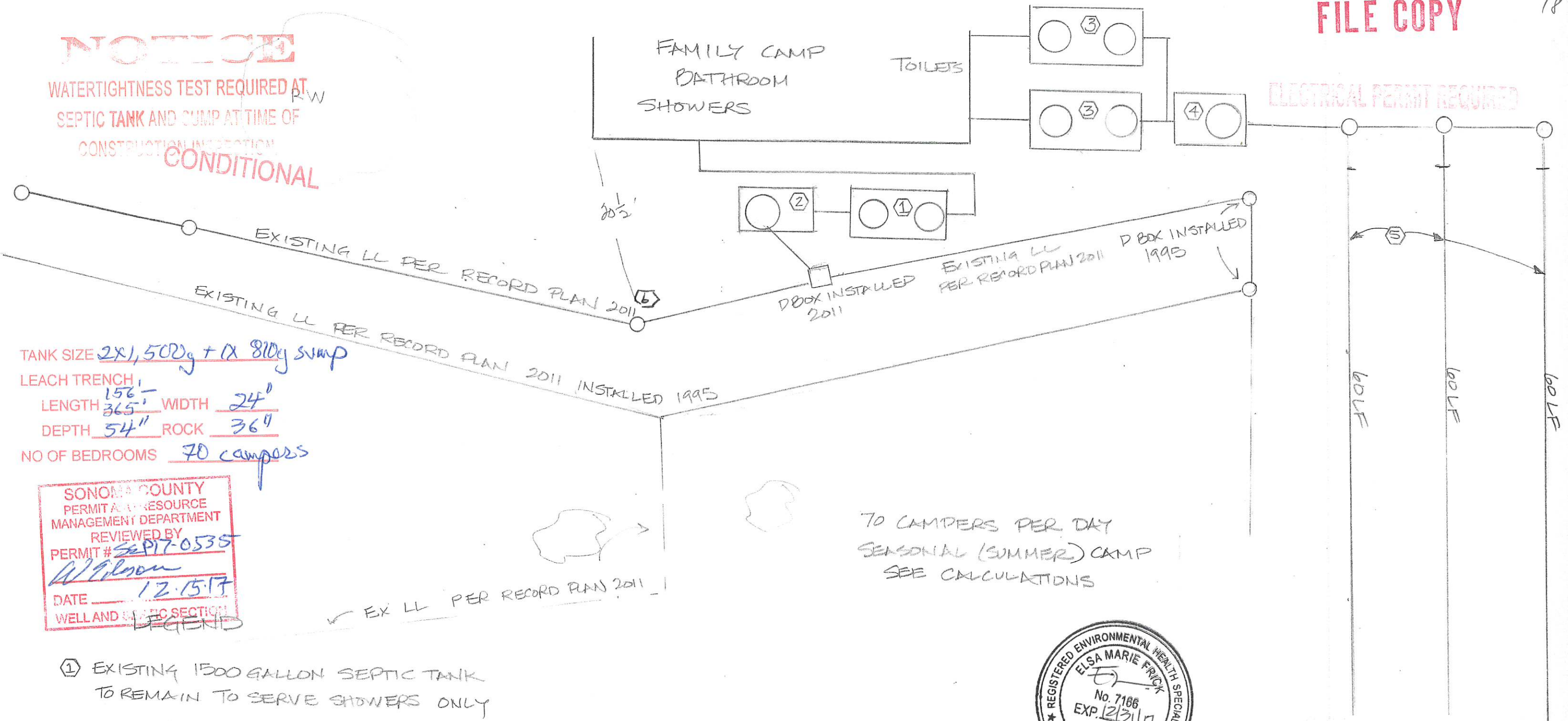


NOTICE

WATERTIGHTNESS TEST REQUIRED AT
SEPTIC TANK AND PUMP AT TIME OF
CONSTRUCTION INSPECTION
CONDITIONAL



TANK SIZE 2X1,500g + 1X 810g sump

LEACH TRENCH

LENGTH 156' WIDTH 24"
DEPTH 54" ROCK 36"

