set forth in the District's NPDES Permit.

4.4 *Local Limits*

A. The District is authorized to establish Local Limits pursuant to 40 CFR 403.5(c). The following Pollutant limits are established to protect against Pass Through and Interference. No person shall discharge wastewater containing in excess of the following Maximum Limits; provided, however, that where more restrictive limitations are imposed by Permit or Federal Pretreatment Standards, the more restrictive standards shall apply:

<u>Constituent</u>	<u>Concentration, mg/L</u>
<u>Conventional Pollutants:</u>	
Ammonia (N)	662
Biochemical Oxygen Demand	1,880
Total Suspended Solids	2,031
Oil & Grease	100
<u>Priority Pollutant Metals:</u>	
Arsenic	0.11
Cadmium	0.13

<u>Constituent</u>	<u>Concentration, mg/L</u>
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Priority Pollutant Metals (cont.):

Chromium	5.3
Copper	2.4
Lead	1.5
Mercury	0.071
Nickel	2.3
Selenium	0.31
Silver	1.0
Zinc	3.2

Other Trace Elements:

Molybdenum*	TBD
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Other Toxics:

Cyanide	1.1
pH	6-9.5 units

*To be determined

B. The above Local limits apply at the point where the wastewater is discharged to the POTW, also known as the end-of-pipe. All concentrations for metallic substances are for total metal unless indicated otherwise. The District may impose mass limitations in addition to concentration-based limitations.

C. The Manager may develop Best Management Practices (BMP's) by ordinance or in individual wastewater discharge permits to implement Local Limits and the requirements of Section 4.1 of this ordinance.

4.5 *District's Right of Revision*

The District reserves the right to establish, by ordinance or in individual wastewater discharge permits, more stringent Standards or Requirements on discharges to the POTW consistent with the purpose of this ordinance.

4.6 *Dilution*

No User shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to achieve compliance with a discharge limitation unless expressly authorized by an applicable Pretreatment Standard or Requirement. The Manager may impose mass limitations on Users who are using dilution to meet applicable Pretreatment Standards or Requirements, or in other cases when the imposition of mass limitations is appropriate.

4.7 *Bypass - Definitions*

- A. For the purposes of this Ordinance,
1. Bypass means the intentional diversion of wastestreams from any portion of a User's treatment facility.
 2. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

4.8 *Bypass Prohibited.*

- A. Bypass is prohibited. The Manager may take enforcement action against a User for a bypass unless:
1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
 2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of

reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

3. The User submitted notices as required under Section 4.9 of this ordinance.

B. A User may allow a bypass to occur only if it does not cause violations of Pretreatment Standards, Industrial User Permit, or the District's NPDES Permit and is for essential maintenance to assure efficient operation. The Manager may approve a planned bypass after considering its potential adverse effects.

4.9 Bypass Notifications.

A. If a User plans for a bypass, the User must submit prior notice to the Manager at least ten (10) days before the date of the bypass.

B. A User shall submit a verbal notice of an unanticipated bypass that exceeds applicable Pretreatment Standards or Permit limits to the Manager within twenty-four (24) hours from the time it becomes aware of the bypass. A written submission shall also be provided within five (5) days of the time the User becomes aware of the bypass. The written submission shall contain (i) a description of the bypass and its cause, (ii) the duration of the bypass, including exact dates and times, and, (iii) the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The Manager may waive the written report on a case by case basis if the oral report has been received with twenty-four (24) hours.

SECTION 5 - PRETREATMENT OF WASTEWATER

5.1 Pretreatment Facilities

Users shall provide wastewater treatment as necessary to comply with this ordinance and shall achieve compliance with all categorical Pretreatment Standards, Local Limits, and the prohibitions set out in Section 4.1 of this ordinance within the time limitations specified by EPA, the State, or the Manager, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the User's expense. Detailed plans describing such facilities and operating procedures shall be submitted to the Manager for review, and shall be acceptable to the Manager before such facilities are constructed. The review of such plans and operating procedures shall in no way relieve the User from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to the District under the provisions of this ordinance.

5.2 Additional Pretreatment Measures

A. Whenever deemed necessary, the Manager may require Users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sewage wastestreams from industrial wastestreams, and such other conditions as may be necessary to protect the POTW and determine the User's compliance with the requirements of this ordinance.

B. The Manager may require any person discharging into the POTW to install and maintain, on their property and at their expense, a suitable storage and flow-control facility to ensure equalization of flow. An individual wastewater discharge permit may be issued solely for flow equalization.

C. Grease, oil, and sand interceptors shall be provided when, in the opinion of the Manager, they are necessary for the proper handling of wastewater containing excessive amounts of grease and oil, or sand; except that such interceptors shall not be required for residential users. All interception units shall be of a type and capacity approved by the Manager, shall comply with the District ordinances, and shall be so located to be easily accessible for cleaning and inspection. Such interceptors shall be inspected, cleaned, and repaired in accordance with District requirements by the User at their expense.

D. Users with the potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter.

E. The Manager may require any persons discharging into the POTW to install and maintain, on their property and at their expense a flowmeter capable of totaling a minimum of ten million (10,000,000) gallons to authenticate the amount of effluent discharge for District billing purposes.

5.3 Accidental Discharge/Slug Discharge Control Plans

The Manager shall evaluate whether each SIU needs an accidental discharge/slug discharge control plan or other action to control Slug Discharges. The Manager may require any User to develop, submit for approval, and implement such a plan or take such other action that may be necessary to control Slug Discharges. Alternatively, the Manager may develop such a plan for any User. An accidental discharge/slug discharge control plan shall address, at a minimum, the following:

- A. Description of discharge practices, including nonroutine batch discharges;
- B. Description of stored chemicals;
- C. Procedures for immediately notifying the Manager of any accidental or Slug Discharge, as required by Section 8.6 of this ordinance; and
- D. Procedures to prevent adverse impact from any accidental or Slug Discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

5.4 Trucked or Hauled Wastewater

Any trucked or hauled pollutants are prohibited, except at discharge points designated by the District.

5.5 Pollution Prevention, Waste Minimization, Recycling, and Treatment

All Users must implement a program of waste minimization to reduce the generation of Hazardous Wastes in accordance with Federal, State, and local policies. This program, at a minimum, shall include adequate housekeeping measures and product substitution to less hazardous raw materials as much as economically feasible and recycling of all wastestreams as technically feasible.

Waste minimization must be demonstrated wherever feasible, in the following order of priority, as determined by EPA policy derived from the Pollution Prevention Act of 1990:

- A. Source Reduction: Substitution to less hazardous materials, spill prevention and control measures, proper storage and handling of chemicals and raw materials, or any methods that accomplish source reduction.
- B. Recycling, Recovery, and /or Reuse: Practice recovery, recycling, and reuse for such waste streams as solvents, oils ethylene glycol, silver and concentrated bath or spent solutions or other process wastestreams.
- C. Treatment: Treatment techniques designed to render Hazardous Wastes harmless or suitable for proper disposal.
- D. Disposal: Destruction of Hazardous Wastes must take precedence over landfilling, but in any case, all disposal must be in compliance with Federal, State, and local Hazardous Waste disposal laws.

SECTION 6 - INDIVIDUAL WASTEWATER DISCHARGE PERMITS

6.1 Wastewater Analysis

When requested by the Manager, a User must submit information on the nature and characteristics of its wastewater within ten (10) days of the request. The Manager is authorized to prepare a form for this purpose and may periodically require Users to update this information.

6.2 Individual Wastewater Discharge Permit Requirement

A. No Significant Industrial User shall discharge wastewater into the POTW without first obtaining an individual wastewater discharge permit from the Manager, except that a Significant Industrial User that has filed a timely application pursuant to Section 6.3 of this ordinance may continue to discharge for the time period specified therein.

B. The Manager may require other Users to obtain individual wastewater discharge permits as necessary to carry out the purposes of this ordinance.

C. Any violation of the terms and conditions of an individual wastewater discharge permit shall be deemed a violation of this ordinance and subjects the wastewater discharge permittee to the sanctions set out in Sections 12 through 14 of this ordinance. Obtaining an individual wastewater discharge permit does not relieve a permittee of its obligation to comply with all Federal and State Pretreatment Standards or Requirements or with any other requirements of Federal, State, and local law.

6.3 Individual Wastewater Discharge Permitting: Existing Connections

Any User required to obtain an individual wastewater discharge permit who was discharging wastewater into the POTW prior to the effective date of this ordinance and who wishes to continue such discharges in the future, shall, within ten (10) days after said date, apply to the Manager for an individual wastewater discharge permit in accordance with Section 6.5 of this ordinance, and shall not cause or allow discharges to the POTW to continue after thirty (30) days of the effective date of this ordinance except in accordance with an individual wastewater discharge permit issued by the Manager.

6.4 Individual Wastewater Discharge Permitting: New Connections

Any User required to obtain an individual wastewater discharge permit who proposes to begin or recommence discharging into the POTW must obtain such permit prior to the beginning or recommencing of such discharge. An application for this individual wastewater discharge permit, in accordance with Section 6.5 of this ordinance, must be filed at least ten (10) days prior to the date upon which any discharge will begin or recommence.

6.5 Individual Wastewater Discharge Permit Application Contents

A. All Users required to obtain an individual wastewater discharge permit must submit a permit application. The Manager may require Users to submit all or some of the following information as part of a permit application:

(1) Identifying Information.

- a. The name and address of the facility, including the name of the operator and owner.
- b. Contact information, description of activities, facilities, and plant production processes on the premises;

(2) Environmental Permits. A list of any environmental control permits held by or for the facility.

(3) Description of Operations.

- a. A brief description of the nature, average rate of production (including each product produced by type, amount, processes, and rate of production), and standard industrial classifications of the operation(s) carried out by such User. This description should include a schematic process diagram, which indicates points of discharge to the POTW from the regulated processes;
- b. Types of wastes generated, and a list of all raw materials and chemicals used or stored at the facility which are, or could accidentally or intentionally be, discharged to the POTW;
- c. Number and type of employees, hours of operation, and proposed or actual hours of operation;
- d. Type and amount of raw materials processed (average and maximum per day);
- e. Site plans, floor plans, mechanical and plumbing plans, and details to show all sewers, floor drains, and appurtenances by size, location, and elevation, and all points of discharge;

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- (4) Time and duration of discharges;
 - (5) The location for monitoring all wastes covered by the permit;
 - (6) Flow Measurement. Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined wastestream formula set out in Section 4.2(40 CFR 403.6(e)).
 - (7) Measurement of Pollutants.
 - a. The categorical Pretreatment Standards applicable to each regulated process and any new categorically regulated processes for Existing Sources.
 - b. The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the Standard or by the Manager, of regulated pollutants in the discharge from each regulated process.
 - c. Instantaneous, Daily Maximum, and long-term average concentrations, or mass, where required, shall be reported.
 - d. The sample shall be representative of daily operations and shall be analyzed in accordance with procedures set out in Section 8.10 of this ordinance. Where the Standard requires compliance with a BMP or pollution prevention alternative, the User shall submit documentation as required by the Manager or the applicable Standards to determine compliance with the Standard.
 - e. Sampling must be performed in accordance with procedures set out in Section 8.11 of this ordinance.
 - (8) Any other information as may be deemed necessary by the Manager to evaluate the permit application.

B. Incomplete or inaccurate applications will not be processed and will be returned to the User for revision.

6.6 Application Signatories and Certifications

A. All wastewater discharge permit applications, User reports and certification statements must be signed by an Authorized Representative of the User and contain the certification statement in Section 8.14 A of this ordinance.

B. If the designation of an Authorized Representative is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for environmental matters for the company, a new written authorization satisfying the requirements of Section 1.4 C of this ordinance must be submitted to the Manager prior to or together with any reports to be signed by an Authorized Representative.

6.7 Individual Wastewater Discharge Permit Decisions

The Manager will evaluate the data furnished by the User and may require additional information. Within twenty (20) days of receipt of a complete permit application, the Manager will determine whether to issue an individual wastewater discharge permit. The Manager may deny any application for an individual wastewater discharge permit.

6.8 Industrial Wastewater Discharge Permit Classification

Industrial Wastewater Discharge Permits shall be classified as follows:

Class I: No Hazard – This class includes industrial users who do not handle, store, or dispose of toxic wastes on the premises; and who do not discharge toxic wastes into the sewer. These users include those with discharges that contain non-toxic pollutants which may cause interference with the operation of the POTW.

Class II: Low Hazard – This group of industrial users handles or stores toxic wastes on their premises, but does not discharge these wastes to the sewer. Such users have all toxic wastes hauled off site, but have floor drains or other plumbing fixtures through which toxic waste can be conveyed to the sewer during normal washdown operation or spillage. Zero-Discharge Certification Form can be used in lieu of monitoring.

Class III: Hazardous – This classification is for industrial users with intermittent discharges to the sewer which contain toxic pollutants.

Class IIIR: Groundwater Remediation – This classification is for industrial users pumping contaminated groundwater through treatment then discharging to the sewer.

Class IV: Serious Hazard – This classification is for Significant Industrial Users, those industries that are regulated under National Categorical Pretreatment Standards, or users that have continuous discharge to the sewer which contain toxic pollutants.

SECTION 7 - INDIVIDUAL WASTEWATER DISCHARGE PERMIT ISSUANCE

7.1 Individual Wastewater Discharge Permit Duration

An individual wastewater discharge permit shall be issued for a specified time period, not to exceed five (5) years from the effective date of the permit. An individual wastewater discharge permit may be issued for a period less than five (5) years, at the discretion of the Manager. Each individual wastewater discharge permit will indicate a specific date upon which it will expire.

7.2 Individual Wastewater Discharge Permit Contents

An individual wastewater discharge permit shall include such conditions as are deemed reasonably necessary by the Manager to prevent Pass Through or Interference, protect the quality of the water body receiving the treatment plant's effluent, protect worker health and safety, facilitate sludge management and disposal, protect the wastewater reclamation facility and protect against damage to the POTW.

A. Individual wastewater discharge permits must contain:

- (1) A statement that indicates the wastewater discharge permits issuance date, expiration date and effective date;
- (2) A statement that the wastewater discharge permit is nontransferable without prior notification to the District in accordance with Section 7.4 of this ordinance, and provisions for furnishing the new owner or operator with a copy of the existing wastewater discharge permit;
- (3) Effluent limits, including Best Management Practices, based on applicable Pretreatment Standards;
- (4) Self monitoring, sampling, reporting, notification, and record-keeping requirements. These requirements shall include an identification of pollutants (or best management practice) to be monitored, sampling location, sampling frequency, and sample type based on Federal, State, and local law.
- (5) A statement of applicable civil and criminal penalties for violation of Pretreatment Standards and Requirements, and any applicable compliance schedule. Such schedule may not extend the time for compliance beyond that required by applicable Federal, State, or local law.
- (6) Requirements to control Slug Discharge, if determined by the Manager to be necessary.

B. Individual wastewater discharge permits may contain, but need not be limited to, the following conditions:

- (1) Limits on the average and/or maximum rate of discharge, time of discharge, and/or requirements for flow regulation and equalization;

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- (2) Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works;
 - (3) Requirements for the development and implementation of spill control plans or other special conditions including management practices necessary to adequately prevent accidental, unanticipated, or nonroutine discharges;
 - (4) Development and implementation of waste minimization plans to reduce the amount of pollutants discharged to the POTW;
 - (5) The unit charge or schedule of User charges and fees for the management of the wastewater discharged to the POTW;
 - (6) Requirements for installation and maintenance of inspection and sampling facilities and equipment, including flow measurement devices;
 - (7) A statement that compliance with the individual wastewater discharge permit does not relieve the permittee of responsibility for compliance with all applicable Federal and State Pretreatment Standards, including those which become effective during the term of the individual wastewater discharge permit; and
 - (8) Other conditions as deemed appropriate by the Manager to ensure compliance with this ordinance, and State and Federal laws, rules, and regulations.

7.3 Permit Modification

A. The Manager may modify an individual wastewater discharge permit for good cause, including, but not limited to, the following reasons:

- (1) To incorporate any new or revised Federal, State, or local Pretreatment Standards or Requirements;
- (2) To address significant alterations or additions to the User's operation, processes, or wastewater volume or character since the time of the individual wastewater discharge permit issuance;
- (3) A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge;
- (4) Information indicating that the permitted discharge poses a threat to the District's POTW, District personnel, the POTW's beneficial sludge and/or reclaimed water use, or the receiving waters;
- (5) Violation of any terms or conditions of the individual wastewater discharge permit;
- (6) Misrepresentations or failure to fully disclose all relevant facts in the wastewater discharge permit application or in any required reporting;
- (7) Revision of or a grant of variance from categorical Pretreatment Standards pursuant to 40 CFR 403.13;
- (8) To correct typographical or other errors in the individual wastewater discharge permit; or
- (9) To reflect a transfer of the facility ownership or operation to a new owner or operator where requested in accordance with Section 7.4 of this ordinance.

7.4 Individual Wastewater Discharge Permit Transfer

Individual wastewater discharge permits may be transferred to a new owner or operator only if the permittee gives at least twenty (20) days advance notice to the Manager and the Manager approves the individual wastewater discharge permit transfer. The notice to the Manager must include a written certification by the new owner or operator which:

- A. States that the new owner and/or operator has no immediate intent to change the facility's operations and processes;

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- B. Identifies the specific date on which the transfer is to occur; and
 - C. Acknowledges full responsibility for complying with the existing individual wastewater discharge permit.

Failure to provide advance notice of a transfer renders the individual wastewater discharge permit void as of the date of facility transfer.

7.5 Individual Wastewater Discharge Permit Revocation

The Manager may revoke an individual wastewater discharge permit for good cause, including, but not limited to, the following reasons:

- A. Failure to notify the Manager of significant changes to the wastewater prior to the changed discharge;
- B. Failure to provide prior notification to the Manager of changed conditions pursuant to Section 8.5 of this ordinance;
- C. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge permit application;
- D. Falsifying self-monitoring reports and certification statements;
- E. Tampering with monitoring equipment;
- F. Refusing to allow the Manager timely access to the facility premises and records;
- G. Failure to meet effluent limitations;
- H. Failure to pay fines;
- I. Failure to pay sewer charges;
- J. Failure to meet compliance schedules;
- K. Failure to complete a wastewater survey or the wastewater discharge permit application;
- L. Failure to provide advance notice of the transfer of business ownership of a permitted facility; or
- M. Violation of any Pretreatment Standard or Requirement, or any terms of the wastewater discharge permit or this ordinance.

Individual wastewater discharge permits shall be voidable upon cessation of operations or transfer of business ownership. All individual wastewater discharge permits issued to a User are void upon the issuance of a new individual wastewater discharge permit to that User.

7.6 Individual Wastewater Discharge Permit Reissuance

A User with an expiring individual wastewater discharge permit shall apply for individual wastewater discharge permit reissuance by submitting a complete permit application, in accordance with Section 6.5 of this ordinance, a minimum of thirty (30) days prior to the expiration of the User's existing individual wastewater discharge permit.

7.7 Regulation of Waste Received from Other Jurisdictions

- A. If another municipality, a governmental agency or a User located outside the District's jurisdiction (an "Outside Contributor") contributes wastewater to the District's POTW, the District shall enter into an agreement with the Outside Contributor.
- B. An agreement, as required by paragraph A, above, shall contain the following conditions:
 - (1) A requirement for the Outside Contributor to adopt sewer use requirements which (i) are at least as stringent as this ordinance, (ii) contain Local Limits, which are at least as stringent as those set out in Section 4.4 of this ordinance, and (iii) includes requirements for Baseline Monitoring Reports

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- (BMRs). The sewer use requirements shall specify that such requirements and limits must be revised as necessary to reflect changes made to the District's ordinance or Local Limits;
- (2) A provision specifying which pretreatment implementation activities, including individual wastewater discharge permit issuance, inspection and sampling, and enforcement, will be conducted by the Outside Contributor; which of these activities will be conducted by the Manager; and which of these activities will be conducted jointly by the Outside Contributor and the Manager;
 - (3) A requirement for the Outside Contributor to provide the Manager with access to all information that the Outside Contributor obtains as part of its pretreatment activities;
 - (4) A provision specifying that, where the Outside Contributor has primary responsibility for permitting, compliance monitoring, or enforcement, the District has the right to take action to enforce the terms of the Outside Contributor's sewer use requirements or to impose and enforce Pretreatment Standards and Requirements directly against dischargers in the event the Outside Contributor is unable or unwilling to take such action.

SECTION 8 - REPORTING REQUIREMENTS

8.1 Baseline Monitoring Reports

A. Within either one hundred eighty (180) days after the effective date of a categorical Pretreatment Standard, or the final administrative decision on a category determination under 40 CFR 403.6(a)(4), whichever is later, existing Categorical Industrial Users currently discharging to or scheduled to discharge to the POTW shall submit to the Manager a report which contains the information listed in paragraph B, below. At least ninety (90) days prior to commencement of their discharge, New Sources, and sources that become Categorical Industrial Users subsequent to the promulgation of an applicable categorical Standard, shall submit to the Manager a report which contains the information listed in paragraph B, below. A New Source shall report the method of pretreatment it intends to use to meet applicable categorical Standards. A New Source also shall give estimates of its anticipated flow and quantity of pollutants to be discharged.

B. Users described above shall submit the information set forth below.

- (1) All information required in Section 6.5A (1) a, Section 6.5A (2), Section 6.5A (3) a, and Section 6.5A (6) of this ordinance.
- (2) Measurement of pollutants.
 - a. The User shall provide the information required in Section 6.5A (7) a through d of this ordinance.
 - b. The User shall take a minimum of one representative sample to compile that data necessary to comply with the requirements of this paragraph.
 - c. Samples should be taken immediately downstream from pretreatment facilities if such exist or immediately downstream from the regulated process if no pretreatment exists. If other wastewaters are mixed with the regulated wastewater prior to pretreatment the User should measure the flows and concentrations necessary to allow use of the combined wastestream formula in 40 CFR 403.6(e) to evaluate compliance with the Pretreatment Standards. Where an alternate concentration or mass limit has been calculated in accordance with 40 CFR 403.6(e) this adjusted limit along with supporting data shall be submitted to the Control Authority;
 - d. Sampling and analysis shall be performed in accordance with Section 8.10 of this ordinance;
 - e. The Manager may allow the submission of a baseline report which utilizes only historical data so long as the data provides information sufficient to determine the need for industrial pretreatment measures;
 - f. The baseline report shall indicate the time, date and place of sampling and methods of analysis, and shall certify that such sampling and analysis is representative of normal work cycles and expected pollutant Discharges to the POTW.

(3) Compliance Certification. A statement, reviewed by the User's Authorized Representative as defined in Section 1.4 C of this ordinance and certified by a qualified professional, indicating whether Pretreatment Standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the Pretreatment Standards and Requirements.

(4) Compliance Schedule. If additional pretreatment and/or O&M will be required to meet the Pretreatment Standards, the shortest schedule by which the User will provide such additional pretreatment and/or O&M must be provided. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard. A compliance schedule pursuant to this Section must meet the requirements set out in Section 8.2 of this ordinance.

(5) Signature and Report Certification. All baseline monitoring reports must be certified in accordance with Section 8.14 A of this ordinance and signed by an Authorized Representative as defined in Section 1.4 C of this ordinance.

8.2 Compliance Schedule Progress Reports

The following conditions shall apply to the compliance schedule required by Section 8.1(B)(4) of this ordinance:

A. The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the User to meet the applicable Pretreatment Standards (such events include, but are not limited to, hiring an engineer, completing preliminary and final plans, executing contracts for major components, commencing and completing construction, and beginning and conducting routine operation);

B. No increment referred to above shall exceed nine (9) months;

C. The User shall submit a progress report to the Manager no later than fourteen (14) days following each date in the schedule and the final date of compliance including, as a minimum, whether or not it complied with the increment of progress, the reason for any delay, and, if appropriate, the steps being taken by the User to return to the established schedule; and

D. In no event shall more than nine (9) months elapse between such progress reports to the Manager.

8.3 Reports on Compliance with Categorical Pretreatment Standard Deadline

Within ninety (90) days following the date for final compliance with applicable categorical Pretreatment Standards, or in the case of a New Source following commencement of the introduction of wastewater into the POTW, any User subject to such Pretreatment Standards and Requirements shall submit to the Manager a report containing the information described in Section 6.5A(6) and (7) and 8.1B(2) of this ordinance. All compliance reports must be signed and certified in accordance with Section 8.14 A of this ordinance. All sampling will be done in conformance with Section 8.11 of this ordinance.

8.4 Periodic Compliance Reports

A. All Significant Industrial Users must, at a frequency determined by the District, submit no less than twice per year (June and December) reports indicating the nature, concentration of pollutants in the discharge which are limited by Pretreatment Standards and the measured or estimated average and maximum daily flows for the reporting period. In cases where the Pretreatment Standard requires compliance with a Best Management Practice (BMP) or pollution prevention alternative, the User must submit documentation required by the District or the Pretreatment Standard necessary to determine the compliance status of the User.

B. All periodic compliance reports must be signed and certified in accordance with Section 8.14 A of this ordinance.

C. All wastewater samples must be representative of the User's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and maintained in good working order at all times. The failure of a User to keep its monitoring facility in good working order shall not be grounds for the User to claim that sample results are unrepresentative of its discharge.

D. If a User subject to the reporting requirement in this Section monitors any regulated pollutant at the appropriate sampling location more frequently than required by the Manager, using the procedures prescribed in Section 8.11 of this ordinance, the results of this monitoring shall be included in the report.

8.5 Reports of Changed Conditions

Each User must notify the District of any significant changes to the User's operations or system which might alter the nature, quality, or volume of its wastewater at least ten (10) days before the change.

A. The District may require the User to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of a wastewater discharge permit application under Section 6.5 of this ordinance.

B. The District may issue an individual wastewater discharge permit under Section 7.6 of this ordinance or modify an existing wastewater discharge permit under Section 7.3 of this ordinance in response to changed conditions or anticipated changed conditions.

8.6 Reports of Potential Problems

A. In the case of any discharge, including, but not limited to, accidental discharges, discharges of a nonroutine, episodic nature, a noncustomary batch discharge, a Slug Discharge or Slug Load, that might cause potential problems for the POTW, the User shall immediately telephone and notify the Manager of the incident. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the User.

B. Within five (5) days following such discharge, the User shall, unless waived by the District, submit a detailed written report describing the cause(s) of the discharge and the measures to be taken by the User to prevent similar future occurrences. Such notification shall not relieve the User of any expense, loss, damage, or other liability which might be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the User of any fines, penalties, or other liability which may be imposed pursuant to this ordinance.

C. A notice shall be permanently posted on the User's bulletin board or other prominent place advising employees who to call in the event of a discharge described in paragraph A, above. Employers shall ensure that all employees, who could cause such a discharge to occur, are advised of the emergency notification procedure.

D. Significant Industrial Users are required to notify the Manager immediately of any changes at its facility affecting the potential for a Slug Discharge.

8.7 Reports from Unpermitted Users

All Users not required to obtain an individual wastewater discharge permit shall provide appropriate reports to the Manager as the Manager may require.

8.8 Notice of Violation/Repeat Sampling and Reporting

If sampling performed by a User indicates a violation, the User must notify the Manager within twenty-four (24) hours of becoming aware of the violation. The User shall also repeat the sampling and analysis and submit the

results of the repeat analysis to the Manager within thirty (30) days after becoming aware of the violation. Resampling by the Industrial User is not required if the District performs sampling at the User's facility at least once a month, or if the District performs sampling at the User between the time when the initial sampling was conducted and the time when the User or the District receives the results of this sampling, or if the District has performed the sampling and analysis in lieu of the Industrial User.

8.9 Discharge of Hazardous Waste

Discharge of hazardous wastes, except as specified in this ordinance, is prohibited.

8.10 Analytical Requirements

All pollutant analyses, including sampling techniques, to be submitted as part of a wastewater discharge permit application or report shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto, unless otherwise specified in an applicable categorical Pretreatment Standard. If 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the EPA determines that the Part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analyses shall be performed by using validated analytical methods or any other applicable sampling and analytical procedures, including procedures suggested by the Manager or other parties approved by EPA.

8.11 Sample Collection

Samples collected to satisfy reporting requirements must be based on data obtained through appropriate sampling and analysis performed during the period covered by the report, based on data that is representative of conditions occurring during the reporting period. A Chain-of-Custody form is required to be submitted with all monitoring data.

A. Except as indicated in Section B and C below, the User must collect wastewater samples using 24-hour flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the Manager. Where time-proportional composite sampling or grab sampling is authorized by the District, the samples must be representative of the discharge. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics and oil and grease, the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by the District, as appropriate. In addition, grab samples may be required to show compliance with Instantaneous Limits.

B. Samples for oil and grease, temperature, pH, cyanide, total phenols, sulfides, and volatile organic compounds must be obtained using grab collection techniques.

C. For sampling required in support of baseline monitoring and 90-day compliance reports required in Sections 8.1 and 8.3 of this ordinance [40 CFR 403.12(b) and (d)], a minimum of four (4) grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds for facilities for which historical sampling data do not exist; for facilities for which historical sampling data are available, the Manager may authorize a lower minimum. For the reports required by paragraphs Section 8.4 of this ordinance (40 CFR 403.12(e) and 403.12(h)), the Industrial User is required to collect the number of grab samples necessary to assess and assure compliance by with applicable Pretreatment Standards and Requirements.

8.12 Date of Receipt of Reports

Written reports will be deemed to have been submitted on the date postmarked. For reports, which are not mailed, postage prepaid, into a mail facility serviced by the United States Postal Service, the date of receipt of the report shall govern.

8.13 Recordkeeping

Users subject to the reporting requirements of this ordinance shall retain, and make available for inspection and copying, all records of information obtained pursuant to any monitoring activities required by this ordinance, any additional records of information obtained pursuant to monitoring activities undertaken by the User independent of such requirements, and documentation associated with Best Management Practices established under Section 4.4 C of this ordinance. Records shall include the date, exact place, method, and time of sampling, and the name of the person(s) taking the samples; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses. These records shall remain available for a period of at least three (3) years. This period shall be automatically extended for the duration of any litigation concerning the User or the District, or where the User has been specifically notified of a longer retention period by the Manager.

8.14 Certification Statements

A. Certification of Permit Applications, User Reports and Initial Monitoring Waiver

The following certification statement is required to be signed and submitted by Users submitting permit applications in accordance with Section 6.6 of this ordinance; Users submitting baseline monitoring reports under Section 8.1 B (5) of this ordinance; Users submitting reports on compliance with the categorical Pretreatment Standard deadlines under Section 8.3; Users submitting periodic compliance reports required by Section 8.4 A–D of this ordinance, The following certification statement must be signed by an Authorized Representative as defined in Section 1.4 C of this ordinance:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SECTION 9 - COMPLIANCE MONITORING

9.1 Right of Entry: Inspection and Sampling

The District shall have the right to enter the premises of any User to determine whether the User is complying with all requirements of this ordinance and any individual wastewater discharge permit or order issued hereunder. Users shall allow the District ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

A. Where a User has security measures in force which require proper identification and clearance before entry into its premises, the User shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, the District shall be permitted to enter without delay for the purposes of performing specific responsibilities.

B. The District shall have the right to set up on the User's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the User's operations.

C. The District may require the User to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating

condition by the User at its own expense. All devices used to measure wastewater flow and quality shall be calibrated according to manufacturer's specifications to ensure their accuracy.

D. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the User at the written or verbal request of the District and shall not be replaced. The costs of clearing such access shall be borne by the User.

E. Unreasonable delays in allowing the District access to the User's premises shall be a violation of this ordinance.

F. The monitoring facility shall (i) provide ample room in or near the monitoring facility to allow accurate sampling and preparation of samples and analysis, (ii) comply with all District requirements, (iii) comply with all applicable local construction standards and specifications, and (iv) be constructed and maintained in such manner so as to enable the District to perform independent monitoring activities.

9.2 Inspection Warrants

If the District has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of the District designed to verify compliance with this ordinance or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, they may seek issuance of an inspection warrant from the Santa Barbara Superior Court pursuant to California Code of Civil Procedure Section 1822.50 et seq.

SECTION 10 - CONFIDENTIAL INFORMATION

Information and data on a User obtained from reports, surveys, wastewater discharge permit applications, individual wastewater discharge permits, and monitoring programs, and from the District's inspection and sampling activities, shall be available to the public without restriction, unless the User specifically requests, and is able to demonstrate to the satisfaction of the District, that (i) the release of such information would divulge information, processes, or methods of production entitled to protection as trade secrets under applicable State law, and (ii) such information is exempt from disclosure under the California Public Records Act (California Government Code Section 6250 et seq.). Any such request must be asserted at the time of submission of the information or data. When requested and demonstrated by the User furnishing a report that such information should be held confidential, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public, but shall be made available immediately upon request to governmental agencies for uses related to the NPDES program or pretreatment program, and in enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics and other effluent data, as defined at 40 CFR 2.302, shall not be recognized as confidential information and shall be available to the public without restriction.

SECTION 11 - PUBLICATION OF USERS IN SIGNIFICANT NONCOMPLIANCE

The District shall publish annually, in a newspaper of general circulation that provides meaningful public notice within the jurisdictions served by the POTW, a list of the Users which, at any time during the previous twelve (12) months, were in Significant Noncompliance with applicable Pretreatment Standards and Requirements. The term Significant Noncompliance shall be applicable to all Significant Industrial Users (or any other Industrial User that violates paragraphs (C), (D) or (H) of this Section 11) and shall mean:

A. Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent (66%) or more of all the measurements taken for the same pollutant parameter taken during a six- (6-) month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including Instantaneous Limits as defined in Section 2 of this ordinance;

B. Technical Review Criteria (TRC) violations, defined here as those in which thirty-three percent (33%) or more of wastewater measurements taken for each pollutant parameter during a six- (6-) month

period equals or exceeds the product of the numeric Pretreatment Standard or Requirement including Instantaneous Limits, as defined by Section 2 of this ordinance multiplied by the applicable criteria (1.4 for BOD, TSS, fats, oils and grease, and 1.2 for all other pollutants except pH);

C. Any other violation of a Pretreatment Standard or Requirement as defined by Section 2 of this ordinance (Daily Maximum, long-term average, Instantaneous Limit, or narrative standard) that the District determines has caused, alone or in combination with other discharges, Interference or Pass Through, including endangering the health of POTW personnel or the general public;

D. Any discharge of a pollutant that has caused imminent endangerment to the public or to the environment, or has resulted in the District's exercise of its emergency authority to halt or prevent such a discharge;

E. Failure to meet, within ninety (90) days of the scheduled date, a compliance schedule milestone contained in an individual wastewater discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance;

F. Failure to provide within forty-five (45) days after the due date, any required reports, including baseline monitoring reports, reports on compliance with categorical Pretreatment Standard deadlines, periodic self-monitoring reports, and reports on compliance with compliance schedules;

G. Failure to accurately report noncompliance; or

H. Any other violation(s), which may include a violation of Best Management Practices, which the District determines will adversely affect the operation or implementation of the local pretreatment program.

SECTION 12 - ADMINISTRATIVE ENFORCEMENT REMEDIES

12.1 Notification of Violation

When the Manager finds that a User has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, the Manager may serve upon that User a written Notice of Violation. Within thirty (30) days of the receipt of such Notice of Violation, the User shall submit to the Manager an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions. Submission of such a plan in no way relieves the User of liability for any violations occurring before or after receipt of the Notice of Violation. Nothing in this Section 12 shall limit the authority of the Manager to take any action, including emergency actions or any other enforcement action, without first issuing a Notice of Violation.

12.2 Consent Orders

The District may enter into Consent Orders, assurances of compliance, or other similar documents establishing an agreement with any User responsible for noncompliance. Such documents shall include specific action to be taken by the User to correct the noncompliance within a time period specified by the document. Such documents shall have the same force and effect as the administrative orders issued pursuant to Sections 12.4 and 12.5 of this ordinance and shall be judicially enforceable.

12.3 Show Cause Hearing

The Manager may order a User which has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, to appear before the Manager and show cause why the proposed enforcement action should not be taken. Notice shall be served on the User specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the User show cause why the proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least thirty (30) days prior to the hearing. Such notice may be served

on any Authorized Representative of the User as defined in Section 1.4 C and required by Section 6.6 A of this ordinance. A show cause hearing shall not be a bar against, or prerequisite for, taking any other action against the User.

12.4 Compliance Orders

When the Manager finds that a User has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, the Manager may issue an order to the User responsible for the discharge directing that the User come into compliance within a specified time. If the User does not come into compliance within the time provided, sewer service may be discontinued unless adequate treatment facilities, devices, or other related appurtenances are installed and properly operated. Compliance orders also may contain other requirements to address the noncompliance, including additional self-monitoring and management practices designed to minimize the amount of pollutants discharged to the sewer. A compliance order may not extend the deadline for compliance established for a Pretreatment Standard or Requirement, nor does a compliance order relieve the User of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a bar against, or a prerequisite for, taking any other action against the User.

12.5 Cease and Desist Orders

When the Manager finds that a User has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, or that the User's past violations are likely to recur, the Manager may issue an order to the User directing it to cease and desist all such violations and directing the User to:

- A. Immediately comply with all requirements; and
- B. Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and/or terminating the discharge. Issuance of a cease and desist order shall not be a bar against, or a prerequisite for, taking any other action against the User.

12.6 Administrative Penalties

A. If the District seeks to impose an administrative penalty, the District shall issue an administrative complaint to any person who violates any requirement adopted or ordered by the District pursuant to this ordinance. The administrative complaint shall allege the act or failure to act that constitutes the violation of the District's requirements, the provisions of law authorizing civil liability to be imposed, and the proposed penalty.

B. The administrative complaint shall be served by personal delivery or certified mail (return receipt requested) on the person subject to the District's discharge requirements, and shall inform the person served that a hearing shall be conducted within sixty (60) days after the person has been served. The hearing shall be before a hearing officer designated by the Governing Board of the District. The person who has been issued an administrative complaint may waive the right to a hearing, in which case the District shall not conduct a hearing. A person dissatisfied with the decision of the hearing officer may appeal to the Governing Board of the District within thirty (30) days of notice of the hearing officer's decision.

C. If after the hearing, or appeal, if any, it is found that the person has violated reporting or discharge requirements, the hearing officer or Governing Board may assess a civil penalty against that person. In determining the amount of the civil penalty, the hearing officer or Governing Board may take into consideration all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the economic benefit derived through any noncompliance, the nature and persistence of the violation, the length of time over which the violation occurs and corrective action, if any, attempted or taken by the discharger.

D. Administrative penalties may be imposed by the District as follows:

(1) In an amount which shall not exceed two thousand dollars (\$2,000) for each day for failing or refusing to furnish technical or monitoring reports.

(2) In an amount which shall not exceed three thousand dollars (\$3,000) for each day for failing or refusing to timely comply with any compliance schedule established by the local agency.

(3) In an amount which shall not exceed five thousand dollars (\$5,000) per violation for each day for discharges in violation of any waste discharge limitation, permit condition, or requirement issued, reissued, or adopted by the local agency.

(4) In an amount which does not exceed ten dollars (\$10) per gallon for discharges in violation of any suspension, cease and desist order or other orders, or prohibition issued, reissued, or adopted by a local agency.

(5) The amount of any civil penalties imposed under this section which have remained delinquent for a period of sixty (60) days shall constitute a lien against the real property of the discharger from which the discharge originated resulting in the imposition of the civil penalty. The lien provided herein shall have no force and effect until recorded with the Santa Barbara County Recorder and, when recorded, shall have the force and effect and priority of a judgment lien and continue for ten (10) years from the time of recording unless sooner released, and shall be renewable in accordance with the provisions of Sections 683.110 to 683.220, inclusive, of the California Code of Civil Procedure.

E. All moneys collected under this Section 12 shall be deposited in a special account of the District and shall be made available for the monitoring, treatment, and control of discharges into the local agency's sanitation or sewer system or for other mitigation measures.

F. Unless appealed, orders setting administrative civil penalties shall become effective and final upon issuance thereof, and payment shall be made within thirty (30) days. Copies of these orders shall be served by personal service or by registered mail upon the party served with the administrative complaint and upon other persons who appeared at the hearing and requested a copy.

G. The District may, at its option, elect to petition the Superior Court to confirm any order establishing civil penalties and enter judgment in conformity therewith in accordance with the provisions of Sections 1285 to 1287.6, inclusive, of the California Code of Civil Procedure.

H. No penalties shall be recoverable under this Section 12 for any violation for which civil liability is recovered under Government Code Section 54740.

I. Any party aggrieved by a final order issued by the Governing Board of the District under this Section 12.6 after granting review of the order of a hearing officer, may obtain review of the order of the Governing Board in the Superior Court by filing in the court a petition for writ of mandate within thirty (30) days following the service of a copy of a decision and order issued by the Governing Board. Any party aggrieved by a final order of a hearing officer issued under this Section 12.6, for which the Governing Board denies review, may obtain review, of the order of the hearing officer in the Superior Court by filing in the court a petition for writ of mandate within thirty (30) days following service of a copy of a decision and order denying review by the Governing Board.

J. If no aggrieved party petitions for writ of mandate within the time provided by this Section 12.6, an order of the Governing Board or a hearing officer shall not be subject to review by any court or agency, except that the Governing Board may grant review on its own motion of an order after the expiration of the time limits set by this Section 12.6.

K. The evidence before the court shall consist of the record before the Governing Board, including the hearing officer's record, and any other relevant evidence which, in the judgment of the court, should be considered to effectuate and implement policies of this division. In every such case, the court shall exercise its independent judgment on the evidence.

L. Except as otherwise provided in this Section, subdivisions (e) and (f) of Section 1094.5 of the California Code of Civil Procedure shall govern proceedings pursuant to this Section 12.6.

12.7 Emergency Suspensions

The Manager may immediately suspend a User's discharge, after informal notice to the User, whenever such suspension is necessary to stop an actual or threatened discharge, which reasonably appears to present, or cause an imminent or substantial endangerment to the health or welfare of persons. The Manager may also immediately suspend a User's discharge, after notice, that threatens to interfere with the operation of the POTW, or which presents, or may present, an endangerment to the environment.

A. Any User notified of a suspension of its discharge shall immediately stop or eliminate its contribution. In the event of a User's failure to immediately comply voluntarily with the suspension order, the Manager may take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The Manager may allow the User to recommence its discharge when the User has demonstrated to the satisfaction of the Manager that the period of endangerment has passed, unless the termination proceedings in Section 12.8 of this ordinance are initiated against the User.

B. A User that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful contribution and the measures taken to prevent any future occurrence, to the Manager prior to the date of any show cause or termination hearing under Sections 12.3 or 12.8 of this ordinance.

Nothing in this Section 12.7 shall be interpreted as requiring a hearing prior to any Emergency Suspension.

12.8 Termination of Discharge

In addition to the provisions in Section 7.5 of this ordinance, any User who violates the following conditions is subject to discharge termination:

- A. Violation of individual wastewater discharge permit conditions;
- B. Failure to accurately report the wastewater constituents and characteristics of its discharge;
- C. Failure to report significant changes in operations or wastewater volume, constituents, and characteristics prior to discharge;
- D. Refusal of reasonable access to the User's premises for the purpose of inspection, monitoring, or sampling;
or
- E. Violation of the Pretreatment Standards in Section 4 of this ordinance.

Such User will be notified of the proposed termination of its discharge and be offered an opportunity to show cause under Section 12.3 of this ordinance why the proposed action should not be taken. Exercise of this option by the Manager shall not be a bar to, or a prerequisite for, taking any other action against the User.

SECTION 13 - JUDICIAL ENFORCEMENT REMEDIES

13.1 Injunctive Relief

When the Manager finds that a User has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or

Requirement, the Manager may petition the Superior Court through the District's attorney for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the specific performance of the individual wastewater discharge permit, order, or other requirement imposed by this ordinance on activities of the User. The Manager may also seek such other action as is appropriate for legal and/or equitable relief, including a requirement for the User to conduct environmental remediation. A petition for injunctive relief shall not be a bar against, or a prerequisite for, taking any other action against a User.

13.2 Civil Penalties

A. Pursuant to California Government Code Sections 54739 and 54740 and the Clean Water Act, a User who has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement may be civilly liable in a sum of not to exceed twenty-five thousand dollars (\$25,000) a day for each violation.

B. The District may petition the Superior Court to impose, assess, and recover the sums provided for in Section 13.2 A of this ordinance. In determining the amount, the court shall take into consideration all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the economic benefit derived through any noncompliance, the nature and persistence of the violation, the length of time over which the violation occurs, and corrective action, if any, attempted or taken by the discharger.

C. Notwithstanding any other provision of law, all civil penalties imposed by the court for a violation of this Section 13.2 shall be distributed to the District.

D. Remedies under this Section 13.2 are in addition to and do not supersede or limit any and all other remedies, civil or criminal, but no liability shall be recoverable under this Section 13.2 for any violation for which administrative penalties are recovered under California Government Code Section 54740.5.

13.3 Criminal Prosecution

A. A User who willfully or negligently discharges pollutants, except in compliance with waste discharge requirements, or who willfully or negligently violates any order, prohibition, waste discharge requirement, effluent standard, water quality related effluent standard, federal standard or performance, pretreatment or toxicity standard or requirement, or who refuses to comply with the requirements adopted to control the disposal of pollutants into wells, or who fails to comply with the conditions of their permit, compliance schedule or any standard, condition or requirement set forth in this ordinance, shall be punished by a fine of not more than One Thousand Dollars (\$1,000) for each day such violation occurs, or by imprisonment for not more than thirty (30) days, or both.

B. A User who knowingly makes any false statement, representation, record, report, plan or other document filed with a Regional Water Quality Control Board or the State Water Resources Control Board, or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required by the laws of the State of California, shall be punished by a fine of not more than Ten Thousand Dollars (\$10,000), or by imprisonment for not more than six (6) months, or both.

C. If the District believes a criminal offense has been committed hereunder, it may refer the matter to the District Attorney for prosecution.

13.4 Remedies Nonexclusive

The remedies provided for in this ordinance are not exclusive. The Manager may take any, all, or any combination of these actions against a noncompliant User. Enforcement of pretreatment violations will generally be in accordance with the District's Enforcement Response Plan. However, the Manager may take other action against any User when the circumstances warrant. Further, the Manager is empowered to take more than one enforcement action against any noncompliant User.

