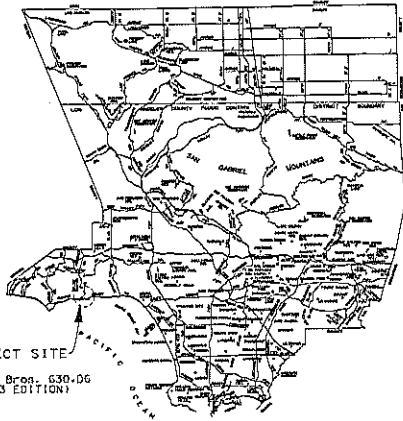


APPENDIX H- Septic System Map and Plans

1. Topographical Aerial Survey, Topanga Lagoon
2. Topanga Beach Lifeguard Headquarters/Restroom Station Septic System Upgrade, Project Drawings

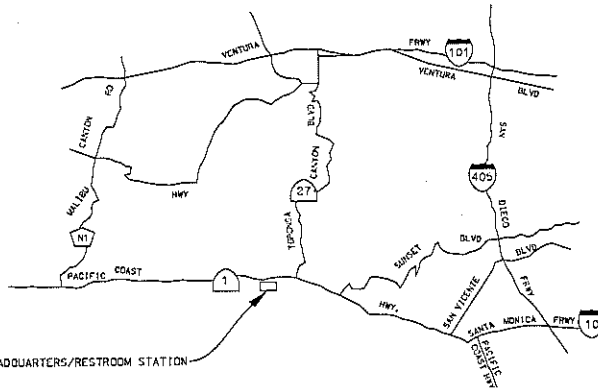
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

TOPANGA BEACH
LIFEGUARD HEADQUARTERS/RESTROOM STATION
SEPTIC SYSTEM UPGRADE



PROJECT SITE
Thomas Bros. 630-06
(2003 EDITION)

LOCATION MAP



TOPANGA BEACH LIFEGUARD HEADQUARTERS/RESTROOM STATION



INDEX TO PROJECT DRAWINGS

SHEET 1	TITLE SHEET
SHEET 2	REMOVAL PLAN
SHEET 3	INSTALLATION PLAN
SHEET 4	SEPTIC TANK INSTALLATION DETAILS
SHEET 5	AX100 FILTER & SEEPAGE PITS INSTALLATION
SHEET 6	PLUMBING SCHEDULE
SHEET 7	SEEPAGE PIT DETAILS
SHEET 8	TANK DETAILS
SHEET 9	AX 100 ADVANTEX AND SALCOR UV UNIT DETAILS
SHEET 10	CHLORINATION UNIT DETAILS
SHEET 11	GENERAL NOTES

For Proposal Only

PROJECT FILE NO. 440
 CREATOR A. V. HERRON
 REVISION N. 50
 DATE N. 5. 1

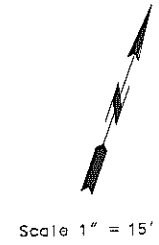
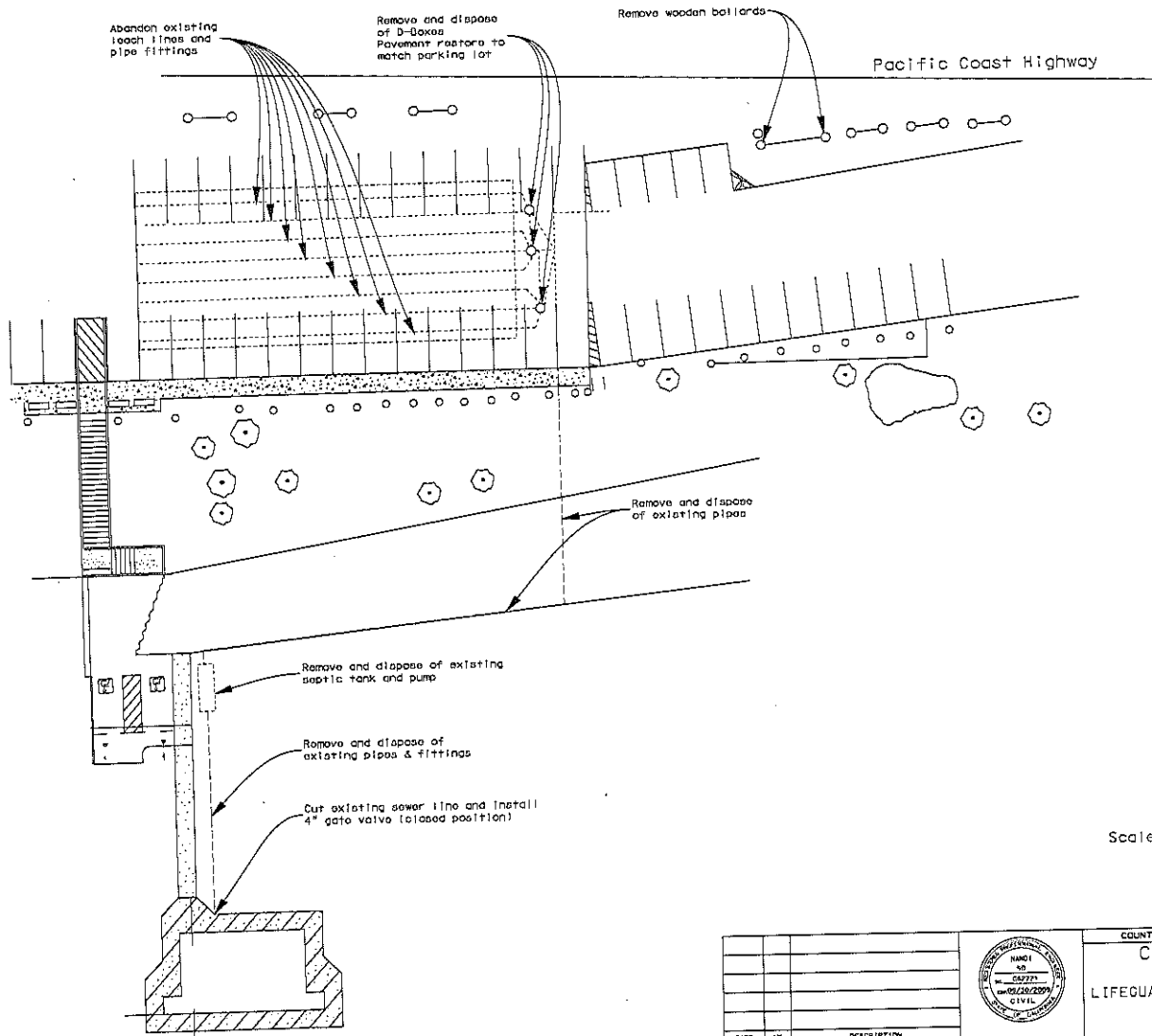
TWO DAYS BEFORE YOU DIG
CALL USA TOLL FREE
1-800-227-2600

