



**Aeris Aerobics**  
Septics for a Greener Tomorrow

Site Evaluator & DR  
Information Packet

Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Zak Covar, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

June 20, 2014

Messrs. Tommy, Matt and Clint Dulworth  
Aeris Aerobics  
5021 SE McKinney  
Rice, TX 75155

RE: Approval of Aeris Aerobics Models D-500-500 PT, D-500-750 PT, D-600-500 PT, D-600-750 PT, D-750, D-840, D-890, D-1100, D-1250, D-1500

Gentlemen,

We have completed our review of the above referenced aerobic treatment units. The above referenced models are approved for use in Texas.

The treatment capacity (in gallons per day) of each unit is shown as the first three digits in the model number listed above. All of the listed units are provided with a pretreatment chamber and a pump chamber.

Pump chamber capacity (in gallons) precedes the PT suffix where shown. Where the PT suffix is not used pump chambers are roughly 760, 900, 850, 1160, 1250 and 1544 gallons capacity in order of the model listing shown above. Please note that while the pump chamber is not considered in the ANSI Standard 40 review, the pump chamber is subject to the requirements shown in 30 TAC 285.34(b).

Also, a separate pretreatment tank will not be required for any of the listed units.

This letter will serve as proof of approval until your aerobic treatment units are listed on our web site. We request that you review the website listings of your products and advise us of any errors in the listings or company contact information.

If you have any questions concerning our review, please contact me by telephone at (512) 239-2150, by e-mail at [mike.price@tcq.texas.gov](mailto:mike.price@tcq.texas.gov) or by facsimile at (512) 239-6390. When responding by mail please use mail code MC-235.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Price".

Michael Price  
On-Site Wastewater Program

Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

June 19, 2015

Messrs. Tommy, Matt and Clint Dulworth  
Aeris Aerobics  
5021 SE McKinney  
Rice, TX 75155

RE: Approval of Aeris Aerobics Models D-500-M, D-600-M, D-500-N-500PT, D-500-N-750PT

Gentlemen,

We have completed our review of the above referenced aerobic treatment units. The above referenced models are approved for use in Texas.

The treatment capacity (in gallons per day) of each unit is shown as the first three digits in the model number listed above. All of the listed units are provided with a pretreatment chamber and a pump chamber.

The D-500-M and D-600-M are provided with a 750 gallon pump chamber. The D-500-N-500PT is provided with a 500 gallon pump chamber and the D-500-N-750PT is provided with a 750 gallon pump chamber. Please note that while the pump chambers are not considered in the ANSI Standard 40 review, pump chambers are subject to the requirements shown in 30 TAC 285.34(b).

This letter will serve as proof of approval until your aerobic treatment units are listed on our web site. We request that you review the website listings of your products and advise us of any errors in the listings or company contact information.

If you have any questions concerning our review, please contact me by telephone at (512) 239-2150, by e-mail at [mike.price@tceq.texas.gov](mailto:mike.price@tceq.texas.gov) or by facsimile at (512) 239-6390. When responding by mail please use mail code MC-235.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Price".

Michael Price  
On-Site Wastewater Program

*Gordon L. Davis*

STRUCTURAL ENGINEERING CONSULTANT

Telephone  
(334) 213-3070

Mailing Address  
P.O. Box 241371  
Montgomery, Alabama 36124-1371

Facsimile  
(334) 213-4020  
E-mail  
gldavis1@mindspring.com

January 15, 2014

Mr. Tommy Dulworth  
Dulworth Enterprises, Inc.  
5021 Southeast McKinney  
Rice, Texas 75155

RE: Aeris Septic Tank Design  
D-600, D-750, D-1000, D-1250 & D-1500

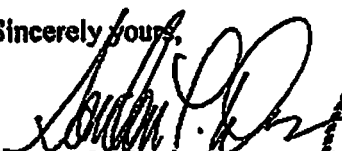
Gentlemen:

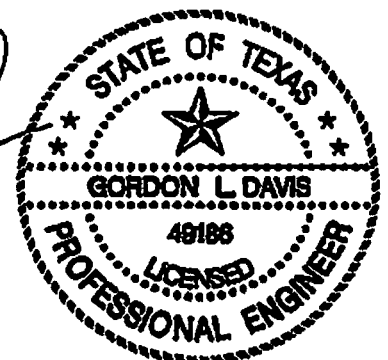
The structural design that we provided for you for the captioned septic tank systems are based upon design requirements of the International Building Code, American Concrete Institute, American Iron & Steel Institute, American Society for Testing & Materials and American Welding Society. Design loading for the tanks is a live load allowance at the top slab of 100 psf. This loading is non-highway traffic loading, but loading that will support light maintenance-type equipment. Lateral earth pressures applied to the tank from the exterior of the tank, which would include the lateral earth pressure of soils backfilled against the material, is 40 pcf per foot of depth of the tank. Inside pressures acting outward and at interior partitions of the tanks are designed based upon a fluid pressure of 62.4 pcf. Our design criteria requires that all of the concrete be a minimum compressive strength of 3,000 psi at 28 days. All reinforcing steel for the tanks is required to have minimum yield strength of 60,000 psi. Details for placement, splicing and spacing of reinforcement is shown on each of our drawings for these individual tanks.

In my opinion, these tanks have been designed to support the lateral pressures and superimposed live loads at the top slab of the tanks that could be anticipated in non-highway traffic loading conditions. It is my opinion that these tanks have been designed in compliance with the applicable codes and specifications for this type construction.

Please call if you have further questions.

Sincerely yours,

  
Gordon L. Davis, P.E.



GLD/vcd



**Aeris Aerobics Gallon Per Chamber:**

<b>Aeris Systems Chambers:</b>	<b>Trash</b>	<b>Aeration</b>	<b>Clarifier</b>	<b>Pump</b>
D-500m	568	371	197	763
D-600m	478	461	197	763
D-750	355	584	197	763
D-840	552	601	205	919
D-1100	807	836	300	
D-1500		1532	388	



June 4, 2015

Matt Dulworth  
Aeris Aerobics  
5021 SE McKinney  
Rice, TX 75155

Re: Calculation of BOD Removal

Dear Matt,

Aeris Aerobics has requested the maximum amount of BOD removed from their units on a daily basis. NSF/ANSI Standard 40 requires the BOD to average 300 mg/day or less. Based on 300 mg/day, the maximum daily load removed by your units is set forth below:

300 mg/L		
Unit	Capacity gpd	lbs/day
D-500	500	1.3
D-600	600	1.5
D-750	750	1.9
D-840	840	2.1
D-890	890	2.2
D-1100	1100	2.8
D-1250	1250	3.1
D-1500	1500	3.8

Should you have any questions in regard to this letter or require additional information, please do not hesitate to contact me.

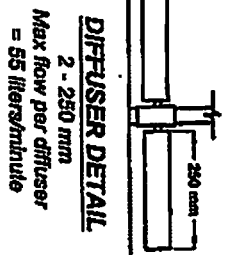
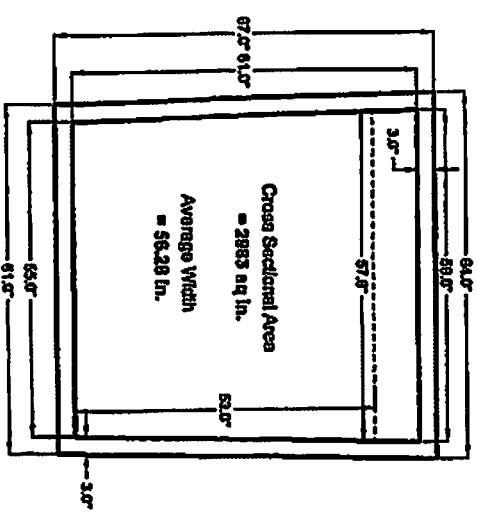
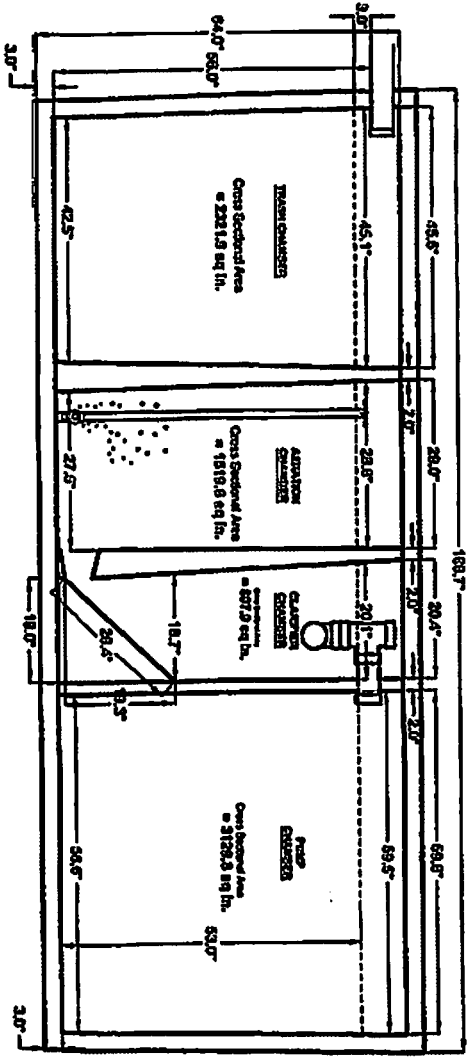
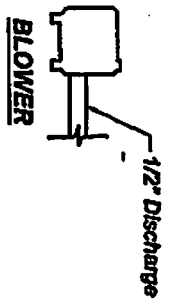
Sincerely yours,

