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Project Narrative for 1727 Burbank Rd Tank Replacements

January 11, 2021

The subject property is home to a residential care facility for the elderly. The facility was recently closed due to code violations and substandard conditions. Some of the violations were due to improperly functioning septic systems. This narrative accompanies an application for a permit to make the repairs necessary to restore the systems to proper function. There are 3 septic systems serving the facility. Permit history is well documented in Permit Sonoma files and the records are consistent with the systems I filed located and evaluated. The systems serving this facility were developed over a 10 year period that saw changes in "sizing" requirements of septic systems during that period. The records for the three septic systems indicate the system installed in 1973 was installed for an original 2 bedroom house. The system installed in 1979 indicated an "additional 4 bedrooms" at the time of the installation of that system for a total of 6 bedrooms for what was then, by way of the permitting at that time, described as a residential care facility with regard to septic. It allowed for 8 additional residents in the 4 bedroom addition at that time. The system installed in 1982 was to accommodate an additional 8 bedrooms, or 16 occupants.

The review of historical documents I found in the files the Permit Sonoma Department Use permit application indicate a total of 22 residents, and 2 full time employees, operating 7 days a week for 24 hours. The facility indicated a 7 day a week use. It was not indicated as to whether or not the full-time employees were also full-time residents of the facility, but it seemed implied with the hours of operation. The application was approved and the stamp date on the Declaration is Sep 15, 1982. It appears there is an existing use for 22 residents. The "employees" allowed seems to be three. There was an existing 1 employee prior to the 1982 addition according to the application for the addition at that time and the application seemed to indicate 2 additional employees.

The following is a summary of each of the three septic systems:

Septic System #1 The permit history for this system shows an original single family dwelling use in 1973 and a septic permit issues in 1973 for a septic system to serve a 2 bedroom house. The septic system permit document shows the installation of 3 leachlines; 50' (long) x 2' (wide) x 4 ½' (deep) with 2 ½ ' of rock

below the pipe, each. The permit documents indicate a then existing septic tank and an old leachline. It appears the then existing septic tank was connected to the new leachlines and the old leachline abandoned.

When the first 2 septic systems were installed, a total of 6 bedrooms was indicated as suitable for the systems at that time. The 6 bedrooms represented a total of 12 residents at the time @ 2 people per bedroom. When the system installed in 1982 was installed, the “commercial” sizing criteria were applied to a residential care home for the new “bedrooms” proposed. The commercial sizing criteria are typically higher than the sizing criteria applied to a single family dwelling use and result in a larger leach field requirement than a single family dwelling use.

Septic System #2 The permit history for this system shows a septic permit issued in 1979 for a new system providing a 1200 gallon septic tank and 400’ of standard type leachline 30” deep with 12” of drain rock below the pipe. The permit showed the installation of 6 leachlines, 2 at 60’ long and 4 at 70’ long. This septic permit paralleled a planning and building permit application to add 4 additional bedrooms to the then existing 2 bedroom house. The septic permit document and associated documents in the file indicted this system was to accommodate 4 additional bedrooms in 1979 and the system serving the then existing 2 bedroom house would remain in use. This system is located in the “middle” part of the lot. Copies of the records are attached.

Septic System #3 The permit history for this system shows soils reviews and testing done in 1982 to support additional bedrooms/occupants in the then existing residential care facility. Record history shows a septic permit issued in 1982 for 16 additional beds/occupants (8 bedrooms) for a “filled land” type standard septic system providing 720 feet of leachline, 24” deep into native soils, with 12” of fill placed over the leachfield. The leachlines are described as 2’ wide with 12” of drain rock below the pipe. The permit record “as built” drawing shows the installation of a 1500 gallon septic tank and an approximately 800 gallon sump tank. The septic tank effluent flows to the sump tank and is then pumped to the leachfield that is some 380’ from the tanks. The leachfield is located in the back portion of the lot (furthest from Burbank Rd) in an open field. The “as-built” drawing shows the installation of 6 distribution boxes and a total of 10 leach lines of varying lengths. A copy of the permit and plan is attached.
There are 3 septic systems serving the facility. The records for the three septic systems indicate the system installed in 1973 was installed for an original 2 bedroom house. The system installed in 1979 indicated an “additional 4 bedrooms” at the time of the installation of that system for a total of 6 bedrooms for what was now described as a residential care facility with regard to septic. It allowed for 8 additional residents in the 4 bedroom addition at that time. The system installed in 1982 was to accommodate an additional 8 bedrooms, or 16 occupants.

When the first 2 septic systems were installed, a total of 6 bedrooms was indicated as suitable for the systems at that time. The 6 bedrooms represented a total of 12 residents at the time @ 2 people per bedroom. When the system installed in 1982 was installed, the “commercial” sizing criteria were applied to a residential care home for the new “bedrooms” proposed. The commercial sizing criteria are typically higher than the sizing criteria applied to a single family dwelling use and result in a larger leach field requirement than a single family dwelling use.

Attached is a Report of Findings I prepared for the agent representing owners of the property and assisting them in resolving their issues. Included in this report of findings is description of the condition of the septic systems as I found them to be, repairs already performed not requiring permit and the repairs that are necessary that require permit, i.e. tank replacements and grease interceptor installation.

The accompanying plan is for the replacement of the septic tank serving Septic System #1 and replacing the transmission line to the first D-Box and either replacing the D-Box or repairing the existing box. For Septic System #2 I propose to place 2 fiberglass risers and lids, replace the missing baffles with sanitary tees properly grouted. For System #3 I am proposing to capture the kitchen waste and in an 810 min gallon grease interceptor and sending the grease interceptor effluent to the septic tank in system #3, since septic system #3 was designed to receive the food waste from the facility. Due to the slight slopes on the site a lift basin may be required to get the grease interceptor waste to the septic tank #3. Septic tank #3 needs to be replaced due the large crack in it. It may be possible to place the tank such that it can receive the waste from the facility bathrooms and laundry as it was designed to receive by the existing plumbing and provide gravity fall from septic tank #3 to the existing sump tank for that system. That possibility will be determined at the time of installation. All floats and switches need replacing in the sump tank.

Attached are the calculations for the grease interceptor sixing.

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October 13, 2021

Oracle Consulting
c/o David Harris
oracleconsulting1@gmail.com

Subject: Report of Findings in regard to the three septic systems serving **the Residential Care Home at 1727 Burbank Rd, Santa Rosa, CA on September 30, 2021 and October 4, 2021.**

At your request, I have prepared the following to meet the standards of a "Findings Report" required in order to reopen the existing residential care facility at the subject property and offer the following:

Permit History

I requested septic and other records for the subject property from the Permit Sonoma records staff. Records provided included documentation relating to three septic systems on the lot now serving the care home facility. The following refers to the three septic systems and associated components and describes the condition I found them to be in along with recommendations for repairs and improvements.

SEPTIC SYSTEM #!

The permit history for this system shows an original single family dwelling use in 1973 and a septic permit issues in 1973 for a septic system to serve a 2 bedroom house. The septic system permit document shows the installation of 3 leachlines; 50' (long) x 2' (wide) x 4 ½' (deep) with 2 ½ ' of rock below the pipe, each. The permit documents indicate a then existing septic tank and an old leachline. It appears the then existing septic tank was connected to the new leachlines and the old leachline abandoned. Copies of the permit documents are attached.

Septic Tank #1

1. The septic tank serving this structure was found to be a 2 compartment concrete septic tank 3.25' wide x 7' long x 3.3' deep, roughly 560 gallon capacity. The tank had a concrete top that had previously had holes crudely broken in the top to allow access to the two compartments of the tank. The holes in the top of the tank had crude ill-fitting concrete pieces covering them and then a larger piece of concrete slab over the top of each of those. The inlet side of the tank had been uncovered prior to our arrival. Quality Septic Service uncovered the outlet side of the tank. The water level in the tank was approximately 4" below the normal operating level when I observed the tank after the "lids" were uncovered. The tank was pumped on October 4, 2021 by Quality Septic Service. There was a significant accumulation of dirt in the outlet side of the tank,

approximately 10” deep. The concrete top was cracked beyond the irregular openings. An outlet sanitary elbow appeared to be intact, but askew.

2. I ran water in each of the three bathroom fixtures (sink, toilet and shower) separately, in the bathroom located in the “front” of the home (closest to Burbank Rd) and the water appeared in the septic tank #1. I ran water by hose in the “kitchen” sink in the front portion of the home (closest to Burbank Rd) and the water appeared in septic tank #1. I did not run water in a drain line in the “laundry” area of the front portion of the building and did not, therefore, confirm where the line is plumbed.

Dispersal System / Leachfield #1

1. The leachlines were field located by Quality Septic Service on September 30, 2021. A hydro jetting tool was used to locate the lines and evaluate their condition. The first distribution box was uncovered and open when we arrived. The unused port of the first distribution box was not sealed. The lids to the first 2 distribution boxes were cracked and broken. The first 2 leachlines were plugged by soil near the beginning of the lines. The hydrojetting process removed the plugs in the lines. The first line took water slowly after the jetting and the second line took all the rest of the water once cleared. The third line was clear and dry. The line from the septic tank to the first distribution box was broken and not sufficiently clear to allow water to flow. The lines between the first and second distribution box was clear as was the line between the second and third distribution box.
2. I performed a “load” test on the system with the distribution boxes open. I ran water at a rate of approximately 5-6 gallons per minute for a period of over 50 minutes. I ran the water into the first distribution box. After 10 minutes water flowed from the first distribution box to the second box and remained in that condition until I stopped the test. No water flowed to the third box.
3. The age of the leachfield is 48 years old and materials and standards of construction appear consistent with systems that age. The age of the tank is unknown
4. I observed no obvious problems on the surface of the ground in the area of the disposal field as shown on the plan of record.