APPROVED DEAN EPSTAPHOU ACTING DIRECTOR OF PUBLIC WORKS			
BY: [Signature]	DATE:		
RECOMMENDED BY: [Signature]	DATE:		
SUBMITTED BY: [Signature]	DATE:		
	DATE:	BY:	DESCRIPTION:
			REVISIONS:



COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS			
COUNTY OF LOS ANGELES			
TOPANGA BEACH			
LIFEGUARD HEADQUARTERS/RESTROOM STATION			
18720 PCH MALIBU, CA 90265			
SEPTIC SYSTEM UPGRADE			
PROJECT NUMBER	DATE	NUMBER	JOB
			DWG
			SHEET 1 OF 11

REMOVAL PLAN



DATE
REVISED
CHECKED
DESIGNED
DRAWN

DATE	BY	DESCRIPTION



COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
COUNTY OF LOS ANGELES
 TOPANGA BEACH
 LIFEGUARD HEADQUARTERS/RESTROOM STATION
 18720 PCH MALIBU, CA 90265
 REMOVAL PLAN

INSTALLATION PLAN

Pacific Coast Highway

Install Telemetry (See General Notes, Sheet No. 11)

Install fence per APWA Standard G00-2A, H-6' (See details, Sheet No. 5)
Vent Fan Assembly Model VFA225

Test Pit (TP-1)
Install 6-foot dia. seepage pits
4 total (See Sheet No. 7)
Pave to match parking lot

Install 4' access gate (APWA G00-2)

Install AX100 filter pad (See details, Sheet No. 8)

Install D-Box Air Intake

Existing Monitoring Well B1

Install 3,000 gallon FRP tank
Install Bio-Rotative Wastewater Management System Model BK2000
Install AASHTO H-20-44 traffic loading manhole cover (See General Notes and Sheet No. 9)
Install Solcor UV Disinfection Unit
Install AASHTO H-20-44 traffic loading manhole cover (See General Notes and Sheet No. 9)

Existing Monitoring Well B2

Install 2" dia. sch. 40 PVC pipe
Backfill to match existing slope (both soil and vegetation)

Existing Monitoring Well B3

Install electrical conduit and line
Size of wire to be determined by contractor
Connect electric line to the existing pump control panel

Install 8,000 gal FRP tank

Install 2,000 gal. concrete tank

Install 4" dia. sch. 40 PVC pipe with min. 1% slope

LIFEGUARD HEADQUARTERS/RESTROOM STATION

Scale 1" = 15'