SECTION 14 - SUPPLEMENTAL ENFORCEMENT ACTION

14.1 Payment of Outstanding Fees and Penalties

The Manager may decline to issue or reissue an individual wastewater discharge permit to any User who has failed to pay any outstanding fees, fines or penalties incurred as a result of any provision of this ordinance, a previous individual wastewater discharge permit, or order issued hereunder.

14.2 Public Nuisances

A violation of any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement is hereby declared a public nuisance and shall be corrected or abated as directed by the Manager. Any person(s) creating a public nuisance shall be subject to the provisions of California law governing such nuisances.

SECTION 15 - AFFIRMATIVE DEFENSES TO DISCHARGE VIOLATIONS

A User shall have such affirmative defenses to an enforcement action brought against it for noncompliance with this ordinance as may be provided by State and Federal law.

SECTION 16—MISCELLANEOUS PROVISIONS

16.1 Pretreatment Charges and Fees

The District may adopt reasonable fees for reimbursement of costs of setting up and operating the District's Pretreatment Program, which may include:

- A. Fees for wastewater discharge permit applications including the cost of processing such applications;
- B. Fees for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing a User's discharge, and reviewing monitoring reports and certification statements submitted by Users;
- C. Fees for reviewing and responding to accidental discharge procedures and construction;
- D. Fees for filing appeals;
- E. Fees to recover administrative and legal costs associated with the enforcement activity taken by the Manager to address User noncompliance; and
- F. Other fees as the District may deem necessary to carry out the requirements contained herein. These fees relate solely to the matters covered by this ordinance and are separate from all other fees, fines, and penalties chargeable by the District.

16.2 Severability

If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be unconstitutional, ineffective or in any manner in conflict with the laws of the United States, or of the State of California, such decision shall not affect the validity of the remaining portions of this ordinance. The Governing Board of the District hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more section, subsection, sentence, clause or phrase be declared unconstitutional, ineffective, or in any manner in conflict with the laws of the United States or the State of California.

16.3 Publication

The Secretary of the District is hereby directed to cause a summary or display advertisement relating to this Ordinance to be published once in a newspaper published and of general circulation in the District in accordance with Health & Safety Code Section 6490.

16.4 Effective Date

This Ordinance shall take effect and be in force one week following publication as provided in Section 16.3 hereof.

16.5 Repeal of Prior Ordinances

As of the effective date of this Ordinance the following District ordinances are hereby repealed in their entirety: (i) Ordinance No. 44, as amended by Ordinance No. 51 and Section 2 of Ordinance 70; and (ii) Ordinance No. 74.

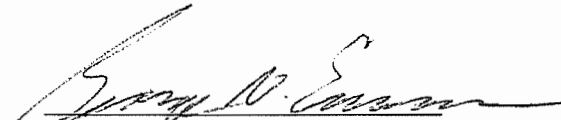
PASSED AND ADOPTED this 16th day of April, 2012, by the following vote of the Governing Board of the Goleta Sanitary District:

AYES: Emerson, Smith, Fox, Majewsky

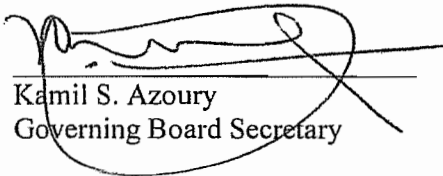
NOES: None

ABSTENTIONS: None

ABSENT: Carter

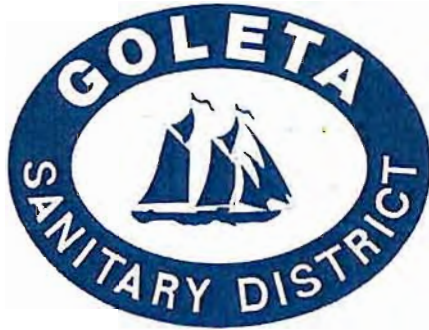

George W. Emerson
Governing Board President

COUNTERSIGNED


Kamil S. Azoury
Governing Board Secretary

APPENDIX D

GSD STANDARD SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SANITARY SEWERS (2008)



GOLETA SANITARY DISTRICT

STANDARD SPECIFICATIONS FOR DESIGN & CONSTRUCTION OF SANITARY SEWERS

2008

*Protecting Public Health
and the Environment*



GOLETA SANITARY DISTRICT
STANDARD SPECIFICATIONS
FOR DESIGN AND CONSTRUCTION OF
SANITARY SEWERS

2008

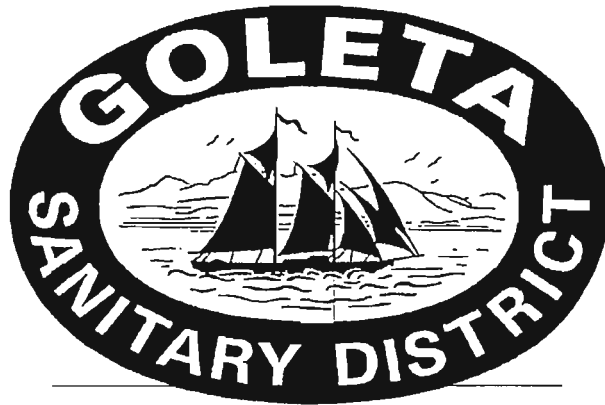
Governing Board:

Mr. Elbert W. Trantow, President
Mr. John R. Fox
Mr. John S. Carter
Mr. Steven T. Majoewsky
Mr. George W. Emerson

General Manager/District Engineer:

Mr. Kamil S. Azoury, P.E

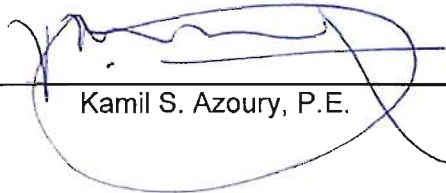
**PROTECTING PUBLIC HEALTH AND
THE ENVIRONMENT**



STANDARD SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SANITARY SEWERS

2008

APPROVED BY DISTRICT ENGINEER:



Kamil S. Azoury, P.E.

2/1/08

Date

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SECTION 1: INTRODUCTION

1.1 INTRODUCTION

The Goleta Sanitary District, a public agency, was formed under Sanitary District Act of 1923, Part 1 of Division 6 of the Health and Safety Code of the State of California and is subject to State and Federal Regulations.

The jurisdiction of the District includes the entire sewerage system and its appurtenances from the point of connection with the building plumbing to the terminus of the treatment plant outfall in the Pacific Ocean. Ordinances and codes of the District shall be considered a part of these Specifications and all plans, profiles, cut sheets, easement documents, and specifications shall conform to the standards and requirements established herein.

These Standard Specifications shall govern the requirements, design and construction of sewer facilities within the jurisdiction of the Goleta Sanitary District. The Standard Specifications and Drawings included herein establish the performance, quality requirements and general arrangement of materials and equipment, and establish the minimum standards for quality of workmanship and appearance. The Building Departments of Santa Barbara County, the City of Goleta, the City of Santa Barbara and the State of California do not have jurisdiction over the District's sewer construction requirements.

Knowledge of the District's ordinances, rules and regulations is essential to engineering practice in the District. The purpose of this manual is to define in general terms the rules, regulations and standards of the District for sewer facilities under public and private contracts. Copies of the Ordinances can be obtained for a reproduction fee.

1.2 EXCEPTIONS

It is recognized that it is not possible to address all situations that may arise and prescribe standards to every situation. However, it is expected that policies given in this manual will apply to the majority of cases and shall be complied with. In some cases, the District may make exceptions where application of the policies to a particular situation result in an unreasonable requirement not in the District's and/or the public's best interest.

1.3 REFERENCE SPECIFICATIONS

Applicable Publications: Whenever in the Standard Specifications references are made to published specifications, codes, standards, or other requirements, it shall be understood that whenever no date is specified, only the latest specifications, standards, or requirements of the respective issuing agency which have been published as of the date that the Work is advertised for bids shall apply: except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances, or governing codes. No requirements set forth herein or shown on the Drawings shall be waived because of any provision of, or omission from, said standards or requirements.

The following reference Specifications or Standards are applicable:

- Standard Specifications for Public Works Construction, (latest edition, including supplements) of the Southern California Chapter American Public Works Association, latest edition, published by BNi Building News, 1612 South Clementine Street, Anaheim, California 92802 - (800) 873-6397.
- State of California Department of Transportation (Caltrans) Standard Specifications, latest edition.
- State of California Department of Transportation (Caltrans) Standard Plans, latest edition.

1.4 PRECEDENCE OF CONTRACT DOCUMENTS

If there is a conflict between Contract Documents, the document highest in precedence shall control. The precedence shall be as follows:

1. Permits issued by jurisdictional regulatory agencies.
2. Change Orders and/or Supplemental Agreements; whichever occur last.
3. Contract/Agreement.
4. Addenda.
5. Bid/Proposal.
6. Special Provisions.
7. Plans/Drawings.
8. Standard Plans.
9. Standard Specifications.
10. Reference Specifications.

Detail drawings shall take precedence over general drawings.

END OF SECTION

SECTION 2: DEFINITIONS AND ABBREVIATIONS

2.1 GENERAL

Organizations, abbreviations and definitions most commonly used by the District are listed below. Other definitions used by the District are given in the District's ordinances, applicable sections of the "Uniform Plumbing Code," and the Standard Specifications for Public Works Construction; all on file at the District office.

2.2 ORGANIZATIONS

ANSI	American National Standards Institute.
ASTM	American Society for Testing and Materials.
AI	Asphalt Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
AREMA	American Railway Engineering and Maintenance-of-Way Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASSE	American Society of Sanitary Engineering
ASTM	American Society for Testing and Materials International
AWS	American Welding Society
AWWA	American Water Works Association
CISPI	Cast Iron Soil Pipe Institute
CRSI	Concrete Reinforcing Steel Institute
CRWQCB	California Regional Water Quality Control Board
DIPRA	Ductile Iron Pipe Research Association
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FS	Federal Specification Unit
IEEE	Institute of Electrical and Electronics Engineers
MIL	Military Standardization Documents
NACE	NACE International - National Association of Corrosion Engineers
NCMA	National Concrete Masonry Association
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NPCA	National Paint and Coatings Association
NPCA	National Precast Concrete Association
NSF	NSF International - National Sanitary Foundation
NSPI	National Spa and Pool Institute
PCA	Portland Cement Association
PCI	Precast/Prestressed Concrete Institute
SSPC	The Society for Protective Coatings
STI	Steel Tank Institute
UL	Underwriters Laboratories Inc.

2.3 ABBREVIATIONS

ABS	Acrylonitrile-Butadiene-Styrene
ACP	Asbestos concrete pipe
CIP	Cast Iron Pipe
CCR	California Code of Regulations
CIPP	Cured in place pipe
CO	Cleanout (Sewer)
CMOM	Capacity, Management, Operation, and Maintenance (CMOM) addressing watershed management approaches
DIP	Ductile Iron Pipe
ERU	Equivalent Residential Unit equal to 220 gallons per day per unit
HDPE	High Density Polyethylene Pipe
MH	Manhole
NPDES	National Pollution Discharge Elimination System
PVC	Polyvinyl Chloride
SSPWC	Standard Specifications for Public Works Construction, latest edition (Greenbook)
VCP	Vitrified Clay Pipe

2.4 DEFINITIONS

It is not the intent to have an all inclusive list of definitions. See the Uniform Plumbing Code for additional definitions.

Acceptance	The formal written acceptance by the District of a permitted Work which has been completed in all respects in accordance with the plans, specifications, approved modifications and permit requirements.
Addendum	Written or graphic instrument issued prior to the opening of Bids that clarifies, corrects, or changes the bidding or Contract Documents.
Applicant	Any person making application for District permits.
Approved	Approved means accepted under an applicable specification or standard stated or cited in this Code, or accepted as suitable for the proposed use under procedures and authority of the Administrative Authority.
Backwater Valve	A device installed in a drainage system to prevent reverse flow.
Bid	The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work.
Board	Goleta Sanitary District Board of Directors
Bond	Bid, performance and payment bond or other instrument of security.
Building	A structure built, erected, and framed of component structural parts designed for the housing, shelter, enclosure, or support of persons, animals, or property of any kind.

Building Sewer	That portion of a side sewer beginning at the plumbing or drainage outlet of any building or industrial facility and running to the property line
Change Order	A written order to the Contractor signed by the District directing an addition, deletion or revision in the work, or an adjustment in the contract price or the contract time, issued after the effective date of the contract.
City	The City of Goleta and/or the City of Santa Barbara and the various agencies and departments thereof.
Commercial	Commercial shall mean a site or building used for the exchange or buying and selling of commodities and/or services and shall also mean a hotel or motel.
Contract	Written agreement between the District and the Contractor covering the Work.
Contractor	The individual, partnership, firm or corporation entering into an agreement with the District, or an applicant, to perform or execute the contemplated work.
Consultant	The individual, partnership, firm or corporation entering into an agreement with the District, to provide advice or perform professional services.
County	The County of Santa Barbara, State of California, and the various agencies and departments thereof.
District	The Goleta Sanitary District or its authorized representatives.
District Engineer	The District Engineer shall be a Civil Engineer licensed by the State of California and appointed by the District Board to represent the District.
District Personnel	Anyone engaged or employed to represent the District.
Drawings	See Plans.
General Manager	The General Manager of the District.
District Board	The governing body of the District.
Domestic Sewage	The liquid and water-borne wastes derived from the ordinary living processes, free from industrial wastes, and of such character as to permit satisfactory disposal, without special treatment, into the public sewer or by means of a private sewage disposal system.
Dwelling	A structure for residential occupancy.
Easement	A non-profitable interest in land owned by another that entitles its holder to a specific limited use.

Engineer	A professional, licensed by the State of California as a Civil Engineer, under whose direction plans, profiles, and details are submitted to the District for review and approval.
Fixture Unit	The baseline quantity, or unit value, on a scale that has been developed to represent the relative load-producing effects on the plumbing system from different types of plumbing fixtures.
Grade	The slope or fall of a pipe in reference to a horizontal plane. In drainage, it is usually expressed as the fall in a fraction of an inch (or mm) or percentage slope per foot (or meter) length of pipe.
Grease Interceptor	See Interceptor. (Typically required for restaurants)
Industrial	Any site, structure, building or works which is, or which is designed, to be used for the manufacture, processing, or distribution of materials, equipment, supplies, food or commodities of any description; or which is used or designed as a sanitarium, hospital, penal institution, fraternal organization, private school or charitable institution; together with all appurtenances thereto and the surrounding premises under the same ownership or control.
Industrial Waste	Industrial waste means any and all liquid or water-borne waste from industrial or commercial processes, except domestic sewage.
Inspector	The sewer inspector for the District duly authorized by the District and responsible for the particular duties delegated to him.
Institutional	Institutional shall mean any educational institution supported by state or local taxes.
Interceptor (Clarifier)	A device designed and installed so as to separate and retain deleterious, hazardous, or undesirable matter such as grease and oil from normal wastes and permit normal sewage or liquid wastes to discharge into the disposal terminal by gravity.
Invert	The lowest portion of the inside of a horizontal pipe.
Lateral Sewer	That portion of a sewer system between the main sewer and the structure being served, which is installed and maintained by property owners or agencies other than the District.
Main Sewer	A sewer which has been constructed to accommodate more than one building sewer and which has been approved and accepted by the District.
Multiple Residential Lateral Sewer	A sewer designed to serve more than one single family residence.

Permit	Any written authorization required pursuant to any regulation of the Goleta Sanitary District.
Pipe	A cylindrical conduit or conductor, conforming to the particular dimensions commonly known as "pipe size".
Plans	The official plans, profiles and drawings, or re-productions thereof, approved by the District, which show the location, character, dimensions, and details of work to be done. Said plans will constitute a supplement to these provisions.
Private Sewer	A private sewer is a lateral and building sewer that conveys sewage discharge to a public sewer system.
Public Sewer	A common sewer directly controlled by a public authority
Sampling Manhole	A standard or modified manhole approved by the District that serves to isolate the wastewater flow from a single facility and provides access for sampling and/or monitoring purposes.
Sampling Well	A non-standard or modified cleanout or access point approved by the District that serves to isolate the flow from a single facility and provides access for sampling and/or monitoring purposes.
Sand & Oil Interceptor	See Interceptor. (Typically required for gasoline stations, car washes and automobile shops)
Service Connection	All or any portion of the building and lateral sewer lines between a main sewer line and an individual building.
Sewage	Any liquid waste containing animal or vegetable matter in suspension or solution and may include liquids containing chemicals in solution.
Sewer	Any conduit intended for the conveyance of sewage and fluid industrial waste.
Sewer Connection Fee -	A fee to obtain permission to connect to the District's sewer facilities, including facilities resulting from remodels and additions, to ensure flow capacity rights and to use the trunk sewer, sewage treatment facilities and appurtenances, provided that the District's prevailing service charges have been paid.
Side Sewer	A sewer line beginning at the foundation wall of any building and terminating at the main sewer and includes the building sewer, lateral sewer and wye connection.
Single Family Residence	A building designed to be used as a residence for a "single family" and is the only dwelling located on a parcel of ground with the usual accessory buildings.

Single Residential Lateral Sewer	A sewer to serve a single residence.
Specifications	Standard Specifications, Reference Specifications, Special Provisions, and specifications in Supplemental Agreements between the Contractor and District.
State	The State of California
Storm Drain -	Any conduit and appurtenances intended for the reception and transfer of storm water.
Sub-Contractor	Any contractor licensed by the State of California and properly pre-designated by the Contractor to enter into contracts and to perform work of installing sewers under District jurisdiction.
Vertical Pipe	Any pipe or fitting which is installed in a vertical position or which makes an angle of not more than forty-five (45) degrees with the vertical.
Work	All of the work of the project contemplated and called for or shown in the contract documents.

END OF SECTION

SECTION 3: THE ANNEXATION PROCESS

3.1 GENERAL

All properties receiving sewage collection, treatment, and disposal service from the District must be annexed into the District's service area. Annexation to the District is made pursuant to the Cortese/Knox Local Government Reorganization Act of 1985. Herewith, in outline, is the annexation procedure. Upon request, the District will supply the Applicant with a packet of detailed information and documents needed for annexation. The Applicant shall pay all costs for annexation to the District and construction of sewer facilities.

3.2 PROCEDURE

A. REQUEST FOR ANNEXATION

Applicant(s) submit the following materials to the Goleta Sanitary District, requesting annexation to the District:

1. A brief letter to the District requesting annexation with a description of land and facilities to be annexed. Existing or proposed dwelling(s)/building(s) should be referenced here.
2. "Landowner Consent to Annexation" form completed by property owner(s); must include separate form for each property owner involved in the annexation.
3. Payment of Annexation Processing Fee made payable to GOLETA SANITARY DISTRICT. A current fee schedule is available from the District.

B. DISTRICT FILING APPROVAL

District considers approval of filing annexation application with LAFCO and adoption of "Resolution of Application" including Terms and Conditions of annexation.

C. ANNEXATION APPLICATION

Applicant(s) submit the following annexation application materials to the District for further processing:

1. Map and legal description of property(ies) to be annexed, prepared by Applicant's Engineer/Surveyor.
2. Completed "Proposal Justification Questionnaire".
3. Certified Environmental Documents (EIR or ND); or Environment Application; or Notice of Exemption.

4. A check payable to LAFCO for the LAFCO filing fee. A current fee schedule is available from the District.
5. A check payable to COUNTY OF SANTA BARBARA for reviewing maps and legal descriptions. A current fee schedule is available from the District.
6. A list of existing property owners and lessees in the subject area and any known future owners or lessees.

D. LAFCO PROCESSING

The District submits the annexation package to LAFCO for processing as follows:

1. LAFCO reviews application and corresponds to District with any questions.
2. LAFCO requests County Surveyor to certify maps and legal description.
3. LAFCO staff issues Certificate of Filing and sets date for public hearing.
4. LAFCO considers proposed annexation at public meeting.
5. Upon approval of annexation, LAFCO adopts Resolution Making Determinations.
6. With consent of all property owners, LAFCO can record the annexation after a 30-day waiting period and upon authorization from the District.
7. Without consent of all property owners, the LAFCO staff will conduct a public hearing to receive any written protests from landowners or voters within the annexation area.

E. FINAL ANNEXATION PROCESSING

Applicant(s) submit fees to the District for final annexation processing (District Staff will notify Applicant of fees due at this time):

1. Annexation fee – Prior to the completion of annexation, Applicants shall pay to the GOLETA SANITARY DISTRICT an annexation fee. A current fee schedule is available from the District.
2. Filing fee payable to STATE BOARD OF EQUALIZATION. A current fee schedule is available from the District.

F. FINAL ANNEXATION APPROVALS

1. Upon receiving authorization from the District, LAFCO records annexation and files with the State Board of Equalization.
2. LAFCO issues and distributes a Certificate of Completion.
3. After the requirements outlined in "Sewer Permit Application" are satisfied the District issues the permit and approves connection to District facilities.

END OF SECTION

SECTION 4: SEWER PERMIT APPLICATION

4.1 SEWER SERVICE AVAILABILITY LETTERS

Applicant's seeking sanitary sewer service shall first obtain a "Sewer Service Availability Letter" from the District. Requests for sewer service shall be made in writing to the District Manager. To verify sewer service availability, the District may require the Applicant to prepare a "Sewer Feasibility Study". See Section 5 for the requirements of Sewer Feasibility Studies.

4.2 OVER-SIZING SEWER MAINS FOR FUTURE EXTENSION

When dedicated public sewers are proposed, over-sizing and/or extra depth of certain sewers may be required where such sewers can logically serve an upstream tributary area. When an area outside of the tract or property can be logically served by future extension of said sewer, the sewer shall extend to the tract or property boundary or to the end of the paved street or alley in a manner to facilitate future extension without removing permanent facilities.

4.2.1 REIMBURSEMENT AGREEMENTS FOR OVER-SIZING SEWER MAINS

The District Board, if it deems appropriate, may contract with the Applicant for reimbursement of the additional costs of over sizing and/or extra depth of sewers that may be extended. The District shall determine the reimbursement amount and the method of payment.

4.3 APPLICATION FOR PERMIT

Applicants for a permit shall apply on the form provided by the District. The Applicant shall provide the location, ownership, occupancy/use of the premises, and a description of the proposed work. The information required for review is listed below. Specifications, plans/drawings and other information shall be supplied to the District as deemed necessary.

Proposed additions and/or conversions may require the owner(s) to pay applicable sewer connection fees or sign a "Sewer Service Acknowledgment" document provided by the District, which will be recorded with the County Recorder's Office.

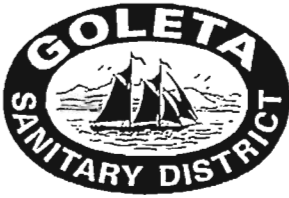
Public sewers and appurtenances shall not be uncovered, opened, connected to, used, altered, disturbed or worked upon without first obtaining a Permit from the District.

Submittals for Review:

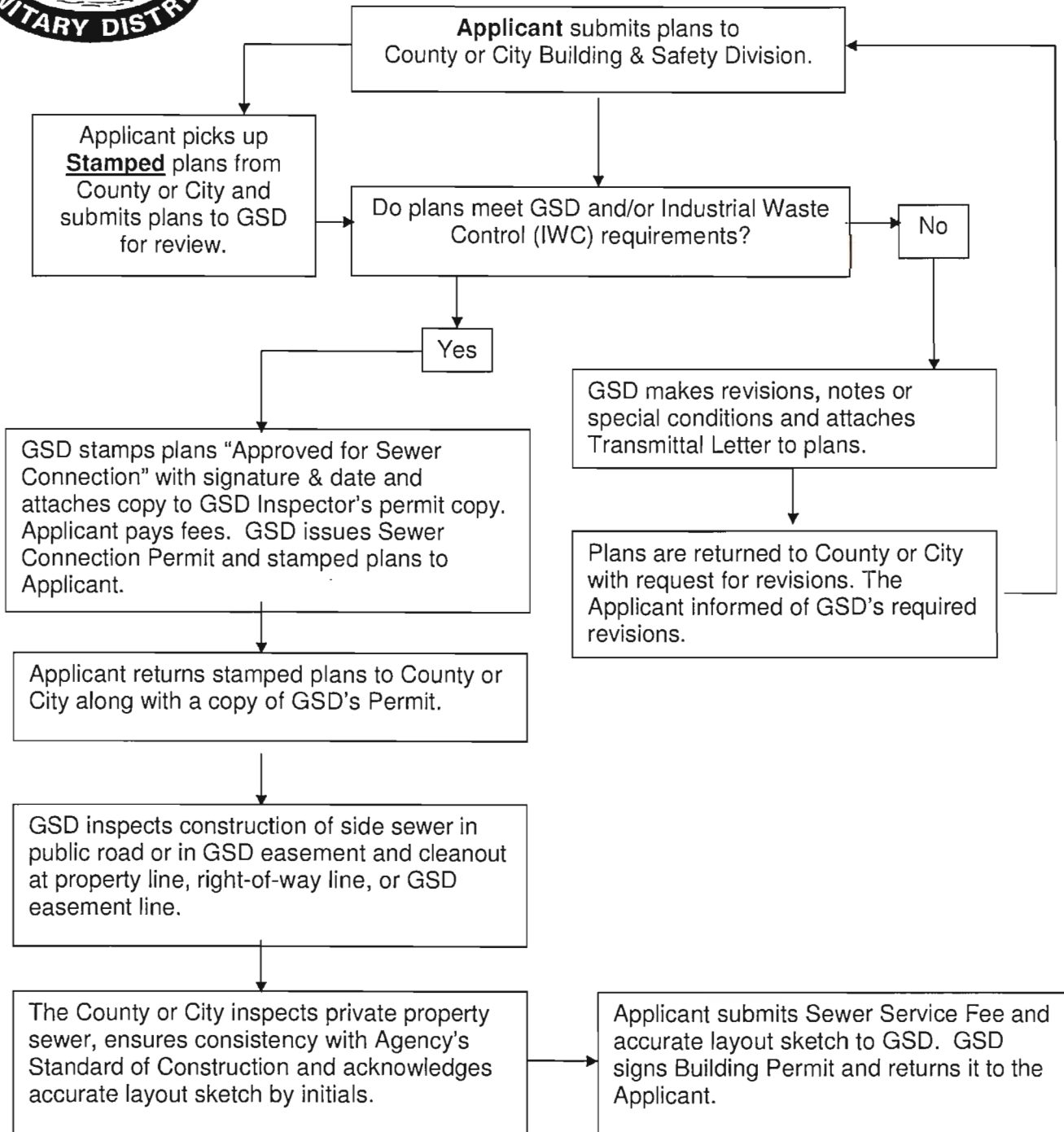
1. Development Plan, if applicable.
2. Tentative Tract or Parcel Map, if applicable.
3. Grading Plans.
4. Sewer Improvement Plans - Sewer main improvement plans shall be prepared by the Applicant's licensed Civil Engineer.
5. Side Sewer Layout Drawing
6. Site, floor, and plumbing plans shall be stamped "Received" by County or City Building & Safety Division.

7. Easement and Grant of Rights Documents - Easement and Grant of Rights Documents prepared by the Applicant's Engineer/Surveyor when required.
8. Construction Cost Estimate - Construction cost estimates prepared by the Applicant or their Engineer for the purpose of estimating the District's connection, permit and inspection fees and to determine the construction guarantee bond amount.
9. Other Requested Data

Upon approval of submitted plans, estimates, easements and other data, performance bonds and executed District agreements will be required.



GOLETA SANITARY DISTRICT (GSD) SEWER CONNECTION PERMIT PROCESS



4.4 CONNECTIONS NOT PERMITTED

District regulations prohibit the connection of septic tanks, cesspools or any other type of pit to a service lateral or main sewer.

Swimming Pools: Swimming pool filters and/or discharge lines shall not be connected to a service lateral or main sewer.

Swimming pool water may be discharged into a sanitary sewer in the manner specified herein with a District permit and payment of applicable fees. The discharged water shall have a pH between 6.5 and 9.0. The rate of flow shall not exceed one hundred (100) gallons per minute. The discharge piping or hose shall include an approved backflow preventor or air-gap separation to prevent sewage backflow into the piping system or swimming pool. The discharge of swimming pool water shall be subject to inspection and monitoring by the District.

Roof drains, gutters, area drains or any other rainwater discharges shall not be connected to a service lateral or main sewer.

4.5 SEWER CONNECTION PERMIT

Upon approval of plans, payment of applicable fees, posting of required bonds, and if applicable, pertinent easements and grant of rights documents, Applicant will be issued a Sewer Connection Permit from the District.

If required, Applicant shall also obtain an "Industrial Wastewater Discharge Permit" in accordance with District Ordinance 44, Chapter VII.

4.6 PERMIT APPROVAL AND COMPLIANCE

The approval of the application is evidenced by the issuance of a Permit. Thereafter, changes shall not be made to the approved plans, specifications or in the use of the premises, without prior written permission from the District.

4.7 PERMIT TIME LIMITS

The permit shall become void if the authorized work is not completed within the time limit specified on the permit. Further work shall not be performed until a new permit or extension has been obtained from the District by proper application and payment of required fees. The work shall be completed within the time limits as specified by the new permit.

4.8 AGREEMENT

The signature of the Applicant on a permit shall constitute an agreement to comply with all approved plans, specifications, change orders, provisions, terms and requirements of the rules, regulations and ordinances of the District. Said agreement(s) shall be binding upon the Applicant and may be modified by the District after the receipt and consideration of a written request for modification submitted by the Applicant.

4.9 LIABILITY

The Applicant shall be solely liable for any defects or failure during performance of the work or any failure which may develop therein for the period of one (1) year. The District, its officers, agents, and employees shall not be responsible for any liability, death or injury to persons or property damage due to or arising out of the performance of the work by the Applicant or the Applicant's agents. The Applicant shall be responsible for and save the District, its officers, agents and employees from all liabilities imposed by law, including all costs, expenses, fees and interest incurred in seeking to enforce this provision.

4.10 OWNER'S RESPONSIBILITY

The side sewer is private from the connection to the public sewer, including the wye, to its connection with the building. The Owner is responsible for maintaining the side sewer. The District is not responsible for damage caused by breaks or leaks in the side sewer.

4.11 CONTRACTOR QUALIFICATIONS

Contractors doing sewer work in the District shall be properly licensed in accordance with the provisions of Division 3, Chapter 9 of the Business and Professions Code of the State of California. Licensed contractors shall have one or more of the following licenses:

- Class A –General Engineering Contractor
- Class C34 – Pipeline Contractor
- Class C36 – Plumbing Contractor

All terms and conditions of the District Permit shall be binding on the Contractor.

4.12 NOTIFICATION

The District shall be notified at least forty-eight (48) hours prior to commencing construction. Any construction done without prior notification to the District will be rejected, and any rework will be done at the contractor's expense.

4.13 POSTING OF PERMITS

District permits must be posted on site and made available to the District Inspector during construction. Permits must be available at the final inspection.

4.14 POWER AND AUTHORITY OF INSPECTORS

The Officers, General Manager, District Engineer, Inspectors or any other duly authorized employee of the District shall wear or carry an identification card or other credentials. Upon the presentation of proper credentials s/he shall be permitted to enter into residential, commercial, institutional and industrial facilities for the purposes of inspecting, observing, measuring, sampling, testing or otherwise performing the necessary duties pursuant to the enforcement of the provisions of District ordinances, rules and regulations.

4.15 FINAL INSPECTION

A final inspection will be made of constructed sewer facilities to ensure compliance with the approved plans and District Standards. Before the acceptance of any sewer line, and prior to the discharge of sewage into the system, the sewer line shall be complete, tested, and inspected in compliance with District requirements.

The Applicant is responsible for notifying the District that said work is ready for inspection. Notification shall be at least twenty-four (24) hours before the work is to be inspected. The Applicant shall ensure that the work is complete and has been properly executed prior to requesting inspection.

During the final inspection the District's Inspector will verify that the building structure and plumbing fixture unit count are consistent with the approved plans, sewer facilities such as cleanouts and overflow devices have been properly installed in accordance with District Standards.

4.16 SEWER APPROVAL AND OCCUPANCY RELEASE

Once inspection and testing is acceptable, sewer service fees are paid, and all required documents are submitted and recorded as appropriate, the District will issue a Certification of Acceptance and sign the occupancy release forms. Final submittals include, but may not be limited to, Record Drawings in accordance with Section 6.9, Change Order Records, Test Result Records, written approval required from other agencies. Deposits or bonds may be allowed in lieu of some final submittals to allow occupancy.

Final approvals shall be done at the District Administration Office and copies of the sign-off certificate shall be submitted to the District.

4.17 OTHER PERMITS

The Applicant is responsible for obtaining other permits that may be required for execution of the permitted Work, including but not limited to: Road Encroachment Permits from the County of Santa Barbara and/or City of Goleta, Grading Permits, Building Permits, Coastal Development Permits, Special Use Permits, California Coastal Commission Permits, California Department of Fish and Game Permits and U.S. Corps of Engineer Permits.

4.17.1 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES)

As of December 9, 2002, any project consisting of one (1) acre or more of disturbed earth (phased or not) will require the Applicant's contractor to obtain a National Pollutant Discharge Elimination System Storm Water Discharge Permit from the California Regional Water Quality Control Board (CRWQCB). The Owner shall apply for the permit 90 days prior to the start of work, and the contractor shall execute and take out the permit. The necessary permits from the CRWQCB must be obtained before commencing any work related to public sewage collection facilities. When required, a copy of the Notice of Intent (NOI) filed with the CRWQCB shall be submitted to the District prior to commencing construction.

END OF SECTION

SECTION 5: SEWER FEASIBILITY STUDIES

5.1 GENERAL

The District's "Sewer Collect System Master Plan 2000" prepared by Brown and Caldwell, consulting engineers, modeled (Hydra by Pizer) the District's entire collection system and identified system deficiencies. The land use for the modeling was based on the Goleta Community Plan adopted by the Santa Barbara County Board of Supervisors in July 1993.

If a proposed development involves a land use that differs from the designation in the 1993 Goleta Community Plan, a sewer feasibility study prepared by the Applicant may be required. The Owner's Engineer should consult with the District Engineer regarding study requirements.

The District Engineer or a District consultant will input the data into the collection system model and analyze the impact of the development to the District's collection system. The Applicant shall pay the District for all expenses related to the sewer feasibility study modeling update.

5.2 STUDY REQUIREMENTS

The study shall include a scaled topographic map of the subject property and the upstream tributary areas that could logically be served by the proposed sewer extension. The Sewer Feasibility Study shall include the following information:

- Scaled topographic map of the study area
- Major street names in the study area
- Description of proposed land use(s)/zoning
- Tributary areas and their land uses/zoning
- Gross and net land areas
- Calculated average and peak sewage flow rates based on the tributary area, land use and sewage generation factors
- Facilities that may have a bearing on the sewer design such as storm drains, utilities, roads, etc.
- Depth of existing sewer at proposed connection point(s)
- Identified downstream sewer deficiencies noted in the District's Sewer Master Plan (information available from District)
- Other information necessary for the proper analysis of the sewer system.

END OF SECTION

SECTION 6: IMPROVEMENT PLANS

6.1 ENGINEERING POLICY

The District requires compliance with the Professional Engineers Act of the Business and Professions Code of the State of California. All civil engineering plans, specifications, reports and related documents shall be prepared by a registered Civil Engineer, or by a subordinate under the responsible charge of the Civil Engineer, and shall be signed and stamped with his/her seal.

It shall be the Project Engineer's responsibility to review any proposed sewer system, extension and/or existing system change with the District, prior to design, to determine any special requirements or whether the proposal is permissible.

Approval of plans by the District does not relieve the Project Engineer of his/her responsibility to meet the requirements of the District. Plans shall be revised or supplemented at any time it is determined that the requirements of the District have not been met.

6.2 IMPROVEMENT PLANS

6.2.1 BASIC REQUIREMENTS

Improvement plans for each sewer project submitted to the District shall consist of a Title Sheet and plan and profile sheets. Detail sheets shall be provided if appropriate.

Title Sheet Requirements:

- Key Map (Showing the buildings, the proposed sewer alignment, laterals and building sewers to each building, and sewer and access easement boundaries)
- Vicinity Map
- Graphic Sheet Index (Referencing Plan and Profile Sheets)
- Sheet Index
- General Sewer Notes
- Sewer Construction Notes
- Elevation Datum and Benchmarks.
- Basis of Bearings

Plan and Profile Sheet Requirements:

- Minimum scale of the Plan shall be 1" = 40'
- Minimum scale of the Profile shall be 1" = 40' Horizontal and 1"=4' Vertical
- North Arrow
- Graphic Scale
- Rights-of-way, property boundaries and easements
- Topography
- Buildings, roads and other structures
- Alignment of main and building sewers
- Type, class and size of sewer pipes
- Manholes, cleanouts and other structures
- Invert elevations of manhole inlet and outlet pipes
- Manhole rim elevations
- Length and slope of sewer pipes from manhole to manhole
- Sewer line stationing at manholes, cleanouts, wyes and other structures

- Existing utilities and other facilities
- Pipe clearances from other utilities and structures
- Laterals and cleanouts at property lines

Detail Sheet Requirements:

- As required for defining specific construction requirements of structural and/or piping designs.

6.2.2 PLANS

Sewer plans shall show the true horizontal relationship between the proposed sewer improvements and the existing and/or proposed field conditions including existing and proposed utilities and other facilities. Sewer plans shall include the total acreage of the improvement or development, sewer line size and class, structures, property lines and corners adjacent to the sewer alignment, laterals with ties to property corners, required stationing of pipelines and structures, horizontal curve data and street names.

Where applicable, the plans shall show the proposed lateral connection, building floor elevations, and rim elevation of the upstream manhole from the proposed connection.

6.2.3 PROFILES

Sewer profiles shall show the vertical relationship between the sewer invert and the ground surface at the time of sewer construction and the finish ground and/or paving surface. The sewer size, pipe type and class, shall be shown between each consecutive structure on the sewer profile. Profiles shall also show existing and proposed utilities and other facilities which cross the alignment of the sewer and shall accurately indicate the clearance when less than twelve inches (12"). Design rim elevations for each manhole, including existing manholes, shall be shown on the profile.

Proposed and/or completed fill areas shall be shown and labeled on the profile. The proposed finished surface over the sewer or the proposed curb grade shall be shown by a solid line and clearly labeled. The original ground surface shall be shown by a dashed line and clearly labeled.

6.3 STANDARD PLAN SIZE AND LAYOUT

The improvement plan size and layout shall conform to Standard Drawing 1.

Standard sheet size shall have a vertical dimension of 24-inches and a horizontal dimension of 36-inches to the outside edges. All plans shall be drawn with the intent of having them reduced by one half and shall be legible at the reduced scale. Text height shall be not be less than one-tenth of an inch (0.10") on the full size drawing.

It is acceptable to use the County of Santa Barbara or City Of Goleta Public Works Department standard sheets when sewers are part of improvements for new roads or subdivisions. When proposed sewer facilities are shown on County or City Public Works plans, sewer facilities shall be shown bold so that the sewer facilities are prominent. Other information on the plans shall be screened approximately 50%.

6.4 DRAWING MEDIA

Final improvement plans shall produced using black ink on matte mylar, 4 mil minimum thickness. Adhesive decals are not allowed on mylar submittals.

6.5 DATUM REQUIREMENTS

6.5.1 VERTICAL DATUM REQUIREMENTS

Vertical datum shall be the NAVD 88 – North American Vertical Datum 1988.

The benchmark information is to appear in the lower left-hand corner of the Title Sheet. Local benchmark information should appear on the plan sheet where the benchmark can be readily identified.

6.5.2 HORIZONTAL DATUM REQUIREMENTS

Drawings shall be prepared with the horizontal coordinate system of NAD83 - North American Datum 1983 (rev. 1992).

6.6 EXISTING FACILITIES

Improvement plans shall show the location, size and ownership of existing and known future underground works that cross or parallel the sewer. Utility lines that cross the sewer, such as gas, cable television, storm drains, telephone, communication, water, power, gasoline and oil lines shall be shown and labeled on the plans and profiles.

The District is not responsible for the accuracy of the location of these underground lines. Approval of sewer plans by the Goleta Sanitary District does not constitute a representation for the accuracy of the location of, or the existence of, any underground utility, conduit or structure within the limits of the project.

Applicants are advised of the California One Call Law per Government Code 4216 that requires every person planning to conduct any excavation is required to contact the appropriate regional notification center, at least two working days, but not more than 14 calendar days, prior to commencing that excavation. Call Underground Service Alert (USA) at 1-800-227-2600.

6.7 GENERAL NOTES

The following general notes are requirements adopted by the District and shall be shown on the title sheet of the improvement plans:

GOLETA SANITARY DISTRICT
GENERAL SEWER NOTES

1. *Revisions shall not be made to these plans without the approval of the District.*
2. *Before beginning work, the contractor shall obtain a permit to excavate in public road right of ways from the County of Santa Barbara or City of Goleta, as applicable.*
3. *If work is to be done in a state highway, a permit must be obtained from the State of California, Division of Highways, District 5, San Luis Obispo, California.*
4. *Prior to issuance of the required sewer connection permit or Notice to Proceed, the contractor shall obtain and file with the District, copies of: encroachment permit(s) to excavate in County/City streets, a permit for excavations and trenches from the State of California, Division of Industrial Safety, a Certificate of Worker's Compensation Insurance and Liability Insurance with the District named as the certificate holder. The certificate shall state that the holder shall be notified 30 days prior to cancellation of policy.*
5. *Acceptance of the sewer plans by the District does not constitute a representation as to the accuracy of the location of, or the existence of, any underground utility pipe or structure within the limits of this project.*
6. *The Contractor shall have at the Work site, copies or suitable extracts of: Construction Safety Orders, Tunnel Safety Orders and General Industry Safety Orders issued by the State Division of Industrial Safety. The Contractor shall comply with the provisions of these and all other applicable laws, ordinances and regulations.*
7. *The District will not survey or layout any portion of the work.*
8. *The District shall be notified 48 hours prior to staking the sewer line.*
9. *A licensed Civil Engineer or surveyor shall furnish the District with grade (cut) sheets and stationing for all lateral sewers and wyes, and shall provide stakes for them at their proper locations with stationing clearly marked. Lateral sewers shall be constructed in a straight alignment at right angles from the main line sewer, except as shown on the plans. Any change in alignment shall be requested in writing by the Civil Engineer.*
10. *The Civil Engineer or surveyor shall furnish the lateral sewer depth at the property line below the top of curb elevation for each lateral sewer on the grade (cut) sheet.*

6.8 CONSTRUCTION NOTES

The following sewer line construction notes are requirements adopted by the District and shall be shown on the title sheet of the improvement plans:

GOLETA SANITARY DISTRICT
SEWER CONSTRUCTION NOTES

1. *Construction of sewage collection facilities shall not commence until construction plans have been approved and permits issued by the Goleta Sanitary District. Sewer mains, laterals, and appurtenances shall be constructed according to Goleta Sanitary District standards and specifications and shall be subject to inspections to obtain acceptance of the constructed work.*
2. *Compliance with Goleta Sanitary District Standard Specifications and Santa Barbara County/City of Goleta encroachment permit(s) will be required for trench backfill. Certification of backfill compaction and material sand equivalents by a qualified, registered testing laboratory shall be provided to the Goleta Sanitary District by the permittee prior to the issuance of a Certificate of Acceptance.*
3. *Geotechnical investigations and soils reports prepared for the project shall be made available to the District.*
4. *The Goleta Sanitary District shall be notified at least forty-eight (48) hours prior to starting construction. Any construction done without approved plans, permits or prior notification to the District will be rejected, and any rework will be done at the contractor's expense. Inspection and approval by the Goleta Sanitary District shall be requested by the contractor prior to commencing and after each phase of construction, specifically, trench alignment, pipe bedding, pipe installation, backfill over installed pipe, final backfill and compaction, and clean-up.*
5. *Sewer lines near the construction site or involved with the sewer line construction shall be protected with plugs in the inlets and outlets of manholes until work is complete.*
6. *Contractor shall verify existing water, sewer, storm drain and other utility elevations prior to sewer trenching construction.*
7. *Clearance between sewer lines crossing under or over other underground utilities shall not be less than six inches (6") except for water pipes. Sewer lines shall be installed under water lines, unless otherwise approved by the Water and Sanitary Districts. If construction over water lines is permitted, the sewer main construction shall comply with State Health Department Guidelines.*
8. *The contractor shall be responsible for installing adequate bracing and shoring for excavations, temporary structures, and all partially completed portions of the work, as necessary. Sheeting, shoring, bracing, or equivalent protection for all excavations over 5 feet deep shall be provided as required by CAL-OSHA.*

9. Trenches shall be backfilled or secured with steel traffic plates at the end of each workday. Traffic control devices shall be provided in accordance with State of California (Caltrans) Manual of Traffic Controls for Construction and Maintenance Work Zones, latest edition, or as otherwise directed by the District.
10. Solvent joints are not acceptable.
11. A minimum four-inch (4") diameter lateral and building sewer shall be installed for each single-family residential unit with a minimum grade of 1/4" per foot (approximately 2%) from the public sewer main to the building connection.
12. A minimum six-inch (6") diameter lateral and building sewer shall be installed on a minimum grade of 1/8" per ft. (approximately 1%) for multiple family dwellings, churches, commercial, industrial, school buildings, etc., from the sewer main to the building connection.
13. Lateral sewer connections to mainline sewers shall be with fabricated wye fittings in accordance with District Standard Drawing No. 16.
14. Lateral sewers shall be constructed with five (5) feet of cover at property line.
15. The Contractor shall furnish material, labor and equipment for conducting tests for deflection, leakage, infiltration and CCTV inspections. Tests shall be made after the sewer trench has been backfilled and compacted and before paving. Compaction test reports shall be submitted to the District prior to testing.
16. Deflections in installed pipe shall not exceed five (5) percent of the internal pipe diameter. Any section of the pipeline that exceeds the maximum allowable deflection shall be uncovered and, if not damaged, reinstalled at the Contractor's expense. Damaged pipe shall be removed from the Work site. The contractor shall test the deflection with an approved mandrel in the presence of a Goleta Sanitary District representative.
17. Prior to paving and video tests, installed pipe shall be cleaned by the balling method or with a hydro jet rodding/debris vacuum unit with a spinning nozzle approved by the District. A debris trap shall be installed at the most downstream manhole during the cleaning operation. A District Inspector shall be present at all times.
18. Prior to paving, the main sewer line shall be CCTV inspected from center of manhole to center of manhole by the Contractor in accordance with the District's standards. Water shall be discharged into the pipeline just prior to CCTV inspection. A DVD and (printed) hardcopy of the CCTV inspection shall be submitted to the Goleta Sanitary District. A District Inspector shall be present during the entire CCTV inspection.
19. Manhole interiors shall be coated and spark tested in accordance with District Standards. District Inspector shall be present during the coating and testing of the Manhole. A pull test may be required at the Inspector's discretion.

