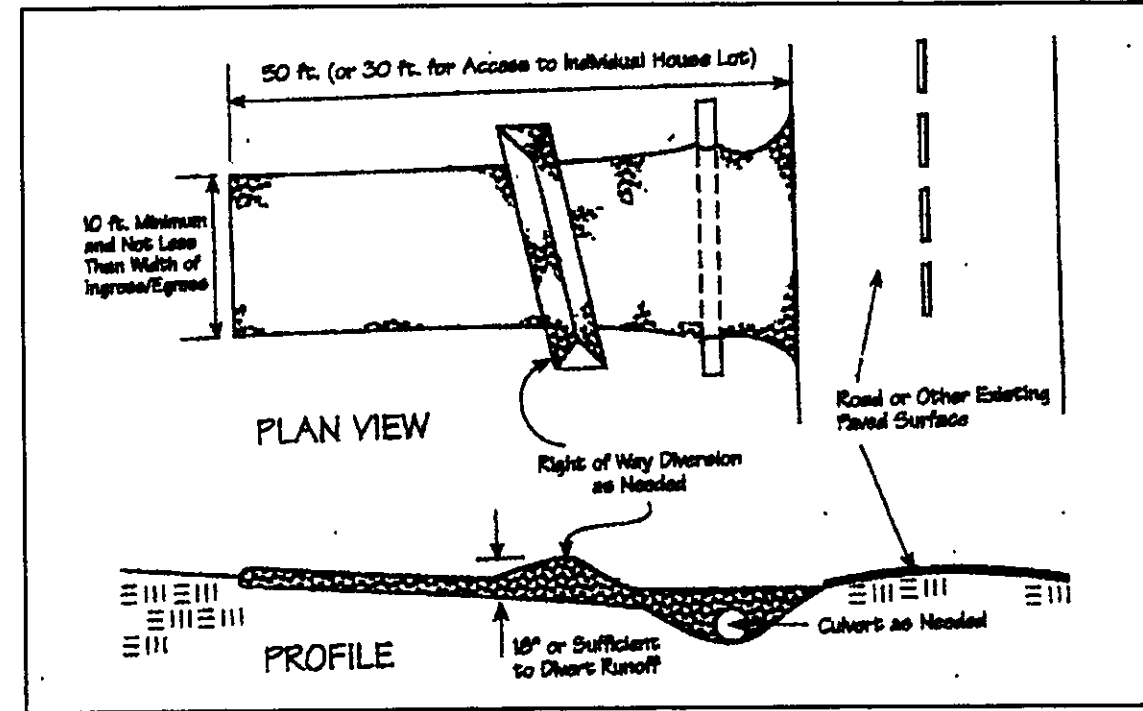


I CERTIFY THIS SEWAGE SYSTEM DESIGN MEETS THE MINIMUM REQUIREMENTS ESTABLISHED BY THE LCHD IN THE HSTS GUIDANCE MANUAL, AND THE REQUIREMENTS AND RECOMMENDATIONS OF THE SYSTEM MANUFACTURER.

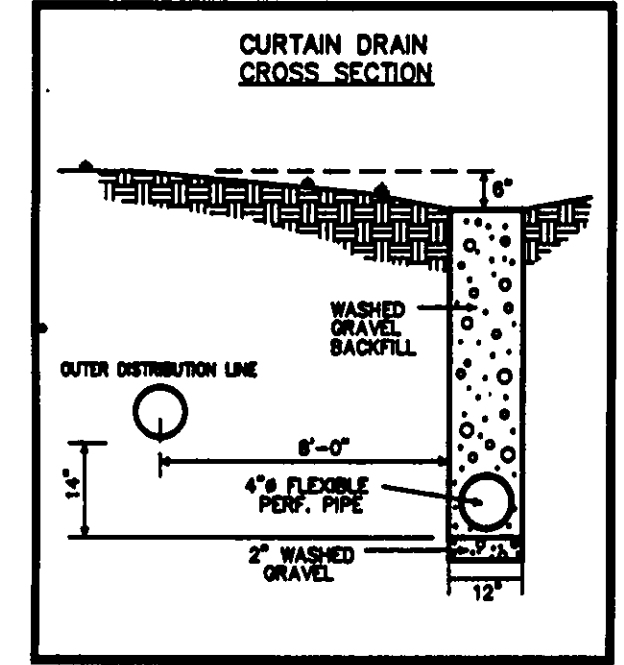
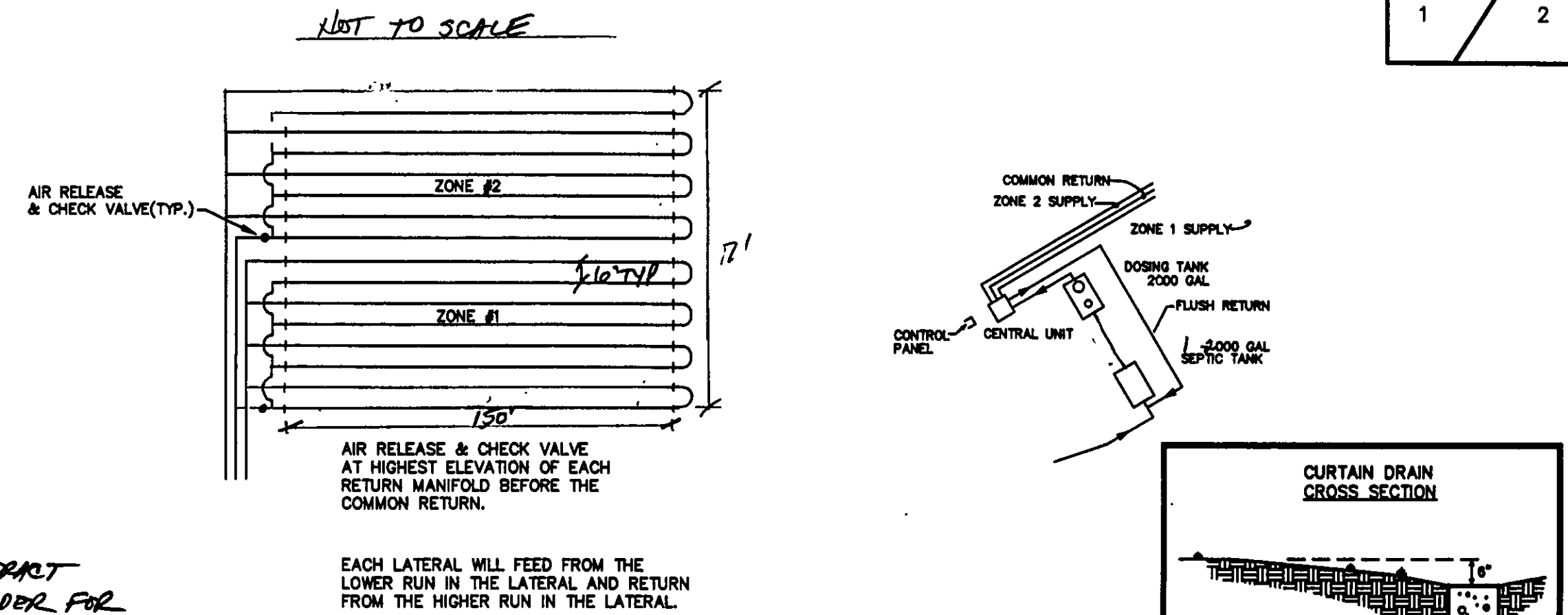
*Handwritten signature*  
Name \_\_\_\_\_ Reg. No. \_\_\_\_\_