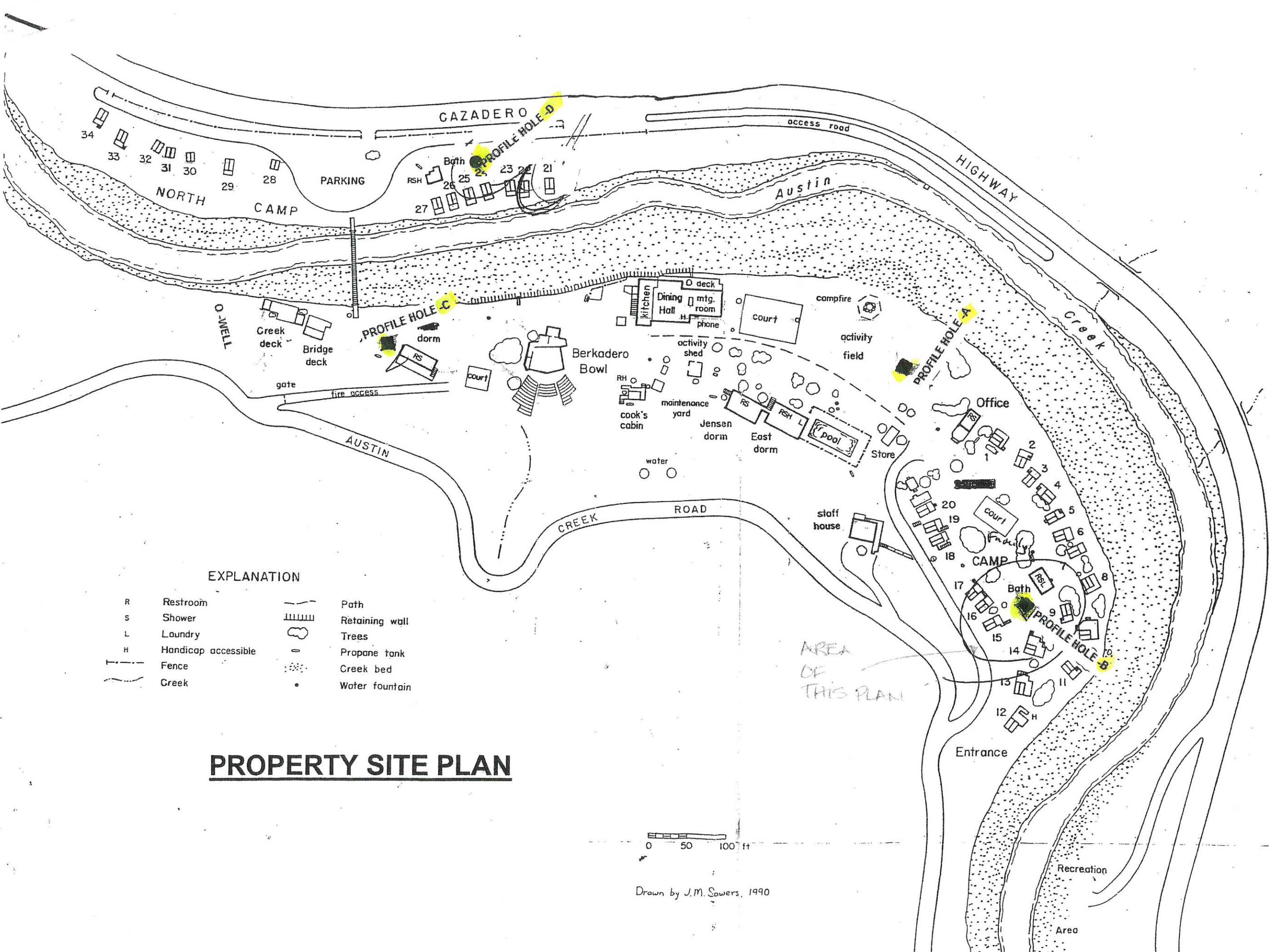
NO OF BEDROOMS 70 campers

SONOMA COUNTY
PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
REVIEWED BY
PERMIT # SP17-0535
Wilson
DATE 12.15.17
WELLAND CLAY SECTION
LEGEND

- ① EXISTING 1500 GALLON SEPTIC TANK
TO REMAIN TO SERVE SHOWERS ONLY
- ② INSTALL NEW 810 GALLON SUMP TANK AND
PUMP SHEF 30 OR EQUIVALENT
- ③ INSTALL NEW (2) 1500 GAL (MIN) IAPMO APPROVED
SEPTIC TANK TO SERVE TOILETS DIVIDE FLOW FROM
TOILETS
- ④ INSTALL NEW 810 GALLON SUMP TANK AND PUMP
SHEF 30 OR EQUIVALENT
- ⑤ INSTALL NEW LEACHLINES TO SERVE TOILETS
54" DEEP, WITH 36" DRAIN ROCK, 10' ON CENTER
- ⑥ LOCATE, UNCOVER, EVALUATE EXISTING D BOXES - EXISTING SYSTEM



