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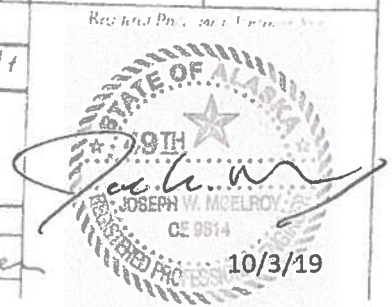
Date Received JUL 12 2019 ADEC Kenai Area Office	State of Alaska Department of Environmental Conservation Documentation of Construction	Processed by: REP
		Date: 10-25-19
		SEPTS K ₉ #:

Part I. General Information

Legal Description	Clyde King Sub Lt 12 + 13		PAN or Tax ID#: 145 14209
Street Address	33784 Nash Rd		City (or nearest community): Seward
Coordinates	Latitude:	Longitude:	Datum: <select one>
Installer Name, Email, & Phone #	Dan Zimmerman P.O. Box 1260 Sterling AK 99672 dan.zimmerman123@gmail.com 907-252-7878		

Part II. Wastewater Disposal System

Facility Served	<input checked="" type="checkbox"/> Private Residence - # of buildings: 1		<input type="checkbox"/> Multi-family - # of Units:		Total # Bedrooms: 9	
	<input type="checkbox"/> Small Commercial Facility (< 500 gpd)		<i>show design flow calculations in Comments section below</i>		Total Design Flow (gpd):	
<input type="checkbox"/> New System	<input checked="" type="checkbox"/> Repair/Replace Existing (state new components installed and decommissioning/inspection results of existing component.)					
Decommissioned old tank and leach field. Installed new tank and new leachfield						
System Installed By:	<input checked="" type="checkbox"/> Certified Installer		<input type="checkbox"/> Approved Homeowner		Notification Date: July 7 - 2019	
<input type="checkbox"/> Registered Engineer / Supervision or Inspection by Registered Engineer			Date Installed: July 8 - 2019			
Septic Tank	Capacity (gal): 3000	# of Compartments: 2	Material: Steel	Manufacturer: Anelorage Tank		
Lift Station	Manufacturer:	Pump (make/model):		Alarms: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Type of Field	<input checked="" type="checkbox"/> Deep Trench		<input type="checkbox"/> Shallow Trench		<input type="checkbox"/> Leach Pit	
	<input type="checkbox"/> Bed		<input type="checkbox"/> 5-Wide			
Soils - Visual and Perc Test	Classification: SP	Application Rate (sq. ft. bedroom):		Percolation Rate (min. inch):		
Attach percolation test results or other soils report sealed by registered professional engineer as applicable.						
Soil Absorption System Details	Length ft: 112.5	Width ft: 2	Rock Depth: 6	Effective Area sq ft: 1350		
	Rock Grade:	Graveless Media = Units:	Unit Area:	Manufacturer:		
Freeze Protection	Soil Cover feet:	2'	Absorption Area:	Sewer Lines:		
	Insulation inches:	2"		2'		
Cleanout Pipes	= Cleanout(s): 1	= Septic Tank Vents: 2	= Leach Field Monitor Tubes: 2			
Vertical Separation Distance from Bottom of Soil Absorption System to: Groundwater 4' Impermeable Soils 6'						
Horizontal Separation Distances measured from nearest edge to nearest edge)	list distances to all nearest:	Private Well	Public Well	Waterline	Surface Water	Property Line
	Septic Tank	120'	200'	200'	200'	40'
	Soil Absorption System	110'	200'	200'	200'	20'
	Lift Station	N/A				
	Sewer Lines	130'	200'	200'		
Horizontal Separation Distance from Soil Absorption System to Slope exceeding 25%: 100'						
Comments/Criteria used to size commercial facility (state type of facility, # people, and person, etc.): Crushed old tank and replaced with new tank and new leachfield						
I certify that the information provided in Parts I, II, III and IV is correct:						
Signature	Printed Name Dan Zimmerman					
Title or Certification No. 1853	Date 7-11-19					