20. *Manhole covers and frames shall be manufactured of ductile iron in accordance with Goleta Sanitary District Standard Drawing No. 12. Manhole covers shall be stamped with "G.S.D. Sewer".*
21. *Manhole tops in unimproved rights of way shall be 18" above finished grade, 6" above grade in maintained landscaped areas and shall be protected per Goleta Sanitary District Standard Drawing 10.*
22. *New manholes shall be vacuum tested for leaks after assembly and before backfill unless the requirement is waived by the District Inspector.*
23. *Record Drawings. Drawings showing the actual location of all mains, structures, wyes, laterals, manholes, cleanouts, easements, etc., shall be filed with the District before final acceptance of the work. In addition, an electronic AutoCad™ format drawing recorded on a CD, showing the actual location of mains, wyes, laterals, manholes, cleanouts and appurtenant structures, including invert and rim elevations, shall be submitted to the District before final acceptance of work. The Electronic Drawing shall be in the following coordinate system; Horizontal NAD 83 North America Datum, Vertical NAVD 88 North American Vertical Datum.*

6.9 RECORD DRAWINGS

A complete set of approved drawings shall be maintained at the work site during construction. The Contractor shall record changes from the approved plans on the drawings including change orders, approved field revisions, existing utility locations and depths and other information that may differ from the approved plans.

Upon completion of construction, inspection and testing, the Project Engineer shall prepare and submit to the District a complete set of original mylars with all of the changes shown and marked as "Record Drawings". The corrected mylars, one set of prints and a CD with electronic files of the drawings in an AutoCad™ .DWG format shall be submitted to the District within 30 days of completion of construction. Record Drawings are required prior to acceptance of the sewer improvements and prior to release of bonds.

END OF SECTION

SECTION 7: DESIGN CRITERIA

7.1 DESIGN METHODOLOGY

Sanitary sewer capacity is typically determined from an analysis of existing and probable future quantities of domestic, commercial and industrial wastewater, as well as anticipated groundwater infiltration and extraneous inflow. Sanitary sewers are typically sized to convey peak wastewater flow, infiltration and inflow.

Pipe capacity and velocity shall be based upon the Chezy-Manning formula:

$$Q = VA = \frac{1.49}{n} A (r_h)^{2/3} (S)^{1/2}$$

Where

- Q = flow in cubic feet per second (ft³/s)
- v = velocity in feet per second (ft/s)
- A = cross section of flow in square feet (ft²)
- r_h = hydraulic radius is the ratio of cross-sectional area of flow to wetted perimeter (A/P_w)
- S = slope of the pipe in feet per feet (ft/ft)
- n = coefficient of roughness

Wetted perimeter is defined as the cross-sectional portion of the channel that has water contact. The coefficient of roughness ("n") shall equal 0.013 or the pipe manufacturer's recommendation, whichever is greater.

7.2 SLOPE AND VELOCITY

Sewage velocity shall be equal to or greater than two feet per second (2 fps), when flowing at the design flow. Where design velocities exceed fifteen feet per second (15 fps) ductile iron pipe conforming to District standards shall be used. The minimum acceptable slope for sewer pipe sizes listed in Table 1 below are based upon a self-cleaning velocity of 2 feet per second in the sewer.

Table 1 – Minimum Pipe Slopes

8 inch	0.0040 ft/ft
10 "	0.0032 ft/ft
12 "	0.0024 ft/ft
15 "	0.0016 ft/t
18 "	0.0014 ft/ft
21 "	0.0012 ft/ft
24 "	0.0010 ft/ft
27 "	0.0008 ft/ft

Slopes of sewers shall be computed using the difference between the outlet flow line elevation of the upstream manhole and the inlet flow line elevation of the next downstream manhole. Flow line elevations at the inlet and outlet of each manhole shall be shown on plans.

7.3 SEWAGE GENERATION FLOW RATES

7.3.1 AVERAGE SEWAGE FLOW RATES

The average flow rate shall be determined by the Project Engineer based on good engineering practice. Sewage flows shall be determined from the potential land use of the tributary area. Average flow rates for various land use and anticipated population density in terms of cubic feet per second per acre are tabulated in Table 2. The flow rates shall be used for new development and determining the effects of future land use per approved General Plan(s). The acreage in the table is gross acreage including roads, yards, parking, etc.

Table 2 - Sewage Generation Flow Rates

Residential –Single Family:	
1 unit/3 acres	0.0002 cfs/acre
1 unit/ acre	0.0005 cfs/acre
1.8 units/acre	0.0009 cfs/acre
3.3 units/acre	0.0016 cfs/acre
4.6 units/acre	0.0022 cfs/acre
Residential – Multi-Family:	
6.0 units/acre	0.0021 cfs/acre
8.0 units/acre	0.0028 cfs/acre
10 units/acre	0.0035 cfs/acre
12.3 units/acre	0.0043 cfs/acre
18 units/acre	0.0063 cfs/acre
20 units/acre	0.0070 cfs/acre
30 units/acre	0.0105 cfs/acre
Commercial:	
General Commercial	0.0023 cfs/acre
Neighborhood Commercial.....	0.0093 cfs/acre
Highway Commercial	0.0046 cfs/acre
Office and Professional.....	0.0023 cfs/acre
Manufacturing/Industrial:	
Light Industrial.....	0.0050 cfs/acre
General Industrial.....	0.0046 cfs/acre

7.3.2 PEAK SEWAGE FLOW RATES

Peak sewage flow rates shall be used to determine pipe sizes required to convey sewage flow in accordance with District standards. Peak flows shall be determined from the following equations:

$$\text{For average flow up to 1 cfs:} \quad \text{Peak Flow (cfs)} = 2.0 \times \text{Average Flow (cfs)}^{0.822}$$

$$\text{For average flow greater than 1 cfs:} \quad \text{Peaking Factor (cfs)} = 2.0 \times \text{Average Flow (cfs)}^{-0.10}$$

$$\text{Peak Flow (cfs)} = \text{Peaking Factor (cfs)} \times \text{Average Flow (cfs)}$$

7.4 DESIGN CAPACITIES

Main sewers 8-inch to 12-inch diameter shall be designed to flow one-half (1/2) full.
Trunk sewers greater than 12-inch diameter shall be designed to flow three-quarters (3/4) full.

7.5 SIZE OF SEWER MAINS

The minimum inside diameter of a public sewer main shall be eight inches (8").

The District Engineer may approve a 6" diameter sewer under the following conditions:

- The sewer pipe has a minimum grade of 0.008 ft/ft.
- The length of the main does not exceed 200 ft., with no possibility of extension.
- A maximum of ten (10) house laterals will be connected to the main.
- A manhole is installed at the end of the 6" main.

7.6 STRUCTURE AND PIPE STRUCTURAL DESIGN

All structures and pipe constructed in public roads or other traveled ways shall be designed to support the earth load, groundwater, road surfacing, H-20 live load and shall include an adequate factor of safety.

7.7 PIPE COVER OVER SEWER MAINS

Basic Requirements: Sewers shall be installed at a depth that will provide suitable service to the properties connected and will allow subsequent installation of water lines in accordance with the Water Sewer Separation requirements with a minimum of special construction of water lines other than joint spacing.

Where main or trunk sewers are being designed for installation parallel with other utility pipe and/or conduit lines, the Project Engineer shall design the vertical location of the sanitary sewer in a manner that will permit future side connections of main or lateral sewers and avoid conflict with paralleling utilities without abrupt changes in vertical grade of main or lateral sewers. Under no circumstances shall other utilities be installed directly over and parallel to sanitary sewer installations.

The minimum depth of a sewer main is the depth necessary to obtain five feet (5') of cover over the lateral sewer at the property line, typically six feet (6'). The District may require greater depths when it is necessary to extend the main line sewer to serve other areas to provide for future improvements.

Sewer designs with depths not in accordance with the above shall be submitted to the District Engineer for approval along with evidence that the design complies with the basic requirements above.

7.8 SPECIAL DESIGNS – NON-GRAVITY SEWER

Buildings sewers that are too low for gravity flow to the public sewer main will require conveyance by a pump via a force main. The pump, force main and connection to the public sewer shall be owned and operated by the Applicant. See Section 7.17.2 for additional information.

7.9 PIPE CLEARANCES

All sewer mains and structures shall be designed and constructed to have a minimum of three (3) feet horizontal clearance and one (1) foot vertical clearance from other utilities and/or improvements, unless approved otherwise by the District Engineer.

Utility, conduit, or pipelines crossing or running parallel to lateral and building sewers must be separated vertically and/or horizontally by a minimum of 12" from the outside edge of the pipe.

The "California Water Works Standards" set forth the minimum separation requirements for water mains and sewer lines. These standards, contained in Section 64630, Title 22 of the California Administrative Code specify:

- Parallel Construction: The horizontal distance between pressure water mains and sewer lines shall be at least 10 feet.
- Perpendicular Construction (Crossings): Pressure water mains shall be at least 12 inches (12") above sanitary sewer lines where these lines must cross.
- Separation distances specified above shall be measured from the nearest edges of the facilities.
- Common Trench: Water mains and sewer lines shall not be installed in the same trench.

When local conditions such as available space, limited slope, existing structures, etc. create a situation where there is no alternative but to install water mains and sewer lines at a distance less than that required by these standards alternative construction criteria shall apply. State Department of Health requirements shall be met for water sewer separation. See Standard Drawings 19-23. Sewer designs that do not meet State Department of Health clearance requirements shall be approved by the Santa Barbara County Health Department. Said approval shall be shown on the plans with the date and signature of the authorized County Health representative.

7.10 SEWER MAIN CLEARANCE OF WATER WELLS

Sewer lines and related structures shall not be installed within 50 feet of water wells in accordance with State and County Health regulations. The Applicant must obtain approval from the County Health Department for sewer installations proposed within fifty feet (50') of a water well. Said approval shall be shown on the plans with the date and signature of the authorized County Health representative.

7.11 SEWER MAIN LOCATION

7.11.1 SEWERS IN STREETS

Wherever possible sewers shall be located in public road right of ways, alleys or other paved accessible areas. Sewer alignments and easements proposed across private property shall be approved by the District.

Sewers in streets shall be constructed along street centerlines in straight lines where possible. Sewer lines and manholes shall not be constructed within two feet of concrete gutters.

7.11.2 SEWERS IN ALLEYS

Sewer mains shall be located in the center of alleys, except where concrete ribbon gutters are to be constructed in the center of the alley. Where ribbon gutters are used, the sewer mains shall be offset 2 feet clear from the edge of the concrete ribbon gutter. Sewer mains and manholes shall not be located closer than five feet to the adjacent property line or edge of traveled way.

7.12 EASEMENTS

Easements provided for sewer facilities across private property shall be shown on the plans. Sewers that are located outside of public right of ways shall be located in areas that are accessible by maintenance vehicles. An all-weather access road at least twelve (12) feet wide and with fifteen (15) feet of vertical clearance shall be provided to all manholes. The access road grade shall not exceed 15% in unpaved areas and 20% in paved areas. Truck turnarounds may be required. At said manholes twenty-five (25) feet of vertical clearance is required.

Where easements follow common lot lines, the full easement width shall be on one lot, in such a manner that access to the manholes will not be obstructed by walls, trees or permanent improvements. Where this requirement cannot be met without interfering with existing buildings easements may straddle lot lines.

Easements shall not be obstructed by permanent overhead structures. Deeds for easements shall provide for restrictions of permanent construction within the easement to allow ingress and egress for maintenance.

The minimum width for easements shall be as shown in the following table:

Table 3: Easement Widths

SEWER SIZE	DEPTH FROM SURFACE TO SEWER (IN FEET)]				
	0' to 10'	10' to 15'	15' to 20'	20' to 25'	25' Plus
8" –12"	15	15	20	25	-
15"-21"	20	20	20	25	30
24"-36"	20	20	25	30	35

7.13 ALIGNMENT

Sewer mains shall be laid on a straight alignment and grade between manholes.

Horizontal and vertical curves require the approval of the District Engineer. Curved sewers where allowed, shall meet the minimum radii of curvature specified by the pipe manufacturer. Curves shall be accomplished by bending the pipe rather than deflecting the joints. Horizontal curves shall be concentric with the street centerline where possible. No more than one curve shall be used between manholes. Manholes are required at points of reverse curvature and points of compound curvature. The sum of the horizontal curve deflection between consecutive structures shall not exceed 60 degrees (60°).

Minimum grade of horizontally curved sewer shall be at least the same as straight sewers and preferably greater.

7.14 SIDE SEWERS

Definition: That portion of the sewer system between the main sewer and the structure being served including the building sewer, lateral sewer and wye connection, which are private and installed and maintained by property owners.

7.14.1 SEPARATE SEWERS

A separate side sewer shall be provided for each individual building site. Multiple buildings located on the same legal property may be served with the same lateral or building sewer. The District shall render a single bill to the Property Owner, or Applicant of record that shall include the sewer service charge for the entire property. Upon subdivision of said property, separate sewers shall be installed to each property.

7.14.2 SINGLE RESIDENTIAL SEWER SIZE AND GRADE

The minimum inside diameter of a lateral sewer pipe shall be four inches (4") and shall be equal to or greater than the building plumbing stub diameter. The pipe slope shall not be less than 1/4" per foot (approximately 2%) from the sewer main to the building connection.

7.14.3 MULTIPLE RESIDENTIAL SEWER SIZE AND GRADE

The minimum inside diameter of a lateral sewer pipe shall be six inches (6") and shall be equal to or greater than the building plumbing stub diameter. The pipe slope shall not be less than 1/8" per foot (approximately 1%) from the sewer main to the terminal cleanout. The pipe slope

shall be installed on an even slope from the main sewer line to the connection with the building drain.

Each building or unit to be served shall connect to the 6" sewer pipe with a separate 4" building sewer with a minimum slope of 1/4" per foot. The 4" building sewer shall have a cleanout located eighteen (18) inches from the building.

7.14.4 COMMERCIAL/INDUSTRIAL SEWER SIZE AND GRADE

The minimum inside diameter of a lateral sewer pipe shall be six inches (6") and shall be equal to or greater than the building plumbing stub diameter. The pipe slope shall not be less than 1/8" per foot (approximately 1%) from the sewer main to the building connection or terminal cleanout.

7.14.5 EXISTING BUILDING SEWERS

Existing building sewers may be used for new building connections when they are found, upon evaluation by the District, to meet District standards. The fee for examination and testing shall be determined by the District and shall be paid by the Applicant.

Sewers to be abandoned must be capped with a water tight plug and encased in concrete at the property line or at the easement line where sewer mains are in off road easements. Abandoned sewers shall be inspected by the District.

7.14.6 DEPTH

The lateral sewer shall have a minimum cover of five feet (5') at the property line or at a point five feet (5') outside of the curb face or edge of paving, whichever is greater. Laterals shall be installed deep enough to provide service to the most remote and lowest point of the site's buildable area, while providing the required pipe slope and cover.

Minimum cover for laterals in driveways, parking and other traffic areas within properties other than single family residential, from the property line to a point within eight feet (8') of the building drain connection, shall be three feet (3').

Minimum cover for laterals outside of traffic areas, from the property line to a point within eight feet (8') of the building drain connection, shall be twenty four inches (24") unless otherwise approved by the District.

Minimum cover for laterals at the point of connection to the building sewer shall be eighteen inches (18")

Depth of service laterals shall be at sufficient depth to provide adequate coverage and service to the lowest point and the farthest point to be served on each lot. At no place shall the depth of a service lateral be less than 5 feet at the property line, nor less than 2 feet below grade surface at any point on private property unless otherwise approved by the District Engineer.

7.14.7 BENDS

Lateral sewers shall be designed and constructed to provide the most direct route from the sewer main to the building connection. All bends 45 degrees and greater shall have a cleanout.

22.5 degree bends shall not be used in lieu of 45 degree or greater bends to avoid the need of cleanouts.

7.14.8 CLEANOUTS

General: Cleanout construction shall conform to Standard Drawing No. 6. Cleanout shall consist of a wye and one-eighth bend and a riser pipe extended just below grade and sealed with a threaded plug or cap that can be removed through the cleanout access cover. Cleanouts shall be protected with a concrete cleanout box. The cleanout box lid shall be cast iron and embossed with "sewer" on the lid.

7.14.8.1 LOCATIONS

Cleanouts shall be installed on laterals at the following locations:

- the property line or sewer easement line
- vertical grade breaks
- horizontal alignment changes of 45 degrees or greater
- straight run intervals of not more than 100 feet
- the connection of the lateral to the building plumbing - eighteen (18) inches from the wall drain.

7.14.9 BACKWATER VALVES

A backwater valve is required when the elevation of the lowest floor that has plumbing fixtures is located below the elevation of the next upstream manhole cover of the public or private sewer serving the piping. The backwater valve shall be installed at the junction of the lateral sewer and building sewer, generally eighteen (18) inches from the wall, in place of a standard cleanout, and shall be accessible from a concrete vault with a cast iron cover embossed with "Sewer". (See Standard Drawing No. 15)

7.14.10 SAMPLING MANHOLE

A sampling manhole, when required, shall be shown on the plans and be constructed and installed at the property line in accordance with Standard Drawing 14.

7.14.11 SAMPLING WELL

A sampling well in lieu of a standard building sewer cleanout, when required, shall be shown on the plans and constructed and installed in accordance Standard Drawing 13.

7.15 MANHOLES

7.15.1 GENERAL

Manholes shall be constructed in accordance with Standard Drawing 10 and these specifications.

7.15.2 DROP ACROSS STRUCTURE

The vertical drop across manholes from the inlet pipe to the outlet pipe shall be one-tenth of a foot (0.1') where the deflection between the upstream pipe and downstream pipe is less than 30 degrees (30°).

The vertical drop across manholes from the inlet pipe to the outlet pipe shall be two-tenths of a foot (0.2') where the deflection between the upstream pipe and downstream pipe is greater than 30 degrees (30°).

7.15.3 ALLOWABLE DEFLECTION ACROSS STRUCTURE

The angle of deflection between the upstream pipe and downstream pipe shall not be greater than 90 degrees (90°).

7.15.4 SPACING AND LOCATIONS

Manholes shall be located at all abrupt changes in alignment or grade and at all junctions. Manholes are required at the following locations:

- Pipe grade changes
- Vertical or horizontal angle points
- Points of reverse curves and compound curves
- Pipe size changes
- Junctions of sewer mains
- At intervals not greater than 350 feet
- and at pipe terminuses.

Manholes located at intervals greater than 350 feet shall be approved by the District.

Unless approved otherwise by the District manholes shall be constructed:

- Within six feet (6') of the street centerline.
- The last manhole on through streets shall be a minimum of eight feet (8') upstream from the lateral of the last lot served.
- Manholes at the end of cul-de-sac streets shall end (depending on available space) 10 to 15 feet before the curb face at the end of the street.

Sewers with steep grades may require manholes at closer intervals.

When a proposed sewer connects to an existing manhole, the invert elevation of the inlet and outlet pipes shall be shown in profile as determined by field survey.

If a new manhole is proposed on an existing sewer line, the elevation of the existing sewers in the manhole on each side of the proposed manhole shall be determined by field survey. The Applicant should be prepared to submit the field notes of the survey if requested to do so.

7.15.5 SIZE

Manholes for sewer mains 8 inches to 15 inches in diameter shall have a 48-inch inside diameter shaft with a 24-inch diameter entry.

Manholes for sewer mains 18 inches to 27-inches in diameter shall have a 60-inch inside diameter shaft with a 36-inch diameter entry.

Manholes for sewer mains 30 inches or greater in diameter shall have a 72-inch inside diameter shaft with a 36-inch diameter entry.

The frame and cover for 36-inch diameter entry shall be constructed of three pieces consisting of a frame with a 36-inch clear opening with a standard 24-inch cover nested within a 36-inch cover. See Standard Drawing No. 7.

7.15.6 MANHOLE CONES

Cones shall be eccentric and centered over the outlet of the manhole. Under certain circumstances concentric cones may be required by the District. Flat tops shall not be allowed.

7.15.7 RIM ELEVATIONS

In paved areas, the manhole rim elevation shall match finished grade.

In areas outside of the traveled way, the manhole rim shall be 18 inches above finished adjacent grade, 100-year flood elevation, or the top of future fill, whichever is greater.

In maintained landscaped areas, manhole rims shall be 6 inches above finished grade.

Manholes not in travel areas shall be protected from damage per Standard Drawing No. 8.

7.15.8 REMODELING MANHOLES

Existing manhole bottoms to be remodeled shall be removed a minimum depth of three inches (3") to allow construction of new channels and shelves with an approved concrete/mortar material. Sewage in new and remodeled manholes shall be bypassed or controlled across the manhole in a manner that sewage does not flow over the concrete channels until they have cured for a minimum of twenty four (24) hours.

7.15.9 DROP MANHOLES

Drop manholes require special approval by the District. Drop manholes, when approved, shall conform to the Standard Drawing 11.

7.16 INTERCEPTORS (GREASE AND/OR SAND)

"Interceptors" shall be defined as a device of at least 500 gallon capacity designed and installed so as to separate and retain deleterious, hazardous, or undesirable matter such as grease and oil from wastes and permit normal sewage or liquid wastes to discharge into the disposal terminal by gravity.

Grease interceptors, shall be provided on side sewers that discharge wastewater containing grease, oil or other ingredients detrimental to the sewer system. Grease interceptors are typically required at restaurants, grocery stores and other food preparation facilities.

Sand/Oil Interceptors shall be provided when, in the judgment of the District, they are necessary for the proper handling of sand, grit and/or petroleum-based liquid waste which may be harmful to, or cause obstruction of the publicly owned wastewater collection system, interfere with the operation of the publicly owned treatment works, or as otherwise required. Sand/Oil Interceptors are typically required at gasoline stations, car washes, automobile repair shops, etc.

Interceptors shall be sized in accordance with the Uniform Plumbing Code, latest edition. The interceptors shall be designed, sized, installed, maintained and operated so as to accomplish its intended purpose of intercepting the sand/oil/grease from the customer's wastewater and preventing the discharge of such undesirable matter to the District's wastewater treatment plant. The use of larger capacity Sand/Oil Interceptors is encouraged whenever possible in that larger interceptors work more efficiently. In resolving any question of capacity of Sand/Oil Interceptors, any uncertainties shall be resolved in favor of the larger capacity interceptor.

The volume of grease interceptors shall be determined based on the maximum number of drainage fixture units (DFUs) allowed for the pipe size connected to the inlet of the interceptor. The minimum pipe size allowed to be connected to an interceptor is six inch (6") diameter. Drainage Fixture Unit values are defined in Uniform Plumbing Code Table 7-3. UPC Table 10-3, "Gravity Grease Interceptor Sizing" is partially reproduced here for reference.

UPC Table 10-3, "Gravity Grease Interceptor Sizing"

DFUs	Interceptor Volume (gallons)
8	500
21	750
35	1,000
90	1,250
172	1,500
216	2,000
307	2,500
342	3,000
428	4,000
576	5,000

The size, type and location of each interceptor shall be approved by the District, in accordance with this Regulation. A sampling manhole shall be located at the outlet end of all gravity grease interceptors for effluent quality sampling.

Except where otherwise specifically permitted, no wastes other than those requiring separation shall be discharged into any Interceptor. Toilets, urinals and other similar fixtures shall not drain through an interceptor. Waste lines not connected to the interceptor shall enter the sewer lateral after the interceptor and before the sampling manhole.

Interceptors shall be constructed in accordance with Standard Drawing No. 25. The interceptor shall be located outside the building, within the private property, and shall be accessible at all times for inspection, cleaning and removal of intercepted grease, sand, oil, etc. Interceptors shall be placed as close as practical to the fixtures they serve.

The interior of interceptors shall be coated and water tested. The coating shall be a 100% solvent-free two-component epoxy resin system or approved equal. A water leakage test shall be conducted by filling the unit with water for a period of 24-hours and verifying that the structure does not leak.

One set of plans, including complete mechanical and plumbing sections shall be submitted to the District for approval prior to construction. Such plans shall include the size, type and location of each interceptor. Approval shall not exempt the user from compliance with any applicable code, ordinance, rule, regulation or order of any governmental authority. Such approval shall not be construed as or act as a guarantee or assurance that any discharge is or will be in compliance with any applicable code, ordinance, rule, regulation, or order or any governmental authority. Any subsequent alterations or additions to such facilities shall not be made without due notice to and prior approval of the District.

7.17 LIFT STATIONS AND FORCE MAINS

7.17.1 CRITERIA FOR APPLICATION

Wherever practicable, all plumbing fixtures shall be drained to the public sewer by gravity. Lift stations and force mains will not be allowed if an option for providing gravity sewer service exists. Any deviation from this requirement is subject to the approval of the District. Sewage ejector pumps and force mains shall be designed in accordance with Section 710 of the California Uniform Plumbing Code, latest edition.

7.17.2 SEPARATE LIFT STATIONS

Each building site shall be connected by a separate ejector pump and force main. Lift stations and force mains required for sewage service to a property shall be the responsibility of the property owner. The Applicant shall be responsible for the design, construction, operation and maintenance of the required facilities.

7.18 STANDARD DRAWINGS

The following is a list of District Standard Drawings. The Standard Drawings establish the performance, quality requirements and general arrangement of materials and equipment and establish the minimum standards for quality of workmanship and appearance. Standard Drawings applicable to the work shall be listed on the title sheet of the construction plans.

- No. 1 - Standard Plan Size & Layout
- No. 2 - Sewer Location in Public Roads
- No. 3 - Symbols and Abbreviations
- No. 4 - Trench Backfill Requirements
- No. 5 - Cased Crossing
- No. 6 - Side Sewer Cleanout
- No. 7 - 36" Manhole Frame and Cover
- No. 8 - Remote Area Manhole Jacket
- No. 9 - Sampling Manhole Less Than 3' Deep
- No. 10 - Standard Manhole
- No. 11 - Standard Drop Manhole
- No. 12 - Manhole Frame & Cover
- No. 13 - Sampling Well
- No. 14 - Sampling Manhole
- No. 15 - Backwater Valve
- No. 16 - Wye Installation in Existing Sewer Main
- No. 17 - Lateral Sewer
- No. 18 - New Building and Lateral Sewer "As Constructed" Layout Sketch Example
- No. 19 - Water-Sewer Separation (Text)
- No. 20 - Water-Sewer Separation (Text)
- No. 21 - Water-Sewer Separation (Detail)
- No. 22 - Water-Sewer Separation (Detail)
- No. 23 - Pipe Anchors and Backfill Stabilizers Type 1
- No. 24 - Pipe Anchors and Backfill Stabilizers Type 2
- No. 25 - Grease Interceptor

END OF SECTION

SECTION 8: LEGAL RELATIONS AND RESPONSIBILITIES

8.1 CONTRACTOR QUALIFICATIONS

Contractors doing sewer work in the District shall be properly licensed in accordance with the provisions of Division 3, Chapter 9 of the Business and Professions Code of the State of California. Licensed contractors shall have one or more of the following licenses:

- Class A – General Engineering Contractor
- Class C34 – Pipeline Contractor
- Class C36 – Plumbing Contractor

8.2 UNDERGROUND SERVICE ALERT - CALIFORNIA ONE CALL LAW

The Contractor's attention is directed to Sections 4215.5 through 4217, of the Government Code of the State of California requiring that two (2) working days prior to commencing any excavation, that "Underground Service Alert of Southern California" be notified by telephone, toll free, at 1-800-422-4133, for the assignment of an "Inquiry Identification Number".

Prior to commencement of construction, Contractor shall pothole all existing conduits including water, sewer, storm drains, electrical lines, telephone lines, cable television lines and other existing utilities to verify horizontal and vertical location where shown on the plans or marked by Underground Service Alert (USA). Potholes shall be located at each crossing of a proposed pipeline with an existing pipeline or conduit for the limits of the work. Contractor shall deliver a plan to the Project Engineer, five (5) working days prior to the start of construction, that shows the horizontal and vertical location of each potholed conduit and allow five (5) working days to evaluate this information.

8.3 GENERAL SAFETY

In accordance with generally accepted construction practices and State Law, the Contractor shall be solely and completely responsible for conditions on the job site, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to working hours.

Safety provisions shall conform to Federal and State Departments of Labor Occupational Safety and Health Act (OSHA), and other applicable Federal, State, County, and local laws, ordinances, codes, requirements set forth herein. Where these requirements are in conflict, the more stringent requirement shall be followed. Contractor shall become thoroughly familiar with the governing safety provisions and shall comply with the obligations set forth therein.

Contractor shall develop and maintain for the duration of the Contract, a safety program that will effectively incorporate and implement required safety provisions. The Contractor shall appoint a qualified employee who is authorized to supervise and enforce compliance with the safety program.

The Contractor shall maintain at the job site, safety equipment applicable to the Work as prescribed by the governing safety authorities, and articles necessary for giving first-aid to the injured. The Contractor shall establish procedures for the immediate removal of persons who may be injured on the job site to a hospital or a doctor's care.

The Contractor shall carefully instruct all personnel working in potentially hazardous work areas as to potential dangers and shall provide such necessary safety equipment and instructions as are necessary to prevent injury to personnel and damage to property. Special care shall be exercised relative to work underground.

Trench Safety: Attention is directed to the requirements in Section 6705 of the State Labor Code concerning trench safety excavation safety plans. A detailed plan showing design of shoring, bracing, sloping or other provisions shall be prepared by a registered Civil or Structural Engineer. Acceptance by the District or its designated agent only constitutes acknowledgment of the submission of said plans and does not constitute review or approval of the designs, design assumptions or criteria. Completeness of submissions, applicability to areas of intended use, and implementation of the plans, are solely the responsibility of the Contractor and his Registered Engineer.

Confined Spaces: Contractor shall be responsible for developing, implementing, administering and maintaining a confined space entry program in accordance with Sections 5156, 5157, 5158, Title 8 of the California Code of Regulations (CCR). Contractor's entering Permit Required Confined Spaces shall have designated personnel for authorized entrants, attendants and entry supervisors.

Entry into Permit Required Confined Spaces as defined in Section 5157, Title 8, CCR may be required as part of the Work. All manholes, tanks, vaults, pipelines, excavations, or other enclosed or partially enclosed spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise.

Fire Safety: Work shall be performed in a fire safe manner. Furnish and maintain on the site adequate fire fighting equipment capable of extinguishing incipient fires. Contractor shall comply with applicable federal, local, and state fire prevention regulations. Where these regulations do not apply, follow applicable parts of the National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241).

Contractor shall do all work necessary to protect the general public from hazards, including, but not limited to, surface irregularities or unramped grade changes in pedestrian sidewalks or walkways, and trenches or excavations in roadways. Barricades, lanterns, and proper signs shall be furnished in sufficient amount to safeguard the public and the work.

The Contractor shall construct and maintain satisfactory and substantial temporary chain link fencing, solid fencing, railing, barricades or steel plates, as applicable, at all openings, obstructions, or other hazards in streets, sidewalks, parking lots, open spaces, and other areas affected by the Work. Such barriers shall have adequate warning lights as necessary or required for safety.

8.4 ENVIRONMENTAL CONTROLS

The Contractor in executing the Work shall maintain affected areas within and outside project boundaries free from environmental pollution that would be in violation of federal, state, or local regulations.

The Contractor shall perform Work as not to expose personnel to, or to discharge into the atmosphere from any source whatever, smoke, dust, asbestos, toxic chemicals or other air

contaminants in violation of the laws, rules, and regulations of the governmental entities having jurisdiction. Contractors or subcontractors removing 100 or more square feet of asbestos must be "Certified" in accordance with state law. All work involving exposure to asbestos and all other hazardous materials shall be performed with protection of personnel in compliance with all applicable regulations and safety requirements.

8.5 SANITATION

The Contractor shall provide and maintain enclosed toilets for the use of employees. The toilet facilities shall be maintained in a neat and sanitary condition. They shall also comply with applicable laws, ordinances, and regulations pertaining to public health and sanitation.

Wastewater shall not be interrupted. If sewer facilities are disrupted, sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be allowed to flow in trenches or be covered by backfill.

8.6 TRAFFIC CONTROL

8.6.1 SCOPE

Traffic control shall include all material, labor, and equipment to provide safe and effective work areas and to warn, control, protect, and expedite vehicular, bicycle, and pedestrian traffic. All work and material provided under this section shall be performed or furnished in accordance with the following publications as applicable:

- State of California Department of Transportation Standard Specifications, latest edition;
- State of California Department of Transportation Standard Plans, latest edition;
- State of California Department of Transportation "Manual of Traffic Controls – For Construction and Maintenance – Work Zones", latest edition;
- Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), latest edition.

No work shall be performed in public right-of-ways without permission and permits from the authorizing agency.

8.6.2 CONSTRUCTION AREA TRAFFIC CONTROL DEVICES

Construction area, detour, and special signs shall be furnished, installed, maintained, and removed when no longer required in accordance with the provisions in Section 12, "Construction Area Traffic Control Devices" of the Caltrans Specifications and the publications listed in Section 8.6.1.

Signs and equipment shall conform to the requirements of the "Uniform Sign Chart", MUTCD and the "Manual of Traffic Controls - For Construction and Maintenance - Work Zones."

8.6.3 MAINTAINING TRAFFIC

Attention is directed to Section 7-1.08, "Public Convenience", Section 7-1.09, "Public Safety", and Section 12, "Construction Area Traffic Control Devices", of the Caltrans Specifications and other relevant sections related to public safety. Nothing in these provisions shall be construed as relieving the Contractor from his responsibility as provided in said Section 7-1.09.

The Contractor shall notify local authorities of his intent to begin work at least 5 days before work is begun. The Contractor shall cooperate with local authorities relative to handling traffic through the area and shall make his own arrangements relative to keeping the working area clear of parked vehicles in accordance with Section 8.6.5, "Parking Restrictions and Required Postings", of these Specifications.

Access to properties abutting project work areas shall be maintained. For construction requiring driveway closures, the Contractor shall provide written notification to businesses and residences of affected properties a minimum of 48 hours prior to the closure.

During non working hours, two (2) traffic lanes, each a minimum of 11-feet wide (one lane in each direction), shall be provided and shall be delineated with delineators if the existing striping is not visible. During non-working hours all traffic lanes shall be re-opened. During working hours, local traffic may be controlled by flaggers, lane and road closures, and shall follow approved Traffic Control Plans.

All trench and excavations shall be backfilled or covered with a steel plate at the end of each working day. When working in a street not authorized for closure, Contractor shall install a minimum 2-inch temporary asphalt concrete surfacing to provide safe and comfortable passage over (or along) trenches and/or other excavations to public vehicular traffic.

The Contractor shall be responsible for the placement of advisory signs to inform the public of any street closure, detour, or construction affecting traffic or parking at least 7 days before the closure or other significant disruption of normal traffic flow.

Contractor's equipment shall not be parked within any traffic lanes after working hours.

Existing roadside signs conflicting with the construction area signs shall be either removed and reset upon completion of work or securely covered.

Construction signs that will be left in place longer than 5 days shall be set on wood post(s) and embedded in the ground as shown on S42-15 of the Caltrans Standard Plans, latest edition, and in conformance with other reference standards.

Obliteration of existing striping shall be accomplished by grinding, sandblasting, water jetting or other methods approved by the Engineer. Sand must be removed from the pavement as work progresses.

Sufficient visibility to approaching traffic shall be provided when a street is closed partially or completely on a 24-hour basis. The Contractor shall ensure that sufficient illumination be provided by means of portable flashing beacons, floodlights, or other similar devices.

8.6.4 TRAFFIC CONTROL PLANS

The Contractor shall prepare and submit Traffic Control Plans (TCP) to the authorizing agency (City of Goleta, County of Santa Barbara or Caltrans) and the District when required, for approval. TCPs shall show all proposed street closures, detours, lists of signing, delineation of striping, description of construction activity, and schedule of the various phases.

The TCP submitted shall, in addition to other requirements specified, show the following information:

- ❑ The sequences of construction affecting the use of the roadway conforming to the maximum time required for each phase of the work as specified hereinafter.
- ❑ The provisions for decking over excavations or phasing of operations, or a combination of these two methods, to provide the necessary access.
- ❑ The signing, barricading, and temporary striping or marking specified and, as directed by the Engineer, necessary to provide passages for pedestrians, bicycles, and number and width of vehicular lanes over and adjacent to trenches and other excavations.

All TCPs shall be subject to the approval of the authorizing agency(ies) having jurisdiction of the affected area. Copies of permits and approvals shall be furnished to the District.

8.6.5 PARKING RESTRICTIONS AND REQUIRED POSTINGS

The Contractor shall be responsible for the adequate removal of parked cars. All vehicle removal shall be coordinated by the Contractor with the Sheriff's Department or California Highway Patrol. The Contractor shall notify the Sheriff's Communications Center at (805) 681-4100 or California Highway Patrol at (805) 967-1234 upon posting of the parking restrictions for a particular street. For removal of parked vehicles, the Contractor shall notify the Sheriff's Communications Center or California Highway Patrol not less than two hours prior to the needed removal with the address nearest the parked vehicle, make, model, color and license number.

"No Parking" signs posted by the Contractor shall be of heavy card stock and not less than 1.75 square feet of surface area on the face. Background color shall be white and letters shall be printed in red water resistant ink, except that day, date, and time of restriction may be printed in black water resistant ink. The signs shall be printed with the words "Tow Away" and "No Parking" with a character height of not less than 2.75 inches and a stroke width of not less than 0.5 inches. The day, date, and time of the particular restriction shall be printed or attached below the above-mentioned wording in characters of not less than 2.0 inches in height and 0.4 inches in stroke width. The day of the week shall be written out or properly abbreviated with three to four letters; date or dates of restriction shall be listed completely; the beginning and ending times shall be clearly listed on the sign.

Signs shall be mounted such that the wording "No Parking" is at an elevation at least three feet and not more than seven feet above the adjacent flow line. Signs may be tied with string to trees and power poles, taped to existing sign poles, or mounted to stakes or barricades provided by the Contractor. The signs shall be placed as needed to control the parking of cars within the construction zone; signs shall be placed at intervals of 75 feet or less along each side of the roadway.

Signs shall be posted and maintained by the Contractor for a period of 72 hours prior to the restrictions becoming effective. Upon completion of the work, all signs, stakes, and barricades shall be promptly and completely removed and disposed of by the Contractor. The Contractor shall promptly reset or replace all damaged or defective signs.

END OF SECTION

SECTION 9: CONSTRUCTION MATERIALS

9.1 SEWER PIPE MATERIALS

The following are the acceptable pipe materials for construction of public sewers in the District:

- Vitrified Clay Pipe (VCP) – VCP and fittings shall conform to ASTM C700 and shall be Extra Strength. Joints shall be plain end or bell and spigot.
- Polyvinyl Chloride Pipe (PVC) - PVC pipe and fittings with nominal diameters between four inches (4") and fifteen inches (15") shall conform to ASTM D3034 SDR 35. PVC pipe and fittings with nominal diameters between eighteen inches (18") and thirty inches (30") shall conform to ASTM F679 SDR 26.
- Ductile Iron Pipe (DIP) – DIP and fittings shall conform to ANSI A21.51 / AWWA C151. Pipe joints shall be mechanical or bell and spigot utilizing an elastomeric gasket per AWWA C111.
- High Density Polyethylene Pipe (HDPE) – HDPE pipe and fittings shall be manufactured of material conforming to conform to Cell Classification of PE 345444E. HDPE pipe shall be provided in steel pipe sizes (IPS) based on outside pipe dimensions and shall have a minimum dimension ratio of DR17 in conformance with the requirements of ASTM F714. HDPE pipe and fittings shall be joined by butt fusion.

In addition to the above, the following is an acceptable pipe material for construction of private sewers in the District:

- Acrylonitrile-butadiene-styrene Pipe (ABS) - ABS pipe and fittings shall conform to Schedule 40 ASTM F 628 or ASTM D 2661. All products shall bear the seal of a nationally-recognized listing or certifying agency.

The same manufacturer, type and class of pipe shall be used throughout the work. Materials shall be new and undamaged.

VCP, PVC, ABS and DIP pipe products shall be specified by the nominal inside pipe diameter. HDPE pipe shall be specified in steel pipe sizes (IPS) based on outside pipe dimensions

9.1.1 FITTING AND JOINT MATERIALS

Fittings shall be the same material and class as the sewer pipe. Fittings and accessories shall be manufactured by the pipe supplier and shall have a bell and/or spigot configurations compatible with that of the pipe. Fittings shall be stored, prepared and installed per manufacturer's printed requirements.

Plugs shall be watertight butyl rubber and shall be equipped with an expansion bolt to hold plug in end of pipe.

The Contractor shall use stainless steel banded rubber couplings when connecting replacement pipe to existing pipe. When approved by District and where connections involve joining PVC pipe to vitrified clay pipe (VCP) or other dissimilar material, the Contractor shall use "reducer"

(as appropriate) flexible sewer couplings such as Mission Rubber Company Flex-Seal Couplings or equal. Installation shall be per manufacturer's instructions and recommendations.

9.1.2 REPLACING OR REPAIRING PIPE SECTIONS

Repairs to existing sewers shall use the same type and class of pipe of the pipeline being repaired.

9.2 MANHOLE MATERIALS

Base: Cast in place Class 560-C-3250 Portland Cement Concrete per Standard Specifications for Public Works Construction, latest edition.

Shaft and Cone: Precast reinforced concrete in accordance with ASTM C478 using Type II Portland Cement per ASTM C150 and Federal Specification SS-C-1960/3, Type I/II Low Alkali, with a minimum compressive strength of 4000 psi at 28 days. Reinforcing shall be in accordance with ASTM A185.

Joint Gaskets: Joints between shaft sections shall be set with butyl rubber preformed gaskets for manhole joint application in accordance with ASTM C923.

Frame and Cover: Frame and cover castings shall be in accordance with Standard Drawing 12 or 27. Castings shall be of gray iron conforming to the requirements of AASHTO M105 / ASTM A48 Class 35B. Castings shall be of uniform quality, free from blow holes, porosity, hard spots, shrinkage, distortion or other defects. The finish shall meet industry standards and be cleaned by shot blasting. The cover and frame seat shall be machined so that the cover will sit evenly and firmly and not rock in the frame. Covers that rock will be rejected. Frames and covers shall be dipped in black bituminous paint.

9.3 PIPE BEDDING AND PIPE ZONE MATERIALS

Pipe bedding and pipe zone shall be defined as the area containing the material supporting, surrounding and extending to twelve inches (12") above the top of the pipe. The minimum depth of bedding materials shall be four inches (4").

Bedding and pipe zone material shall be Class I (angular crushed stone or rock, 3/4 inch gradation) material conforming to the requirements of ASTM D 2321, Section 5. The 3/4-inch gradation requirements are reproduced in Table 4. The pipe zone material shall have an installed density of at least 90% Relative Density.

Table 4: 3/4 -Inch Gradation

Sieve Size	Percent Passing
1-inch	100
3/4 inch	90-100
1/2-inch	30-60
3/8- inch	0-20
No. 4	0-5
ASTM C131 Test Grading	B

For private side sewers - pipe bedding and pipe zone material may be a granular material with a Sand Equivalent greater than 50 and shall have 100 percent passing the 2-inch sieve.

9.4 TRENCH BACKFILL MATERIAL

Trench backfill shall be defined as the area above the pipe zone and below the bottom of the structural section of paved areas. In unimproved areas the trench backfill extends to the finished surface.

- Class I Backfill material shall have a Sand Equivalent greater than 50 and shall have 100 percent passing the 2-inch sieve.
- Cement Slurry shall be a mixture of cement, sand and water and shall meet the requirements of the County of Santa Barbara and/or City of Goleta Public Works Department Standards.
- Native Material may be used for trench backfill in private road and unpaved areas unless the material is unsuitable. Unsuitable material being defined by Unified Soil Classifications:
 - OL – Organic silts and organic silty clays of low plasticity
 - MH – Inorganic silt, micaceous or diatomaceous fine sandy or silty soils, elastic silts
 - CH – Inorganic clays of high plasticity, fat clays
 - OH – Organic Clays of medium to high plasticity
 - Pt – Peat and other high organic soils
 - or soil that cannot be compacted to 90 percent relative density.

Within Public Road Right-of-Way:

Above the pipe zone and up to the bottom of the asphalt concrete surfacing shall be one (1) sack cement slurry in accordance with County of Santa Barbara and/or City of Goleta Public Works Department Standards. Asphalt concrete pavement shall not be placed over the slurry cement backfill until the following day (24 hours), with or without cement accelerators.

Outside Public Road Right-of-Way:

Above the pipe zone to the bottom of the pavement section shall be native material from the trench excavation or with select imported material with a sand equivalent greater than 20 meeting County of Santa Barbara Class I Backfill requirements per County Standard Detail 1-020.

9.5 CRUSHED AGGREGATE BASE

Road base material shall be crushed aggregate and shall contain an individual sieve segregation at least 25 percent of particles having their entire surface area composed of faces resulting from fracture due to mechanical crushing.

Quality Requirements shall conform to the following:

<u>Test</u>	<u>Test Method No.</u>	<u>Requirement</u>
R Value	Calif. 301	78 min.
Sand Equivalent	Calif. 217	28 min.
Durability Index	Calif. 229	35 min.

Recycled aggregate base may be used in place of Crushed Aggregate Base. Recycled aggregate base shall conform to the provisions of Section 200-2.4, "Crushed Miscellaneous Base" of the Standard Specifications. Gradation shall conform to coarse gradation. The aggregate shall not be treated with lime, cement, or other chemical materials before the Durability Index test is performed. Untreated recycled asphalt and portland cement concrete will not be considered to be treated with lime, cement, or other chemical materials for the purposes of performing the Durability Index test.