**Gulf Coast Testing, Inc.**

  
William B. Daniel IV  
Program Manager

Correspondence.2015.06.04.SPE253 Daily Load Calculations

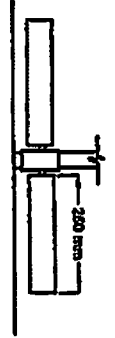
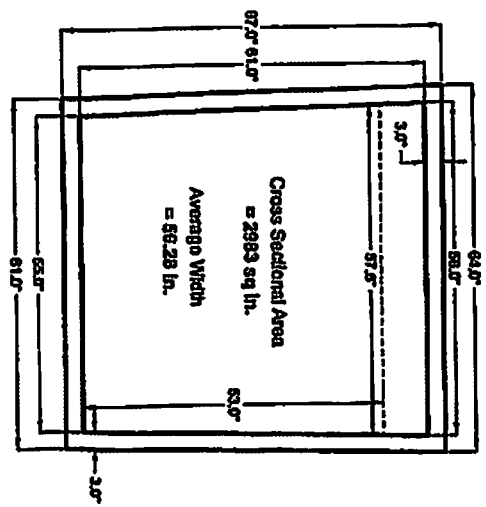
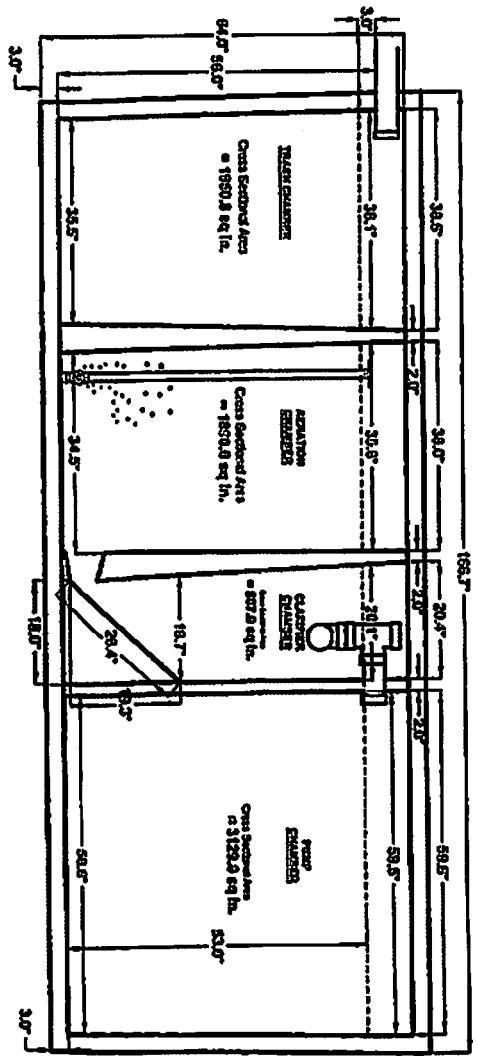
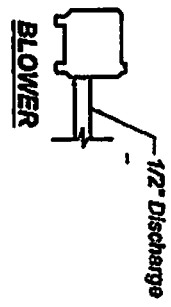
Office/Mailing | 17170 Perkins Road • Baton Rouge, LA 70810  
Phone 225.612.1987 • Fax 225.612.1988  
Test Site Address | 14378 Park Avenue • Prairieville, LA 70769  
william.daniel@gctia.com



Title: **Model D-500-m**  
**500 gallon per day Aerobic Treatment Unit**

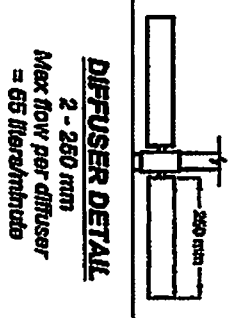
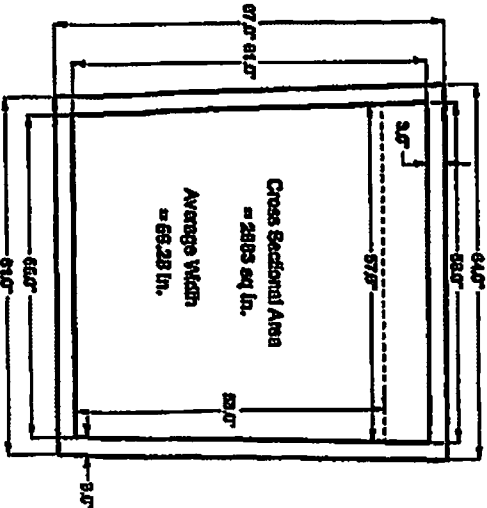
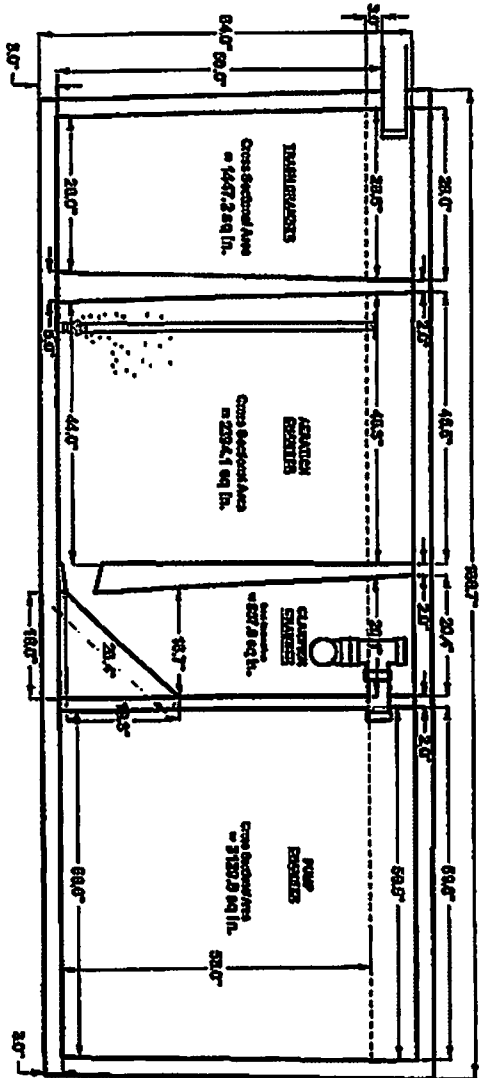
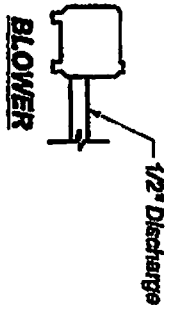
Company Name: **Aeris Aerobics**