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

COUNTY OF LOS ANGELES

TOPANCA BEACH

LIFEGUARD HEADQUARTERS/RESTROOM STATION

18720 PCH MALIBU, CA 90265

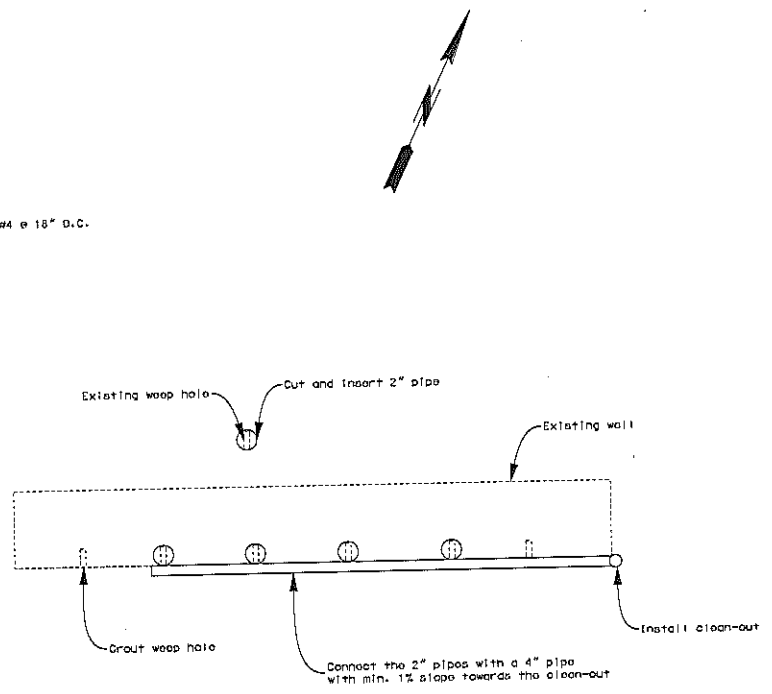
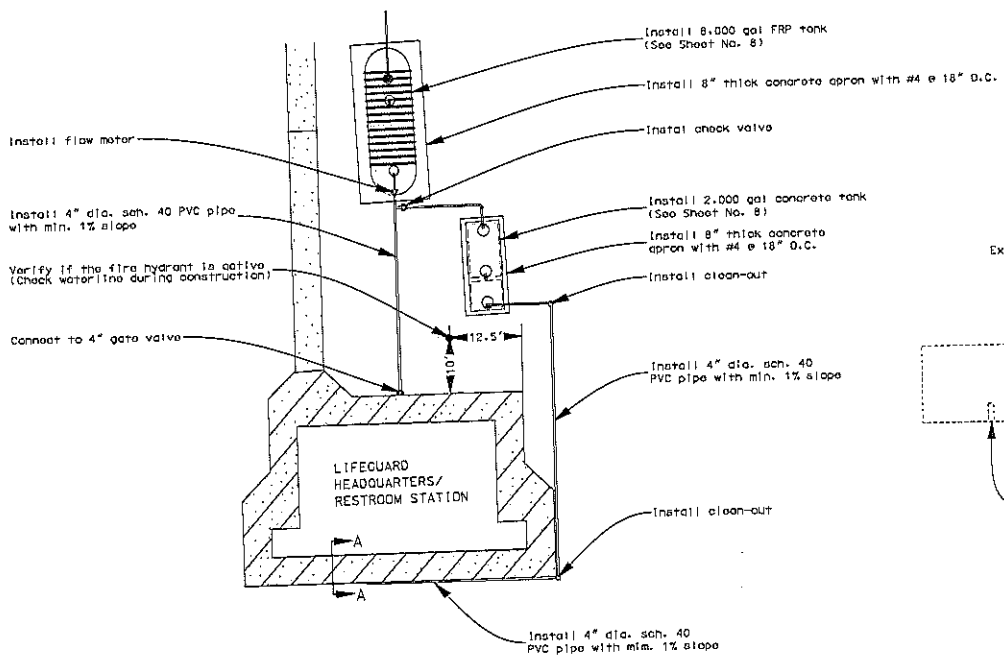
INSTALLATION PLAN



DATE	BY	DESCRIPTION

PROJECT NUMBER: DATE: DRAWN: JDB DWG: SHEET 3 OF 11

DATE: 01/11/11
 REVISION: 01
 18720 PCH PROJECT FILE NAME
 CHECKED: JDB
 DRAWN: JDB
 DATE: 01/11/11



Scale 1" = 10'

DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 REVISIONS: _____
 SHEET NO.: _____