ACHILLIES DRIVE - 60'

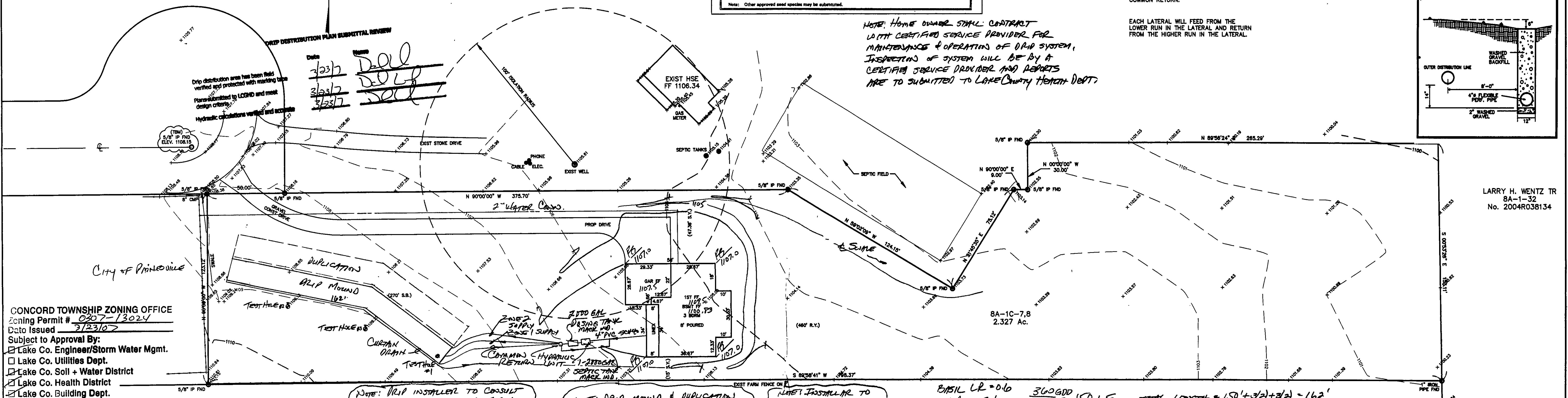


Temporary Seeding Species Selection			
Seeding Dates	Species	Lb./1,000 ft. <sup>2</sup>	Per Ac.
March 1 to August 15	Oats	3	4 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Perennial Ryegrass	1	40 lb.
August 16 to November 1	Rye	3	2 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Perennial Ryegrass	1	40 lb.
November 1 to Spring Seeding	Wheat	3	2 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Perennial Ryegrass	1	40 lb.

Note: Other approved seed species may be substituted.

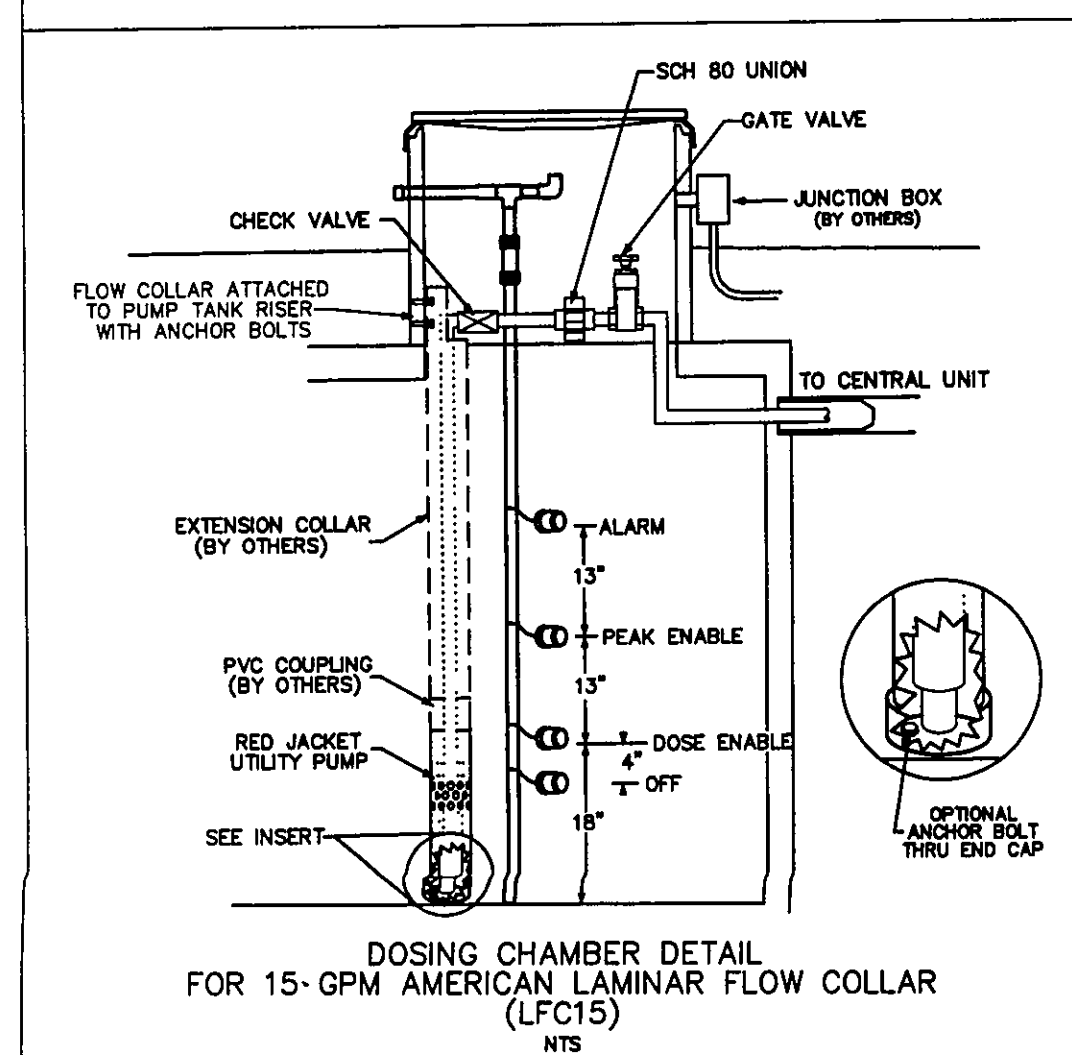


NOTE: HOME OWNER SHALL CONTRACT WITH CERTIFIED SERVICE PROVIDER FOR MAINTENANCE & OPERATIONS OF DRIP SYSTEM. INSPECTIONS OF SYSTEM WILL BE BY A CERTIFIED SERVICE PROVIDER AND REPORTS ARE TO SUBMITTED TO LAKE COUNTY HEALTH DEPT.



CONCORD TOWNSHIP ZONING OFFICE  
Zoning Permit # 0307-13024  
Date Issued 3/23/07  
Subject to Approval By:  
☒ Lake Co. Engineer/Storm Water Mgmt.  
☐ Lake Co. Utilities Dept.  
☐ Lake Co. Soil + Water District  
☐ Lake Co. Health District  
☐ Lake Co. Building Dept.

AERMOTOR MODEL: TEP20-50-115  
1.25" DISCHARGE 1/16" MAX. SOLIDS HANDLING  
0.5 HORSEPOWER 1 PHASE  
115 VOLT 60 HZ  
12.0 AMPS MULTI-STAGE CENTRIFUGAL



Erosion and Sediment Control Schedule

**Ingress-Egress**  
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.

**Silt Fence**  
A 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.

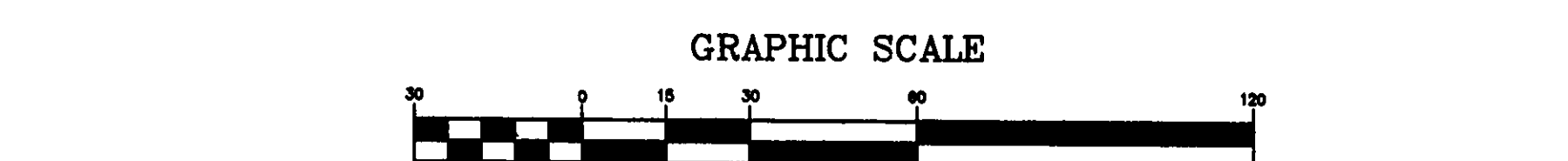
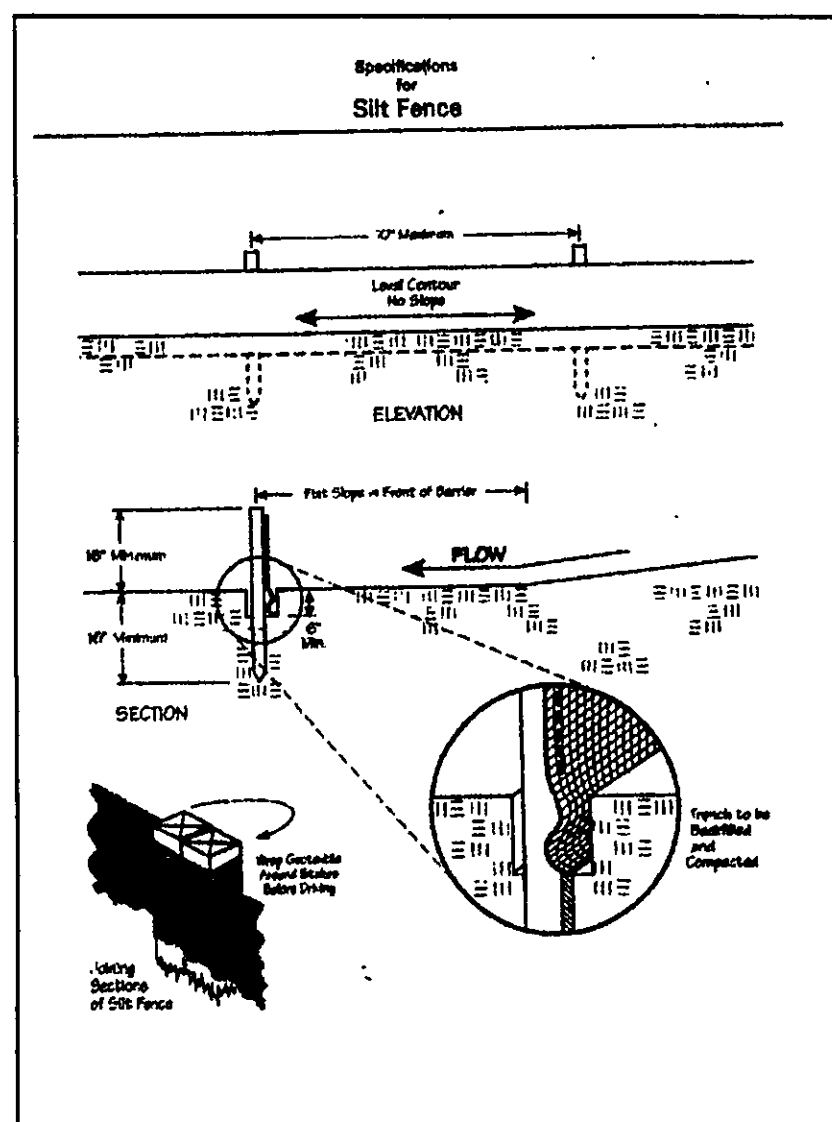
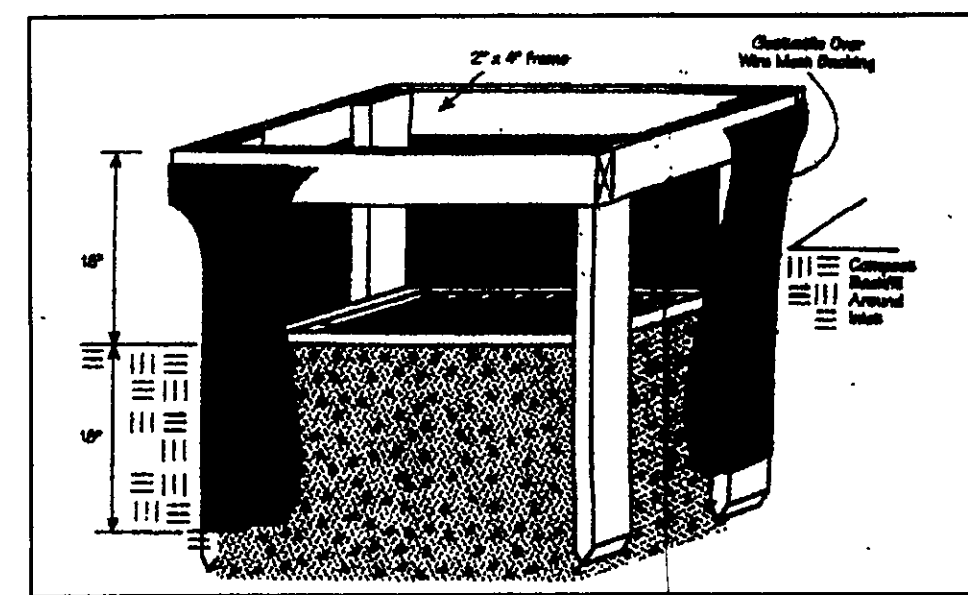
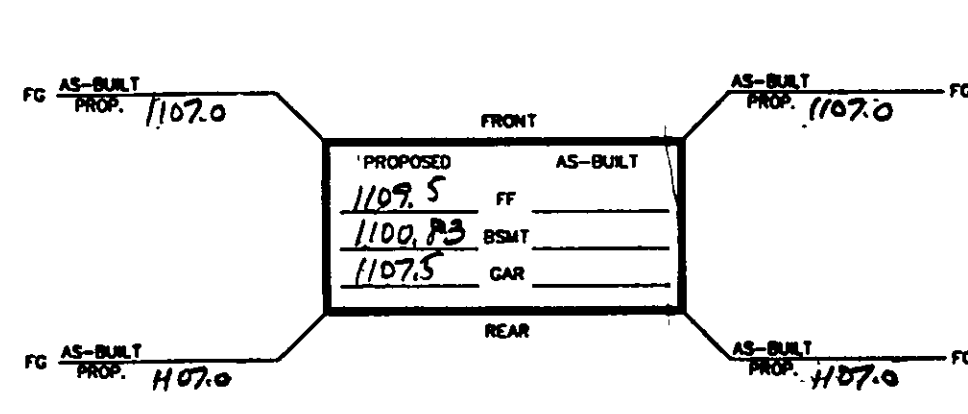
**Temporary Seeding**  
Disturbed areas of the site that are to remain idle for more than twenty-one(21) days shall be properly seeded and straw mulched within seven(7) days of completion of initial grading. Temporary seeding and mulching as a thirty(30) foot strip of the entire front of the lot shall 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.

**Mulching**  
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 to 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 time.

JAMES HOWARD  
BA-1-14  
VOL. 891 - PG. 794



NOTE: SWITCHES, CONTROLS, PLUMBING & ELECTRICAL COMPONENTS SHALL BE UL OR CSA LISTED PRODUCTS, NATIONAL ELECTRICAL 3701-29-11-E & G

NOTE: FOR THE START-UP, CONTRACTOR SHALL MEASURE DRAINAGE FLOW RATE, FLOWING & FLOW RATE AND A METER READINGS FOR THE LAKE COUNTY HEALTH DEPARTMENT

NOTE: THE UNDERSIGNED HEREBY CERTIFY THAT THE TOPOGRAPHY INDICATED BY 6", 1", OR 2" CONTOURS, AND ELEVATIONS SHOWN HEREON REPRESENT AN ACTUAL FIELD SURVEY MADE BY ME ON THE 10/22-23/06, 2006, AND THAT THE ELEVATIONS WERE TAKEN AT APPROPRIATE INTERVALS AND THAT AS OF THAT DATE THEY EXTENDED AS INDICATED HEREON.

NOTE: AN EFFECTIVE SAND FILL MATERIAL SHALL BE AN EFFECTIVE SIZE IN THE RANGE OF 0.15 MM TO 0.30 MM, A UNIFORMITY COEFFICIENT IN THE RANGE OF 4 TO 6, NO MORE THAN 20% BY WEIGHT IS GRAVEL GREATER THAN 2 MM, AND NO MORE THAN 5% BY WEIGHT IS SILT & CLAY LESS THAN 0.075 MM PER 3701-29-13.2 (2)

REV. NO.	DESCRIPTION	DATE	BY	CHK'D
1	REVISED PER STILEMAN KEY	11-11-06	HT	HT
2	REVISED PER L.C. HEALTH DEPT	3-20-07	HT	HT
3		3-20-07	HT	HT

**babcock, jones and associates, inc**  
CIVIL ENGINEERS - SURVEYORS - LAND PLANNERS  
PAINESVILLE OHIO 44077

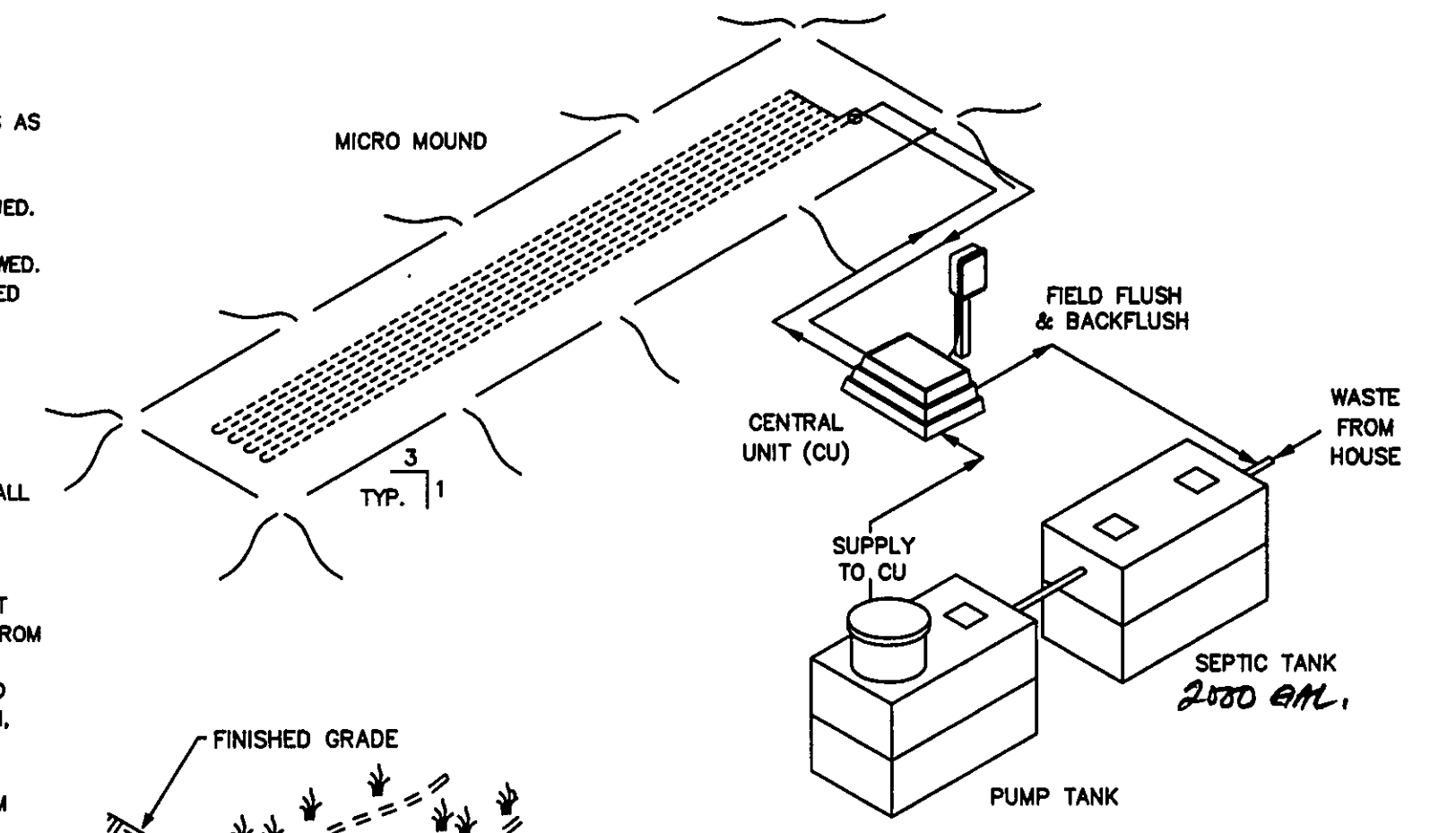
DATE	11/17/06
DESIGN BY	H.J.
DRAWN BY	B.P.
APPROVED BY	H.J.
CREW CHIEF	W.B.

SITE PLAN  
FOR  
MATT SENYES  
ACHILLIES DRIVE (P.P.# BA-1-6,7,8)  
LAKE COUNTY  
STATE OF OHIO

SCALE	1"=30'
NO.	96-159-T6
SHEET	1
OF	2

GENERAL NOTES - DRIP DISPOSAL

1. ALL INSTALLATION AND CONSTRUCTION TECHNIQUES SHALL CONFORM TO COUNTY CODES AND STATE BOARD OF HEALTH "SEWAGE HANDLING AND DISPOSAL REGULATIONS" PERTAINING TO ON SITE SEWAGE SYSTEMS AND THE PERMIT FOR THIS SITE.
2. THE INSTALLATION OF THIS SYSTEM SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND PROCEDURES AS SUPPLIED BY THE MANUFACTURER OF THE EQUIPMENT.
3. ALL PVC PIPE AND FITTINGS SHALL BE PVC SCH 40 TYPE 1 RATED FOR PRESSURE APPLICATIONS. ALL GLUED JOINTS SHALL BE CLEANED AND PRIMED WITH PURPLE (DYED) PVC PRIMER PRIOR TO BEING GLUED.
4. ALL CUTTING OF PVC PIPE, FLEXIBLE PVC AND DRIPPER TUBING SHALL BE ACCOMPLISHED WITH PIPE CUTTERS APPROVED BY MANUFACTURER. NO SAWING OF PVC, FLEXIBLE PVC OR DRIPPER TUBING ALLOWED.
5. ALL PVC PIPE, FLEXIBLE PVC AND DRIPPER TUBING IN THE WORK AREA SHALL HAVE THE ENDS COVERED WITH DUCT TAPE TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE PIPE. PRIOR TO GLUING ALL JOINTS SHALL BE INSPECTED FOR AND CLEARED OF ANY CONSTRUCTION DEBRIS.
6. NO WET WEATHER INSTALLATION IS PERMITTED.
7. NO ACTIVITY ON DRAINFIELD AREA OTHER THAN MINIMUM REQUIRED TO INSTALL SYSTEM. DO NOT PARK EQUIPMENT, DRIVE LARGE EQUIPMENT OVER, OR STORE MATERIALS ON DRAINFIELD SITE.
8. HORIZONTAL SPACING BETWEEN DRIPPER LINES AND THE INSTALLATION DEPTH SHALL BE AS SPECIFIED.
9. THE BUILDING SEWER SHALL BE 4" SCH40 PVC WITH A MINIMUM SLOPE OF 1/4" PER FOOT. THERE SHALL BE NO BENDS GREATER THAN 45 DEGREES. CLEANOUTS SHOULD BE PROVIDED EVERY 25 FEET. FOR CONSTRUCTION TECHNIQUES REFER TO THE "SEWAGE HANDLING AND DISPOSAL REGULATIONS".
10. IF TREES ARE TO BE REMOVED FROM SITE, CUT STUMPS FLUSH WITH GROUND. REMOVE BY HAND.
11. GRAVEL BASE UNDER CENTRAL CONTROL UNIT IS TO BE DRAINED VIA 2" PVC PIPE, SCREENED AT INLET AND OUTLET, DISCHARGE TO BE AT GRADE DOWN SLOPE (TO ENSURE DRAINAGE OF SURFACE WATER FROM UNIT).
12. THE CONTRACTOR SHALL BE CERTIFIED TO INSTALL THIS TYPE OF SYSTEM BY THE MANUFACTURER AND SHALL HOLD A PRE CONSTRUCTION MEETING WITH THE INDIVIDUALS RESPONSIBLE FOR SOIL EVALUATION, PERMITTING AND INSPECTIONS PRIOR TO SITE WORK BEGINNING TO INSURE PROTECTION OF THE SITE CONDITIONS AND TO ENSURE THE SYSTEM IS INSTALLED ACCORDING TO DESIGN.
13. IF SITE CONDITIONS ARE DETERMINED TO REQUIRE THE INSTALLATION OF THE SYSTEM TO DEVIATE FROM THESE PLANS, ALL SITE WORK SHALL STOP IMMEDIATELY AND THE DESIGNER SHALL BE NOTIFIED. ANY ONGOING WORK SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
14. DRAINFIELD SUPPLY AND RETURN LINES TO BE INSTALLED AT ADEQUATE DEPTH TO PREVENT FREEZING.



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 CONTROL AND THE HYDRAULIC UNITS.

AMERICAN MANUFACTURING CO.  
5517 WELLINGTON RD. GAINESVILLE VA 20155; 703-754-0077

PROJECT NAME: \_\_\_\_\_

DR. BY: \_\_\_\_\_ DATE: \_\_\_\_\_

CK. BY: \_\_\_\_\_ DATE: \_\_\_\_\_

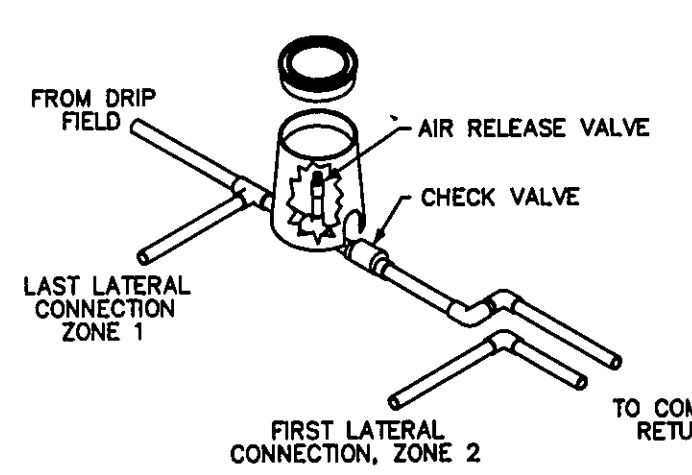
APP. BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

