

SULTING GROUP, INC
WESTERN PARKWAY, SUITE 10
WILLOUGHBY, OHIO 44094

BRUNO FRATE
8395 BRIGHTON PATH
LOUGHBY, OHIO 44094

TWP., OHIO

SITE PLAN
LED ROAD, CONCORD TV
P.P. No. 08A0020000340
MODEL

S/L 3 GIF

DRAWN
WSO

CHECKED
DWN

JUNE 15, 2004

1"= 20'

JOB NO.
04052

SHEET

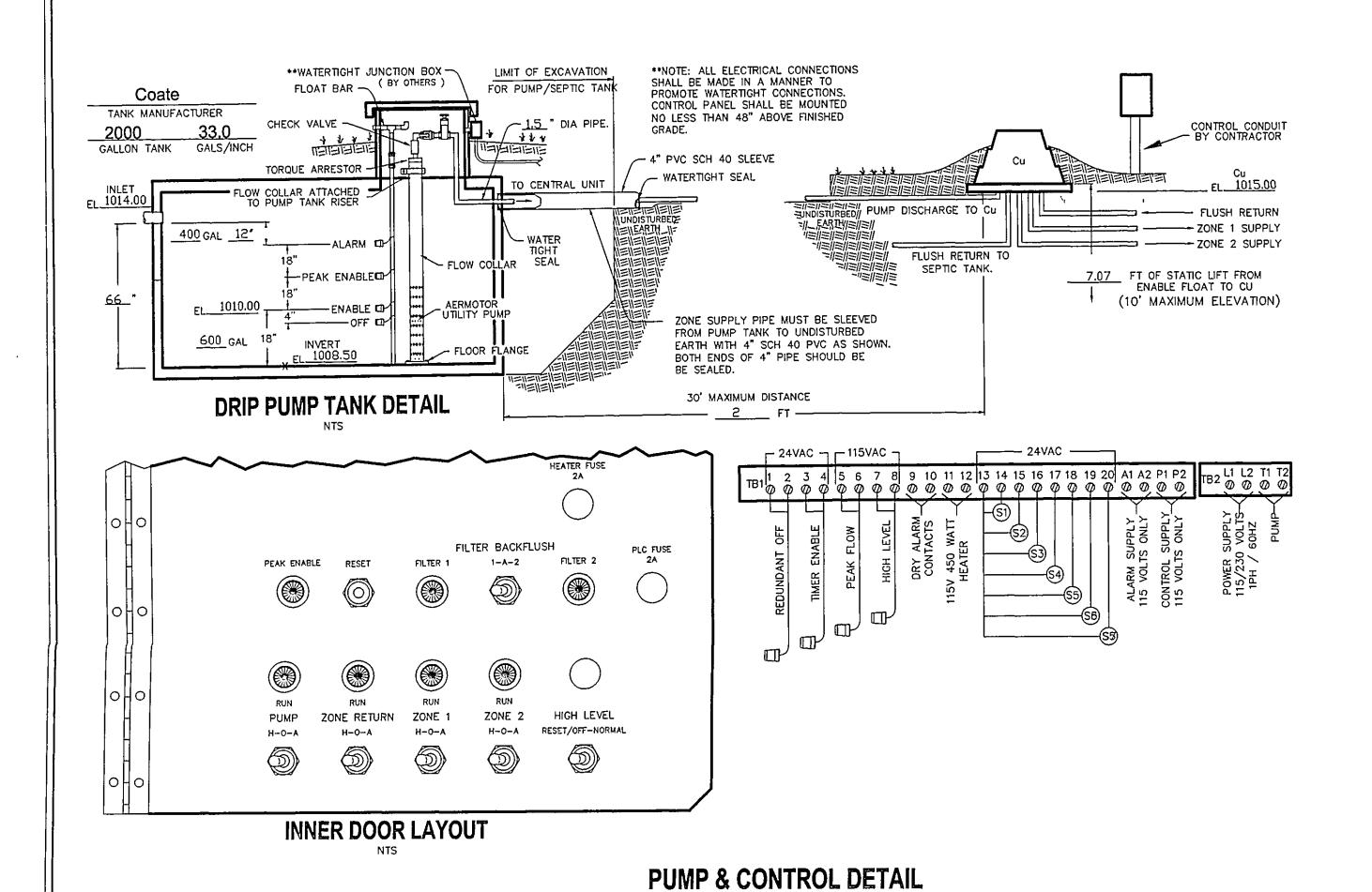
04052

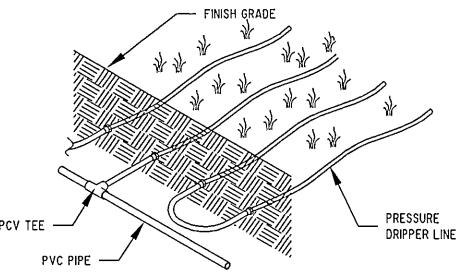
SEPTIC DRIP CALCULATION SHEET

1	417	GALLONS PER DAY 4 BEDROOMS							
2	0.23	GPD/L.F. TUBING INFILTRATIVE SOIL LOADING RATE							
3	150	FT. (Length)	26	FT.	FT. (Width) AREA FOR DISPOSAL LAYOUT 3900 FT.				
4	0.12	GPD/FT2 AREA SOIL LOADING RATE PROVIDED							
5	2	ZONES							
6	1800	TOTAL DRIPPE	TOTAL DRIPPER LINE PROVIDED						
7	2000	SEPTIC TANK S	IZE	•					
8	2000	DOSING TANK S	IZE			<u> </u>	·		
9	33	GALLONS PER INCH IN DOSING TANK (Recommended Minimum)							
10	ZONE	ONE							
	1950	TOTAL ABSORPTION AREA							
12	900	LINEAR FEET OF DRIP TUBING							
13	300	LONGEST LATERAL LENGTH							
14	4.58	DOSING FLOW RATE							
15	3	NO. RETURN FIELD FLUSH CONNECTIONS							
16	4.80	FIELD FLUSH FLOW RATE							
17	9.38	TOTAL FLOW REQUIRED							
18	ZONE	TWO							
19	1950	TOTAL ABSORPTION AREA							
20	880	LINEAR FEET OF DRIP TUBING							
21	900	LONGEST LATERAL LENGTH							
22	4.58	DOSING FLOW RATE							
23	3	NO. RETURN FIELD FLUSH CONNECTIONS							
24	4.80	FIELD FLUSH FLOW RATE							
25	9.38	TOTAL FLOW REQUIRED							
26	10	MAXIMUM DESIGN FLUSHING FLOW							
27	8	FEET OF HEAD LOSS FROM HYDRAULIC UNIT (Based on #26)							

FORM C \SCI2\LIBRARY\FORMS\24X36JM DWG