Lt 12 + 13

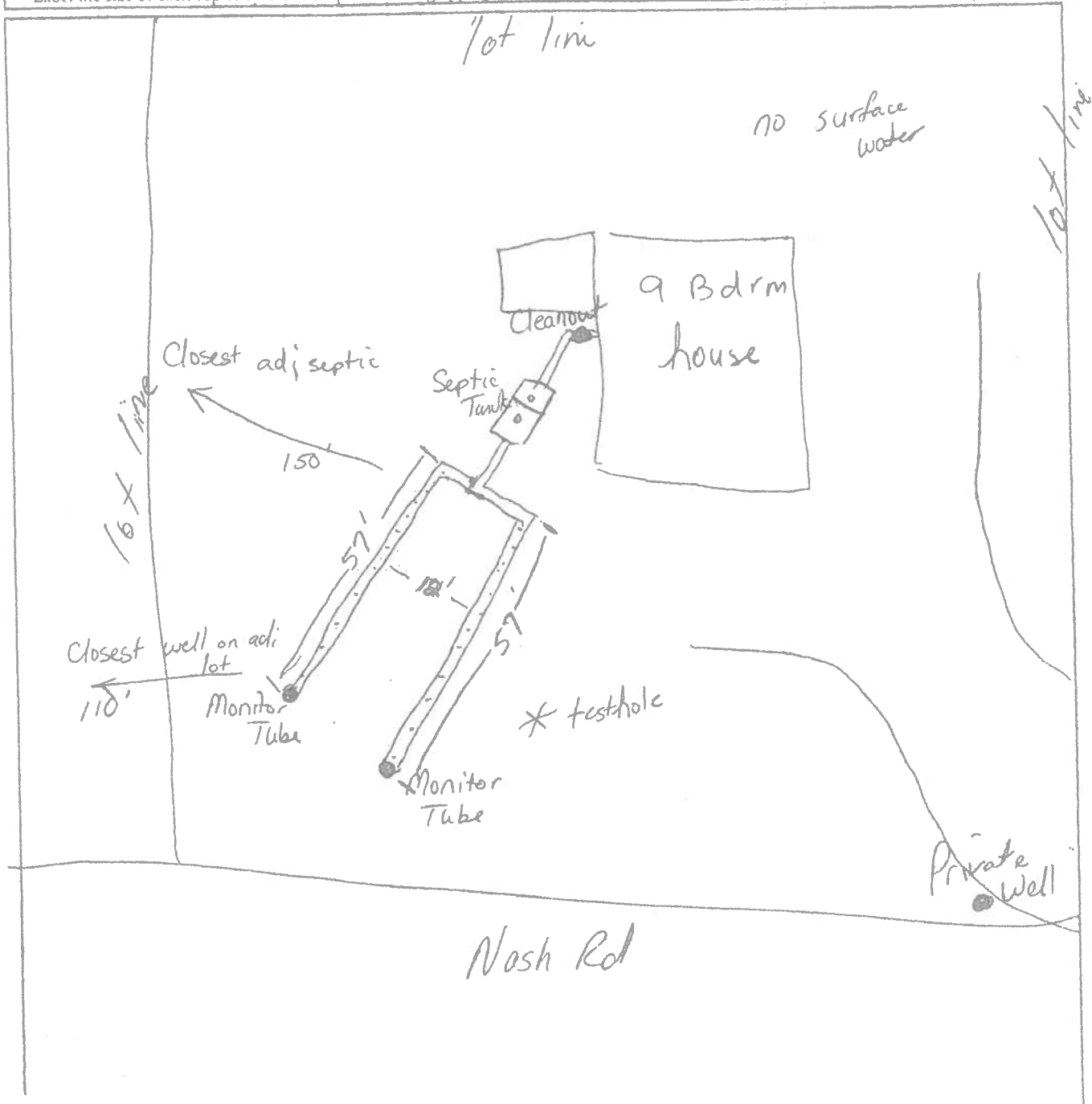
Legal Description: Clyde King Sub Street Address: 33784 Nash Rd

