GENERAL NOTES
1. ECOPOD REACTOR BOX SHALL BE CONSTRUCTED OF AISI 304/304L STAINLESS STEEL.
2. TANK MATERIAL OPTIONS:
   2.1. CARBON STEEL PER ASTM A36 w/COATING PER DELTA STANDARDS,
   2.2. FIBERGLASS REINFORCED PLASTIC (FRP) (NOT ALL MODELS),
   2.3. PRECAST CONCRETE PER ENGINEER OF RECORD REQUIREMENTS, BY OTHERS,
   2.4. CAST-IN-PLACE CONCRETE PER ENGINEER OF RECORD REQUIREMENTS, BY OTHERS.
3. SEE INSTALLATION GUIDE FOR INSTALLATION DETAILS.
4. CONTACT AN IWT/DELTA REPRESENTATIVE REGARDING DEVIATIONS FROM THESE STANDARDS.

TABLE 4
MINIMUM ECOPOD REACTOR DIMENSIONS

SITE ELEVATION		LAYOUT ID	REACTOR WEIGHT		A OVERALL LENGTH		B OVERALL WIDTH		B1 AIR HEADER CL DIM	
FT	M		LB	KG	IN	CM	IN	CM	IN	CM
0-3,000	0-914	2	1,730	785	215	547	108	275	57	145
0-3,000	0-914	3	1,920	872	276	702	84	214	45	115

1. SOME REACTOR LAYOUTS NOT AVAILABLE IN FIBERGLASS TANKS. CONTACT AN IWT/DELTA REPRESENTATIVE FOR DETAILS.

TABLE 5
RECOMMENDED ECOPOD TANK INTERIOR ENVELOPE DIMENSIONS

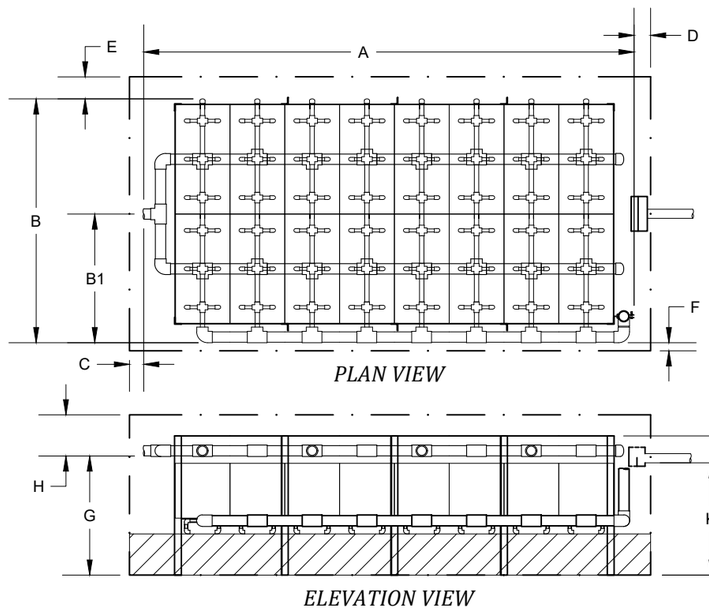
DIMENSION	IN	CM
C VESSEL FRONT SPACE	12	30
D VESSEL REAR SPACE	18	46
E AIR HEADER SIDE INSIDE SPACE	6	15
F NO HEADER SIDE INSIDE SPACE	6	15

1: ADDITIONAL ACCESS HATCHES RECOMMENDED FOR SOLIDS REMOVAL ALONG VESSEL SIDES.