28	HYDRA	ULIC UNIT SUPPL	Y LINE										
29	1.5	PIPE DIAMETER											
30	15	LENGTH SUPPLY PIPE											
31	7.1	FEET OF STATE	FEET OF STATIC LIFT										
32	9	TOTAL FEET HEAD LOSS IN LINE (Dynamic Head Loss + #31)											
33	FORCE	MAIN SUPPLY LINE PIPE SIZE & LENGTH:											
34	1"	ZONE I SIZE	150	ZONE I	LENGI	GHT 9			FT. HE	AD LOS	SS		
35	1"	ZONE 2 SIZE	150	ZONE 2	LENG	TH	9		FT. HE	AD LOS	SS		
36	RETUR	N FLUSH LINE SIZ	E & RETI	JRN:							·		
37	1"	ZONE I SIZE	150	ZONE I	LENG	нт	5		FT. HE	AD LOS	SS		
38	1"	ZONE 2 SIZE	150	ZONE 2	LENG	STH	5		FT. HE	AD LOS	SS		
39	10	FEET OF TOTA	LSTATIC	HEAD LO) SS (\	/ertic	al Lı	ft)					
40	TOTAL	PRESSURE LOSS	(Add Iter	ms 27, 32	34/35	, 37/3	3, 39	+ F1	ushing):				
41	76	ZONE I HEAD LOSS, INCLUDES				35	FE	ET F	FLUSHING				
42	76	ZONE 2 HEAD LOSS, INCLUDES				35	FEET FLUSHING						
43	PUMP :	SIZING:											
44	76	MAXIMUM TOTA	L PRESSI	URE LOSS	(High	hest 4	l or	42)					
45	124	DISC FILTER BA	CKFLUSI	l (# 32 + l	15fl. (e 15 G	PM)				<u> </u>		
46	15	GPM 9 124	FEET,	115	VOL	TS,	1	F	HASE,	0.5	H.P		
47	TIMED	DOSING PER ZON	IE:							_			
48	ZONE	ONE:											
49	4.58	Dosing GPM	6.84	MIN./D	OSE	31	.3	GA	LLONS P	ER DOS	SE		
50		4 AVE. CYC	ES.	6.67	PEAK CYCLES								
51	ZONE	TWO:											
52	4.58	4.58 Dosing GPM 6.84 MIN/D		MIN /D	OSE	SE 31.3 G/			GALLONS PER DOSE				
53	3	4 AVE. CYCLES 6.67			PEAK CYCLES								
54	4	INCHES DRAWDOWN FLOAT SWITCH SETTING (Minimum 4**)*											
55	Lands	cape Linear Loadir	ig Rate (L	LLR):	LLL	R =	= 2.8						
56	Soil Loading Rate (SLR):					! =	0.1	1					





