

Application for Preliminary Plat

Municipality of Anchorage
 Planning Department
 PO Box 196650
 Anchorage, AK 99519-6650



| PETITIONER* | | PETITIONER REPRESENTATIVE (IF ANY) | |
|--|---------|---|---------|
| Name (last name first) Bill Taylor | | Name (last name first) S4 Group, LLC | |
| Mailing Address 9420 Vangaurd Dr, Anchorage, AK 99507 | | Mailing Address 124 E 7th Ave, Anchorage, AK 99501 | |
| Contact Phone – Day 907-345-0371 | Evening | Contact Phone – Day 907-306-8104 | Evening |
| Fax | | Fax | |
| E-mail wtay907@gmail.com | | E-mail craigb@s4ak.com, kate@s4ak.com | |

*Report additional petitioners or disclose other co-owners on supplemental form. Failure to divulge other beneficial interest owners may delay processing of this application.

| PROPERTY INFORMATION | | | |
|---|----------------|----------------------------|----------------|
| Property Tax # (000-000-00-000): 017-15-122, 017-15-123 | | | |
| Site Street Address: 7200 De Armoun Rd | | | |
| Current legal description: (use additional sheet if necessary) Palaterra Block 2A & 3A | | | |
| Zoning: R6 | Acreage: 17.02 | Underlying Plat #: 2019-87 | Grid #: SW2939 |
| # Lots: 2 | # Tracts: | Total # parcels: 2 | |

| PROPOSED SUBDIVISION INFORMATION | | |
|---|-----------|---------------------|
| Proposed legal description: (use additional sheet if necessary) Palaterra Subdivision Addition 2 | | |
| # Lots: 12 | # Tracts: | Total # parcels: 12 |

I hereby certify that (I am)(I have been authorized to act for) owner of the property described above and that I petition to subdivide it in conformance with Title 21 of the Anchorage Municipal Code of Ordinances. I understand that payment of the application fee is nonrefundable and is to cover the costs associated with processing this application, and that it does not assure approval of the subdivision. I also understand that assigned hearing dates are tentative and may have to be postponed by Planning Department staff or the Platting Authority for administrative reasons.

Craig Bennett

12/22/2021

Signature Owner Representative
 (Representatives must provide written proof of authorization)

Date

Craig Bennett

Print Name

| | | | | |
|---------------------------|---|------------------------|-------------------------------|-------------------------|
| Accepted by: <i>FM</i> | Poster & Affidavit: <i>2 + affidavit</i> | Fee: <i>\$7,455</i> | Case Number: <i>512607</i> | Requested Meeting Date: |
|---------------------------|---|------------------------|-------------------------------|-------------------------|

COMPREHENSIVE PLAN INFORMATION

Anchorage 2020 Urban/Rural Services: Urban Rural

Anchorage 2020 Major Elements – site is within or abuts:

Major employment center Redevelopment/mixed use area Town center

Neighborhood commercial center Industrial reserve

Transit - supportive development corridor District/area plan area: Hillside District Plan

Chugiak-Eagle River Land Use Classification:

Commercial Industrial Parks/open space Public lands/institutions Town center

Transportation/community facility Alpine/slope affected Special study area Development reserve

Residential at _____ dwelling units per acre Environmentally sensitive area

Girdwood- Turnagain Arm Land Use Classification

Commercial Industrial Parks/open space Public lands/institutions Resort

Transportation/community facility Alpine/slope affected Special study area Reserve

Residential at _____ dwelling units per acre Mixed use Rural homestead

ENVIRONMENTAL INFORMATION (All or portion of site affected)

Wetland Classification: None "C" "B" "A"

Avalanche Zone: None Blue Zone Red Zone

Floodplain: None 100 year 500 year

Seismic Zone (Harding/Lawson): "1" "2" "3" "4" "5"

RECENT REGULATORY INFORMATION (Events that have occurred in last 5 years for all or portion of site)

Rezoning - Case Number:

Preliminary Plat Final Plat - Case Number(s): S12364

Conditional Use - Case Number(s):

Zoning variance - Case Number(s):

Land Use Enforcement Action for

Building or Land Use Permit for

Wetland permit: Army Corp of Engineers Municipality of Anchorage

POTABLE WATER AND WASTE WATER DISPOSAL

Potable Water provide by: Public utility Community well Private well

Wastewater disposal method: Public utility Community system Private on-site

APPLICATION REQUIREMENTS (Only one copy of applicable items is required for initial submittal)

1 copy required: Signed application (original)
 Watershed sign off form, completed
 8½" by 11" reduced copy of plat
 Certificate to Plat

4 copies required: Subdivision drainage plan

9 copies required: Topographic map of platted area

45 copies required: Signed application (copies)
 (35 copies for a Preliminary plat
 short plat) As-built (if applicable)
 Summary of community meeting(s) (not required for short plat)

(Additional information may be required)

Additional required documents unless specifically waived by Platting Officer:
 Soils investigation and analysis reports (4 copies) Waived by _____



Palaterra Subdivision Addition 2
Platting Application Narrative
March 4, 2021

This platting application is a request to subdivide 2 lots into 12 lots through the long plat process. The lots are zoned R-6: Low-Density Residential (1 acre) and will be serviced by private water and wastewater. There is an existing home on proposed lot 12. The site has a steep slope on the southern end. The proposed subdivision has access via De Armoun Rd, with a cul-de-sac. A variance is being requested for the relief from the requirement that the distance between intersection centerlines shall be at 150 feet (AMC 21.08.030.F.5).

Conformance with the Approval Criteria for Subdivision Standards (AMC 21.03.200)

This plat conforms to the applicable dimensional standards and measurements, chapters 21.07, Development and Design Standards and 21.08, and Subdivision Standards, and to the maximum extent feasible.

a. Promotes the public health, safety, and welfare;

Palaterra Subdivision Addition 2 promotes the public health, safety, and welfare by providing a development for residential use that is compatible with the surrounding neighborhood.

b. Mitigates the effects of incompatibilities between the land uses or residential densities in the subdivision and the land uses and residential densities in the surrounding neighborhood, including but not limited to visual, noise, traffic, and environmental effects;

Palaterra Subdivision Addition 2 mitigates the effects of incompatibilities between land uses and residential densities by conforming to the existing R-6 zoning for lot size and width. The larger lot size requirement will allow grading operations to be generally limited to the improvements within the ROW. Existing vegetation will be maintained to the maximum extent possible to help mitigate visual, noise and environmental nuisances.

c. Provides for the proper arrangement of streets in relation to existing or proposed streets;

Palaterra Subdivision Addition 2 is connecting into one dedicated Right-of-way road and is dedicating a cul-de-sac for proper access and turn-around space. The proposed internal road configuration utilizes the existing topography to minimize road grades and limit cut/fill activities.

d. Provides for adequate and convenient open space;

Palaterra Subdivision Addition 2 provides for adequate and convenient open space by developing to R-6 single-family residential zoning regulations. All lots are over the minimum lot area requirement of 43,560 square feet. The large lot configuration will allow grading operations to be limited to the



improvements within the ROW. Existing vegetation will be maintained as much as possible creating large areas of vegetated space.

e. Provides for the efficient movement of vehicular and pedestrian traffic;

Palaterra Subdivision Addition 2 provides for the efficient movement of vehicular and pedestrian traffic by providing a dedicated ROW internal road access to a dedicated 50 foot radius cul-de-sac ROW.

f. Ensures adequate and properly placed utilities;

Palaterra Subdivision Addition 2 ensures adequate and properly placed utilities by keeping easements in-line with previous utility easements and continuing to work with the utility companies on easement placement. Easements will be provided as needed to facilitate access for maintenance.

g. Provides access for firefighting apparatus;

Palaterra Subdivision Addition 2 allows for effective access to firefighting apparatus by nature of the adequate road frontage and cul-de-sac for vehicular turn-around. Cul-de-sac radii will be built to DCM standards and is not longer than 900 lineal feet as limited by Title 21.

h. Provides opportunities for recreation, light, and air, and avoids congestion;

Palaterra Subdivision Addition 2 lots are over the minimum lot requirement of 43,560 square feet.

i. Facilitates the orderly and efficient layout and use of the land;

Palaterra Subdivision Addition 2 facilitates orderly layout and use of land by combining like land units and utilizing existing access, easements, and Rights-Of-Way to create a consolidated and efficient plat. Proposed ROW's are configured to follow the existing topography as much as possible. This will reduce cuts and fills associated with the planned road construction. Reducing cuts and fills will also reduce clearing of existing vegetation. This process results in an efficient use of the land.

j. Does not create a split-zoned lot; and

This subdivision does not create a split-zoned lot. All properties are commonly zoned.

k. Furthers the goals and policies of the comprehensive plan and conforms to the comprehensive plan in the manner required by section 21.01.080, Comprehensive Plan.

Palaterra Subdivision Addition 2 will conform to all standards set forth in the Comprehensive Plan.

Application for Subdivision Variance

Municipality of Anchorage
 Planning Department
 PO Box 196650
 Anchorage, AK 99519-6650



| PETITIONER* | | PETITIONER REPRESENTATIVE (IF ANY) | |
|--|--|---|--|
| Name (last name first) Bill Taylor | | Name (last name first) S4 Group, LLC | |
| Mailing Address 9420 Vangaurd Dr, Anchorage, AK 99507 | | Mailing Address 124 E 7th Ave, Anchorage, AK 99501 | |
| 907-345-0371 | | 907-306-8104 | |
| Contact Phone – Day Evening | | Contact Phone – Day Evening 907-306-8104 | |
| Fax | | Fax | |
| E-mail wtay907@gmail.com | | E-mail craigb@s4ak.com, kate@s4ak.com | |

*Report additional petitioners or disclose other co-owners on supplemental form. Failure to divulge other beneficial interest owners may delay processing of this application.

| PROPERTY INFORMATION |
|---|
| Property Tax # (000-000-00-000): 017-15-122, 017-15-123 |
| Site Street Address: 7200 De Armoun Rd |
| Current legal description: (use additional sheet if necessary) Palaterra Block 2A & 3A |

| REQUEST |
|--|
| The variance is for relief from the requirement to: The distance between intersection centerlines shall be at least 150 feet. |
| Associated platting case number (if applicable): |

I hereby certify that (I am)(I have been authorized to act for) owner of the property described above and that I am petitioning for an subdivision variance in conformance with Title 21 of the Anchorage Municipal Code of Ordinances. I understand that payment of the application fee is nonrefundable and is to cover the costs associated with processing this application, and that it does not assure approval of the variance. I understand that the burden of evidence to show compliance with the variance standards rests with me, the applicant.

| | |
|--|------------|
| Signature <i>Craig Bennett</i> <input type="checkbox"/> Owner <input checked="" type="checkbox"/> Representative (Representatives must provide written proof of authorization) | 12/22/2021 |
| | Date |

Print Name
 Craig Bennett

| | | | |
|--------------|---------------------|-----|-------------|
| Accepted by: | Poster & Affidavit: | Fee | Case Number |
|--------------|---------------------|-----|-------------|

VARIANCE(S) REQUESTED FROM (CODE CITATIONS):

AMC 21.08.030.F.5

AMC 21.

SUBMITTAL REQUIREMENTS

If associated with a preliminary plat application: Signed application(original) and Signed application (44 copies)

If not associated with a preliminary plat application:

1 copy required: Signed application(original)

44 copies required: Signed application (copies)
 Variance narrative, addressing:
 The need for the variance
 The effect of granting the variance
 An analysis of how the proposal meets the variance standards below
 Underlying plat
 Proposed plot plan or site plan, to scale (new construction)
 Topographic map of site
 Photographs

(Additional information may be required.)

VARIANCE STANDARDS

The Platting Board may only grant a variance if the Board finds that **all** of the following 4 standards are substantially satisfied. Each standard must have a response in as much detail as it takes to explain how your property's condition satisfies the standard. The burden of proof rests with you.

- a. There are special circumstances or conditions affecting the property such that the strict application of the provisions of the subdivision regulations would clearly be impractical, unreasonable, or undesirable to the general public;
- b. The granting of the specific variance will not be detrimental to the public welfare or injurious to other property in the area in which such property is situated;
- c. Such variance will not have the effect of nullifying the intent and purpose of the subdivision regulations or the comprehensive plan of the municipality; and
- d. Undue hardship would result from strict compliance with specific provisions or requirements of the subdivision regulations. The applicant may supplement the form with supporting documents.



Palaterra Subdivision Addition 2
Plat Variance Application Narrative
March 4, 2021

This design variance request is for relief from the requirement:

(AMC 21.08.030.F.5) The distance between intersection centerlines shall be at least 150 feet.

Below is a summary of the attached detailed request from TRIAD Engineering, LLC.

The plat configuration for Palaterra Subdivision Addition 2 illustrates a new proposed cul-de-sac road connecting with De Armoun Road, an ADOT owned and maintained ROW, approximately 66 feet west of the existing Saunders Road intersection. This separation is below the minimum 150-foot separation as required by AMC 21.08.030F.5 and thus, the reason for this variance request. The original planned access for Block 2A was by Buena Vista Drive to the northwest of the property. Approximately 30' of ROW exists to the west while a 30' access easement to the east would allow for full development potential of the access road for the subdivision. However, initial review of topography in the area indicates existing road grades nearing 11% at the intersection of Buena Vista Drive and De Armoun Road. The existing 11% grades of De Armoun Road are well above the generally maximum acceptable limit of 5% through an intersection as defined by the Design Criteria Manual. De Armoun Road is signed for a speed of 40 mph and an 11% intersection grade creates a very unsafe condition for west bound vehicular traffic on De Armoun Road. Intersection site distance was preliminarily reviewed looking west and east at the Buena Vista intersection and was found to not meet the 500 feet required for a posted speed limit of 40 mph and a design speed of 45 mph.

