

ADDENDUM NO. 2
TO THE BID DOCUMENTS

Tasmania Court Sewer Main Extension

CITY OF HOMER, ALASKA

Addendum Issue Date: November 17, 2021

Bid Submittal Date: November 30, 2021

Previous Addenda Issued: 1

Issued By: Janette Keiser, PE
Public Works Director
City of Homer

Notice to Bidders:

Bidders must **acknowledge receipt of this Addendum** by including the Addenda Acknowledgement Form with the bid.

Bidders are required to acknowledge each addenda separately on the Addenda Acknowledgement Form. Any bids received without acknowledgment of addenda may be rejected prior to evaluation.

The Bid Documents for the above project are amended as follows (all other terms and conditions remain unchanged):

- 1. Changes have been made to the Bid Form.**
- 2. Addenda Acknowledgment Form is attached.**
- 3. Questions From Bidders.**

Question #1: Do you know what type of material the septic tanks are made of and size?

Answer #1: Attached to this addendum are septic tank filings from ADEC records which show the size and material of the septic tanks to be replaced. The ADEC records did not contain any filings for parcel # 17702040 however, it should be assumed that the septic tank for that property is steel unless otherwise notified. We do not know the size of the septic tank on parcel # 17702040

Question #2: DEC allows for septic demolition in place. Pumping, Removal of top, fill with some Lyme and clean gravel and grade over. Is demolition in place acceptable?

Answer #2: Yes, demolition in place is acceptable for this project.

CONSOLIDATED BID FORM

Tasmania Court Water & Sewer Main Extension

Scope A: Tasmania Ct. Water Main Extension.

All of the following Bid Items are for the construction of the WATER MAIN & appurtenances.

ITEM NO.	SPEC NO.	BID ITEM DESCRIPTION – Water Main & Appurtenances	UNIT	QUAN TITY	UNIT BID PRICE	TOTAL BID PRICE
1	101	Mobilization/Demobilization	LS	1		
2	602	Install 8” HDPE SDR11 Water Pipe	LF	940		
3	603	Furnish & Install 8” Gate Valve	EA	3		
4	604	Furnish & Install Single Pumper Hydrant	EA	3		
5	606	Furnish & Install 1” Water Service Connection	EA	11		
6	207	Excavate & Backfill Structural Trench Section for water line	LF	593		
7	207	Excavate & Backfill Non-Structural Trench Section for water line	LF	752		
8	102	Construction Survey	LS	1		
9	221	SWPPP Implementation	LS	1		
10	103	Traffic Control	LS	1		
11	702	Furnish & Install Geotextile Fabric	SY	600		
12	602	Furnish and install 12” HDPE SDR11 Water Pipe	LF	562		
13	603	Furnish and install 12” Gate Valve	EA	1		
14	503	Furnish and Install ARV Manhole	EA	1		
15	603	Furnish and Install 2” ARV Assembly	EA	1		

Total Bid for Scope A - Water Main: \$ _____

Scope B-1: Tasmania Ct. Sanitary Sewer Main Extension

All of the following Bid Items are for the construction of the SEWER MAIN & appurtenances, but not including the installation of the E-One Grinder Pumps.

ITEM NO.	SPEC NO.	BID ITEM DESCRIPTION – Sewer Main & Appurtenances	UNIT	QUANTITY	UNIT BID PRICE	TOTAL BID PRICE
1	502	Furnish & Install 8”DIP Class 50 Sewer Pipe	LF	1276		
2	518	Furnish & Install 16” HDPE SDR11 Casing	LF	49		
3	503	Furnish & Install Sewer Manhole	EA	2		
4	508	Furnish & Install Cleanout	EA	3		
5	510	Furnish & Install Sanitary Sewer Service Stub-out	EA	9		
6	518	Furnish & Install Pressurized Sewer Service Stub-out	EA	2		
7	207	Excavate & Backfill Structural Trench Section	LF	869		
8	207	Excavate & Backfill Non-Structural Trench Section	LF	723		
9	704	Furnish & Install 2” Thick Insulation	BOARD FOOT	48		
10	516	Remove & Dispose of Existing Septic Tank	EA	5		

Total Bid for Scope B-1 – Sewer Main: \$_____

Scope B-2: Tasmania Ct. Sewer Main E-One Service Connections

All of the following Bid Items are for the construction of the E-One Grinder Pumps on private property.

ITEM NO.	SPEC NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	UNIT BID PRICE	TOTAL BID PRICE
1	712	Furnish & Install E-One DH071 Grinder Pump	EA	2		
2	502	Furnish & Install 1.25” HDPE SDR11 sewer service pipe	LF	300		
3	220	Excavate & Backfill Asphalt Pavement Trench Section	LF	20		
4	207	Excavate & Backfill Non-Structural Trench Section	LF	280		
5	516	Remove & Dispose of Existing Septic Tank	EA	2		

Total Scope B-2 – E-1 Grinder Pumps on Private Property: \$_____

Consolidated Bid Amount – All Bid Items (Scope A + Scope B-1 + Scope B-2) : \$_____

Note: Basis of bid will be the Consolidated Bid Amount.

Name of Bidding Company_____

Address of Bidding Company_____

Signature of Company Representative _____ Date _____

Printed Name of Company Representative_____

Phone#/Email_____

ADDENDA ACKNOWLEDGMENT

Project Name: Tasmania Court Sewer Main Extension Project

I hereby acknowledge addenda numbers:

_____	_____
_____	_____
_____	_____

Name of Firm: _____

Signature of Bidder: _____

Date: _____

This Acknowledgement must be included in the Bid/Proposal for the project if any Addenda are issued or the Bid/Proposal could be considered non-responsive.

Date Received

RECEIVED

FEB - 9 2000

Department of
Environmental Conservation

KDO

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DOCUMENTATION OF CONSTRUCTION

GENERAL INFORMATION

Legal Description of the Location

Lot 5-A-1 Barnett South Slope S/D
Located w/in N 1/2 SE 1/4 Section 17
T6 S, R13 W, Seward Meridian

Submitted by: (Check one)

- Certified Installer
- Approved Homeowner
- Registered Engineer

Installer Name:

Troy Jones

Mailing Address

Onsite Wastewater System Serves:

- Single Family. Number of Bedrooms 5
- Duplex. Number of Bedrooms _____
- Small Commercial Facility With Estimated
Design Flow of less than 500 GPD.

II. WATER SUPPLY SYSTEM

(SECTION II IS OPTIONAL)

Source of Water and Containment (Check all that Apply)

- Well (Drilled or Driven) Surface (Identify) _____
- Roof Catchment Other (Identify) _____
- Holding Tank _____

Type of Water Supply System

- Private
- Public (Serves more than one family)

Treatment of Water (Check all that Apply)

- None Chlorination
- Filtration Mineral Removal
- Other: _____

Well Data

Is the height of the well casing more the 12" above the ground?

 Yes No

Is a sanitary seal or well cap installed on the well casing?

 Yes No

Is drainage directed away from or around the casing within a radius of 10 feet of the well casing?

 Yes No

Is well wire enclosed in conduit?

 Yes No

Date Drilled 1985	Depth of Well (Feet) ?	Static Water Level (Feet) ?	Yield (If available) ?	Pump Rate (If available) ?
----------------------	---------------------------	--------------------------------	---------------------------	-------------------------------

Separation Distance from the Well Casing to each of the Following Sources of Contamination:

Septic/Holding Tank on Lot 150 Feet	Sewer Lines on Lot 150 Feet	Absorption Area on Lot 190 Feet
Closest Septic/Holding Tank on Adjacent Lot > 100 Feet	Closest Sewer Lines on Adjacent Lot > 100 Feet	Closest Edge of an Absorption Area on Adjacent Lot > 100 Feet

Indicate separation distance from toxic materials including fuel tanks, paints, lubricants and other petroleum based materials, pesticides, fungicides or herbicides to well casing:

On Lot > 100 Feet	On Adjacent Lot > 100 Feet
----------------------	-------------------------------

Water Sample Taken by: (Name)

Sampler is:

- Buyer Engineer
- Banker Government Official

Address

Water Sample Results:

Attach Copy Satisfactory - Date Unsatisfactory - Date

Comments/Recommendations:

I certify that the above information, and that provided in Section IV, is correct:

Signature William F. Craine	Typed/Printed Name William F. Craine	Title Registered Engineer	Date 2/6/00
--------------------------------	---	------------------------------	----------------

Note: 1. This section should be signed by a Certified installer, Professional Engineer, DEC staff, or Owner/Builder

2. All public water systems must receive ADEC plan approval prior to construction. See 18 AAC 80 State of Alaska Drinking Water

II. WASTEWATER DISPOSAL

Legal Description: Lot 5-A-1 Barnett South Slope S/D

Type of Wastewater System:

- Septic Tank with Conventional Soil Absorption System Package Treatment Plant (requires engineered design)
 Holding Tank: Material Type: _____ Size in Gallons: _____ Manufacturer: _____
 Other - Specify Type _____ Alternate Onsite (requires engineered design)
 Small Commercial System (< 500 GPD) With Estimated Daily Wastewater Flow of: _____ Gallons Per Day (GPD)
 Criteria Used to Estimate Daily Wastewater Quantity: _____

NEW SYSTEM REPAIR TO EXISTING SYSTEM

Certified Installer Installation Notification Date:

Name of Installer: Troy Jones

Date Installed: November 1998

- System Installed: By a Registered Engineer With Inspection by a Registered Engineer See attached letter
 By Approved Homeowner (attach copy of approval letter) By a Certified Installer/Installer Number

Septic Tank: Material: Steel Manufacturer: Anchorage Tank Size (Gallons): 1500 Number of Compartments: 2

- Type of Soil Absorption System: Deep Trench Shallow Trench Seepage Pit Bed
 Mound Other, Specify _____

Soil Type: SP Soil Rating: 150 sq ft/bedroom Dimensions/Size of Absorption Area: 3 @ 5' x 50', 750 ft²

Grading/Size of Distribution Rock: 1 1/2" Thickness/Depth of Distribution Rock: 1.8 ft

Percolation Test Results, Attach Copy of Report: _____ Percolation Test Performed by: _____
 Minutes per Inch _____ Sq. Ft. per Bedroom _____
 percolation test results must be sealed/signed by a registered engineer

Minimum Ground Cover Over: Septic Tank: 4' Absorption Area: 4' Sewer Pipes: 4'

Cleanout Pipes/Caps Installed: Foundation Cleanout: Yes Septic Tank: Yes Monitor Tubes: Yes

List Separation Distances From Septic Tank or Absorption Area, Whichever is Closest, to All Nearby:

Public Drinking Water Sources Within 200 feet: N/A Private Drinking Water Sources Within 100 feet: 150 ft

Nearest Water Bodies (see 18 AAC 72.020(b)): 150 ft (Drainage Ditch) Lot Line: 150 ft

Separation Distance from Onlot Sewer Lines to: Public Drinking Water Sources: N/A Private Sources: 150 ft

Separation Distance From Bottom of Distribution Rock to: Groundwater Table: > 4' Bedrock: > 6'

Separation Distance from Absorption Area to Slope exceeding 25%: N/A

Comments/Recommendations

See attached letter.

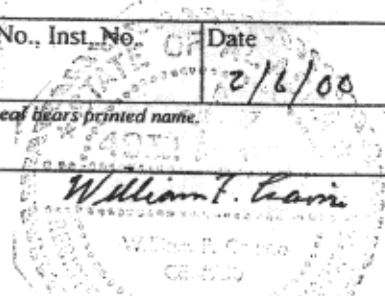
I certify that the above information, and that provided in Section IV, is correct:

Signature <u>William F. Craine</u>	Typed/Printed Name <u>William F. Craine</u>	Title, Reg./Cert No., Inst. No. <u>CE 4950</u>	Date <u>2/6/00</u>
---------------------------------------	--	---	-----------------------

NOTE: Must be signed by a Certified Installer, Professional Engineer, DEC staff, or Approved Homeowner. If engineering seal bears printed name,

separation number, and is signed, those blocks need not be completed for engineered submittals.