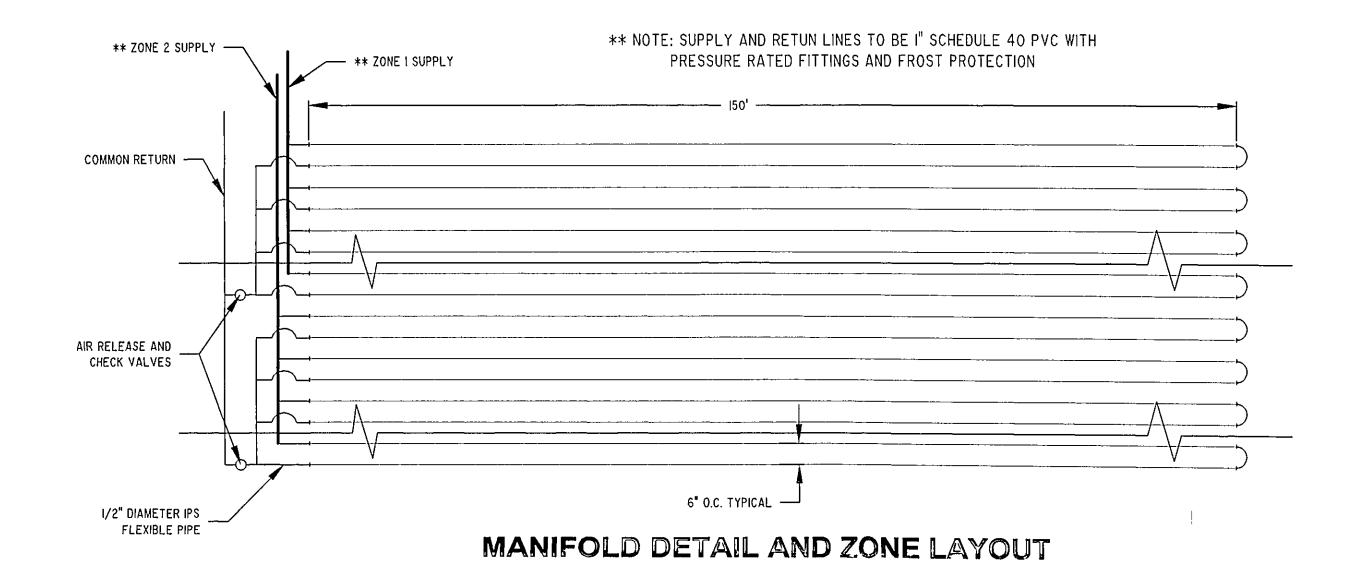
DRIPPER LINE TO FOLLOW CONTOURS WITH PVC MANIFOLD PERPENDICULAR TO GRADE. PVC MANIFOLD TO BE FREEZE PROTECTED.

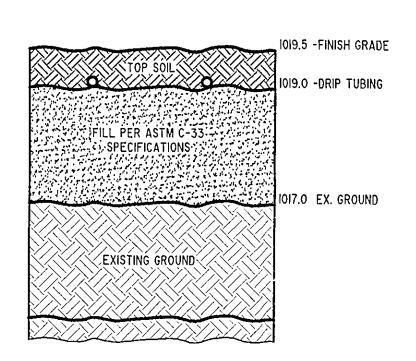
SUBSURFACE DISTRIBUTION SYSTEM

SCOPE: DOMESTIC SEWAGE WILL FLOW BY GRAVITY THROUGH THE SEPTIC TANK THEN INTO A FINAL DOSING TANK. THE CENTRAL UNIT WILL DISPOSE OF THE EFFLUENT BY ALTERNATELY DOSING MULTIPLE ZONES IN THE ABSORPTION AREA.

THE CENTRAL UNIT COMPRISES BOTH THE CONTROLS DRIPPER LINE AND THE HYDRAULIC UNIT.