Part III. Plan View Diagram

Instructions for Diagram: Use space below or attach additional pages as necessary; engineers may attach separate sealed drawings

1. In PLAN VIEW, identify and label all of the following: On Lot Drinking Water Source, Waterline(s), Surface Water, Septic Tank, Soil Absorption System, Fuel Tank(s) (identify above or below ground and size), Property Line(s), Testhole, All Sewer Lines and Perforated Pipe, All Cleanouts and Monitor Tubes, All Structures, Slopes > 25% and > 10 feet in height, Closest Well on Adjacent Properties (identify classification), Closest Septic Tank and Soil Absorption System on Adjacent Properties

2. In the PLAN VIEW, label the horizontal separation distances, to the nearest half foot, between wells, water lines, and surface water high water boundary to all potential sources of contamination listed above in accordance with Section 40.06 Typical Site Plan in the Onsite Wastewater System Installation Manual. Label separation distance between soil absorption system and slopes exceeding 25%. Label the size of each septic system component using appropriate units. Identify fittings used at bends and junctions.



Henry Knackstedt Consulting, Inc.
P.O. Box 2058
Kenai, AK 99611
283-2853

October 3, 2019

Ryan Peterson
ADEC
43335 Kalifornsky Beach Rd #11
Soldotna, AK 99669

Subject: Lots 12 & 13, Clyde King Subdivision
On-Site Wastewater System Installation

Ryan:

On July 8, 2019, Dan Zimmerman, installed a replacement septic system for a nine-bedroom residence on Lots 12 & 13, Clyde King Subdivision. Upon submittal to ADEC, it was determined that the house does not meet the definition of a private residence since some of the rooms are rented to prison guard staff on a nightly or weekly basis, requiring ADEC plan review. On September 30, 2019, the Department issued an interim guidance which exempts from prior plan approval, conventional on-site wastewater systems with design flows less than 2,500 gpd.

A nine-bedroom residence has a design flow of 1,350 gpd based on 150 gpd per bedroom. Soils in the area are known and reported to be typically be gravelly sand with an application rate of 150 sf/bedroom. The minimum required sizing of the system is a 2,025-gallon septic tank, and 1,350 sf of effective absorption area. According to the attached Document of Construction, Zimmerman installed a 3,000-gallon septic tank followed by two, 57' by 6' effective depth trenches having a total effective area of 1,368 sf which meets and exceeds design requirements.

We did not observe the installation of the soil absorption system but believe the Document of Construction to be true and accurate and meets the requirements of 18AAC72.

I make no representation or guarantee regarding the future performance of the soil absorption system. Information supplied by others which may have been considered in the evaluation, is believed to be reliable, but no responsibility is assumed for accuracy.

Please let me know if you have any questions or require additional information.

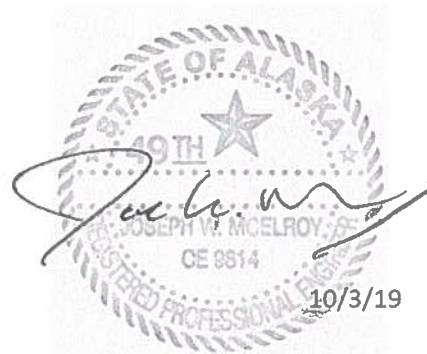
Sincerely,

Henry Knackstedt
Civil Engineer

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OCT 04 2019

ADEC
Kenai Area Office



Peterson, Ryan E (DEC)

From: Henry Knackstedt <hknackstedt@hotmail.com>
Sent: Friday, October 25, 2019 2:12 PM
To: Peterson, Ryan E (DEC); Joe McElroy; Dan Zimmerman
Subject: RE: Clyde King Sub L12 & L13 DOC Processing

Ryan

It didn't occur to me to include the requested information since Mr. Zimmerman sized the system the most conservative way by assuming it to be a single family residence (150 gpd/br). However; it is fair for you to request additional information to better understand how the building is currently being used.