COUNTY: \_\_\_\_\_

COVER SHEET

REV. FILE: \_\_\_\_\_ SCALE: \_\_\_\_\_ SHEET OF \_\_\_\_\_



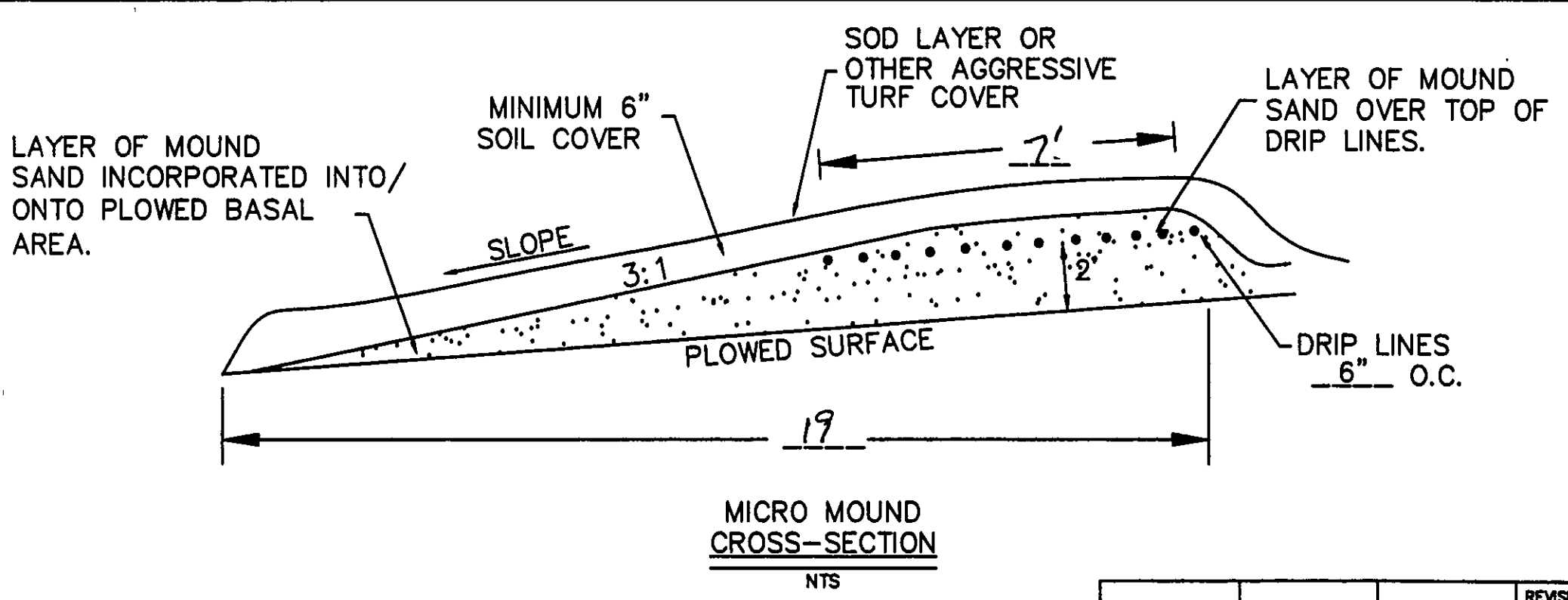
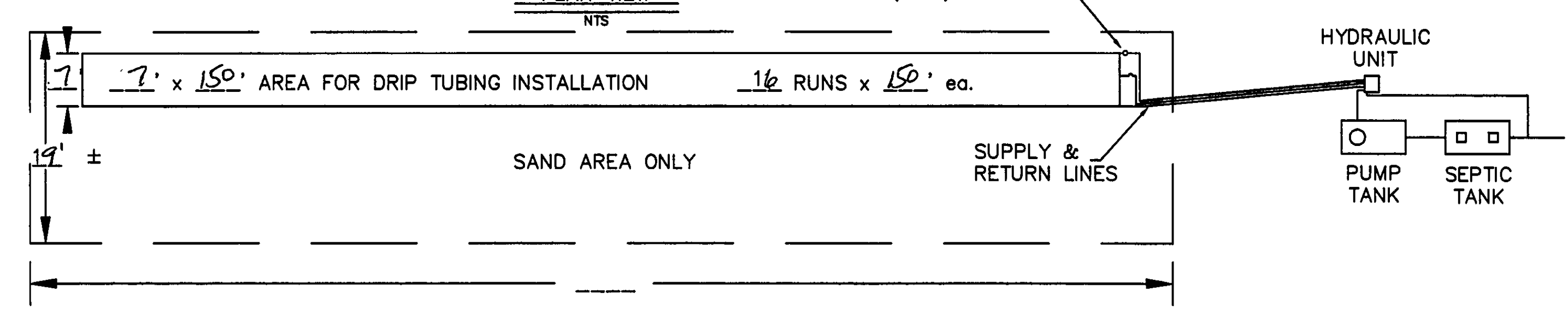
- NOTE:
1. THE AIR RELEASE VALVE SHALL BE PLACED AT THE HIGHEST POINT ON THE RETURN LINE OF EACH ZONE.
  2. EACH ZONE TO HAVE THE SAME VALVE BOX SETUP AND THEREAFTER CONNECTED.

AIR RELEASE & CHECK VALVE DETAIL  
NTS

- SHT 1 COVER SHEET  
SHT 2 SITE PLAN  
SHT 3 TREATMENT SCHEMATIC (MOUND DETAIL)  
SHT 4 HYDRAULIC PROFILE & DRIP DETAIL  
SHT 5 PUMP & CONTROL DETAIL  
SHT 6 CALCULATION SHEET  
SHT 7 PUMP CURVE

NOTES:

1. PLOW ENTIRE 19' x 162' AREA OF DRAINFIELD (SAME WAY YOU WOULD A REGULAR MOUND).
2. ADD LAYER OF MOUND SAND INCORPORATING IT INTO/ONTO PLOWED BASAL AREA.
3. PLACE DRIP TUBING ON TOP OF SAND IN THE 7' x 150' UPPER SECTION OF DRAINFIELD.
4. ADD LAYER OF MOUND SAND OVER TOP OF DRIP TUBING IN THE 7' x 150' AREA
5. COVER ENTIRE 19' x 162' AREA OF DRAINFIELD WITH A MINIMUM COVER OF 6" OF TOPSOIL WITH A TURTLE-BACK GRADE FOR POSITIVE DRAINAGE.
6. AN AGGRESSIVE TURF COVER OVER ENTIRE 19' x 162' AREA IS RECOMMENDED (PREFERABLY SOD).



BASAL AREA: 19' x 162' = 3078 sqft  
BASAL AREA LOADING: 0.12 gpd/sqft  
SAND BED: 7' x 150' = 1050 sqft  
SAND BED LOADING: 0.12 gpd/sqft  
DRIP TUBING: 16' runs x 150' = 2400 L.F.  
ZONE 1: 8' runs x 150' = 1200 L.F.  
ZONE 2: 8' runs x 150' = 1200 L.F.  
LANDSCAPE LINEAR LOAD: 0.15 gpd/L.F.