SEAL
Registered Professional
Engineer

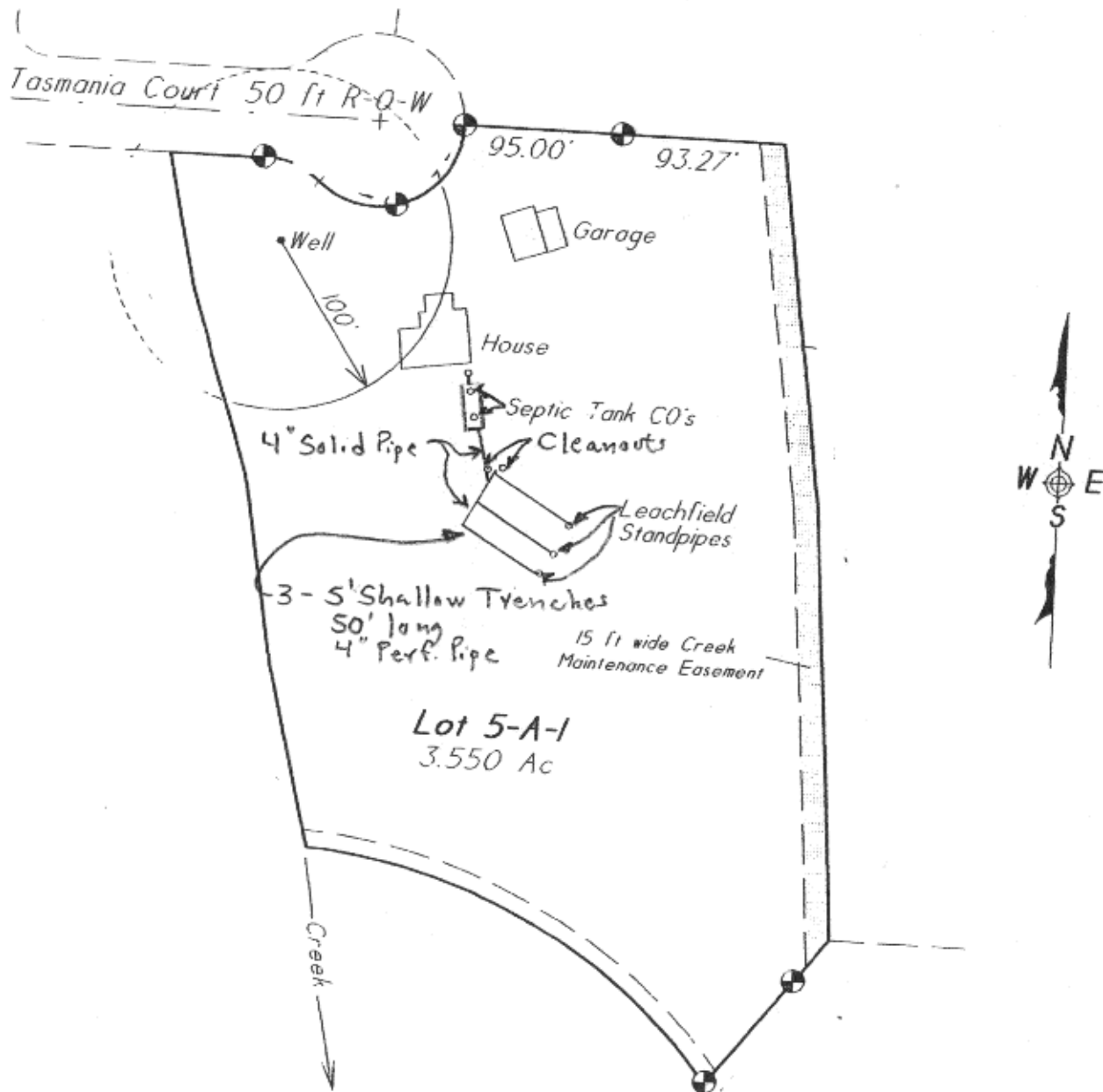


IV. DIAGRAM OF SYSTEM(S) INSTRUCTIONS FOR DIAGRAM

1. In a plan view, locate and identify each of the following:

a) Well	b) All Structures	c) Septic Tank	d) Soil Absorption System
e) Surface Water	f) Sources of contamination	g) Property Line	(Include dimensions)
h) Closest well on adjacent property		i) Closest septic tank on an adjacent property	
j) Closest edge of an absorption field on adjacent property		k) All cleanouts and monitor tubes	
2. Show distances between the well and each of the sources of contamination listed in 1.
3. Show distances between water bodies and each part of the onsite system listed in 1.
4. In a cross section view of the soil absorption area, identify each component and show the depth (thickness) of the following:

a) Soil Cover	b) Absorption Material	c) Water Table	d) Bedrock
		e) Discharge pipes	f) Insulation



PLAN 1" = 100'

Date Received

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

APPLICATION FOR ON-SITE WATER AND SEWER
SYSTEM APPROVAL

I. GENERAL INFORMATION

Legal Description of the Location
**LOT 2, BARNETT'S SOUTH SLOPE SUBD.
LOCATED WITHIN THE CITY OF HOMER, ALASKA**

Applicant Name: **JIM & KAY JULIAN**

Address (Street or P. O. Box): **C/O GENERAL DELIVERY**

City, State and Zip Code: **HOMER, AK. 99603**

Applicant is: (Check one)
 Bank
 OWNER
 Certified Installer No. _____

Type of Residence: Single Family Multi-Family

Total No. of Bedrooms: **3**

Telephone: **235-7284 (D.M.GIER)**

Send Approval to:
 Applicant
 Other: (Give Name & Address) **D.M.GIER & CO. BOX 3670 HOMER, AK. 99603**

II. WATER SUPPLY SYSTEM

Source of Water and Containment (Check all that Apply)

Well (Drilled or Driven) Surface (Identify) _____

Roof Catchment _____

Holding Tank _____

Other (Identify) _____

Type of Water Supply System

Private

Public (Serves more than one family)

Treatment of Water (Check all that Apply)

None Chlorination

Filtration Mineral Removal

Other: _____

Well Data

Is the Height of the Well Casing more than 12" above the Ground? Yes No

Is a sanitary seal installed on the well casing? Yes No

Is drainage directed away from or around the casing within a radius of 10 feet of the well casing? Yes No

Date Drilled	Depth of Well (Feet)	Static Water Level (Feet)	Yield (If Available)	Pump Rate (If Available)
			Gal/Min	Gal/Min

Separation Distances from the Well Casing to each of the Following Sources of Contamination:

Septic/Holding Tank on Lot	Sewer Lines on Lot	Absorption Area on Lot
Closest Septic/Holding Tank on Adjacent Lot	Closest Sewer Lines on Adjacent Lot	Closest Edge of an Absorption Area on Adjacent Lot

If toxic materials are stored on the property, including fuel tanks, paints, lubricants and other petroleum based materials, pesticides, fungicides or herbicides, indicate distance from contaminants to well casing:

On Lot	On Adjacent Lot

Water Sample Taken by: Name _____

Address _____

Water Sample Results: Satisfactory - Date: _____ Unsatisfactory - Date: _____

Sampler Is:
 Buyer Engineer
 Banker Government Official

Comments/Recommendations:

I certify that the above information is correct:

Signature	Typed/Printed Name	Title	Date

NOTE: Must be signed by a Certified Installer, Professional Engineer, Department of Environmental Conservation or the Owner/Builder

III. WASTEWATER DISPOSAL

<input checked="" type="checkbox"/> Septic Tank/Absorption System		<input type="checkbox"/> Package Treatment: (Specify Brand Name or Process)	
<input type="checkbox"/> Holding Tank - Specify:	Capacity of Tank	Where Waste is Disposed	Frequency of Pumping
<input type="checkbox"/> Septic Tank Outfall Discharged To:		<input type="checkbox"/> Other (Specify): (Outhouse, Incinerator, etc.)	

<input checked="" type="checkbox"/> New System		Name of Installer DUANE BELNAP		Date Installed DECEMBER 1983	
<input checked="" type="checkbox"/> Owner/Builder	<input type="checkbox"/> Certified Installer No. _____	<input type="checkbox"/> Other:	Type/Manufacturer STEEL		
Septic Tank Size (Gallons) 1000	Number of Compartments 2		Soil Type or Rating SW (125 SQ. FT. / BEDROOM)		
Type Soil Absorption System DEEP TRENCH	Dimensions/Size Soil Absorption System (4x2) x 50 = 400 SQ. FT.		Type/Quantity Backfill Material used for Soil Absorption System 1/2" TO 2 1/2" WASHED DRAIN ROCK (GRAVEL)		
Percolation Test Results NOT REQD.		Percolation Test by: (Name)			
Minimum Ground Cover over Absorption Area 4.0 Feet	Minimum Ground Cover over Septic Tank 4.0 Feet	Cleanout Pipes/Caps Installed on Septic Tank <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Cleanout Pipes/Caps Installed on Absorption System <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Separation Distance to: 100 MIN. Feet	Water Supply Source on Lot	Nearest Water Supply Source on Adjacent Lot + 500 Feet	Nearest Body of Water + 1500 Feet	Water Table/Bedrock DID NOT ENCOUNTER Feet	Lot Line 10 Feet

Comments/Recommendations

- ON SITE SOILS INVESTIGATION MADE AUGUST 25, 1983.
- SYSTEM DESIGNED IN ACCORDANCE WITH EPA DESIGN MANUAL SECTION 7.2.2. AND 7.2.8 (SEE ATTACHED D.M. GIER & CO. DRAWING)

I certify that the above information is correct:

Signature <i>Dennis M. Gier</i>	Typed/Printed Name D.M. GIER P.E.	Title, Reg./Cert. No., Inst. No. P.E. CE-5648	Date 12-21-83
------------------------------------	---	---	-------------------------

NOTE: Must be signed by a certified installer, professional engineer or DEC Staff.

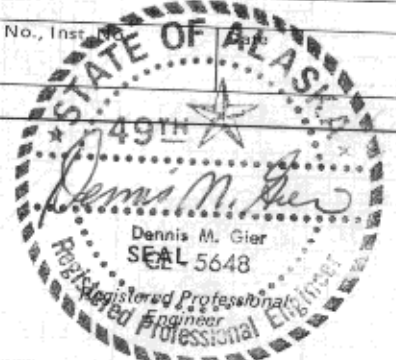
<input type="checkbox"/> Existing System		Name of Installer		Date Installed	
<input type="checkbox"/> Owner/Builder	<input type="checkbox"/> Certified Installer No. _____	<input type="checkbox"/> Other:	Type/Manufacturer		
Septic Tank Size (Gallons)	Number of Compartments		Soil Type or Rating		
Type Soil Absorption System	Dimensions/Size Soil Absorption System		Type/Quantity Backfill Material used for Soil Absorption System		
Adequacy Test Results: <input type="checkbox"/> Pass <input type="checkbox"/> Fail		Adequacy Test Performed By: (Attach Copy of Report)		Date Septic Tank Pumped (Attach Copy of Receipt)	
Minimum Ground Cover over Absorption Area Feet	Minimum Ground Cover over Septic Tank Feet	Cleanout Pipes/Caps Installed on Septic Tank <input type="checkbox"/> Yes <input type="checkbox"/> No	Cleanout Pipes/Caps Installed on Absorption System <input type="checkbox"/> Yes <input type="checkbox"/> No		
Separation Distance to:	Water Supply Source on Lot	Nearest Water Supply Source on Adjacent Lot	Nearest Body of Water	Water Table/Bedrock	Lot Line

Comments/Recommendations

I certify that the above information is correct:

Signature	Typed/Printed Name	Title, Reg./Cert. No., Inst. No.
-----------	--------------------	----------------------------------

NOTE: Must be signed by a professional engineer.