DATE	BY	DESCRIPTION

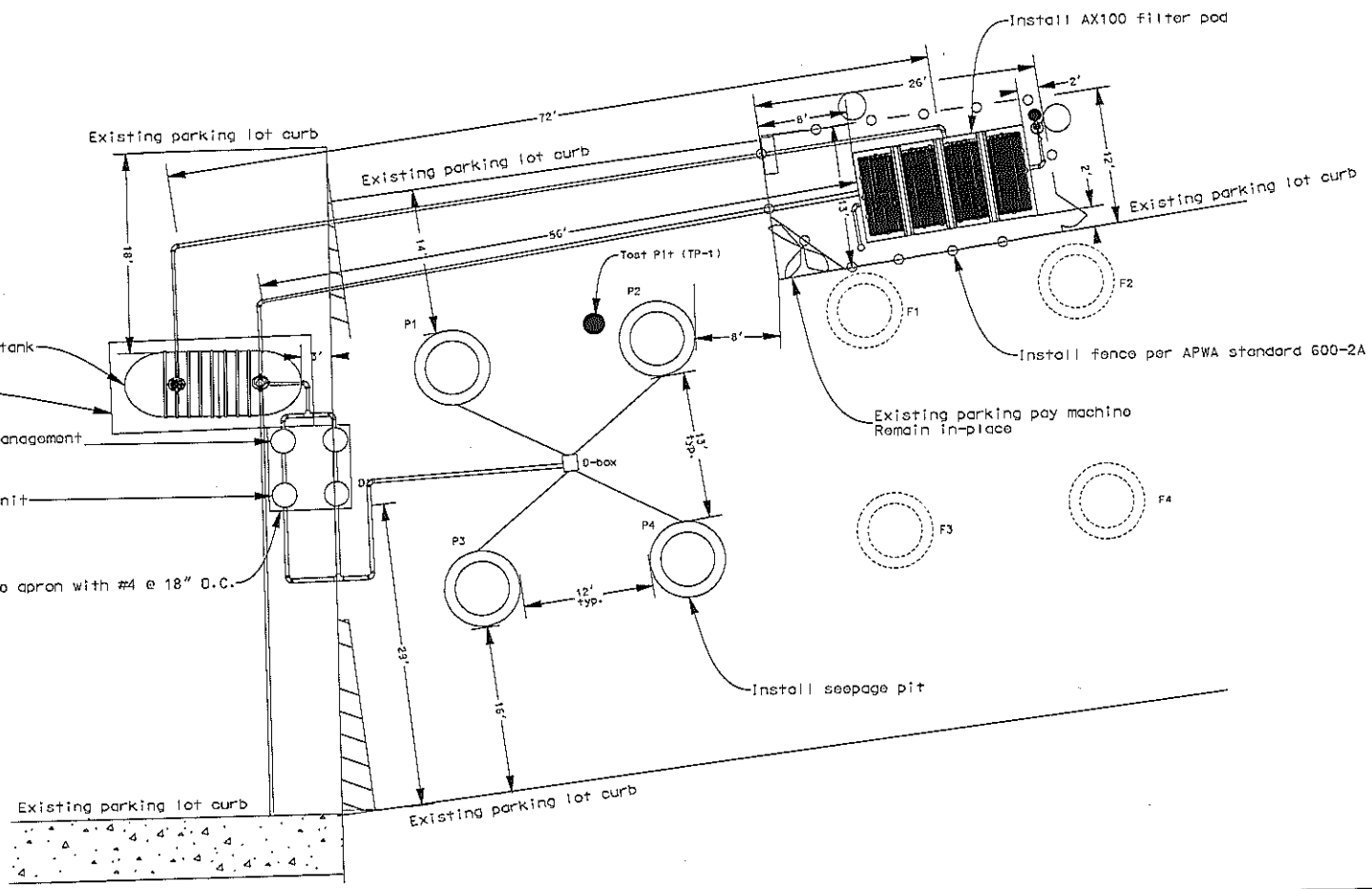


COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
 COUNTY OF LOS ANGELES
 TOPANCA BEACH
 LIFEGUARD HEADQUARTERS/RESTROOM STATION
 18720 PCH MALIBU, CA 90265
 SEPTIC TANK INSTALLATION DETAILS

PROJECT ENGINEER: [JUD] DATE: [] DRAWN BY: [DWO] SHEET 4 OF 11



Scale 1" = 5'



Install 3,000 gal recirculation tank
 Install 8" thick concrete apron with #4 @ 18" O.C.
 Install Bio-Kinetic Wastewater Management System Model BK2000

Install Solor UV Disinfection Unit

Install 6" thick concrete apron with #4 @ 18" O.C.