5000 AUSTIN CREEK RD
CITY OF BERKELEY MUSIC CAMP
FAMILY RESTROOMS
VOLUNTARY REPAIR



200 ft

**ELSA FRICK, REHS
ONSITE WASTEWATER CONSULTANT
11377 BARNETT VALLEY ROAD
SEBASTOPOL, CA 95472
707 304-3015**

**CALCULATIONS FOR: Septic tank and leachfield sizing for Music Camp Family Bathrooms
VOLUNTARY REPAIR - PRIVATE SEWAGE DISPOSAL SYSTEM
5000 Austin Creek Rd
APN 106-170-010**

Pre-Perc Site Meeting conducted September 9, 2009 with Tracey FitzGerald, REHS and Theodore Walker, REHS SEV09-0504
ABSORPTION RATE (SAR): 0.6 to 0.8 GAL/SF/DAY estimated at site review
70 Campers per Day Seasonal Use only, Summer
Family Bathrooms

History

1995 replaced old wooden tank with new 1500 gallon concrete tank and new 100' leachline permit number 95-7003
2011 installed additional leachline (approximately 100') SEP11-0251

Separate toilet and shower waste

Toilet waste:

Estimated flow from 70 campers/day per Sonoma County OWTS September 22, 2016 table 11.1
25 gallons per day per camper for camps with toilets only
70 campers per day x 25 gallons per day toilet waste = 1750 gallons per day (peak toilet flow)
septic tank size (gallons) (per table 8.2 Sonoma County OWTS September 22, 2016)=
1125 gallons + .75 (1750 gallons per day) = 2438 gallons
provide 2 septic tanks, separate toilets equally by number, 1500 gallon septic tank, each

Leachfield for toilets:

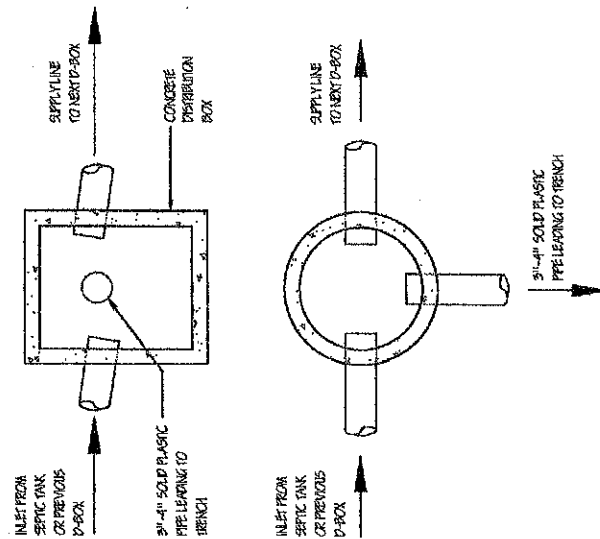
54" deep, 24" wide. 36" gravel below the pipe
1750 gallons per day / .8 gal/sf/day / 6 sf/lf = 365 LF required
Install sump tank to isolate leachlines from septic tank

Showers:

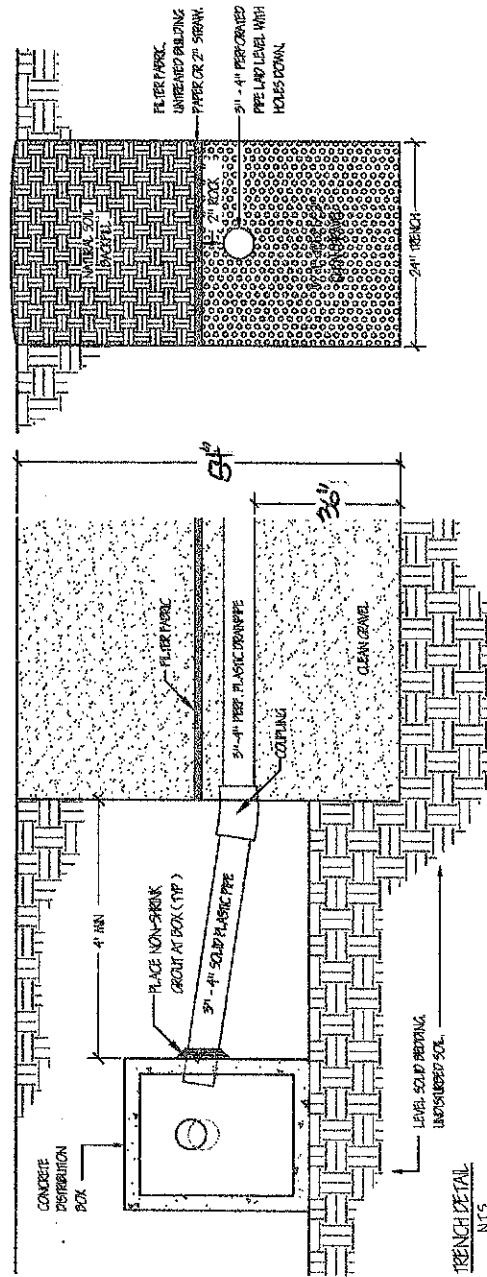
Keep existing 1500 gallon septic tank to serve existing showers (now grey water only)
Place new 810 gallon sump tank and pump to isolate septic tank from leachfield keep existing leachfield to serve showers