IV. DIAGRAM OF SYSTEM(S)

INSTRUCTIONS FOR DIAGRAM

1. In a plan view, locate and identify each of the following:
 - a) Well
 - b) All Structures
 - e) Surface Water
 - f) Sources of Contamination
 - h) Closest well on an adjacent property
 - j) Closest edge of an absorption field on an adjacent property

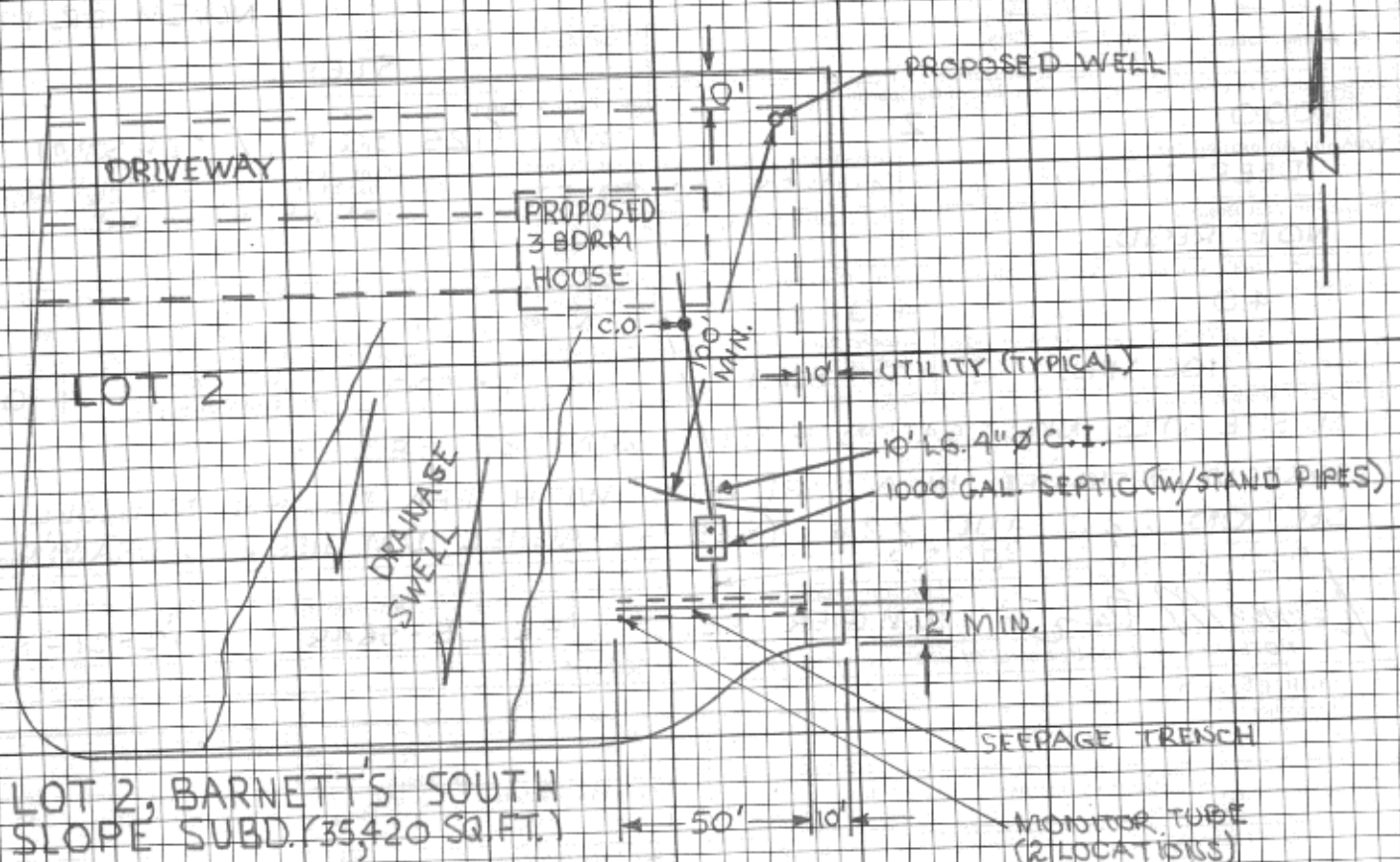
- c) Septic Tank
- g) Property Line
- i) Closest septic tank on an adjacent property

- d) Soil Absorption System
(Include Dimensions)

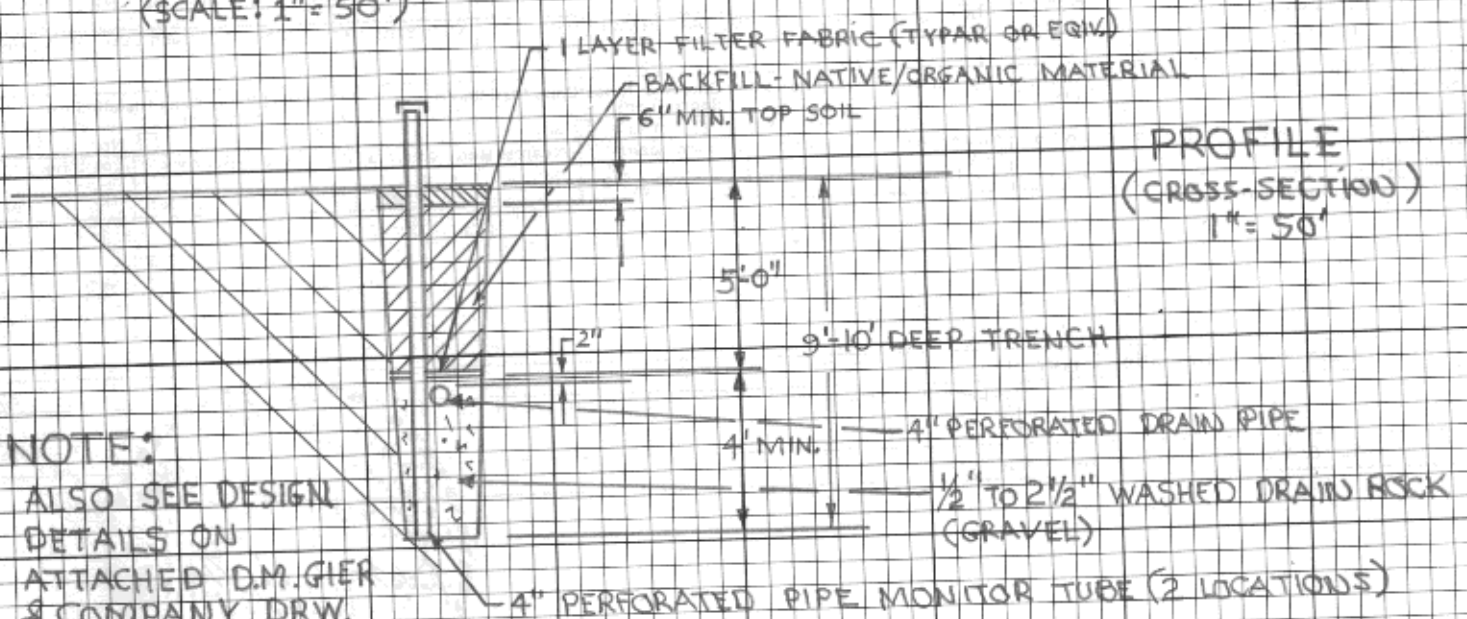
2. Show distances between the well and each of the other items listed in 1.

3. Show distances between water bodies and each of the other items listed in 1.

4. In a cross section view of the soil absorption area, identify each component and show the depth (thickness) of the following:
 - a) Soil Cover
 - b) Absorption Material
 - c) Water Table
 - d) Bedrock
 - e) Discharge Pipes



SITE PLAN
(SCALE: 1" = 50')



NOTE:
ALSO SEE DESIGN
DETAILS ON
ATTACHED D.M. GIER
& COMPANY DRW.
DATED 9-15-83

RECEIVED

Date Received

OCT 20 2004

ADEG
Kenai Area Office

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DOCUMENTATION OF CONSTRUCTION

I. GENERAL INFORMATION

Legal Description of the Location

Barnett's South Slope Subdivision
Block 1, Lot 16

Submitted by: (Check one)

- Certified Installer
- Approved Homeowner
- Registered Engineer

Installer Name:

Ayne Construction

Mailing Address

P.O. Box 1772
Homer, AK 99603

Onsite Wastewater System Serves:

- Single Family. Number of Bedrooms 4
- Duplex. Number of Bedrooms _____
- Small Commercial Facility With Estimated Design Flow of less than 500 GPD.

II. WATER SUPPLY SYSTEM

(SECTION II IS OPTIONAL)

Source of Water and Containment (Check all that Apply)

- Well (Drilled or Driven)
- Roof Catchment
- Holding Tank
- Surface (Identify) _____
- Other (Identify) _____

Type of Water Supply System

- SF/Duplex
- Public

Treatment of Water (Check all that Apply)

- None
- Filtration
- Other: _____
- Chlorination
- Mineral Removal

Well Data

Is the height of the well casing more the 12" above the ground?

- Yes
- No

Is a sanitary seal or well cap installed on the well casing?

- Yes
- No

Is drainage directed away from or around the casing within a radius of 10 feet of the well casing?

- Yes
- No

Is well wire enclosed in conduit?

- Yes
- No

Date Drilled

Depth of Well (Feet)

Static Water Level (Feet)

Yield (If available)

Pump Rate (If available)

Separation Distance from the Well Casing to each of the Following Sources of Contamination:

Septic/Holding Tank on Lot Feet	Sewer Lines on Lot Feet	Absorption Area on Lot Feet
Closest Septic/Holding Tank on Adjacent Lot Feet	Closest Sewer Lines on Adjacent Lot Feet	Closest Edge of an Absorption Area on Adjacent Lot: Feet
Indicate separation distance from toxic materials including fuel tanks, paints, lubricants and other petroleum based materials, pesticides, fungicides or herbicides to well casing:		On Lot Feet
		On Adjacent Lot Feet

Water Sample Taken by: (Name)

Sampler is:

- Buyer
- Engineer
- Banker
- Government Official

Address

Water Sample Results:

Attach Copy Satisfactory - Date Unsatisfactory - Date

Comments/Recommendations:

I certify that the above information and that provided in Section IV is correct:

Signature

Typed/Printed Name

Title

Date

William F. Craine

William F. Craine

Civil Engineer

Oct. 16, '04

Note: 1. This section should be signed by a Certified Installer, Professional Engineer, DEC staff, or Owner/Builder

2. All public water systems must receive ADEC plan approval prior to construction. See 18 AAC 80 State of Alaska Drinking Water

Regulations for specific requirements.

III. WASTEWATER DISPOSAL	Legal Description: <u>Barnett's South Slope Subdivision</u> <u>Block 1, Lot 16</u>
Type of Wastewater System:	
<input checked="" type="checkbox"/> Septic Tank with Conventional Soil Absorption System	<input type="checkbox"/> Package Treatment Plant (requires engineered design)
<input type="checkbox"/> Holding Tank; Material Type: _____ Size in Gallons: _____ Manufacturer: _____	
<input type="checkbox"/> Other - Specify Type _____	<input type="checkbox"/> Alternate Onsite (requires engineered design)
<input type="checkbox"/> Small Commercial System (< 500 GPD) With Estimated Daily Wastewater Flow of: _____ Gallons Per Day (GPD)	
Criteria Used to Estimate Daily Wastewater Quantity: _____	

<input checked="" type="checkbox"/> NEW SYSTEM	<input type="checkbox"/> MODIFICATION TO SYSTEM	Certified Installer Installation Notification Date:
Name of Installer: <u>Arno Construction</u>		Date Installed: <u>Sept. 24, 2004</u>
System Installed:	<input type="checkbox"/> By a Registered Engineer	<input type="checkbox"/> With Inspection by a Registered Engineer
<input type="checkbox"/> By Approved Homeowner (attach copy of approval letter)	<input checked="" type="checkbox"/> By a Certified Installer/Installer Number <u>03-23-028</u>	
Septic Tank: Material: <u>Steel</u>	Manufacturer: <u>D & W</u>	Size (Gallons): <u>1250</u>
		Number of Compartments: <u>2</u>
Type of Soil Absorption System:	<input type="checkbox"/> Deep Trench	<input type="checkbox"/> Shallow Trench
	<input type="checkbox"/> Mound	<input type="checkbox"/> Seepage Pit
		<input checked="" type="checkbox"/> Bed
		<input type="checkbox"/> Other, Specify _____
Soil Classification: <u>Loam</u>	Soil Rating: <u>0.45 sp^d/ft²</u>	Dimensions/Size of Absorption Area: <u>20' x 67' / 1340 ft²</u>
Grading/Size of Distribution Rock: <u>3/4" - 1 1/2"</u>		Thickness/Depth of Distribution Rock: <u>12" / 6" to Bottom</u>
Percolation Test Results, Attach Copy of Report:	Percolation Test Performed by:	
<u>28.2</u> Minutes per Inch	<u>333.3</u> Sq. ft. per bedroom	<u>William F. Craine P.E.</u> percolation test results must be sealed/signed by a registered engineer
List ground cover in feet over:	Septic Tank <u>2' + 2" I.</u> Absorption Area <u>2' + 2" I.</u> Sewer Pipes <u>2' + 2" I.</u>	
Cleanout Pipes/Caps Installed:	Foundation Cleanout: <u>Yes</u> Septic Tank: <u>Yes</u> Monitor Tubes: <u>Yes</u>	
Indicate separation distances from septic tank or absorption area, whichever is closest, to all nearby:		
Public drinking water sources within 200 feet:	<u>None</u>	Private drinking water sources within 100 feet: <u>None</u>
Nearest water bodies (see 18 AAC 72.020(b)):	<u>None</u>	Lot line: <u>40'</u>
Separation Distance from Onlot Sewer Lines to:	Public Drinking Water Sources: <u>N/A</u>	Private Sources: <u>N/A</u>
Separation Distance From Bottom of Distribution Rock to:	Groundwater Table: <u>4'</u>	Bedrock: <u>6'</u>
Separation Distance from Absorption Area to Slope exceeding 25%:	<u>N/A</u>	
Comments/Recommendations <u>2' + 2" I => 2' Soil + 2" Insulation</u>		

I certify that the above information, and that provided in Section IV, is correct:			
Signature <u>William F. Craine</u>	Typed/Printed Name <u>William F. Craine</u>	Title, Reg./Cert No., Inst. No. <u>Civil Engineer/CE4950</u>	Date <u>Oct. 16, '04</u>
NOTE: Must be signed by a Certified Installer, Professional Engineer, DEC staff, or Approved Homeowner. If engineering seal bears printed name registration number, and is signed, those blocks need not be completed for engineered submittals.			