Future System Replacement Area for septic system #1

1. It appears that replacement leachfield area was designated in 1982 when the “third” septic system was developed for this property. Current codes and practices in Sonoma County (OWTS 7.0) require that all replacement systems must meet all current standards and code. The standards in effect when the replacement field was designated in 1982 are no longer current.

Recommendations/Comments for Septic system #1

A. Due to the age, size and condition of the septic tank #1, I recommend replacing the tank. A septic permit is required for replacing the septic tank. The cost to replace the tank and abandon the existing tank is estimated at $12,000 to $15,000 including permits and other fees. Materials and labor costs are fluctuating wildly at this time and cost may exceed this estimate at the time the work is done. Alternatively, it could be possible to find or make a septic tank top providing portals for servicing and seal the top to the top of the tank. The dirt in the bottom of the existing tank should be removed. Current standards for a 2 bedroom use call for a minimum 800 gallon septic tank. Larger tanks are recommended, especially in settings like this residential care facility since higher than normal household water use is typical in a setting like this residential care facility.
B. The line from the septic tank to the first distribution box needs to be replaced and the unused portal on the first distribution box needs to be sealed.

SEPTIC SYSTEM #2

The permit history for this system shows a septic permit issued in 1979 for a new system providing a 1200 gallon septic tank and 400' of standard type leachline 30" deep with 12" of drain rock below the pipe. The permit showed the installation of 6 leachlines, 2 at 60' long and 4 at 70' long. This septic permit paralleled a planning and building permit application to add 4 additional bedrooms to the then existing 2 bedroom house. The septic permit document and associated documents in the file indicted this system was to accommodate 4 additional bedrooms in 1979 and the system serving the then existing 2 bedroom house would remain in use. This system is located in the "middle" part of the lot. Copies of the records are attached.

Septic Tank #2

1. The septic tank serving this part of the structure was found to be a 2 compartment concrete septic 1200 gallon septic tank. The tank had been uncovered prior to my arrival. The water level in the tank was about ½ full. I was told the tank had been recently pumped. The tank was pumped on September 30, 2021 by Quality Septic Service. There was a significant accumulation solids in the outlet side of the tank. The inlet side of the tank was fairly clear of solids. The inlet and outlet baffles were corroded below the normal operating level of the tank. I observed no obvious cracks in the tank and the tank appeared to be intact.
2. I ran water in the kitchen area located in the entry area near to portion of the structure close to the original house (not the same kitchen as in the front portion of the structure in the area of the original house). The water appeared in septic tank #2. I did not run water in any of the other fixtures if the structures at the time of my reviews on September 30, 2021 or October 4, 2021.

Dispersal System / Leachfield #2

1. The leachlines for leachfield #2 were field located by Quality Septic Service on September 30, 2021. A hydro jetting tool was used to locate the lines and evaluate their condition. The first distribution box was inaccessible as it appears to be located under the entry deck. Quality Septic Service, under my direction, dug into the first leachline with a very small mini excavator and found the leachline pipe. We made a hole in the pipe and used the hydro jetter tool equipped with an electronic locator attached to it to discover the location of the first distribution box and found it to be consistent with the location found by following the outlet pipe of the septic tank It appears the first distribution box is located under the entry deck as previously stated. The hydrojetting process removed a considerable amount of impacted sludge from the leachline. The pumper truck was used to remove the sludge dislodged from the pipe through the jetting process. The leachline was heavily impacted with the sludge. The gravel in the leachline was dry in the area below the pipe where it had been uncovered. It appeared the sludge blocked the perforations in the leachline pipe and no water or sludge impacted the gravel. The second leachline was found using the same method as used to locate the first leachline, by digging in the middle of the line. The leachline was located and a hole drilled in the leachline pipe in the second line. The condition of this line was as in the first line, heavy impaction with sludge. The sludge was removed by the jetting and pumping process. Using the electronic locator attached to the jetting hose, he second distribution box was located under the other side of the entry deck from the location of the first distribution box and the second box was also inaccessible. The jetting process appeared to remove the sludge impaction from the second

leachline and the gravel below the pipe was observed to be dry and clear in the area where the pipe was excavated.

2. The remaining 4 leachlines were located by locating and uncovering the 4 distribution boxes associated with each line. The boxes were located under mature shrubs. The distribution boxes did not appear to suffer any root impaction as a result. All of the last 4 leachlines were found to be heavily impacted with sludge that was removed as described above.
3. The line from the tank to the first distribution box was cleared. The line from the third box to the second box was cleared and the lines for each successive distribution box were evaluated and cleared. During the clearing of the lines connecting the distribution boxes, it appeared the jetter passed through the second box to the first box, although this line was not exposed and the first and second boxes were not uncovered.
4. After the first 2 leachlines were cleared and during the time the other leachlines were getting cleared, I performed a load test on the first leachline by running water in the outlet pipe of the septic tank. I ran water at a rate of approximately 10 gallons per minute for a period of 40 minutes (total of 400 gallons). No water returned to the tank during that load and no water appeared in the third or remaining distribution boxes.
5. I performed a "load" test on each of the last four lines of this system by running water in each line through access from the distribution box at a rate of 5 gallons per minute for a period of 30 minutes (approximately 150 gallons per line). No water returned to any distribution box during this load test.
6. The age of the leachfield is 42 years old and materials and standards of construction appear consistent with systems that age.
7. I observed no obvious problems on the surface of the ground in the area of the disposal field where I found it and as shown on the plan of record. The area at the end of the 4th distribution box was wet on the surface of the ground. We dug the end of the leachline and found dry soils and dry rock. The saturation appears to come from irrigation on this lot or the neighboring lot, and does not appear to be associated with the leachfield since no moisture in the drain rock or pipe was observed.

Future System Replacement Area for septic system #2

1. It appears that replacement leachfield area was designated in 1982 when the "third" septic system was developed for this property. Current codes and practices in Sonoma County (OWTS 7.0) require that all replacement systems must meet all current standards and code. The standards in effect when the replacement field was designated in 1982 are no longer current.

Recommendations/Comments for Septic system #2

A. The inlet and outlet baffles need to be replaced with sanitary tees.
B. As an upgrade, and in order to provide a watertight seal and provide easy access for maintenance and troubleshooting I strongly recommend installing fiberglass risers and lids to the inlet and outlet sides of the tank. Septic systems serving facilities such as this one can see variations in the amount and nature of the wastewater and frequent monitoring of the condition of the tank contents is recommended. This is made much easier if access to the tank compartments is simple.

SEPTIC SYSTEM #3

The permit history for this system shows soils reviews and testing done in 1982 to support additional bedrooms/occupants in the then existing residential care facility. Record history shows a septic permit issued in 1982 for 16 additional beds/occupants (8 bedrooms) for a "filled land" type standard septic system providing 720 feet of leachline, 24" deep into native soils, with 12" of fill placed over the leachfield. The leachlines are described as 2' wide with 12" of drain rock below the pipe. The permit record "as built" drawing shows the installation of a 1500 gallon septic tank and an approximately 800 gallon sump tank. The septic tank effluent flows to the sump tank and is then pumped to the leachfield that is some 380' from the tanks. The leachfield is located in the back portion of the lot (furthest from Burbank Rd) in an open field. The "as-built" drawing shows the installation of 6 distribution boxes and a total of 10 leach lines of varying lengths. A copy of the permit and plan is attached.

Septic Tank and Sump tank and Control Panel #3

1. The septic tank serving this structure was found to be a 2 compartment concrete septic 1500 gallon capacity. The tank was equipped with plastic small, 12' diameter, risers 21" tall with plastic caps. The water level in the tank was approximately 9" below the normal operating level of the tank. There was considerable settling of the ground around the tank and the tank was fenced off with wire fencing and t-posts around it. The tank was pumped on October 4, 2021 by Quality Septic Service. The solids were higher in the outlet side of the tank than the inlet side of the tank. There appears to be a crack in the sidewall of the tank in the inlet side of the tank.
2. There is an approximately 800 gallon concrete sump tank that appears to be a modified septic tank, where the middle baffle wall has been partially knocked out at the bottom and the pump placed in the outlet side of the tank. The tank was equipped with concrete grade ring style risers. There was no "float tree" in the tank and the float switch that operates the pump was tethered to the discharge pipe from the pump. There were electrical connections with wire nuts unprotected in the sump tank. The alarm float was not tethered to anything and was draped over the discharge pipeline. The tank was pumped by Quality Septic Service on October 4, 2021. Solids in the sump tank were higher than recommended.
3. The control panel was mounted on a post next to the sump tank. When I started my review, the dose counter in the panel read 26169. The pump switch on the panel activated the pump and the dose counter advanced. The alarm switch did appear to activate the alarm, but the alarm buzzer did not work. The Dose counter read 26173 when I left.
4. I ran water in the sump tank and the float switch activated the pump when the water level in the tank rose to the "on" level for the float. The pump ran for 12 minutes and shut off when the water level dropped to the "off" level of the float switch. The water level dropped 8 inches from the "on" to the "off" level set by the float switch. I repeated this process and got the same result. The 810 gallon sump tank provides 16.53 gallons per inch according to the local manufacturer (Selvage Concrete Products. 8' x 16.53 gal/in = 132 gallons per dose. I ran roughly 265 gallons of water to the leachfiled.