CONSTRUCTION NOTES

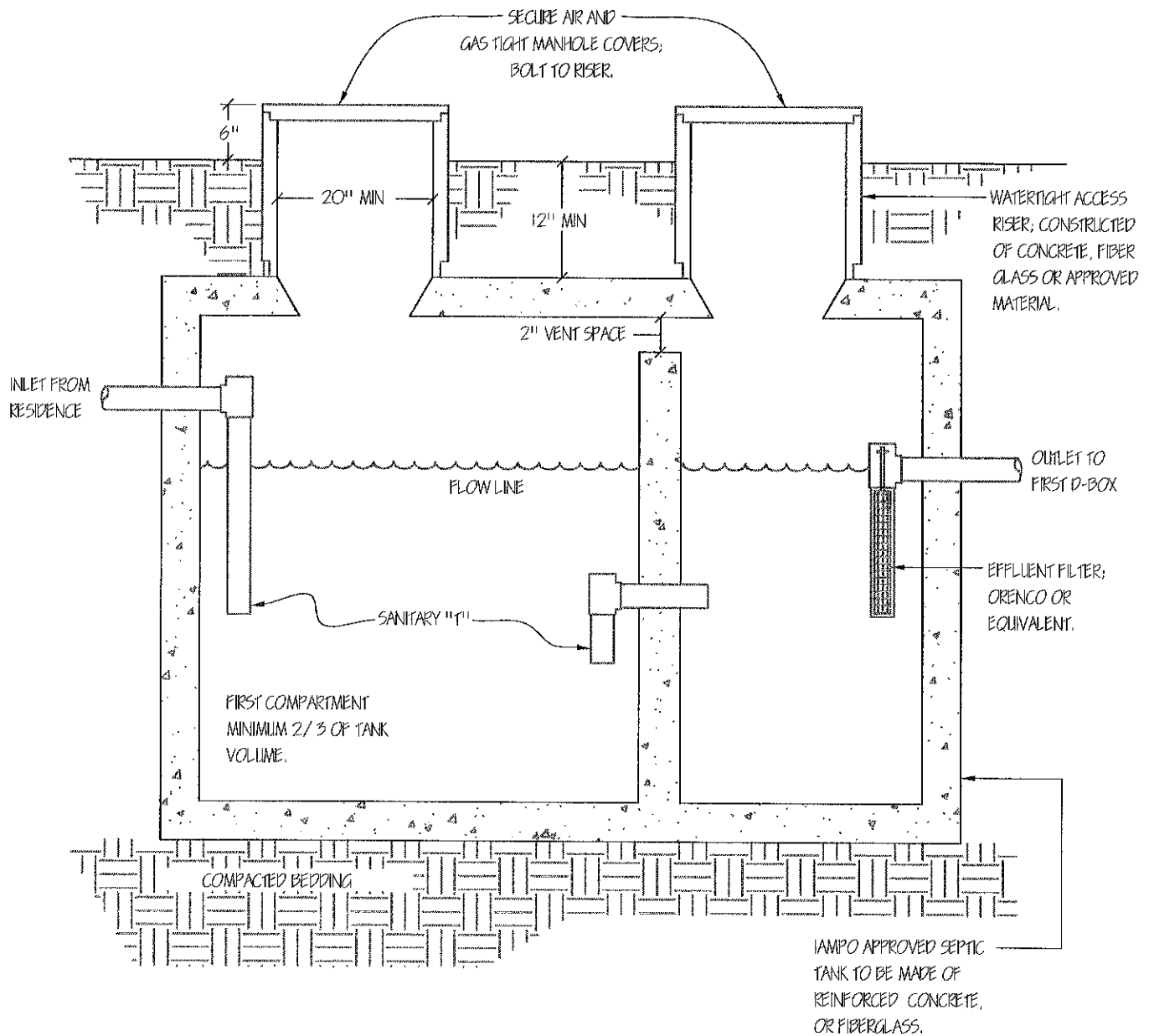
1. CONTRACTOR TO GIVE PRMD WELL AND SEPTIC DIVISION 48 HOURS NOTICE FOR INSPECTION.
2. LEAVE THE ENDS OF THE LEACH LINES EXPOSED FOR INSPECTION AND OPEN INSPECTION POINTS AT 50 FOOT MAXIMUM INTERVALS.
PRMD STAFF MAY REQUEST VISUAL INSPECTION OF ANY POINT IN THE TRENCH.
3. SMEAR OR COMPACTED TRENCH SIDES SHALL BE SCARIFIED TO A DEPTH OF ONE INCH AND THE LOOSE MATERIAL REMOVED PRIOR TO PLACEMENT OF THE DRAIN ROCK IN THE TRENCH.
4. CAPS SHOULD BE PLACED AT THE END OF EACH LINE.
5. THE TRENCH SHALL BE LEVEL AND ON CONTOUR AND INSTALLED WITH EITHER A LASER LEVEL OR TRANSIT.
6. THE PERFORATED PIPE SHALL BE OF AN APPROVED MATERIAL PLACED WITH HOLES DOWN.
7. THE CONNECTION BETWEEN THE SEPTIC TANK AND THE FIRST DISTRIBUTION BOX SHALL BE SCH 40 ABS OR EQUAL.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISCOVERY OF AND AVOIDANCE OF ALL UNDER GROUND UTILITIES.
9. ANY ALTERNATION TO THE APPROVED PLANS MUST BE APPROVED BY THE PRMD PRIOR TO CONSTRUCTION.
10. TRENCH SHORING AND GROUND WATER CONTROL MAY BE REQUIRED DURING THE RAINY SEASON. THE CONTRACTOR MUST OBTAIN THE PRMD PRIOR APPROVAL FOR RAINY SEASON CONSTRUCTION.
11. PRMD IS TO BE NOTIFIED IMMEDIATELY OF ANY ADVERSE CONDITIONS DISCOVERED DURING CONSTRUCTION SUCH AS IMPERMEABLE SOIL, SPRINGS GROUND WATER, ETC.
12. DISTRIBUTION BOXES SHALL BE SET ON A LEVEL SURFACE IN NATURAL OR COMPACT SOIL.
13. PLACE REBAR AT DISTRIBUTION BOXES, ENDS OF LINE AND MIDDLE OF LINES OVER 50 FEET.
14. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH COUNTY OF SONOMA AND REQUIREMENTS, INCLUDING BUILDING, PLUMBING AND ELECTRICAL CODES.
15. THE MINIMUM FROM ANY EXISTING OR PROPOSED STRUCTURE TO ANY SEPTIC TANK IS 5 FEET. THE MINIMUM SET BACK TO ANY ROAD WAY OR PARKING AREA TO A SEPTIC TANK SHALL BE 8 FEET.



STANDARD DISTRIBUTION BOX (D-BOX) DETAIL
NTS



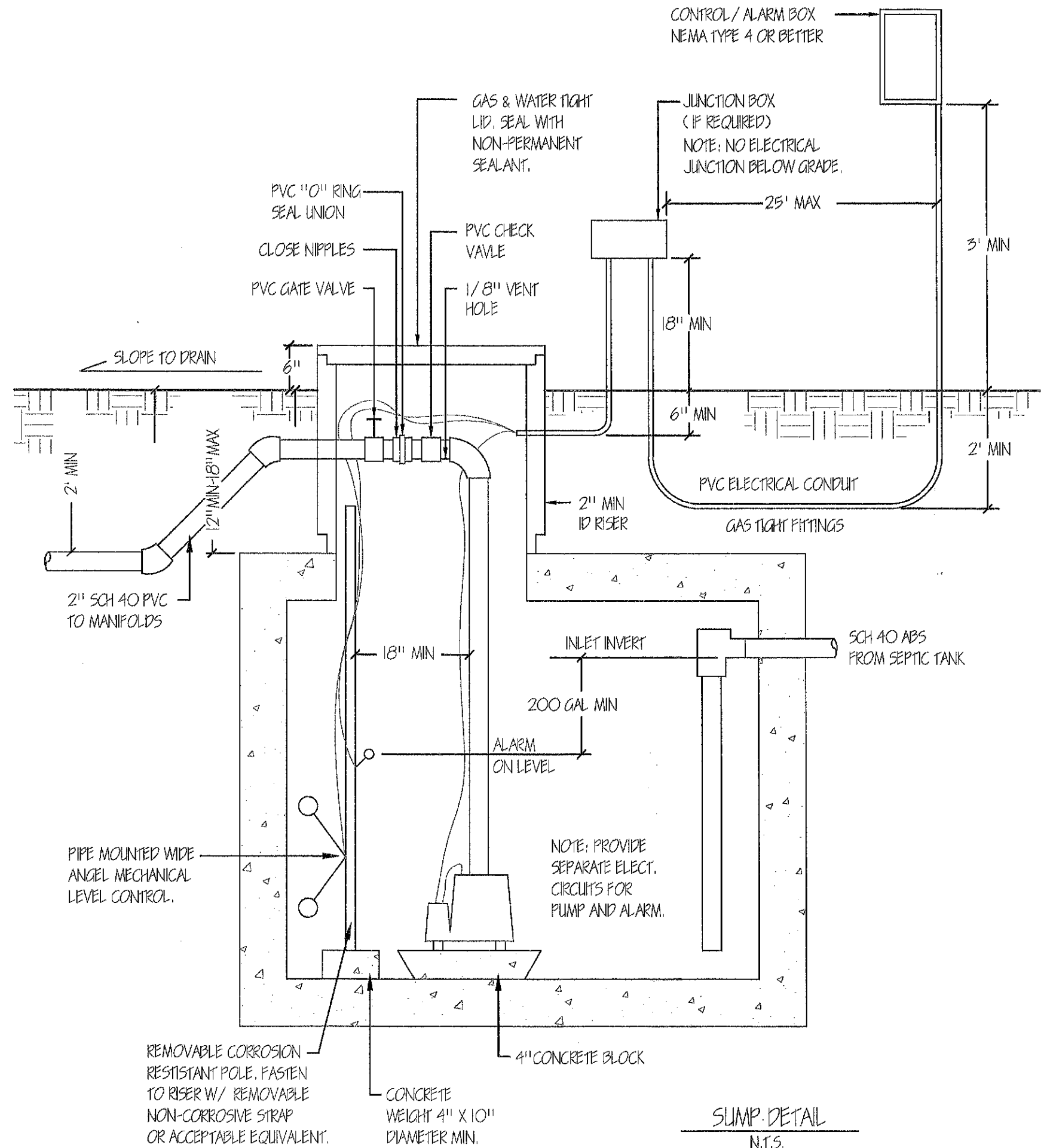