Existing parking pay machine
 Remain in-place

Install seepage pit

DATE	REVISION	CONTRACT FILE NO.	ORDER	DATE	DATE

DATE	NO.	DESCRIPTION



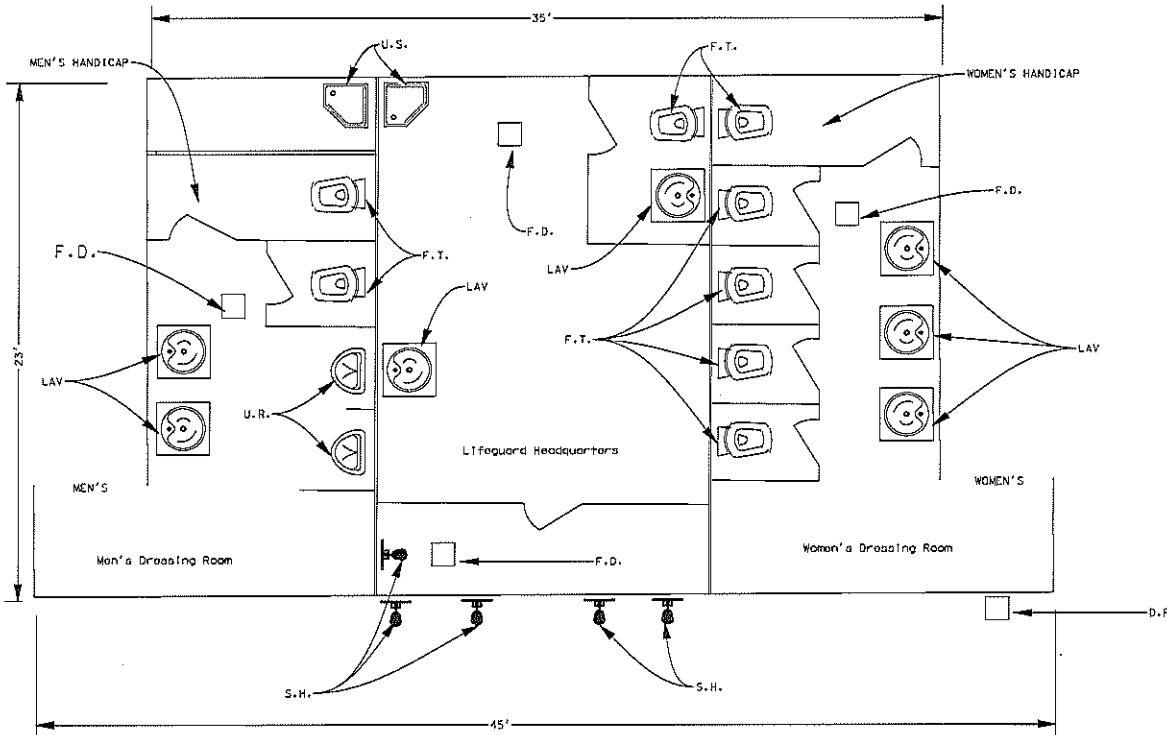
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
COUNTY OF LOS ANGELES
 TOPANGA BEACH
 LIFEGUARD HEADQUARTERS/RESTROOM STATION
 18720 PCH MALIBU, CA 90265
 AX 100 & SEEPAGE PITS INSTALLATION

PROJECT ENGINEER: [Signature] DATE: [] BY: [] DWG: [] SHEET 5 OF 11

PLUMBING SCHEDULE

Mark	Type of Plumbing Fixture	Existing Fixtures	Proposed Fixtures	Total Fixtures	Value Unit	Existing Fixture Units	Total Fixture Units
S.H.	Shower	5	0	5	2	10	10
F.T.	Flush Toilet	8	0	8	6	48	48
U.S.	Utility Sink	2	0	2	3	6	6
F.D.	Floor Drains	4	1	5	3	15	16
LAV.	Wash Basin (Lavatory)	7	0	7	1	7	7
U.R.	Urinal	2	0	2	2	4	4
D.F.	Drinking Fountain	1	0	1	2	2	2
						Total Units	93

93 units = 3,500 gallons
(Appendix K, 2001 Plumbers Code)



FLOOR PLAN
SCALE 1" = 30'

DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 PROJECT NO.: _____
 SHEET NO.: _____

DATE	NO.	DESCRIPTION



COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
COUNTY OF LOS ANGELES
 TOPANGA BEACH
 LIFEGUARD HEADQUARTERS/RESTROOM STATION
 18720 PCH MALIBU, CA 90265
 PLUMBING SCHEDULE

PROJECT NUMBER: _____ DATE: _____ BY: _____
 JOB: _____ DWG: _____ SHEET 6 OF 11

DISINFECTION
SUB - ASSEMBLY

Electrical Junction Box with
Indicators and alarm contacts

GROUND LEVEL

Handle for Removal

(ADJUSTABLE
AT INSTALLATION)

Support Frame
& Gasket

4" pipe

26"

TREATMENT
PLANT
EFFLUENT

7"

DISINFECTED
EFFLUENT

UV Lamp Quartz Tube
& Teflon Cover

31.5"

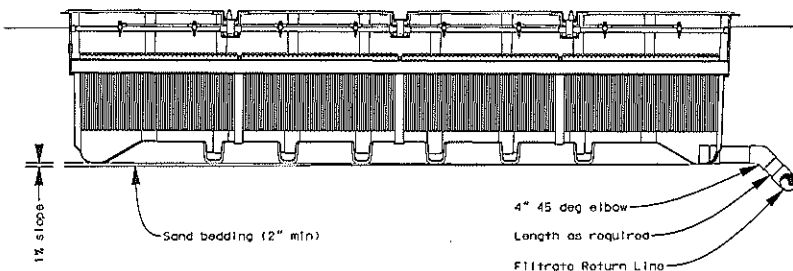
C

Support frame and Gasket

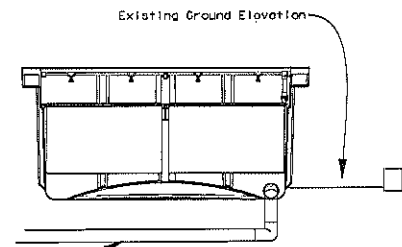
UV Lamp Quartz Tube & Teflon Cover

SECTION C - C

SALCOR ULTRA VIOLET
DISINFECTANT UNIT MODEL 3G
Not to Scale

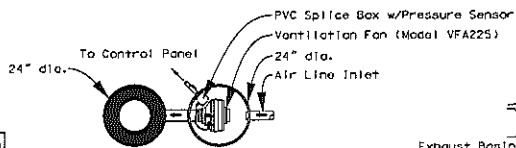


CROSS SECTION
Not to Scale



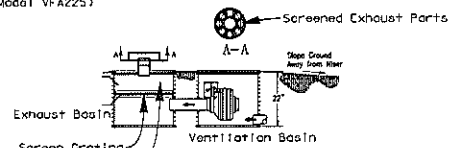
END DETAILS
Not to Scale

Filtrate Return Line
4" Dia Class 125 PVC
Slope of 1/4" per foot

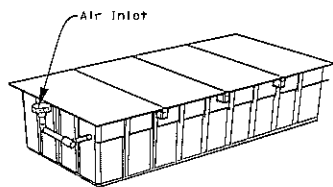


Top View

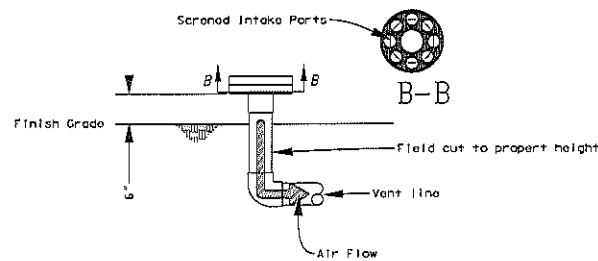
Ventilation Fan Detail
Not to Scale



Side View



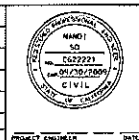
COLLECTION AIR INLET OPTION
Not to Scale



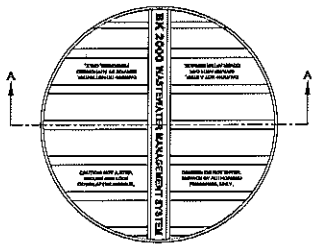
COLLECTION AIR INLET DETAIL
Not to Scale

DATE
 REVIEWED BY
 CAD PROJECT FILE NAME
 DESIGNER
 REVISION NO. 30
 DWG NO. 20-54

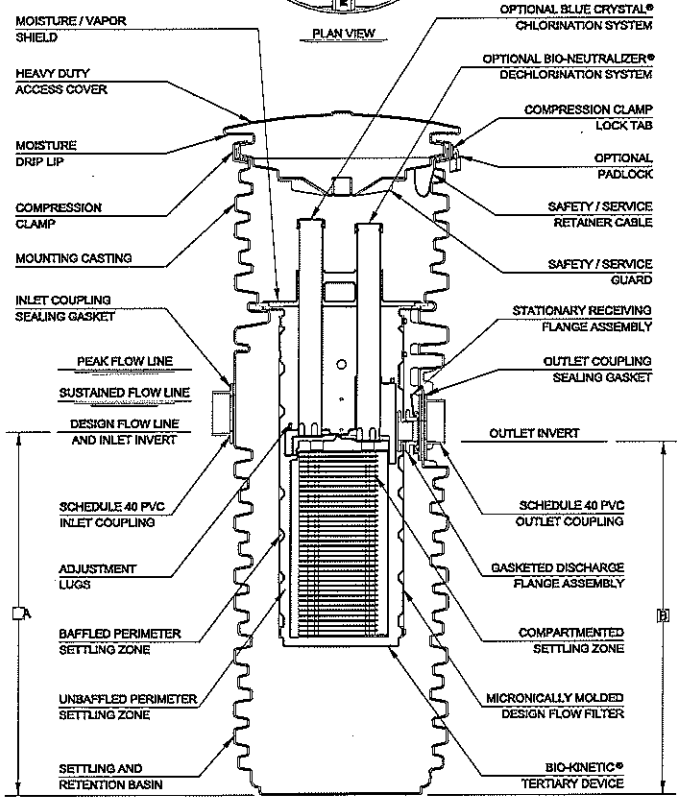
DATE	NO.	DESCRIPTION



COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
 COUNTY OF LOS ANGELES
 TOPANGA BEACH
 LIFEGUARD HEADQUARTERS/RESTROOM STATION
 18720 PCH MALIBU, CA 90265
 AX100 FILTER AND SALCOR UV UNIT DETAILS