Dispersal System / Leachfield #3

1. The distribution boxes and leachlines were field located by Quality Septic Service on September 30, 2021.
2. I performed the "load" test on the system (as described in 34 directly above) with the distribution boxes open. The water was delivered to the first distribution box and some "overflow" went to the second box. All 4 of the other distribution boxes were dry and showed no evidence (black staining from sewage) of prior use.

3. The age of the leachfield is 39 years old and materials and standards of construction appear consistent with systems that age.
4. I observed no obvious problems on the surface of the ground in the area of the disposal field as shown on the plan of record.

Future System Replacement Area for septic system #3

1. A 200% replacement leachfield area was designated in 1982 when this septic system was developed for this property. In addition to the 200% replacement for the system designed and installed in 1982 for the 8 additional bedrooms (16 additional residents), it appears a 100% replacement area was designated to account for the other two systems. The exact sizing of the replacement lines is unclear and the record is of too poor quality to read the details of the replacement field line lengths, however notes in the file pertaining to County "plan check comment" seemed to require the additional replacement field area to be designated on this plan. Current codes and practices in Sonoma County (OWTS 7.0) require that all replacement systems must meet all current standards and code. The standards in effect when the replacement field was designated in 1982 are no longer current.

Recommendations/Comments for Septic system #3

A. The 1500 gallon septic tank appears to have a large crack in it. The riser access tubes are of small diameter and I had to use a mirror and flashlight to see the crack in the tank. A cracked concrete septic tank needs replacing. The cost to replace the tank and abandon the existing tank is estimated at $10,000 to $15,000 including permits and other fees. Materials and labor costs are fluctuating wildly at this time and cost may exceed this estimate at the time the work is done.
B. A proper float tree should be installed and the pump and alarm float tethered to the float tree pole.
C. The alarm bell in the control panel needs replacing.
D. The wire nut junctions in the sump tank are not safe. Sonoma County requires all electrical junctions be done outside the sump tank in an approved junction box.

Overall Recommendations and Considerations

A. I believe the waste flow plumbing in the care facility should be evaluated further and significant effort made to direct the waste from the fixtures (bathrooms, laundry and kitchens) to each of the three system in more balance for the size of the tanks and leachlines associated with them. Septic systems are commonly "sized" for the number of bedrooms, which relates to the number of occupants. Bedrooms themselves do not typically have plumbing, rather the plumbing fixtures throughout the facility are used by the occupants. With three separate septic systems serving the facility it is important to take a closer look at how the plumbing fixtures in the facility are used and the flow typically coming from them evaluated. Adjustments as to which fixtures are plumbed to which systems seems prudent. For example, it appears all the kitchen waste is going to the middle septic system, but the back system was "sized" to take into account the kitchen waste associated with 16 residents. Kitchen waste is typically high strength wastewater and it all appears to be going to the middle system rather than the system #3 in the back of the lot for which it was designed, at least for 16 of the occupants. Equalizing the flow with respect to the size of each system would help keep from overwhelming any individual system. It appears the smaller systems, system #1 and system #2, were more heavily impacted than the much larger system #3. To aid in this analysis, a flow meter could be placed on the well or where the water enters the building

tin order to better measure the domestic water use, daily, weekly and monthly. Staff could provide more detailed descriptions of the use of each plumbing fixture and how the choices to use them are made.

B. With 22 full time occupants it may be prudent to install a separate grease interceptor to receive all kitchen waste for all residents. The grease interceptor can do a better job of settling out food and grease from the kitchen waste before it is introduced to the septic tank(s). Allowing kitchen waste to break down and keeping food related grease and oils out of the septic system leachlines is better accomplished for this number of occupants when there is a separate grease interceptor installed prior to the septic tank.

C. All roof drains should be evaluated for their points of discharge. All drains should discharge well away (min 25") from the septic tanks and leachlines.

D. As on most flat to gently sloping sites, the septic systems can be adversely affected by seasonal elevated groundwater. It is therefore imperative to make sure all septic and sump tanks are watertight.

E. Regular pumping is important to the long-term health of the septic system. With full time use of the system receiving the flow more appropriately delivered to each system as described in A above, it is recommended that the septic tank be pumped regularly every 3-5 years as a starting point. This time interval may be increased or decreased if use is heavier or lighter than described. Sewage flow can be substantially reduced, and the system lifespan extended, through the use of low flow toilets, showerheads and dishwashers, as well as faucet aerators and a front-loading washing machine. Liquid detergent is currently recommended. If biologically active pharmaceuticals are used long term by the occupants (typical for this type of facility), the septic tanks may need more frequent pumping and more frequent evaluation. Note: Septic tank additives are generally not needed for proper septic system function.

F. Food related grease and oils should be placed in cans or jars and disposed of in the building's solid waste container and *not* drained into the septic tank as it can lead to premature clogging of the leachlines. Kitchen sink garbage disposal units are not recommended for facilities on septic systems.

No warranty or guaranty is given or implied regarding the future function of the septic system.

Should you need further information regarding this report, please contact me at 707 304-3015.

Respectfully,

Elsa Frick
California Registered Environmental Health Specialist #7166

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Grease Interceptor Sizing for Existing Residential Care Facility
1727 Burbank Rd
APN125-411-012

Sonoma County does not have sizing criteria specifically for sixing of grease interceptors The USEPA Design Manual October 1980 8.4.2 Design section establishes the following criteria for sizing grease interceptors for hospitals, nursing homes and other type commercial kitchens with varied seating capacity as follows:
(M-meals) X (GL-gallons wastewater per meal) x (ST-storage capacity factor) x (2.5) X (LF-loading factor) = size of grease interceptor in gallons

M - For this facility the number of meals per peak hour is 28 (22 residents and 6 employees and potential/occasional guests
GL- 4.5 gallons per meal
ST – 2.5 by EPA for this use on septic system
LF (storage factor)– 1.25 for garbage disposal and dishwashing

Meals (peak hour) x 5 gal/meal x 2.5(retention time) x LF (storage factor)
28 meals x 5 gallons per meal x 2.5 x 1.25 = 437.5 gallons

Use min 810 gallon grease interceptor per Sonoma County min standards

Pump Calculations – 1727 Burbsnk Rd, grease interceptor

Pump Sizing

A. Elevation

lowest point	= 120’
Highest pipe elevation	= 123’

Total elevation head ~**3’**

B. 2 inch PVC tank fittings

90 ell	= 12 ft.
Check valve	= 19 ft.
Gate valve	= 33 ft. (1/2 open)
45 degree	= 5 ft (4)
Run	= 15 ft

12 + 19 + 33 + 20+ 15 = 99’
99 ft (.52/100) = .52 **~ .52ft**

C. 2 inch PVC transmission line/manifold

Tee (side outlet)= 12 ft
(12’ +140’)(.52/100) **~ .79 ft**

Total Head Loss = 3’ + .52’ + .79’ = ~ **4.31ft. head use 10’**

Use a discharge rate of 15 GPM at 10 ft. head

Use Hydromatic SHEF 30 pump or equivalent w/ a 5 gallon dose 12” swing on float in pump basin

Site

REQUEST FOR SERVICE

COUNTY OF SONOMA
ENVIRONMENTAL HEALTH DIVISION
PUBLIC HEALTH SERVICE

Recheck Date / /19

For office use only
Property No

Location of Service: 1227 Burbank, S. Rosa
By: OF
Date: 7/10/79
Person Requesting Service: John Jaco, Sr.
Phone No of Person Requesting Service: 542-1946
Address of Person Requesting Service: Same
Owner or Agent to be Contacted:
Reason for Request:

Call first
Honk.
Dog!
Wants maj. Addition for Rest Home

• REPORT OF INVESTIGATION •

7-17-79 Looked at site - Frank Dono saw pit during wet-weather 77-78 season & it was OK - 100'/Br 3' deep with 18" of rock, 100' from creek & wells.

R3 SANITARIAN

Request Classification
[B] A. Complaint B. Consultation C. Approval D. Other

Person Requesting Service
[3] 1. Tenant 2. Neighbor 3. Owner or Mgr 4. Official Agency 5. Anonymous 6. Other

Disposition
[A] A. Clear B. Follow Up C. Referral D. H.O.H. E. D.A.H. F. Court G. No Violation H. Other

Census Tract [ ] [ ] [ ]
District [05]

Duration
[3] 1. 1-15 2. 16-30 3. 31-45 4. 45-1 hr. 5. 1:01-1:15 6. 1:16-1:30 7. 1:31-1:45 8. 1:45-2 hrs 9. 2:01 and over

TOTAL VIOLATIONS [ ]

~~ZONECODE 47.00~~
~~TOTL 47.00~~
~~CHEK 47.00~~
7/10/79 09:39 07 3556

K. Simmons
Sanitarian

7-18-79
Date

WHITE: Upper section to file
Lower section to file
GREEN: Retained for office file at time form is typed
YELLOW: Upper section to person requesting service (when appropriate)
Lower section to owner or occupant
PINK: Retained by District Sanitarian

FORM - PHS-EH-12 (Rev 9 74 SV)

Application is hereby made to the Sonoma County Health Officer for a permit to construct or repair a sewage disposal system as described below in compliance with the code of Sonoma County or for clearance for other construction.

APPLICANT FILL IN BETWEEN HEAVY LINES ONLY AND REVERSE SIDE OF SHEET 1

OWNER NAME John & [illegible] SR Soco

MAILING ADDRESS 1727 Burbank Ave. Santa Rosa

CITY Santa Rosa. TEL NO. 544-1946

GENERAL CONTRACTOR

SEPTIC SYSTEM CONTRACTOR

ADDRESS TEL NO.