9.6 HDPE PIPE MATERIAL AND FITTING REQUIREMENTS

Materials used for the manufacture of polyethylene pipe and fittings shall be extra high molecular weight, high density PE 3408 polyethylene resin. The polyethylene pipe and fittings shall be made from virgin resins exhibiting a minimum cell classification of PE 345444E as defined in ASTM D3350 and ASTM D1248 with an established hydrostatic design basis of 1600 psi for water at 73°F. The resin shall be listed by the PPI (Plastic Pipe Institute, a division of the Society of the Plastics Industry) in its pipe-grade registry Technical Report (TR) 4, "Listing of Plastic Pipe Compounds". The pipe color shall be gray. The intent of the gray color is to provide increased visibility during CCTV inspection. Alternatively, a coextruded HDPE pipe with a black exterior and soft white interior may be used.

Polyethylene plastic pipe shall meet the applicable requirements of ASTM F714. Pipe shall be provided in steel pipe sizes (IPS) based on outside dimensions. The wall thickness shall have Dimension Ratio of DR17 as prescribed in ASTM F714. The pipe shall be homogeneous throughout and free of visible cracks, holes, voids, foreign inclusions, or other defects that may affect the wall integrity.

HDPE fittings shall be in accordance with ASTM D 3261 and shall be manufactured by injection molding, a combination of extrusion and machining, or fabrication from HDPE pipe conforming to this specification. The fittings shall be fully pressure rated and provide a working pressure equal to that of the pipe with an included 2:1 safety factor. The fittings shall be manufactured from the same resin type and cell classification as the pipe itself. The fittings shall be homogeneous throughout and free from cracks, holes, foreign inclusions, voids, or other injurious defects.

Pipe and fittings must be marked as prescribed by ASTM F714. During extrusion production, the HDPE pipe shall be continuously marked with durable printing including the following information:

1. ASTM Basis
2. PE Cell Classification
3. Nominal Pipe Size
4. Dimensional Ratio/Pressure Rating
5. Manufacturer Name
6. Production Code (Location & Date of Manufacture)
7. Pipe Test Category
8. Resin Supplier Code

Sections of pipe with cuts or gouges in excess of 10% of the pipe wall thickness shall be cut out and removed. The undamaged portions of the pipe shall be rejoined using the heat fusion joining method.

Sections of polyethylene pipe shall be joined by the butt fusion process into continuous lengths at the job site. The joining method shall be the heat fusion method and shall be performed in strict accordance with the pipe manufacturer's recommendations. The heat fusion equipment used in the joining procedures should be capable of meeting all conditions recommended by the pipe manufacturer. Extrusion welding or hot gas welding of HDPE shall not be used. Refer to the manufacturer's recommendations.

1. The polyethylene pipe shall be assembled and joined at the site using the butt-fusion method to provide a leak-proof joint. Threaded or solvent-cement joints and connections are not permitted.
2. All equipment and procedures used shall be used in strict compliance with the manufacturer's recommendations. Fusing shall be accomplished by personnel certified as fusion technicians by the manufacturer of the polyethylene pipe and/or fusing equipment.
3. The butt-fused joint shall be true to alignment and shall have uniform roll-back beads resulting from the use of proper temperature and pressure. The joint shall be allowed adequate cooling time before removal of pressure. The fused joint shall be watertight and shall have tensile strength equal to or greater than that of the pipe. All joints shall be subject to acceptance by the District prior to installation. When required by the District the roll-back bead shall be removed from the interior of the pipe.
4. Defective joints shall be cut out and replaced at no cost to the District. Any section of the pipe with a gash, blister, abrasion, nick, scar or other deleterious fault greater in depth than ten percent (10%) of the wall thickness, shall not be used and shall be removed from the site. However, a defective area of the pipe may be cut out and the joint fused in accordance with the procedures stated above. In addition, any section of the pipe having other defects such as concentrated ridges, discoloration, excessive spot roughness, pitting, variable wall thickness or any other defect of manufacturing or handling as determined by the Engineer and/or his representative, shall not be used and shall be removed from the site.
5. The installed pipe shall be allowed the manufacturer's recommended amount of time, but not less than twenty-four (24) hours, for cooling and relaxation due to tensile stressing prior to connection of sewer lines, sealing of the annulus or backfilling of manholes. Sufficient excess length of new pipe, but not less than six (6) inches, shall be allowed to protrude into the manhole.
6. Following the relaxation period, the annular space may be sealed. Sealing shall be made with material approved by the District and shall extend a minimum of eight (8) inches into the manhole wall in such a manner as to form a smooth, uniform, watertight joint.

SECTION 10: OPEN TRENCH CONSTRUCTION METHODS

10.1 STANDARD SPECIFICATIONS

Standard Specifications shall be the "Standard Specifications for Public Works Construction" (Greenbook), latest edition.

Caltrans Specifications govern pavement materials and methods; and pavement delineation and markings in public road right-of-ways. See Section 8.6 for traffic control requirements.

10.2 TRENCH EXCAVATION

Trench Excavation shall conform to Section 306-1.1, "Trench Excavation", of the Standard Specifications.

The Contractor shall furnish all tools, equipment and supplies, and shall perform all labor necessary in connection with all earthwork and incidental appurtenant work, complete, as specified herein and as indicated on approved drawings.

The work of this section includes all earthwork operations necessary to excavate trenches for pipe and appurtenances, excavation for structures and foundations, all as indicated on the drawings and specified herein. Excavated material shall be immediately placed in trucks and removed from the site. Stockpiling material is not allowed.

All paved surfaces to be removed for excavation shall be neatly saw cut in straight lines to the limits of surface removal. Saw cuts in asphalt concrete pavement shall have a minimum depth of 3 inches. Uneven, rough or damaged pavement edges shall be saw cut again to neat, square, straight lines before placing permanent surface restoration.

Where pavement is to be removed near the edge of existing pavements, at least 2 feet of pavement shall be maintained. If 2 feet of pavement cannot be maintained, then all pavement to the edge of the road shall be removed and replaced.

Adjacent Pavement and Improvements

Existing asphalt pavement adjoining concrete improvements to be removed and replaced shall be removed two feet outside of the limits of the concrete improvements to be installed. Concrete or concrete base shall be removed only with specific approval of the Engineer.

Removed asphalt concrete, unsuitable earth materials, debris, loose fill, organic material, roots, and other rubbish shall be removed and disposed of in an approved and legal manner. These materials shall become the property of the Contractor and shall be disposed of off-site at Contractor's expense in accordance with applicable laws and regulations.

Trenches excavated to depths exceeding 5 feet shall be shored in accordance with the CAL/OSHA Trench Construction Safety Orders of the Division of Industrial Safety requirements.

The bottom of the trench shall be graded and prepared to provide a firm and uniform bearing throughout the entire length of the pipe barrel. Suitable excavations shall be made to receive the bell of the pipe and the joint shall not bear upon the bottom of the trench. All adjustment to line and grade shall be made by excavating or filling with gravel bedding material under the body of the pipe and not by wedging or blocking.

If the trench is excavated below the required grade, the part of the trench excavated below grade shall be corrected by filling with bedding materials as specified herein at no additional cost to the Owner. Bedding material shall be placed over the full width of trench in compacted layers not exceeding 6 inches in depth to the established grade with allowance for the pipe base.

When subgrade is encountered that, in the opinion of the District, is unsuitable for pipe support, the District may order the excavation to be carried to an approved depth below the bottom of the pipe and backfilled with crushed aggregate, or an engineered stabilization method, to the lines and grades shown on the plans and/or specified by the District. Excess and unsuitable fill materials shall be disposed of at an appropriate location secured by the Contractor at his expense.

The minimum width of the trench at the top of the pipe zone shall be the outside diameter of the pipe plus sixteen (16) inches plus the thickness of required shoring and bracing.

The minimum trench width for service connection piping may be reduced to three times the outside diameter of the service pipe. This reduced requirement shall be used from the outside of the main trench near the wye or service connection at the main line to the point of connection to the existing service.

Minimum separation distances and requirements between water and sewer pipes shall be as established by the State of California Department of Health Services.

The maximum width at the top of the trench will not be limited, except where excess width of excavation would cause damage to adjacent structures or property. Slope trench walls or provide shoring and sheeting as required for construction and safety.

Open trenches during non-construction hours are not allowed unless specifically authorized by the District. Where trench walls and adjacent soils are sufficiently stable for the use of plate bridging, the Contractor may use steel traffic plates to cover open trenches during non-construction hours. Plate bridging shall be accomplished in accordance with the State of California Department of Transportation "Manual of Traffic Controls – For Construction and Maintenance – Work Zones", latest edition. The plates shall extend a minimum of 12 inches beyond the edge of the trench. The plate edges shall have a minimum 4-inch premixed asphalt concrete grade transition. Trench plates placed by the Contractor in the traveled way (both vehicular and pedestrian) shall have a slip resistant surface.

10.3 TRENCH STABILIZATION

Where unstable, spongy, or otherwise unsuitable foundation soils are encountered they shall be removed to firm soils and replaced with compacted bedding material.

10.4 HANDLING AND TRANSPORTATION OF PIPE

During loading, transportation, unloading, storage, and laying, every precaution shall be taken to prevent damage to the pipe, linings, and coatings. Pipe that is damaged shall be removed from the site of the work and replaced.

Heavy canvas or nylon slings of suitable strength shall be used for lifting and supporting materials. Chains, cables or other products that may cause damage to the pipe shall not be used to handle the pipe.

Pipe gaskets shall be stored in a cool, well ventilated place and not exposed to direct sunlight. Do not allow contact with oils, fuels, petroleum, or solvents. Do not reuse gaskets when joints are disassembled and refitted.

10.5 PIPE PREPARATION AND HANDLING

Except as approved by the District, do not distribute pipe to the job more than 3 days prior to installation. Material shall be stored in a manner that will not be a hazard to the public or to traffic, will not obstruct access to adjacent property, and will not obstruct other Contractors' working in the area.

Each pipe and fitting shall be carefully inspected before being installed. Any pipe which is, in the opinion of the District, damaged shall not be used and shall be promptly removed from the site. Wipe the joints of the pipe, fittings, and appurtenances clean of all dirt, grease, and foreign matter before the pipe is lowered into trench.

Use proper implements, tools, and facilities for the safe and proper protection of the pipe. Carefully handle pipe in such a manner as to avoid any physical damage to the pipe. Do not drop or dump pipe into trenches under any circumstances.

10.6 PREPARATION OF TRENCH

Pipelines shall be installed to line and grade per the Surveyor's cut sheets. Pipelines intended to be straight shall be so installed.

At the location of each joint, dig bell (joint) holes of ample dimensions in the bottom of the trench and at the sides where necessary to permit the joint to be made properly and to permit easy visual inspection of the entire joint and checking of the gasket with a feeler gauge as applicable.

Do not lay pipe in water, on unstable subgrade, or when, in the opinion of the District, trench conditions are unsuitable.

10.7 LAYING BURIED PIPE

All pipe, fittings, and appurtenances shall be installed in accordance with the manufacturer's instructions and these specifications. No pipe shall be directly jacked into place unless specifically designated.

All buried pipe shall be prepared as hereinbefore specified and shall be laid on the prepared crushed rock base and bedded to ensure uniform bearing. After each section is jointed, place pipe zone material under and along sides of the pipe to prevent movement and to ensure uniform support. Follow pipe laying operations closely with backfilling of the trenches with sufficient material to prevent the pipe from moving. Take precautions necessary to prevent the "uplift" or floating of the line prior to the completion of the backfilling operation.

Wherever it is necessary to deflect pipe from a straight line, either in the vertical or horizontal plane, do not exceed 75 percent of the amount of joint deflection recommended by the pipe, fitting, or coupling manufacturer and as approved by the District.

Foreign material shall not be allowed to enter the pipe while it is being placed in the trench. When laying operations are not in progress, whenever workmen are absent from the job and at the end of the work day, close and block the open end of the last laid section of pipe with a watertight plug to prevent entry of animals, foreign material or creep of the gasket joints. End closure shall be sufficient to prevent trench water from entering pipe. Keep water out of the trench.

10.8 REQUIREMENT FOR PIPE COVER

Sewers shall be installed at a depth that will provide suitable service to the properties connected and will allow subsequent installation of water lines in accordance with the water Sewer Separation requirements with a minimum of special construction.

The sewer main shall have a minimum of five feet (5') of cover from the top of the pipe to the flow line of the existing or proposed gutter, or where no gutter exists from the outer most edge of the traveled way.

Service laterals shall be installed at a minimum depth to provide a connection to any point on the lot within the established building setback lines, to allow for a minimum pipe slope of 2 percent and with a minimum cover of 2 feet (2') to the top of the pipe.

10.9 STRUCTURE BACKFILL

Attention is directed to Section 300-3, "Structure Excavation and Backfill", of the Standard Specifications and these Provisions.

Backfilling shall not begin until construction below finish grade has been approved, forms removed, and the excavation cleaned of trash and debris. Backfill shall be placed symmetrically around structures to prevent eccentric loading upon or against said structures. Backfill shall be compacted in lifts no greater than 8 inches deep and brought to finished grade.

10.10 TRENCH BACKFILL

Attention is directed to Section 306-1.2.1, " Bedding", and Section 306.1.3, "Backfill and Densification", of the Standard Specifications, County of Santa Barbara Public Works Department Standard Details 1-020 and 1-030, approved drawings and these provisions.

During the process of laying pipe in trenches, sufficient bedding material, as described herein, shall be carefully placed and tamped about the pipe to hold it firmly to established line and grade. Oversize material, trash, debris, broken rock or shale, if encountered, shall not be used for backfill.

All backfill material, above the pipe zone, shall be deposited in horizontal layers as specified herein. The distribution of materials shall be such that all material following compaction and consolidation will form a homogeneous mass free of voids, pockets, streaks or other imperfections. Backfill material shall conform to authorizing City or County agency. Do not backfill over porous, wet, or spongy subgrade.

Native backfill material, above the pipe zone, shall be deposited in horizontal layers as specified herein. The distribution of materials shall be such that all material following compaction and consolidation will form a homogeneous mass free of voids, pockets or other imperfections. Backfilling shall be done with soil free from lumps, hardpan, paving materials, organic matter or other deleterious substances. Oversize material, trash, debris, broken rock or shale, if encountered, shall not be used for backfill.

The compaction of backfill material shall be achieved by mechanical equipment. Optimum moisture content of fill materials shall be maintained to attain required compaction density. Compaction of backfill material for trenches or structures, shall be done to a minimum density of 95% as determined by laboratory procedure prescribed in ASTM D-1557. Jetting of trench backfill shall not be permitted. Surplus fill material shall be removed from site.

Within County of Santa Barbara public right-of-ways: Above the pipe zone and up to 5 feet below the bottom of the asphalt concrete surfacing, the trench shall be backfilled with native material from the trench excavation or with select imported material with a sand equivalent greater than 20 meeting County of Santa Barbara Class I Backfill requirements per the County Standard Detail 1-020.

From 5 feet below the bottom of the asphalt concrete surfacing to the asphalt concrete surfacing shall be one (1) sack cement slurry in accordance with County of Santa Barbara Public Works Department Standard Details 1-020, 1-030 and the Project Drawings.

Prior to placement of surfacing materials, the Owner or Applicant's Geotechnical Engineer shall take compaction tests in any backfill area and at any depth, with the Contractor providing equipment and operator to assist in such test. If any such compaction test fails, the Contractor shall correct such failure and pay for any re-testing that is required. The Owner or Applicant's Geotechnical Engineer shall make as many tests as are required to receive a satisfactory and acceptable job.

END OF SECTION

SECTION 11: INSPECTION AND TESTING

11.1 COMPACTION TEST STANDARDS

The standard test used to define minimum density of compaction work for earthwork shall be ASTM Test Procedure D 1557, unless designated otherwise. Densities shall be expressed as a relative compaction in terms of maximum density obtained in the laboratory by the foregoing standard procedure.

The standard test used to define minimum density of compaction work for crushed aggregate base and crushed rock shall be California Test Method 216. Densities shall be expressed as a relative compaction in terms of maximum density obtained in the laboratory by the foregoing standard procedure.

11.2 TESTING AND CLEANING PIPELINES

Attention is directed to Section 306-1.4, "Testing Pipelines", of the Standard Specifications and these Special Provisions.

The Contractor shall furnish the material, labor, and equipment for making tests for leakage and infiltration of groundwater. Tests shall be made after the sewer trench has been backfilled and before paving. All sections of sewer shall be tested in accordance with the following requirements for leakage and infiltration tests as directed by the Engineer. Each section of pipe line between manholes shall be tested by a low pressure air test. If for some reason an air pressure test is not feasible a water infiltration test will be used.

The Contractor may perform any preliminary tests desired which are not harmful to the pipelines before backfilling is completed. Before final tests are performed for acceptance of any sewer the pipe shall be cleaned.

11.2.1 AIR PRESSURE TEST

Attention is directed to Section 306-1.4.4, "Air Pressure Test", of the Standard Specifications, and the District Standards.

The Contractor shall furnish all materials, equipment and labor for conducting an air test. The final acceptance test shall be done in the presence of a District Representative.

1. Air shall be introduced into pipeline until 3.0 psi gage pressure is reached.
2. Maintain internal air pressure between 2.5 and 3.5 psi gage pressure for at least 2 minutes. Pressure in the pipeline shall not be allowed to exceed 5 psi gage pressure. The pipeline pressure shall be constantly monitored. The gage and hose arrangement shall be separate from the hose used to introduce air into the pipe.
3. Air pressure shall be reduced to 2.5 psi gage pressure. A stop watch shall be used to determine the elapsed time for the pressure to drop from 2.5 psi to 1.5 psi gage pressure.

4. If elapsed time is less than that shown in the following table, the Contractor shall make necessary corrections to the pipeline and retest until satisfactory.

Air Test Chart

Diameter of Pipe (inches)	Length of Pipe (Feet)	Allotted Test Minutes
4	All	2
6	0 to 300	2
6	300 to 370	2.5
6	370 and greater	3
8	0 to 170	2
8	170 to 210	2.5
8	210 to 250	3
8	250 to 290	3.5
8	290 and greater	3.75
10	0 to 110	2
10	110 to 165	3
10	165 to 215	4
10	215 and greater	4.75
12	0 to 115	3
12	115 to 155	4
12	155 to 190	5
12	190 and greater	6
15	0 to 120	5
15	120 to 165	7
15	165 and Greater	15
18-30	All	15

11.2.2 WATER INFILTRATION TEST

Attention is directed to Section 306-1.4.3, "Water Infiltration Test", of the Standard Specifications and the District Standards.

The Contractor shall furnish all materials, equipment and labor for conducting a water infiltration test. The final acceptance test shall be done in the presence of a District Representative.

If, in the construction of a section of the sewer between any two structures, excessive groundwater is encountered, a test for exfiltration test for leakage shall not be used, but instead the end of the sewer at the upper structure shall be closed sufficiently to prevent the entrance of water, and the pumping of the groundwater shall be discontinued for at least three (3) days after which the amount of water intercepted at the structure below the plugged end of the sewer shall not exceed two-tenths (0.2) gallon per minute per inch of nominal diameter of pipe per thousand feet of length of sewer being tested. The length of house connections shall not be used in computing the length of sewer main being tested.

If the leakage or infiltration, as shown by the tests, is greater than the amount specified, the pipe shall be overhauled and re-laid, if necessary, by the Contractor, at their expense, until the leakage is reduced satisfactorily.

Regardless of the results of the above tests, any visible evidence of individual leaks shall be corrected by the Contractor to the satisfaction of the Engineer.

After backfilling and compaction testing is completed, sewer lines shall be balled, flushed and cleaned, before acceptance by the District and connection to the sewer system.

The Contractor shall furnish all sewer line plugs necessary for blocking off all lines as required by the Engineer until final acceptance.

11.2.3 DEFLECTION TESTING

The Contractor shall furnish a mandrel and other required apparatus, and personnel for conducting a mandrel test under the direction and supervision of the Inspector. The mandrel shall have an odd number of webs (minimum of nine), and measure pipe deflection not greater than five percent (5%) of the pipe diameter. The mandrel shall be supplied by the pipe manufacturer.

11.3 PIPE CLEANING

All installed sewer mains and trunks shall be cleaned, as required by the Inspector, with a hydraulic jet-rodder with spinning nozzle or by the balling method, as approved by the District, in accordance with the manufacturer's instructions and recommendations. Screens used for trapping debris shall be approved by the District and secured with a nylon rope. Cleaning, including screen installation and removal, shall be done in the presence of the Inspector.

11.4 CCTV INSPECTIONS OF SEWER PIPES

Attention is directed to Section 500-1.1.5, "Television Inspection", of the Standard Specifications. All new sewer mains and trunks installed shall be inspected by close circuit television (CCTV) from center of manhole to center of manhole. CCTV recordings shall be in color on a DVD and have audio and text comments and clearly legible footage readings. Prior to the acceptance of sewer pipe(s), the Contractor shall provide DVD video inspection records of the new sewer pipe. Television Inspection shall be made after the construction of the system is completed and shall follow the sequence from the upstream end to the downstream end of the project. No splicing allowed!

The inspection shall be conducted in the presence of the District or their authorized representative. The CCTV inspection shall be performed while the upstream lines are plugged or bypassed. The line shall be dry except for flow from the laterals in the section of line being televised. Prior to camera inspection, water shall be flushed through the pipe being inspected to make low points easier to detect. Additionally, during camera inspection, if pipe sags are apparent, the District may require flowing water through the pipe. The rate of flow shall be as required by the District Representative.

CCTV inspection shall be performed utilizing a rotating lens video camera system. The video inspection and recording performed with this camera shall stop at each lateral and the head shall be rotated to look up the lateral to identify potential defects. Defects shall also be closely inspected by rotating the camera head for close-up view.

Log sheets indicating date of inspection, location of services, upstream manhole and down stream manhole, direction of view, pipeline length, and all found defects shall be kept during

inspection. DVDs shall be numbered and marked with the location of the inspection. DVDs shall become the property of the District once inspection is complete.

The camera shall be equipped with a remote reading footage counter and shall be checked and calibrated, if required, before inspection begins. Camera runs shall start from the center of the upstream manhole of the pipe being inspected and shall be pulled through at a speed that allows a close of inspection and shall not exceed 20 feet per minute. The Camera shall be in focus and display a clear view of the pipe on the field monitor. The inspection shall end at the center of the downstream manhole of the pipe being inspected.

11.5 MANHOLE VACUUM TEST

The Contractor shall perform a vacuum leak test on all new sewer manholes after assembly and before backfill. The Contractor shall furnish all materials, equipment and labor for conducting a vacuum test. The test shall be done in the presence of a District Representative.

Pipes entering the manhole shall be plugged and braced to prevent movement of the plug during testing. The vacuum apparatus shall be connected to the manhole frame. A positive seal between the manhole and the vacuum base shall be established. The test gauge shall be placed at the top of the manhole in accordance with the manufacturer's recommendations.

A vacuum of ten inches of mercury shall be drawn on the manhole, the valve on the vacuum line of the test head closed and the vacuum pump shut off. The time shall be measured for the mercury to drop from ten inches to nine inches of mercury. The manhole shall pass if the time it takes the mercury to drop one inch is more than 60 seconds for a four-foot manhole or more than 75 seconds for a five foot-manhole. If manhole fails, Contractor shall make necessary repairs and retested until a satisfactory test is obtained.

If gaskets are displaced during testing the manhole shall be dismantled and the gasket(s) shall be replaced with new gaskets.

<u>Depth of Manhole</u> <u>(feet)</u>	<u>Diameter of Manhole (feet)</u>		
	4	5	6
Up to 8	20	26	33
10	25	33	41
12	30	39	49
14	35	46	57
16	40	52	67
18	45	59	73
20	50	65	81
22	55	72	89
24	59	78	97
26	64	85	105
28	69	91	113
30+	74	98	121

11.6 TEST RECORDS

Records shall be made of each pipe system test. These records shall include:

- Date of test.
- Location, description and identification of pipe or structure tested.
- Test fluid/medium.
- Test pressure.
- Remarks to include such items as: Leaks (type, location, etc.). Repairs made on leaks.
- Certification by Contractor and signed acknowledgment by Inspector/Engineer.

END OF SECTION

SECTION 12: MANHOLE REHABILITATION

12.1 REQUIREMENTS

Attention is directed to Section 500-2, "Manhole and Structure Rehabilitation," of the Standard Specifications. Manhole rehabilitation shall conform to section 500-2 of the Standard Specifications and its supplements except as modified herein.

The Contractor shall select one of the lining systems listed below to rehabilitate manhole interior concrete or brick surfaces.

1. Air-Place Concrete and Polyurethane Protective Lining Manhole Rehabilitation shall comply with Subsection 500-2.4 of the Standard Specification for Public Works Construction.
2. Air-Place Concrete and Epoxy (100% Solids) Protective Lining Manhole Rehabilitation shall comply with Subsection 500-2.4 of the Standard Specification for Public Works Construction.
3. Cured-In-Place Fiberglass Manhole Liner System in accordance with these Section 12.7.

Verification of product conformance with these requirements shall be submitted to the District.

12.2 WARRANTY

Manufacturer shall warrant all work against defects in materials and workmanship for a period of five (5) years from the date of final acceptance of the project. Manufacturer shall, within a reasonable time after receipt of written notice, repair defects in materials and workmanship within said five (5) year period. Any damage to other work caused by such defects or the repairing of same, shall be at the Contractor's expense and without cost to the District.

12.3 GENERAL

Attention is directed to Section 500-2.1.1, "General" of the Standard Specifications.

Add: Channel And Shelf Rebuilding. Where indicated on the Plans, channel and shelf areas shall be brought back to there original or otherwise specified dimensions using concrete mortar. Shelves shall be hand troweled to provide a smooth and uniform width channel.

12.4 PRE-INSPECTION AND SURFACE PREPARATION

Prior to commencing any work, the Contractor shall inspect and verify all dimensions and the locations and number of all sewer connections entering each manhole, and examine the condition of the existing manholes. Any areas of apparent structural damage shall be reported to the District. For cured-in-place fiberglass manhole liner systems outside dimensions of the reinforcing fabric shall be properly sized to allow for stretch to fit the contour and shape of the interior of the manhole.

Attention is directed to Section 500-2.4.2, "Cleaning" of the Standard Specifications. All surfaces to be lined shall be cleaned by water blasting to remove all loose deteriorated

concrete, dirt, grease, sand and other foreign matter. High-pressure water blast shall be at pressures between 5,000-psi minimum to 10,000 psi maximum. All materials generated by preparation of surfaces shall be trapped and collected for disposal off site; no materials will be allowed to enter the sewer at any time. If a degreasing compound is used, the surface shall be thoroughly rinsed prior to the installation of the lining system.

All voids and spalled areas shall be filled and patched to provide a relatively smooth surface. The cementitious patching/plugging compound shall be a high strength, non-shrink grout approved by the District. All sewer pipes protruding into the manhole shall be cut flush with the interior manhole wall or brought flush with the manhole wall using hydraulic cement and fiberglass, per the manufacturer's recommendation.

All unused stubs shall be bulkheaded and mortared smooth and flush with the interior of the manhole wall. Pull rings shall be left in place and sealed with resin (and fiberglass for CIPP). Other obstructions, including manhole steps, shall be cut flush with the interior manhole wall. After surface preparation and prior to concrete repair, the Contractor shall stop all infiltration in the existing structure. Infiltration in existing structures shall be stopped by injection of chemical grout. Grout shall be installed per the manufacturer's recommendations.

12.5 INSTALLATION

Installation of the lining system shall be performed by a licensed contractor certified by the manufacturer to install their system. Unless otherwise shown on the Plans, limits of the lining shall extend from the manhole frame down to 3" below the low water level in the channel.

Installation of the lining system shall be scheduled and coordinated with the sewer replacement work. Installation of manhole lining system shall be scheduled after the sewer pipe and frames are installed.

The completed product shall be a permanent, monolithic, smooth, impervious liner shaped to the interior of the manhole. The lined manhole shall be completely water tight and free of any joints or openings other than pipe inlets, pipe outlets and the rim opening. All defective areas and imperfections including, but not limited to poor adhesion, voids and air bubbles shall be repaired in strict conformance with the recommendation of the manufacturer and subject to the approval of the Engineer.

12.6 SUBMITTALS

The Contractor shall submit a complete manhole rehabilitation submittal to the District for review and approval. The submittal shall include, but shall not be limited to the following:

1. Name of the manufacturer and product data including material safety data sheets, certifications of materials, and the physical properties and chemical resistance testing of the resin or epoxy system.
2. Name of the manufacturer and product data including the material safety data sheets for the patching/plugging compound and the chemical grout, if infiltration exists.
3. Plan of construction including schedule, equipment setup, inspection, preparation, cleaning, and complete installation procedures and details.
4. Qualifications of the installer including certification by the manufacturer.

12.7 CURED-IN-PLACE FIBERGLASS MANHOLE LINING SYSTEM

12.7.1 MATERIALS

The lining system shall be suitable for continuous service in sewerage environments with 1N sulfuric acid at an average wastewater temperature of 80 degrees F and intermittent exposure to a pH of 11. The lining system shall consist of a 4-ply fiberglass reinforcing fabric impregnated with a modified epoxy resin system with a minimum cured wall thickness of 90 mils. The fiberglass fabric shall be layered product of Type E glass stitched with chopped strand and bound with styrene-soluble binder. The surfacing veil shall be woven and made of Type E glass with volan finish and styrene-soluble binder. The modified epoxy resin shall be a two components resin/mastic system cross-linked with a modified polyamide-curing agent.

12.7.2 INSTALLATION

The reinforcing fabric shall be saturated with the properly mixed resin system and lowered into the manhole and secured in place. The liner system shall be inflated with air pressure to fit the interior of the manhole and allowed to cure under suitable heat and controlled temperature. After curing and after an adequate cool down period, the lining system shall be cut and trimmed with all services restored. The perimeter of the system shall be fully sealed with compatible resin and fiberglass to form a structurally sound and vapor tight joint with the liner pipe and the lined sewer. The completed product shall be a permanent, monolithic, lined and impervious structure shaped to the interior of the manhole. The lined manhole shall be completely water tight and free of any joints or openings other than pipe inlets, pipe outlets and the rim opening. All defective areas and imperfections including, but not limited to poor adhesion, excessive voids, air bubbles, and exposed glass shall be repaired in strict conformance with the recommendation of the manufacturer and subject to the approval of the District.

12.8 TESTING AND INSPECTION

12.8.1 THICKNESS TESTING

During application of coatings a wet film thickness gage meeting ASTM D4414 – "Standard Practice for Measurement of Wet Film Organic Coatings by notched Gages", shall be used to ensure a monolithic coating and uniform thickness during application.

12.8.2 HOLIDAY TESTING

Attention is directed to Section 500-2.4.8, "Spark Test" of the Standard Specifications.

The finished liner will be spark tested for pinholes with a spark tester set at 15,000 volts minimum. All areas in question shall be marked and patched. Patched areas shall be retested with the spark tester set at 15,000 volts minimum.

12.8.3 BOND STRENGTH TESTING

Measurement of bond strength of the protective coating to the substrate shall be made at regular intervals, as directed by the District Inspector, a minimum of one test per five manholes. Bond strength shall be measured in accordance with ASTM D-4541. Passing criteria shall be a pull resulting in concrete failure, with concrete visibly bonded to the test section of coating material. Areas detected to have inadequate bond strength shall be evaluated by the District.

Further bond tests may be required to determine the extent of potentially deficient bonded areas. Repairs shall be made in strict conformance with the manufacturer's recommendations. Tested areas shall be patched and spark tested.

END OF SECTION

SECTION 13: BORING AND JACKING

13.1 GENERAL

Bore and jacking operations shall conform to Section 306-2, "Jacking Operations", of the Standard Specifications and these Special Provisions.

Prior to tunneling or boring and jacking operations, existing utilities being crossed shall be potholed and surveyed to determine their actual depths. The District shall receive a copy of all permits for facilities to be installed within other agencies' jurisdictions or right-of-ways, including but not limited to Caltrans, UPRR, City of Goleta, City of Santa Barbara and the County of Santa Barbara.

Within public right-of-ways, prior to beginning the bore and jack operations, a survey grid shall be established along the centerline of the pipeline alignment and up to 30 feet on either side at 10-foot increments or as required by encroachment permits. The grid shall be surveyed prior to bore and jack operations and shall be monitored throughout the casing installation to detect differential settlement.

Upon completion of jacking operations, all voids around the outside face of the casing pipe shall be filled by grouting.

13.2 BORE AND RECEIVING PITS

Bore and receiving pits shall be shown on the Plans. Pits shall be adequately fenced and/or have a Type K barrier placed around them. Pits shall be shored in accordance with Cal-OSHA requirements. Shoring for pits located within 15 feet of travel lanes shall not extend more than 36-inches above the pavement grade. A 6-foot chain link fence shall be installed around the perimeter of the pits during non-working hours.

All pits shall have crushed-rock and sump areas to clear groundwater and construction water. In areas where groundwater is found and pumping is required, the pits shall be lined with filter fabric.

All bore pit repair shall comply with the requirements for bedding, backfill, compaction and pavement surfacing repair for trenching.

13.3 CASING PIPE

Steel casing pipe shall be welded steel pipe of the diameters and thicknesses shown on the Plans. Casing inside diameter shall be a minimum of twice the outside diameter of the carrier pipe to be installed within the casing, but in no case shall the annular space between the carrier and casing pipes be less than 4 inches.

Steel pipe casings shall conform to AWWA C200. Steel shall be ASTM A36 or ASTM A570, Grade 36 and have a minimum yield strength of 36,000 psi. Casing pipe shall be fabricated in sections for welded field joints. Field joints shall be welded butt joints. Each end of the casing for butt welding shall be prepared by providing ¼ inch by 45 degree chamfer on the outside edges. All casing lengths shall equal the auger length. Spiral weld casing will not be allowed. The Contractor shall provide grout connections as shown on the Drawings.

The minimum wall thickness shall be as shown on the Plans. The casing pipe minimum thickness shown on the Drawings is what is required by the District. Contractor shall be responsible for increasing the thickness as necessary for the bore and jack operation. Solely at the Contractor's expense and with the prior approval of the Engineer, casings of a larger diameter than those shown on the Plans may be provided if such a change will facilitate the working methods the Contractor intends to employ.

13.4 PRESSURE GROUTING

Under public roadways and when required by the District or other agency having jurisdiction, the Contractor shall pressure grout the area between the pavement and the casing from within the casing in order to fill any voids caused by the bore and jack installation. Grouting pressure shall not exceed 5 psig for a duration sufficient to fill all voids.

13.5 CARRIER PIPE INSTALLATION

The carrier pipe installed within the casing shall be installed with casing spacers as shown on the drawings and, when required by the District, with restrained joints. The contractor shall install pipe, restrained joints and casing spacers per manufacturer's recommendations.

The annular space between the casing and carrier pipe shall not be filled.

13.6 CASING SPACERS

Casing spacers shall be prefabricated and shall be centered and restrained. Casing spacers shall be a minimum of 8-inches wide. The spacers shall be located at 8-foot intervals (maximum) along the pipe. A minimum of three spacers shall be installed on each carrier pipe segment. Bolts, nuts, washers and other fasteners shall be type 304 stainless steel. Casing spacers shall be manufactured by Advanced Products & Systems (APS) (Tel: 800-315-6009), Pipeline Seal and Insulator (PSI) (Tel: 800-423-2410) or PowerSeal (Tel: 800-800-0932) or approved equal.

13.7 PIPE JOINT RESTRAINTS

Carrier pipe bell and spigot joints, when required by the District, shall have a joint restraining system to prevent displacement of the pipe ends.

13.8 CASING END SEALS

The ends of the casing pipe shall be sealed to prevent the entrance of foreign material. End seals shall be INNERLYNX as supplied by Advanced Products & Systems (APS) (Tel: 800-315-6009). The end seal shall provide a mechanical water-tight seal between the carrier pipe and casing. The seal shall be the model number recommended by the manufacturer for the size(s) of pipe furnished and approved by the District.

END OF SECTION

SANITARY SEWER STANDARD DRAWINGS

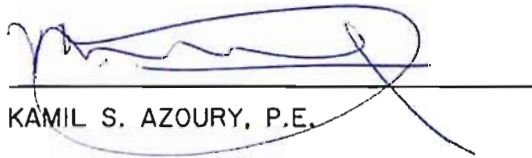
FOR



A PUBLIC AGENCY

PROTECTING PUBLIC HEALTH AND THE ENVIRONMENT

APPROVED BY
GENERAL MANAGER/DISTRICT ENGINEER:



KAMIL S. AZOURY, P.E.

2/1/08
DATE

PLEASE CONTACT THE GOLETA SANITARY DISTRICT
IF YOU HAVE ANY QUESTIONS
ONE WILLIAM MOFFETT PLACE, GOLETA CA, 93117 (805) 967-4519

**STANDARD
DRAWING
NUMBER**

DRAWING TITLE

1	STANDARD PLAN SIZE & LAYOUT
2	SEWER LOCATION IN PUBLIC ROADS
3	SYMBOLS AND ABBREVIATIONS
4	TRENCH BACKFILL REQUIREMENTS
5	CASED CROSSING
6	SIDE SEWER CLEANOUT
7	36" MANHOLE FRAME AND COVER
8	REMOTE AREA MANHOLE JACKET
9	SAMPLING MANHOLE LESS THAN 3' DEEP
10	STANDARD MANHOLE
11	STANDARD DROP MANHOLE
12	MANHOLE FRAME & COVER
13	SAMPLING WELL
14	SAMPLING MANHOLE
15	BACKWATER VALVE
16	WYE INSTALLATION IN EXISTING SEWER MAIN
17	LATERAL SEWER
18	NEW BUILDING AND LATERAL SEWER REQUIRED "AS CONSTRUCTED" LAYOUT DRAWING EXAMPLE
19	WATER-SEWER SEPARATION (TEXT)
20	WATER-SEWER SEPARATION (TEXT)
21	SEWER-WATER SEPARATION (DETAILS)
22	WATER-SEWER SEPARATION (DETAILS)
23	PIPE ANCHORS AND BACKFILL STABILIZERS TYPE 1
24	PIPE ANCHORS AND BACKFILL STABILIZERS TYPE 2
25	SAND INTERCEPTOR/GREASE INTERCEPTOR

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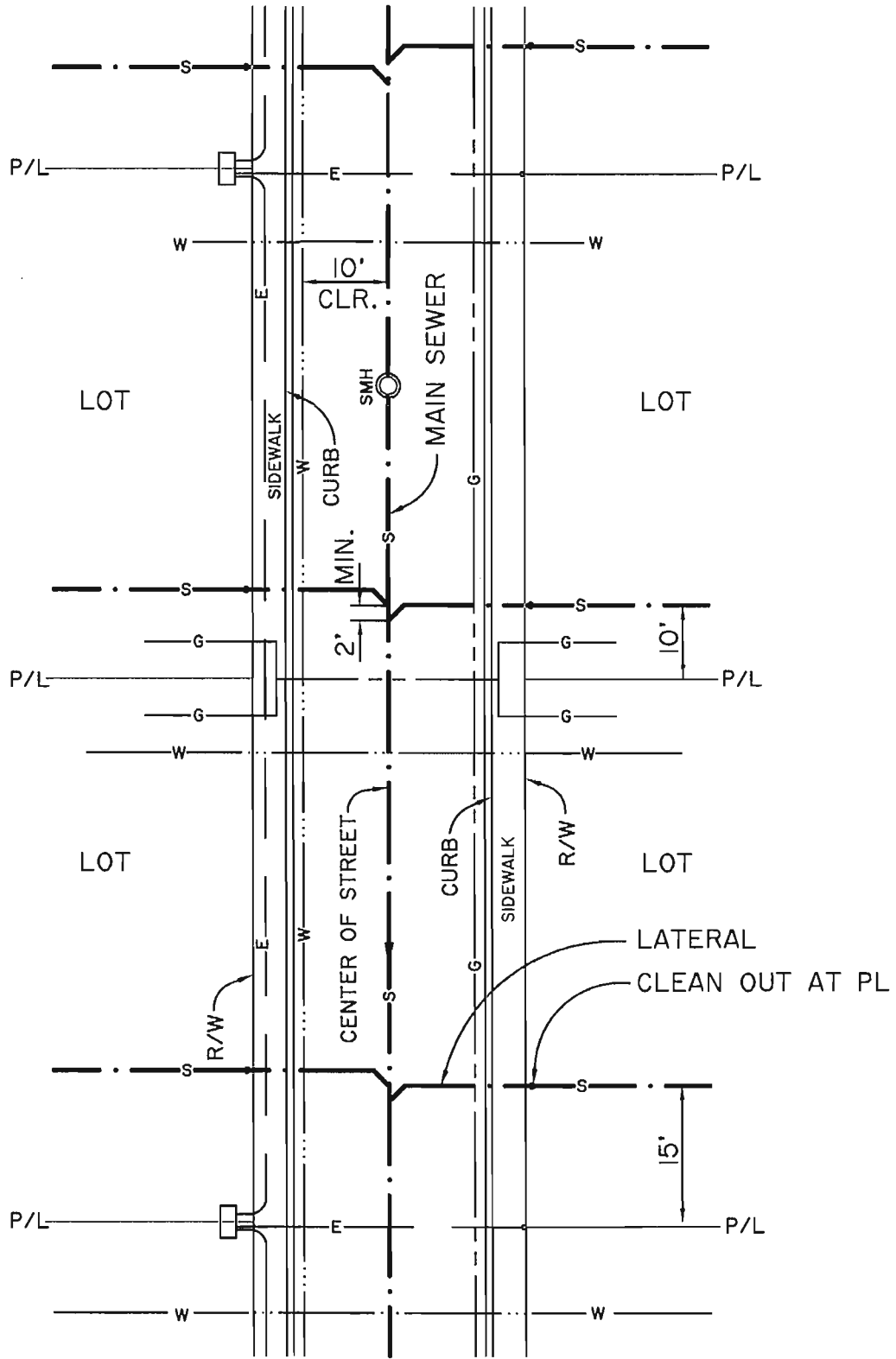


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STANDARD DRAWING INDEX

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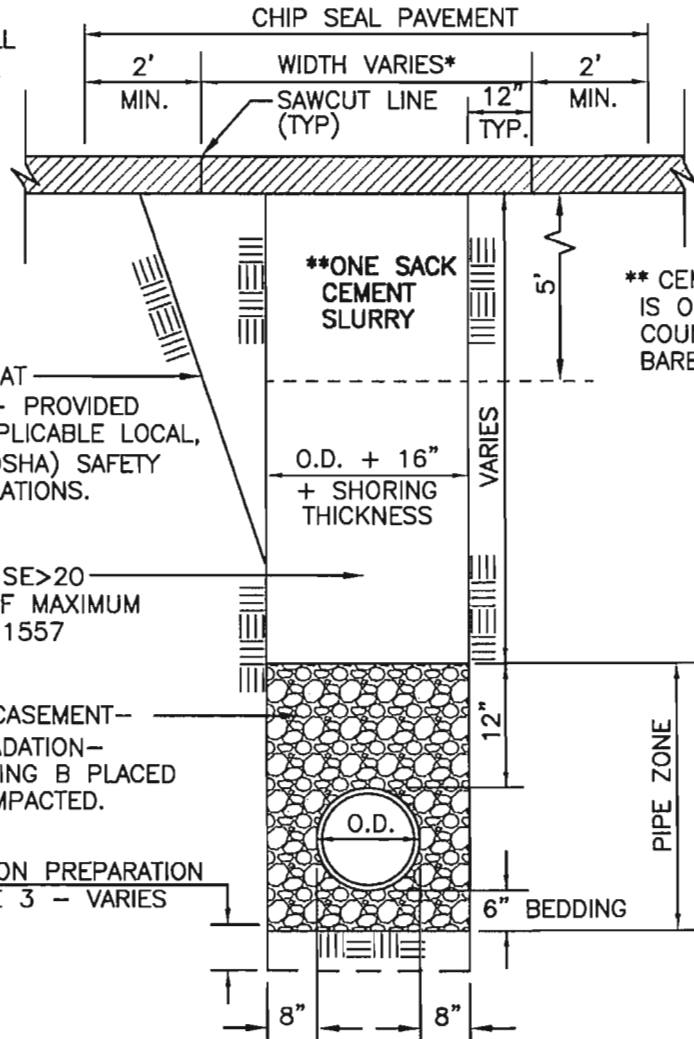
**SEWER LOCATION
IN PUBLIC ROADS**

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NO. 2

*TRENCH RESURFACING SHALL BE A MINIMUM OF 0.5' A.C. PAVEMENT DIRECTLY ON CEMENT SLURRY BACKFILL. SEE NOTE (1)



SLOPE TRENCH WALLS AT CONTRACTOR'S OPTION— PROVIDED THEY COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS.

NATIVE BACKFILL WITH SE>20 COMPACTED TO 95% OF MAXIMUM DENSITY PER ASTM D-1557

PIPE BEDDING AND ENCASEMENT— CRUSHED ROCK 3/4\" GRADATION— ASTM C131 TEST GRADING B PLACED IN THIN LIFTS AND COMPACTED.

FOUNDATION PREPARATION SEE NOTE 3 - VARIES

** CEMENT SLURRY BACKFILL IS ONLY REQUIRED IN COUNTY OF SANTA BARBARA RIGHT OF WAYS.

NOTES

1. THE STRUCTURAL SECTION OF ASPHALTIC CONCRETE REPLACEMENT SHALL BE EQUAL TO THE EXISTING SECTION PLUS 1" OR 6" MINIMUM THICKNESS, WHICHEVER IS GREATER UNLESS OTHERWISE NOTED.
2. COUNTY OF SANTA BARBARA STANDARD DETAILS 1-020 AND 1-030 SHALL SERVE AS GUIDELINES FOR TRENCHING OPERATIONS.
3. FOUNDATION PREPARATION IS REQUIRED WHEN THE TRENCH BOTTOM IS UNSTABLE. REMOVE SOFT, SPONGY OR OTHERWISE UNSUITABLE MATERIAL. OVEREXCAVATION BEYOND 2 FEET REQUIRES ADDITIONAL ENGINEERING. BACKFILL OVEREXCAVATIONS WITH CRUSHED ROCK BEDDING.
4. THE FIRST LIFT SHALL BE WORKED UNDER THE PIPE AND FITTINGS TO ENSURE A COMPLETE AND CONTINUOUS BEARING SURFACE FREE OF VOIDS.
5. BACKFILL MATERIAL AND COMPACTION ABOVE THE "PIPE ZONE" SHALL MEET THE CITY OR COUNTY JURISDICTION'S REQUIREMENTS.