AMERICAN MANUFACTURING COMPANY INC.  
5517 WELLINGTON ROAD, GAINESVILLE VA 20155 PHONE: 703-754-0077

PROJECT NAME: \_\_\_\_\_

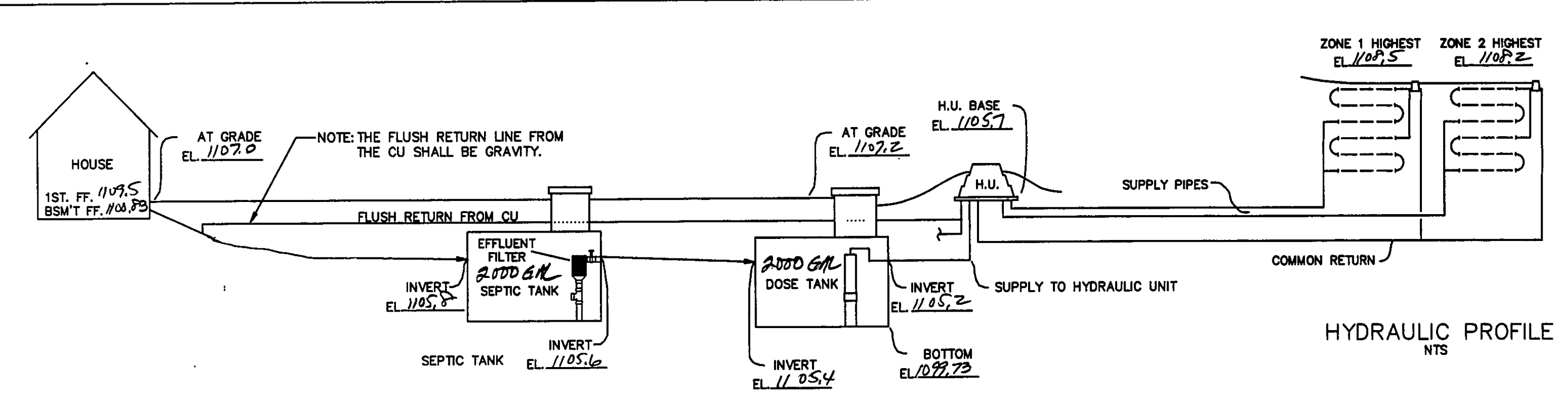
COUNTY: \_\_\_\_\_

DESIGNED BY: \_\_\_\_\_

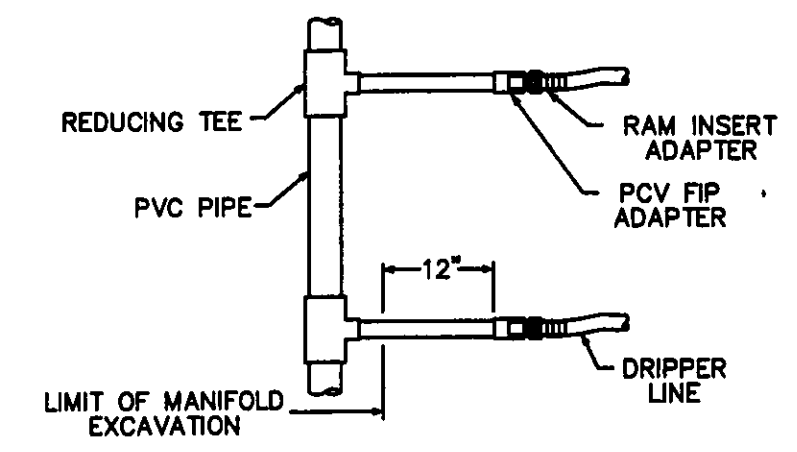
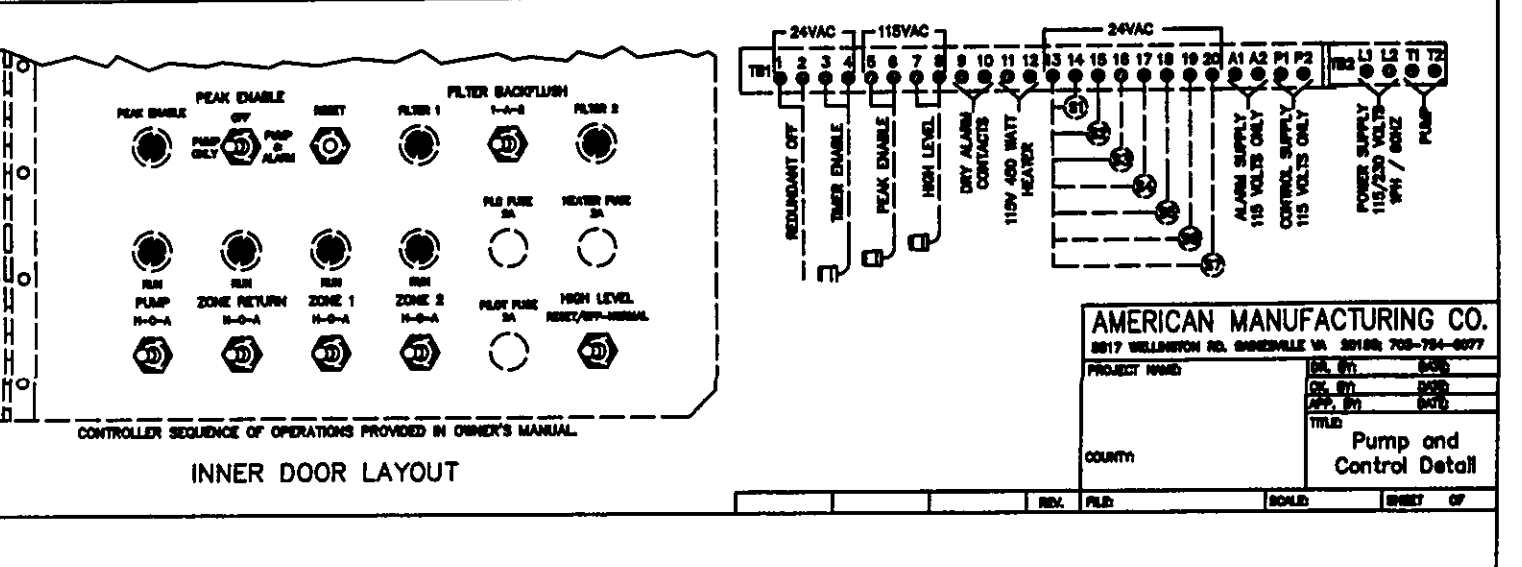
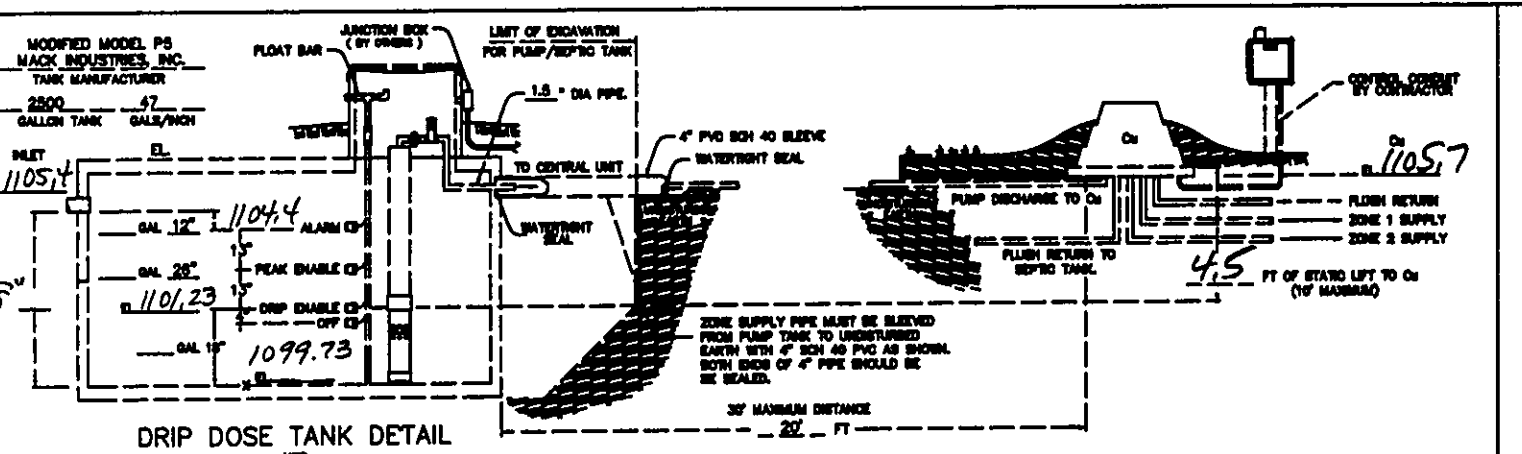
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DRAFTER DATE  
CHECKED DATE  
APPROVED DATE