SEAL
Registered Professional
Engineer

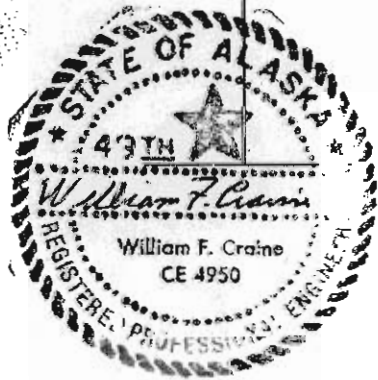
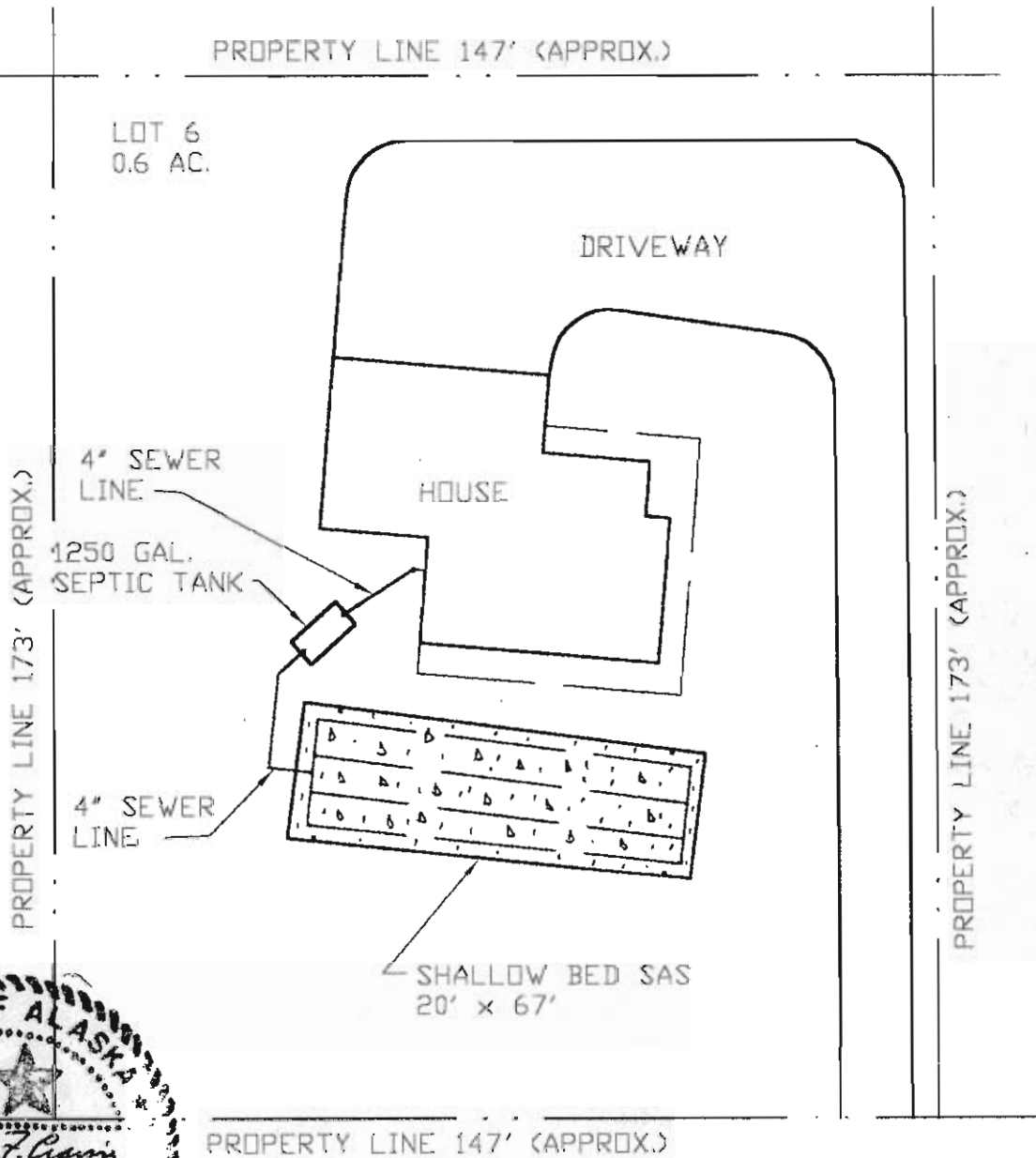


**IV. DIAGRAM OF SYSTEM(S)
INSTRUCTIONS FOR DIAGRAM**

1. In a plan view, locate and identify each of the following:

a) Well <i>None</i>	b) All Structures ✓	c) Septic Tank ✓	d) Soil Absorption System ✓
e) Surface Water <i>None</i>	f) Sources of contamination ✓	g) Property Line ✓	(Include dimensions)
h) Closest well on adjacent property <i>None</i>		i) Closest septic tank on an adjacent property ?	
j) Closest edge of an absorption field on adjacent property ?		k) All cleanouts and monitor tubes ✓	
2. Show distances between the well and each of the sources of contamination listed in 1.
3. Show distances between water bodies and each part of the onsite system listed in 1.
4. In a cross section view of the soil absorption area, identify each component and show the depth (thickness) of the following:

a) Soil Cover ✓	b) Absorption Material ✓	c) Water Table 4' +	d) Bedrock 6' +	e) Discharge pipes ✓	f) Insulation ✓
-----------------	--------------------------	---------------------	-----------------	----------------------	-----------------



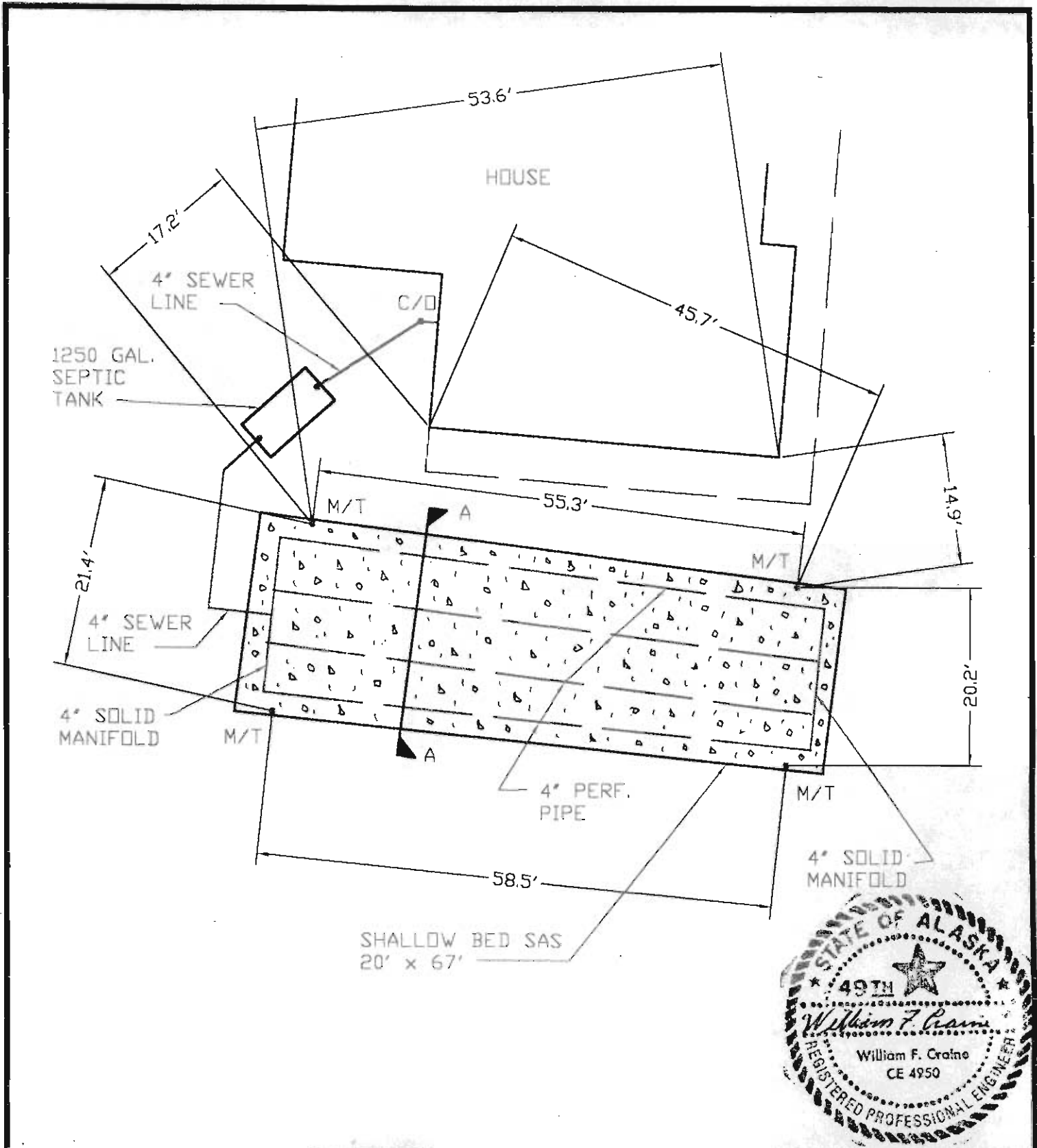
PROPERTY LINE 147' (APPROX.)