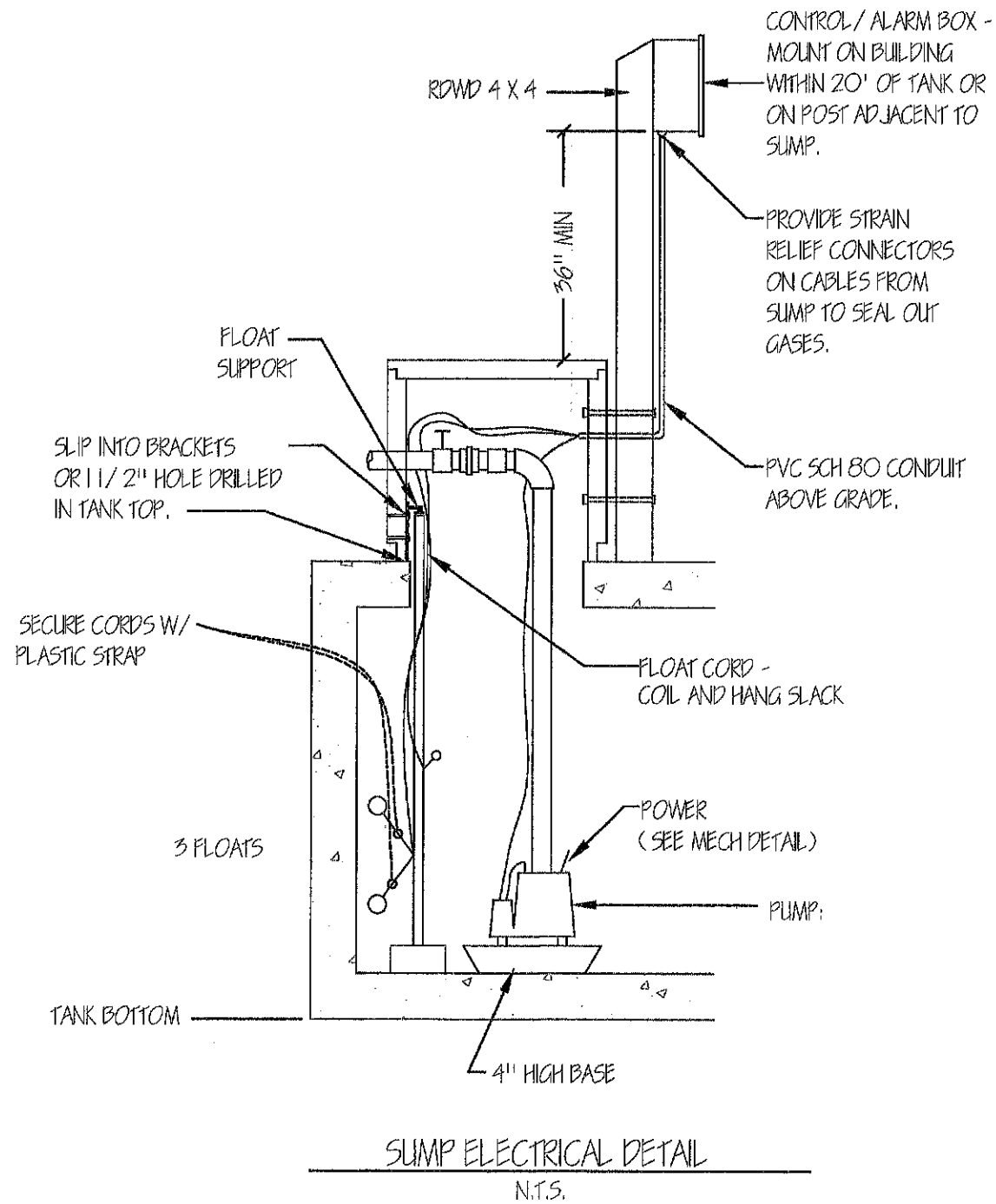
SEPTIC TANK DETAIL



IAPMO APPROVED SEPTIC TANK TO BE MADE OF REINFORCED CONCRETE, OR FIBERGLASS.

IAPMO SEPTIC TANK DETAIL
N.T.S.

SUMP AND PUMP DETAIL



PUMP AND ELECTRICAL NOTES

REQUIRED PUMP FEATURES:

- A. FLOAT CONTROLS FOR THE PUMP AND AUDIO/ VISUAL ALARM SHALL BE MOUNTED TO A SCH 40 PVC POLE (MOUNTED INSIDE THE PUMP CHAMBER) THAT CAN BE REMOVED FOR MAINTENANCE, SEE SUMP DETAIL.
- B. CONTROL FLOATS SHALL BE ATTACHED TO PVC POLE BY PLASTIC TIE STRAPS. SO CALLED STAINLESS STRAPS WILL NOT BE ACCEPTED.
- C. THE PUMP SHALL BE MOUNTED ON A 4 INCH CONCRETE BLOCK AT THE BOTTOM OF THE SUMP CHAMBER.

REQUIRED ELECTRICAL FEATURES:

- A. ALL MATERIALS, CONNECTIONS AND SPECIFICATIONS SHALL MEET THE SONOMA COUNTY NATIONAL ELECTRICAL CODE.
 1. IN ALL CASES IN WHICH A SUMP WITH A PUMP IS USED FOR A SEWAGE DISPOSAL SYSTEM, THE CONTRACTOR/ OWNER SHALL OBTAIN AN ELECTRICAL PERMIT FROM THE SONOMA COUNTY BUILDING DEPARTMENT OR CITY BUILDING DEPARTMENT HAVING JURISDICTION.
 2. THE BUILDING OFFICIAL SHALL BE RESPONSIBLE FOR INSPECTION AND APPROVAL OF ALL ELECTRICAL FEATURES OF PUMP AND ELECTRICAL PARTS.
 3. A DISCONNECTING MEANS SHALL BE LOCATED IN SIGHT FROM THE PUMP LOCATION PER THE COUNTY ADOPTED ELECTRICAL CODE.
- B. THE ALARM/ CONTROL BOX SHALL BE EQUIPPED WITH
 1. A LOUD (87 DECIBELS AT A 10 FOOT HORIZONTAL DISTANCE FROM THE ALARM LOCATION) AUDIO ALARM AND NECESSARY FLOAT TO INDICATE A "HIGH WATER" CONDITION.
 2. A MINIMUM SIZED 7/ 8 INCH DIAMETER RED LIGHT SHALL BE MOUNTED ON THE FACE OF THE PANEL, WHICH SHALL GLOW AS LONG AS "HIGH WATER" CONDITION EXIST.
 3. A MOMENTARY "ALARM TEST/ ALARM SILENCE" SWITCH TO TEST THE ALARM LIGHT AND HORN AND TO SILENCE THE AUDIO HORN DURING "HIGH WATER" CONDITION.
- C. A "WIDE ANGLE" MERCURY/ MECHANICAL, C.S.H. INCORPORATED OR SJ ELECTRO SYSTEM SUPER SINGLE OR EQUAL, FLOAT SWITCH SHALL BE USED TO ACTIVATE THE PUMP. NARROW ANGLE FLOAT SWITCHES ARE UNACCEPTABLE. THE ALARM/ CONTROL BOX SHALL BE EQUIPPED WITH A MOTOR CONTRACTOR FOR THE PUMP AND A MOMENTARY CONTACT "PUMP TEST" SWITCH TO MANUALLY RUN THE PUMP BYPASSING THE CONTROL PANEL AUTOMATIC MODE.
- D. ELECTRICAL SERVICE TO THE ALARM/ CONTROL PANEL SHALL BE EQUIPPED WITH A BREAKER OR FUSE AT THE POWER SOURCE WHICH IS LARGER THAN THE CIRCUIT BREAKER FOR THE PUMP IN THE ALARM/ CONTROL PANEL.
 1. THE ALARM/ CONTROL PANEL SHALL BE EQUIPPED INTERNALLY WITH SEPARATE CIRCUIT PROTECTION FOR THE CONTROL AND PUMP CIRCUITRY.
 2. PUMP PROTECTION SHALL BE PROVIDED BY A THERMAL MAGNETIC CIRCUIT BREAKER FOR OVERLOAD AND SHORT CIRCUIT PROTECTION.
 - A. IF THE PUMP IS SINGLE PHASE, THE MOTOR WINDINGS SHALL HAVE INTERNAL THERMAL OVERLOAD PROTECTION.
 - B. IF THREE PHASE, THE CONTRACTOR IN THE ALARM/ CONTROL BOX SHALL BE EQUIPPED WITH AN ADJUSTABLE THERMAL OVERLOAD PROTECTION.