The owner and his wife live at the residence and have no employees. Two bedrooms are used by the owners and the remaining seven can be used for Department of Correction employees. Rooms are rented by the night with one person per room. The renters do not share the kitchen. Since the rental is based on weekly shifts, and for guards that do not live in Seward, they only have as many as three guests at one time.

Essentially, the residence is operated like a boarding house which per the 2002 EPA Manual has a typical loading of 40 gallons per person. Assuming all seven available rooms are in use, plus the two residential rooms, the total expected peak flow is $(7 \times 40) + (2 \times 150) = 580$ gpd. The system was design for $9 \times 150 = 1350$ gpd.

Please advise if you have any further questions.

Henry

Sent from [Mail](#) for Windows 10

From: Peterson, Ryan E (DEC) <ryan.peterson@alaska.gov>
Sent: Tuesday, October 15, 2019 9:35:01 AM
To: Henry Knackstedt <hknackstedt@hotmail.com>
Cc: Joe McElroy <JMcElroy@trihydro.com>
Subject: Clyde King Sub L12 & L13 DOC Processing

Good Morning Henry,

Upon processing the submitted Document of Construction (DOC) for Clyde King Sub L12 & L13 could you please address the following item(s)/concern(s):

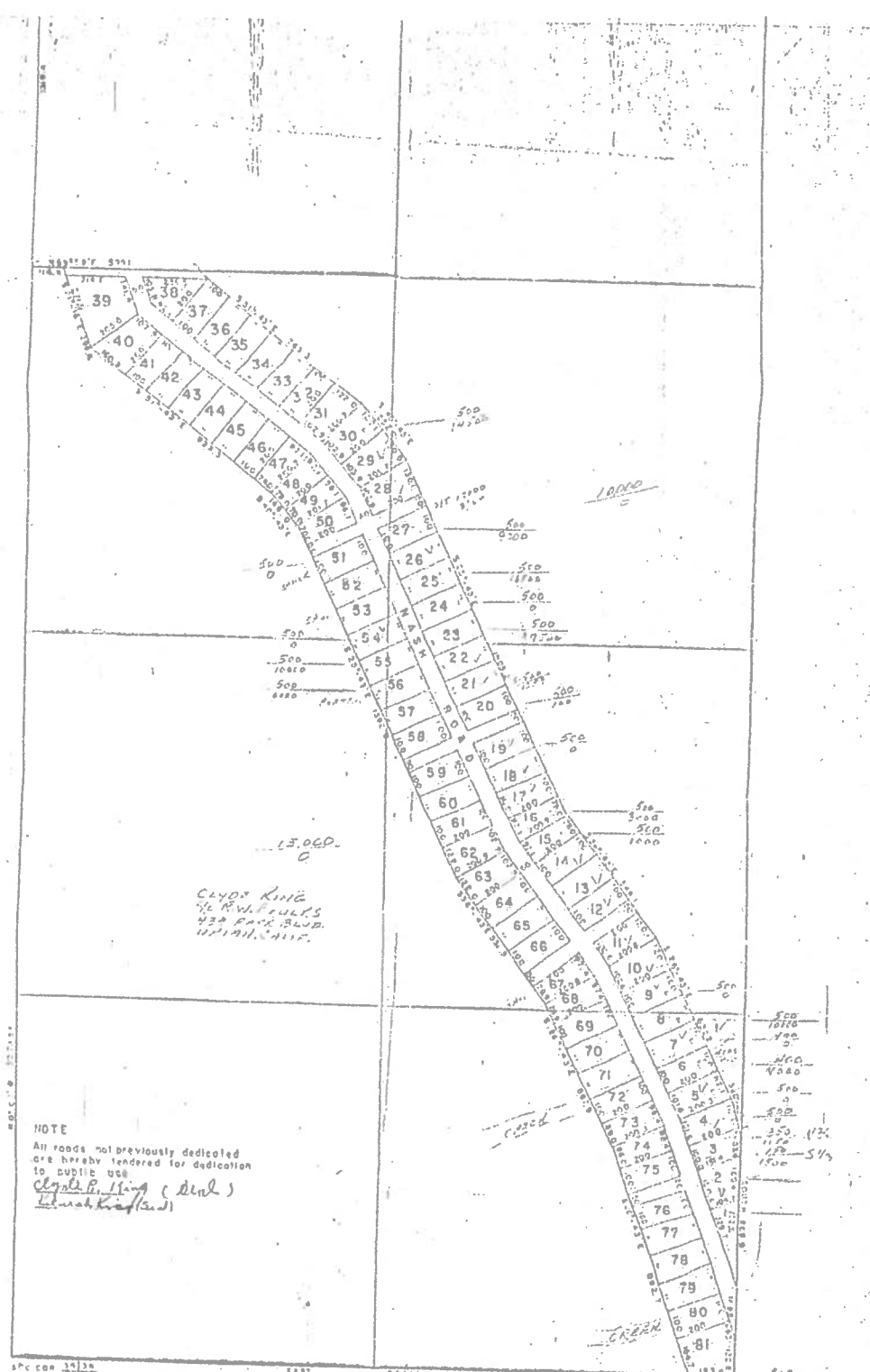
- Could you please clarify the commercial facility wastewater flows for this apartment-hotel/bed&breakfast?
Things to include but are not limited to are:
 - How many employees?
 - How many rooms are used for the rental operation?
 - Of the rooms rented, are they rented to an individual, or are they shared? If shared, how many people per room? In other words, at peak capacity, how many people is the facility renting to?
 - Do the guests have access to the kitchen or a kitchenette? (wastewater flows increase, and the design flow per person should be selected according to this)
 - How many rooms are used for the private residence?