LOT PLAN

Scale 1" = 30'

TASMANIA COURT

Sheet 1/6



Sandhill Enterprises
 William F. Craine, P.E.
 P.O. Box 728
 Homer, Ak. 99603
 235 - 5902

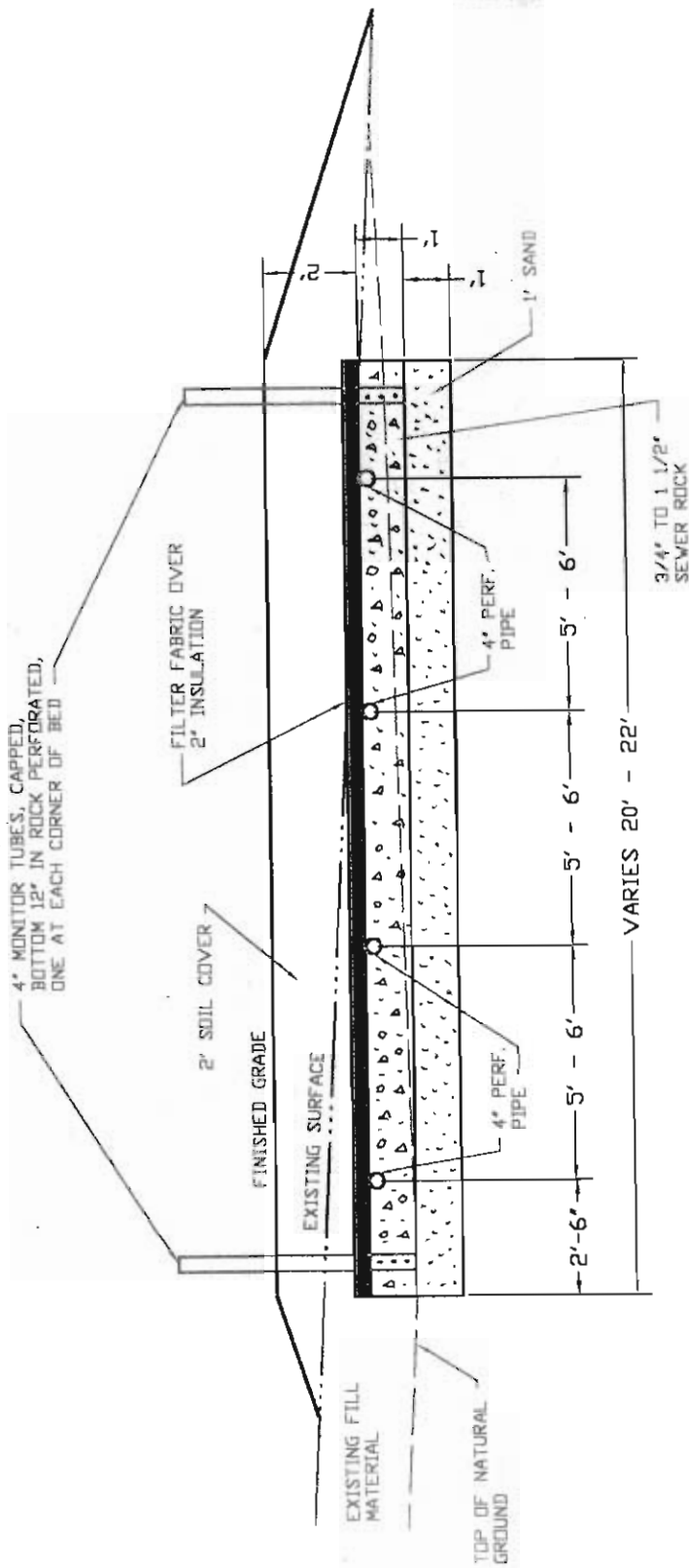
PLAN, Scale 1" = 15'
WASTEWATER DISPOSAL SYSTEM
BARNETT'S SOUTH SLOPE SUBD.
BLOCK 1, LOT 16
FELL RESIDENCE

DATE: Oct 16, '04
 SHEET: 2/6

Drawn: WFC

Revisions:

NOTE: PRIOR TO INSTALLATION OF THE SEPTIC SYSTEM, FILL MATERIAL WAS PLACED OVER THE NATURAL GROUND TO GRADE AROUND THE HOUSE. THE SLOPE OF THE NATURAL GROUND SURFACE WAS LESS THAN 5%. THE SHALLOW BED SAS WAS PLACED IN THE NATURAL SOIL. TWO FEET OF SOIL WAS PLACED OVER THE BED INSULATION TO PROVIDE THERMAL PROTECTION AND GRADED TO BLEND WITH THE FINISHED GRADE OF THE HOUSE.



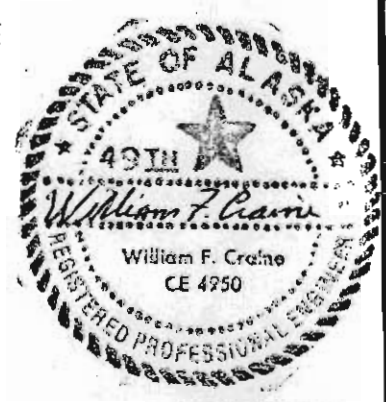
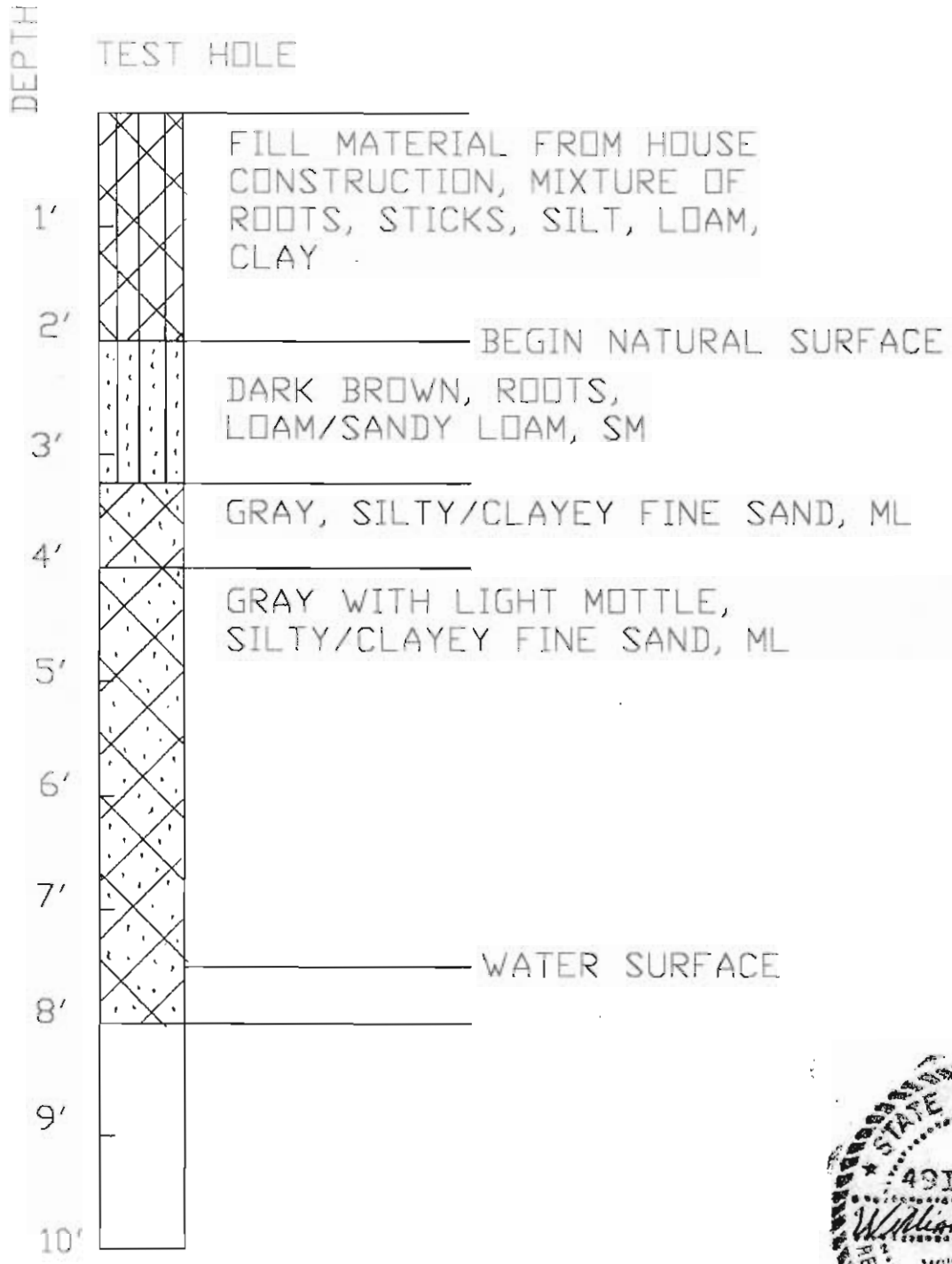
Sandhill Enterprises
 William F. Craine, P.E.
 P.O. Box 728
 Homer, Ak. 99603
 235 - 5902

SECTION A, Scale 1" = 4'
SHALLOW BED SAS
BARNETT'S SOUTH SLOPE SUBD.
BLOCK 1, LOT 16
FELL RESIDENCE

DATE: Oct 16, '04
 SHEET: 3/6

Drawn: WFC

Revisions:



Sandhill Enterprises
 William F. Craine, P.E.
 P.O. Box 728
 Homer, Ak. 99603
 235 - 5902

SOIL LOT - TEST HOLE
BARNETT'S SOUTH SLOPE SUBD.
BLOCK 1, LOT 16
FELL RESIDENCE

DATE: Sept 4, '04
 SHEET: 4/6

Drawn: WFC

Revisions:

PERCOLATION TEST RESULTS
TEST #1

Barnett's South Slope Subdivision
Block 1, Lot 16

September 4, 2004

By: William F. Craine, P. E.

Method: EPA Falling Head Percolation Test Procedure

Percolation Test, Depth = 1' 10"

Time	Time Change min.	Float Height inches	Float Height Change inches	Perc. Rate min/in
11:01	N/A	25.5625	N/A	N/A
11:31	30	24	1.5625	19.20
11:32	N/A	25.5	N/A	N/A
12:02	30	24.375	1.125	26.67
12:03	N/A	25.375	N/A	N/A
12:33	30	24.3125	1.0625	28.24

Percolation Rate = 28.2 minutes per inch

This test is in the natural soil, not in the fill from the house construction.



**PERCOLATION TEST RESULTS
TEST #2**

Barnett's South Slope Subdivision
Block 1, Lot 16

September 4, 2004

By: William F. Craine, P. E.

Method: EPA Falling Head Percolation Test Procedure

Percolation Test, Depth = 3' 6"

Time	Time Change min.	Float Height inches	Float Height Change inches	Perc. Rate min/in
11:03	N/A	14.4375	N/A	N/A
11:33	30	14.125	0.3125	96.00
11:34	N/A	14.5	N/A	N/A
12:04	30	14.1875	0.3125	96.00
12:05	N/A	14.5	N/A	N/A
12:35	30	14.1875	0.3125	96.00

Percolation Rate = 96 minutes per inch





THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

Department of Environmental
Conservation

DIVISION OF WATER
Wastewater Discharge Authorization Program

43335 Kalifornsky Beach Road, Suite 11
Soldotna, Alaska 99669
Main: 907.262.5210
Fax: 907.262.2294

December 31, 2012

Mr. William J. Marley Jr., Owner
C/o Gus Andress, P.E.
Pegasus Engineering
4971 Thompson Drive
Homer, AK 99669

Re: Final Approval to Operate an Alternate Wastewater Treatment and Disposal
System
Legal: Barnett's South Slope Lot 12, Block 1, Homer, Alaska
ADEC Plan Number 9090

FILE COPY

Dear Mr. Marley:

The Department has reviewed the record information received on October 11, 2012 for an alternate wastewater system to serve a six-bedroom single family residence at the referenced property. This wastewater system consists of a 1250-gallon septic tank followed by a BioCycle Model 1500 unit which discharges effluent meeting secondary treatment standards to a pressurized soil absorption system having a total absorptive capacity of 1300 ft². The maximum approved wastewater flow for this system is 900 gallons per day based on the six bedrooms. Potable water is provided to the residence by means of an onsite cistern.

The information was reviewed in accordance with the Wastewater Disposal Regulations, 18 AAC 72 and the Department's *Conditional Approval to Construct* letter issued August 27, 2012. **Final approval to operate** is hereby issued and the enclosed Construction and Operation Certificate constitutes a written approval required under the noted regulations. Any future expansion or modification for the subject project will require additional approval from this office.

This approval does not imply the granting of additional authorizations, nor obligate any federal, state, or local regulatory body to grant required authorizations. This is not an approval of omissions or oversights by this office or noncompliance with any applicable regulation. The Department's approval to operate does not guarantee correctness or the functionality of the design, or waive the owner's responsibility for continued compliance with state regulations.

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. **Informal review requests** must be delivered to the Division Director, 555 Cordova Street, Anchorage, Alaska 99501, within 15 days of receiving the decision. **Adjudicatory hearing requests** must be delivered to the Commissioner of the Department of Environmental

Mr. William J. Marley Jr.

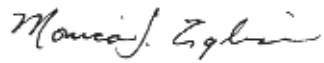
2

December 31, 2012

Conservation, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 30 days of the decision. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have any questions please contact me at 907 262 3405, or by e-mail at Monica.English@alaska.gov.

Sincerely,



Monica T. English
Environmental Engineering Associate

Enclosure: Construction and Operation Certificate



STATE OF ALASKA
 DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CONSTRUCTION AND OPERATION CERTIFICATE
 FOR
DOMESTIC WASTEWATER DISPOSAL SYSTEMS

A. APPROVAL TO CONSTRUCT

Plans for the construction or modification of Barnett's South Slope Sub. L12 B1 - BioCycle Model 1500 Treatment System
 (ADEC Plan Tracking Number 9090) _____ domestic wastewater disposal system
 located in Homer _____, Alaska, submitted in accordance with 18 AAC 72.210
 by Pegasus Engineering - Gus Andress, P.E. _____ have been reviewed and are

- approved.
 conditionally approved (see attached conditions).