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TRENCH BACKFILL REQUIREMENTS

STANDARD DRAWING

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NO. 4

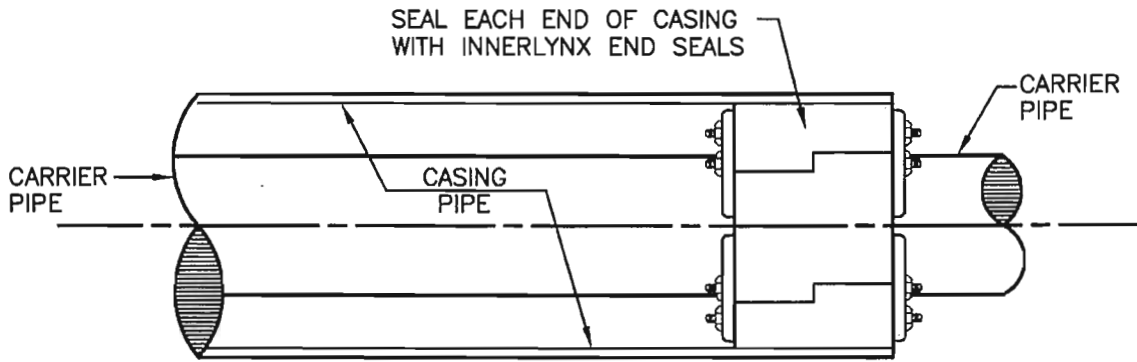


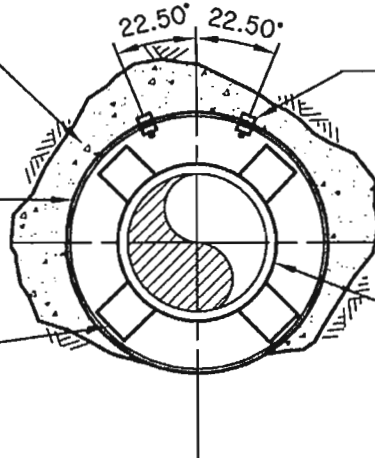
TABLE "A"

STEEL CASING WALL THICKNESS CHART		
MINIMUM THICKNESS		DIAMETER OF CASING PIPE
.2500"	1/4"	12" OR LESS
.3125"	5/16"	OVER 12"-18"
.3750"	3/8"	OVER 18"-22"
.4375"	7/16"	OVER 22"-28"
.5000"	1/2"	OVER 28"-34"
.5625"	9/16"	OVER 34"-42"
.6250"	5/8"	OVER 42"-48"

VOIDS CREATED BY BORING, JACKING OR TUNNELING SHALL BE FILLED BY PRESSURE GROUTING

JACKED STEEL CASING PIPE MINIMUM WALL THICKNESS PER TABLE "A"

PREFABRICATED CASING SPACERS AT 6 TO 8' INTERVALS AND WITHIN 2' OF EACH PIPE JOINT. CASING SPACERS SHALL BE CENTER RESTRAINED.



GROUT COUPLING STAGGERED AT 6' INTERVALS SEE DETAILS ON SHEET 2 OF 3.

CARRIER PIPE, SIZE AND TYPE AS INDICATED ON DRAWINGS.

NOTES

1. CASING PIPE SHALL BE SIZED TO ALLOW A MINIMUM 4" ANNULAR SPACE BETWEEN THE CARRIER PIPE AND CASING PIPE.
2. TABLE "A" IS ONLY FOR SMOOTH STEEL CASING PIPES WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI.

BORED AND JACKED CASED CROSSING

N.T.S.



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CASED CROSSING

STANDARD DRAWING

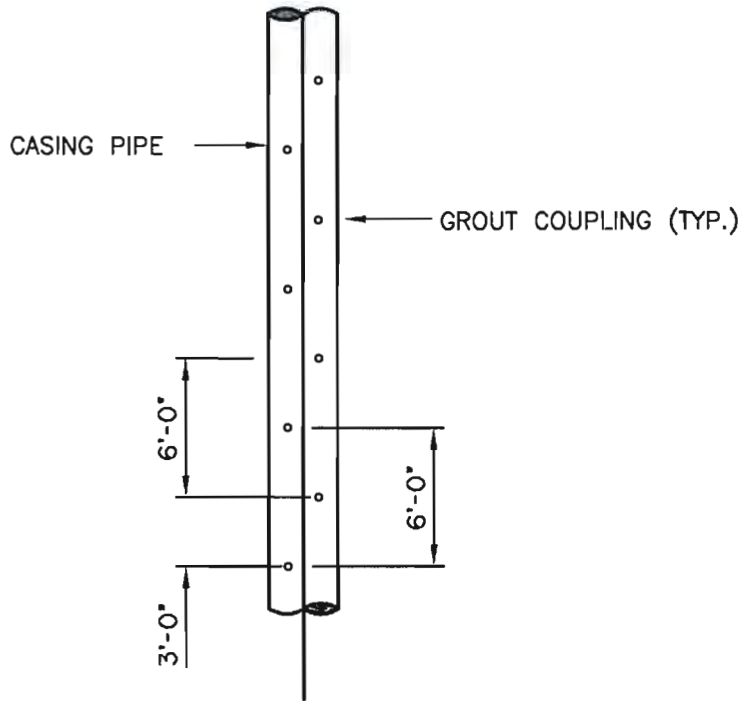
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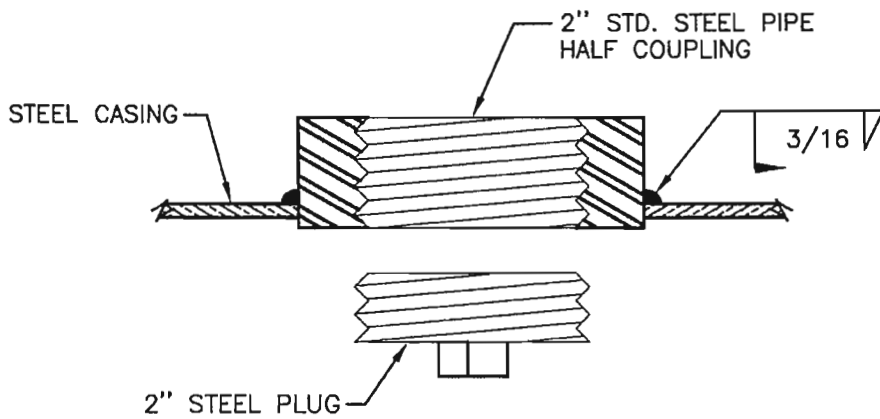
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NO. 5
1 of 3



GROUT COUPLING SPACING
N.T.S.



GROUT COUPLING
N.T.S.

BORED AND JACKED CASED CROSSING

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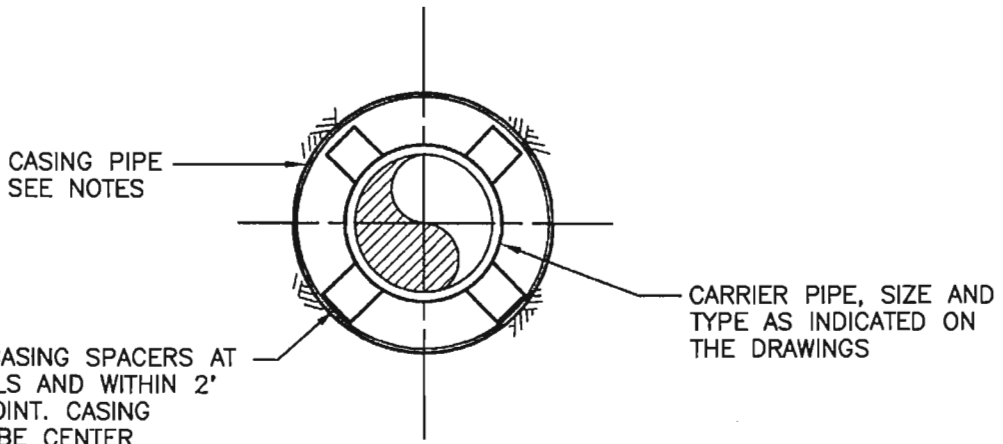
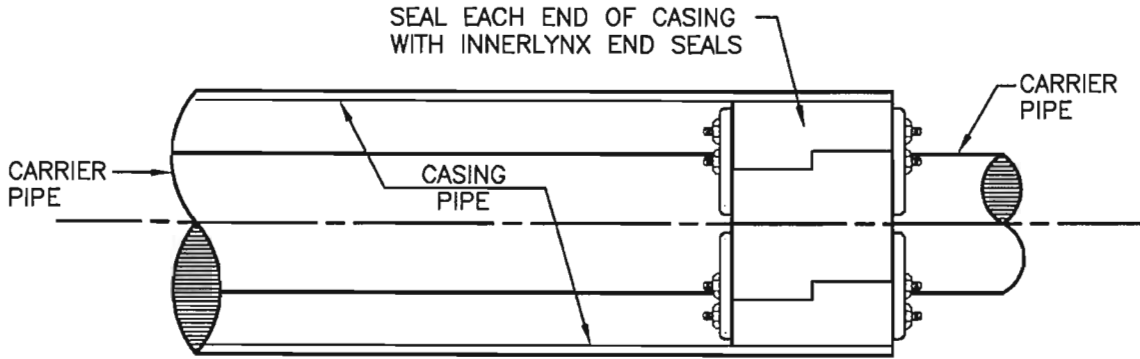
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CASED CROSSING

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REVISIONS	BY	APP	DATE

NO. 5
2 of 3



NOTES

1. CASING PIPE SHALL BE SIZED TO ALLOW A MINIMUM 4" ANNULAR SPACE BETWEEN THE CARRIER PIPE AND CASING.
2. CASING PIPE MAY BE DUCTILE IRON, HDPE (SDR17) OR PVC (C905) AS APPROVED BY THE DISTRICT.

CASED CROSSING INSTALLED BY OPEN CUT

N.T.S.

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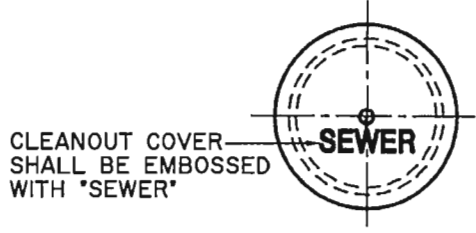
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CASED CROSSING

STANDARD DRAWING

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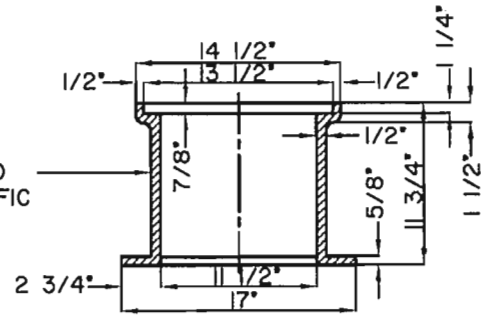
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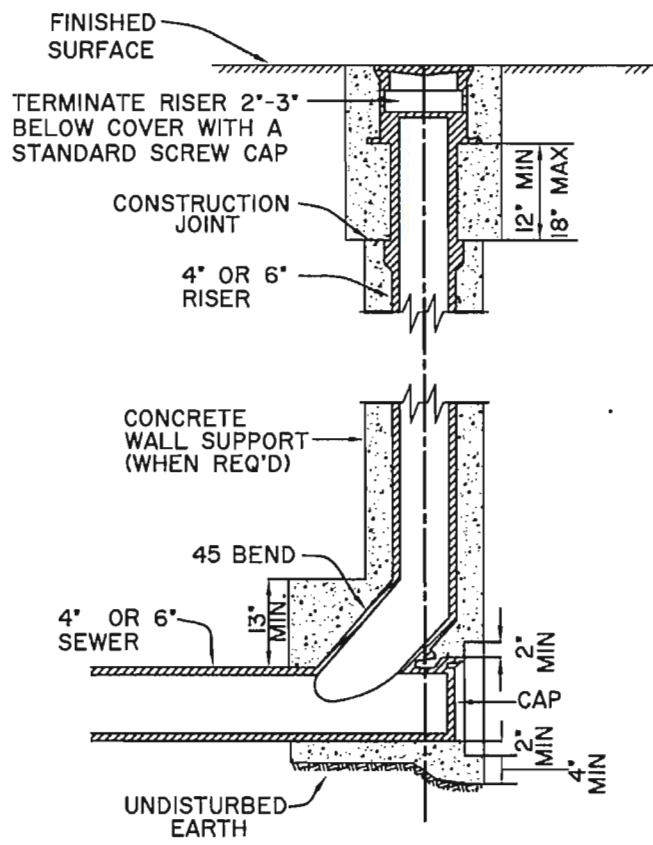
CLEANOUT COVER SHALL BE EMBOSSED WITH "SEWER"

ACCESS COVER

RATED FOR H2O LOADS IN TRAFFIC AREAS



FRAME



SECTION

NOTES

1. SEWER CLEANOUTS SHALL BE LOCATED A MAXIMUM OF EVERY 100 LINEAR FEET ALONG A SEWER LATERAL.
2. SEWER CLEANOUTS SHALL BE LOCATED AT CHANGES IN DIRECTION OF THE LATERAL PIPE INCLUDING FITTINGS AND BENDS.
3. SEWER CLEANOUTS SHALL BE LOCATED WITHIN 18 INCHES OF BUILDING FOUNDATIONS.
4. CLEANOUT SHALL BE PROTECTED WITH A CONCRETE BOX AND A METAL LID EMBOSSED WITH "SEWER" OR A CAST IRON FRAME AND COVER IN TRAFFIC AREAS.
5. IF REQUIRED, CONCRETE FOR BEDDING AND ENCASEMENT SHALL BE CLASS 420-C-2000. THE VERTICAL ENCASEMENT MAY BE EITHER CIRCULAR OR SQUARE AND SHALL BE PLACED UNIFORMLY AROUND THE RISERS TO MAINTAIN PROPER ALIGNMENT.

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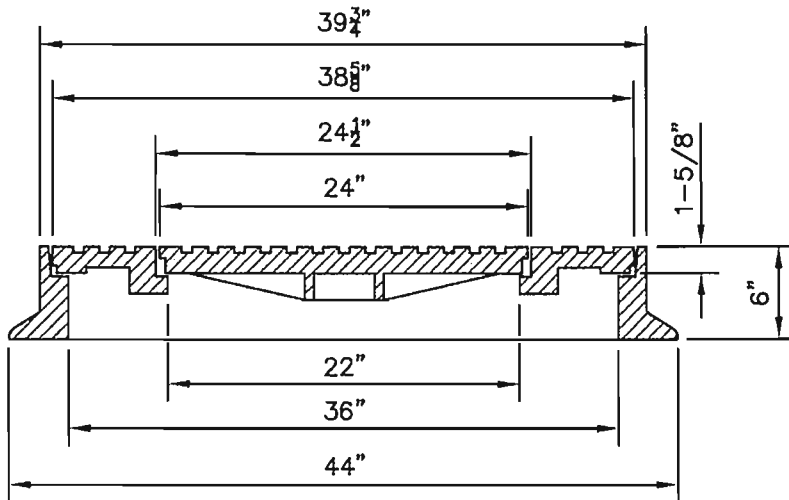
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SIDE SEWER CLEANOUT

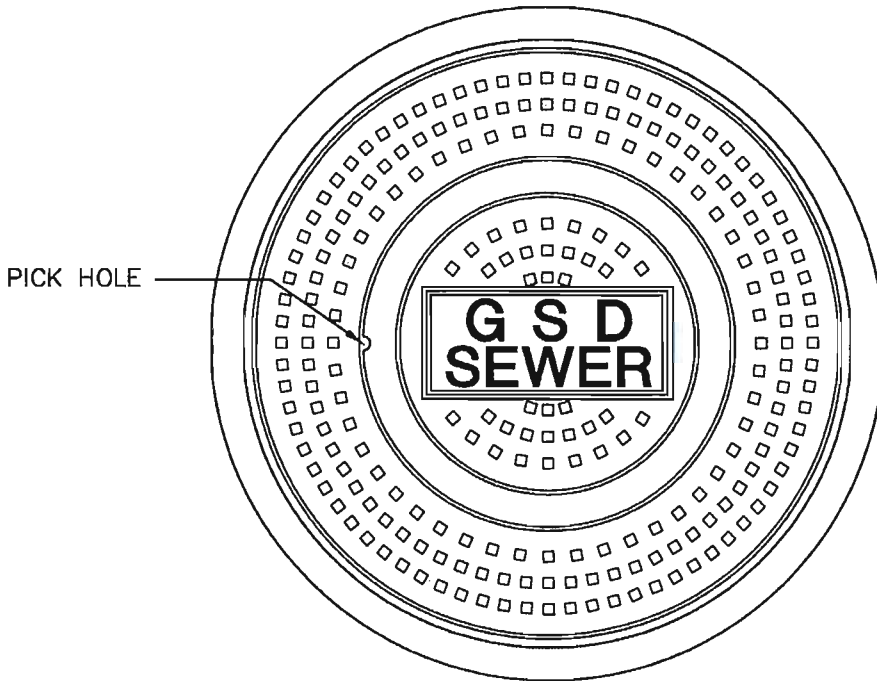
STANDARD DRAWING

REVISIONS	BY	APP	DATE

NO. 6



COVER



FRAME

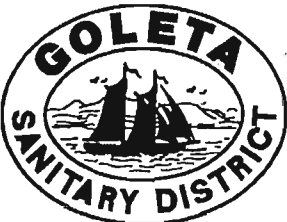
NOTES

1. FRAME AND COVER MATERIALS SHALL CONFORM TO ASTM 48, CLASS 35B.
2. FRAME AND COVER BEARING SURFACES SHALL BE MACHINED TO SEAT UNIFORMLY, WITHOUT ROCKING AND ENSURE A QUIET FIT.
3. CASTINGS SHALL BE DIPPED IN BLACK BITUMINOUS PAINT.
4. FRAME AND COVER SHALL EXCEED H-20 WHEEL LOADING.
5. THE COVER SHALL BE MARKED "GSD SEWER" WITH 2"-3" DIAMETER LETTERS.

MANUFACTURER

SOUTH BAY FOUNDRY
SANTÉE, CA
(619) 956-2780

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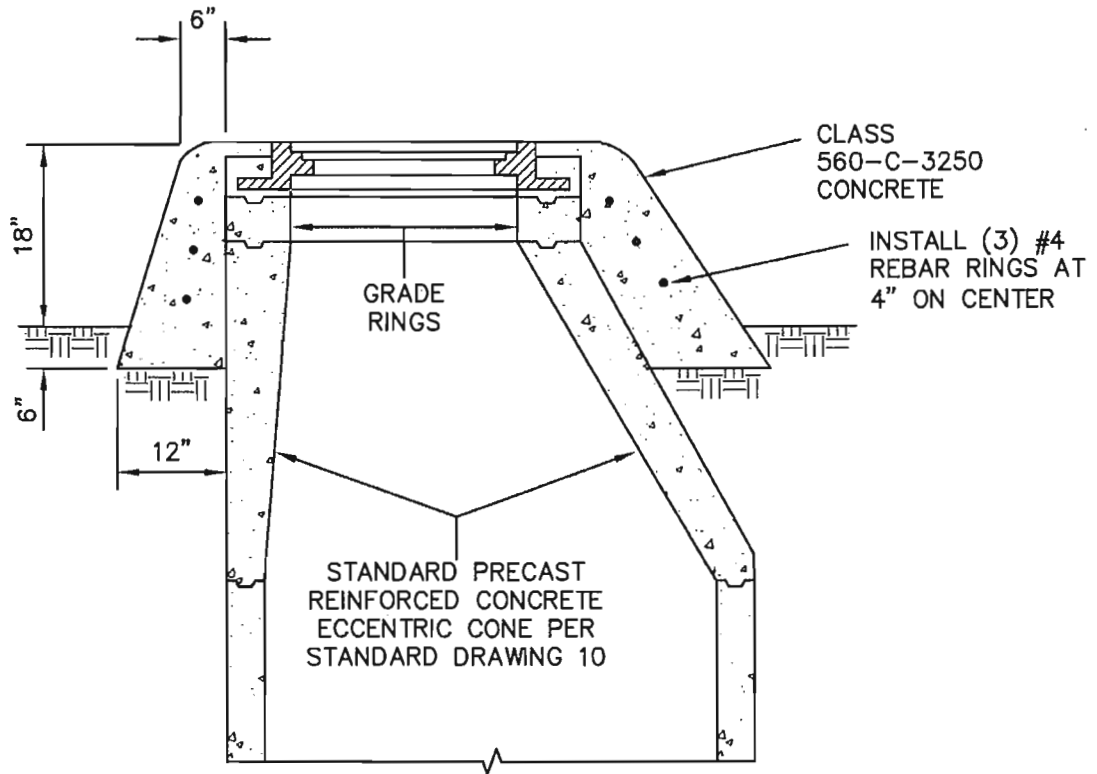
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DATE
[Signature]
KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

**36" MANHOLE
FRAME & COVER**

STANDARD
DRAWING

REVISIONS	BY	APP	DATE

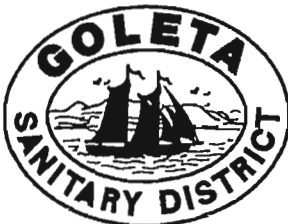
NO. 7



NOTES

1. MANHOLES IN UNIMPROVED RIGHTS OF WAY SHALL BE 18" ABOVE FINISHED GRADE AND PROTECTED FROM DAMAGE AS REQUIRED WITH MARKERS AND/OR BOLLARDS.
2. MANHOLES IN MAINTAINED LANDSCAPED AREAS SHALL BE 6" ABOVE FINISHED GRADE AND PROTECTED FROM DAMAGE AS REQUIRED WITH MARKERS AND/OR BOLLARDS.
3. REFER TO STANDARD DRAWING NO. 10 "STANDARD MANHOLE" FOR ADDITIONAL DETAILS.

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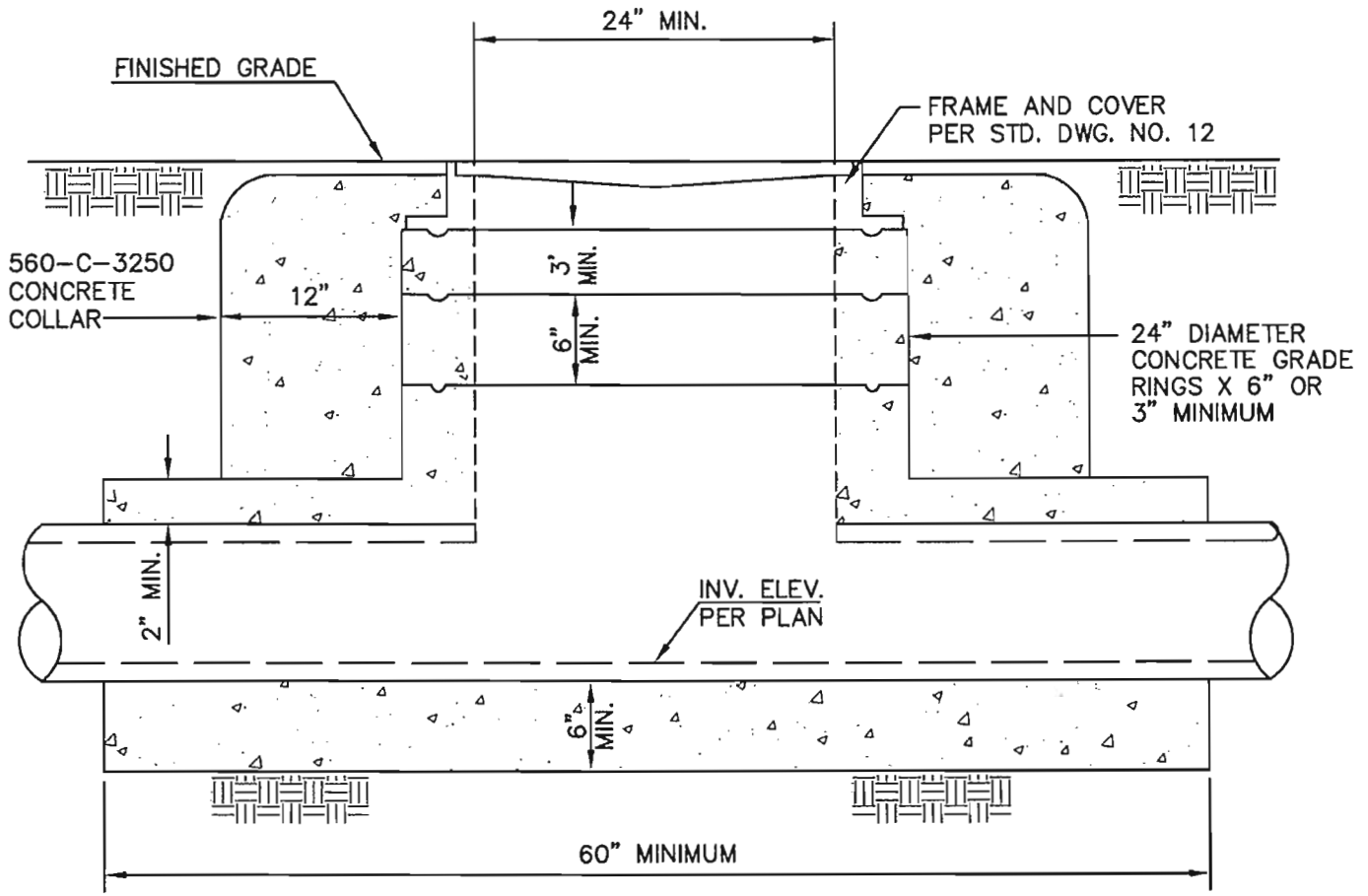
KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

**REMOTE AREA
MANHOLE JACKET**

**STANDARD
DRAWING**

REVISIONS	BY	APP	DATE

NO. 8



NOTES

1. REFER TO STANDARD DRAWING NO. 10 "STANDARD MANHOLE" FOR ADDITIONAL DETAILS.
2. SAMPLING MANHOLE COVER SHALL BE STAMPED "SAMPLING MH". DO NOT STAMP G.S.D.
3. NO COATING REQUIRED
4. DISTRICT APPROVAL IS REQUIRED.

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DATE

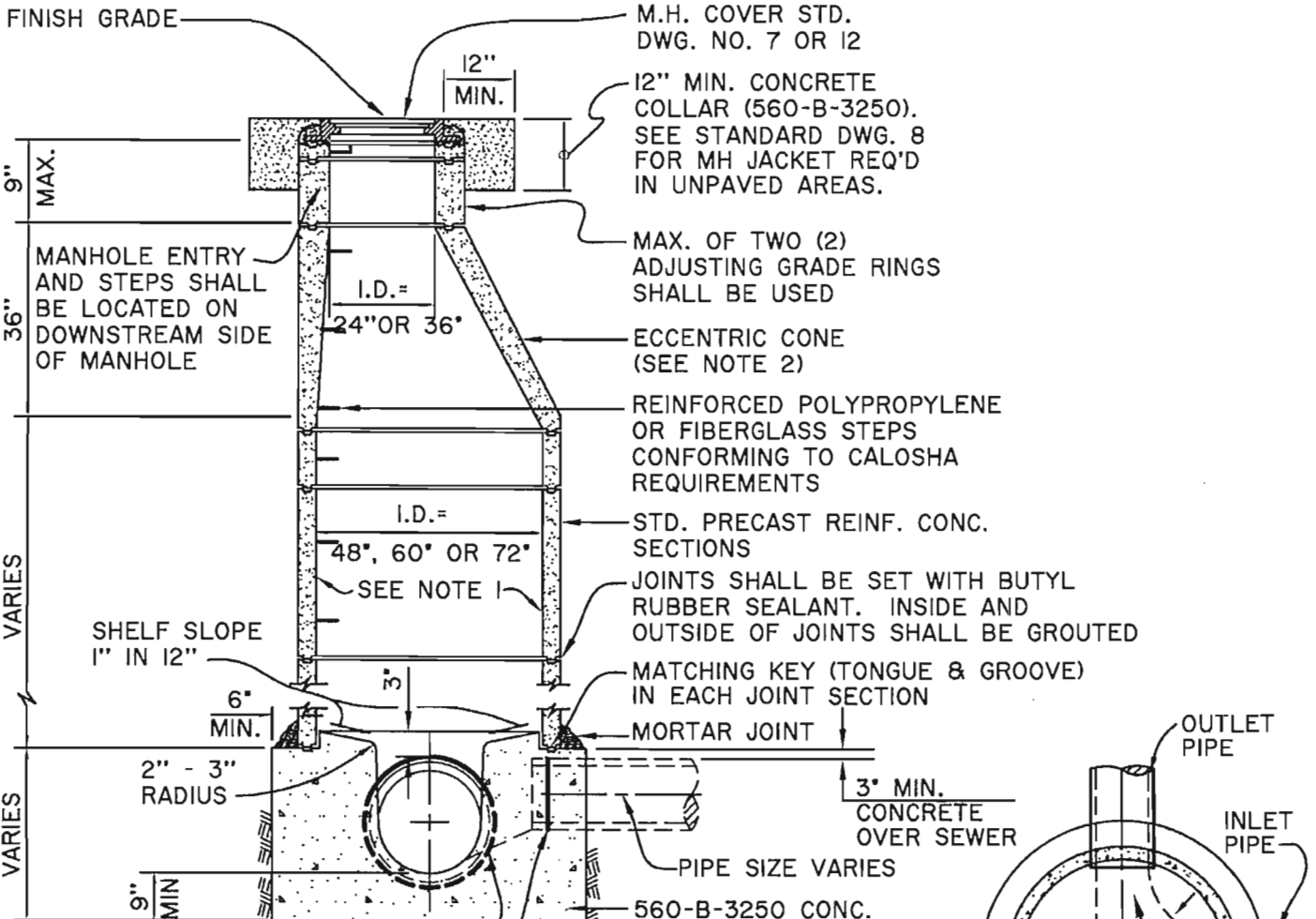
[Signature]
KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

**SAMPLING MANHOLE
LESS THAN 3' DEEP**

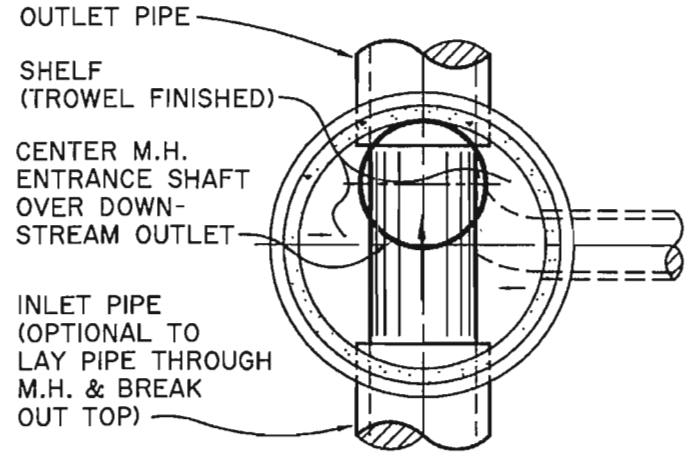
**STANDARD
DRAWING**

REVISIONS	BY	APP	DATE

NO. 9



INSTALL RUBBER O-RING WATER STOP(S)
 PLACE CONC. BASE ON UNDISTURBED GROUND. 3/4" GRAVEL (6" MIN.) SHALL BE PLACED ON DISTURBED SOIL BELOW MANHOLE



FINISH GRADE

M.H. COVER STD. DWG. NO. 7 OR 12

12" MIN. CONCRETE COLLAR (560-B-3250). SEE STANDARD DWG. 8 FOR MH JACKET REQ'D IN UNPAVED AREAS.

9" MAX.

MANHOLE ENTRY AND STEPS SHALL BE LOCATED ON DOWNSTREAM SIDE OF MANHOLE

36"

I.D.= 24" OR 36"

MAX. OF TWO (2) ADJUSTING GRADE RINGS SHALL BE USED

ECCENTRIC CONE (SEE NOTE 2)

REINFORCED POLYPROPYLENE OR FIBERGLASS STEPS CONFORMING TO CALOSHA REQUIREMENTS

I.D.= 48", 60" OR 72"
SEE NOTE 1

STD. PRECAST REINF. CONC. SECTIONS

JOINTS SHALL BE SET WITH BUTYL RUBBER SEALANT. INSIDE AND OUTSIDE OF JOINTS SHALL BE GROUTED

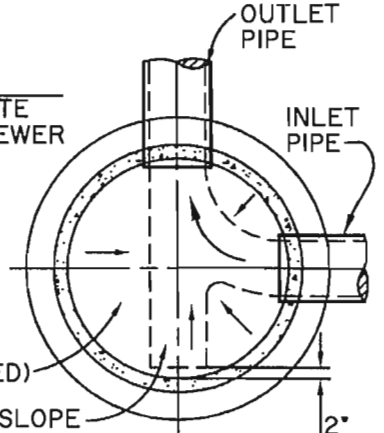
MATCHING KEY (TONGUE & GROOVE) IN EACH JOINT SECTION

MORTAR JOINT

3" MIN. CONCRETE OVER SEWER

PIPE SIZE VARIES

560-B-3250 CONC.



- NOTES**
1. COMPLETELY SEAL THE INSIDE OF THE MANHOLE WITH DISTRICT APPROVED PROTECTIVE COATING WITH HIGH BONDING STRENGTH AND RESISTANCE TO WATER AND SEWER GASES. THE COATING APPLICATION SHALL BE PER THE MANUFACTURER'S REQUIREMENTS.
 2. CONCENTRIC CONES SHALL BE USED WHEN MANHOLES ARE LESS THAN 4' IN DEPTH.
 3. PRE-CAST CONCRETE M.H. BASES MAY BE PERMITTED WITH APPROVAL FROM THE DISTRICT GENERAL MANAGER/DISTRICT ENGINEER.
 4. CHANNELS, IN THE BASE OF A MANHOLE LOCATED ON A BEND SHALL BE FORMED AND SLOPED AS SHOWN ABOVE TO ALLOW BETTER ACCESS FOR TV INSPECTION UNITS AND OTHER TYPES OF MAINTENANCE EQUIPMENT.



DATE 2/1/08

KAMIL S. AZOURY, P.E.
 GENERAL MANAGER/
 DISTRICT ENGINEER

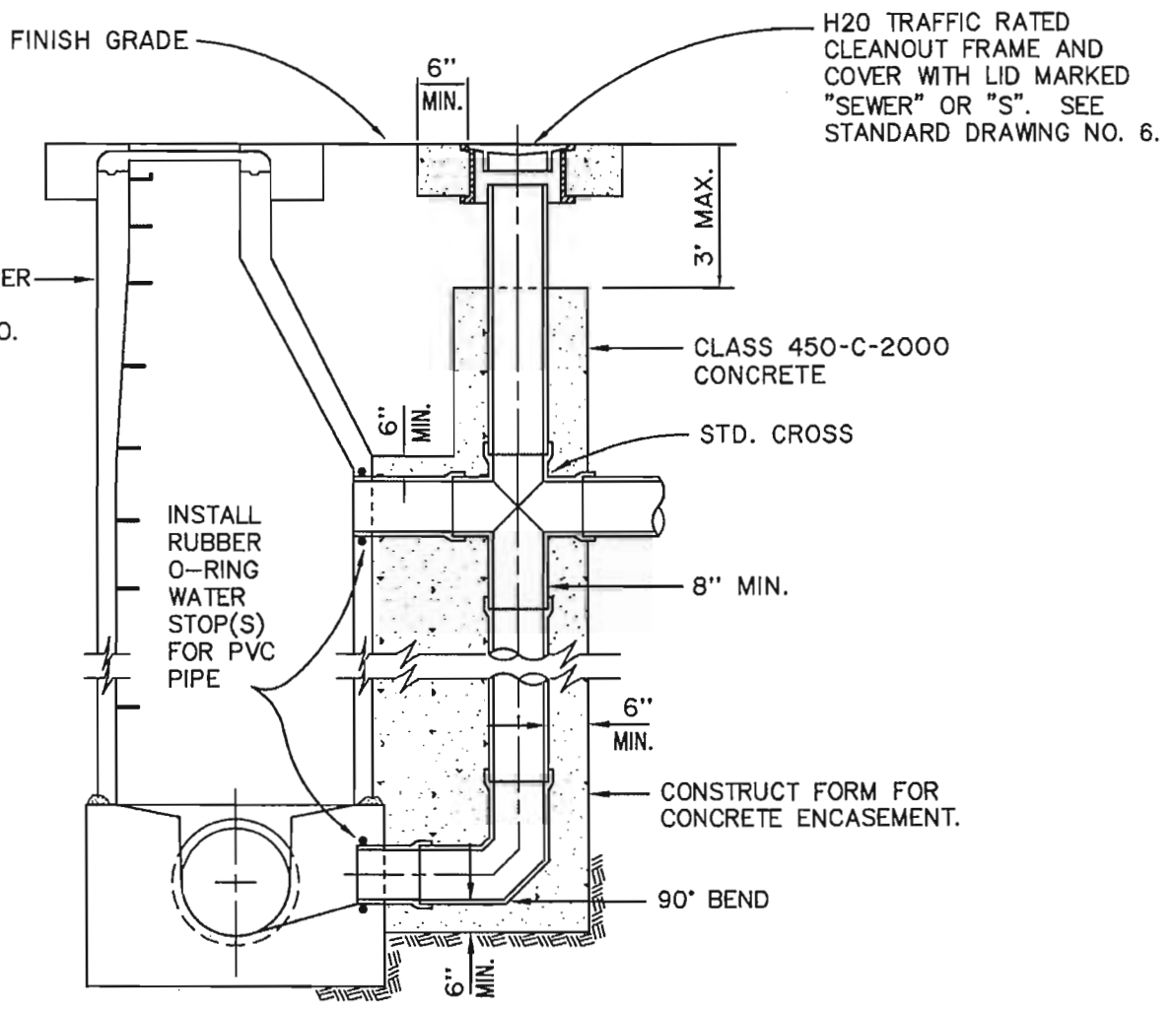
STANDARD MANHOLE

STANDARD DRAWING

REVISIONS	BY	APP	DATE

NO. 10

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MANHOLE PER STANDARD DRAWING NO. 10

H2O TRAFFIC RATED CLEANOUT FRAME AND COVER WITH LID MARKED "SEWER" OR "S". SEE STANDARD DRAWING NO. 6.

CLASS 450-C-2000 CONCRETE

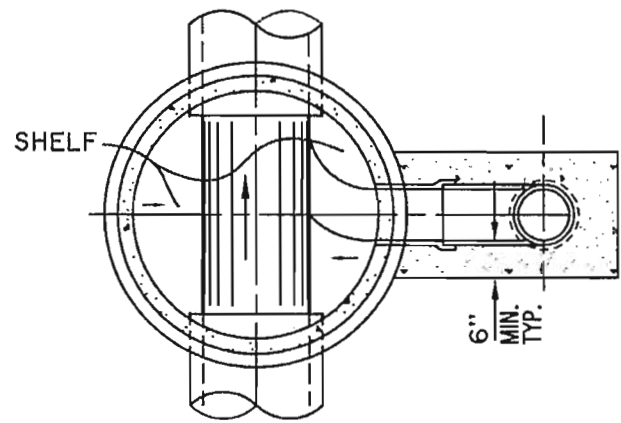
STD. CROSS

8" MIN.

CONSTRUCT FORM FOR CONCRETE ENCASEMENT.

90° BEND

INSTALL RUBBER O-RING WATER STOP(S) FOR PVC PIPE

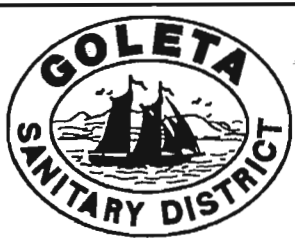


PLAN

NOTES

- 1. DROP MANHOLES REQUIRE APPROVAL BY THE DISTRICT MANAGER/ENGINEER.

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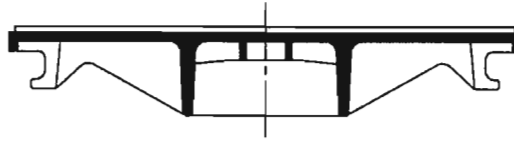
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KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

STANDARD DROP MANHOLE

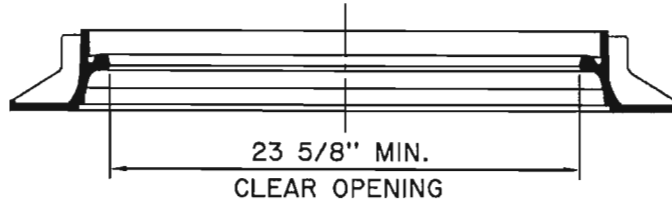
STANDARD DRAWING

REVISIONS	BY	APP	DATE

NO. 11

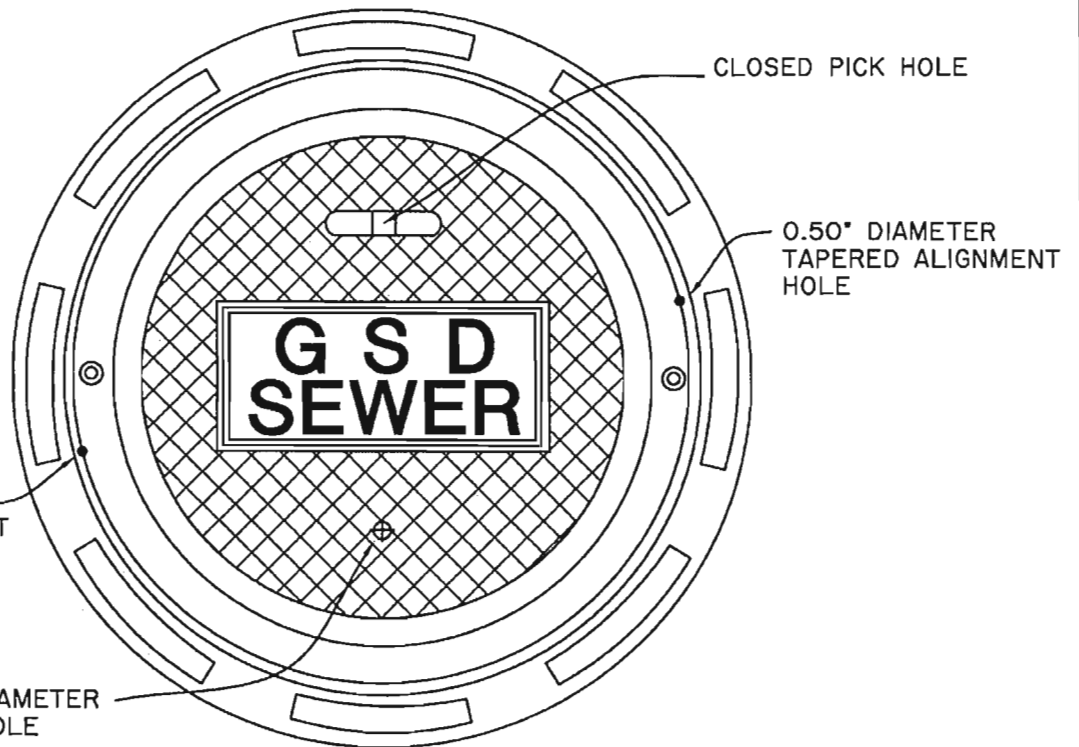


COVER



23 5/8" MIN.
CLEAR OPENING

FRAME



CLOSED PICK HOLE

0.50" DIAMETER
TAPERED ALIGNMENT
HOLE

0.50" DIAMETER
TAPERED ALIGNMENT
HOLE

0.75" DIAMETER
VENT HOLE

**G S D
SEWER**

NOTES

1. FRAME AND COVER SHALL BE MADE OF LIGHT WEIGHT DUCTILE IRON MATERIAL AND RATED FOR H-20 LOADS.
2. COVER SHALL BE LOCKING TYPE WITH STAINLESS STEEL NUTS AND BOLTS.
3. THE COVER SHALL BE MARKED "GSD SEWER" (LETTERS SHALL BE 2"-3" DIAMETER).

MANUFACTURER

SOUTH BAY FOUNDRY
SANTEE, CA
(619) 956-2780

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2/1/08
DATE
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GENERAL MANAGER/
DISTRICT ENGINEER

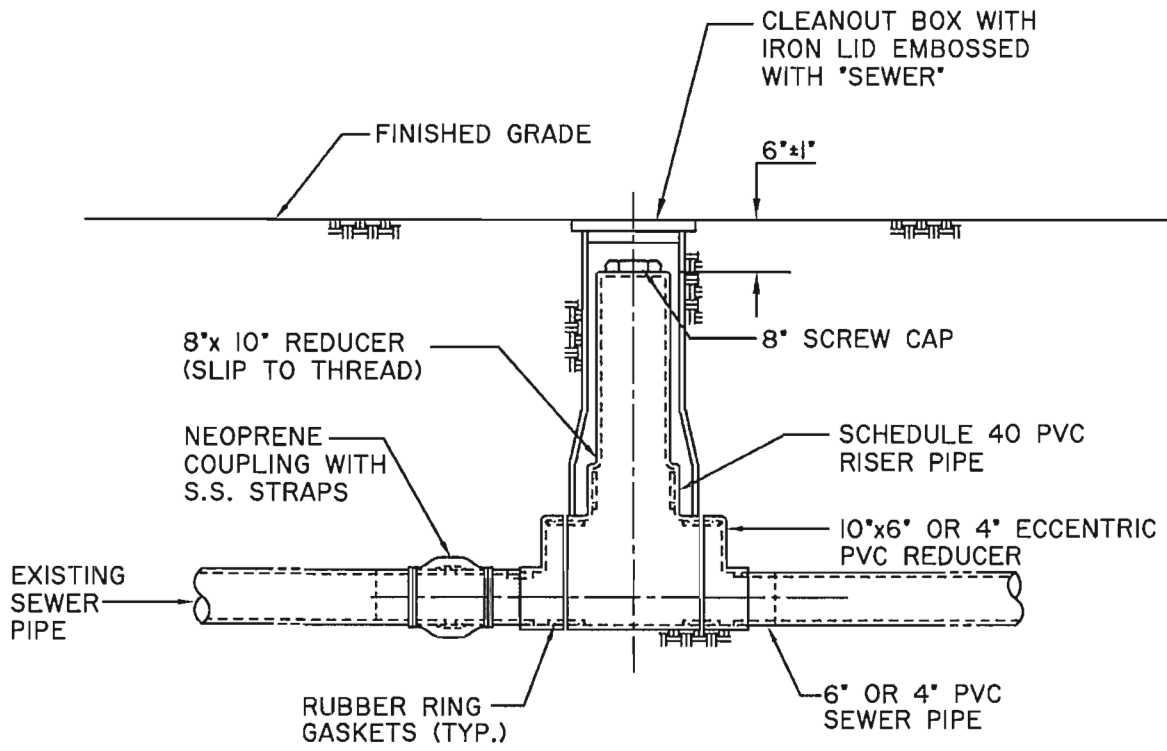
**MANHOLE
FRAME & COVER**

STANDARD
DRAWING

REVISIONS

BY APP DATE

NO. 12



SAMPLING WELL

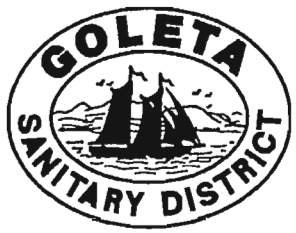
NOTES

1. ON EXISTING BUILDING SEWER, INSTALL APPROVED STANDARD TWO-WAY CLEANOUT TEE WITH BANDED RUBBER COUPLINGS.
2. THE SAMPLING WELL SHALL BE LOCATED ON THE BUILDING SEWER, DOWNSTREAM OF ALL BUILDING DRAIN CONNECTIONS, SO THE ENTIRE COMBINED BUILDING WASTE WATER FLOW CAN BE SAMPLED.
3. CONTACT THE DISTRICT ENGINEER FOR LOCATION OF SAMPLING WELL IF LOCATION IS NOT SHOWN ON APPROVED DRAWINGS.

MANUFACTURER

FITTINGS FROM FAMCON (OR EQUAL)
(805) 485-4350

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DATE

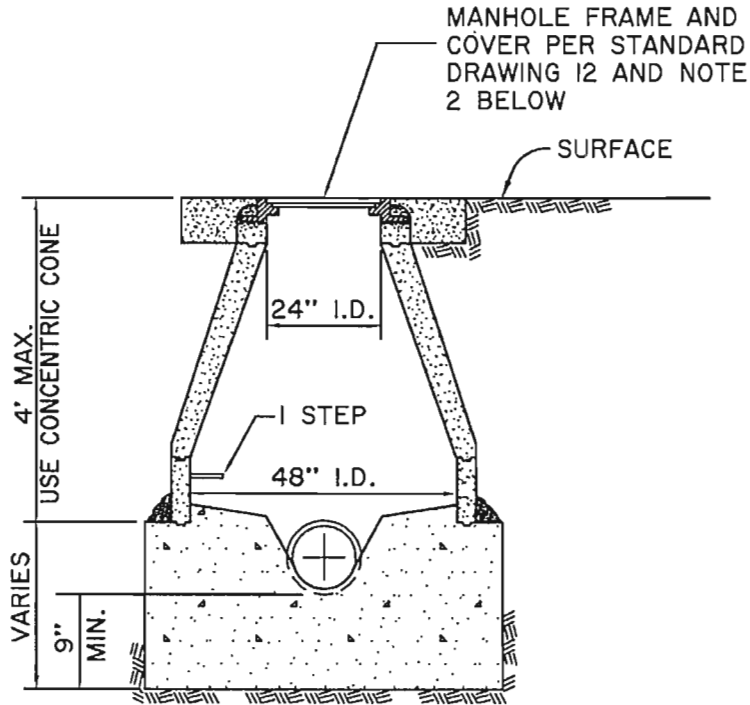
[Signature]
KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

**SAMPLING WELL
(DISTRICT APPROVAL IS REQUIRED)**

**STANDARD
DRAWING**

REVISIONS	BY	APP	DATE

NO. 13



SECTION

NOTES

1. REFER TO STANDARD DRAWING NO. 10 "STANDARD MANHOLE" FOR ADDITIONAL DETAILS.
2. SAMPLING MANHOLE FRAME AND COVER SHALL BE PER STANDARD DRAWING 12 - EXCEPT DO NOT STAMP G.S.D.
3. NO COATING REQUIRED.
4. DISTRICT APPROVAL REQUIRED.

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GENERAL MANAGER/
DISTRICT ENGINEER

SAMPLING MANHOLE

**STANDARD
DRAWING**

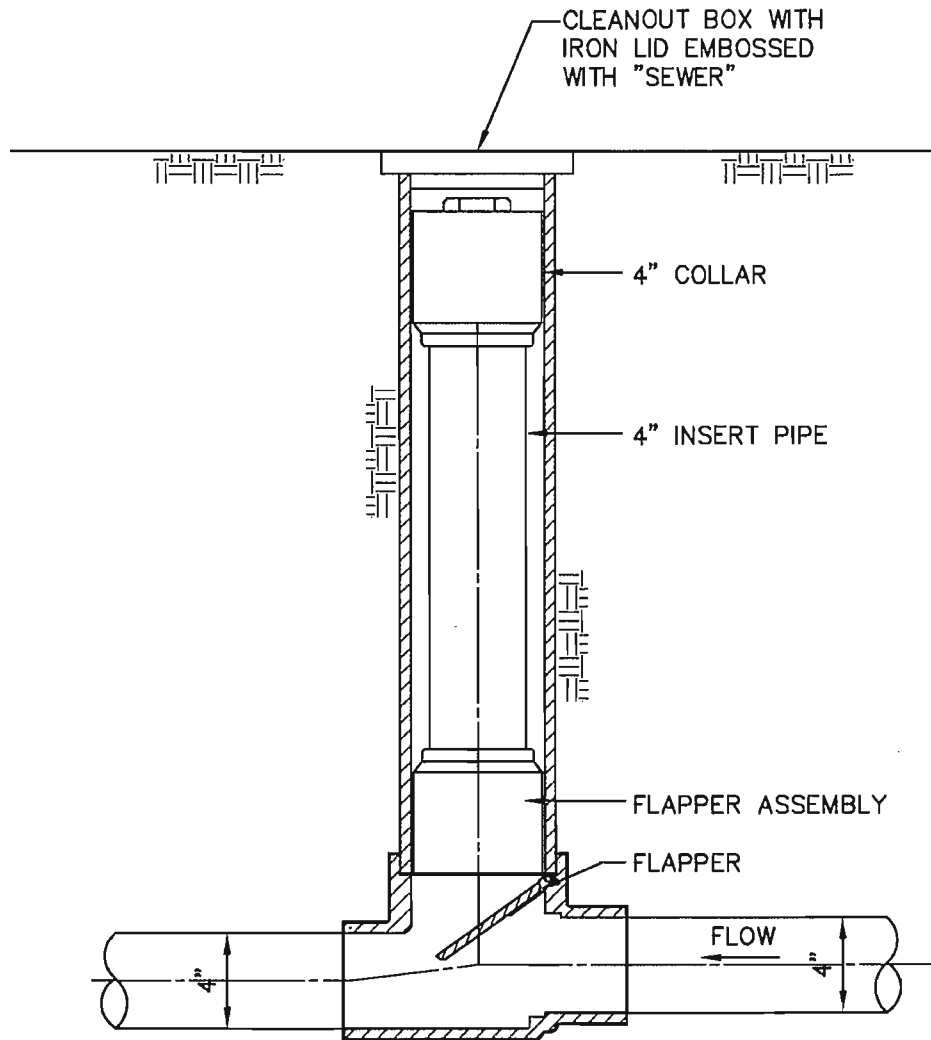
REVISIONS

BY

APP

DATE

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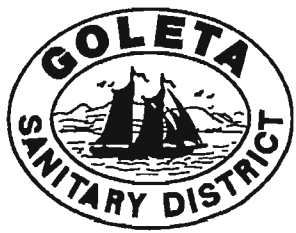


TYPICAL SECTION

NOTES

1. A BACKWATER VALVE WILL BE REQUIRED WHENEVER THE LEVEL OF THE LOWEST FLOOR THAT HAS PLUMBING FIXTURES IS LOWER IN ELEVATION THAN THE UPSTREAM MANHOLE OR CLEANOUT ON THE SEWER MAIN TO WHICH THE LATERAL CONNECTS.
2. THE BACKWATER VALVE SHALL BE INSTALLED AT THE JUNCTION OF THE BUILDING DRAIN AND BUILDING SEWER. UNLESS OTHERWISE AUTHORIZED BY DISTRICT MANAGER/DISTRICT ENGINEER.

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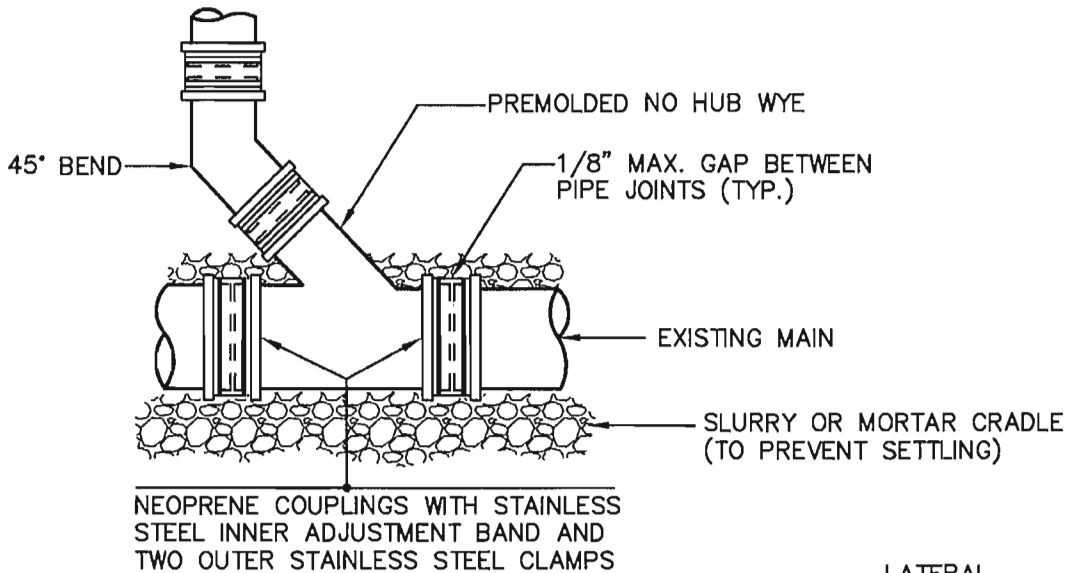
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[Signature]
KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

BACKWATER VALVE

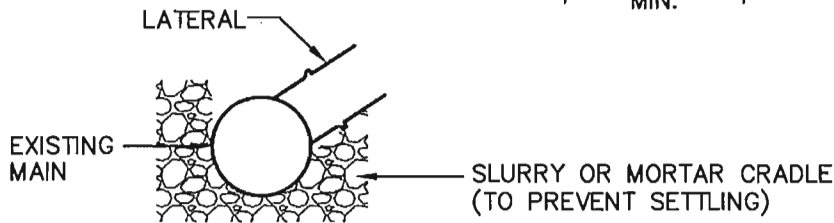
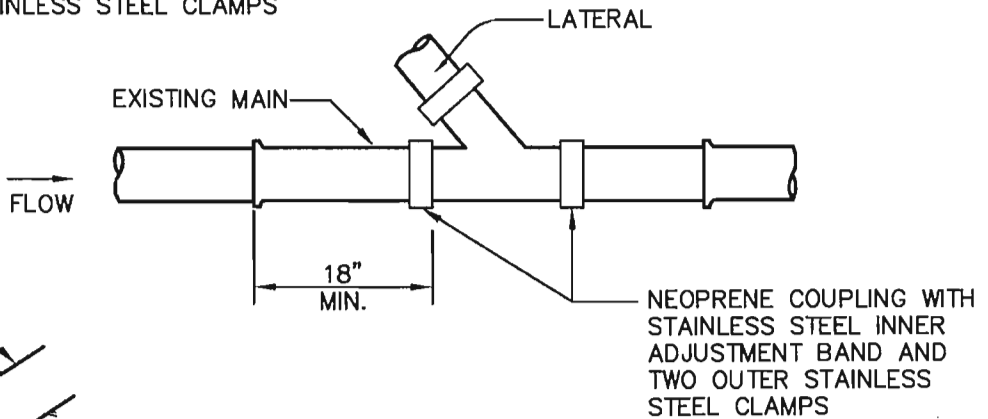
STANDARD
DRAWING

REVISIONS	BY	APP	DATE

NO. 15



NEOPRENE COUPLINGS WITH STAINLESS STEEL INNER ADJUSTMENT BAND AND TWO OUTER STAINLESS STEEL CLAMPS



NOTES

1. ON EXISTING SEWERS INSTALL APPROVED PREMOLDED NO HUB WYE AND COUPLINGS. TAPPING TYPE OR SADDLE WYES ARE NOT PERMITTED.
2. LATERAL SHALL BE PERPENDICULAR TO MAIN WHENEVER POSSIBLE.
3. OVEREXCAVATE A MINIMUM OF 6" AROUND COUPLINGS. BACKFILL TO A MINIMUM OF 12" ABOVE SEWER MAIN PIPE WITH APPROVED BEDDING AND PIPE ZONE MATERIAL.
4. A DISTURBED OR OVEREXCAVATED BELL AND SPIGOT JOINT ON EXISTING VCP PIPE SHALL BE REMOVED AND REPLACED WITH A PIPE SECTION AND COUPLING.
5. WYES SHALL NOT BE INSTALLED WITHIN 18" OF A VCP JOINT.

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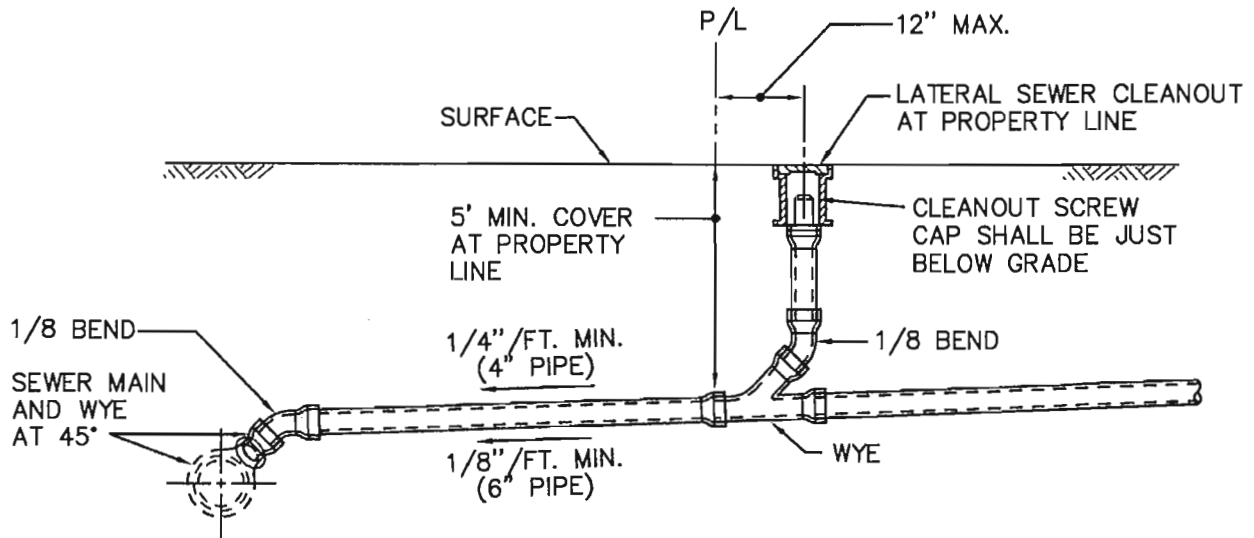
KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

**WYE INSTALLATION
IN EXISTING
SEWER MAIN**

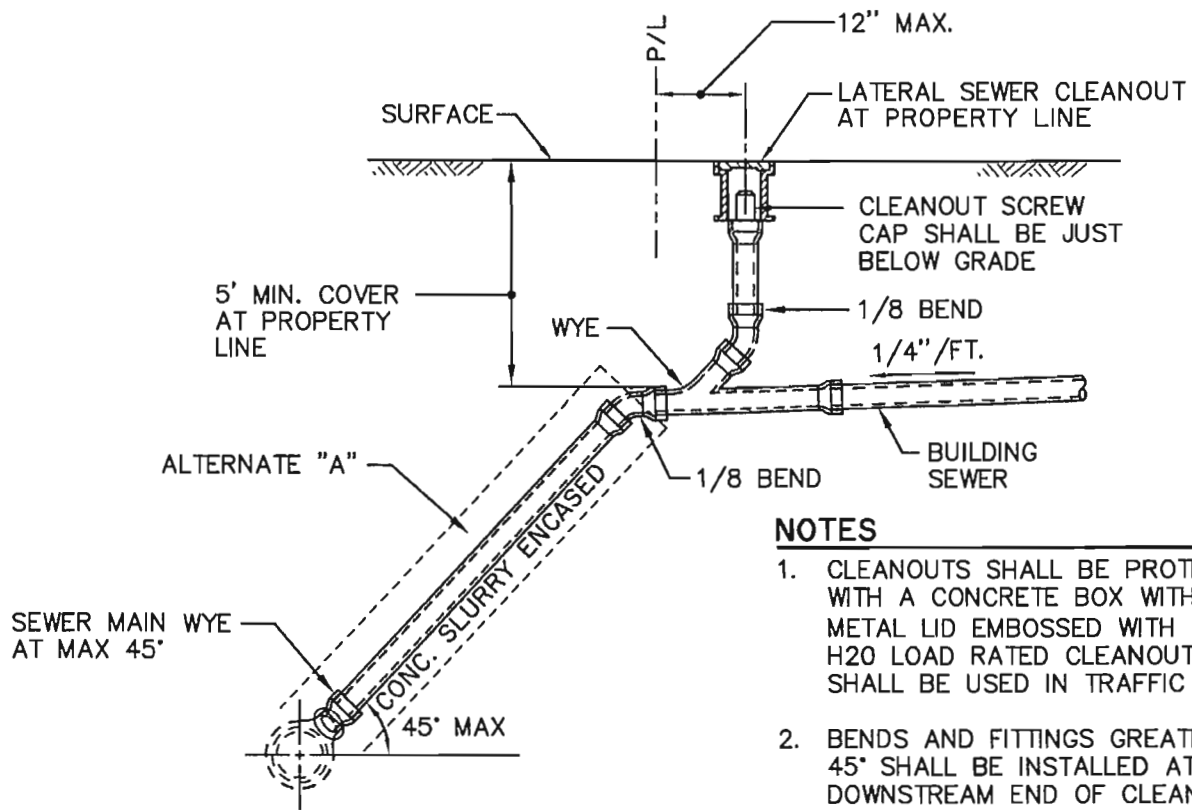
**STANDARD
DRAWING**

REVISIONS	BY	APP	DATE

NO. 16



4" & 6" LATERALS AT TYPICAL DEPTH



4" & 6" DEEP LATERALS

NOTES

1. CLEANOUTS SHALL BE PROTECTED WITH A CONCRETE BOX WITH A METAL LID EMBOSSED WITH "SEWER". H2O LOAD RATED CLEANOUT BOXES SHALL BE USED IN TRAFFIC AREAS.
2. BENDS AND FITTINGS GREATER THAN 45° SHALL BE INSTALLED AT THE DOWNSTREAM END OF CLEANOUTS.
3. LATERALS SHALL BE INSTALLED PERPENDICULAR TO SEWER MAIN AND CONTINUE STRAIGHT TO THE PROPERTY OR EASEMENT LINE.



2/1/08
DATE
KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

LATERAL SEWER

**STANDARD
DRAWING**

REVISIONS	BY	APP	DATE

NO. 17

DEFINITIONS

- COMPRESSION JOINT** - A push-on joint that seals by means of the compression of a rubber ring or gasket between the pipe and a bell or coupling.
- DIMENSIONS** - are from the outside of water main to outside of sewer line or manhole.
- FUSED JOINT** - The joining of pipe using thermal or chemical bonding processes.
- GROUND WATER** - Subsurface water found in the saturation zone.
- HEALTH AGENCY** - The State Department of Health Services. For those water systems supplying less than 200 service connections, the local health officer shall act for the Department of Health Services.
- HOUSE LATERAL** - A sewer pipe connecting the building drain and the main sewer line.
- LOW HEAD WATER MAIN** - Any water main which has a pressure of 5 psi or less at any point in the main.
- MECHANICAL JOINT** - Bolted joint.
- RATED WORKING WATER PRESSURE** or **PRESSURE CLASS** - A pipe classification system based upon internal working pressure of the fluid in the pipe, type of pipe material, and thickness of the pipe wall.
- SLEEVE** - A protective tube of steel with a wall thickness of not less than one-fourth inch into which a pipe is inserted.
- WATER SUPPLY** - Any person who owns or operates a public water system.

CRITERIA FOR THE SEPARATION OF WATER MAINS AND SANITARY SEWERS

A. PUBLIC HEALTH CONSIDERATIONS

Waterborne disease outbreaks attributed to the entry of sewage-contaminated groundwater into the distribution systems of the public water supplies continue to be a problem in the United States. A community with its buried water mains in close proximity to sanitary sewers is vulnerable to waterborne disease outbreaks.

Sanitary sewers frequently leak and saturate the surrounding soil with sewage. This is caused primarily by structural failure of the sewer line, improperly constructed joints, and subsidence or upheaval of the soil encasing the conduit. A serious public health hazard exists when the water mains are depressurized and no pressure or negative pressures occur. The hazard is further compounded when, in the course of installing or repairing a water main, existing sewer lines are broken. Sewage spills into the excavation and, hence, enters into the water main itself. Additionally, if a water main fails in close proximity to a sewer line, the resultant failure may disturb the bedding of the sewer line and cause it to fail. In the event of an earthquake or man-made disaster, simultaneous failure of both conduits often occurs.

The water supplier is responsible for the quality of the water delivered to consumers and must take all practical steps to minimize the hazard of sewage contamination to the public water supply. Protection of the quality of the water in the public water system is best achieved by the barrier provided by the physical separation of the water mains and sewer lines.

This document sets forth the construction criteria for the installation of water mains and sewer lines to prevent contamination of the public water supplies from nearby sanitary sewers.

B. BASIC SEPARATION STANDARDS

The "California Waterworks Standards" sets forth the minimum separation requirements for water mains and sewer lines. These standards, contained in Section 64630, Title 22, California Administrative Code, specify:

- (c) (1) Parallel Construction: The horizontal distance between pressure water mains and sewer lines shall be at least 10 feet.
- (2) Perpendicular Construction (Crossing): Pressure water mains shall be at least one foot above sanitary sewer lines where these lines must cross.
- (d) Separation distances specified in (c) shall be measured from the nearest edges of the facilities.
- (e) (2) Common Trench: Water mains and sewer lines must not be installed in the same trench.

When water mains and sanitary sewers are not adequately separated, the potential for contamination of the water supply increases. Therefore, when adequate physical separation cannot be attained, an increase in the factor of safety should be provided by increasing the structural integrity of both the pipe materials and joints.



2/1/05
DATE

[Signature]

KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

WATER-SEWER SEPARATION TEXT

STANDARD
DRAWING

REVISIONS	BY	APP	DATE

NO. 19

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C. EXCEPTIONS TO BASIC SEPARATION STANDARDS

Local conditions, such as available space, limited slope, existing structure, etc., may create a situation where there is no alternative but to install water mains or sewer lines at a distance less than that required by the Basic Separation Standards. In such cases, alternative construction criteria as specified in Section E should be followed, subject to the special provisions in Section D.

Water mains and sewers of 24 inches in diameter or greater may create special hazards because of the large volumes of flow. Therefore, installations of water mains and sewer lines 24 inches in diameter or larger should be reviewed and approved by the health agency prior to construction.

D. SPECIAL PROVISIONS

1. The Basic Separation Standards are applicable under normal conditions for sewage collection lines and water distribution mains. More stringent requirements may be necessary if conditions such as high groundwater exist.
2. Sewer lines shall not be installed within 25 feet horizontally of a low head (5 psi or less pressure) water main.
3. New water mains and sewers shall be pressure tested where the conduits are located ten feet apart or less.
4. In the installation of water mains or sewer lines, measures should be taken to prevent or minimize disturbances of the existing line. Disturbance of the supporting base of this line could eventually result in failure of this existing pipeline.
5. Special consideration shall be given to the selection of pipe materials if corrosive conditions are likely to exist. These conditions may be due to soil type and/or the nature of the fluid conveyed in the conduit, such as a septic sewage which produces corrosive hydrogen sulfide.
6. Sewer Force Mains
 - a. Sewer force mains shall not be installed within ten feet (horizontally) of a water main.
 - b. When a sewer force main must cross a water line, the crossing should be as close as practical to the perpendicular. The sewer force main should be at least one foot below the water line.
 - c. When a new sewer force main crosses under an existing water main, all portions of the sewer force main within ten feet (horizontally) of the water main shall be enclosed in a continuous sleeve.
 - d. When a new water main crosses over an existing sewer force main, the water main shall be constructed of pipe materials with a minimum rated working pressure of 200 psi or equivalent pressure rating.

E. ALTERNATE CRITERIA FOR CONSTRUCTION

The construction criteria for sewer lines of water mains where the Basic Separation Standards cannot be attained are shown in standard drawings 1 and 2 (on following pages). There are two situations encountered:

Case 1 - New sewer line (new or existing water main).


Case 2 - New water main (existing sewer line).

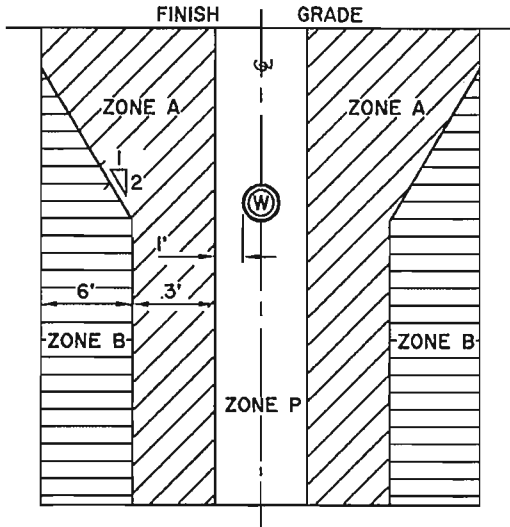
For case 1, the alternate construction criteria apply to the sewer line.

For case 2, the alternate construction criteria may apply to either or both the water main and sewer line.

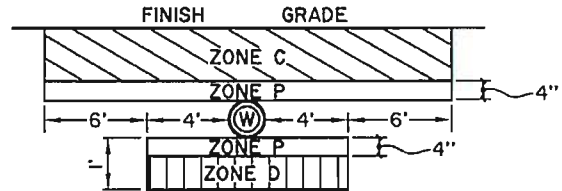
The construction criteria should apply to the house laterals that cross above a pressure water main but not to those house laterals that cross below a pressure water main.

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	2/11/08 DATE	WATER-SEWER SEPARATION TEXT	STANDARD DRAWING											
	KAMIL S. AZOURY, P.E. GENERAL MANAGER/ DISTRICT ENGINEER	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">REVISIONS</th> <th style="width: 10%;">BY</th> <th style="width: 10%;">APP</th> <th style="width: 20%;">DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS	BY	APP	DATE								
REVISIONS	BY	APP	DATE											



PARALLEL CONST.



PERPENDICULAR CONST.

ZONE	SEWER CONSTRUCTION REQUIREMENTS
A	Sewer lines parallel to water mains shall not be permitted in this zone without approval from the responsible health agency and water supplier.
B	A sewer line placed parallel to a water line shall be constructed of: 1. Extra strength vitrified clay pipe with compression joints. 2. Class 4000, Type II, asbestos-cement pipe with rubber gasket joints. 3. Plastic sewer pipe with rubber ring joints (per ASTM D3034) or equivalent. 4. Cast or ductile iron pipe with compression joints. 5. Reinforced concrete pressure pipe with compression joints (per AWWA C302-74).
C	A sewer line crossing a water main shall be constructed of: 1. Ductile Iron pipe with hot dip bituminous coating and mechanical joints. 2. A continuous section of class 200 (DR 14 AWWA C900) plastic pipe, or equivalent, centered over the pipe being crossed. 3. A continuous section of reinforced concrete pressure pipe (AWWA C302-74) centered over the pipe being crossed. 4. Any sewer pipe with a continuous sleeve.
D	A sewer line crossing a water main shall be constructed of: 1. A continuous section of ductile iron pipe with hot dip bituminous coating. 2. A continuous section of Class 200 (DR 14 per AWWA C900) plastic pipe or equivalent, centered on the pipe being crossed. 3. A continuous section of reinforced concrete pressure pipe (per AWWA C302-74) centered on the pipe being crossed. 4. Any sewer pipe within a continuous sleeve. 5. Any sewer pipe separated by a ten-foot by ten-foot, four-inch thick reinforced concrete slab.

ZONE P Is a prohibited zone per section 64630(e)(2) California Administrative Code, Title 22.

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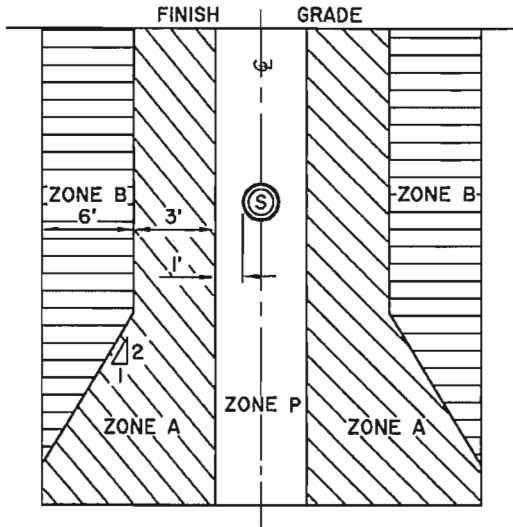
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KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

**WATER-SEWER SEPARATION
DETAILS**

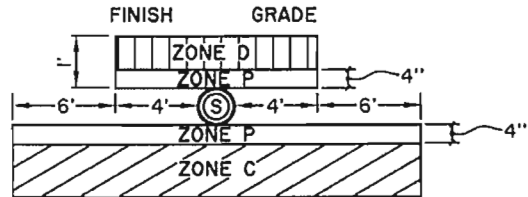
**STANDARD
DRAWING**

REVISIONS	BY	APP	DATE

NO. 21



PARALLEL CONST.



PERPENDICULAR CONST.

ZONE	WATER CONSTRUCTION REQUIREMENTS
A	No water mains parallel to sewers shall be constructed without approval from the health agency.
B	A water main placed parallel to a sanitary sewer shall be constructed of: 1. Dipped and wrapped one-quarter inch thick steel pipe. 2. Class 200 pressure rated PVC water pipe (DR-14 per AWWA C-900) or equivalent. 3. Reinforced concrete pressure pipe, steel cylinder type, per AWWA C-300-74, C-301-79 or C-303-70.
C	A water main crossing a sanitary sewer shall have no joints in this zone and shall be constructed of: 1. Dipped and wrapped one-quarter inch thick welded steel pipe. 2. Class 200 pressure rated PVC water pipe (DR-14 per AWWA C-900) or equivalent. 3. Reinforced concrete pressure pipe, steel cylinder type, per AWWA C-300-74, C-301-79 or C-303-70.
D	A water main crossing a sanitary sewer shall have no joints within four feet from either side of the sanitary sewer and shall be constructed of: 1. Dipped and wrapped one-quarter inch thick welded steel pipe. 2. Class 200 pressure rated PVC pipe (DR-14 per AWWA C-900) or equivalent.

ZONE P Is a prohibited zone per section 64630(e)(2) California Administrative Code, Title 22.

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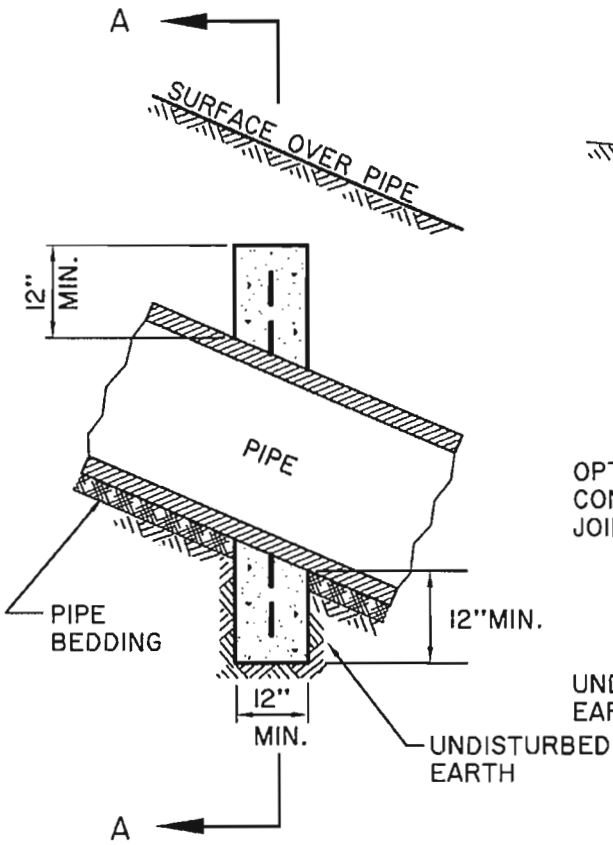
2/1/08
DATE
[Signature]
KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

**WATER-SEWER SEPARATION
DETAILS**

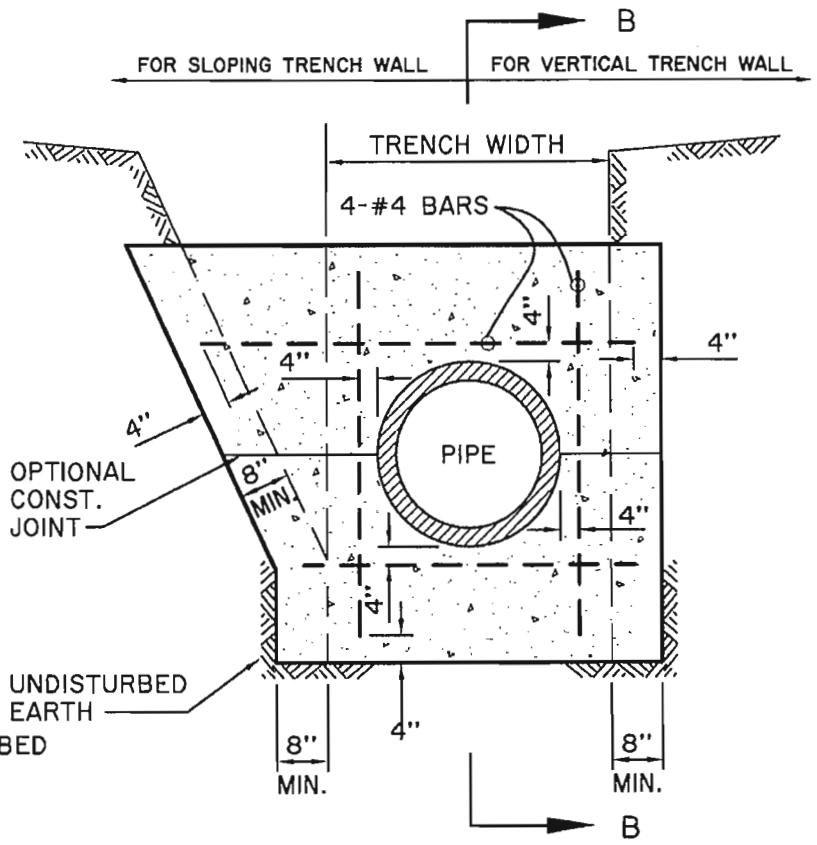
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REVISIONS	BY	APP	DATE

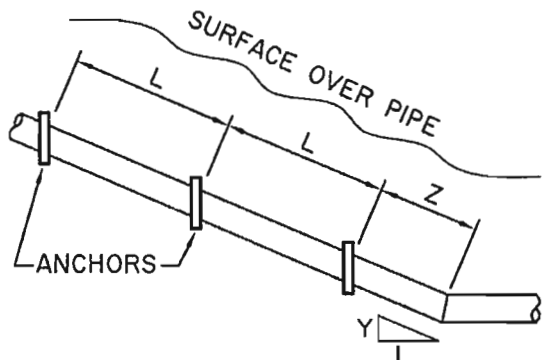
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SECTION B-B



SECTION A-A



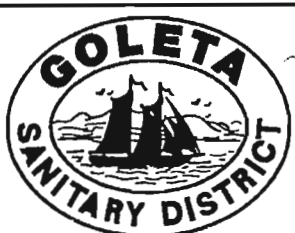
ELEVATION PIPE ANCHORS

TABLE A

PIPE SLOPE (%) Y:1(100)	L DISTANCE (MAX.)	Z DISTANCE (MAX.)
100	12'	4'
67	14'	8'
50	16'	12'
40	18'	18'
33	20'	20'

NOTES:

1. ANCHORS SHALL BE CLASS 420-C-2000 CONCRETE.
2. FOR CLAY PIPE, ANCHORS SHALL NOT BE PLACED WITHIN 6" OF A PIPE JOINT.
3. TRENCH BACKFILL SHALL BE CONSOLIDATED BY MECHANICAL COMPACTION. IN LIEU OF MECHANICAL COMPACTION, SOIL CEMENT MAY BE USED. HOWEVER, THE TOP 12" OF BACKFILL SHALL BE MECHANICALLY COMPACTED NATIVE SOIL.
4. SPACING OF ANCHORS FOR PIPE SLOPES BETWEEN VALUES SHOWN IN TABLE 'A' MAY BE PROPORTIONED.



2/1/08
DATE
KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

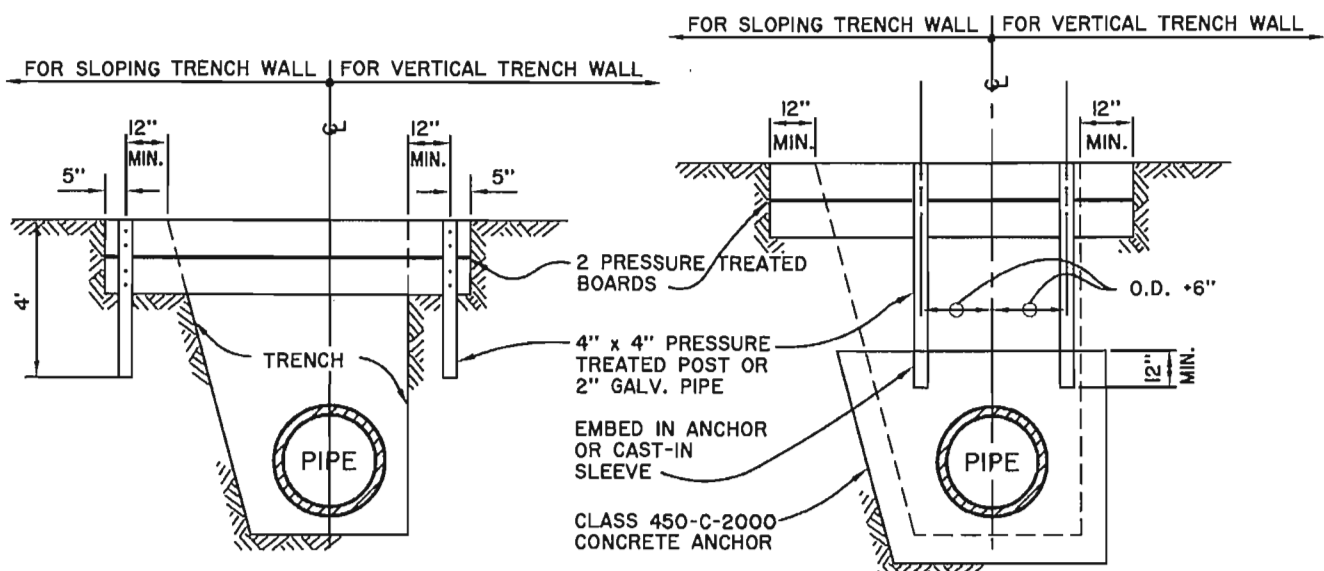
**PIPE ANCHORS AND
BACKFILL STABILIZERS
TYPE 1**

**STANDARD
DRAWING**

REVISIONS	BY	APP	DATE

NO. 23

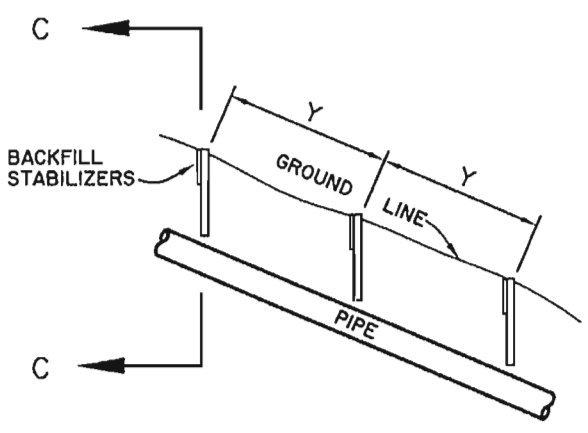
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ALTERNATE 1

ALTERNATE 2

SECTION C-C



ELEVATION BACKFILL STABILIZERS

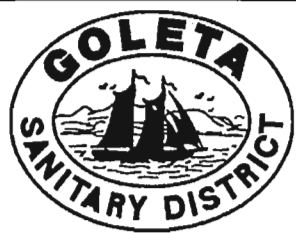
TABLE B

GROUND SLOPE X:1	Y SPACING (MAX.)
1:1	5'
1 1/2:1	9'
2:1	12'
2 1/2:1	16'
3:1	20'

NOTES:

1. PRESSURE TREATED BOARDS SHALL BE 2"x 12" WHERE DEPTH OF COVER OVER PIPE PERMITS. OTHERWISE USE 2"x 8".
2. BOARDS SHALL BE PLACED ON THE HIGH GROUND SIDE OF THE POSTS.
3. EACH BOARD SHALL BE FASTENED BY USING 2-16d NAILS TO EACH POST OR A 3/8 INCH BOLT AND NUT WITH WASHERS TO EACH GALVANIZED PIPE. ALL HARDWARE SHALL BE GALVANIZED.
4. TRENCH BACKFILL SHALL BE CONSOLIDATED BY MECHANICAL COMPACTION. IN LIEU OF MECHANICAL COMPACTION, SOIL CEMENT MAY BE USED. HOWEVER, THE TOP 12" OF BACKFILL SHALL BE MECHANICALLY COMPACTED NATIVE SOIL.
5. SPACING OF STABILIZERS FOR GROUND SLOPES BETWEEN VALUES SHOWN IN TABLE 'B' MAY BE PROPORTIONED.

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DISTRICT ENGINEER

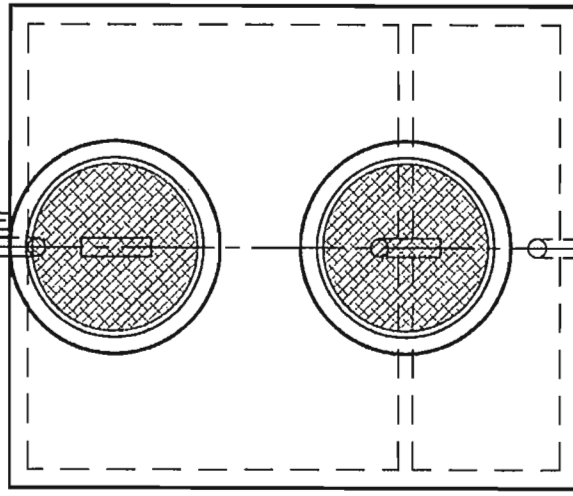
**PIPE ANCHORS AND
BACKFILL STABILIZERS
TYPE 2**

**STANDARD
DRAWING**

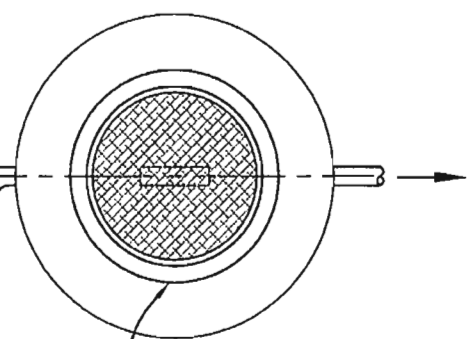
REVISIONS	BY	APP	DATE

NO. 24

WASTEWATER DRAIN LINES WITH THE POTENTIAL TO DISCHARGE LIQUID CONTAINING SAND, GREASE & OIL

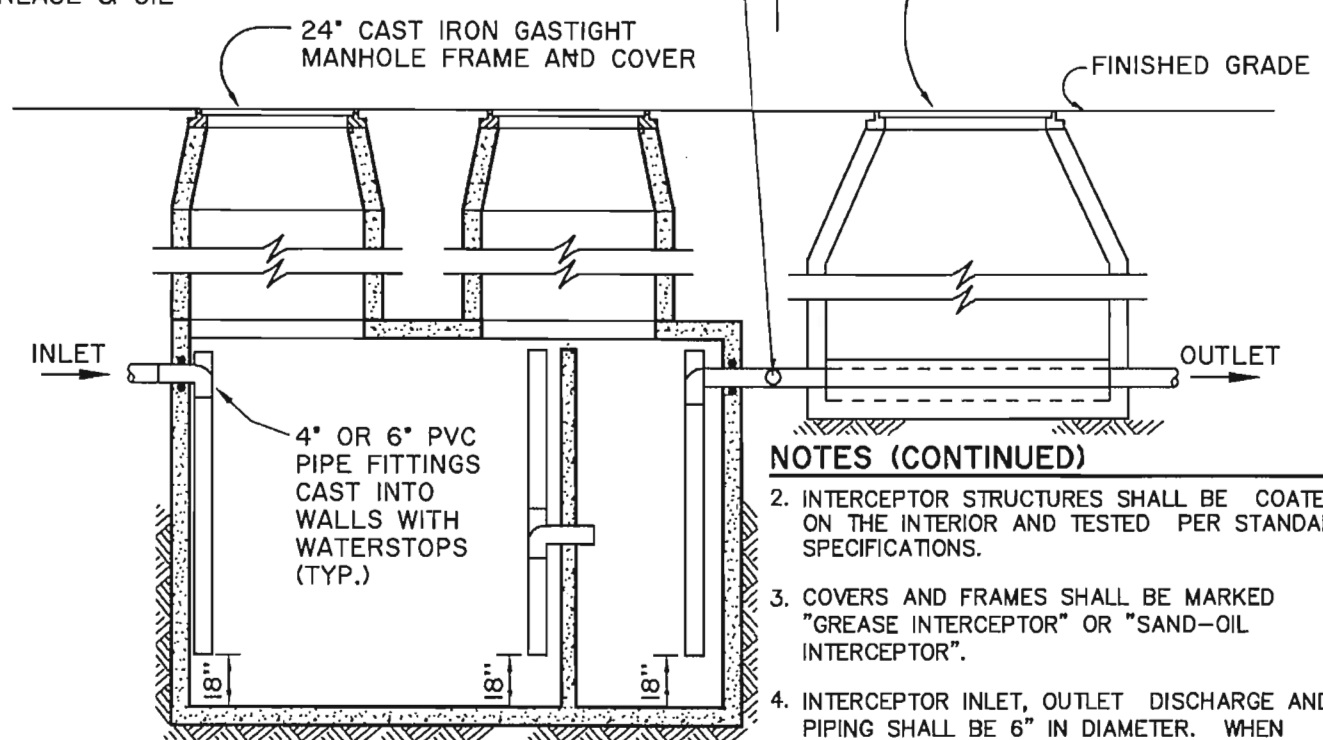


PLAN



SAMPLING MANHOLE SEE STD. DWG. NO. 14

ALL REMAINING BUILDING WASTEWATER DRAIN LINES WITH NO POTENTIAL TO DISCHARGE LIQUID CONTAINING GREASE & OIL



SECTION

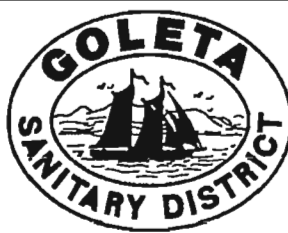
NOTES

- GREASE INTERCEPTORS SHALL BE SIZED IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE REQUIREMENTS. THE MINIMUM GREASE INTERCEPTOR SIZE SHALL BE A 500 GAL. UNIT.