TITLE: TREATMENT SCHEMATIC



HYDRAULIC PROFILE  
NTS



TYPICAL MANIFOLD CONNECTION  
NTS

TYPICAL DRIP LOOP CONNECTION  
NTS

AMERICAN MANUFACTURING CO.  
5517 WELLINGTON RD. GAINESVILLE VA 20155; 703-754-0077

PROJECT NAME: \_\_\_\_\_

DR. BY: \_\_\_\_\_ DATE: \_\_\_\_\_

CK. BY: \_\_\_\_\_ DATE: \_\_\_\_\_

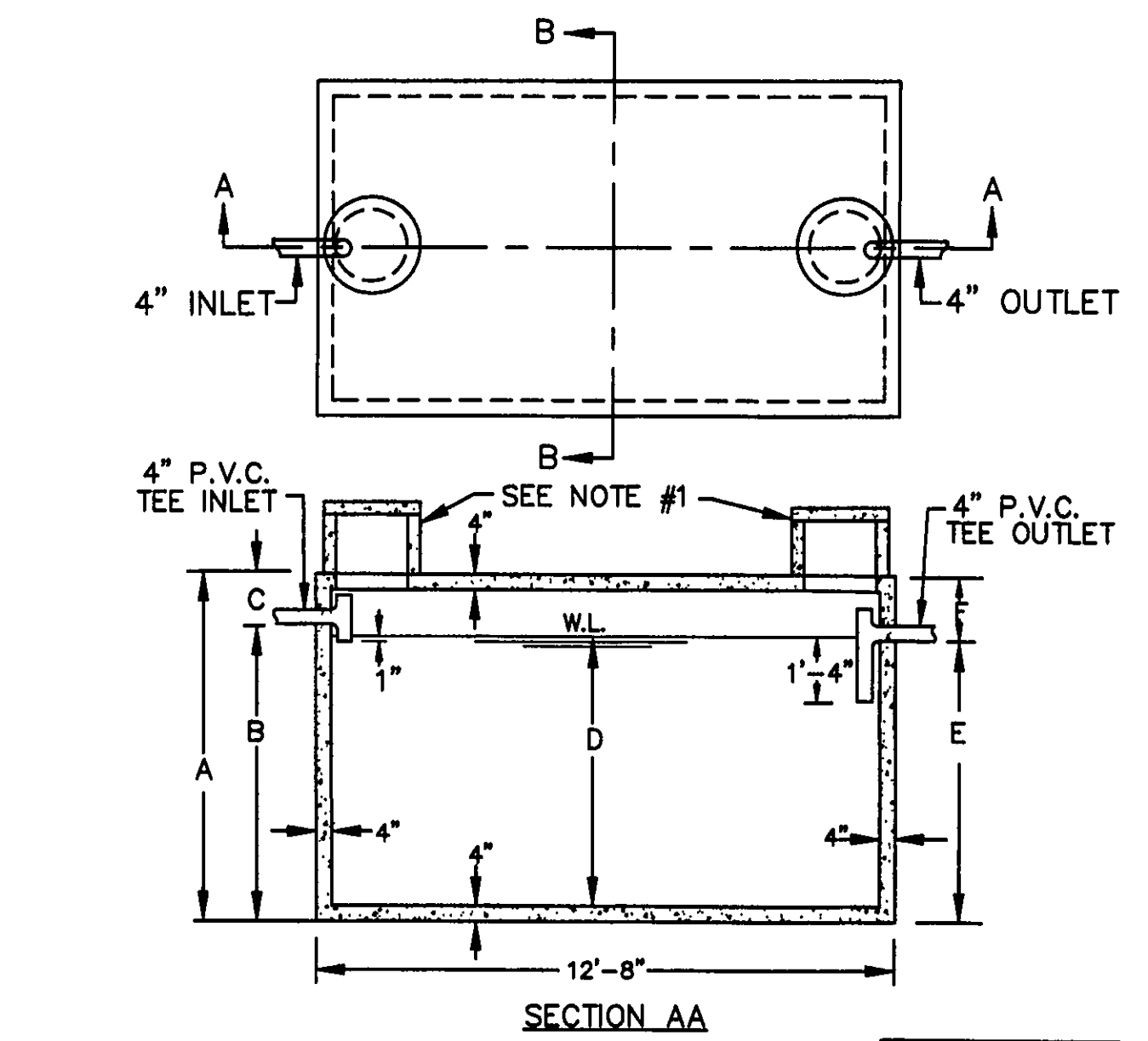
APP. BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

COUNTY: \_\_\_\_\_

Hydraulic Profile & Drip Detail

REV. FILE: \_\_\_\_\_ SCALE: \_\_\_\_\_ SHEET OF \_\_\_\_\_



CAPACITY GAL.	A	B	C	D	E	F
2000	5'-6"	4'-2"	1'-4"	3'-7"	3'-11"	1'-7"
2250	5'-8"	4'-7"	0'-11"	4'-0"	4'-4"	1'-2"
2500	6'-4"	5'-0"	1'-4"	4'-5"	4'-9"	1'-7"
3000	7'-4"	5'-11"	1'-5"	5'-4"	5'-8"	1'-8"
3500	8'-4"	6'-9"	1'-7"	6'-2"	6'-6"	1'-10"
4000	9'-4"	7'-8"	1'-8"	7'-1"	7'-5"	1'-11"
5000	10'-4"	9'-5"	0'-11"	8'-10"	9'-2"	1'-2"

- NOTES
- 18" DIA. CONC. PLUG WITH HANDLE IS STANDARD EQUIPMENT.
  - 18" DIA. CONC. RISER, 15" OR 24" HIGH WITH CONC. LID IS OPTIONAL AT AN EXTRA CHARGE.
- THE CONCRETE RISER ON THE OUTLET END WILL HAVE A MINIMUM 24" INSIDE DIAMETER.

2,000-5,000 GALLON SEPTIC TANKS

SCALE: NONE APPROVED BY: \_\_\_\_\_ DRAWN BY: T.A.S.

DATE: 9/23/74 REVISED

MACK INDUSTRIES, INC.

VALLEY CITY OHIO 44280 DRAWING NUMBER P-5

REV. NO.	DESCRIPTION	DATE	BY	CHK'D
1	REVISED PER SYSTEM KEY	11-21-96	MT	MT
2	REVISED PER L.C. PERMIT DEPT.	3/20/07	MT	MT

**bj** BABCOCK, JONES AND ASSOCIATES, INC  
CIVIL ENGINEERS - SURVEYORS - LAND PLANNERS  
PAINESVILLE OHIO 44077

DATE	11/17/06
DESIGN BY	H.J.
DRAWN BY	B.P.
APPROVED BY	H.J.
CREW CHIEF	W.B.

SITE PLAN  
FOR  
MATT SENYES

ACHILLIES DRIVE (P.P.# BA-C1-6,7,8)  
CONCORD TOWNSHIP LAKE COUNTY STATE OF OHIO

SCALE	NONE
JOB NO	96-159-T6
SHEET	2
OF	2