BY Monica T. English
 Monica T. English

Environmental Engineering Associate _____ AUG. 27, 2012
 TITLE DATE

If construction has not started within two years of the approval date, this certificate is void and new plans and specifications must be submitted for review and approval before construction.

B. APPROVED CHANGE ORDERS

Change (contract order number or descriptive reference)	Approved by	Date

C. APPROVAL TO OPERATE

The "APPROVAL TO OPERATE" section must be completed and signed by the Department before this system is made available for use.

The construction of the above referenced domestic wastewater disposal system was completed on 9/12/2012 (date). The system is hereby granted **interim** approval to operate for 90 days following the completion date.

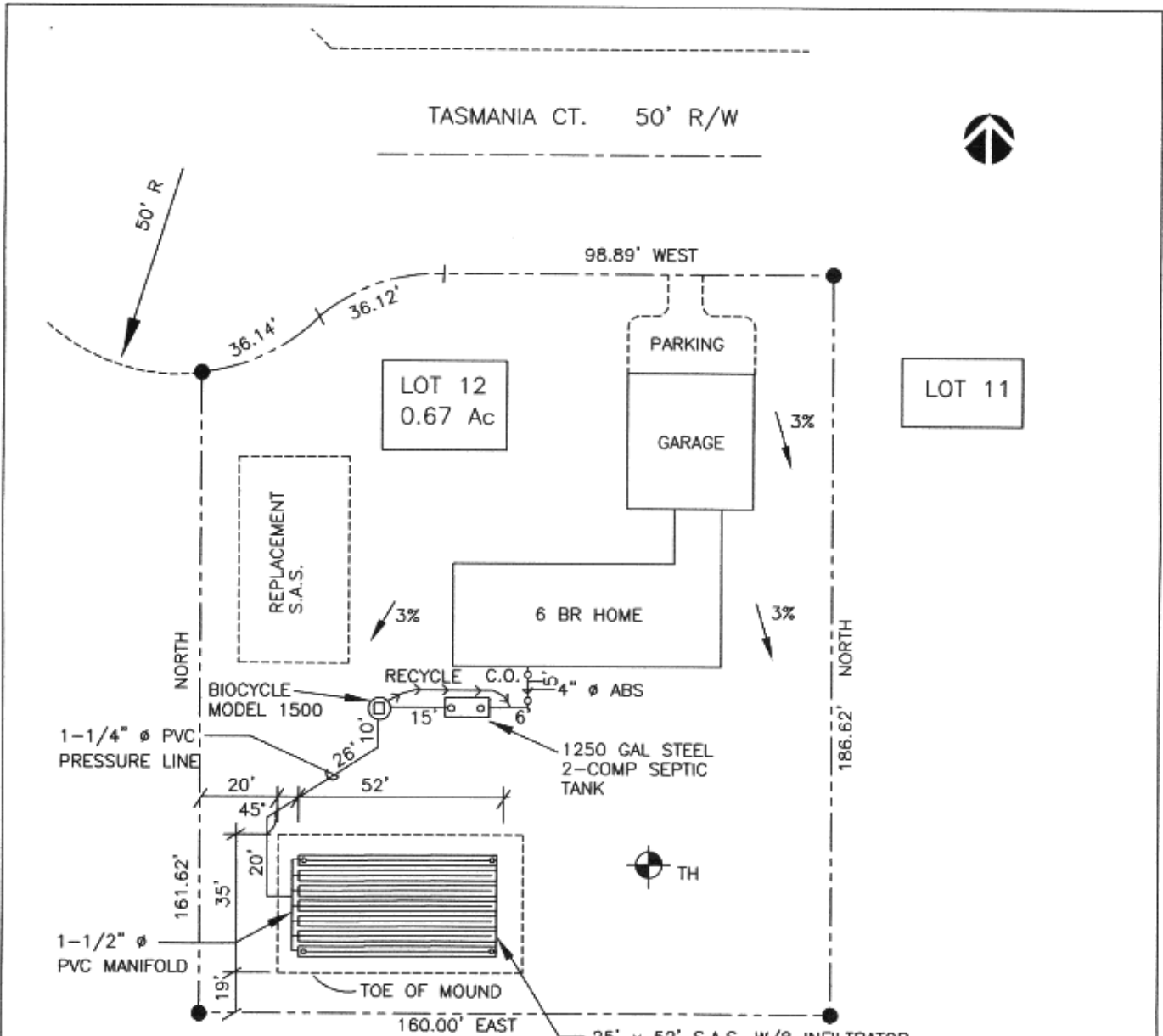
BY _____ TITLE _____ DATE _____

As-built/record drawings, submitted to the Department, or an inspection by the Department, has confirmed that the domestic wastewater disposal system was constructed in substantial conformance with the approved plans. **The system is hereby granted final approval to operate.**

BY Monica T. English
 Monica T. English

Environmental Engineering Associate _____ 12/31/2012
 TITLE DATE

- Distribution: 1. Retain original for project file
 2. Make copies for distribution



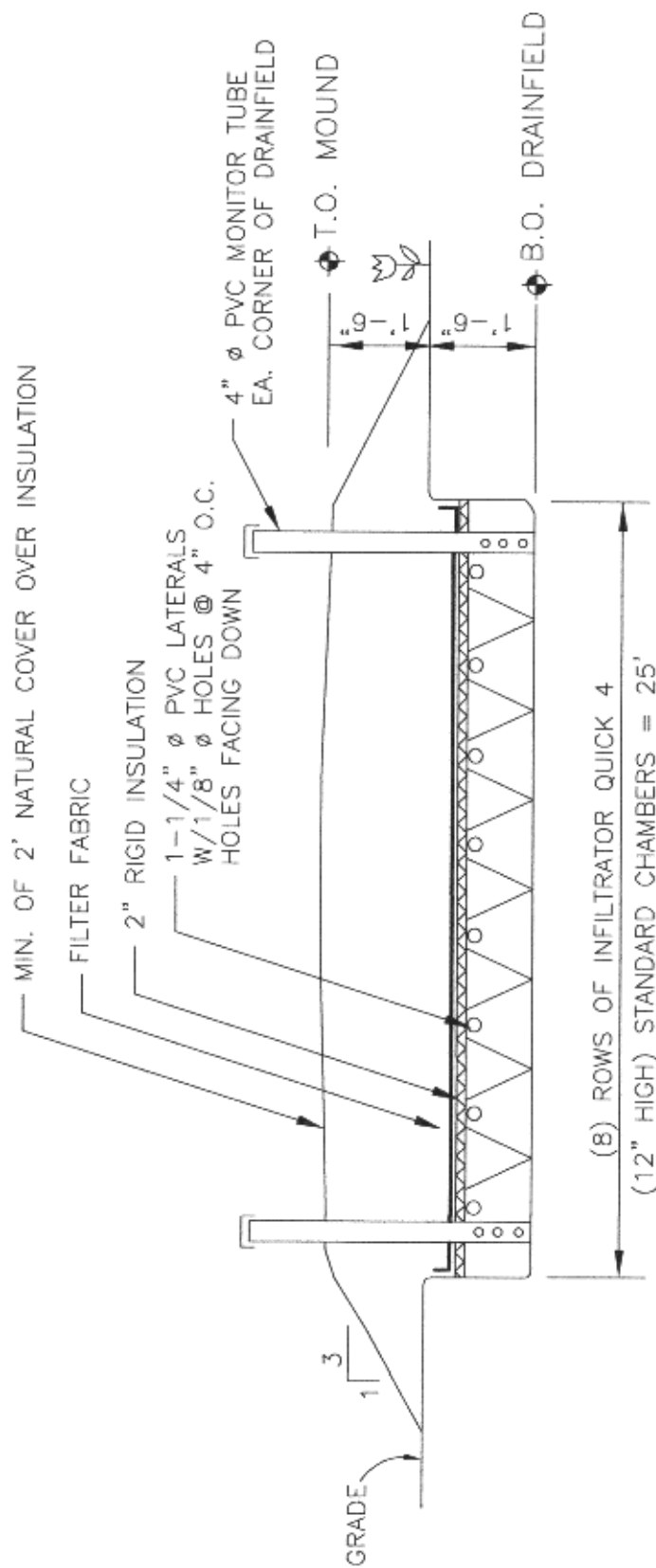
AS-BUILT

NOTES

1. THERE ARE NO SLOPES GREATER THAN 25% WITHIN 50 FEET OF ANY PART OF THE NEW SEPTIC SYSTEM.
2. THERE ARE NO KNOWN CLASS A,B,OR C WELLS WITHIN 200 FEET OF THE NEW SEPTIC SYSTEM.
3. THERE ARE NO KNOWN PRIVATE WELLS WITHIN 100 FEET OF THE NEW SEPTIC SYSTEM.
4. THIS RESIDENCE WILL BE SERVED BY A 2000 GALLON CISTERN AND WILL NOT HAVE A PRIVATE WELL ON THE LOT.



<p>PEGASUS ENGINEERING 4971 THOMPSON DR HOMER, AK 99603 (907)226-2476</p>	<p>SITE PLAN</p>	<p>MARLEY RESIDENCE BARNETT'S SOUTH SLOPE SUB, L12,B1 HOMER, AK</p>	<p>DATE: 9/18/2012 DWG: MARLEY.dwg SHEET: SHEET 1 OF 2</p>
---	------------------	---	--



AS--BUILT

DRAINFIELD CROSS SECTION



PEGASUS ENGINEERING
 4971 THOMPSON DR
 HOMER, AK 99603
 (907)226-2476

MARLEY RESIDENCE
 BARNETT'S SOUTH SLOPE SUB, L12, B1
 HOMER, AK

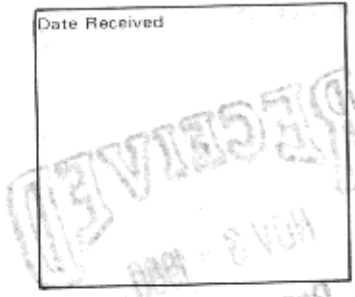
SCALE: NTS
 DATE: 6/25/12
 SHEET: 2 OF 2
 DWG. NAME: MARLEY. DWG.

Date Received

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

582

APPLICATION FOR ON-SITE WATER AND SEWER
SYSTEM APPROVAL



I. GENERAL INFORMATION

Legal Description of the Location

LOT 14, BLK 1
BARNETT'S ~~Subd.~~ South Slope Subd.

Applicant Name MARY ALICE MAXFIELD	Applicant is: (Check one) <input checked="" type="checkbox"/> Owner/Builder <input type="checkbox"/> Certified Installer No. _____	
Address (Street or P. O. Box) BOX 897	Type of Residence <input checked="" type="checkbox"/> Single Family <input type="checkbox"/> Multi-Family	Total No. of Bedrooms 1
City, State and Zip Code HOMER, ALASKA 99603	Telephone 235-7707	
Send Approval to: <input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Other: (Give Name & Address)		

II. WATER SUPPLY SYSTEM

Source of Water and Containment (Check all that Apply) <input checked="" type="checkbox"/> Well (Drilled or Driven) <input type="checkbox"/> Surface (Identify) _____ <input type="checkbox"/> Roof Catchment <input type="checkbox"/> Other (Identify) _____ <input type="checkbox"/> Holding Tank	Type of Water Supply System <input checked="" type="checkbox"/> Private <input type="checkbox"/> Public (Serves more than one family)	Treatment of Water (Check all that Apply) <input checked="" type="checkbox"/> None <input type="checkbox"/> Chlorination <input type="checkbox"/> Filtration <input type="checkbox"/> Mineral Removal <input type="checkbox"/> Other: _____
--	---	--

Well Data

Is the Height of the Well Casing more than 12" above the Ground? Yes No

Is a sanitary seal installed on the well casing? Yes No

Is drainage directed away from or around the casing within a radius of 10 feet of the well casing? Yes No

Date Drilled 7-2-85	Depth of Well (Feet) 54	Static Water Level (Feet) 14	Yield (If Available) Gal/Min	Pump Rate (If Available) Gal/Min
-------------------------------	-----------------------------------	--	---------------------------------	-------------------------------------

Separation Distances from the Well Casing to each of the Following Sources of Contamination:		Absorption Area on Lot 86'
Septic/Holding Tank on Lot 81'	Sewer Lines on Lot 81'+	Closest Edge of an Absorption Area on Adjacent Lot > 400'
Closest Septic/Holding Tank on Adjacent Lot > 400'	Closest Sewer Lines on Adjacent Lot > 400'	

If toxic materials are stored on the property, including fuel tanks, paints, lubricants and other petroleum based materials, pesticides, fungicides or herbicides, indicate distance from contaminants to well casing:

On Lot > 25'	On Adjacent Lot > 400'
---------------------------	-------------------------------------

Water Sample Taken by: Name
JOSEPH CURTIS

Address
P.O. BOX 2248 HOMER, ALASKA 99603

Sampler Is:
 Buyer Engineer
 Banker Government Official

Water Sample Results: Satisfactory - Date: _____ Unsatisfactory - Date: _____

Attach Copy

Comments/Recommendations:
APPLICANT ADVISED TO ADD FILL AROUND CASING AND SLOPE AWAY AS REQUIRED.