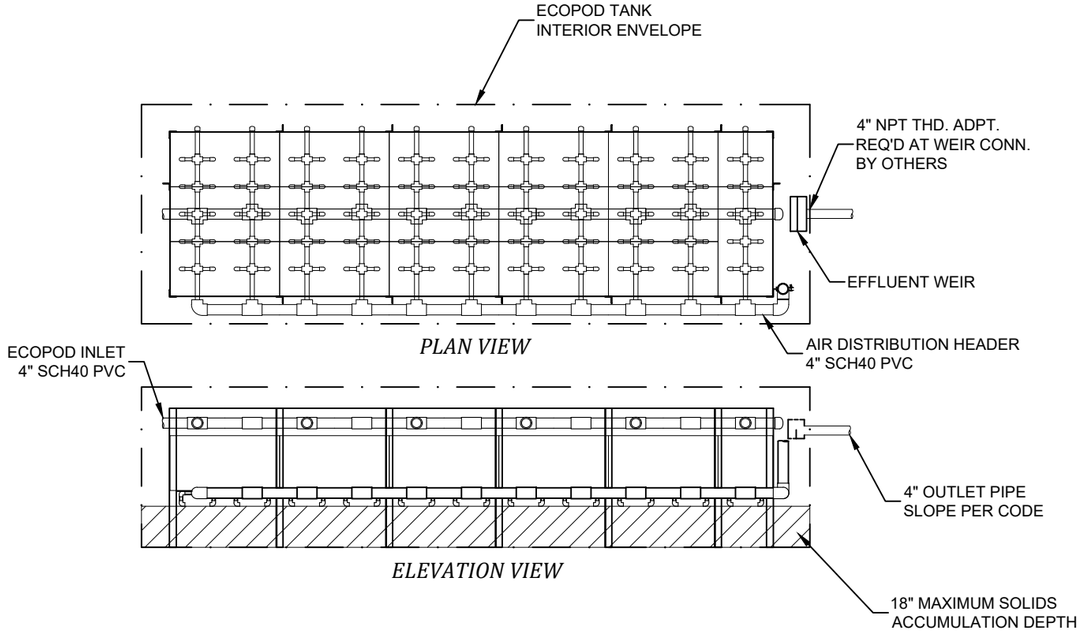
TABLE 6
REQUIRED ECOPOD TANK INTERIOR ENVELOPE MINIMUM DIMENSIONS

DIMENSION	IN	CM
G INLET INVERT	50	127
H PLENUM SPACE ABOVE INLET INVERT	10	25
J MEDIA REACTOR HEIGHT	59	150
K OUTLET INVERT	47	119

1. ONE (1 EA.) INLET AND ONE (1 EA.) OUTLET ACCESS HATCH REQUIRED, 24" DIA MINIMUM.



LAYOUT 2



LAYOUT 3

NO.	DATE	INITIALS	DESCRIPTION

Delta Treatment Systems, LLC

DELTA ECOPOD E800S
STANDARD DESIGN FOR BOD REDUCTION

GENERAL ARRANGEMENT
LAYOUT DIMENSIONS

HORIZ. SCALE	PROJECT NO.
N/A	N/A
VERT. SCALE	DATE
N/A	05/19/2021
DRAWN BY	DESIGNED BY
CGK	AOB
DRAWING NO.	SHEET NO.
C1.1	02 of 02

GENERAL NOTES

1. THE DRAWINGS DEPICTED HEREIN REPRESENT PRELIMINARY LAYOUTS OF A WASTEWATER TREATMENT SYSTEM CAPABLE OF TREATING THE DOMESTIC WASTE CONSTITUENTS NOTED IN TABLE 1.
2. ECOPOD REACTOR BOX SHALL BE CONSTRUCTED OF AISI 304/304L STAINLESS STEEL.
3. TANK MATERIAL OPTIONS:
   - 3.1. CARBON STEEL PER ASTM A36 w/COATING PER DELTA STANDARDS,
   - 3.2. FIBERGLASS REINFORCED PLASTIC (FRP) (NOT ALL MODELS),
   - 3.3. PRECAST CONCRETE PER ENGINEER OF RECORD REQUIREMENTS, BY OTHERS,
   - 3.4. CAST-IN-PLACE CONCRETE PER ENGINEER OF RECORD REQUIREMENTS, BY OTHERS.
4. BLOWERS, WEIRS, CONTROL PANELS, AND VARIOUS SMALL PARTS WILL BE SHIPPED UNASSEMBLED AND SECURELY PACKAGED, TO BE INSTALLED BY CONTRACTOR.
5. SEE INSTALLATION GUIDE FOR INSTALLATION DETAILS.
6. CONTACT AN IWT/DELTA REPRESENTATIVE REGARDING DEVIATIONS FROM THESE STANDARDS.