JOB ADDRESS 1727 Burbank Ave.

ASSESSOR'S PARCEL NO.

SUBDIVISION LOT BLK

CITY SR

PREVIOUS APPLICATION ☐ YES: ☑ NO. SYSTEM NEW ☐ ADDN/ALTER ☐

Installation will serve:

Residence ☑ Apt. House ☐ Commercial ☐ Mobile Home ☐ Motel ☐

Other ☐ Building Const. NEW ☐ ADDN/ALTER ☐

No. of Units	No. of Bedrooms	GARBAGE DISPOSAL UNIT
1	2	YES ☐ NO ☒

WATER SUPPLY PRIVATE ☒ PUBLIC ☐ LOT SIZE 2.5+ X ACRES

APPLICATION PROCEDURES

1. Call your district Sanitarian for discussion of preliminary plans. (Sanitarian's are available in the office between 8 A.M. and 9 A.M. Telephone 527-2711).
   a) A preliminary plot plan is required.
   b) Soil percolation tests may be required.
2. Submit completed Application, including detailed plot plan, to the County Public Health Service Office.
3. Obtain Validated Permit from the Building Inspection Department upon notification of approval and payment of fee.

I agree to obtain sanitarian's or design engineer's inspection of installation prior to covering.

I agree to construct the disposal system in accordance with all the provisions of the code of Sonoma County, and Sec. 7031.5, Business and Professional Code and with the plan submitted.

It is understood that the issuance of a permit in no way indicates that a guarantee of performance or of the operation of this system is made by the Sonoma County Public Health Service and that the Homeowner is required to make any repairs necessary to confine sewage below the surface of the ground.

APPLICANT MUST COMPLETE REVERSE SIDE OF SHEET 1

Signature Lilly M Jaco Date 5-9-73

☒ Owner ☐ Owner's Agent

Rev. 4-72

21

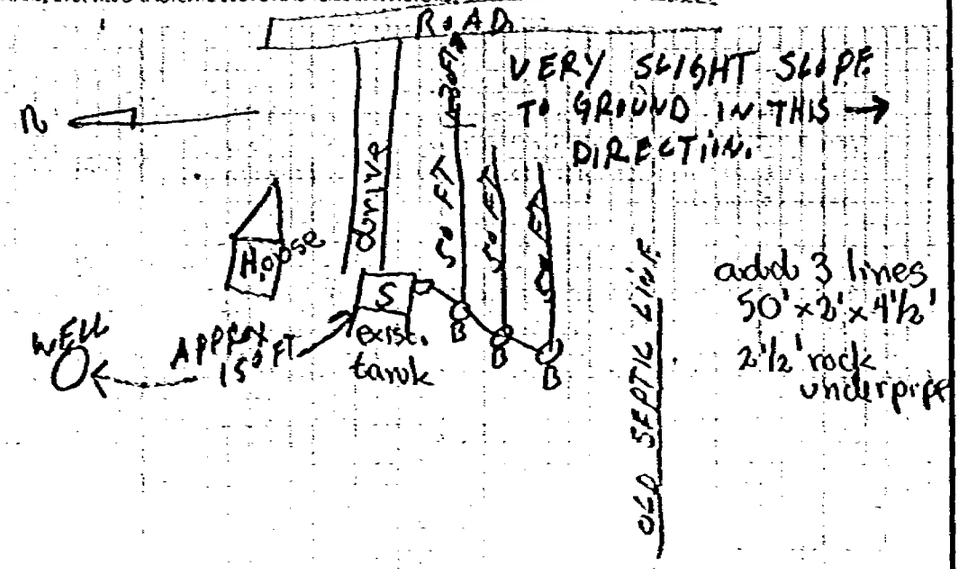
☒ **APPLICATION FOR PRIVATE SEWAGE DISPOSAL PERMIT**

☐ **APPLICATION FOR PUBLIC HEALTH CLEARANCE**

BUILDING PERMIT NO.	RECEIPT NO.	NO FEE	NEW FEE $10	REPAIR FEE $5	DATE ISSUED	PERMIT NO.
A			☒	☐	5/16/73	12284

SEWERAGE SYSTEM LAYOUT PLAN

APPLICANT TO DRAW SYSTEM LOCATION, SHOWING DISTANCE TO BUILDINGS, PROPERTY LINES, WELLS, STREAMS, CUT BANKS, ETC. ALSO INDICATE SLOPE AND TERRAIN FACTORS.



LAYOUT PLAN PREPARED BY DATE

IMPORTANT: 1. Any deviation in construction from above sketch must be approved in writing. 2. Structural plans for the septic tank must be submitted to and approved by the Sonoma County Building Inspection Department prior to installation. 3. Final approval of any engineer-designed installation requires a signed statement by the design engineer certifying that the installation complies with the plans submitted and approved. 4. This permit expires in the same manner and of the same time as a building permit as provided for in Sec. 302(d) of the Uniform Building Code.

LAYOUT PLAN APPROVED BY Diane Evans DATE 5-9-73

CONSTRUCTION APPROVED BY Diane Evans DATE 5-9-73

COUNTY OF SONOMA
PUBLIC HEALTH SERVICE

3313 CHANATE RD. • SANTA ROSA, CALIF. 95404 • PHONE 527-2711

ORIGINAL

WHEN VALIDATED THIS IS YOUR PERMIT

MAY 16-73 PAID SCRT 526 $5.00

MAY 16-73 PAID SCRT 526 #193.84

1100-79

COUNTY OF SONOMA PUBLIC HEALTH SERVICE

3313 CHANATE RD. • SANTA ROSA, CALIF. 95404 • PHONE 527-2711

[X] APPLICATION FOR PRIVATE SEWAGE DISPOSAL PERMIT

[ ] APPLICATION FOR PUBLIC HEALTH CLEARANCE FOR: 4 Bdr. Addition

Application is hereby made to the Sonoma County Health Officer for a permit to construct or repair a sewage disposal system as described below in compliance with the code of Sonoma County or for clearance for other construction.

APPLICANT FILL IN BETWEEN HEAVY LINES ONLY AND SEE REVERSE SIDE FOR INSTRUCTIONS

BUILDING PERMIT NO.	RECEIPT NO.	NO FEE	NEW	REPAIR	DATE ISSUED	PERMIT NO.
A 38163	2-3530 $47.00		X			32152

JOB ADDRESS 1727 BURBANK AVE.

NEAREST CROSS STREET

ASSESSOR'S PARCEL NO. AP# 125-411-12

SUBDIVISION LOT BLK.

CITY SANTA ROSA

GENERAL CONTRACTOR Owner / Bldr

SEWAGE DISPOSAL SYSTEM CONTRACTOR

ADDRESS TEL. NO.

OWNERS NAME JOHN C. & LILLY M. JACO SR.

MAILING ADDRESS 1727 BURBANK AVE

CITY SANTA ROSA, CALIF TELEPHONE 542 1946

PREVIOUS APPLICATION YES [ ] NO [X] SYSTEM NEW [ ] ADDN/ALTER [X]

INSTALLATION WILL SERVE: Care Home

RESIDENCE [X] APARTMENT HOUSE [ ] COMMERCIAL [X] MOBILE HOME [ ]

MOTEL [ ] OTHER [ ] BUILDING CONST. NEW [ ] ADDN/ALTER [X]

NO. OF UNITS 1 NO. OF BEDROOMS 6 GARBAGE DISPOSAL UNIT YES [ ] NO [ ]

WATER SUPPLY PRIVATE [X] PUBLIC [ ] LOT SIZE 2.89 AC

TERMS OF PERMIT

APPLICANT AGREES THAT:

1. SANITARIAN WILL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO COMMENCING WORK.
2. SANITARIAN AND ENGINEER'S INSPECTION, WHEN INDICATED, WILL BE OBTAINED PRIOR TO COVERING THE SYSTEM.
3. THE JOB CARD AND A COPY OF THE APPROVED SEWAGE DISPOSAL SYSTEM DESIGN SHALL BE AVAILABLE AT THE JOB SITE AT ALL TIMES.
4. ANY DEVIATION FROM APPROVED PLAN WITHOUT PRIOR APPROVAL OF THE HEALTH OFFICER WILL BE CAUSE FOR STOPPING WORK UNTIL THE CHANGES ARE FULLY JUSTIFIED AND APPROVED.
5. STRUCTURAL PLANS FOR THE SEPTIC TANK MUST BE SUBMITTED TO AND APPROVED BY THE BUILDING INSPECTION DEPT. PRIOR TO INSTALLATION.
6. PRIOR TO AUTHORIZING OCCUPANCY OF ANY BUILDING WITH AN ENGINEERED DESIGNED SYSTEM A SIGNED STATEMENT BY THE DESIGN ENGINEER CERTIFYING THAT THE SYSTEM WAS INSTALLED IN COMPLIANCE WITH THE APPROVED PLAN MUST BE SUBMITTED TO THE PUBLIC HEALTH OFFICER.
7. ONLY WHEN VALIDATED BY THE BUILDING INSPECTION DEPT. DOES THIS BECOME YOUR PERMIT.
8. THIS PERMIT IS SUBJECT TO REVOCATION IF FOUND TO BE IN NONCONFORMANCE WITH SONOMA COUNTY CODE OR STANDARDS OF PUBLIC HEALTH SERVICE.