3. NO ELECTRICAL JUNCTION BOX SHALL BE PLACED BELOW GROUND LEVEL OR WITHIN SUMP CHAMBER.
4. THE PUMP POWER LEAD AND THE FLOAT SWITCH CONTROL WIRES SHALL NOT BE RUN IN A COMMON CONDUIT.

A. ALL WIRES GOING INTO SUMP SHALL BE INDIVIDUALLY SEALED WITH PVC GAS TIGHT FITTINGS IN EITHER THE JUNCTION BOX OR ALARM/ CONTROL PANEL AS APPROPRIATE.

- E. A NON-RESETTABLE DOSE COUNTER SHALL BE INSTALLED IN CONTROL BOXES UTILIZED FOR MOUND, SHALLOW TRENCH PRESSURE DISTRIBUTION AND OTHER NON-STANDARD SYSTEMS.
NOTE: CONTROL BOXES THAT MUST BE OPENED TO VIEW THE DOSE COUNTER SHALL BE EQUIPPED WITH A CLEAR PLASTIC OR PYREX SAFETY SHIELD INSIDE THE CONTROL BOX. THE CONTROL BOX SHALL HAVE A LABEL PLACED ON IT STATING "CAUTION - ELECTRICAL HAZARD".
- F. ALARM/ CONTROL PANEL ENCLOSURE SHALL BE NEMA TYPE 4. IF MOUNTED A GREATER DISTANCE THAN 75 FEET FROM HOUSE, A REMOTE ALARM WITH AN ADDITIONAL LIGHT AND HORN SHALL BE PROVIDED.
 1. ENCLOSURE FOR THE REMOTE AND AUDIO/ VISUAL ALARM SHALL BE NEMA TYPE 4, IF MOUNTED OUTDOORS.
 2. ENCLOSURE FOR THE REMOTE AND AUDIO/ VISUAL ALARM SHALL BE NEMA TYPE 1, IF MOUNTED INDOORS.
 3. EMERGENCY DISCONNECT FOR THE ALARM/ CONTROL PANEL IS PROVIDED FOR BY THE INTERNAL FUSED DISCONNECT AND PUMP CIRCUIT BREAKER.

SEWAGE PIPING

- A. WHERE ENTERING THE SUMP, A MINIMUM 3 INCH ABS OR PVC SCH 40 STUB, SHALL BE CAST IN PLACE OR SEALED WITH THOROPLUG OR OTHER WATERPROOF MATERIAL.
- B. MINIMUM 1 1/ 4 INCH PVC SCH 40 FROM PUMP TO LEACH FIELD IS REQUIRED WITH
 1. A 3/ 16 INCH DIAMETER ANTI-SIPHON AND AIR VENT HOLE.
 2. PVC OR BALL CHECK VALVE.
 3. PVC OR BALL VALVE AND UNION(S).
 4. BRASS TYPE FITTINGS, VALVES AND PIPING ARE PROHIBITED IN SUMP CHAMBERS.
- C. HIGH POINTS IN THE TRANSMISSION LINE AFTER THE SUMP MAY REQUIRE AN "AIR RELIEF VALVE" DEPENDING ON THE DESIGN SITUATION.

*** EMERGENCY DISCONNECT MUST BE WITHIN 25 FEET OF THE SUMP TANK, VISIBLE AND ACCESSIBLE. ***