I certify that the above information is correct:

Signature <i>Joseph Curtis</i>	Typed/Printed Name JOSEPH CURTIS	Title ENGR. TECH.	Date 10-13-86
Signature <i>George C. Schwadner</i>		Typed/Printed Name GEORGE C. SCHWADNER CIVIL ENGINEER	
		Date 10/29/86	

NOTE: Must be signed by a Certified Installer, Professional Engineer, Department of Environmental Conservation or the Owner/Builder

III. WASTEWATER DISPOSAL

<input type="checkbox"/> Septic Tank/Absorption System		<input checked="" type="checkbox"/> Package Treatment: (Specify Brand Name or Process) NORWECO	
<input type="checkbox"/> Holding Tank Specify:	Capacity of Tank	Where Waste is Disposed	Frequency of Pumping
<input type="checkbox"/> Septic Tank Outfall Discharged To:		<input type="checkbox"/> Other (Specify): (Outhouse, Incinerator, etc.)	

New System

Name of Installer		Date Installed	
<input type="checkbox"/> Owner/Builder <input type="checkbox"/> Certified Installer <input type="checkbox"/> Other: No. _____		Type/Manufacturer	
Septic Tank Size (Gallons)	Number of Compartments	Soil Type or Rating	
Type Soil Absorption System	Dimensions/Size Soil Absorption System	Type/Quantity Backfill Material used for Soil Absorption System	
Percolation Test Results		Percolation Test by: (Name)	
Minimum Ground Cover over Absorption Area Feet	Minimum Ground Cover over Septic Tank Feet	Cleanout Pipes/Caps Installed on Septic Tank <input type="checkbox"/> Yes <input type="checkbox"/> No	Cleanout Pipes/Caps Installed on Absorption System <input type="checkbox"/> Yes <input type="checkbox"/> No
Separation Distance to:	Water Supply Source on Lot Feet	Nearest Water Supply Source on Adjacent Lot Feet	Nearest Body of Water Feet
			Water Table/Bedrock Feet
			Lot Line Feet
Comments/Recommendations			

I certify that the above information is correct:

Signature	Typed/Printed Name	Title, Reg./Cert. No., Inst. No.	Date
-----------	--------------------	----------------------------------	------

NOTE: Must be signed by a certified installer, professional engineer or DEC Staff.

Existing System

Name of Installer ROBERT PELKEY / GAGNON EXCAVATING		Date Installed 1985	
<input type="checkbox"/> Owner/Builder <input type="checkbox"/> Certified Installer <input checked="" type="checkbox"/> Other: No. _____		Type/Manufacturer NORWECO	
Septic Tank Size (Gallons) 1350	Number of Compartments 3	Soil Type or Rating OL - CL	
Type Soil Absorption System BED	Dimensions/Size Soil Absorption System 30' x 16'	Type/Quantity Backfill Material used for Soil Absorption System UNKNOWN	
Adequacy Test Results: <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail		Date Septic Tank Pumped (Attach Copy of Receipt) 10-7-86	
Adequacy Test Performed By: (Attach Copy of Report) JOSEPH CURTIS			
Minimum Ground Cover over Absorption Area 4 Feet	Minimum Ground Cover over Septic Tank Feet	Cleanout Pipes/Caps Installed on Septic Tank <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Cleanout Pipes/Caps Installed on Absorption System <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Separation Distance to:	Water Supply Source on Lot 81-86 Feet	Nearest Water Supply Source on Adjacent Lot > 400 Feet	Nearest Body of Water > 100 Feet
			Water Table/Bedrock 10 Feet
			Lot Line > 10 Feet
Comments/Recommendations			

I certify that the above information is correct:

Signature <i>Joseph Curtis</i>	Typed/Printed Name JOSEPH CURTIS	Title, Reg./Cert. No., Inst. No. ENGR. TECH.	Date 10-13-86
-----------------------------------	--	--	-------------------------

NOTE: Must be signed by a professional engineer.



SEAL

Registered Professional Engineer

IV. DIAGRAM OF SYSTEM(S)

INSTRUCTIONS FOR DIAGRAM

1. In a plan view, locate and identify each of the following:

- a) Well
- e) Surface Water
- h) Closest well on an adjacent property
- j) Closest edge of an absorption field on an adjacent property
- b) All Structures
- f) Sources of Contamination

- c) Septic Tank
- g) Property Line
- i) Closest septic tank on an adjacent property

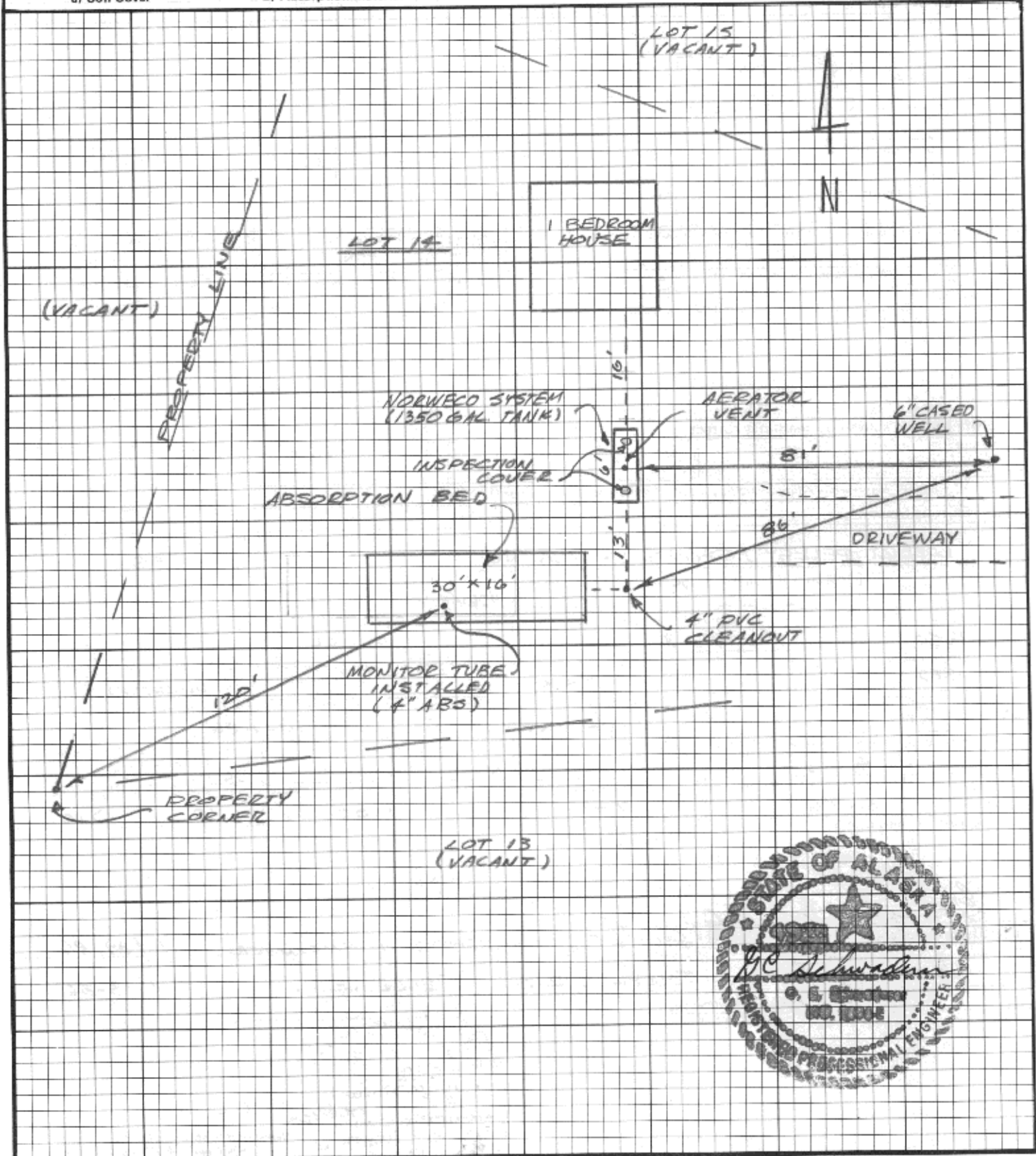
d) Soil Absorption System
(Include Dimensions)

2. Show distances between the well and each of the other items listed in 1.

3. Show distances between water bodies and each of the other items listed in 1.

4. In a cross section view of the soil absorption area, identify each component and show the depth (thickness) of the following:

- a) Soil Cover
- b) Absorption Material
- c) Water Table
- d) Bedrock
- e) Discharge Pipes



Date Received

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DOCUMENTATION OF CONSTRUCTION

I. GENERAL INFORMATION

Legal Description of the Location
Barnett's South Slope Subd.
Lot 17, Block 1

Submitted by: (Check one)
 Certified Installer
 Approved Homeowner
 Registered Engineer

Installer Name:
Arno Construction
Mailing Address
P.O. Box 1772
Homer, Ak 99603

Onsite Wastewater System Serves:
 Single Family. Number of Bedrooms 3
 Duplex. Number of Bedrooms _____
 Small Commercial Facility With Estimated Design Flow of less than 500 GPD.

II. WATER SUPPLY SYSTEM

(SECTION II IS OPTIONAL)

Source of Water and Containment (Check all that Apply)
 Well (Drilled or Driven) Surface (Identify) _____
 Roof Catchment Other (Identify) _____
 Holding Tank

Type of Water Supply System
 Private
 Public (Serves more than one family)

Treatment of Water (Check all that Apply)
 None Chlorination
 Filtration Mineral Removal
 Other: _____

Well Data
Is the height of the well casing more the 12" above the ground? Yes No
Is a sanitary seal or well cap installed on the well casing? Yes No
Is drainage directed away from or around the casing within a radius of 10 feet of the well casing? Yes No
Is well wire enclosed in conduit? Yes No

Date Drilled _____ Depth of Well (Feet) _____ Static Water Level (Feet) _____ Yield (If available) _____ Pump Rate (If available) _____

Separation Distance from the Well Casing to each of the Following Sources of Contamination:
Septic/Holding Tank on Lot _____ Feet Sewer Lines on Lot _____ Feet Absorption Area on Lot _____ Feet
Closest Septic/Holding Tank on Adjacent Lot _____ Feet Closest Sewer Lines on Adjacent Lot _____ Feet Closest Edge of an Absorption Area on Adjacent Lot _____ Feet

Indicate separation distance from toxic materials including fuel tanks, paints, lubricants and other petroleum based materials, pesticides, fungicides or herbicides to well casing:
Water Sample Taken by: (Name) _____ On Lot _____ Feet On Adjacent Lot _____ Feet
Sampler is:
 Buyer Engineer
 Banker Government Official

Address _____
Water Sample Results: Satisfactory - Date _____ Unsatisfactory - Date _____
Attach Copy

Comments/Recommendations:

I certify that the above information, and that provided in Section IV, is correct:
Signature William F. Craine Typed/Printed Name William F. Craine Title Civil Engineer Date 2/2/02

Note: 1. This section should be signed by a Certified Installer, Professional Engineer, DEC staff, or Owner/Builder
2. All public water systems must receive ADEC plan approval prior to construction. See 18 AAC 80 State of Alaska Drinking Water