Once that data is gathered, please submit clarification regarding the commercial wastewater calculations using typical wastewater flows from the 2002 EPA design manual or the UPC for an apartment-hotel/bed&breakfast, and the OWSIM calculations per bedroom for the rooms used for the private residence. This requested information is to ensure that the wastewater system serving this commercial facility is sized adequately to handle its peak operations.

An e-mail with this clarification will suffice. You may also come into the office and correct the DOC or edit the attached DOC and resubmit. Please let me know if you have any additional questions. Thank you.

Ryan Peterson

Dept of Environmental Conservation / Division of Water
Wastewater Discharge Program Environmental Program Specialist
43335 Kalifornsky Beach Road, STE 11 Soldotna AK 99669
ryan.peterson@alaska.gov
Phone: 907-262-3402 Fax: 907-262-2294



CLYDE KING SUBDIVISION
 1/2 SECTION 36
 TOWNSHIP 1 NORTH, RANGE 18
 PLAT NO. 20 = 18

C.L.D. MERCHANT-ALLEN, INC.
 REGISTERED CIVIL ENGINEER
 SUPERVISOR OF S.D. COUNTY, IOWA

This is to certify that on this 21st Day of July, 1953 before me, undersigned, a Notary Public in and for the County of Winnebago, State of Iowa, and here personally appeared Robert Benert, being and holding himself to be the person whose name and address are herein set forth, and he acknowledged to me that he signed and sealed the said plat and parts thereof and proposed subdivision.

Witness my hand and seal at the City of Des Moines, Iowa, this 21st day of July, 1953.
 Robert Benert, Notary Public
 My Commission Expires July 1957

CLYDE KING SUBDIVISION
 OF
 A PORTION OF THE WEST 1/2 SECTION 36, T. 1 N., R. 1 W., SEWARD MERIDIAN
 SURVEY AND PLAT BY ROBERT BENERT REGISTERED CIVIL ENGINEER
 JULY 1953