In order to comply with intersection site distances and road grades, significant modifications to De Armoun Road would be necessary which would generally involve lowering steep grades and increasing vertical curvature. These changes would likely impact existing intersections with Carita Lane, Lupine Road, and Foster Road and would likely require modifications of those locations as well. The significant changes to De Armoun Road and the nearby residential access roads would make the project economically unviable as the improvements to DeArmoun would be far greater than the improvements associated with the internal proposed road. It should also be noted that Buena Vista Dr connects with DeArmoun Road, approximately 120 feet east of the existing Lupine Road intersection. This separation is below the minimum 150-foot separation as required by 21.08.030F.5.

Alternative connections were briefly considered and determined to be problematic for the following reasons;

- Connection to the south, to Our Own Lane, is not possible due to a steep bluff with slopes exceeding 50% grade.
- Access along the easterly or westerly boundary of Block 2A is blocked by private property.
- A connection point aligned with Forrest Road to the north is also blocked by private property.

The safest and most cost-effective solution for access to De Armoun Road is the one illustrated on the proposed plat which shows the connection near the intersection with Saunders Road. Grades along De Armoun Road are much flatter in this area and a 4-way stop controlled intersection at Hillside Drive exists further to the east. Vehicular traffic will likely be slowing or accelerating into and out of this intersection so speeds would likely be below 40 mph.



Conformance with the Approval Criteria for Plat Variance

- a. There are special circumstances or conditions affecting the property such that the strict application of the provisions of the subdivision regulations would clearly be impractical, unreasonable, or undesirable to the general public.**

As stated above, access to the northwest via Buena Vista Dr would create unsafe conditions due to the existing road grade and in order to comply with intersection site distances and road grades, significant modifications to De Armoun Road would be necessary, which would make the project economically unviable. Access to the south via Our Own Lane is not possible due to a steep bluff with slopes exceeding 50% grade. Access along the easterly or westerly boundary is blocked by private property. Access to the north, aligned with Forrest Road, is blocked by private property. This leaves the safest and most cost-effective solution to be access to the northeast connecting with De Armoun Road, approximately 60 feet west of the existing Saunders Road intersection.

- b. The granting of the specific variance will not be detrimental to the public welfare or injurious to other property in the area in which such property is situated.**

This variance will allow Palaterra Subdivision Addition 2 access to De Armoun Road via the safest and most-cost effective means. Grades along De Armoun Road are much flatter in the area of the proposed connection and a 4-way stop controlled intersection at Hillside Drive exists further to the east. Vehicular traffic will likely be slowing to or accelerating from a stopped position at this intersection so speeds would likely be below 40 mph.

- c. Such variance will not have the effect of nullifying the intent and purpose of the subdivision regulations or the comprehensive plan of the municipality.**

This variance will not in any way nullify the intent and purpose of the subdivision regulations or the comprehensive plan of the municipality. A subdivision agreement will still be required with the proposed road configuration. It will allow access to a proposed subdivision via the safest and most-cost effective means.

- d. Undue hardship would result from strict compliance with specific provisions or requirements of the subdivision regulations.**

As stated above, if access via Buena Vista Drive is required, in order to comply with intersection site distances and road grades, significant modifications to De Armoun Road would be necessary which would generally involve lowering steep grades and increasing vertical curvature. These changes would likely impact existing intersections with Carita Lane, Lupine Road, and Foster Road and would likely require modifications of those locations as well. The significant changes to De Armoun Road and the nearby residential access roads would make the project economically unviable as the improvements to DeArmoun would be far greater than the improvements associated with the internal proposed road.



ENGINEERING, LLC

PHYSICAL

MAILING

OFFICE

WEB

1300 E. 68th Ave., Suite 210
Anchorage, AK 99518

P.O. Box 111989
Anchorage, AK 99511

907-344-3114

triadak.com

February 26th, 2021

Municipality of Anchorage
Project Management & Engineering
4700 Elmore Rd.
Anchorage, Alaska 99507

State of Alaska DOT&PF
Statewide Planning
4111 Aviation Avenue
Anchorage, Alaska 99519-6900

Attention: Karlie Gedig, MOA Senior Planner &
Shawn Gardner, ADOT Anchorage Area Planner
Subject: Palaterra Subdivision – Variance Request for Intersection Separation
Platting Case TBD

Ms. Gedig,

Please accept this letter as a request for a variance from Title 21 Chapter 21.08.030.F.5 for intersection centerline separation as it relates to the proposed Palaterra Subdivision. Specifically, this is a request for a variance from the requirement that intersection centerlines be separated by a minimum of 150 feet. Palaterra Subdivision is a proposed residential development located west of Hillside Drive and directly south of DeArmoun Road in Anchorage, Alaska. Twelve single family residential homes are planned along approximately 815 linear feet of rural secondary road. The rural secondary road will be constructed to Municipal standards.

Palaterra Subdivision proposes to make connection to DeArmoun Road along the easterly boundary of Block 3A near the intersection of Saunders Avenue. DeArmoun Road is an existing Class I Collector owned and maintained by ADOT and signed for 40 mph. The proposed connection would be 90 degrees to the existing centerline of DeArmoun, however the separation distance between the new road centerline and the existing centerline for Saunders Avenue is 60 feet. This is below the 150-foot separation distance as required in 21.085.030.F.5. This location was determined to be the safest connection to DeArmoun Road as further discussed below.

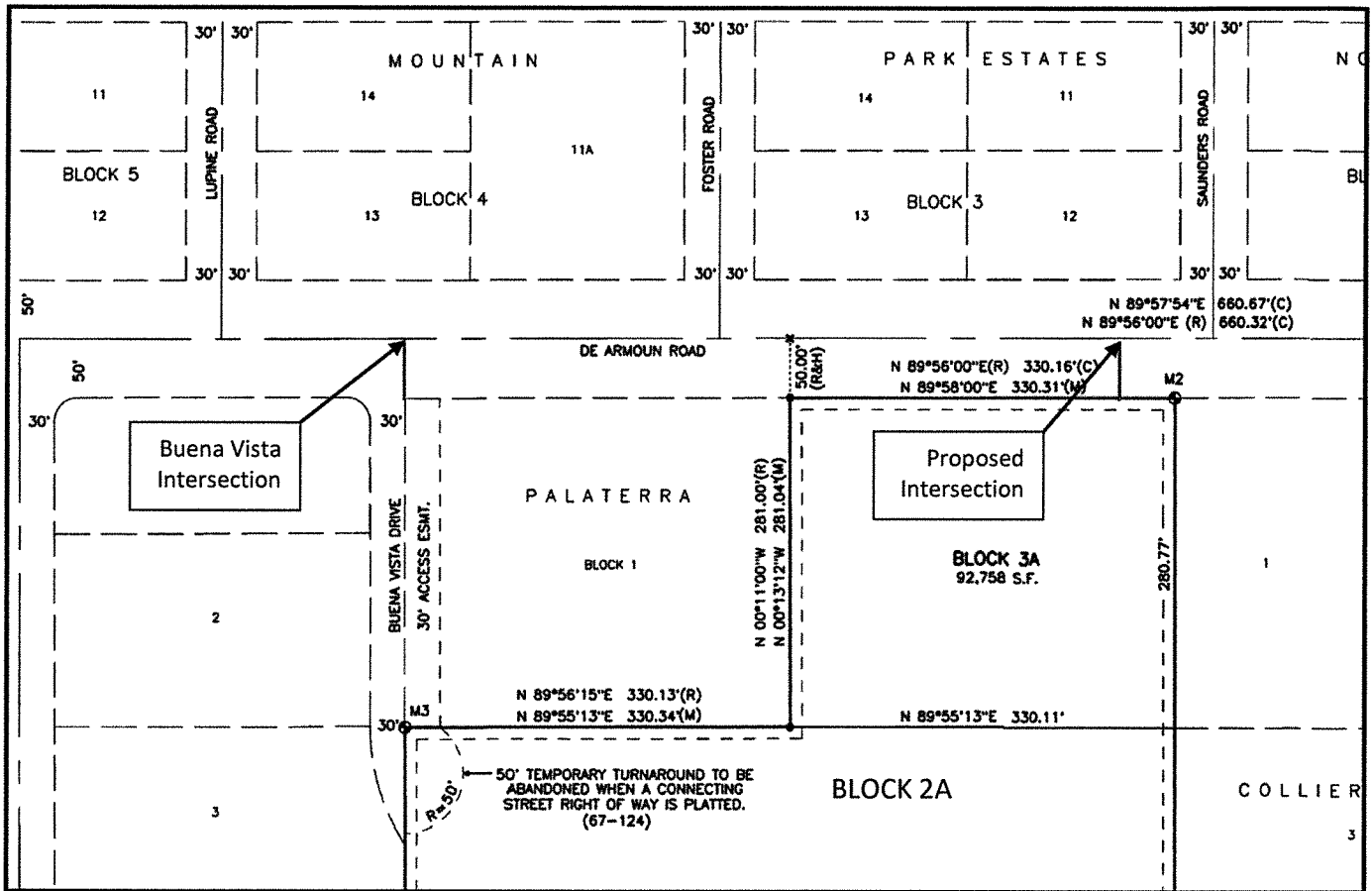
Palaterra Subdivision was previously platted in 2019 by plat 2019-87. This created Blocks 2A and 3A on roughly 17 acres which comprise the total area of the current proposed development. A portion of the plat is shown below and illustrates a planned future connection of Block 2A to DeArmoun Road via the 30' of existing ROW and Access Easement for Buena Vista Drive. The 30 feet of existing ROW on the west and the 30 feet of existing Access Easement on the easterly boundary of Block 1 would provide a legal 60' wide access for the proposed development. This access would connect to DeArmoun Road approximately 158 feet (field measured) east of the existing intersection with Lupine Road.

February 26th, 2021

Subject: Palaterra Subdivision – Variance Request for Intersection Separation

Platting Case TBD

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Northern Portion of Plat 2019-87

Initial review of the existing topography and road grades along this section of DeArmoun Road indicated that existing grades were above the generally accepted limit of 5% through an intersection and likely above 10%. Measurements of available lidar topography indicated possible road grades of 10.9%. Section 1.9D of Chapter 1 of the Design Criteria Manual (DCM) limits the maximum grade of a primary street through an intersection to 5%.

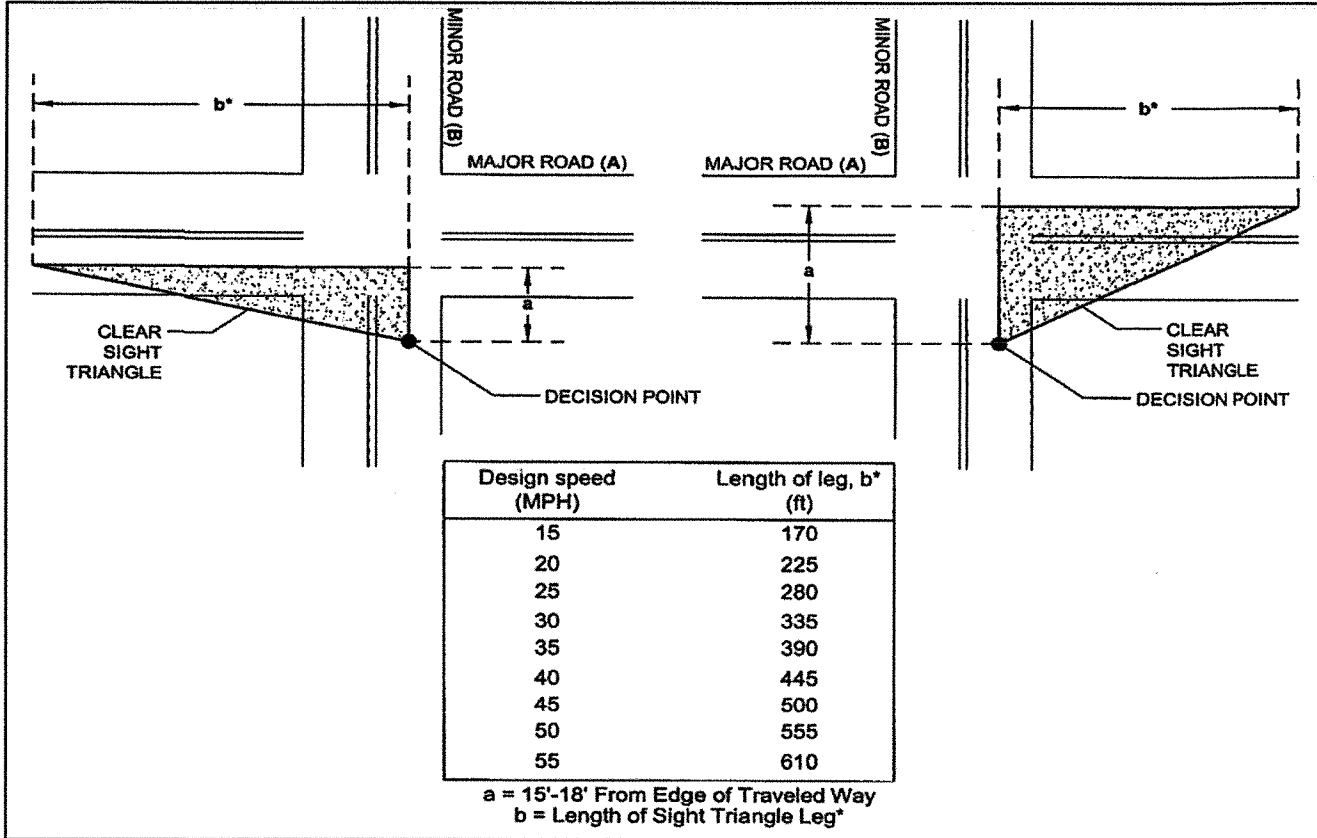
Intersection sight distance was analyzed as it relates to the requirements of DCM Chapter 1. As a Class I collector, DeArmoun Road has a posted speed of 40 mph and a design speed of 45 mph. The required intersection sight distance, length of leg b, is 500 feet. This distance is measured along the centerline of the lane in which traffic approaches the intersection. The decision point is located 15' to 18' from the edge of the traveled way. Figure 1-19 of DCM Chapter 1 is provided on the following page for reference.

February 26th, 2021

Subject: Palaterra Subdivision – Variance Request for Intersection Separation

Platting Case TBD

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Intersection Sight Distance Figure 1-19, DCM Chapter 1

On February 24th, 2021 field measurements for sight distance were completed. The centerline of the Buena Vista and proposed intersections were surveyed and staked prior to the site visit. Field measurements were completed using a handheld laser range finder and measurement wheel. The range finder was used to approximate distances and the wheel used to obtain actual measurements. Due to snow plowing operations, measurements along leg "a" were limited to roughly 8 to 10 feet off the shoulder.

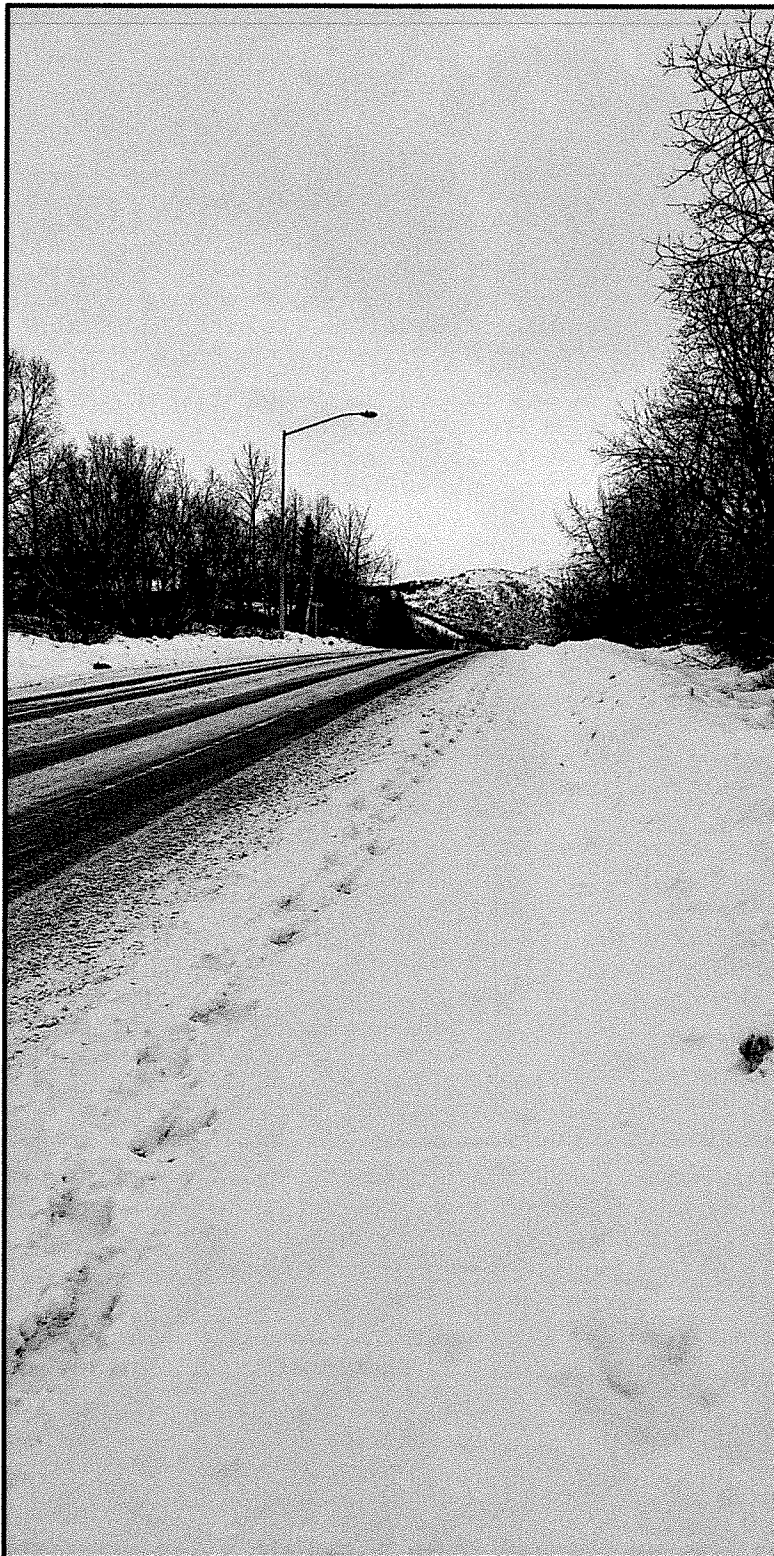
At the Buena Vista intersection, sight distance was measured to the east, looking in the direction of the crest curve, and measured to 327 feet. Sight distance to the west was unrestricted and estimated via range finder to beyond 1000 feet. The intersection grade was measured using a 4-foot smart level and shows an east to west, downhill slope of 11.70%. Photos of the sight distances and intersection grades are provided below.

February 26th, 2021

Subject: Palaterra Subdivision – Variance Request for Intersection Separation

Platting Case TBD

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Buena Vista Intersection Looking East (Measured Sight Distance = 327 Feet)

February 26th, 2021

Subject: Palaterra Subdivision – Variance Request for Intersection Separation

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Buena Vista Intersection Looking West (Sight Distance Ranged Beyond 1000 Feet)

February 26th, 2021

Subject: Palaterra Subdivision – Variance Request for Intersection Separation
Platting Case TBD
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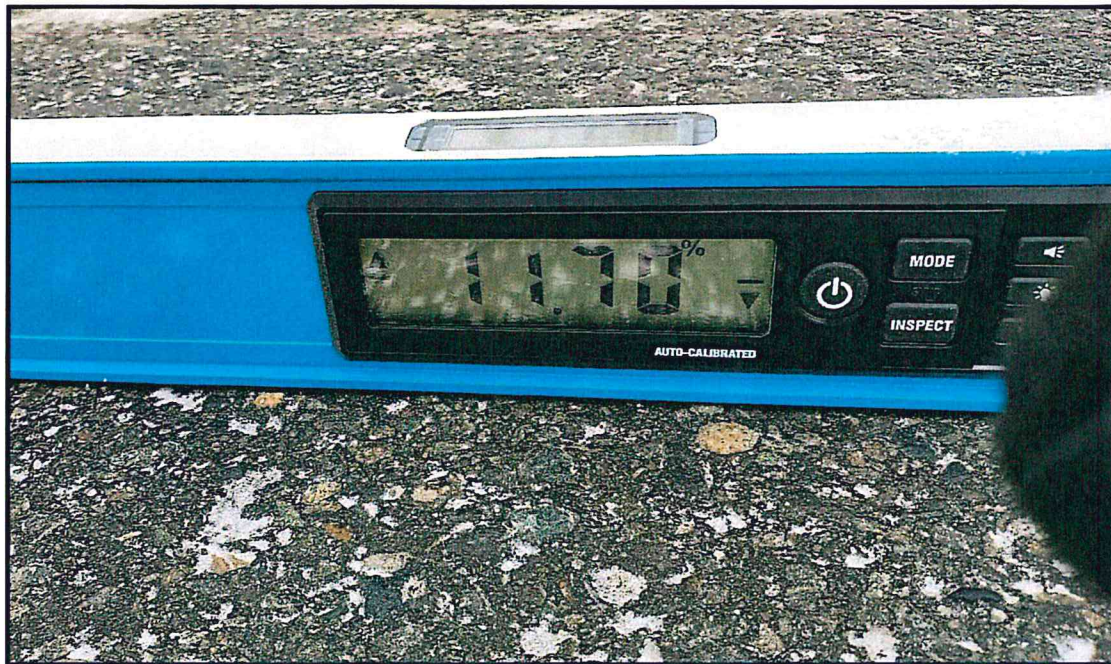
Buena Vista Survey Stake

February 26th, 2021

Subject: Palaterra Subdivision – Variance Request for Intersection Separation

Platting Case TBD

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Existing Grade of DeArmoun Road at Buena Vista

Field measurements revealed that intersection sight distance of 500 feet was not achieved at the Buena Vista intersection looking east due to the existing crest curve. The DCM states that intersection sight distances are desirable, however if these are not attainable, stopping sight distance for the design speed should be the minimum distance provided. The stopping sight distance for a 45-mph design speed is 360 feet which is not adjusted to account for grades. The available stopping sight distance to the east of 327 feet is below the 360 feet minimum required. When taking the existing 11.70% downhill grade into consideration, the stopping sight distance increases to 458 feet which is well over the measured 327 feet currently available. The existing crest curvature of DeArmoun Road would need to be lengthened and/or lowered considerably in order to obtain adequate stopping sight distances.

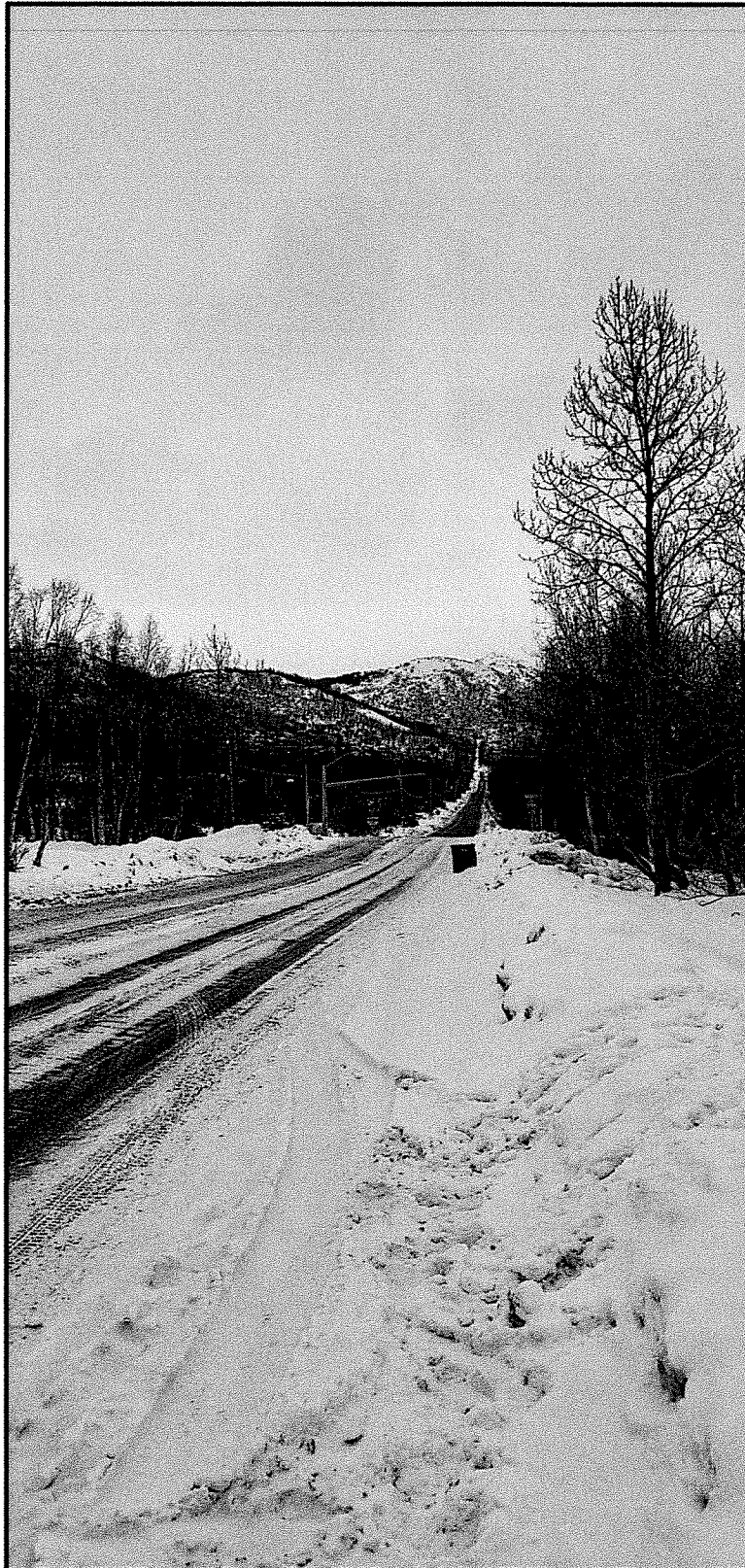
An alternative intersection location, near Saunders Avenue and shown by the Palaterra Subdivision preliminary plat, was chosen since existing road grades in this area are not as steep as the Buena Vista location. This location was field surveyed prior to measurements and is located 60 feet west of the existing intersection of Saunders Avenue. The intersection could not be located any further east due to the easterly boundary limits of Block 2A and 3A. Locating the proposed intersection further west would be in conflict with the existing single-family home located on Block 3A (now proposed Lot 12). Looking east from the proposed intersection location, the stop-controlled intersection at Hillside Drive is visible which was estimated to 315 feet via range finder. Sight distance to the west was field measured to 375 feet. The intersection grade was measured and showed a slightly east to west downhill slope of 0.30%. Photos of the sight distances and intersection grades are provided below.

February 26th, 2021

Subject: Palaterra Subdivision – Variance Request for Intersection Separation

Platting Case TBD

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Proposed Intersection Looking East (Sight Distance Ranged to 315 Feet)

February 26th, 2021

Subject: Palaterra Subdivision – Variance Request for Intersection Separation

Platting Case TBD

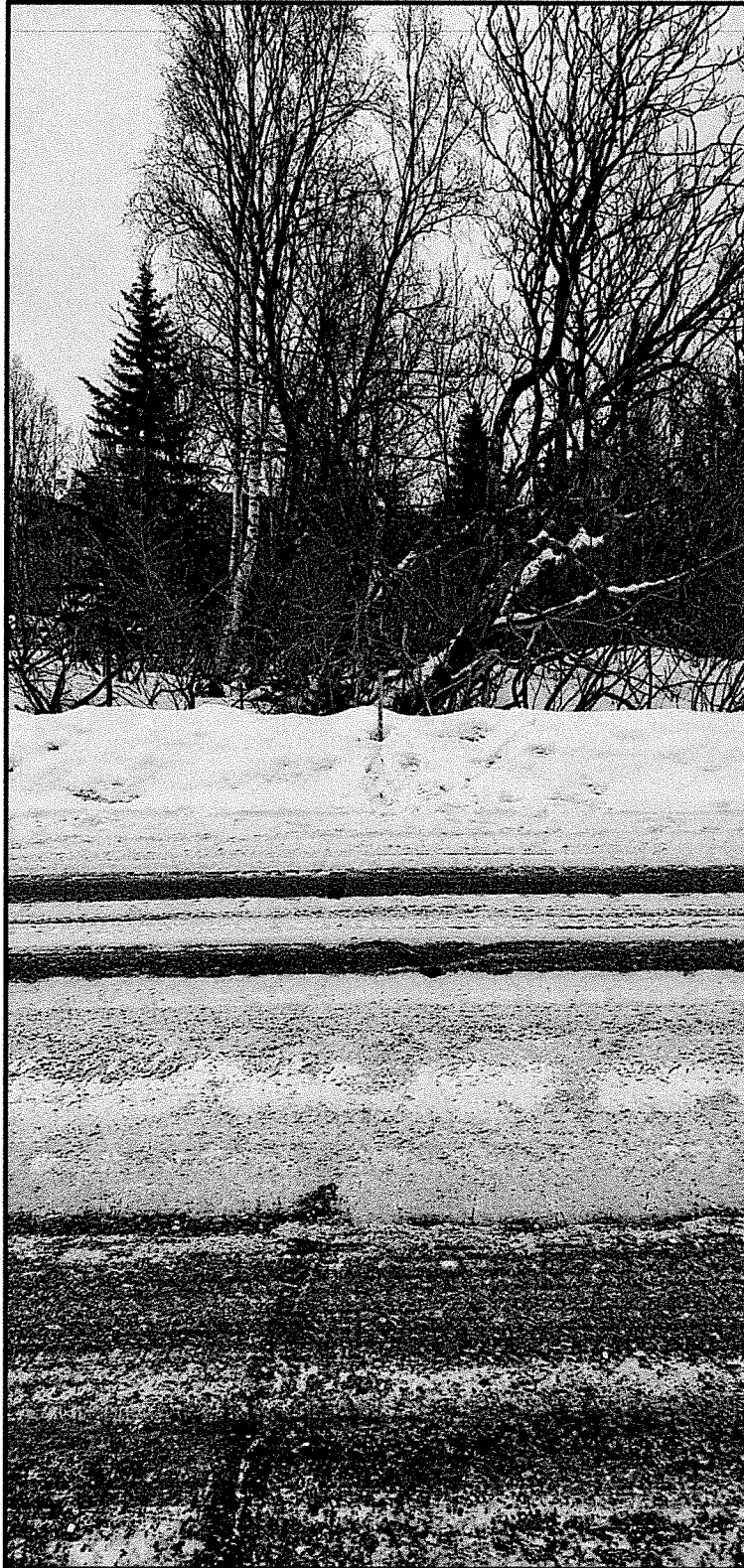
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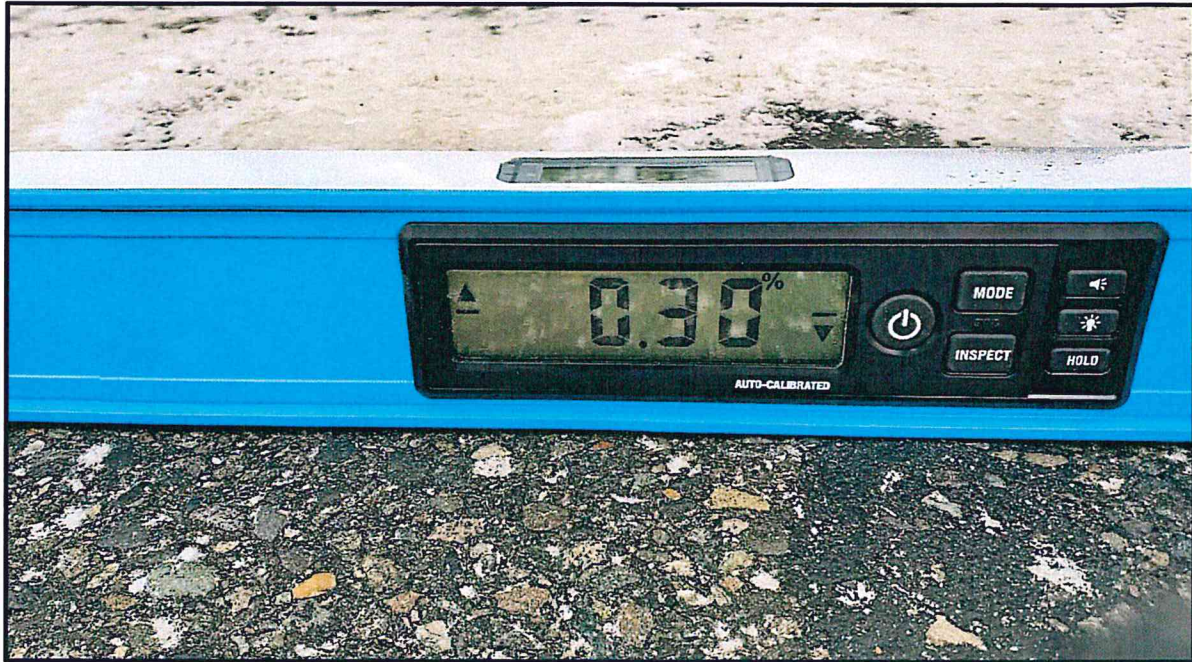
Proposed Intersection Looking West (Measured Sight Distance = 375 Feet)