Date: **2-22-2015**



<p>Title: <b>Model D-600-m</b> <b>600 gallon per day Aerobic Treatment Unit</b></p>	<p>Company Name: <b>Aeris Aerobics</b></p>	<p>Date: <b>2-22-2015</b></p>
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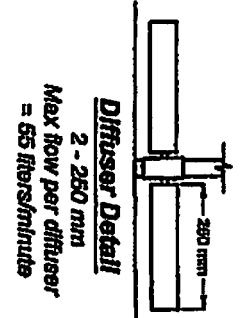
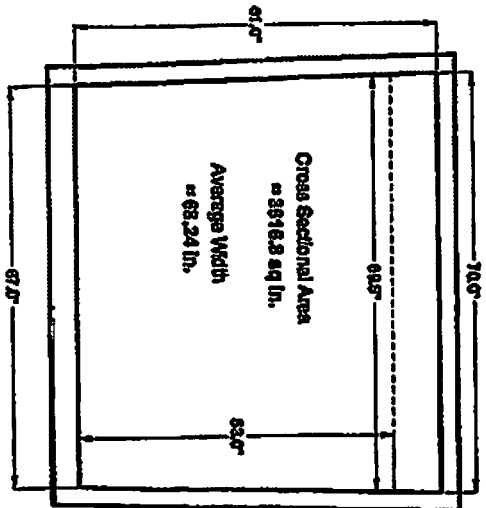
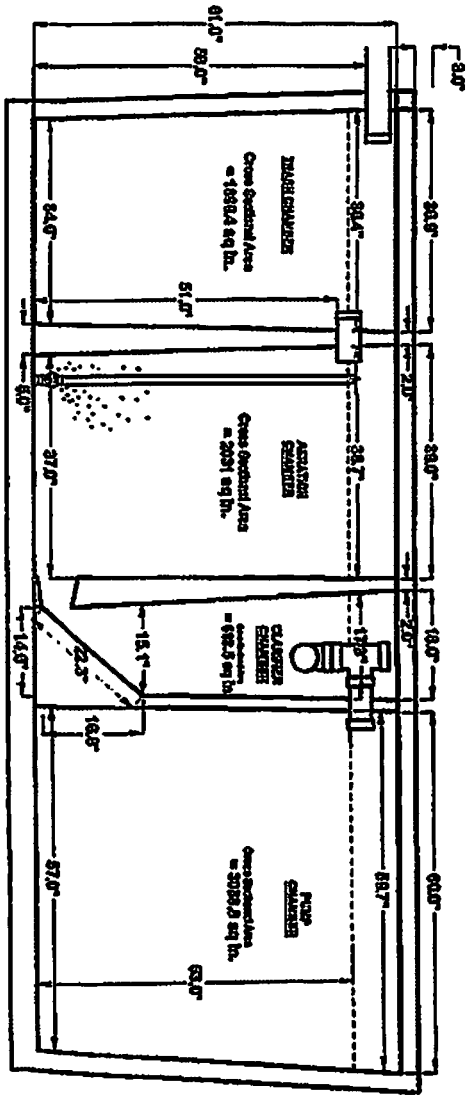
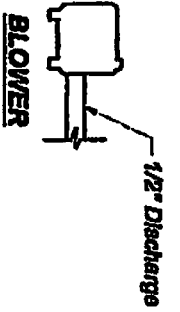


Title: **Model D-750**  
**750 gallon per day Aerobic Treatment Unit**

Company Name:

**Aeris Aerobics**

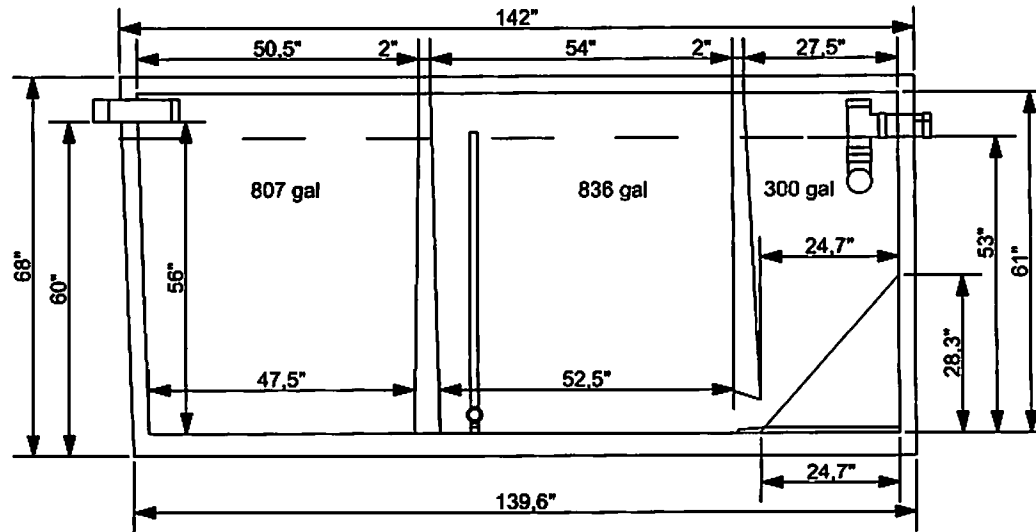
Date: **3-24-2014**



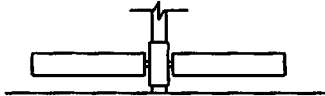
Title: <b>Model D840</b> <b>840 gallon per day Aerobic Treatment Unit</b>	Company Name: <b>Aeris Aerobics</b>	Date: <b>3-1-2014</b>
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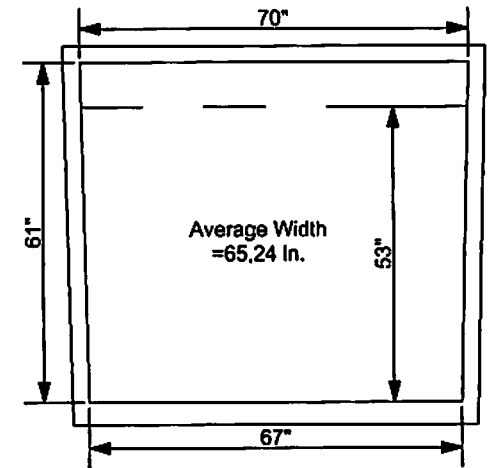
**BLOWER**



**SIDE SECTION VIEW**  
SCALE: 1"=3/8"



**DIFFUSER DETAIL**  
2-250mm  
Max flow per diffuser  
= 55 lites/minute



**END SECTION VIEW**  
SCALE: 1"=3/8"

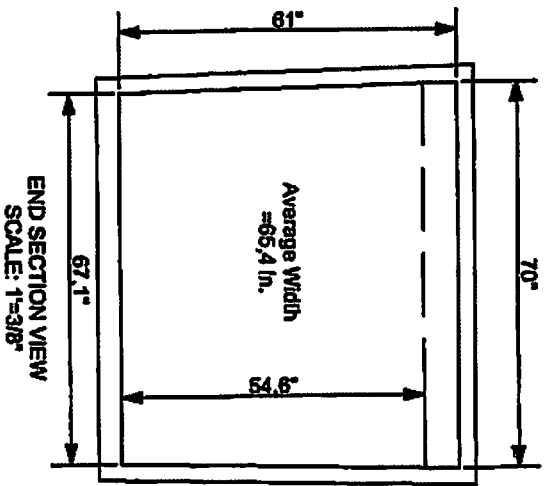
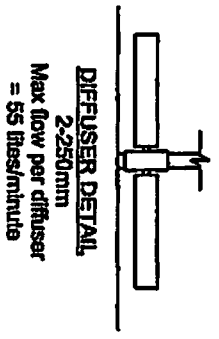
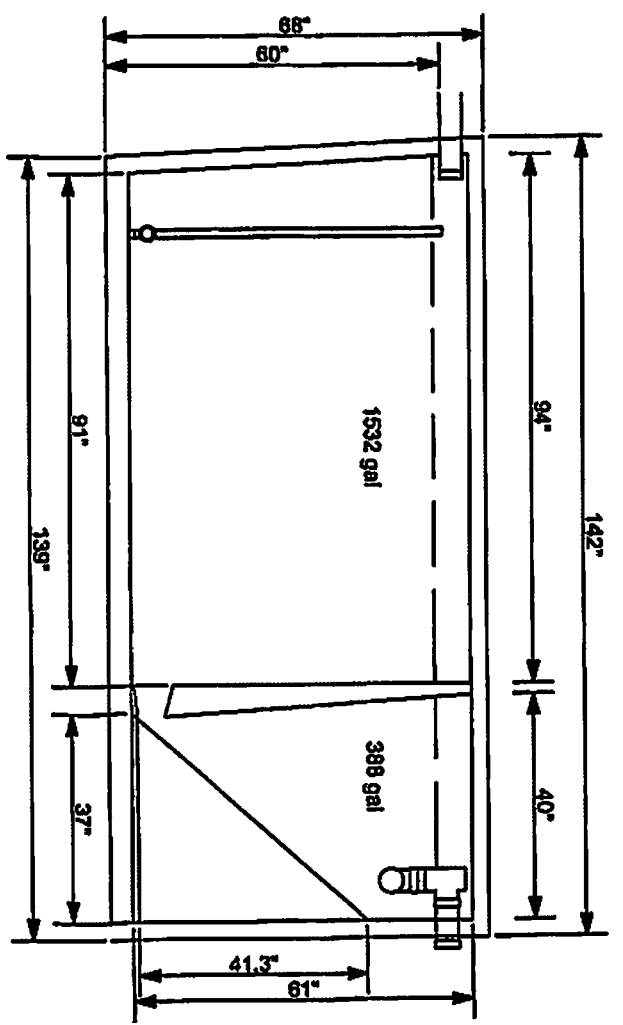
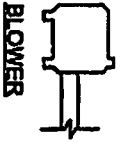
Title:

Model D-1100  
1100 gallon per day Aerobic Treatment Unit

Company name:

Aeris Aerobics

Date:



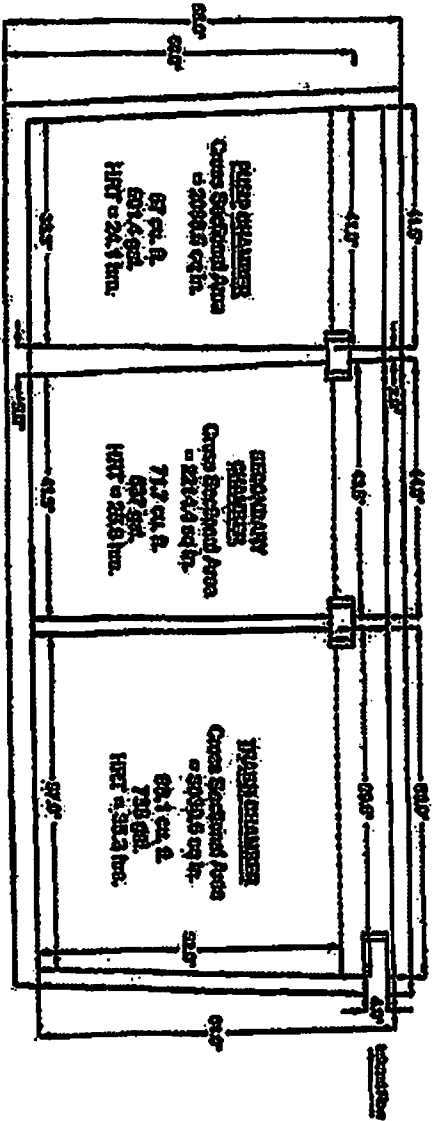
Title:

Model D-1500  
1500 gallon per day Aerobic Treatment Unit

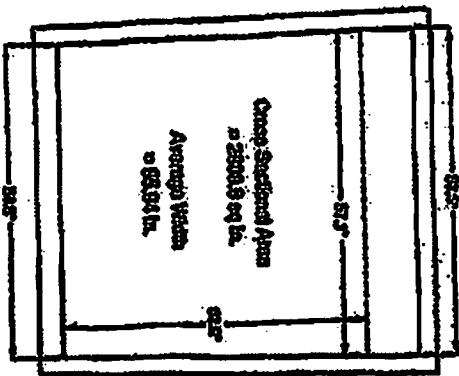
Company name:

Aeris Aerobics

Date:



**PLAN GEOMETRY VIEW**  
 SCALE: 1" = 30'



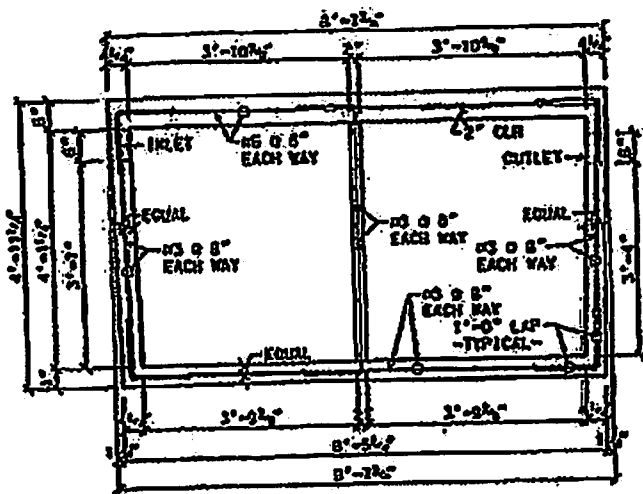
**PLAN GEOMETRY VIEW**  
 SCALE: 1" = 30'