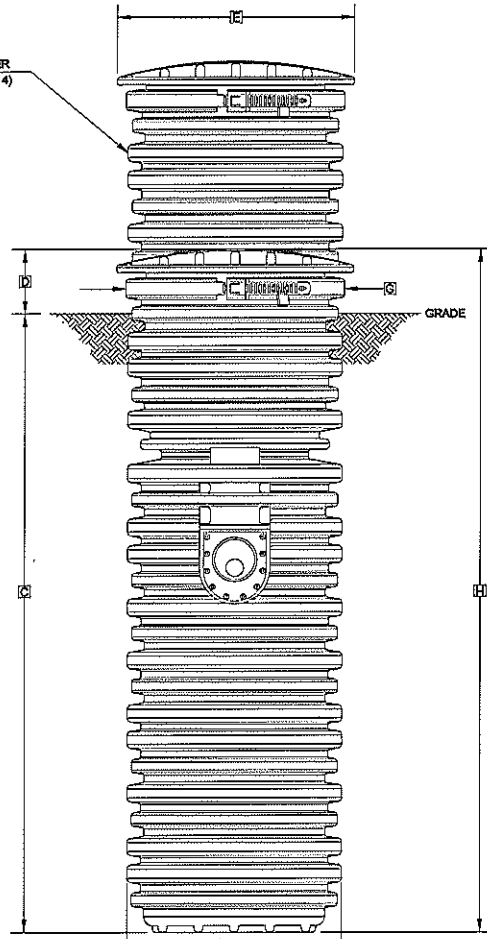


PLAN VIEW



SECTION A-A

BASIN RISER
(SEE NOTE 4)



OUTLET VIEW

- GENERAL NOTES:**
- ① FALL THROUGH THE BIO-KINETIC® WASTEWATER MANAGEMENT SYSTEM IS ONE INCH FROM INLET INVERT TO OUTLET INVERT.
 - ② FINISHED GRADE MUST BE MAINTAINED AT LEAST 3 INCHES BELOW THE MOISTURE DRIP LIP OF THE ACCESS COVER.
 - ③ SAND OR FINE GRAVEL MUST BE USED TO BACKFILL THE BIO-KINETIC® WASTEWATER MANAGEMENT SYSTEM.
 - ④ ON DEEPER INSTALLATIONS, RISERS MUST BE USED TO EXTEND THE MOUNTING CASTING TO GRADE.
 - ⑤ WHEN ADDITIONAL HOLDING CAPACITY IS REQUIRED, RING SECTIONS CAN BE ADDED TO INCREASE THE DEPTH OF THE SETTLING AND RETENTION BASIN.
 - ⑥ DIMENSIONS SHOWN ARE BASED ON A STANDARD BK 2000 BASIN. SEGMENTED BASINS AND BASINS CONTAINING RINGS OR RISERS WILL REQUIRE ADJUSTMENT.

CRITICAL DIMENSIONS			
A	3'-4 1/2"	J	
B	3'-3 3/4"	K	
C	5'-7 1/4"	L	
D	0'-8 1/4"	M	
E	2'-2 1/2"	N	
F	2'-0"	O	
G	2'-0 1/2"	P	
H	6'-4 1/2"	Q	
I		R	

TOLERANCES
NOMINAL DIMENSIONS ARE SHOWN AND MAY VARY ±3% IN LENGTH FOR EACH COMPONENT.

NORWECO BIO-KINETIC
WASTEWATER MANAGEMENT SYSTEM
Not to Scale

DRAWN BY: MRS. S. M. HARRIS
 CHECKED BY: MRS. S. M. HARRIS
 DESIGNED BY: MRS. S. M. HARRIS
 DATE: 11/15/88
 PROJECT FILE NO: 18720 PCH MALIBU

DATE	BY	DESCRIPTION



COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
 TOPANGA BEACH
 LIFEGUARD HEADQUARTER/RESTROOM STATION
 SEPTIC SYSTEM UPGRADE
 18720 PCH MALIBU, CA 90265
 CHLORINATION-DETAIL

GENERAL NOTES:

1. The contractor shall be responsible for the disposal of removed and excavated materials to proper disposal sites and verify all utility lines before excavation.
2. The Advantex AX100 filter pod shall be equipped with manufacturer supplied telemetry and control system. The audible and visual alarm panel shall be installed next to the filter pod at a location shown on the plan. The panel shall be weatherproofed and mounted on post or panel mounting assemblies. A telephone line shall be installed for the telemetry.
3. The strap installation requirement (location & quantity) for the tank shall be as recommended by the tank manufacturer.
4. The location of existing sewer system and utility lines are approximate. The contractor shall verify the actual location prior to excavation.
5. A pre-construction meeting will be held prior to any site work. Attendees will include the following individuals: LA County DPW Engineer, JDC Contractor, O&M Provider, Advantex Dealer, Beaches and Harbors Project Manager, and Office of Affirmative Action Officer.
6. An Operation & Maintenance Manual is to be provided by the contractor upon completion.
7. Solor UV Disinfectant Unit shall be installed following the manufacturers specification.
8. Electrical power shall be provided to the Solor UV Disinfection Unit and the tank pumps (240 VAC single phase) per manufacturer's installation instructions.
9. The contractor shall provide and maintain a restroom facility for the public to use until the new system is available. Contractor shall provide at least four (4) portable toilets, one (1) ADA portable toilet, and one (1) hand wash station.
10. All excavations shall be adequately shored. All excavation shall comply with the most current occupational safety and health administration standards.
11. Backfill of all excavation to be compacted to 90% relative compaction. Restore Pavement to match parking lot.
12. Deadman/size and location shall be installed per manufacturer's specification. Concrete mix shall be treated as a Special Exposure Mix category SE(Severe Exposure) per Table No. 201-1.3(A) of the GreenBook 2006 edition.
13. All change orders or additional work shall be approved by LA County DPW prior to initiating additional work.
14. Norwaco Bio-Kinetic Wastewater Management System Model BK 2000 shall be installed per manufacturer's specification. Bio-Neutralizer Chlorination tablets and Bio-Neutralizer Dechlorination tablets(2 month supply) shall be provided by the contractor.
15. As-built plans (paper and digital format: dxf, dwg or dgn) to be submitted to the Department of Public Works.
16. Turnbuckle assembly shall be coated to prevent corrosion.
17. Contractor shall be responsible for connecting the telephone line from the Verizon access point to the telemetry system for the Advantex System. They shall also provide the water tight Nema box or equivalent and a light red as required by Verizon.
18. Replace the existing pump with an Oranco PF5005 pump or equivalent for the primary tank. Pump voltage is 240 VAC single phase.
19. Storage and staging areas will be dictated by Beaches and Harbors at the pre-construction meeting. Beach driving rules and regulations shall be followed by the contractor and sub-contractor at all time.
20. Contractor shall contact UNDERGROUND SERVICE ALERT (USA) AT (800)422-4133
21. Contractor shall identify and install a connection to a portable water source for the future Advantex AX100 maintenance.
22. Construction hours shall be from 7:00 a.m. to 5:00 p.m. Monday to Friday.
23. Contractor shall provide temporary fencing per UBC during construction.
24. Advantex installer and O & M provider shall be certified for waste water treatment system.
25. Contractor shall provide access to Los Angeles County Lifeguard at all time.
26. The contractor shall verify all dimension and conditions at the job site and notify the Department of Public Works of any discrepancies found prior to the start of construction.
27. All utilities shall be protected in place, unless otherwise noted or specified during all phases of construction. In case of utility related emergency, immediately notify the Department of Public Works.
28. The contractor shall coordinate traffic, laydown area, utility shutoff, access to work sites, materials and equipment storage and any other items required notify the Department of Public Works.

29. The location of existing utilities shown on the plans are based on the best information available. The contractor shall be responsible to accurately identify the location of utilities. The contractor shall be responsible for any damage cause to utilities that are identified to remain.
30. Improvements identified not to be demolished shall be protected in place. Any improvements disturbed by the contractor outside of the demolition limits shall be repaired or replaced in kind as required by the Department of Public Works.
31. The contractor shall be responsible for all safety issues at the site.
32. A certified Advantex O&M company shall provide service maintenance for a year.

This plan set is based upon the expected flows and waste strengths for the purpose of serving the Topanga Beach Septic System. Any changes in usage that would effect flows or waste strength requires a review by this designer.

It is assumed the Topanga Beach Septic System serving the public restroom and the lifeguard headquarters has the same waste strength as the residential waste strength.

Design Basis:
Average (gpd)
1,300

Character	Expected Influent Characteristic		
	Average (mg/L)	Weekly Peak (mg/L)	Rarely Exceeds (mg/L)
BOD	150	250	500
TSS	40	75	150
TKN	65	75	150
DOC	20	25	30

REQUIREMENT BY THE CALIFORNIA OCEAN PLAN
 Fecal Coliform 400 MPN/100mL
 Enterococcus 104 MPN/100mL
 Ammonia 2.4 micrograms/L
 Total Chlorine Residual 8.0 micrograms/L


AX 100 Textile Treatment System
 Low to moderate loading rates: cBOD and TSS 5 mg/L
 High loading rate: BOD and TSS 15-25 mg/L
 60-70% reduction of Nitrogen

Solor UV Disinfection Unit
 Suspended Solids 30 mg/L
 5-day BOD 30 mg/L
 fecal coliform reduction exceeds 3-logs or 99.9% at the end of the UV lamp life

AX100 Filter capacity 5,000 GPD
 Solor UV Disinfection unit capacity 4,320 GPD

Do not dispose of toxics or chemical into system. Example: restaurant degreasers and cleaners, wax stripper for linoleum, carpet shampoo, and waste products any other toxics.

Water softener brine discharge is strictly prohibited from being discharged into the Advantex advanced treatment system. Failure to adhere to this policy will void Oranco's warranty.

		COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS COUNTY OF LOS ANGELES TOPANGA BEACH LIFEGUARD HEADQUARTERS/RESTROOM STATION 18720 PCH MALIBU, CA 90265 General Notes						
DATE	BY	DESCRIPTION	PROJECT NUMBER	DATE	DRAWN	JOB	DWG	SHEET 11 OF 11
REVISIONS								

DRAWN BY: []
 CHECKED BY: []
 DATE: []
 PROJECT FILE NAME: []
 SHEET NO.: []