III. WASTEWATER DISPOSAL Legal Description: Barnett's South Slope Subdivision
Lot 17, Block 1

Type of Wastewater System:

Septic Tank with Conventional Soil Absorption System Package Treatment Plant (requires engineered design)

Holding Tank: Material Type: _____ Size in Gallons: _____ Manufacturer: _____

Other - Specify Type _____ Alternate Onsite (requires engineered design)

Small Commercial System (< 500 GPD) With Estimated Daily Wastewater Flow of: _____ Gallons Per Day (GPD)

Criteria Used to Estimate Daily Wastewater Quantity: _____

NEW SYSTEM REPAIR TO EXISTING SYSTEM Certified Installer Installation Notification Date: _____

Name of Installer: Arno Construction Date Installed: 12/18/2001

System Installed: By a Registered Engineer With Inspection by a Registered Engineer

By Approved Homeowner (attach copy of approval letter) By a Certified Installer/Installer Number 00-23-014

Septic Tank: Material: Steel Manufacturer: D & W Size (Gallons): 1250 Number of Compartments: Two

Type of Soil Absorption System: Deep Trench Shallow Trench Seepage Pit Bed

Mound Other, Specify _____

Soil Type: SM Soil Rating: 0.6 gpd/ft² Dimensions/Size of Absorption Area: 825 ft² = 30.5' x 50'
+ 10' x 20'

Grading/Size of Distribution Rock: 3/4" - 1 1/2" Thickness/Depth of Distribution Rock: 12" / 3' to Bottom

Percolation Test Results, Attach Copy of Report: Percolation Test Performed by: _____

Minutes per Inch Sq. Ft. per Bedroom percolation test results must be sealed/signed by a registered engineer

Minimum Ground Cover Over: Septic Tank: 2' + 2" Insul Absorption Area: 2' + 2" Insul Sewer Pipes: 2' + 2" Insul

Cleanout Pipes/Caps Installed: Foundation Cleanout: Yes Septic Tank: Yes Monitor Tubes: Yes

List Separation Distances From Septic Tank or Absorption Area, Whichever is Closest, to All Nearby:

Public Drinking Water Sources Within 200 feet: None Private Drinking Water Sources Within 100 feet: None

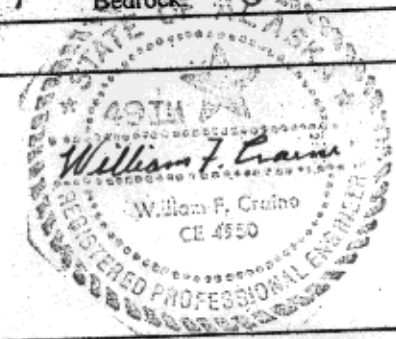
Nearest Water Bodies (see 18 AAC 72.020(b)): Lot Line: N/A

Separation Distance from Onlot Sewer Lines to: Public Drinking Water Sources: N/A Private Sources: > 100'

Separation Distance From Bottom of Distribution Rock to: Groundwater Table: 4' + Bedrock: 6' +

Separation Distance from Absorption Area to Slope exceeding 25%: N/A

Comments/Recommendations



I certify that the above information, and that provided in Section IV, is correct:

Signature <u>William F. Craine</u>	Typed/Printed Name <u>William F. Craine</u>	Title, Reg./Cert No., Inst. No. <u>Civil Engineer / CE 4950</u>	Date <u>2/2/02</u>
---------------------------------------	--	--	-----------------------

NOTE: Must be signed by a Certified Installer, Professional Engineer, DEC staff, or Approved Homeowner. If engineering seal bears printed name, signature number, and is signed, those blocks need not be completed for engineered submittals.

SEAL
Registered Professional
Engineer

IV. DIAGRAM OF SYSTEM(S) INSTRUCTIONS FOR DIAGRAM

1. In a plan view, locate and identify each of the following:

- a) Well *None*
- b) All Structures
- c) Surface Water *None*
- d) Sources of contamination *None*
- e) Closest well on adjacent property *> 100'*
- f) Closest edge of an absorption field on adjacent property *None*

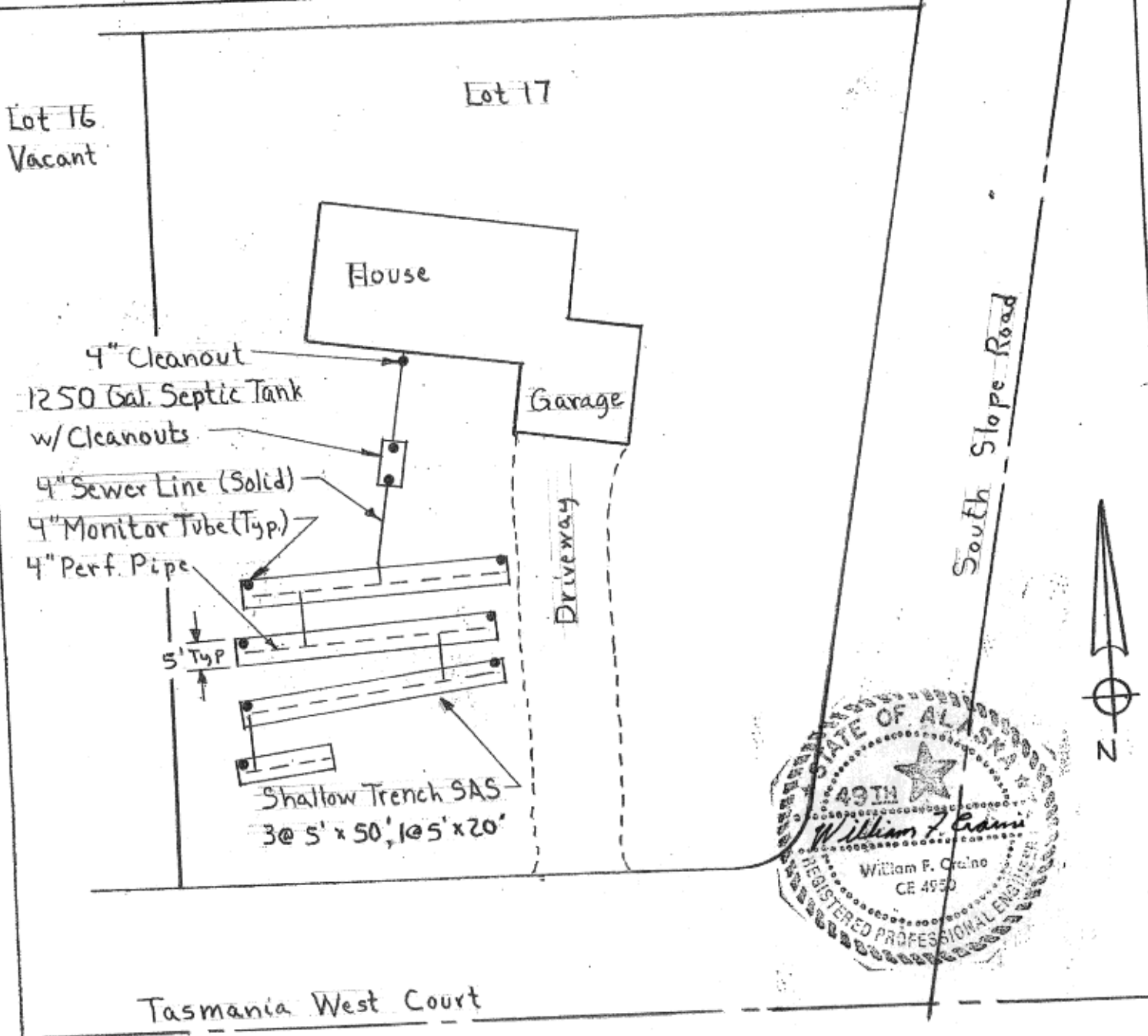
- g) Septic Tank
- h) Property Line
- i) Closest septic tank on an adjacent property *None*
- j) All cleanouts and monitor tubes
- k) Soil Absorption System
(Include dimensions)

2. Show distances between the well and each of the sources of contamination listed in 1.

3. Show distances between water bodies and each part of the onsite system listed in 1.

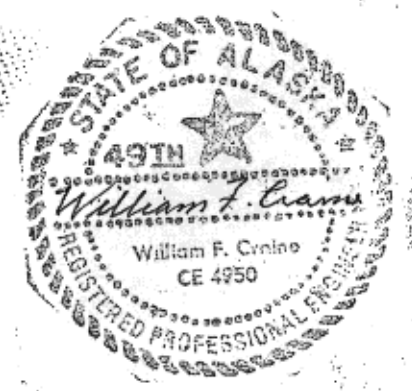
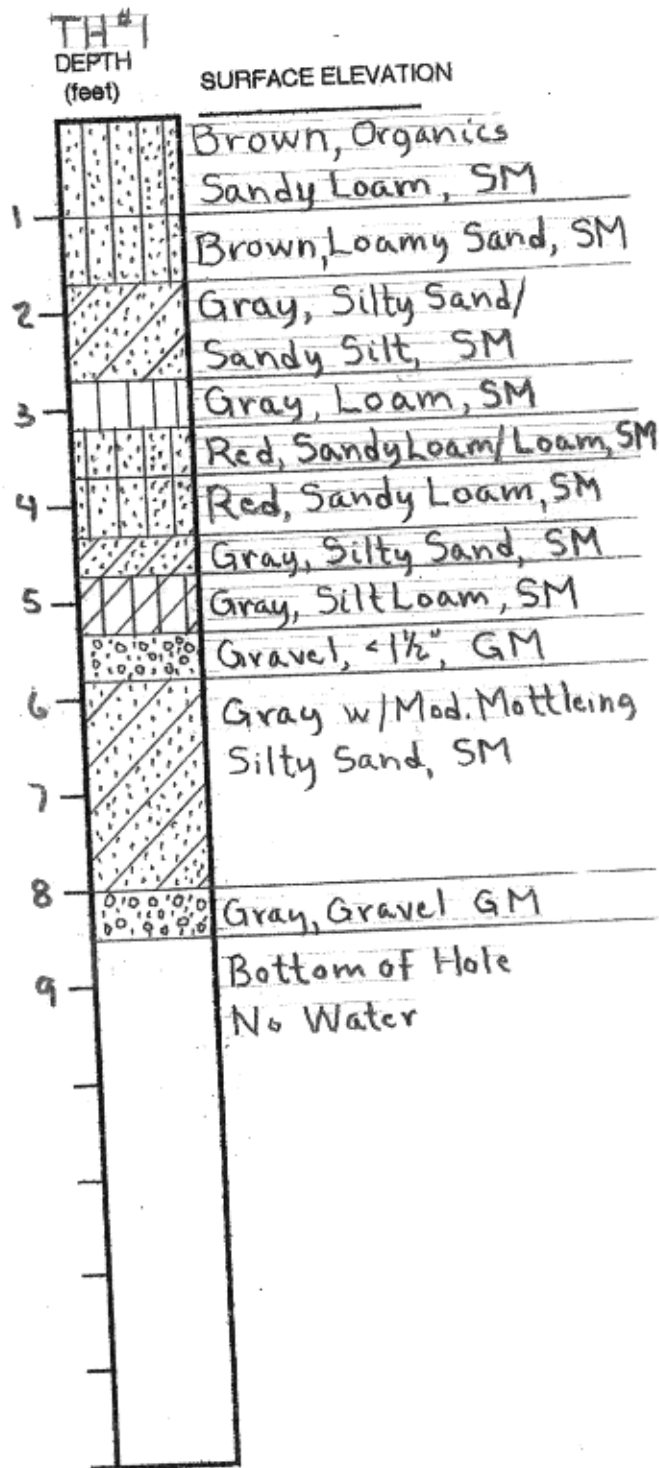
4. In a cross section view of the soil absorption area, identify each component and show the depth (thickness) of the following:

- a) Soil Cover
- b) Absorption Material
- c) Water Table
- d) Bedrock
- e) Discharge pipes
- f) Insulation



SITE PLAN 1" = 30'

2/2/02
Sht. 1/3



Sandhill Enterprises
 William F. Craine, P.E.
 P.O. Box 728
 Homer, Ak. 99603
 235 - 5902

SOIL LOG - TEST HOLE #1
SHALLOW TRENCH SAS
BARNETT'S SOUTH SLOPE SUBD. LOT 17 BLOCK 1
STAFFORD RESIDENCE

DATE: 12/9/01
 SHEET: 3/3

Drawn: WFC Revisions: