

Central Coast Regional Water Quality Control Board
Prosecution Team Evidence
in the matter of
Cease and Desist Order R3-2016-0015
Exhibit 9

MEMORANDUM

Centrally Grown, Cambria 1137-01 Wastewater Treatment System Update



Date: November 26, 2014

To: Howard Kolb
Regional Water Quality Control Board

From: Shannon Jessica, PE
Wallace Group

Subject: Wastewater System Update and As-Builts

CIVIL AND
TRANSPORTATION
ENGINEERING

CONSTRUCTION
MANAGEMENT

LANDSCAPE
ARCHITECTURE

MECHANICAL
ENGINEERING

PLANNING

PUBLIC WORKS
ADMINISTRATION

SURVEYING /
GIS SOLUTIONS

WATER RESOURCES

The Centrally Grown restaurant project is a renovation of an older restaurant, The Hamlet, off Exotic Gardens Drive in Cambria. The Hamlet site included several buildings and two residential units prior to the remodel. Wastewater treatment and disposal was provided by several septic tank and leachfield systems. Because the existing leachfields did not meet current treatment and disposal standards, a new on-site treatment system was required. Percolation testing showed that bedrock was encountered around 3 to 5 feet below the surface in locations where leachfield lines were proposed. Given the shallow bedrock, installing a newer traditional leachfield system would not be feasible.

In October 2012, a Report of Waste Discharge was submitted to the Regional Water Quality Control Board for the Centrally Grown Restaurant in Cambria for the proposed wastewater treatment and disposal system. The Report was prepared prior to completion of design, and several changes were made to the system as it was being installed. The following memo serves as a summary of the most current wastewater system installed for the Centrally Grown development.

Flow Estimates

The Centrally Grown restaurant is designed to have 144 seats and will be open for breakfast, lunch, and dinner. The original design flow was based on a daily maximum of 350 meals per day during the peak tourist period. In addition to the restaurant, the facility is planning on housing events, such as wedding receptions, and estimates that the maximum event turnout will be 120 people. The wastewater system has also been designed to serve two residential units. One of the residential units, the main house, has 3 bedrooms and 2 baths. The second residential apartment unit was demolished during the construction of the main restaurant, however the design flow for the wastewater system was maintained in the event the owner rebuilds the residential unit onsite. Table 1 outlines the design criteria for the wastewater system flowrate.



WALLACE GROUP
A California Corporation

612 CLARION CT
SAN LUIS OBISPO
CALIFORNIA 93401

T 805 544-4011
F 805 544-4294

www.wallacegroup.us



Table 1. Flow Estimate Calculations for Centrally Grown

	Unit Number	Unit Flow (gpd)	Estimated Flow (gpd)
Number of meals per day	350	8	2800
Number of event attendees concurrent with meals	120	8	960
Residential Unit (3 bed/2bath)	1	375	375
Residential Unit (2 bed/1 bath)	1	375	375
Employees	15	8	120
Total			4,630

Wastewater Treatment and Disposal Design

The wastewater treatment plant consists of an Orenco Advantex biofilter package treatment system combined with a Geoflow subsurface drip irrigation system for effluent disposal. The Orenco Advantex system is designed to treat 5,000 gallons per day and includes 15,000 gallons of pre-treatment in three separate 5,000 gallon septic tanks. A flow diagram of the system is included as Exhibit A, and the design criteria for the treatment plant is outlined in Table 2.

Table 2. Orenco Advantex AX100 Design Criteria for Centrally Grown

Daily Design Flow	5,000 gpd
Average Daily Flow	2,500 gpd
Influent BOD	1,000 mg/L
Influent TSS	400 mg/L
Influent Ammonia	50-80 mg/L
Target Effluent BOD	30 mg/L
Target Effluent TSS	30 mg/L
Target Ammonia	50-60% reduction

Following the treatment portion of the plant, effluent will discharge from the recirculation tank into a 5,000 gallon effluent holding/equalization tank. Here the treated effluent will be stored and then pumped to the Geoflow subsurface drip irrigation disposal system. The disposal field is proposed to be buried approximately 8 inches below grade to maximize percolation into the soil and utilize some evapotranspiration uptake in the root zone.

Disposal Area

The original concept for the disposal field was to utilize the geoflow tubing for irrigation of ornamental landscape throughout the site. As construction progressed, the landscaping concept was not cohesive, and the wastewater system was installed in an area that would be set aside for grasses. A figure showing the location of the

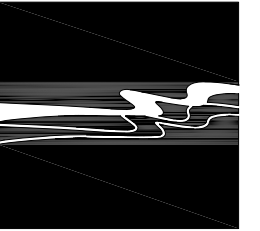
disposal field is included in Appendix A. the design criteria for the disposal field was maintained as originally planned and is outlined in Table 3.

Table 3. Disposal Field Size Design Criteria

Effluent Application Rate	0.8 gpd/sf
Design Flow	5,000 gpd
Required Disposal Field (square foot)	6,250 sf
Required Disposal Field (linear foot dripline)	3,125 lf

Originally a blackwater system was conceptualized and included in the ROWD, however this portion of the system was not included in construction. A site plan of the system is attached as Exhibit B.

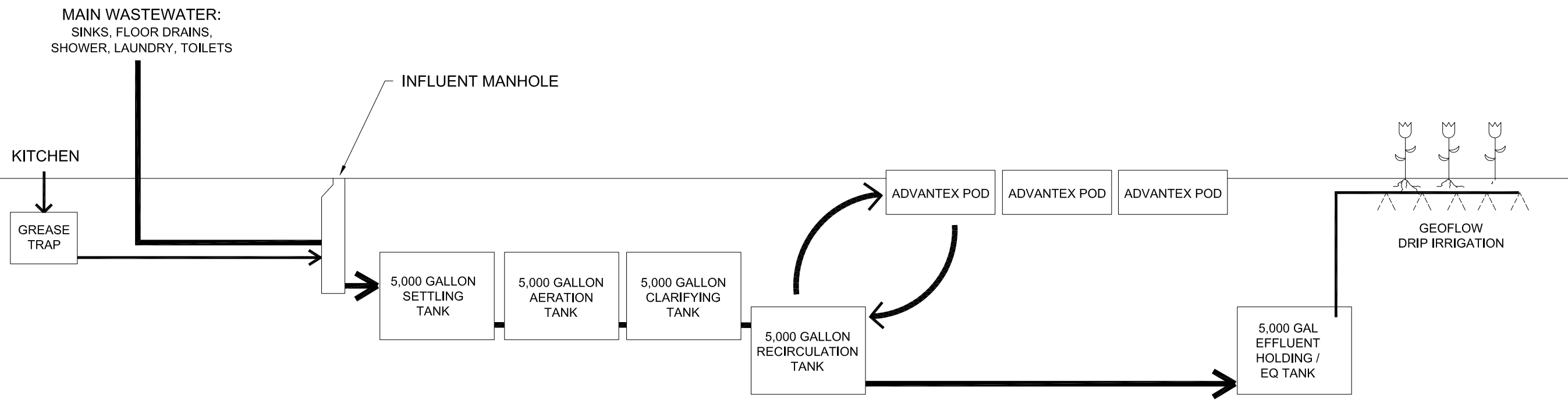




WALLACE GROUP®

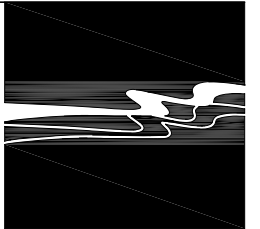
CIVIL ENGINEERING
CONSTRUCTION MANAGEMENT
LANDSCAPE ARCHITECTURE
MECHANICAL ENGINEERING
PLANNING
PUBLIC WORKS ADMINISTRATION
SURVEYING / GIS SOLUTIONS
WATER RESOURCES
WALLACE SWANSON INTERNATIONAL

612 CLARION COURT
SAN LUIS OBISPO, CA 93401
T 805 544-4011 F 805 544-4294
www.wallacegroup.us



CENTRALLY GROWN
WASTEWATER SCHEMATIC
EXHIBIT A

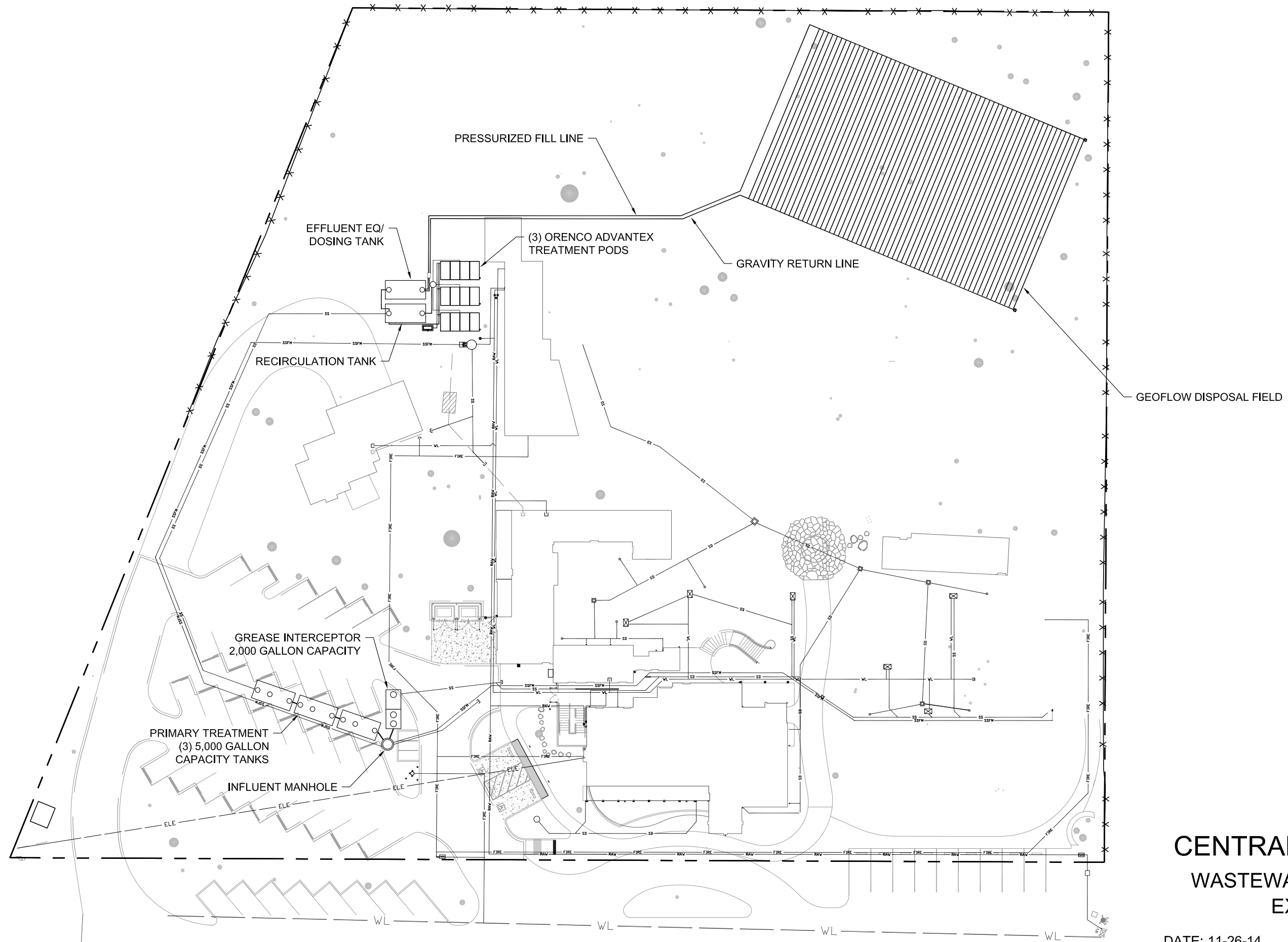
JOB No. : 1137
DRAWING : SCHEMATIC
DRAWN BY: SJ
DATE : 11-26-14
SCALE : NTS



WALLACE GROUP®

CIVIL AND TRANSPORTATION ENGINEERING
CONSTRUCTION MANAGEMENT
LANDSCAPE ARCHITECTURE
MECHANICAL ENGINEERING
PLANNING
PUBLIC WORKS ADMINISTRATION
SURVEYING / GIS SOLUTIONS
WATER RESOURCES

612 CLARION COURT
SAN LUIS OBISPO, CA 93401
T 805 544-4011 F 805 544-4294
www.wallacegroup.us



CENTRALLY GROWN WASTEWATER SYSTEM EXHIBIT B

DATE: 11-26-14

DGR: SJ