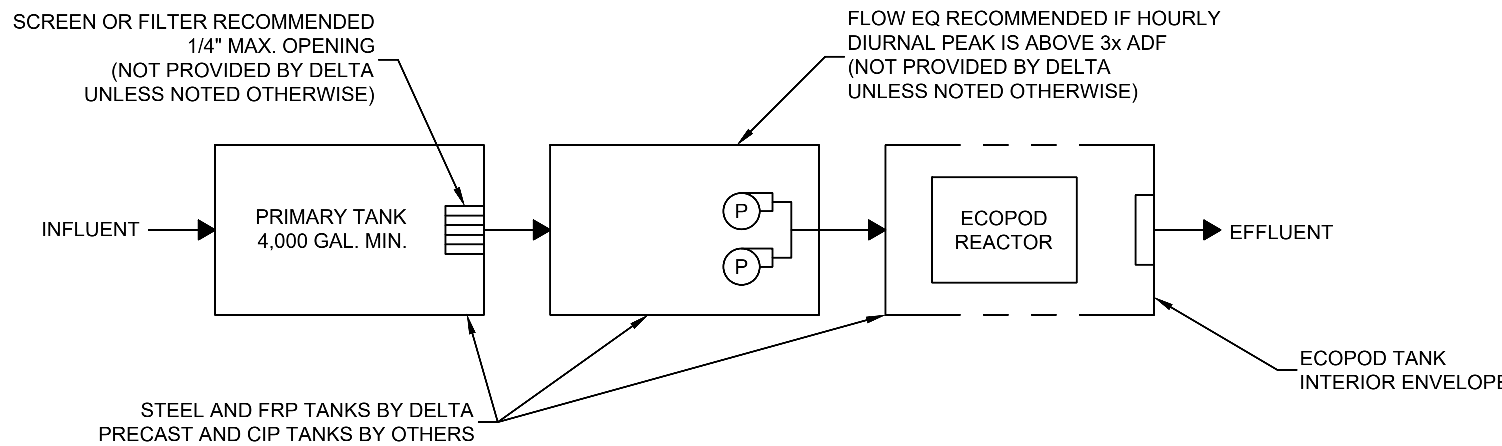
TABLE 1
PROCESS PARAMETERS
DELTA E800S BOD+NITRIFICATION

PARAMETER	MINIMUM	MAXIMUM
AVERAGE DAILY FLOW	-	8,000 GPD
PEAK DAILY FLOW	-	12,000 GPD
INFLUENT BOD_5	-	20 LB/DAY
AIR TEMPERATURE	-	115 °F
WATER TEMPERATURE	68 °F	68 °F
RELATIVE HUMIDITY	10%	90%
SITE ELEVATION	0 FT AMSL	3,000 FT AMSL

TABLE 2
AIR DEMAND

PARAMETER	UP TO 1,000 FT AMSL	1,000 TO 3,000 FT AMSL
STANDARD AIRFLOW	332 SCFM	387 SCFM
SITE AIR REQUIREMENT	374 ICFM	465 ICFM
BLOWER INLET AIR	374 ICFM	465 ICFM
AIR HEADER SIZE	6 IN	6 IN
MIN. TANK VENT X-SECT. AREA	154 IN^2 2 EA 10" OR 1 EA 14"	191 IN^2 2 EA 12" OR 1 EA 16"
BLOWER SELECTION	G-D SUTORBILT 4L	G-D SUTORBILT 4L
NOISE LEVEL	ENCLOSURE DEPENDENT	ENCLOSURE DEPENDENT
AIR TEMPERATURE RISE[1]	22 F (12.2 C)	20 F (11.1 C)
BLOWER INLET DIAMETER	3 IN NPT	3 IN NPT
BLOWER OUTLET DIAMETER	3 IN NPT	3 IN NPT
MOTOR POWER RATING[2]	5 HP	7.5 HP
OPERATING POWER	2.9 KW	3.5 KW