NOTES (CONTINUED)

- INTERCEPTOR STRUCTURES SHALL BE COATED ON THE INTERIOR AND TESTED PER STANDARD SPECIFICATIONS.
- COVERS AND FRAMES SHALL BE MARKED "GREASE INTERCEPTOR" OR "SAND-OIL INTERCEPTOR".
- INTERCEPTOR INLET, OUTLET DISCHARGE AND PIPING SHALL BE 6" IN DIAMETER. WHEN APPROVED FOR 4" CONNECTIONS ECCENTRIC 6"x 4" REDUCERS SHALL BE USED.
- ALL INTERCEPTORS SHALL BE VENTED PER PLUMBING CODE.

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2/1/08
DATE
KAMIL S. AZOURY, P.E.
GENERAL MANAGER/
DISTRICT ENGINEER

INTERCEPTORS

STANDARD DRAWING

REVISIONS	BY	APP	DATE

NO. 25

APPENDIX E

GSD OVERFLOW EMERGENCY RESPONSE PLAN

GOLETA SANITARY DISTRICT OVERFLOW EMERGENCY RESPONSE PLAN

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I. INTRODUCTION

A. PURPOSE AND AUTHORITY

The purpose of this "OVERFLOW EMERGENCY RESPONSE PLAN" is to ensure that Goleta Sanitary District (the District) personnel follow established guidelines for responding to, stopping, cleaning up and decontaminating Sanitary Sewer Overflows (SSOs) which occur within the District's jurisdiction and service area. District staff shall follow those reporting procedures in regards to SSOs as set forth by State Water Resources Control Board Order No. 2006-0003 DWQ and this District procedure. These procedures shall be adhered to by District personnel to ensure that any SSO within the District is properly addressed, mitigated and reported in a timely and efficient manner as specified.

B. SANITARY SEWER OVERFLOW DEFINITIONS

1. Category 1 SSO

Category 1 SSO is defined as a discharge of untreated or partially treated wastewater **of any volume** from a District sewer system failure or flow condition that:

Reach surface water and/or reach a drainage channel tributary to a surface water, or

Reach a municipal separate storm sewer system and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the municipal separate storm sewer system is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or ground water infiltration basin.

2. Category 2 SSO

Category 2 SSO is defined as a discharge of untreated or partially treated wastewater of **1,000 gallons or greater** resulting from a District sanitary sewer system failure or flow condition that **do not** reach surface water, a drainage channel or a municipal separate storm system unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

3. Category 3 SSO

Category 3 SSO is defined as all other discharges of untreated or partially treated wastewater resulting from a District sewer system failure or flow condition.

4. Private Lateral Sewer Discharge (PLSD)

Private Lateral Sewer Discharge is defined as a discharge of untreated or partially treated wastewater resulting from blockages or other problems **within a privately owned sewer lateral** connected to the District's Sanitary Sewer System or from other private sewer assets.

C. CHAIN OF COMMUNICATION

1. When the District is notified of a sewer line emergency during normal business hours, the Collection System Supervisor or the first available Collection System Maintenance Technician II (CSMT II) is to be immediately contacted. The Supervisor or CSMT II will determine the personnel and equipment to dispatch to the reported problem site. The dispatched crew will immediately inform the Supervisor or CSMT II if a SSO has or is occurring if the Supervisor or CSMT II is not already on site.
2. The Supervisor will inform the District Operations Manager and the District General Manager of the SSO. In the absence of the Supervisor, the CSMT II will inform the District Operations Manager and the District General Manager of the SSO.
3. When the Collection System On Call Person is notified of a District related emergency after hours and on weekends/holidays, the On Call person is to immediately contact the Supervisor or a CSMT II if the Supervisor cannot be reached. If a CSMT II cannot be reached, proceed immediately to the reported problem site.
4. Upon confirmation of a SSO, and if the Supervisor or CSMT II has not been contacted, inform the District Operations Manager of the SSO. If the District Operations Manager cannot be reached, inform the District General Manager of the SSO.

D. SSO NOTIFICATION TO CAL OES AND COUNTY PUBLIC HEALTH

1. The Collection System Supervisor has the primary responsibility to contact Cal OES and County Public Health for SSO notification. In the absence of the Supervisor, the first available CSMT II will contact Cal OES and County Public Health to initially report a SSO. In the absence of the Supervisor and the CSMT II, the On Call Person shall make the initial notification to Cal OES and County Public Health. If the On Call Person cannot be reached to respond to a SSO, the first responding Collection System person shall attempt to contact the Supervisor and/or CSMT II and make the initial notification to Cal OES and County Public Health if the Supervisor and CSMT II are unavailable.

E. CIWQS REPORTING AND CERTIFICATION

1. The Collection System Supervisor has the primary responsibility to make CIWQS SSO reports. In the absence of the Supervisor, Luis Astorga CSMT II will make the initial CIWQS report. In the absence of Luis Astorga, Juan Ramirez CSMT II will make the initial CIWQS SSO report. In the absence of these personnel, the District Operations Manager will make the initial CIWQS SSO report. The District General Manager will make the initial CIWQS SSO report if the Operations Manager is not available.
2. The Collection System Supervisor has the primary responsibility to make amended CIWQS SSO reports and to certify all CIWQS SSO and technical reports. The District Operations Manager will make amended CIWQS SSO reports and will certify all CIWQS SSO and technical reports in the absence of the Collection System Supervisor. The District General Manager will make amended CIWQS SSO reports and will certify CIWQS SSO and technical reports if the Operations Manager is not available.

II. RESPONSE PROCEDURES

A. RESPONSE PROCEDURES FOR ALL SSOs

1. Upon notification of an SSO, blockage or other request for service:

Obtain and document the name, phone number and address of the person making the notification. Obtain and document the location and a description of the problem, the time the problem was first observed and determine if the issue is within the jurisdiction and service area of the District. Use the District Collection System Service Call Response Field Report for this purpose.

If the issue is not within the jurisdiction and/or service area of the District, notify the appropriate agency, obtain the name of the person contacted and pass along any information obtained in the initial call. Issues not within the District's jurisdiction include calls for service from the Goleta West Sanitary District, City of Santa Barbara, Santa Barbara Municipal Airport, UCSB, County of Santa Barbara and Laguna Sanitation for the County Service Area near Foothill Road and Mission Creek service areas.

If the issue is within the jurisdiction/service area of the District or if this determination cannot be made, notify the Collection System Supervisor or a Collection System Maintenance Technician II of the reported issue, notify additional personnel if required (see Appendix A, District Emergency Response Call Out List) and proceed to the location to address the issue.

2. Upon arrival at the location, determine if the issue is within a private sewer lateral or within the District's sewer system, check the upstream and downstream District manholes to identify the location of a blockage/SSO if this is not readily apparent.

If the blockage is within the private sewer lateral, verify that normal flow conditions exist within the District's sewer system and that the District's sewer system or flow conditions are not causing or contributing to the private sewer lateral. Advise the property owner/resident to seek the services of a plumber and notify Santa Barbara County Public Health if a Private Sewer Lateral Discharge has occurred.

3. If the blockage is within the District's sewer system, take immediate measures to prevent any discharge from reaching any creek, storm drain channel or storm drain inlet, establish initial traffic control and position the vehicle or sewer-cleaning equipment at the downstream manhole and work towards the blockage. Use a debris catcher to attempt to capture dislodged debris from the blockage so that additional blockages/SSOs are not created downstream of this location. Keep in mind that a new blockage may be created at this downstream manhole if the dislodged debris plugs the downstream pipe by this effort, exercise extreme care to prevent additional blockages. Begin the calculation of the SSO volume as conditions allow.

4. If required, contact additional District personnel(see Appendix A) to expand Traffic Control, set up pumps, place and erect barricades or vacuum equipment to prevent the SSO from reaching any creek, storm drain, drainage channel or surface water, continue calculation of the SSO volume and begin spill clean –up and mitigation as required.
5. Begin the Notification of other Agencies as specified in Appendix B and complete the calculation of the SSO volume.
6. The District Collection System Supervisor or a Collection System Maintenance Technician II will complete the notification process and begin the process of claims handling and damage assessment. Once the spill mitigation has been completed, the Collection System Supervisor as a District Legally Responsible Official (LRO) will certify the CIWQS reports. The District shall keep records on file of each SSO in accordance with District Records Retention Policies or as otherwise required.

B. CATEGORY 1 SSO RESPONSE PROCEDURE

1. Upon notification or determination of a Category 1 SSO, immediately begin measures to prevent or minimize the flow of wastewater into the creek or storm drain system. These measures include using the Vaccon vacuum system, or use sandbags, SSO pillows, storm drain inlet covers or sand/dirt berms to contain the SSO in an area that be vacuumed or pumped back into the District sewer system.
2. Use the Vaccon /Guzzler Trucks or hand rods to clear the blockage in the line and establish normal flow. If the SSO is at either the El Sueno or Firestone Lift Stations, begin response procedures as detailed in Section II F and Section II G below.
3. Begin the initial estimation of the SSO volume.
4. Within two (2) hours of becoming aware of a Category 1 SSO equal or greater than 1,000 gallons that has discharged to surface waters or has spilled in a location where it will probably to discharged to surface waters, contact Cal OES at (800) 852-7550 to make an initial report or verify that this initial report has been done. Obtain a notification control number from Cal OES and the name of the person who took the information.
5. If the SSO is or has the potential to be equal or greater than 50,000 gallons, verify that the District Technical Services Supervisor has been contacted to initiate the technical report as detailed in Section IV.
6. Continue to clear the blockage with the Vaccon/Guzzler or with hand rods until normal flow is re-established. If necessary, use the District trash pumps to divert flows around the blockage site to the next District manhole. If the SSO has entered into a storm drain or creek, the storm drain or creek will be cleaned or pumped as required to return as much as possible of the SSO back into the District sewer system.
7. Continue work to calculate the volume of the SSO and to contain, clean and vacuum all debris and wastewater from the SSO. Contaminated areas such as streets, driveways, curbs and gutters will be flushed with potable water and vacuumed by the Vaccon truck(s). These areas will be disinfected with Microseptac as prescribed on the product label and MSDS sheet.
8. Notify the Collection System Supervisor or Collection System Maintenance Technician II of the SSO and of any known property damage caused by the SSO. The Supervisor or Maintenance Technician II will notify the District Operations Manager and District General Manager of the SSO. The Supervisor will initiate claims response by providing the property owner with a District claim form. Begin documenting the extent of the property damage using the District Property Sewer Backup Assessment Report and photographs. Contact the District Administration Supervisor to begin notification with CSRMA for District insurance purposes. If property damage has occurred, CSRMA will handle the claims process.
9. The Collection System Supervisor or Maintenance Technician II will verify that the cleanup process is complete. The Supervisor or Maintenance Technician II will coordinate sampling and monitoring with the District Technical Services Supervisor. The responding District personnel will complete the District Service Call Response Field Report, SSO volume estimation worksheets and submit these forms to the Supervisor for his review. Verify that flow conditions have returned to normal and return all vehicles, equipment and traffic control items to the District plant for cleaning and storage.

10. The Supervisor will provide any significant changes of the initial SSO report to Cal OES and submit a draft report to CIWQS within 3 business days of the SSO.
11. The Supervisor or Maintenance Technician II will coordinate work on sampling, monitoring and other elements of the technical report. The CIWQS report shall be certified by the Collection System Supervisor within 15 calendar days of the end of the SSO. The technical report shall be certified and submitted to CIWQS within 45 calendar days of the end of the SSO. In the absence of the Collection System Supervisor, the District Operations Manager or the District General Manager, as Legally Responsible Officials (LRO) will certify CIWQS reports within the required timeframes.

C. CATEGORY 2 SSO RESPONSE PROCEDURE

1. Upon notification or determination of a Category 2 SSO, immediately begin measures to prevent the flow of wastewater into the creek or storm drain system. These measures include using the Vaccon vacuum system, or use sandbags, SSO pillows, storm drain inlet covers or sand/dirt berms to contain the SSO in an area that be vacuumed or pumped back into the District sewer system.
2. Use the Vaccon /Guzzler Trucks or hand rods to clear the blockage in the line and establish normal flow. If the SSO is at either the El Sueno or Firestone Lift Stations, begin response procedures as detailed in Section II F and II G below.
3. Begin the initial estimation of the SSO volume.
4. Continue to clear the blockage with the Vaccon/Guzzler or with hand rods until normal flow is re-established. If necessary, use the District trash pumps to divert flows around the blockage site to the next District manhole. If the SSO has entered into a storm drain, the storm drain shall be cleaned in order to return all of the SSO back into the District sewer system or the SSO shall be deemed to be a Category 1 SSO and Category 1 SSO response measures shall apply.
5. Continue work to calculate the volume of the SSO and to contain, clean and vacuum all debris and wastewater from the SSO. Contaminated areas such as streets, driveways, curbs and gutters will be flushed with potable water and vacuumed by the Vaccon truck(s). These areas will be disinfected with Microseptic as prescribed on the product label and MSDS sheet.
6. Notify the Collection System Supervisor or Maintenance Technician II of the SSO and of any known property damage caused by the SSO. The Supervisor or Maintenance Technician II will initiate claims response by providing the property owner with a District claim form. Begin documenting the extent of the property damage using the District Property Sewer Backup Assessment Report and photographs. Contact the District Administration Supervisor to begin notification with CSRMA for District insurance purposes. If property damage has occurred, CSRMA will handle the claims process.
7. The Collection System Supervisor or Maintenance Technician II will verify that the cleanup process is complete. The responding District personnel will complete the District Service Call Response Field Report, SSO volume estimation worksheets and submit these forms to the Supervisor for his review. Verify that flow conditions have returned to normal and return all vehicles, equipment and traffic control items to the District plant for cleaning and storage.
8. The Supervisor will provide any significant changes of the initial SSO report to Cal OES and submit a draft report to CIWQS within 3 business days of the SSO.
9. The CIWQS report shall be certified by the Collection System Supervisor within 15 calendar days of the end of the SSO. In the absence of the Collection System Supervisor, the District Operations Manager or the District General Manager, as Legally Responsible Officials (LRO) will certify CIWQS reports within the required timeframes.

D. CATEGORY 3 SSO RESPONSE PROCEDURE

1. Upon notification or determination of a Category 3 SSO, immediately begin measures to prevent the flow of wastewater into the creek or storm drain system. These measures include using the Vaccon vacuum system, or use sandbags, SSO pillows, storm drain inlet covers or sand/dirt berms to contain the SSO in an area that be vacuumed or pumped back into the District sewer system.
2. Use the Vaccon /Guzzler Trucks or hand rods to clear the blockage in the line and establish normal flow. If the SSO is at either the El Sueno or Firestone Lift Stations, begin response procedures as detailed in Section II F and II G below.
3. Begin the initial estimation of the SSO volume.
4. Continue to clear the blockage with the Vaccon/Guzzler or with hand rods until normal flow is re-established. If necessary, use the District trash pumps to divert flows around the blockage site to the next District manhole. If the SSO has entered into a storm drain, the storm drain shall be cleaned in order to return all of the SSO back into the District sewer system or the SSO shall be deemed to be a Category 1 SSO and Category 1 SSO response measures shall apply.
5. Continue work to calculate the volume of the SSO and to contain, clean and vacuum all debris and wastewater from the SSO. Contaminated areas such as streets, driveways, curbs and gutters will be flushed with potable water and vacuumed by the Vaccon truck(s). These areas will be disinfected with Microseptic as prescribed on the product label and MSDS sheet.
6. Notify the Collection System Supervisor or Maintenance Technician II of the SSO and of any known property damage caused by the SSO. The Supervisor or Maintenance Technician II will initiate claims response by providing the property owner with a District claim form. Begin documenting the extent of the property damage using the District Property Sewer Backup Assessment Report and photographs. Contact the District Administration Supervisor to begin notification with CSRMA for District insurance purposes. If property damage has occurred, CSRMA will handle the claims process.
7. The Collection System Supervisor or Maintenance Technician II will verify that the cleanup process is complete. The responding District personnel will complete the District Service Call Response Field Report, SSO volume estimation worksheets and submit these forms to the Supervisor for his review. Verify that flow conditions have returned to normal and return all vehicles, equipment and traffic control items to the District plant for cleaning and storage.
8. The Supervisor will provide any significant changes of the initial SSO report to Cal OES and submit a draft report to CIWQS within 3 business days of the SSO.
9. The CIWQS report shall be certified by the Collection System Supervisor within 30 calendar days of the end of the SSO. In the absence of the Collection System Supervisor, the District Operations Manager or the District General Manager, as Legally Responsible Officials (LRO) will certify CIWQS reports within the required timeframes.

E. PRIVATE LATERAL SEWAGE DISCHARGE (PLSD)

1. Upon notification or determination of a PLSD, verify that flow conditions within the District sewer system are not contributing or causing the PLSD and advise the property owner to correct the PLSD. Notify the Collection System Supervisor and Santa Barbara County Public Health at (805) 681-4900.

F. EL SUENO LIFT STATION ALARM AND SSO RESPONSE

1. The El Sueno Lift Station is equipped with a power outage and a high-level alarm. Upon receipt of these alarms, immediately proceed to the Lift Station and verify flow conditions. Acknowledge the alarm and determine if power has been restored.
2. If there is no power at the lift station and an SSO has not occurred, take or have brought a 3" trash pump with sections of suction and discharge hose to the lift station. Connect the suction hose from the pump to the by-pass pipe at the wet well and connect the discharge hose from the pump to the force main by-pass valve. Operate the trash pump as needed to maintain normal levels in the wet well until such time that power is restored. Contact Southern California Edison at 1-800-656-4555 and inform them of the power outage affecting the District lift station located at 419 El Sueno Road, Santa Barbara, Service Account # 3-000-5321-34. Notify the Collection System Supervisor or a Collection System Maintenance Technician II of the power outage.
3. Continue to maintain normal levels in the wet well until power is restored and the lift station is operating normally. Return all pumps and equipment used to the District plant for cleaning and storage.
4. If there is power at the station but the pump does not appear to be working, check the breakers in the control power. Reset the breakers if needed and turn off the power to the pump to check if the pump is clogged. Verify that power to the pump has been disconnected and clear the pump of any blockage. Turn the power back on and verify that the pump is working. Run the pump in the "Manual Position" until normal levels in the wet well is maintained and the lift station is operating normally.
5. If the pump will not operate, take or have a 3" trash pump with sections of suction and discharge hose taken to the lift station. . Connect the suction hose from the pump to the by-pass pipe at the wet well and connect the discharge hose from the pump to the force main by-pass valve. Operate the trash pump as needed to maintain normal levels in the wet well until such time that the pump can be fixed or replaced.
6. If there appears to be a blockage in the force main, disconnect the force main piping in the wet well to expose the force main outlet. Clean the force main using the Vaccon without skids from District manhole 05T46 at Sherwood Drive towards the lift station. If a blockage is cleared, reassemble the wet well piping and pump the wet well to normal operating levels. If the blockage cannot be cleared, connect discharge hose from the 3" trash pump to manhole 05T46 at Sherwood Drive or to a District Vaccon or Guzzler truck. Maintain normal levels in the wet well until the blockage in the force main can be cleared and the lift station is operating normally.
7. If a SSO has or is occurring at the El Sueno Lift Station, take immediate action to prevent the SSO from entering into the drainage channel adjacent to the station. Notify the Collection System Supervisor and begin to pump down the wet well as described above in Items 1-6. Begin initial calculation of the SSO and begin the notification process as required for the SSO Category that has occurred as described above in Sections B, C and D.

8. Once the SSO has been contained and normal operations have resumed at the station, begin clean up of the SSO and pump or vacuum all water back into the District sewer system. Apply Microseptic disinfectant to all affected areas around the lift station. Prepare a District Service Call Response Field Report for review by the Supervisor and continue calculation of the SSO volume.
9. The Supervisor or Maintenance Technician II will continue with the notification process as described above in Sections B, C and D.

F. FIRESTONE LIFT STATION ALARM AND SSO RESPONSE

1. The Firestone Lift Station is equipped with power outage and high-level alarms and an emergency generator. Upon receipt of these alarms, immediately proceed to the Lift Station, verify flow conditions and acknowledge the alarm.
2. The emergency generator is designed to provide electrical power to the station in case of loss of Edison power. The station pumps will automatically switch from one power source to the other. The noise of the generator will indicate that it is operating, verify that the level of the wet well corresponds with the level indicated on the control panel.
3. If there is no Edison power to the lift station and the standby generator is not providing electrical power to the station, contact the District Facilities Maintenance Supervisor. Monitor the level in the wet well and connect suction hose from the wet well to the 6" trash pump and connect suction hose from the trash pump to the by-pass valve located in the valve pit. Additional personnel will be required for this operation. Use Appendix A to contact additional District personnel.
4. If electrical power cannot be restored to the station, turn off the electrical breakers for the pumps in the control room, close the valves from the station pumps and open the by-pass valves in the valve pit. Operate the 6" trash pump as required to maintain normal levels in the wet well.
5. If a SSO has or is occurring at the Firestone Lift Station, take immediate action to prevent the SSO from entering into the drainage channel adjacent to the station. The perimeter walls of the Station will contain the SSO, use sandbags and/or tarps to contain the gate area. Notify the Collection System Supervisor or Collection System Maintenance Technician II and begin to pump down the wet well as described above in Items 3-4. Begin initial calculation of the SSO and begin the notification process as required for the SSO Category that has occurred as described above in Sections B, C and D.
6. Once the SSO has been contained and normal operations have resumed at the station, begin clean up of the SSO and pump or vacuum all water back into the District sewer system. Apply Microseptic disinfectant to all affected areas around the lift station. Prepare a District Service Call Response Field Report for review by the Supervisor and continue calculation of the SSO volume.
7. The Supervisor or Maintenance Technician II will continue with the notification process as described above in Sections B, C and D.

III. WATER QUALITY MONITORING AND SAMPLING PROCEDURES

A. REQUIREMENTS AND TIMELINES

1. When an SSO of 50,000 gallons or greater that has or may have reached surface waters, and within forty-eight (48) hours of initial notification of the spill, District staff will sample the affected water body according to the following water quality monitoring and sampling procedures.
2. Spills into a Waterbody of the State require that samples be taken from the upstream and downstream point of the spill. The samples shall be as free of debris as possible. Notify the Technical Services Supervisor or lab technician on duty that these samples need to be analyzed within the next 24 hours.
3. The travel time of the spill within the water body will be used as a determination of the location of the downstream sample point. The velocity of the flow will be calculated by measuring the travel time of floating objects between two known-distance points. This calculation of distance divided by the travel time will be used to estimate how far the spill may have travelled from the initial reporting time of the spill to the time that samples are being collected. The downstream sample is to be collected as close as feasibly possible to this calculated distance.
4. During periods of heavy rainfall or flooding, it may become impractical and/or unsafe to follow this sampling procedure. Sampling will be conducted as soon as District staff can safely comply with this requirement. When access to a creek or water body is restricted, sampling is to be conducted at the next closest location that can be accessed.

Samples will be analyzed for the following constituents:

- a. Ammonia
- b. Total and fecal coliform and enterococcus
- c. E-Coli

District staff will analyze the ammonia and total and fecal coliform and enterococcus samples in-house within 24 hours of being collected.

Samples to be tested for E. Coli are to be sent to a contract laboratory for analysis. FGL in Santa Paula is the District's contracted lab. They will need to be contacted to schedule a pickup of the samples. Their general contact information is: (805) 392-2000. The direct number for courier pick-up is: Matt Jimenez (805) 625-2611.

Total and fecal coliform and enterococcus samples can be collected in one sterilized 125 ml plastic bottle from the District Spill Response Kit. A separate sample for E. Coli will need to be collected in another sterilized 125 ml plastic bottle as this sample will be sent to FGL lab. Ammonia is to be collected in a plastic 500mL bottle with a small amount of H₂SO₄ (sulfuric acid) for preservation. See the following table for a summary of the constituents, sampling and testing information.

Constituent	Place of Analysis	Sampling Bottle
Ammonia	GSD lab	500mL plastic bottle with H ₂ SO ₄
Total, Fecal Coliform, Enterococcus	GSD lab	125 mL plastic sterile bottle
E. Coli	FGL lab	125 mL plastic sterile bottle

3. Results of all testing will be maintained by the District Technical Services Supervisor and copies will be provided to the Collection System Supervisor. Test results shall be kept on file in accordance with District retention policy.

IV. SSO TECHNICAL REPORT

A. GENERAL INFORMATION AND REQUIRED ELEMENTS

1. The District will submit and certify a SSO Technical Report in the CIWQS Online SSO Database as required by the State Water Resources Control Board. This report will be filed for a SSO that is within the District's jurisdiction and responsibility that are equal to or greater than 50,000 gallons that have spilled to surface waters. This report will be submitted and certified within forty-five (45) days of the SSO end date.

2. This report will consist of the following elements:

Cause and Circumstance of the SSO

- Complete and detailed explanation of how and when the SSO was discovered.
- Diagram showing the SSO failure point, appearance point(s) and final destination(s).
- Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
- Detailed description of the cause(s) of the SSO.
- Copies of original field crew records used to document the SSO.
- Historical maintenance records for the failure location.

District Response to SSO

- Chronological narrative description of all actions taken by the District to terminate the spill.
- Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.
- Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.

Water Quality Monitoring

- Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
- Detailed location map illustrating all water quality sampling points.

V. SSO REVIEW PROCEDURES

A. REVIEW AND CORRECTIVE ACTIONS

1. The District will conduct reviews of SSOs in an effort to prevent SSO reoccurrence and to minimize future SSO frequency and volume. This review will, at a minimum, include the following items:

- Cause of the SSO.
- Adherence to District Notification, Reporting and Response Procedures and effectiveness of the procedures.
- Review of SSO calculation methodology and field crew notes used for SSO volume calculation.
- Review of SSO response and damage assessment forms.
- Review of District CCTV and maintenance records for the SSO location.
- Review corrective action for the District facility involved in the SSO.
- Review of follow up action for SSO origination outside of District facilities.

**APPENDIX A
GOLETA SANITARY DISTRICT
EMERGENCY CONTACT LIST**

This contact list shall be used to notify District personnel when receiving an emergency service request relative to Goleta Sanitary District facilities:

PROCEDURE NO. 1 SEWERLINE EMERGENCIES

When calls are received for sewerline emergencies, such as overflows or open manhole covers, the name and telephone number of the caller, as well as the location, description and start time of the problem, shall be obtained.

All District-related sewerline emergency calls including those originating from the Firestone Lift Station and the El Sueno Lift Station Auto Dialer Alarm that are received by the answering service from 5:00 p.m. until 8:00 a.m. weekdays, all day Saturdays and Sundays and all holidays (See attached Holiday List), are to be handled as follows: Call the Collection System On Call Cell Phone 705-0701.

IMPORTANT NOTICE: If the answering service receives a call from a plumber who is notifying the District that they are going to clean a private sewer, please proceed as follows:

1. Inform the plumber to proceed with their work;
2. Take down their name and address where work will be performed;
3. Inform the District's office at the next business day.

CONTACT THE FOLLOWING PERSONNEL IN THE ORDER OF LISTING UNTIL SOMEONE IS CONTACTED.

- | | | | | | |
|----|-----------------|----------|----|------------------|----------|
| 1. | STAND BY PERSON | 705-0701 | 5. | Justin Graves | 588-9501 |
| 2. | Loren Barringer | 683-0071 | 6. | Alex Bautista | 816-6357 |
| 3. | Luis Astorga | 760-4426 | 7. | Shamus O'Donnell | 570-0207 |
| 4. | Juan Ramirez | 588-4007 | | | |

If no one is reached, the answering service shall then contact the following personnel in order of listing until someone is contacted:

- | | | | |
|----|-------------|----------|---------------|
| 7. | John Corral | 448-7517 | Cell 705-4153 |
| 8. | Jeff Salt | 569-7653 | Cell 729-6771 |

If none of the above personnel are contacted, the answering service shall contact the Treatment Plant personnel listed below until someone is contacted:

PROCEDURE NO. 2 TREATMENT PLANT EMERGENCIES

(These are problems occurring within the plant premises.)

When a recorded call that originates from the "Emergency Tape" describing plant problems is received, call the Plant On-Call Cell Phone 705-4845. If there is no response, call the Plant Night Operator Cell Phone 680-3280. If still no response, call the personnel listed below, in order of listing, until someone is contacted:

- | | | | | | |
|----|----------------|--------------------|----|------------------------|--------------|
| 1. | Rob Hidalgo | 845-3508 | 4. | Rick Lopez | 452-2060 |
| 2. | Todd Frederick | 845-3344 | 5. | Francisco "Paco" Lemus | 707-407-7851 |
| 3. | Steve Conklin | 3735-3535/865-2110 | 6. | Jeff Salt | 569-7653 |

TO CONTACT ANSWERING SERVICE DIAL 564-2560

AT THE TONE ENTER: #245903 for Sewer Emergency and #245904 for Plant Emergency or wait for the answering service to answer

APPENDIX B
(Sheet 1 of 2)

COLLECTION SYSTEM SERVICE CALL RESPONSE FIELD REPORT

EMERGENCY-Includes sewer spills reports and lift station alarms. This field report must be completed by the person responding to the emergency call.

NON-EMERGENCY-Includes odor complaints, noisy manhole covers

Date: _____, 20____ Time of Initial Report ____ : ____ AM/PM

Name of Person Reporting Problem: _____ Phone: (____) _____

Address: _____ APN: _____

Nearest Cross Street: _____

Nature of Problem: STOPPAGE ____ *OVERFLOW ____ OTHER (Describe): _____

Is Problem in District Service Area? YES ____ NO ____

Approximate Time Problem First Noticed or Occurred: ____ : ____ AM/PM

Name of District Personnel Responding to Problem: _____

Time Crew Dispatched to Problem Site: ____ : ____ AM/PM Time Arrived at Site: ____ AM/PM

Time Response Action Completed at Site ____ AM/PM Time Returned to GSD Plant: ____ : ____ AM/PM

Caller Comments: _____

*Additional description of response actions and diagram on back page .

MAIN SEWERLINE DATA

Did Problem Occur in District Line? YES ____ NO ____ GSD SEWER LINE or M/H ID # _____

Problem Caused By: ROOTS ____ GREASE ____ DEBRIS ____ OTHER: ____ (Describe on back page)

Did Overflow Occur? YES ____ NO ____ If YES, approx. how many gallons: _____

How many gallons were vacuumed or recovered? _____

Describe how calculation was made: _____

Time overflow was stopped: ____ AM/PM Time Notifications were begun: ____ AM/PM

Vehicle Used for Response _____ Equipment/Nozzle Used _____

BUILDING AND LATERAL SEWER SERVICE DATA

Did Problem Occur in House Lateral: YES ____ NO ____

Problem Caused By: ROOTS ____ GREASE ____ DEBRIS ____ OTHER: ____ Describe _____

Backwater or Overflow Device? YES _____ NO _____ UNKNOWN _____

Description of response action: _____

Description of clean up procedures: _____

Diagram:

Draw a sketch of the area affected by the sewer spill: show main roads, creeks, manholes, spill path, nearby structures, etc.

Name of Person Completing Report

Signature of Person Completing Report

Date: _____

**Attachment C
Goleta Sanitary District
Sanitary Sewer Overflow Sampling Field Report**

Date: _____

Sampled By: _____

Location: _____
(GPS coordinates, cross street, GSD Manhole ID #)

WEATHER (circle one) Clear Cloudy Fog Rain Drizzle

CIRCLE ONE

Upstream Sample Location

Downstream Sample Location

Time: _____

CIRCLE ONE

Ammonia

Total Coliform

Fecal Coliform

Enterococcus

Sketch of Sample Location:

Comments: _____

_____.

APPENDIX E (Sheet 1 of 2)

SANITARY SEWER OVERFLOW EMERGENCY NOTIFICATION LIST

For Category 3 SSOs (less than 1,000 gallons in which there is no possibility of sewage entering a creek, waterway, storm drain or the ocean and no property damage, public contact or environmental damage has occurred) immediately clean up the spill and contact the Collection System Supervisor. If unavailable, contact a Collection System Maintenance Technician II. If none of these personnel can be reached, contact the District Operations Manager. If he cannot be reached, contact the District General Manager.

For all Category 1 and 2 SSOs; notify the first available person in the order listed AS SOON AS POSSIBLE:

- | | |
|--|----------------------|
| 1. John Corral, Collection System Supervisor | 448-7517 or 705-4153 |
| 2. Luis Astorga, Collection System Maintenance Technician II | 760-4426 |
| 3. Juan Ramirez, Collection System Maintenance Technician II | 558-4007 |
| 4. Jeff Salt, District Operations Manager | 569-7653 |
| 5. Kamil Azoury, District General Manager | 969-3599 |

In the event that none of the above listed individuals can be contacted and the SSO is deemed to be Category 1 greater than or equal to 1,000 gallons that has entered surface water or will probably enter surface water, contact Cal OES within two (2) hours of the District becoming aware of the SSO:

Cal OES 1-800-852-7550

The following information shall be provided to Cal OES:

- Your Name and Direct Return Phone Number – The cell phone or District phone number that the notification call is being made from.
- Estimated SSO volume discharged (gallons)
- If ongoing, the estimated SSO discharge rate (gallons per minute)
- SSO Incident Description to include:
 - Brief Narrative
 - On-Scene Point of Contact Person Name and Phone Number
 - Date and Time the District became aware of the SSO
 - Name of Sanitary Sewer System causing the SSO (GSD)
 - SSO Cause if known
- Indication of SSO has been contained
- Indication if surface water is impacted
- Name of Surface Water if known
- Indication if Drinking Water Supply is or may be impacted
- Any other known SSO impacts
- SSO incident location

GET NAME OF PERSON AND CONTROL NUMBER

APPENDIX E (Sheet 2 of 2)

NOTE: If sewer spill is from a S.B. County Facility-owned sewer line contact:

Santa Barbara County	681-5677
Facility Maintenance	896-2902 (cell)
Shop Supervisor	

STATE WATER RESOURCES CONTROL BOARD ELECTRONIC REPORTING

All Category 1, 2 and 3 SSOs shall be electronically reported to the State Water Resources Control @ <http://ciwqs.waterboards.ca.gov/>.

Category 1 SSOs : must be reported electronically within three (3) business days of the District being made aware of the SSO. A certified report must be completed within 15 calendar days of the SSO end date.

Category 2 SSOs : must be reported electronically within three (3) business days of the District being made aware of the SSO. A certified report must be completed within 15 calendar days of the SSO end date.

Category 3 SSOs: a certified report must be submitted electronically within thirty (30) calendar days of the end of month in which the SSO occurred.

If there are no SSOs during the calendar month, the District will certify, within 30 days after the end of each calendar month, a “No Spill” report or, if reporting quarterly, the quarter in which no SSOs occurred.

APPENDIX F (Sheet 1 of 2)
SAMPLE LETTER ONLY (SEE ADMIN\PROC\EMERSPILLTR)

Mr. Roger Briggs, Executive Officer
California Regional Water
Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

SUBJECT: Sewer Spill Report

Dear Mr. Briggs:

The following report is submitted in accordance with Section VI Provisions, Monitoring and Reporting Program Requirements of the Goleta Sanitary District's NPDES Permit and Attachment E- Monitoring and Reporting Program, Section XVI Reporting Requirements, May, 2010.

Discharger: GOLETA SANITARY DISTRICT

Phone #: (805) 967-4519

Address: One William Moffett Place

City: Goleta, CA 93117

Reporting Party: _____

Phone #: _____

Date of spill reported: _____

Time spill reported: _____

Time spill stopped: _____

Date spill started: _____

Time spill began:

Location/Address of spill origin: _____

Volume of spill: _____ **Path of spill:** _____

Water body affected: _____

Cause of spill: _____

Action taken to stop spill: _____

Time cleanup began: _____ **Time cleanup was complete:** _____

Cleanup action taken: _____

APPENDIX F (Sheet 2 of 2)

Mr. Roger Briggs
California Regional Water Quality Control Board
Page Two

Were public health warnings posted, and if so, where? _____

Number of spills in same location in the last three years: _____

Describe measures to be taken to prevent spills at this location: _____

Other agencies notified: State Department of Health Services, Santa Barbara County Environmental Health, Cal EMA and EPA Region IX.

EPA/National Response Center Control No. _____
Cal EMA Control No. _____

Hopefully this report meets the requirements stipulated in Attachment E, Monitoring and Reporting Program, of the District's Discharge Permit. If you have any questions or require additional information please do not hesitate to call me.

Very truly yours,

GOLETA SANITARY DISTRICT

Kamil S. Azoury, P.E.
General Manager/District Engineer

KSA: xx

cc: Santa Barbara County Environmental Health Care Services
State Health Department
EPA Region IX
Cal OES
Mr. John Corral, GSD Collection Systems Supervisor

APPENDIX F-1
California Regional Water Quality Control Board, Central Coast Region
SEWAGE SPILL REPORT

Reporting Party		Phone	
Address		City	
Discharger		Phone	

Date Of Overflow		Time Overflow Began		Time Overflow Stopped	
Overflow Location (street address or lat. & long.)					
Volume Of Overflow (Gallons)		Path Of Overflow			
Waterbody/Bodies Affected					
Cause Of Overflow (grease, roots, vandalism, pump station failure, etc.)					

Action Taken To Stop Overflow					
Time Cleanup Began		Time Cleanup Complete			
Discussion Of Cleanup					
Were Public Health Warnings Posted, And If So, Where?			Number Of Overflows In Same Location In Last Three Years		
Discussion Of Measures Taken To Prevent Overflows At This Location					

Agencies Notified (Please Check)		County Health		Cal OES		Fish and Wildlife		County Board Of Supervisors	Other (List)
SIGNATURE								DATE	

APPENDIX G

Insurance Adjuster and Commercial Cleaner Contact List:

Insurance Adjuster

Janice Yardley
Carl Warren & Co. cell (707) 732-6728
2300 Clayton Rd. Suite 1250 fax (925) 825-5964
Concord, CA 94520

Commercial Cleaners or Local Assistance

Service Master Anytime (805) 963-1365
6485 Calle Real
Goleta, CA 93117
24 Hour Service

United Rentals (805) 922-2151
Kim Rochester cell (805) 331-4778
1935 n Preisker Lane
Santa Maria, CA 93454
Pumps, hoses, construction equipment, traffic control items

Bark's Plumbing & Hydraulic
1700 North Broadway
Santa Maria, CA 93454 (805) 928-5823

Available Equipment
3,000 gallon Pumper Truck, 2,500 gallon Pumper Truck
1,500 gallon Hydro Truck, 1,000 gallon Hydro Truck

Goleta West Sanitary District (805) 968-2617
(Mark Nation)

City of Santa Barbara Public Works (805) 897-1931
(Manuel Romero)-Dispatch (805) 564-5413

APPENDIX H

EMERGENCY RESPONSE EQUIPMENT

<u>Equipment</u>	<u>Quantity</u>	<u>Location</u>
Vac-Con	2	Vehicle Garage
Guzzler	1	Vehicle Garage
Utility Truck	1	Vehicle Garage
F-250 Truck	1	Vehicle Garage
Flat Bed Truck with Crane	1	Vehicle Garage
Dump Truck	1	Vehicle Garage
S-10 Truck	1	Vehicle Garage
6" Trash Pump	2	Vehicle Garage
3" Trash Pump	1	Vehicle Garage
2" Trash Pump	1	Vehicle Garage
Liquid Disinfectant	2 – 20 gallon drums 1 – 5 gallon bucket	Vehicle Garage
Hudson Sprayer	1 - 2 gal container	Vehicle Garage
Sandbags	100	Vehicle Garage
Hose for Trash Pump	Various Sizes	Vehicle Garage
Gas & Diesel Cans	Various	Vehicle Garage
Hand Rods	200 Feet	Vehicle Garage
CCTV Unit	1	Vehicle Garage
Push/Portable Camera	2	C/S Storage Office
Spill Containment Kits	3	Vehicle Garage

APPENDIX I
SEWER SPILL RESPONSE CHECKLIST

	YES	NO
1) Determine spill location on map	<input type="checkbox"/>	<input type="checkbox"/>
A) If spill is not District responsibility, notify appropriate agency.		
2) Notify supervisor of spill and contact additional personnel if needed.	<input type="checkbox"/>	<input type="checkbox"/>
3) Proceed to spill with necessary equipment and crew.	<input type="checkbox"/>	<input type="checkbox"/>
4) Clear blockage from line.	<input type="checkbox"/>	<input type="checkbox"/>
5) Barricade all nearby storm inlets.	<input type="checkbox"/>	<input type="checkbox"/>
6) Vacuum all standing water and debris.	<input type="checkbox"/>	<input type="checkbox"/>
7) Disinfect area.	<input type="checkbox"/>	<input type="checkbox"/>
8) Rinse area with clean water and vacuum.	<input type="checkbox"/>	<input type="checkbox"/>
9) Notify supervisor that spill has been eliminated.	<input type="checkbox"/>	<input type="checkbox"/>
10) Conduct sampling per Procedure	<input type="checkbox"/>	<input type="checkbox"/>
11) Follow up with all required verbal, written and electronic reports.	<input type="checkbox"/>	<input type="checkbox"/>

Note: Comments for all no answers.

SSO VOLUME CALCULATION PROCEDURE

A. Initial Calculation/Estimation

Upon arrival or discovery of a SSO, the calculation and/or estimation of the volume of the spill is to be conducted as soon as practical. While the immediate need is to cease the SSO and prevent the spill from entering any creek, storm drain or water body, a preliminary estimate can be conducted in this initial phase of the response.

The District is required to report to Cal OES all spills of 1,000 gallons or greater that have entered or will probably enter into a water body. This report is required to be made within two (2) hours of the District becoming aware of the spill. The estimated SSO volume discharged is one of the required reporting elements. District staff will conduct spill estimation/calculation in order to fulfill this requirement. District staff will maintain notes, drawings and calculations used for this purpose. These records shall be submitted to the District Collection System Supervisor and maintained in accordance with District retention policies and State Water Resources Control Board Order No. WQ 2013-0058-EXEC. The initial estimation/calculation will be conducted using the following methods:

1. Visual Estimation: This method can be used on smaller spills of up to approximately 200 gallons. Estimate how many 5-gallon buckets or 50-gallon barrels of water would be needed to re-create the size of the SSO.
2. Measured Area: The shape, dimensions and depth of the SSO are measured to calculate the volume. These measurements are converted to cubic feet and SSO discharge in gallons is calculated from the number of cubic feet of the SSO measurements. Irregular shapes of the SSO can be broken down into smaller areas to facilitate measurements. This method works well on spills that have been contained.
3. Measured Flow: When the area and velocity of a SSO can be measured, the flow multiplied by the duration will equal the SSO volume.
4. Recovered Volume: When a SSO is vacuumed with the Vaccon trucks, the recovered spill amount can be measured by either the number of times the debris tank is filled, by how much the debris tank is filled or by measuring the amount of discharge when the debris tank is emptied.
5. Pictorial Reference: The San Diego and CWEA Southern Sections Collection Systems Committee pictorial charts can be used to determine the flow velocity of the SSO. The velocity is multiplied by the duration of the SSO to calculate the SSO volume.
6. Metered Flow: If the SSO is from a lift station with a metered flow, the meter readings will be used in conjunction with pump capacities and any other factors to calculate the SSO volume.

In all of the above methods, pictures or detailed sketches of the SSO area shall be done. Notes and calculations shall be maintained by the District personnel responding to the SSO. All of this information shall be submitted to the Collection System Supervisor.

B. Revised Calculation

All SSO volume calculations will be reviewed by the Collection System Supervisor. If additional factors need to be considered in order to calculate the SSO volume, the following methods can also be used to determine and/or verify the SSO volume:

1. **Upstream Connections:** The number of upstream connections will be calculated by a determined flow factor and the SSO duration to calculate the SSO volume. The upstream connections can be hand counted or a computer model such as HYDRA can be used for this method.
2. **Established Metered Flow:** If a SSO occurs near a metered site, that flow information can be used to establish or verify the SSO volume. GSD treatment plant influent meter readings can also be used as factors to determine SSO volume.

The District will use these and any other methods it deems necessary to accurately calculate the volume of a SSO in an effort to comply with its SSMP requirements.