IT IS UNDERSTOOD THAT THE ISSUANCE OF A PERMIT IN NO WAY INDICATES THAT A GUARANTEE OF PERFECT AND INDEFINITE OPERATION OF THIS SYSTEM IS MADE BY THE COUNTY OF SONOMA PUBLIC HEALTH SERVICE AND THAT THE OWNER IS REQUIRED TO MAKE ANY REPAIRS NECESSARY TO CONFINE SEWAGE BELOW THE SURFACE OF THE GROUND.

I HEREBY ACKNOWLEDGE THAT I HAVE READ THIS APPLICATION AND THE INSTRUCTIONS ON THE REVERSE SIDE AND STATE THAT THE ABOVE IS CORRECT AND AGREE TO COMPLY WITH ALL COUNTY ORDINANCES AND STATE LAWS REGULATING CONSTRUCTION OF PRIVATE SEWAGE DISPOSAL SYSTEMS. THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK AUTHORIZED IS NOT COMMENCED WITHIN 120 DAYS.

BY John C Jaco Sr.
SIGNATURE OF PERMITTEE OR AUTHORIZED AGENT

ORIGINAL

To: COUNTY OF SONOMA, BUILDING INSPECTION DEPARTMENT

The undersigned applicant for building permit certifies as follows:

CONTRACTOR'S LICENSE LAW CERTIFICATE

COMPLETE EITHER A OR B

[ ] A. THE APPLICANT IS LICENSED UNDER THE PROVISIONS OF THE CONTRACTORS LICENSE LAW UNDER LICENSE NUMBER WHICH LICENSE IS IN FULL FORCE AND EFFECT.

[X] B. THE APPLICANT IS EXEMPT FROM THE PROVISIONS OF THE CONTRACTORS LICENSE LAW FOR THE FOLLOWING REASONS: Owner / Bldr 7/24/79

7/24/79 John C Jaco Sr.
DATE SIGNATURE

WORKMEN'S COMPENSATION CERTIFICATE

(One of Two must be completed)

[ ] 1. A currently effective certificate of Workmen's Compensation Insurance coverage is on file with this office.

[X] 2. I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the Workmen's compensation laws of California.

Compensation Insurance ______ Policy # ______ is currently in force.

X John C Jaco Sr.
APPLICANT

NOT TRANSFERABLE

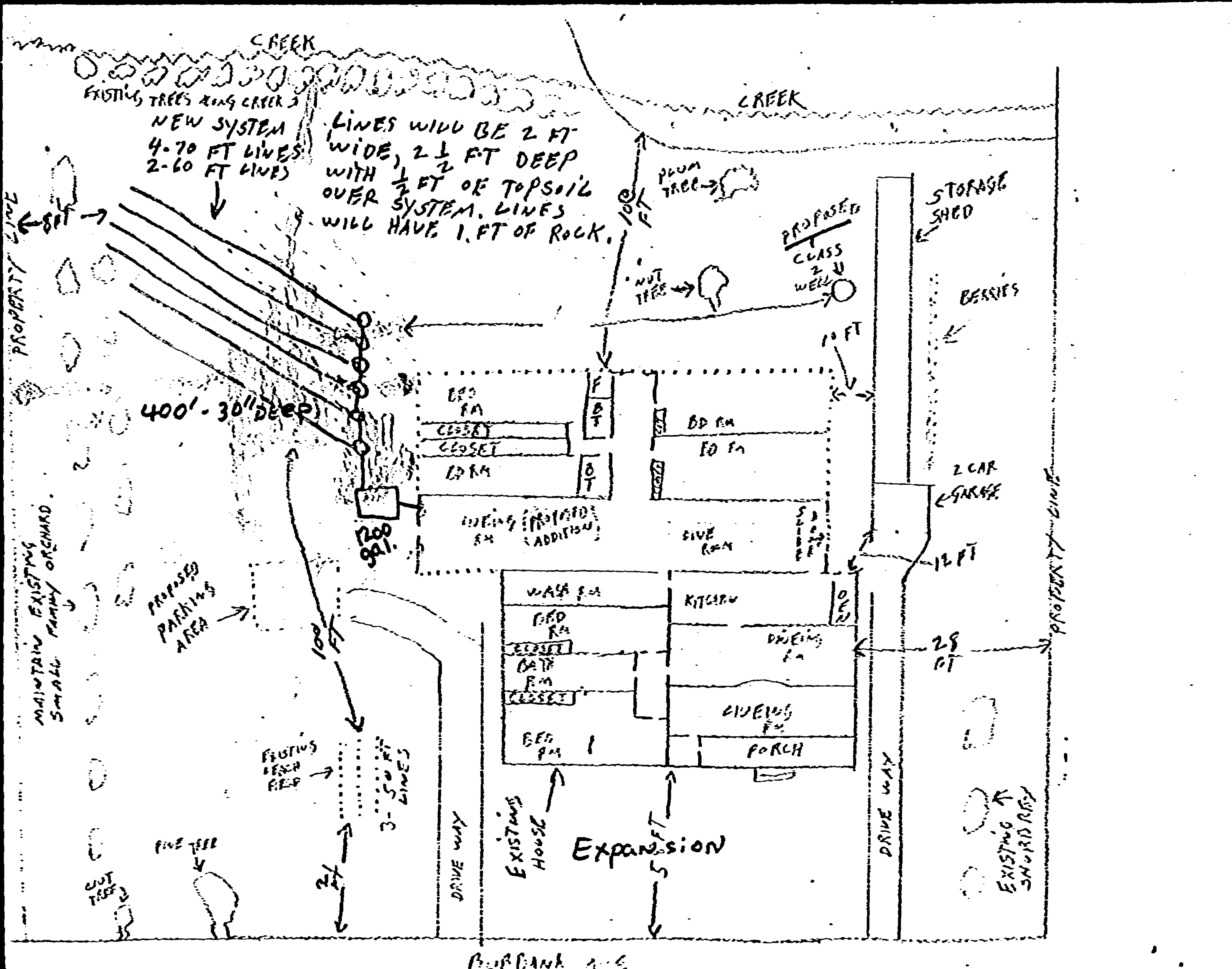
WHEN VALIDATED THIS IS YOUR PERMIT

AUG 21-79 PAID 94.00 TOTL 94.00 CHCK

LAYOUT PLAN APPROVED BY K. Simmons DATE 7-24-79

CONSTRUCTION APPROVED BY K. Simmons DATE 9-20-79

PHS EH 35 REV. 8/77


CREEK
NEW SYSTEM
4-70 FT LINES
2-60 FT LINES
LINES WILL BE 2 FT WIDE, 2 1/2 FT DEEP WITH 1/2 FT OF TOPSOIL OVER SYSTEM. LINES WILL HAVE 1 FT OF ROCK.
CREEK
PLUM TREE
100 FT
PROPOSED CLASS 2 WELL
STORAGE SHED
NUT TREES
BERRIES
PROPERTY LINE
8 FT
10 FT
400' - 30" DEEP
BED RM
CLOSET
CLOSET
BD RM
BD RM
BD RM
LIVING RM
PROPOSED ADDITION
LIVE RM
2 CAR GARAGE
12 FT
1200 GAL.
WASH RM
KITCHEN
BED RM
CLOSET
BATH RM
CLOSET
DINING RM
LIVING RM
BED RM
PORCH
28 FT
PROPOSED PARKING AREA
MAINTAIN EXISTING SMALL FAMILY ORCHARD
EXISTING LEACH FIELD
3- LINES
100 FT
PINE TREE
NUT TREE
DRIVE WAY
EXISTING HOUSE
Expansion
5 FT
DRIVE WAY
EXISTING SHRUBBERY
PROPERTY LINE
BURBANK AVE

Pearson & Associates

SHEET 4 OF 4

PROJECT: 1727 BURBANK AVE PERC TEST — JOB NO: 3.1262

SUBJECT: REST HOME SEPTIC SYSTEM — DATE: 3/27/82

DISCHARGE PER U.P.C. — CHKD. BY: — BY:

WITH 13 MIN./INCH AVE, ABSORPTION = 1.38 GAL/S.F./DAY(F.K.12(1))

FOR TRENCH 2' WIDE, ABSORPTION IS 2 x 1.38

= 2.76 GAL/L.F.

FOR TRENCH 2' WIDE, 12" GRAVEL,

ABSORPTION IS 2.76 GAL/LF + .80(TBL 8(1))

= 3.44 GAL/L.F.

FOR A REST HOME, UPC(2) & M.S.T.P.(1)

RECOMMEND 125 GAL./PERSON.

WITH 2 PEOPLE PER BED ROOM,

EACH BED ROOM REQUIRES 250 GAL/DAY

LENGTH OF LINE/BEDROOM = 250G/3.44 G/LF

= 66⅔ L.F./BEDROOM

FOR 8 BEDROOMS:

Q = GPD = 8 x 250 = 2000 GPD

SEPTIC TANK SIZE =

1125 + .75Q (F14.22(1)) = 2625 GAL

(USE 1500 GAL & 1200 GAL TANKS W/O

(1) = MANUAL OF SEPTIC TANK PRACTICE

(2) = U. P. C. 1979 ED.

PUBLIC HEALTH SERVICE

COUNTY OF SONOMA
PUBLIC HEALTH SERVICE
[redacted] • SANTA ROSA, CALIF. 95404 • PHONE 527-2711

714-82

☒ APPLICATION FOR PRIVATE SEWAGE DISPOSAL PERMIT

☐ APPLICATION FOR PUBLIC HEALTH CLEARANCE FOR:

Application is hereby made to the Sonoma County Health Officer for a permit to construct or repair a sewage disposal system as described below in compliance with the code of Sonoma County, or for clearance for other construction.

292-51-95 = 9146.

BUILDING PERMIT NO.	RECEIPT NO.	NEW	REPAIR	DATE ISSUED	PERMIT NO.
A	7/14/82-3249 $75. 7/14/82-981 $0	X		7-28-82	S 36122

JOB ADDRESS 1727 BURBANK AVE
NEAREST CROSS STREET HUGHES
ASSESSOR'S PARCEL NO. 125-411-12-4
SUB DIVISION _____ LOT _____ BLK _____
CITY SANTA ROSA,
GENERAL CONTRACTOR owner builder
SEWAGE DISPOSAL SYSTEM CONTRACTOR _____
ADDRESS _____ TEL NO. _____

OWNERS NAME JOHN C JACO SR
MAILING ADDRESS 1727 BURBANK AVE
CITY SANTA ROSA, CALIF. TELEPHONE 542 1946
PREVIOUS APPLICATION YES ☐ NO ☒ SYSTEM NEW ☒ ADDN/ALTER ☐
INSTALLATION WILL SERVE:
RESIDENCE ☐ APARTMENT HOUSE ☐ COMMERCIAL ☐ MOBILE HOME ☐
MOTEL ☐ OTHER ☒ Garage BUILDING CONST. NEW ☐ ADDN/ALTER ☐
NO. OF UNITS NO. OF BEDROOMS 8 GARBAGE DISPOSAL UNIT YES ☐ NO ☒
Permit
WATER SUPPLY PRIVATE ☒ PUBLIC ☐ LOT SIZE X

TERMS OF PERMIT

APPLICANT AGREES THAT:
1. SANITARIAN WILL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO COMMENCING WORK.
2. SANITARIAN AND ENGINEER'S INSPECTION, WHEN INDICATED, WILL BE OBTAINED PRIOR TO COVERING THE SYSTEM.
3. THE JOB CARD AND A COPY OF THE APPROVED SEWAGE DISPOSAL SYSTEM DESIGN SHALL BE AVAILABLE AT THE JOB SITE AT ALL TIMES.
4. ANY DEVIATION FROM APPROVED PLAN WITHOUT PRIOR APPROVAL OF THE HEALTH OFFICER WILL BE CAUSE FOR STOPPING WORK UNTIL THE CHANGES ARE FULLY JUSTIFIED AND APPROVED.
5. STRUCTURAL PLANS FOR THE SEPTIC TANK MUST BE SUBMITTED TO AND APPROVED BY THE BUILDING INSPECTION DEPT. PRIOR TO INSTALLATION.
6. PRIOR TO AUTHORIZING OCCUPANCY OF ANY BUILDING WITH AN ENGINEERED DESIGNED SYSTEM A SIGNED STATEMENT BY THE DESIGN ENGINEER CERTIFYING THAT THE SYSTEM WAS INSTALLED IN COMPLIANCE WITH THE APPROVED PLAN MUST BE SUBMITTED TO THE PUBLIC HEALTH OFFICER.
7. ONLY WHEN VALIDATED BY THE BUILDING INSPECTION DEPT. DOES THIS BECOME YOUR PERMIT.
8. THIS PERMIT IS SUBJECT TO REVOCATION IF FOUND TO BE IN NONCONFORMANCE WITH SONOMA COUNTY CODE OR STANDARDS OF PUBLIC HEALTH SERVICE.

#C 7/27/82

IT IS UNDERSTOOD THAT THE ISSUANCE OF A PERMIT IN NO WAY INDICATES THAT A GUARANTEE OF PERFECT AND INDEFINITE OPERATION OF THIS SYSTEM IS MADE BY THE COUNTY OF SONOMA PUBLIC HEALTH SERVICE AND THAT THE OWNER IS REQUIRED TO MAKE ANY REPAIRS NECESSARY TO CONFINE SEWAGE BELOW THE SURFACE OF THE GROUND.

I HEREBY ACKNOWLEDGE THAT I HAVE READ THIS APPLICATION AND THE INSTRUCTIONS ON THE REVERSE SIDE AND STATE THAT THE ABOVE IS CORRECT AND AGREE TO COMPLY WITH ALL COUNTY ORDINANCES AND STATE LAWS REGULATING CONSTRUCTION OF PRIVATE SEWAGE DISPOSAL SYSTEMS. THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK AUTHORIZED IS NOT COMMENCED WITHIN 120 DAYS.

X BY: John C Jaco Sr
SIGNATURE OF PERMITTEE OR AUTHORIZED AGENT

To: COUNTY OF SONOMA, BUILDING INSPECTION DEPARTMENT
The undersigned applicant for building permit certifies as follows:

CONTRACTOR'S LICENSE LAW CERTIFICATE

(COMPLETE EITHER A OR B)

☐ A. THE APPLICANT IS LICENSED UNDER THE PROVISIONS OF THE CONTRACTORS LICENSE LAW UNDER LICENSE NUMBER _____ WHICH LICENSE IS IN FULL FORCE AND EFFECT.

☒ B. THE APPLICANT IS EXEMPT FROM THE PROVISIONS OF THE CONTRACTORS LICENSE LAW FOR THE FOLLOWING REASONS:
owner builder

X 7-23-82 John C Jaco Sr X
DATE SIGNATURE

WORKMEN'S COMPENSATION CERTIFICATE

(One of Two must be completed)

☐ 1. A currently effective certificate of Workmen's Compensation Insurance coverage is on file with this office.

☒ 2. I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the workmen's compensation laws of California.

Compensation Insurance _____ Policy # _____ is currently in force.

John C Jaco Sr X
APPLICANT

010504 07/28/82001
PERMIT 0036122
SEPTIC $0.00
CASH $0.00

LAYOUT PLAN APPROVED BY: H. J. Webb DATE 7-23-82

CONSTRUCTION APPROVED BY: H. J. Webb DATE 4-22-83

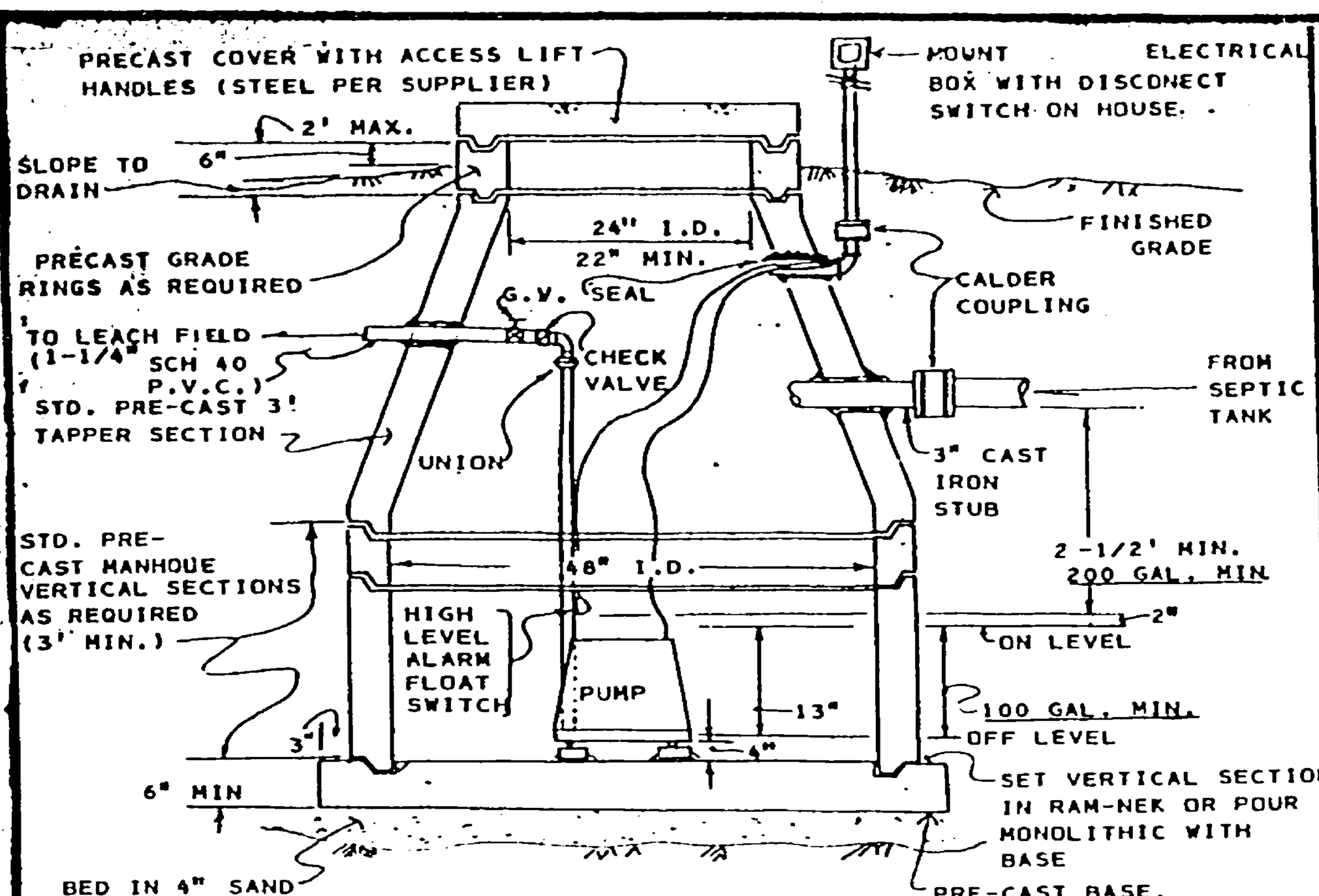
PHS-8305 REV. 8/77

DIST.: ORIGINAL/BLDG. INSP. DEPT./PERMITTEE/HEALTH SERVICES/HEALTH SERVICES

WHEN VALIDATED THIS IS YOUR PERMIT

NOT TRANSFERABLE

1727 Burbank

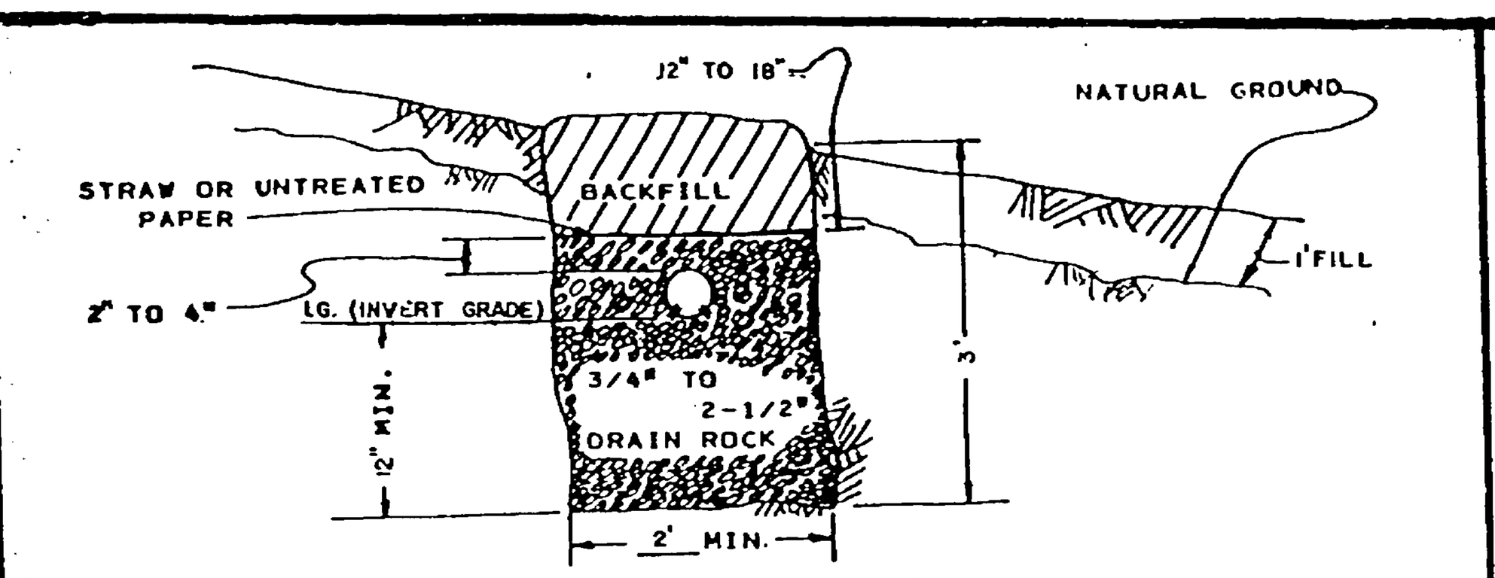


TYPICAL SECTION
N.T.S.

NOTES:

1. ALL SUMP AND PUMP SYSTEMS MUST BE HYDROLOGICALLY TESTED BY THE ENGINEER AND HEALTH DEPARTMENT REPRESENTATIVE PRIOR TO FINAL APPROVAL.
2. ALL JOINTS TO BE WATER TIGHT AND SEALED WITH RAM-NEK JOINT COMPOUND, OR EQUAL.
3. PUMP TO HAVE AUTOMATIC OFF-ON AND PROVIDE A MIN. OF 20 GPM AT TOP DROP BOX. SPECIFICATIONS FOR PUMP, INCLUDING THE PUMP CURVE MUST BE SUBMITTED AND APPROVED PRIOR TO FINAL SYSTEM APPROVAL.
4. SEAL PIPES GOING THROUGH CONC. WALL WITH FLEXIBLE SEALER (SUCH AS SILICONE) OR PRECAST INTO SUMP.
5. MOUNT HIGH WATER WARNING LIGHT & ALARM IN A CONSPICUOUS PLACE WITHIN THE HOUSE OR GARAGE.
6. ABOVE SHOWN SUMP TO BE INSTALLED OR APPROVED EQUAL (SUCH AS 800 GAL. SEPTIC TANK IF SEALED WATER TIGHT & HAVING RISER TO ABOVE GRADE).

SUMP & PUMP DETAILS

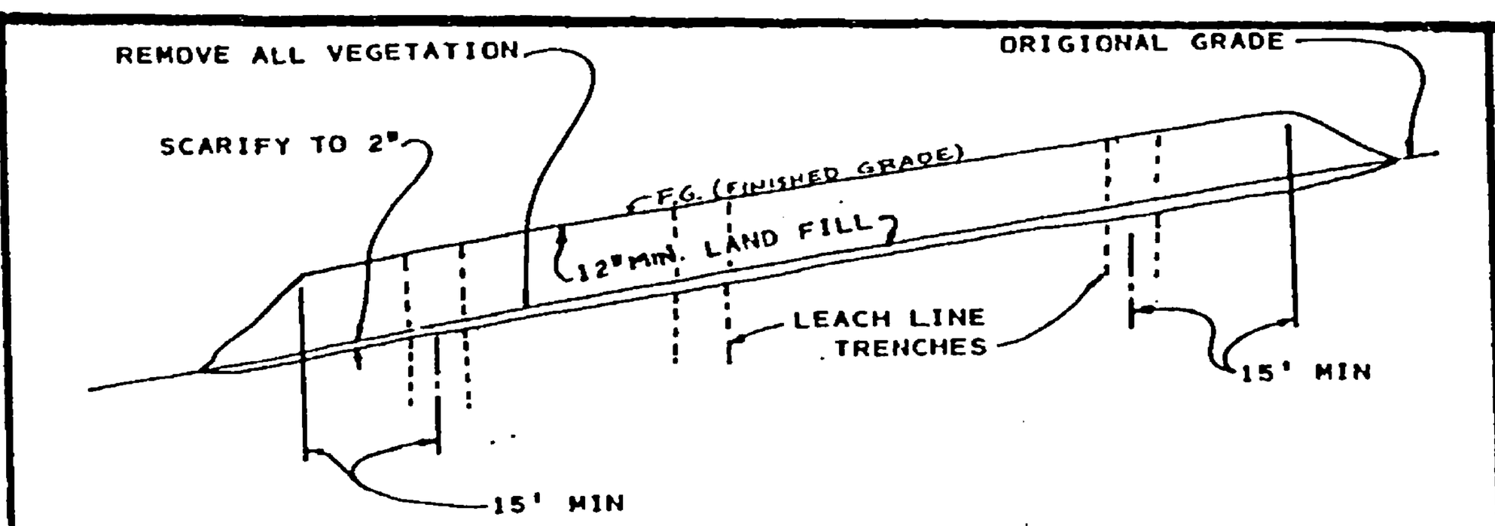


LEACH LINE TRENCH DETAIL
(NOT TO SCALE)

NOTES:

1. THE TRENCH BOTTOM AND TOTAL LENGTH OF LINE SHALL BE LEVEL AND PLACED WITH THE AID OF A TRANSIT. LEACH LINES MUST FOLLOW THE SURFACE CONTOURS TO MINIMIZE VARIATIONS IN TRENCH DEPTH.
2. SMEARED OR COMPACTED TRENCH SIDES SHALL BE SCARIFIED TO A DEPTH OF ONE INCH AND THE LOOSE MATERIAL SHALL BE REMOVED.
3. THERE MUST BE AT LEAST 2" OF LEVELED DRAIN ROCK OVER THE TOP OF THE PERFORATED PIPE.
4. THE PERFORATED PIPE SHALL BE OF 3" OR 4" (INSIDE DIA.) BITUMINOUS FIBER, APPROVED PLASTIC, OR OTHER APPROVED MATERIAL. PERFORATIONS SHALL BE 5/8" IN SIZE AND BE PLACED DOWN IN THE TRENCH.
5. STRAW, UNTREATED BUILDING PAPER, OR OTHER SUITABLE MATERIAL MUST BE PLACED OVER THE DRAIN ROCK PRIOR TO BACKFILLING.
6. ON SLOPING GROUND, LEACH LINES SHALL BE INSTALLED WITH DROP DISTRIBUTION BOXES TO ALLOW FOR SERIAL DISTRIBUTION INTO INDIVIDUAL LINES.
7. INSPECTION OF DISPOSAL FIELDS BY ENGINEER REQUIRED AFTER PIPE IS LAID AND STRAW PLACED. PIPE ENDS SHALL BE KEPT OPEN SO THAT PIPE GRADES CAN BE CHECKED. MINIMUM INSPECTION NOTICE IS 24 HOURS.

LEACH LINE DETAILS

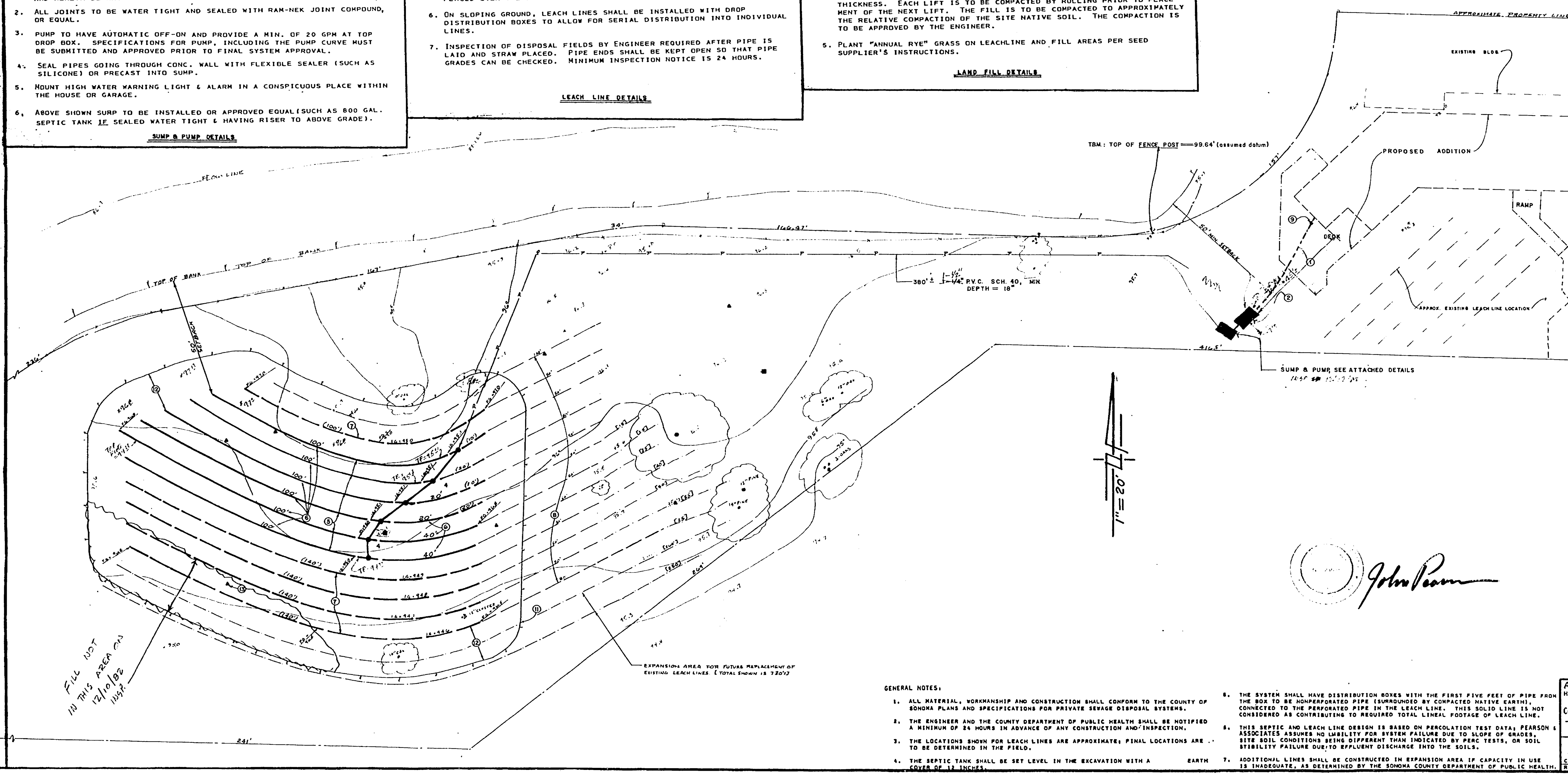


LAND FILL CROSS-SECTION
(NOT TO SCALE)

NOTES:

1. THE ABSORPTIVE QUALITY OF THE FILL SOIL FOR THE LEACH FIELD SHALL BE EQUAL TO OR BETTER THAN THE NATIVE SOIL MEETING PERCOLATION TEST REQUIREMENTS. SAND, GRAVEL OR ROCK DO NOT QUALIFY AS ACCEPTABLE MATERIAL FOR LAND FILL AREAS. STOCKPILE FILL SOIL SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE.
2. THE FILL SHALL BE OF UNIFORM 12" MIN. DEPTH EXTENDING TO A DISTANCE AT LEAST 15' FROM THE CENTER OF ANY LEACH LINE TRENCH IN ANY DIRECTION, BUT WHERE INSTALLED IN SLOPING GROUND, THE FILL SHALL PROVIDE A MINIMUM HORIZONTAL DISTANCE OF 15' BETWEEN THE NEAREST LEACHING LINE AND ADJACENT ORIGIONAL GRADE.
3. ALL VEGETATION SHALL BE STRIPPED FROM THE FILL SITE AND THE EXPOSED GROUND SHALL THEN BE SCARIFIED TO A MINIMUM DEPTH OF 2".
4. THE FILL IS TO BE PLACED IN LOOSE LIFTS OF NOT GREATER THAN 8" IN THICKNESS. EACH LIFT IS TO BE COMPACTED BY ROLLING PRIOR TO PLACEMENT OF THE NEXT LIFT. THE FILL IS TO BE COMPACTED TO APPROXIMATELY THE RELATIVE COMPACTION OF THE SITE NATIVE SOIL. THE COMPACTION IS TO BE APPROVED BY THE ENGINEER.
5. PLANT "ANNUAL RYE" GRASS ON LEACHLINE AND FILL AREAS PER SEED SUPPLIER'S INSTRUCTIONS.

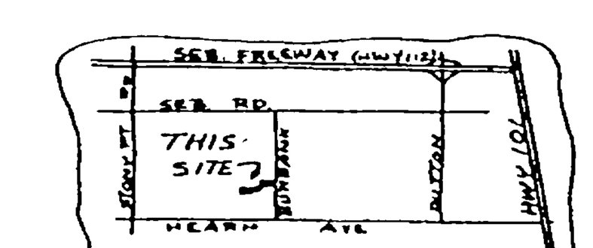
LAND FILL DETAILS



LEGEND

1. NON-PERFORATED PIPE, 3" DIA., MIN. SLOPE=0.020, 5' MIN. LENGTH
2. 1500 GALLON SEPTIC TANK, MIN. 1' FILL OVER TANK
3. NON-PERFORATED PIPE; MIN. 3" DIA., MIN SLOPE=0.010
4. DROP DISTRIBUTION BOX
5. PERFORATED PIPE, 9 FEET CENTER TO CENTER SPACING, SEE ATTACHED LEACH LINE DETAILS.
6. REQUIRED LENGTH OF PERFORATED PIPE TO BE INSTALLED
7. FUTURE 100% EXPANSION LINES
8. FUTURE 2ND 100% EXPANSION LINES
9. 2 WAY CLEANOUT
10. ~~INSTALL ___ FEET OF INTERCEPT SUBDRAIN, SEE DETAILS, PLATE #___~~
11. LIMITS OF 1' FILL AREA FOR PRIMARY + 100% EXPANSION AREA, SEE LAND FILL DETAILS.
12. 15' MIN. SPACING
13. APPROXIMATE PERCOLATION TEST HOLE LOCATION (TYPICAL)

F.G. FINISHED GRADE
I.G. INVERT GRADE



LOCATION MAP N.T.S.

A.P. No. 125-411-12

GENERAL NOTES:

1. ALL MATERIAL, WORKMANSHIP AND CONSTRUCTION SHALL CONFORM TO THE COUNTY OF SONOMA PLANS AND SPECIFICATIONS FOR PRIVATE SEWAGE DISPOSAL SYSTEMS.
2. THE ENGINEER AND THE COUNTY DEPARTMENT OF PUBLIC HEALTH SHALL BE NOTIFIED A MINIMUM OF 24 HOURS IN ADVANCE OF ANY CONSTRUCTION AND INSPECTION.
3. THE LOCATIONS SHOWN FOR LEACH LINES ARE APPROXIMATE; FINAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD.
4. THE SEPTIC TANK SHALL BE SET LEVEL IN THE EXCAVATION WITH A EARTH COVER OF 12 INCHES.
5. THE SYSTEM SHALL HAVE DISTRIBUTION BOXES WITH THE FIRST FIVE FEET OF PIPE FROM THE BOX TO BE NONPERFORATED PIPE (SURROUNDED BY COMPACTED NATIVE EARTH), CONNECTED TO THE PERFORATED PIPE IN THE LEACH LINE. THIS SOLID LINE IS NOT CONSIDERED AS CONTRIBUTING TO REQUIRED TOTAL LINEAL FOOTAGE OF LEACH LINE.
6. THIS SEPTIC AND LEACH LINE DESIGN IS BASED ON PERCOLATION TEST DATA; PEARSON & ASSOCIATES ASSUMES NO LIABILITY FOR SYSTEM FAILURE DUE TO SLOPE OF GRADES, SITE SOIL CONDITIONS BEING DIFFERENT THAN INDICATED BY PERC TESTS, OR SOIL STABILITY FAILURE DUE TO EFFLUENT DISCHARGE INTO THE SOILS.
7. ADDITIONAL LINES SHALL BE CONSTRUCTED IN EXPANSION AREA IF CAPACITY IN USE IS INADEQUATE, AS DETERMINED BY THE SONOMA COUNTY DEPARTMENT OF PUBLIC HEALTH.

AS-BUILT SEWAGE DISPOSAL SYSTEM 12/17/82
HIDDEN CREEK LODGE — 8 BEDROOM ADDITION (16 BEDS)
1727 BURBANK AVE. —— SANTA ROSA
COUNTY OF SONOMA STATE OF CALIFORNIA
FOR:
JOHN JACO

PEARSON & ASSOCIATES
CIVIL ENGINEERING
7325 MALONE ROAD BOX 58 FORESTVILLE
CALIFORNIA 887-1000 DATE: 6-20-82
REV. [illegible] 12/17/82 | P/A: 31282