Table 8600 gallon per day L.P.D. Tank

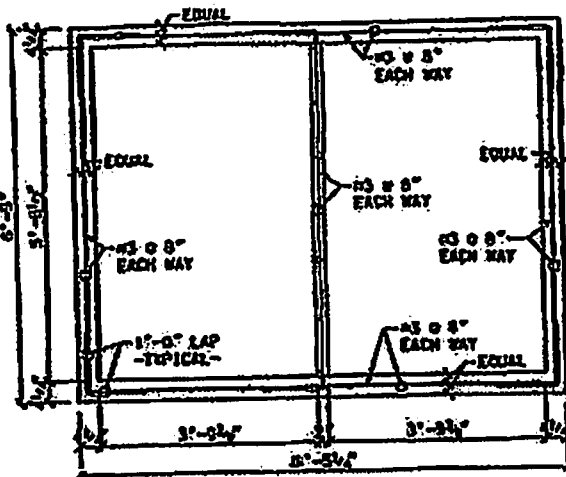
Hydraulic Calculations



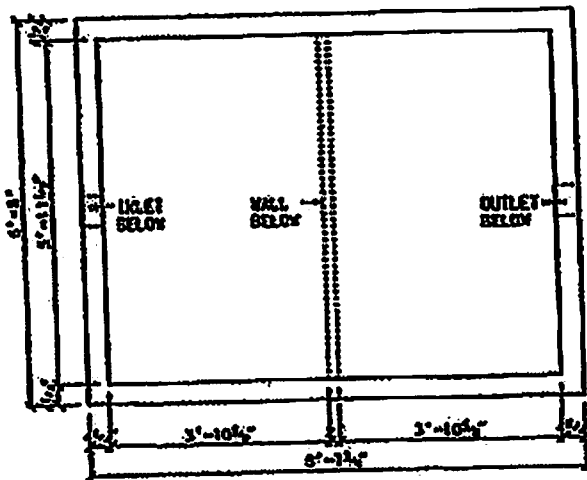
Date: 10-29-2014



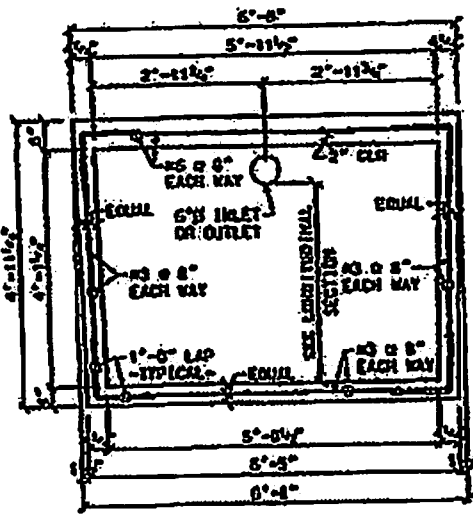
LONGITUDINAL SECTION



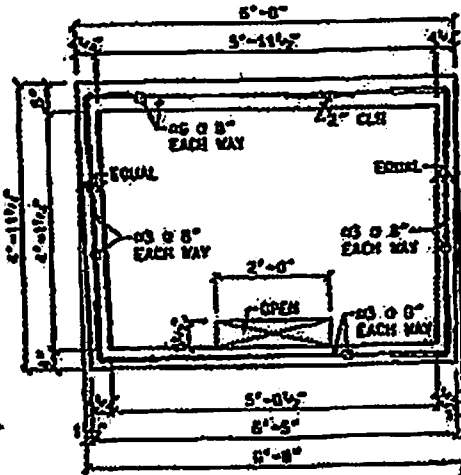
BOTTOM PLAN



TOP PLAN



TRANSVERSE SECTION



INTERIOR WALL SECTION

**STRUCTURAL NOTES**  
 APPLY THESE CODES AND SPECIFICATIONS:  
 ACI 318M-11  
 ACI 308R-10  
 ACI 309R-10  
 ACI 308.1R-10  
 ACI 308.2R-10  
 ACI 308.3R-10  
 ACI 308.4R-10  
 ACI 308.5R-10  
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 ACI 308.96R-10  
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 ACI 308.99R-10  
 ACI 308.100R-10

**GORDON L. DAVIS**  
 STRUCTURAL ENGINEERING CONSULTANT  
 13375 S. 103rd St., Suite 200  
 Overland Park, Kansas 66204  
 913-641-1111 FAX 913-641-1112

Conventional  
 Two-Compartment Tank  
 625/625

DRAWING TITLE  
 PLAN  
 AND  
 DETAILS

JOE RICHARD  
 2013-2017  
 DATE: 02/04/2013  
 REVISION  
 REVISION  
 05/15/00



Scale: 1/8" = 1'-0"  
 Sheet No. 1 of 1