Measured Area Calculation

Step 1 Calculate the area of the SSO in square feet using the following formulas:

- Rectangle: Area = length (feet) x width (feet)
- Circle: Area = diameter (feet) x diameter (feet) x 0.785
- Triangle: Area = base (feet) x height (feet) x 0.5

Step 2 Multiply the area (square feet) times the depth (in feet) to obtain the volume in cubic feet. To convert depth in inches to depth in feet, multiply inches by 0.0833.

Step 3 Multiply the volume in cubic feet by 7.48 (number of gallons in one cubic foot) to convert it to gallons.

Measured Flow Calculation

Step 1 Calculate the area of the channel and determine the velocity of the flow.

This formula is expressed as $Q = AV$, or quantity of flow $Q =$ cross sectional Area x Velocity of flow.

EXAMPLE: A SSO is running in a gutter that is 1/2" deep at the curb and extends 3" from the curb.

The cross-sectional area of this triangle is base x height x 0.5 or,
1/2 inch (.5 x 0.0833 = 0.042') x 3 inches (3 x 0.0833 = 0.25) x 0.5 or,
0.042 x 0.25 x 0.5 = **0.00525 ft²**.

This is the cross sectional Area of the triangular shaped flow in the gutter.

The Velocity is measured at 2 feet per second.

Multiply the Area and the Velocity, **0.00525 x 2 = 0.01 cubic feet** per second.

Multiply by 60 seconds per minute, **0.01 x 60 seconds = 0.6 cubic feet** per minute.

Multiply **0.6** by the duration of the SSO.

It has been 20 minutes (in this example) from the time the flow started to the time it was stopped. This is the duration of the SSO.

20 minutes duration time x 0.6 cubic feet = 12 cubic feet.

There are **7.48** gallons of water per cubic foot.

Multiply **12 x 7.48 = 89.76** gallons. This can be rounded to 90 gallons.



City of San Diego
Metropolitan Wastewater Department

**Reference Sheet for Estimating Sewer Spills
from Overflowing Sewer Manholes**
All estimates are calculated in gallons per minute (gpm)

Wastewater Collection Division
(619) 654-4160



5 gpm



25 gpm



50 gpm



100 gpm



150 gpm



200 gpm



225 gpm

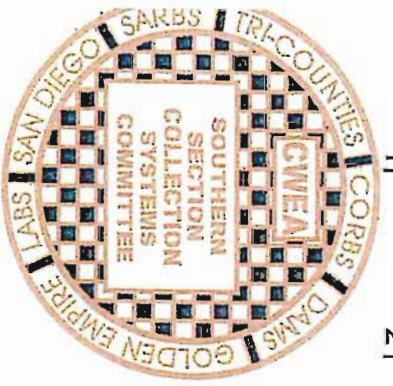


250 gpm



275 gpm

All photos were taken during a demonstration using metered water from a hydrant in cooperation with the City of San Diego's Water Department.



**PROVIDING QUALITY TRAINING
R COLLECTION SYSTEM PERSONNEL
SINCE 1991**

Join Statement: To continuously increase the level of professionalism of Collection Systems personnel involved in operation, maintenance, design and construction of sewer, Collection Systems, by providing education and training an active role in promoting certification, and granting proficiency in our field.

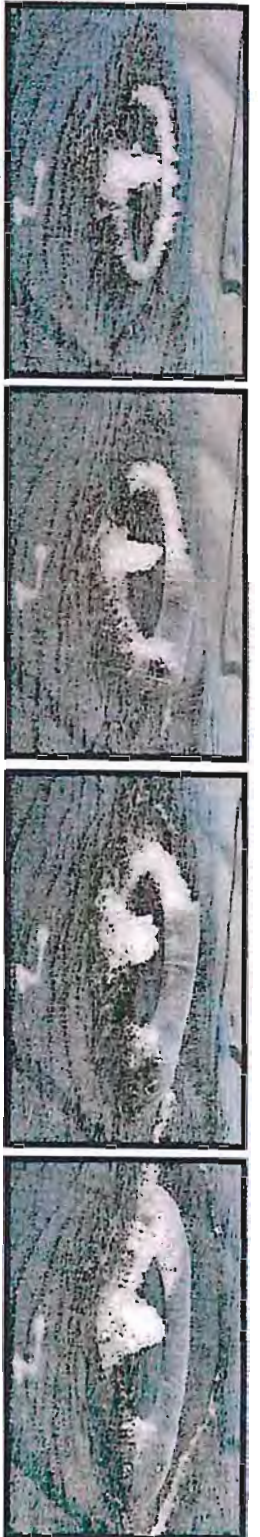


**SSCSC MANHOLE
OVERFLOW GAUGE**

Overflow Simulation courtesy of Eastern Municipal Water District



1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |



150 gpm

200 gpm

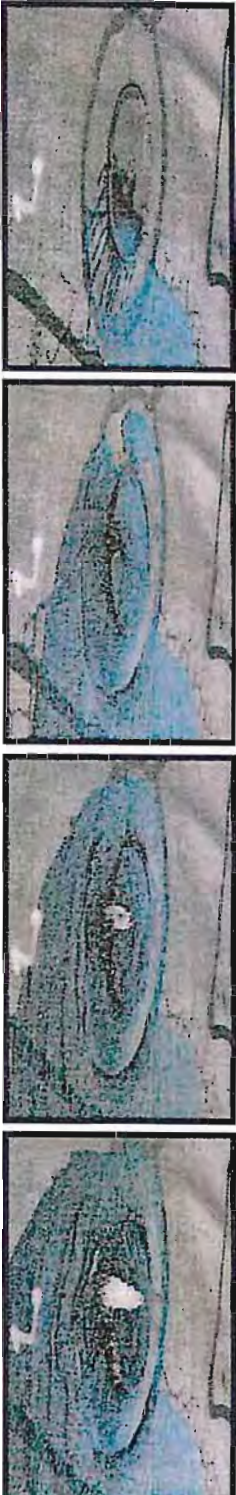
300 gpm

400 gpm



DISCLAIMER: This overflow simulation may appear differently from those in other systems because of the manhole lid pick hole configuration. Manhole lids with single or multiple pick holes may appear differently during similar overflow conditions. However, the volume of exfiltration and the footprint of the wet area should appear relatively the same under similar slope conditions.

DISCLAIMER: This overflow simulation may appear differently from those in other systems because of the manhole lid pick hole configuration. Manhole lids with single or multiple pick holes may appear differently during overflow conditions. However, the volume of exfiltration and the footprint of the wet area should appear relatively the same under similar slope conditions.

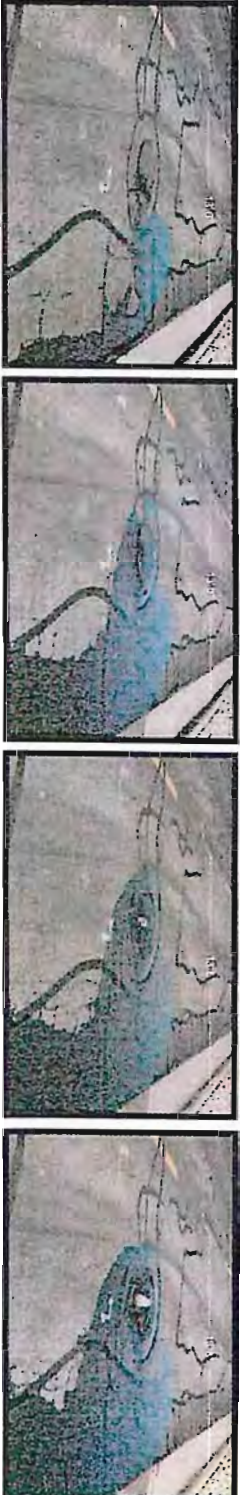


5 gpm

25 gpm

50 gpm

100 gpm



1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

APPENDIX F

SWRCB ORDER NO. 2006-0003-DWQ

**STATE WATER RESOURCES CONTROL BOARD
ORDER NO. 2006-0003-DWQ**

**STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
SANITARY SEWER SYSTEMS**

The State Water Resources Control Board, hereinafter referred to as "State Water Board", finds that:

1. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to comply with the terms of this Order. Such entities are hereinafter referred to as "Enrollees".
2. Sanitary sewer overflows (SSOs) are overflows from sanitary sewer systems of domestic wastewater, as well as industrial and commercial wastewater, depending on the pattern of land uses in the area served by the sanitary sewer system. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. SSOs may cause a public nuisance, particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.
3. Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.
4. Major causes of SSOs include: grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age and construction material failures, lack of proper operation and maintenance, insufficient capacity and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures and operation and maintenance of the sanitary sewer system.

SEWER SYSTEM MANAGEMENT PLANS

5. To facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.
6. Many local public agencies in California have already developed SSMPs and implemented measures to reduce SSOs. These entities can build upon their existing efforts to establish a comprehensive SSMP consistent with this Order. Others, however, still require technical assistance and, in some cases, funding to improve sanitary sewer system operation and maintenance in order to reduce SSOs.
7. SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately.
8. It is the State Water Board's intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.
9. Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State Water Board and Regional Water Quality Control Boards (Regional Water Boards) to effectively analyze the extent of SSOs statewide and their potential impacts on beneficial uses and public health. The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. 2006-0003-DWQ, are necessary to assure compliance with these waste discharge requirements (WDRs).
10. Information regarding SSOs must be provided to Regional Water Boards and other regulatory agencies in a timely manner and be made available to the public in a complete, concise, and timely fashion.
11. Some Regional Water Boards have issued WDRs or WDRs that serve as National Pollution Discharge Elimination System (NPDES) permits to sanitary sewer system owners/operators within their jurisdictions. This Order establishes minimum requirements to prevent SSOs. Although it is the State Water Board's intent that this Order be the primary regulatory mechanism for sanitary sewer systems statewide, Regional Water Boards may issue more stringent or more

prescriptive WDRs for sanitary sewer systems. Upon issuance or reissuance of a Regional Water Board's WDRs for a system subject to this Order, the Regional Water Board shall coordinate its requirements with stated requirements within this Order, to identify requirements that are more stringent, to remove requirements that are less stringent than this Order, and to provide consistency in reporting.

REGULATORY CONSIDERATIONS

12. California Water Code section 13263 provides that the State Water Board may prescribe general WDRs for a category of discharges if the State Water Board finds or determines that:

- The discharges are produced by the same or similar operations;
- The discharges involve the same or similar types of waste;
- The discharges require the same or similar treatment standards; and
- The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.

This Order establishes requirements for a class of operations, facilities, and discharges that are similar throughout the state.

13. The issuance of general WDRs to the Enrollees will:

- a) Reduce the administrative burden of issuing individual WDRs to each Enrollee;
- b) Provide for a unified statewide approach for the reporting and database tracking of SSOs;
- c) Establish consistent and uniform requirements for SSMP development and implementation;
- d) Provide statewide consistency in reporting; and
- e) Facilitate consistent enforcement for violations.

14. The beneficial uses of surface waters that can be impaired by SSOs include, but are not limited to, aquatic life, drinking water supply, body contact and non-contact recreation, and aesthetics. The beneficial uses of ground water that can be impaired include, but are not limited to, drinking water and agricultural supply. Surface and ground waters throughout the state support these uses to varying degrees.

15. The implementation of requirements set forth in this Order will ensure the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each region and take into account the environmental characteristics of hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect

water quality in the area, costs associated with compliance with these requirements, the need for developing housing within California, and the need to develop and use recycled water.

16. The Federal Clean Water Act largely prohibits any discharge of pollutants from a point source to waters of the United States except as authorized under an NPDES permit. In general, any point source discharge of sewage effluent to... waters of the United States must comply with technology-based, secondary treatment standards, at a minimum, and any more stringent requirements necessary to meet applicable water quality standards and other requirements. Hence, the unpermitted discharge of wastewater from a sanitary sewer system to waters of the United States is illegal under the Clean Water Act. In addition, many Basin Plans adopted by the Regional Water Boards contain discharge prohibitions that apply to the discharge of untreated or partially treated wastewater. Finally, the California Water Code generally prohibits the discharge of waste to land prior to the filing of any required report of waste discharge and the subsequent issuance of either WDRs or a waiver of WDRs.
17. California Water Code section 13263 requires a water board to, after any necessary hearing, prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. The requirements shall, among other things, take into consideration the need to prevent nuisance.
18. California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
 - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
 - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
 - c. Occurs during, or as a result of, the treatment or disposal of wastes.
19. This Order is consistent with State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) in that the Order imposes conditions to prevent impacts to water quality, does not allow the degradation of water quality, will not unreasonably affect beneficial uses of water, and will not result in water quality less than prescribed in State Water Board or Regional Water Board plans and policies.
20. The action to adopt this General Order is exempt from the California Environmental Quality Act (Public Resources Code §21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment. (Cal. Code Regs., tit. 14, §15308). In addition, the action to adopt

this Order is exempt from CEQA pursuant to Cal.Code Regs., title 14, §15301 to the extent that it applies to existing sanitary sewer collection systems that constitute "existing facilities" as that term is used in Section 15301, and §15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

21. The Fact Sheet, which is incorporated by reference in the Order, contains supplemental information that was also considered in establishing these requirements.
22. The State Water Board has notified all affected public agencies and all known interested persons of the intent to prescribe general WDRs that require Enrollees to develop SSMPs and to report all SSOs.
23. The State Water Board conducted a public hearing on February 8, 2006, to receive oral and written comments on the draft order. The State Water Board received and considered, at its May 2, 2006, meeting, additional public comments on substantial changes made to the proposed general WDRs following the February 8, 2006, public hearing. The State Water Board has considered all comments pertaining to the proposed general WDRs.

IT IS HEREBY ORDERED, that pursuant to California Water Code section 13263, the Enrollees, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

A. DEFINITIONS

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
 - (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
 - (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
 - (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.
2. **Sanitary sewer system** - Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

For purposes of this Order, sanitary sewer systems include only those systems owned by public agencies that are comprised of more than one mile of pipes or sewer lines.

3. **Enrollee** - A federal or state agency, municipality, county, district, and other public entity that owns or operates a sanitary sewer system, as defined in the general WDRs, and that has submitted a complete and approved application for coverage under this Order.
4. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.
5. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.
6. **Satellite collection system** – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.
7. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
 - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
 - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
 - c. Occurs during, or as a result of, the treatment or disposal of wastes.

B. APPLICATION REQUIREMENTS

1. **Deadlines for Application** – All public agencies that currently own or operate sanitary sewer systems within the State of California must apply for coverage under the general WDRs within six (6) months of the date of adoption of the general WDRs. Additionally, public agencies that acquire or assume responsibility for operating sanitary sewer systems after the date of adoption of this Order must apply for coverage under the general WDRs at least three (3) months prior to operation of those facilities.
2. **Applications under the general WDRs** – In order to apply for coverage pursuant to the general WDRs, a legally authorized representative for each agency must submit a complete application package. Within sixty (60) days of adoption of the general WDRs, State Water Board staff will send specific instructions on how to

apply for coverage under the general WDRs to all known public agencies that own sanitary sewer systems. Agencies that do not receive notice may obtain applications and instructions online on the Water Board's website.

3. Coverage under the general WDRs – Permit coverage will be in effect once a complete application package has been submitted and approved by the State Water Board's Division of Water Quality.

C. PROHIBITIONS

1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.
2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

D. PROVISIONS

1. The Enrollee must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.
2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDRs. Nothing in the general WDRs shall be:
 - (i) Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
 - (ii) Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
 - (iii) Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
 - (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.
3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.
4. In the event of an SSO, the Enrollee shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into

flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

5. All SSOs must be reported in accordance with Section G of the general WDRs.
6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider the Enrollee's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:
 - (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;
 - (ii) The Enrollee can identify the cause or likely cause of the discharge event;
 - (iii) There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Enrollee does not implement a periodic or continuing process to identify and correct problems.
 - (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;
 - (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
 - Proper management, operation and maintenance;
 - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);
 - Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
 - Installation of adequate backup equipment; and
 - Inflow and infiltration prevention and control to the extent practicable.
 - (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

(vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.

7. When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

- (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
 - (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - (iii) Cleanup of debris at the overflow site;
 - (iv) System modifications to prevent another SSO at the same location;
 - (v) Adequate sampling to determine the nature and impact of the release; and
 - (vi) Adequate public notification to protect the public from exposure to the SSO.
8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
 9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.
 10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.
 11. The Enrollee shall develop and implement a written Sewer System Management Plan (SSMP) and make it available to the State and/or Regional Water Board upon request. A copy of this document must be publicly available at the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.

12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.
13. The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below.

Sewer System Management Plan (SSMP)

- (i) **Goal:** The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.
- (ii) **Organization:** The SSMP must identify:
- (a) The name of the responsible or authorized representative as described in Section J of this Order.
 - (b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
 - (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).
- (iii) **Legal Authority:** Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:
- (a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);

- (b) Require that sewers and connections be properly designed and constructed;
 - (c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
 - (d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
 - (e) Enforce any violation of its sewer ordinances.
- (iv) **Operation and Maintenance Program.** The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:
- (a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
 - (b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
 - (c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
 - (d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and

- (e) Provide equipment and replacement part inventories, including identification of critical replacement parts.
- (v) **Design and Performance Provisions:**
 - (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
 - (b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.
- (vi) **Overflow Emergency Response Plan** - Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:
 - (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
 - (b) A program to ensure an appropriate response to all overflows;
 - (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
 - (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
 - (e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
 - (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

(vii) **FOG Control Program:** Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

- (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- (b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
- (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- (d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
- (f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- (g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

(viii) **System Evaluation and Capacity Assurance Plan:** The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

- (a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs

that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

- (b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
 - (c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
 - (d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.
- (ix) **Monitoring, Measurement, and Program Modifications:** The Enrollee shall:
- (a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
 - (b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
 - (c) Assess the success of the preventative maintenance program;
 - (d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
 - (e) Identify and illustrate SSO trends, including: frequency, location, and volume.
- (x) **SSMP Program Audits** - As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the

Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

- (xi) **Communication Program** – The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

14. Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule provided in subsection D.15, below.

In order to complete this certification, the Enrollee's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
P.O. Box 100
Sacramento, CA 95812

The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the Enrollee is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, the Enrollee shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

15. The Enrollee shall comply with these requirements according to the following schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.

Sewer System Management Plan Time Schedule

Task and Associated Section	Completion Date			
	Population > 100,000	Population between 100,000 and 10,000	Population between 10,000 and 2,500	Population < 2,500
Application for Permit Coverage Section C	6 months after WDRs Adoption			
Reporting Program Section G	6 months after WDRs Adoption ¹			
SSMP Development Plan and Schedule No specific Section	9 months after WDRs Adoption ²	12 months after WDRs Adoption ²	15 months after WDRs Adoption ²	18 months after WDRs Adoption ²
Goals and Organization Structure Section D 13 (i) & (ii)	12 months after WDRs Adoption ²		18 months after WDRs Adoption ²	
Overflow Emergency Response Program Section D 13 (vi)	24 months after WDRs Adoption ²	30 months after WDRs Adoption ²	36 months after WDRs Adoption ²	39 months after WDRs Adoption ²
Legal Authority Section D 13 (iii)				
Operation and Maintenance Program Section D 13 (iv)				
Grease Control Program Section D 13 (vii)	36 months after WDRs Adoption	39 months after WDRs Adoption	48 months after WDRs Adoption	51 months after WDRs Adoption
Design and Performance Section D 13 (v)				
System Evaluation and Capacity Assurance Plan Section D 13 (viii)				
Final SSMP, incorporating all of the SSMP requirements Section D 13				

1. In the event that by July 1, 2006 the Executive Director is able to execute a memorandum of agreement (MOA) with the California Water Environment Association (CWEA) or discharger representatives outlining a strategy and time schedule for CWEA or another entity to provide statewide training on the adopted monitoring program, SSO database electronic reporting, and SSMP development, consistent with this Order, then the schedule of Reporting Program Section G shall be replaced with the following schedule:

Reporting Program Section G	
Regional Boards 4, 8, and 9	8 months after WDRs Adoption
Regional Boards 1, 2, and 3	12 months after WDRs Adoption
Regional Boards 5, 6, and 7	16 months after WDRs Adoption

If this MOU is not executed by July 1, 2006, the reporting program time schedule will remain six (6) months for all regions and agency size categories.

2. In the event that the Executive Director executes the MOA identified in note 1 by July 1, 2006, then the deadline for this task shall be extended by six (6) months. The time schedule identified in the MOA must be consistent with the extended time schedule provided by this note. If the MOA is not executed by July 1, 2006, the six (6) month time extension will not be granted.

E. WDRs and SSMP AVAILABILITY

1. A copy of the general WDRs and the certified SSMP shall be maintained at appropriate locations (such as the Enrollee's offices, facilities, and/or Internet homepage) and shall be available to sanitary sewer system operating and maintenance personnel at all times.

F. ENTRY AND INSPECTION

1. The Enrollee shall allow the State or Regional Water Boards or their authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

G. GENERAL MONITORING AND REPORTING REQUIREMENTS

1. The Enrollee shall furnish to the State or Regional Water Board, within a reasonable time, any information that the State or Regional Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Enrollee shall also furnish to the Executive Director of the State Water Board or Executive Officer of the applicable Regional Water Board, upon request, copies of records required to be kept by this Order.
2. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2006-0003 and future revisions thereto, as specified by the Executive Director. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2006-0003. Unless superseded by a specific enforcement Order for a specific Enrollee, these reporting requirements are intended to replace other mandatory routine written reports associated with SSOs.
3. All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within 30 days of receiving an account and prior to recording spills into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding a Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.
4. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

Any SSO greater than 1,000 gallons discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State shall also be reported to the Office of Emergency Services pursuant to California Water Code section 13271.

H. CHANGE IN OWNERSHIP

1. This Order is not transferable to any person or party, except after notice to the Executive Director. The Enrollee shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Enrollee containing a specific date for the transfer of this Order's responsibility and coverage between the existing Enrollee and the new Enrollee. This agreement shall include an acknowledgement that the existing Enrollee is liable for violations up to the transfer date and that the new Enrollee is liable from the transfer date forward.

I. INCOMPLETE REPORTS

1. If an Enrollee becomes aware that it failed to submit any relevant facts in any report required under this Order, the Enrollee shall promptly submit such facts or information by formally amending the report in the Online SSO Database.

J. REPORT DECLARATION

1. All applications, reports, or information shall be signed and certified as follows:
 - (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)
 - (ii) An individual is a duly authorized representative only if:
 - (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and
 - (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

K. CIVIL MONETARY REMEDIES FOR DISCHARGE VIOLATIONS

1. The California Water Code provides various enforcement options, including civil monetary remedies, for violations of this Order.
2. The California Water Code also provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or

falsifying any information provided in the technical or monitoring reports is subject to civil monetary penalties.

L. SEVERABILITY

1. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
2. This order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Enrollee from liability under federal, state or local laws, nor create a vested right for the Enrollee to continue the waste discharge.

CERTIFICATION

The undersigned Clerk to the State Water Board does hereby certify that the foregoing is a full, true, and correct copy of general WDRs duly and regularly adopted at a meeting of the State Water Resources Control Board held on May 2, 2006.

AYE: Tam M. Doduc
Gerald D. Secundy

NO: Arthur G. Baggett

ABSENT: None

ABSTAIN: None



Song Her
Clerk to the Board

APPENDIX G

SWRCB ORDER NO. WQ 2013-0058-EXEC MRP

STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

The State of California, Water Resources Control Board (hereafter State Water Board) finds:

1. The State Water Board is authorized to prescribe statewide general Waste Discharge Requirements (WDRs) for categories of discharges that involve the same or similar operations and the same or similar types of waste pursuant to Water Code section 13263(i).
2. Water Code section 13193 *et seq.* requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) to gather Sanitary Sewer Overflow (SSO) information and make this information available to the public, including but not limited to, SSO cause, estimated volume, location, date, time, duration, whether or not the SSO reached or may have reached waters of the state, response and corrective action taken, and an enrollee's contact information for each SSO event. An enrollee is defined as the public entity having legal authority over the operation and maintenance of, or capital improvements to, a sanitary sewer system greater than one mile in length.
3. Water Code section 13271, *et seq.* requires notification to the California Office of Emergency Services (Cal OES), formerly the California Emergency Management Agency, for certain unauthorized discharges, including SSOs.
4. On May 2, 2006, the State Water Board adopted Order 2006-0003-DWQ, "Statewide Waste Discharge Requirements for Sanitary Sewer Systems"¹ (hereafter SSS WDRs) to comply with Water Code section 13193 and to establish the framework for the statewide SSO Reduction Program.
5. Subsection G.2 of the SSS WDRs and the Monitoring and Reporting Program (MRP) provide that the Executive Director may modify the terms of the MRP at any time.
6. On February 20, 2008, the State Water Board Executive Director adopted a revised MRP for the SSS WDRs to rectify early notification deficiencies and ensure that first responders are notified in a timely manner of SSOs discharged into waters of the state.
7. When notified of an SSO that reaches a drainage channel or surface water of the state, Cal OES, pursuant to Water Code section 13271(a)(3), forwards the SSO notification information² to local government agencies and first responders including local public health officials and the applicable Regional Water Board. Receipt of notifications for a single SSO event from both the SSO reporter

¹ Available for download at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf

² Cal OES Hazardous Materials Spill Reports available Online at:

[http://w3.calema.ca.gov/operational/mal haz.nsf/\\$defaultview](http://w3.calema.ca.gov/operational/mal haz.nsf/$defaultview) and <http://w3.calema.ca.gov/operational/mal haz.nsf>

and Cal OES is duplicative. To address this, the SSO notification requirements added by the February 20, 2008 MRP revision are being removed in this MRP revision.

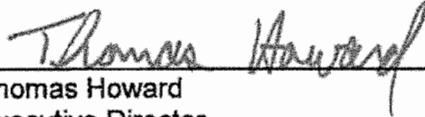
8. In the February 28, 2008 Memorandum of Agreement between the State Water Board and the California Water and Environment Association (CWEA), the State Water Board committed to re-designing the CIWQS³ Online SSO Database to allow "event" based SSO reporting versus the original "location" based reporting. Revisions to this MRP and accompanying changes to the CIWQS Online SSO Database will implement this change by allowing for multiple SSO appearance points to be associated with each SSO event caused by a single asset failure.
9. Based on stakeholder input and Water Board staff experience implementing the SSO Reduction Program, SSO categories have been revised in this MRP. In the prior version of the MRP, SSOs have been categorized as Category 1 or Category 2. This MRP implements changes to SSO categories by adding a Category 3 SSO type. This change will improve data management to further assist Water Board staff with evaluation of high threat and low threat SSOs by placing them in unique categories (i.e., Category 1 and Category 3, respectively). This change will also assist enrollees in identifying SSOs that require Cal OES notification.
10. Based on over six years of implementation of the SSS WDRs, the State Water Board concludes that the February 20, 2008 MRP must be updated to better advance the SSO Reduction Program⁴ objectives, assess compliance, and enforce the requirements of the SSS WDRs.

IT IS HEREBY ORDERED THAT:

Pursuant to the authority delegated by Water Code section 13267(f), Resolution 2002-0104, and Order 2006-0003-DWQ, the MRP for the SSS WDRs (Order 2006-0003-DWQ) is hereby amended as shown in Attachment A and shall be effective on 07/26/2013.

7/30/13

Date



Thomas Howard
Executive Director

³ California Integrated Water Quality System (CIWQS) publicly available at <http://www.waterboards.ca.gov/ciwqs/publicreports.shtml>

⁴ Statewide Sanitary Sewer Overflow Reduction Program information is available at: http://www.waterboards.ca.gov/water_issues/programs/ssol/

ATTACHMENT A

STATE WATER RESOURCES CONTROL BOARD ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM FOR STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems" (SSS WDRs). This MRP shall be effective from September 9, 2013 until it is rescinded. The Executive Director may make revisions to this MRP at any time. These revisions may include a reduction or increase in the monitoring and reporting requirements. All site specific records and data developed pursuant to the SSS WDRs and this MRP shall be complete, accurate, and justified by evidence maintained by the enrollee. Failure to comply with this MRP may subject an enrollee to civil liabilities of up to \$5,000 a day per violation pursuant to Water Code section 13350; up to \$1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. The State Water Resources Control Board (State Water Board) reserves the right to take any further enforcement action authorized by law.

A. SUMMARY OF MRP REQUIREMENTS

Table 1 – Spill Categories and Definitions

CATEGORIES	DEFINITIONS [see Section A on page 5 of Order 2006-0003-DWQ, for Sanitary Sewer Overflow (SSO) definition]
CATEGORY 1	<p>Discharges of untreated or partially treated wastewater of <u>any volume</u> resulting from an enrollee's sanitary sewer system failure or flow condition that:</p> <ul style="list-style-type: none"> • Reach surface water and/or reach a drainage channel tributary to a surface water; or • Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
CATEGORY 2	<p>Discharges of untreated or partially treated wastewater of <u>1,000 gallons or greater</u> resulting from an enrollee's sanitary sewer system failure or flow condition that <u>do not</u> reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.</p>
CATEGORY 3	<p>All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.</p>
PRIVATE LATERAL SEWAGE DISCHARGE (PLSD)	<p>Discharges of untreated or partially treated wastewater resulting from blockages or other problems <u>within a privately owned sewer lateral</u> connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be <u>voluntarily</u> reported to the California Integrated Water Quality System (CIWQS) Online SSO Database.</p>

Table 2 – Notification, Reporting, Monitoring, and Record Keeping Requirements

ELEMENT	REQUIREMENT	METHOD
<p>NOTIFICATION (see section B of MRP)</p>	<ul style="list-style-type: none"> • Within two hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water notify the California Office of Emergency Services (Cal OES) and obtain a notification control number. 	<p>Call Cal OES at (800) 852-7550</p>
<p>REPORTING (see section C of MRP)</p>	<ul style="list-style-type: none"> • Category 1 SSO: Submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. • Category 2 SSO: Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date. • Category 3 SSO: Submit certified report within 30 calendar days of the end of month in which SSO the occurred. • SSO Technical Report: Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. • "No Spill" Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred. • Collection System Questionnaire: Update and certify every 12 months. 	<p>Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by enrollee's Legally Responsible Official(s).</p>
<p>WATER QUALITY MONITORING (see section D of MRP)</p>	<ul style="list-style-type: none"> • Conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters 	<p>Water quality results are required to be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters</p>
<p>RECORD KEEPING (see section E of MRP)</p>	<ul style="list-style-type: none"> • SSO event records. • Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. • Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. • Collection system telemetry records if relied upon to document and/or estimate SSO Volume. 	<p>Self-maintained records shall be available during inspections or upon request.</p>

B. NOTIFICATION REQUIREMENTS

Although Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) staff do not have duties as first responders, this MRP is an appropriate mechanism to ensure that the agencies that have first responder duties are notified in a timely manner in order to protect public health and beneficial uses.

1. For any Category 1 SSO greater than or equal to 1,000 gallons that results in a discharge to a surface water or spilled in a location where it probably will be discharged to surface water, either directly or by way of a drainage channel or MS4, the enrollee shall, as soon as possible, but not later than two (2) hours after (A) the enrollee has knowledge of the discharge, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures, notify the Cal OES and obtain a notification control number.
2. To satisfy notification requirements for each applicable SSO, the enrollee shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES may include:
 - i. Name of person notifying Cal OES and direct return phone number.
 - ii. Estimated SSO volume discharged (gallons).
 - iii. If ongoing, estimated SSO discharge rate (gallons per minute).
 - iv. SSO Incident Description:
 - a. Brief narrative.
 - b. On-scene point of contact for additional information (name and cell phone number).
 - c. Date and time enrollee became aware of the SSO.
 - d. Name of sanitary sewer system agency causing the SSO.
 - e. SSO cause (if known).
 - v. Indication of whether the SSO has been contained.
 - vi. Indication of whether surface water is impacted.
 - vii. Name of surface water impacted by the SSO, if applicable.
 - viii. Indication of whether a drinking water supply is or may be impacted by the SSO.
 - ix. Any other known SSO impacts.
 - x. SSO incident location (address, city, state, and zip code).
3. Following the initial notification to Cal OES and until such time that an enrollee certifies the SSO report in the CIWQS Online SSO Database, the enrollee shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).
4. PLSDs: The enrollee is strongly encouraged to notify Cal OES of discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within a privately owned sewer lateral or from other private sewer asset(s) if the enrollee becomes aware of the PLSD.

C. REPORTING REQUIREMENTS

1. **CIWQS Online SSO Database Account:** All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS. These accounts allow controlled and secure entry into the CIWQS Online SSO Database.
2. **SSO Mandatory Reporting Information:** For reporting purposes, if one SSO event results in multiple appearance points in a sewer system asset, the enrollee shall complete one SSO report in the CIWQS Online SSO Database which includes the GPS coordinates for the location of the SSO appearance point closest to the failure point, blockage or location of the flow condition that caused the SSO, and provide descriptions of the locations of all other discharge points associated with the SSO event.

3. SSO Categories

- i. **Category 1** – Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee's sanitary sewer system failure or flow condition that:
 - a. Reach surface water and/or reach a drainage channel tributary to a surface water; or
 - b. Reach a MS4 and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
- ii. **Category 2** – Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from an enrollee's sanitary sewer system failure or flow condition that does not reach a surface water, a drainage channel, or the MS4 unless the entire SSO volume discharged to the storm drain system is fully recovered and disposed of properly.
- iii. **Category 3** – All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.

4. Sanitary Sewer Overflow Reporting to CIWQS - Timeframes

- i. **Category 1 and Category 2 SSOs** – All SSOs that meet the above criteria for Category 1 or Category 2 SSOs shall be reported to the CIWQS Online SSO Database:
 - a. Draft reports for Category 1 and Category 2 SSOs shall be submitted to the CIWQS Online SSO Database within three (3) business days of the enrollee becoming aware of the SSO. Minimum information that shall be reported in a draft Category 1 SSO report shall include all information identified in section 8.i.a. below. Minimum information that shall be reported in a Category 2 SSO draft report shall include all information identified in section 8.i.c below.
 - b. A final Category 1 or Category 2 SSO report shall be certified through the CIWQS Online SSO Database within 15 calendar days of the end date of the SSO. Minimum information that shall be certified in the final Category 1 SSO report shall include all information identified in section 8.i.b below. Minimum information that shall be certified in a final Category 2 SSO report shall include all information identified in section 8.i.d below.

- ii. **Category 3 SSOs** – All SSOs that meet the above criteria for Category 3 SSOs shall be reported to the CIWQS Online SSO Database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30). Minimum information that shall be certified in a final Category 3 SSO report shall include all information identified in section 8.i.e below.
- iii. **“No Spill” Certification** – If there are no SSOs during the calendar month, the enrollee shall either 1) certify, within 30 calendar days after the end of each calendar month, a “No Spill” certification statement in the CIWQS Online SSO Database certifying that there were no SSOs for the designated month, or 2) certify, quarterly within 30 calendar days after the end of each quarter, “No Spill” certification statements in the CIWQS Online SSO Database certifying that there were no SSOs for each month in the quarter being reported on. For quarterly reporting, the quarters are Q1 - January/ February/ March, Q2 - April/May/June, Q3 - July/August/September, and Q4 - October/November/December.

If there are no SSOs during a calendar month but the enrollee reported a PLSD, the enrollee shall still certify a “No Spill” certification statement for that month.
- iv. **Amended SSO Reports** – The enrollee may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS Online SSO Database. SSO reports certified in the CIWQS Online SSO Database prior to the adoption date of this MRP may only be amended up to 120 days after the effective date of this MRP. After 120 days, the enrollee may contact the SSO Program Manager to request to amend an SSO report if the enrollee also submits justification for why the additional information was not available prior to the end of the 120 days.

5. **SSO Technical Report**

The enrollee shall submit an SSO Technical Report in the CIWQS Online SSO Database within 45 calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

- i. **Causes and Circumstances of the SSO:**
 - a. Complete and detailed explanation of how and when the SSO was discovered.
 - b. Diagram showing the SSO failure point, appearance point(s), and final destination(s).
 - c. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
 - d. Detailed description of the cause(s) of the SSO.
 - e. Copies of original field crew records used to document the SSO.
 - f. Historical maintenance records for the failure location.
- ii. **Enrollee’s Response to SSO:**
 - a. Chronological narrative description of all actions taken by enrollee to terminate the spill.
 - b. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.

- c. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.
- iii. **Water Quality Monitoring:**
 - a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
 - b. Detailed location map illustrating all water quality sampling points.

6. **PLSDs**

Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee's sanitary sewer system or from other private sanitary sewer system assets may be voluntarily reported to the CIWQS Online SSO Database.

- i. The enrollee is also encouraged to provide notification to Cal OES per section B above when a PLSD greater than or equal to 1,000 gallons has or may result in a discharge to surface water. For any PLSD greater than or equal to 1,000 gallons regardless of the spill destination, the enrollee is also encouraged to file a spill report as required by Health and Safety Code section 5410 et. seq. and Water Code section 13271, or notify the responsible party that notification and reporting should be completed as specified above and required by State law.
- ii. If a PLSD is recorded in the CIWQS Online SSO Database, the enrollee must identify the sewage discharge as occurring and caused by a private sanitary sewer system asset and should identify a responsible party (other than the enrollee), if known. Certification of PLSD reports by enrollees is not required.

7. **CIWQS Online SSO Database Unavailability**

In the event that the CIWQS Online SSO Database is not available, the enrollee must fax or e-mail all required information to the appropriate Regional Water Board office in accordance with the time schedules identified herein. In such event, the enrollee must also enter all required information into the CIWQS Online SSO Database when the database becomes available.

8. **Mandatory Information to be Included in CIWQS Online SSO Reporting**

All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS which can be reached at CIWQS@waterboards.ca.gov or by calling (866) 792-4977, M-F, 8 A.M. to 5 P.M. These accounts will allow controlled and secure entry into the CIWQS Online SSO Database. Additionally, within thirty (30) days of initial enrollment and prior to recording SSOs into the CIWQS Online SSO Database, all enrollees must complete a Collection System Questionnaire (Questionnaire). The Questionnaire shall be updated at least once every 12 months.

i. **SSO Reports**

At a minimum, the following mandatory information shall be reported prior to finalizing and certifying an SSO report for each category of SSO:

- a. **Draft Category 1 SSOs**: At a minimum, the following mandatory information shall be reported for a draft Category 1 SSO report:
1. SSO Contact Information: Name and telephone number of enrollee contact person who can answer specific questions about the SSO being reported.
 2. SSO Location Name.
 3. Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.
 4. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
 5. Whether or not the SSO reached a municipal separate storm drain system.
 6. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.
 7. Estimate of the SSO volume, inclusive of all discharge point(s).
 8. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain.
 9. Estimate of the SSO volume recovered (if applicable).
 10. Number of SSO appearance point(s).
 11. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
 12. SSO start date and time.
 13. Date and time the enrollee was notified of, or self-discovered, the SSO.
 14. Estimated operator arrival time.
 15. For spills greater than or equal to 1,000 gallons, the date and time Cal OES was called.
 16. For spills greater than or equal to 1,000 gallons, the Cal OES control number.
- b. **Certified Category 1 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 1 SSO report, in addition to all fields in section 8.i.a :
1. Description of SSO destination(s).
 2. SSO end date and time.
 3. SSO causes (mainline blockage, roots, etc.).
 4. SSO failure point (main, lateral, etc.).
 5. Whether or not the spill was associated with a storm event.
 6. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
 7. Description of spill response activities.
 8. Spill response completion date.
 9. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion.

10. Whether or not a beach closure occurred or may have occurred as a result of the SSO.
 11. Whether or not health warnings were posted as a result of the SSO.
 12. Name of beach(es) closed and/or impacted. If no beach was impacted, NA shall be selected.
 13. Name of surface water(s) impacted.
 14. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.
 15. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.
 16. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered.
 17. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.
- c. **Draft Category 2 SSOs**: At a minimum, the following mandatory information shall be reported for a draft Category 2 SSO report:
1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO.
- d. **Certified Category 2 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 2 SSO report:
1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-9, and 17 in section 8.i.b above for Certified Category 1 SSO.
- e. **Certified Category 3 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 3 SSO report:
1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-6, and 17 in section 8.i.b above for Certified Category 1 SSO.
- ii. **Reporting SSOs to Other Regulatory Agencies**
- These reporting requirements do not preclude an enrollee from reporting SSOs to other regulatory agencies pursuant to state law. In addition, these reporting requirements do not replace other Regional Water Board notification and reporting requirements for SSOs.
- iii. **Collection System Questionnaire**
- The required Questionnaire (see subsection G of the SSS WDRs) provides the Water Boards with site-specific information related to the enrollee's sanitary sewer system. The enrollee shall complete and certify the Questionnaire at least every 12 months to facilitate program implementation, compliance assessment, and enforcement response.
- iv. **SSMP Availability**
- The enrollee shall provide the publicly available internet web site address to the CIWQS Online SSO Database where a downloadable copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP is posted. If all of the SSMP documentation listed in this subsection is not publicly available on the Internet, the enrollee shall comply with the following procedure:

- a. Submit an **electronic** copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP to the State Water Board, within 30 days of that approval and within 30 days of any subsequent SSMP re-certifications, to the following mailing address:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
1001 I Street, 15th Floor, Sacramento, CA 95814

D. WATER QUALITY MONITORING REQUIREMENTS:

To comply with subsection D.7(v) of the SSS WDRs, the enrollee shall develop and implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.
2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).
3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.
4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.
5. Within 48 hours of the enrollee becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
 - i. Ammonia
 - ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and e-coli.

E. RECORD KEEPING REQUIREMENTS:

The following records shall be maintained by the enrollee for a minimum of five (5) years and shall be made available for review by the Water Boards during an onsite inspection or through an information request:

1. General Records: The enrollee shall maintain records to document compliance with all provisions of the SSS WDRs and this MRP for each sanitary sewer system owned including any required records generated by an enrollee's sanitary sewer system contractor(s).
2. SSO Records: The enrollee shall maintain records for each SSO event, including but not limited to:
 - i. Complaint records documenting how the enrollee responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not

result in SSOs. Each complaint record shall, at a minimum, include the following information:

- a. Date, time, and method of notification.
 - b. Date and time the complainant or informant first noticed the SSO.
 - c. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels or storm drains.
 - d. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.
 - e. Final resolution of the complaint.
- ii. Records documenting steps and/or remedial actions undertaken by enrollee, using all available information, to comply with section D.7 of the SSS WDRs.
 - iii. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
3. Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.
 4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:
 - i. Supervisory Control and Data Acquisition (SCADA) systems
 - ii. Alarm system(s)
 - iii. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.

F. CERTIFICATION

1. All information required to be reported into the CIWQS Online SSO Database shall be certified by a person designated as described in subsection J of the SSS WDRs. This designated person is also known as a Legally Responsible Official (LRO). An enrollee may have more than one LRO.
2. Any designated person (i.e. an LRO) shall be registered with the State Water Board to certify reports in accordance with the CIWQS protocols for reporting.
3. Data Submitter (DS): Any enrollee employee or contractor may enter draft data into the CIWQS Online SSO Database on behalf of the enrollee if authorized by the LRO and registered with the State Water Board. However, only LROs may certify reports in CIWQS.
4. The enrollee shall maintain continuous coverage by an LRO. Any change of a registered LRO or DS (e.g., retired staff), including deactivation or a change to the LRO's or DS's contact information, shall be submitted by the enrollee to the State Water Board within 30 days of the change by calling (866) 792-4977 or e-mailing help@ciwqs.waterboards.ca.gov.


5. A registered designated person (i.e., an LRO) shall certify all required reports under penalty of perjury laws of the state as stated in the CIWQS Online SSO Database at the time of certification.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order amended by the Executive Director of the State Water Resources Control Board.

7/30/13

Date



Jeanine Townsend
Clerk to the Board

APPENDIX H

GSD RESOLUTION NO. 13-561

RESOLUTION NO. 13-561

**RESOLUTION OF THE GOVERNING BOARD OF
THE GOLETA SANITARY DISTRICT APPROVING
REVISED SEWER SYSTEM MANAGEMENT PLAN**

WHEREAS, on May 2, 2006, the State Water Board adopted Order No. 2006-0003-DWQ setting forth Statewide General Waste Discharge Requirements for Sanitary Sewer Systems and a Monitoring and Reporting Program. Said Order requires agencies to (i) develop a sewer system management plan that includes specific elements, such as an operations and maintenance program, capacity assurance plan, overflow emergency response plan, and a fats, oil and grease program, (ii) report all sanitary sewer overflows (SSOs) using the state's online reporting system, and (iii) take all feasible steps to eliminate SSOs and to prevent SSOs from reaching surface waters.

WHEREAS, as required by Order No. 2006-0003-DWQ adopted on May 2, 2006, the District adopted in November 2006 a Sewer System Management Plan (SSMP) which was updated in January of 2010 and again in August of 2011.

WHEREAS, effective September 9, 2013, the State Water Board amended Order 2006-0003-DWQ by the adoption of Order No. 2013-0058-EXEC to include new reporting requirements, address compliance and enforcements issues and improve the quality and usefulness of SSO data collected.

WHEREAS, the District's Governing Board desires to adopt a revised SSMP to comply with the requirements of Order No. 2013-0058-EXEC.

NOW, THEREFORE, BE IT RESOLVED by the Governing Board of the Goleta Sanitary District as follows:

1. **Adoption of Revised SSMP.** The Goleta Sanitary District Sewer System Management Plan dated September 2013, as presented to the Governing Board (the "2013 SSMP"), is hereby approved and adopted.

2. **Prior SSMP.** The 2013 SSMP shall supersede and replace the SSMP adopted by the District in November 2006, as updated in January of 2010 and again in August of 2011.

PASSED AND ADOPTED this 25th day of September, 2013, by the following

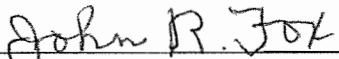
vote of the Governing Board of the Goleta Sanitary District:

AYES: Fox, Carter, Emerson, Rose

NOES: None

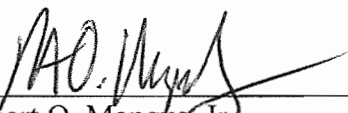
ABSENT: Smith

ABSTAIN: None



John R. Fox,
President Pro Tem of the Governing Board

Countersigned:



Robert O. Mangus, Jr.,
Secretary of the Governing Board