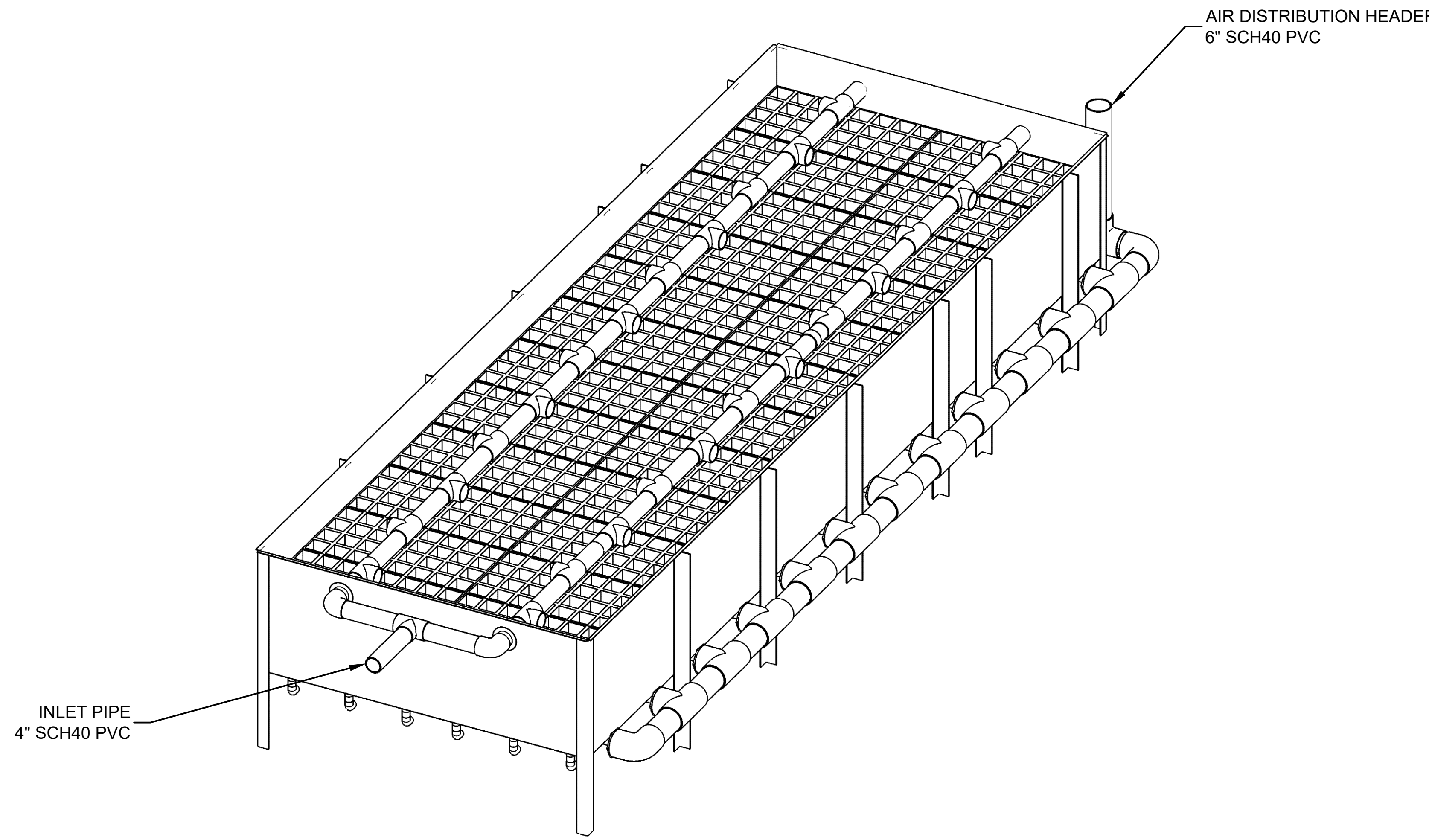
1. REVIEW BLOWER DISCHARGE AIR TEMPERATURE WHEN SPECIFYING AIR MAIN PIPING MATERIAL.
2. REVIEW BLOWER MANUFACTURER CUTSHEETS FOR ADDITIONAL ELECTRICAL INFORMATION.



TYPICAL PROCESS DIAGRAM

TABLE 3
STANDARD EQUIPMENT LIST

DESCRIPTION	QTY	MAKE	MODEL
ECOPOD REACTOR	1	DELTA	E800S-N
BLOWER	1	G-D SUTORBILT	PER TABLE 2
CONTROL PANEL	1	DELTA	PER DESIGN
24" S.S. EFFLUENT WEIR	1	DELTA	TROUGH-3.0



ECOPOD REACTOR
LAYOUT 2

NO.	DATE	INITIALS	DESCRIPTION
A	10/12/21	AOB	ADDED TRIMETRIC VIEW

Delta Treatment Systems, LLC

DELTA ECOPOD E800S-N
STANDARD DESIGN FOR BOD AND NITRIFICATION

GENERAL ARRANGEMENT
DESIGN OVERVIEW

HORIZ. SCALE N/A	PROJECT NO. N/A
VERT. SCALE N/A	DATE 02/11/2021
DRAWN BY CGK	DESIGNED BY AOB
DRAWING NO. C1.0	SHEET NO. 01 of 02