DRIP DETAIL SCHEMATICS



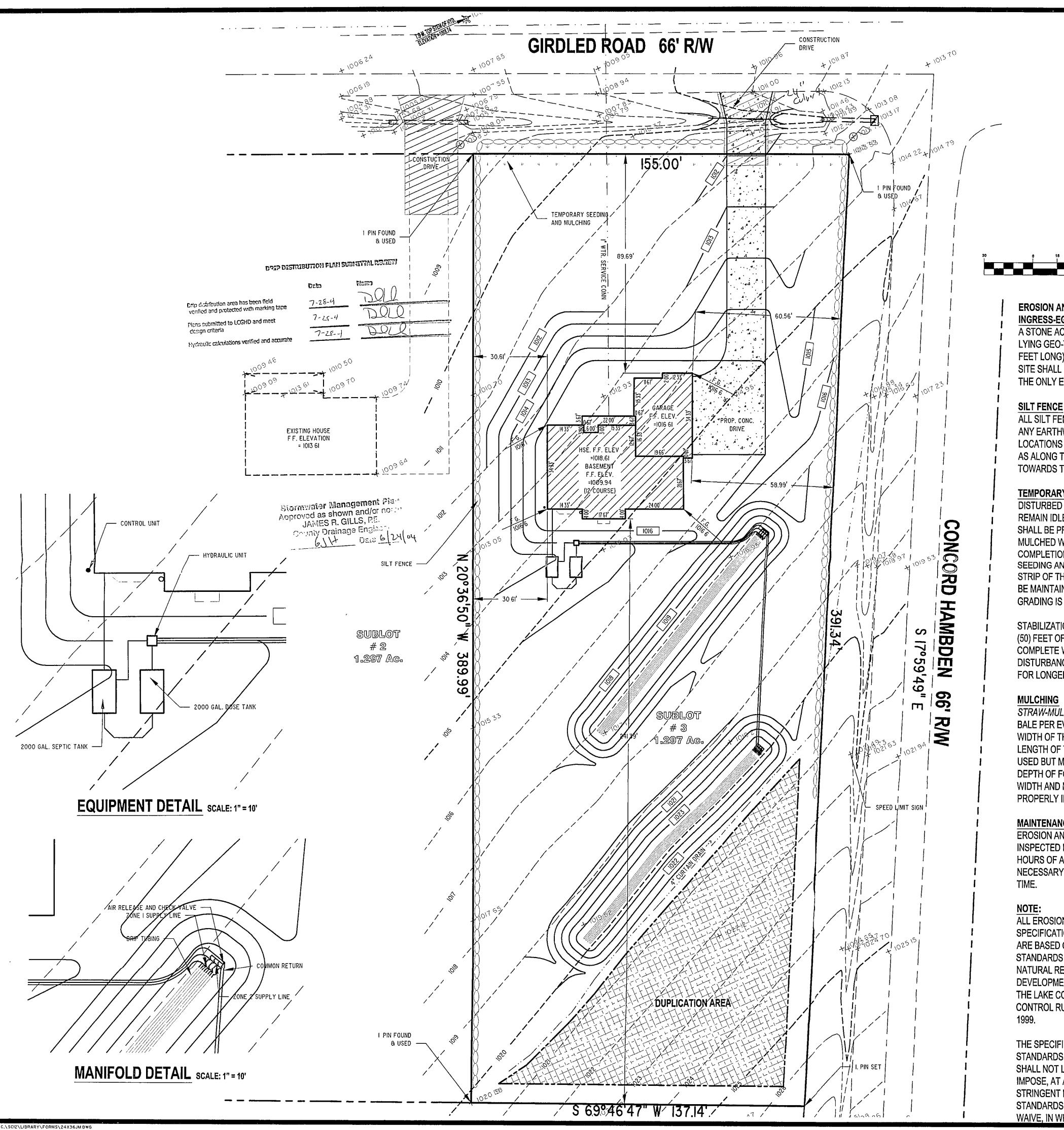


TYPICAL SECTION

DETAIL OF ROAD, CONCC

JUNE 15, 2004

SHEETS 04052



BEEDING DATES SPECIES LB/1000 FT. PER AC. MARCH 1 TO AUGUST 15 OATS TALL FESCUE ANNUAL RYEGRASS 40 LB. TALL FESCUE 40 LB. ANNUAL RYEGRASS 40 LB. AUGUST 16 TO NOVEMBER 1 TALL FESCUE 40 LB, **ANNUAL RYEGRASS** 40 LB. 3 2 BUSHEL TALL FESCUE 1 40 LB. NNUAL RYEGRASS 1 40 LB. PERENNIAL RYEGRASS 40 LB. TALL FESCUE 40 LB. ANNUAL RYEGRASS USE MULCH ONLY, SODDING PRACTICES OR DORMANT SEEDIN

TEMPORARY SEEDING SPECIFICATIONS

EROSION AND SEDIMENT CONTROL SCHEDULE INGRESS-EGRESS

1 Inch = 30 ft

A STONE ACCESS DRIVE COMPLETE WITH UNDER LYING GEO-TEXTILE FABRIC (20 FEET WIDE AND 50 FEET LONG) FOR INGRESS AND EGRESS AT THE SITE SHALL BE INSTALLED. THIS DRIVE SHALL BE THE ONLY ENTRANCE AND EXIT TO THE SITE.

ALL SILT FENCE SHALL BE INSTALLED PRIOR TO ANY EARTHWORK ACTIVITIES AT THE SITE IN THE LOCATIONS SHOWN ON THE SITE PLAN AS WELL AS ALONG THE FRONT OF ANY LOT THAT SLOPES TOWARDS THE STREET.

TEMPORARY SEEDING

DISTURBED AREAS OF THE SITE THAT ARE TO REMAIN IDLE FOR MORE THAN THIRTY (30) DAYS SHALL BE PROPERLY SEEDED AND STRAW MULCHED WITHIN SEVEN (7) DAYS OF COMPLETION OF INITIAL GRADING, TEMPORARY SEEDING AND MULCHING OF A THIRTY (30) FOOT STRIP OF THE ENTIRE FRONT OF THE LOT SHALL BE MAINTAINED ON THE SITE ONCE INITIAL GRADING IS COMPLETE.

STABILIZATION OF CRITICAL AREAS WITHIN FIFTY (50) FEET OF ANY STREAM OR WETLAND SHALL BE COMPLETE WITHIN TWO (2) DAYS OF THE DISTURBANCE IF THE SITE IS TO REMAIN INACTIVE FOR LONGER THAN FOURTEEN (14) DAYS.

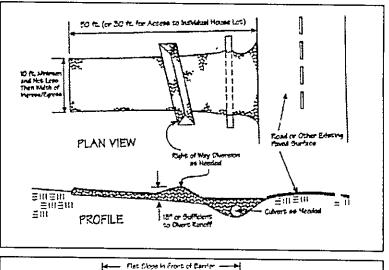
STRAW-MULCH SHALL BE APPLIED AT A RATE OF 1 BALE PER EVERY TEN (10) FEET OF CURB, AT A WIDTH OF THIRTY (30) FEET OF THE ENTIRE LENGTH OF THE LOT. WOOD CHIPS MAY ALSO BE USED BUT MUST BE SPREAD AT A MINIMUM DEPTH OF FOUR INCHES OVER THE THIRTY-FOOT WIDTH AND MUST BE ACCOMPANIED BY A PROPERLY INSTALLED SILT FENCE.

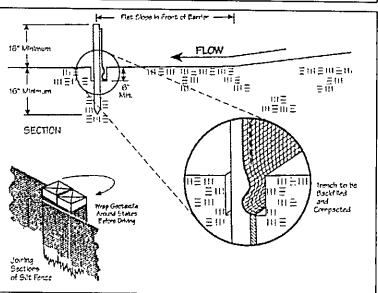
MAINTENANCE

EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED EVERY SEVEN (7) DAYS OR WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL EVENT. NECESSARY REPAIRS SHALL BE MADE AT THIS

ALL EROSION AND SEDIMENT CONTROL SPECIFICATIONS, APPLICATIONS, AND TIMETABLES ARE BASED OF THE DESCRIPTIONS AND STANDARDS OF THE OHIO DEPARTMENT OF NATURAL RESOURCES "RAINWATER AND LAND DEVELOPMENT MANUAL" AND CAN BE FOUND IN THE LAKE COUNTY EROSION AND SEDIMENT CONTROL RULES AS ADOPTED DECEMBER 21,

THE SPECIFIED EROSION AND SEDIMENT CONTROL STANDARDS ARE GENERAL GUIDELINES AND SHALL NOT LIMIT THE RIGHT OF THE COUNTY TO IMPOSE, AT ANY TIME, ADDITIONAL, MORE STRINGENT REQUIREMENTS. NOR SHALL THE STANDARDS LIMIT THE RIGHT OF THE COUNTY TO WAIVE, IN WRITING, INDIVIDUAL REQUIREMENTS.





GENERAL NOTES:

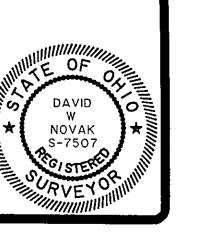
1. BENCHMARK - TOP STEM OF EXISTING FIRE HYDRANT LOCATED IN FRONT SUBLOT 3, ELEVATION = 1008.74. 2. DRIVEWAY APRON TO BE 6" THICK CONCRETE 3. ALL DOWNSPOUTS TO BE OUTLETTED TO SPLASH BLOCKS. 4. CONTRACTOR RESPONSIBLE FOR CONTACTING THE OHIO UTILITY PROTECTION SERVICE (1.800.362.2764) AND ALL UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. 5. THE LOCATION BOTH HORIZONTAL AND VERTICAL OF EXISTING UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A DILIŒNT AND COMPREHENSIVE SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD **OBSERVATION HAS BEEN CONDUCTED WHERE** PRACTICAL, HOWEVER, BARRINGTON CONSULTING GROUP, INC. DOES NOT GUARANTEE THE COMPLETENESS, NOR ACCURACY THEREOF. 6. CONTRACTOR SHALL VERIFY ELEVATIONS OF LATERAL INVERTS IN THE FIELD PRIOR TO FOUNDATION EXCAVATION. 7. SEE SHEET 2 FOR EROSION AND SEDIMENT-CONTROL PLAN 8. SEE SHEET 2 FOR SEEDING INFORMATION

CERTIFICATION:

"I THEUNDERSIGNED HEREBY CERTIFIES THAT THIS TOPOGRAPHY INDICATED BY 1 FOOT CONTOURS AND ELEVATION SHOWN HEREON REPRESENTS AN ACTUAL SURVEY MADE BY ME ON THE 9th DAY OF JUNE, 2004 AND THE **ELEVATIONS WERE TAKEN AT AN APPROPRIATE** INTERVAL AND AS OF THAT DAY THEY EXISTED AS INDICATED HEREON.

"I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF"

DAVID W. NOVAK, P.S. No. 7507



REVISED SEPTIC SYS 07/14/04 REVISED SEPTIC SYS 07/27/04

AN MODEL SITE LED ROAD, P.P. No. 08A

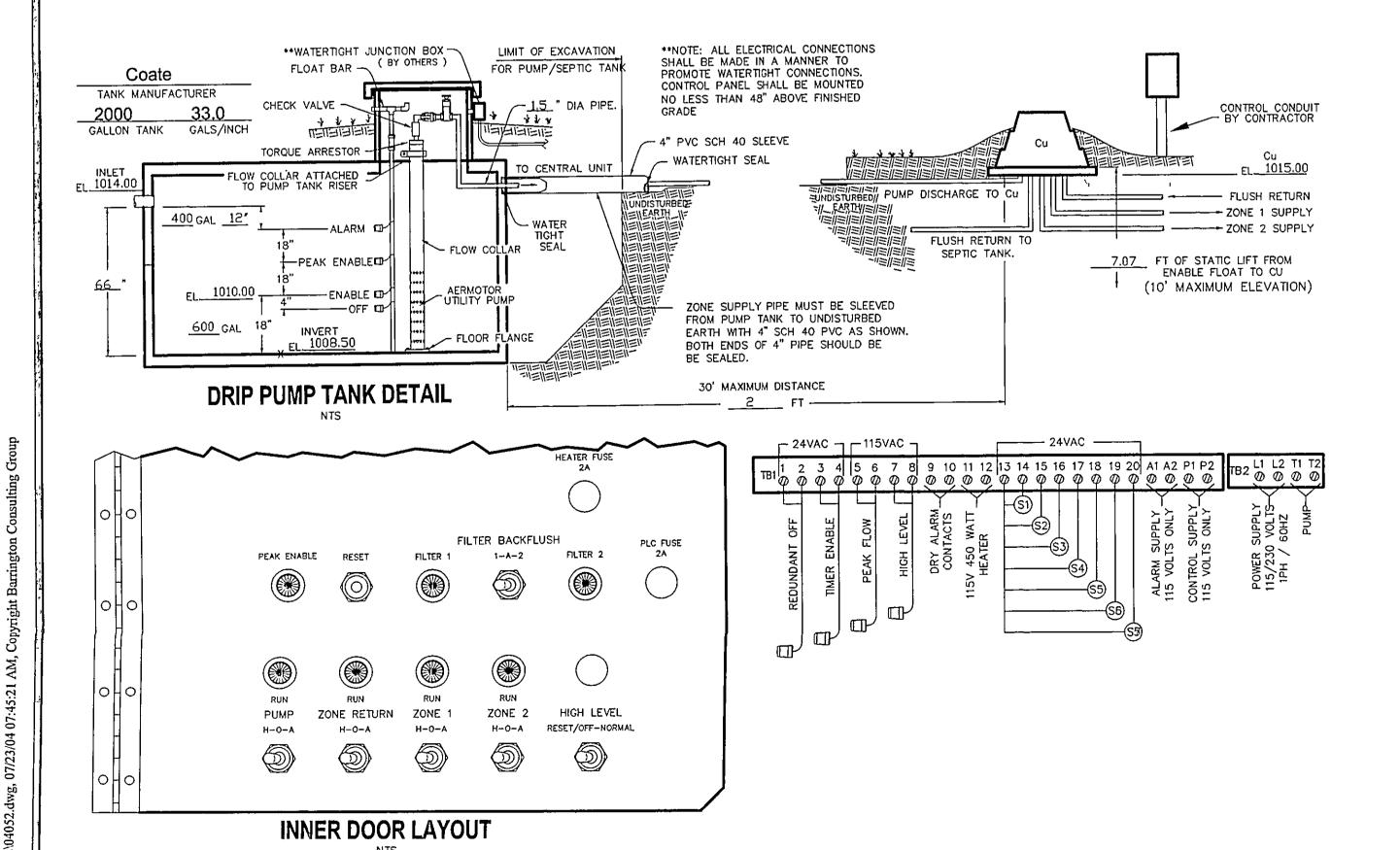
JUNE 15, 2004 1"= 20' JOB NO. **04052** SHEET

SEPTIC DRIP CALCULATION SHEET

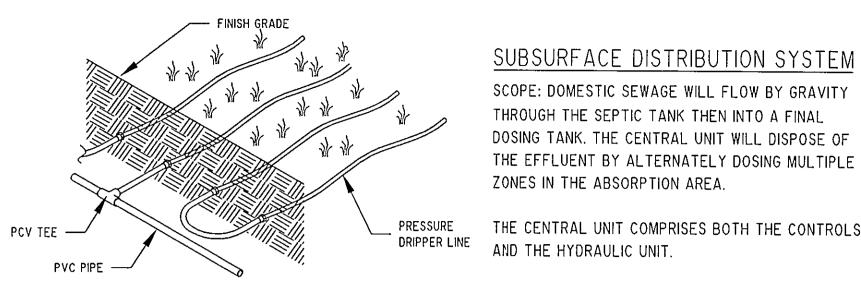
1	417	GALLONS PER DAY 4 BEDROOMS							
2	0.23	GPD/LF TUBING INFILTRATIVE SOIL LOADING RATE							
3	150	FT (Length) 28 FT. (Width) AREA FOR DISPOSAL LAYOUT 4200 FT SQ.							
4	0.12	GPD/FT2 AREA SOIL LOADING RATE PROVIDED							
5	2	ZONES							
6	1632	TOTAL DRIPPER LINE PROVIDED							
7	2000	SEPTIC TANK SIZE							
8	2000	DOSING TANK S	SIZE						
9	33	GALLONS PER INCH IN DOSING TANK (Recommended Minimum)							
10	ZONE	ONE							
il	2100	2100 TOTAL ABSORPTION AREA							
12	832	LINEAR FEET OF DRIP TUBING							
13	208	LONGEST LATERAL LENGTH							
14	4.23	DOSING FLOW RATE							
15	4	NO RETURN FIELD FLUSH CONNECTIONS							
16	6.40	FIELD FLUSH FLOW RATE							
17	10.60	TOTAL FLOW REQUIRED							
18	ZONE	TWO							
19	2100	TOTAL ABSORPTION AREA							
20	832	LINEAR FEET OF DRIP TUBING							
21	208	LONGEST LATERAL LENGTH							
22	4.23	DOSING FLOW RATE							
23	4	NO. RETURN FIELD FLUSH CONNECTIONS							
24	6.40	FIELD FLUSH F	LOWR	ATE					
25	10.60	TOTAL FLOW	REQUIR	ED					
26	10	MAXIMUM DESIGN FLUSHING FLOW							
27	8	FEET OF HEAD LOSS FROM HYDRAULIC UNIT (Based on #26)							

FORM C.\SCI2\LIBRARY\FORMS\24X36JM DWG

												·
28	HYDRA	ULIC	UNIT SUPPLY	LINE								
29	1.5	PIPE	DIAMETER									
30	15	LENGTH SUPPLY PIPE										
31	7.1	FEET OF STATIC LIFT										
32	9	ТОТ	TOTAL FEET HEAD LOSS IN LINE (Dynamic Head Loss + #31)									
33	FORCE	MAIN SUPPLY LINE PIPE SIZE & LENGTH:										
34	1"	ZON	E 1 SIZE	150	ZONE 1	LENG	нт	9		FT. HE	AD LOS	SS
35	1"	ZON	E 2 SIZE	150	ZONE 2	LEN	GTH	9		FT. HE	AD LOS	ss
36	RETUR	RN FLUSH LINE SIZE & RETURN:										
37	1"	ZON	E I SIZE	E 150 ZONE I LEI				5		FT. HE	AD LOS	SS
38	1"	ZON	E 2 SIZE	150	ZONE 2	LEN	GTH	5		FT. HE	AD LOS	SS
39	10	FEET OF TOTAL STATIC HEAD LOSS (Vertical Lift)										
40	TOTAL	L PRESSURE LOSS (Add Items 27, 32 34/35, 37/38, 39 + Flushing):										
41	76	ZONE I HEAD LOSS, INCLUDES 20 FEET FLUSHING										
42	76	ZONE 2 HEAD LOSS, INCLUDES 20 FEET FLUSHING										
43	PUMP	SIZING:										
44	76	MAXIMUM TOTAL PRESSURE LOSS (Highest 41 or 42)										
45	124	DISC FILTER BACKFLUSH (#32 + 115ft. + 15 GPM)										
46	15	GPN	1 9 124	FEET,	115	VOL	.TS,	1	F	PHASE,	0.5	HP.
47	TIMED	DOSI	NG PER ZON	<u>E:</u>								
48	ZONE	ONE:										
49	4.58	Dos	ing GPM	6.84	MIN./D	OSE	31	31.3 GALLONS PER DOSE				SE
50		4	AVE. CYCL	ES	6.67	PE	AK CY	CLE	S			
51	ZONE	TWO:										
52	4.58	Dos	ing GPM	6.84	MIN /D	OSE	31	31.3 GALLONS PER DOSE			SE	
53		4	AVE. CYCL	ES	6.67	PEAK CYCLES						
54	4	INCHES DRAWDOWN FLOAT SWITCH SETTING (Minimum 4"")"										
55	Lands	cape L	inear Loadin	g Rate (L	LLR):	LLI	_R =	2.0				
56	Soil Le	pading	Rate (SLR):			SLF	R =	0.1	1			
56	Soil Loading Rate (SLR): SLR = 0.11											



PUMP & CONTROL DETAIL

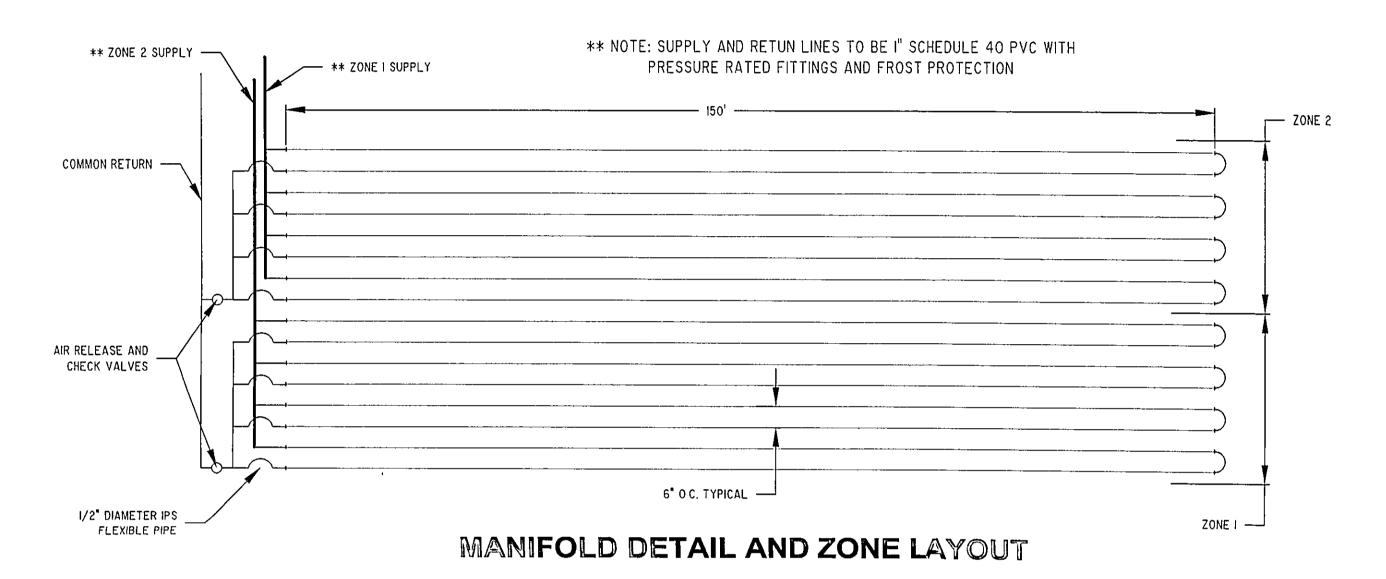


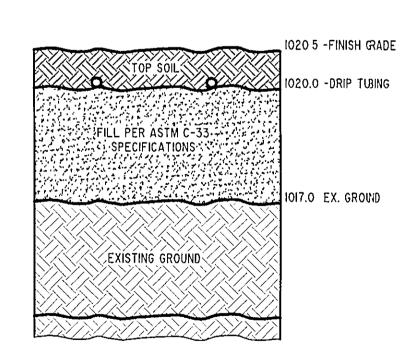
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DRIPPER LINE TO FOLLOW CONTOURS WITH PVC MANIFOLD PERPENDICULAR TO GRADE. PVC MANIFOLD TO BE FREEZE PROTECTED

DRIP DETAIL SCHEMATICS





TYPICAL SECTION

REVISIONS	BY
REVISED SEPTIC SYS 07/08/04	DWN

DETAILS
ED ROAD, CONCORD, OHIO 4
P. No. 08A0020000340 MODE GIRD S

JUNE 15, 2004