February 26th, 2021

Subject: Palaterra Subdivision – Variance Request for Intersection Separation
Platting Case TBD
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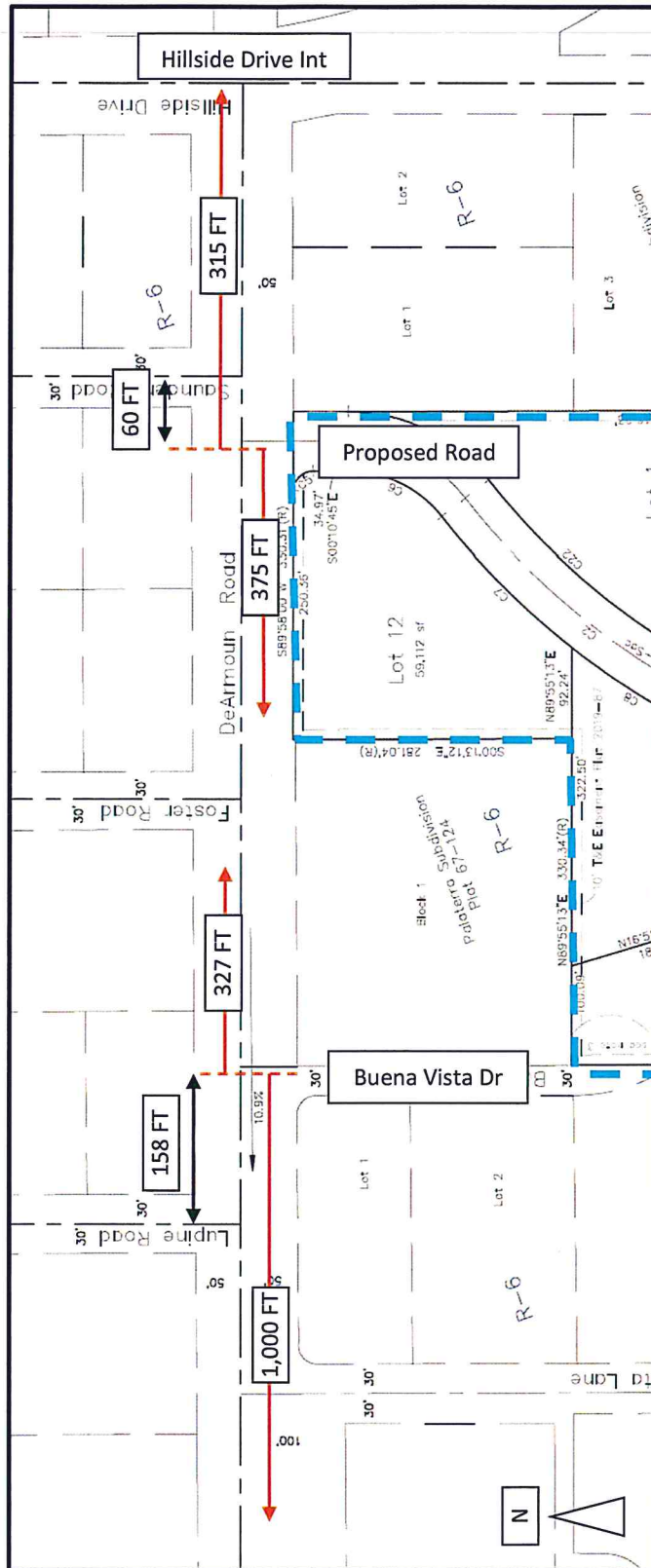


Proposed Intersection Survey Stake



Existing Grade of DeArmoun Road at Proposed Intersection

Field measurements revealed that intersection sight distance of 500 feet was not achieved at the proposed intersection looking west due to the existing crest curvature. However, minimum unadjusted stopping sight distances of 360 feet were met to the west. Sight distance to the east is met as the existing 4-way stop at Hillside Drive is fully visible. Vehicles entering and exiting this intersection will come to a complete stop before proceeding through. Additionally, eastbound vehicular traffic was observed slowing through the Saunders Avenue intersection as they approached the 4-way stop. An illustration and data summary table of the measured sight distances are provided on the following pages.



Intersection Summary

| Location | Sight Distance East | Sight Distance West | ISD Required | Unadjusted SSD Required | Intersection Grade | Intersection Separation |
|--------------------|---------------------|----------------------|-----------------|-------------------------|--------------------|-------------------------|
| <i>Buena Vista</i> | <i>327 Feet</i> | <i>>1000 Feet</i> | <i>500 Feet</i> | <i>360 Feet</i> | <i>11.70%</i> | <i>158 Feet</i> |
| <i>Proposed</i> | <i>* 315 Feet</i> | <i>375 Feet</i> | <i>500 Feet</i> | <i>360 Feet</i> | <i>0.30%</i> | <i>60 Feet</i> |

* 4-way Stop Controlled Intersection at Hillside Drive Fully Visible

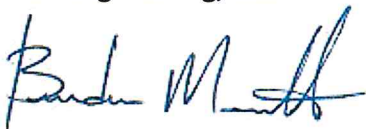
In summary, while intersection separation distances are met at the Buena Vista intersection, existing grades of 11.70% are well above the maximum 5% defined by the DCM. Additionally, stopping sight distance looking west is not achievable without significant modifications to DeArmoun Road. The existing crest curvature would need to be lengthened and the road lowered to reduce intersection grades and increase sight distance. It is unlikely that a 5% intersection grade can be achieved without also having to modify the connections of Foster Road and Lupine Road.

While the intersection separation distance at the proposed intersection is below 150 feet, stopping sight distances are met and the intersection grades is below 5%. Access into and out of the proposed development will be safer at this location when compared with the Buena Vista intersection. Average daily trips generated by the Palaterra Subdivision development are anticipated to be roughly 114 per day. Similar daily trips are anticipated at the Saunders Avenue intersection. Alternative access to the subdivision was considered however, a steep bluff exists to the south which restricts access to Our Own Way. Private property along the east and west boundary prohibit access to Carita Lane or Lamb Drive. Additionally, private property at Block 1 eliminates the potential connection at the existing intersection with Foster Road.

Considering the prohibitively high cost to lower DeArmoun Road, the safest and most cost-effective solution is to locate the proposed intersection in the location shown. This location allows the existing single-family residence on Block 2A (now lot 12) to remain while simultaneously providing adequate stopping sight distance and DCM compliant intersection grades. Based on the above information, Triad Engineering, LLC respectfully requests a variance from Title 21 Chapter 21.08.030.F.5, which requires a minimum separation of 150 feet between intersections, and approval of the location of the proposed intersection at is relates to the preliminary plat for Palaterra Subdivision.

Thank you for your time and consideration in this matter. If you require additional information please call 344-3114 or email me at brandonmarcott@triadak.com.

Sincerely,
Triad Engineering, LLC



Brandon Marcott, P.E.





Land Surveying
Land Development Consultants
Subdivision Specialists
Construction Surveying

124 E 7th Avenue, Anchorage, Alaska 99501 www.S4AK.com 907-309-8104

Letter of Authorization

I, Rav DePalatis, CO-Manager of Torr Sons, LLC, the owner of the property, by signing below am authorizing S4 group, LLC to represent them before the Municipality of Anchorage in the request for all platting actions Palaterra Subdivision Block 2A & 3A, underlying plat 2019-87.


Signature

2/10/21
Date



Land Surveying
Land Development Consultants
Subdivision Specialists
Construction Surveying

124 E 7th Avenue, Anchorage, Alaska 99501 www.S4AK.com 907-306-8104

Letter of Authorization

I, Bill Taylor, the petitioner of the property, by signing below are authorizing S4 group, LLC to represent them before the Municipality of Anchorage in the request for all platting actions Palaterra Subdivision Block 2A & 3A, underlying plat 2019-87.

Signature

Date

Feb 25, '21



Mayor
Ethan Berkowitz

Anchorage Water & Wastewater Utility



Board Chair
Aaron D. Dotson

AWWU REQUIRED INFORMATION FOR PRE-PLATTING

- Project Case Number or Subdivision Name: Palaterra Subdivision Lots 1-12
- Project Location, Tax ID, or Legal Description: Blocks 2A & 3A Palaterra (Plat No 2019-87)
(Tax ID 017-151-22, 017-151-23)
- Is this parcel located within AWWU's certificated service area? ----- Y / ~~N~~
- Is a water key box located on each parcel? ----- Y / N
 - Does this service meet DCPM Standard? ----- Y / N
- Is sewer stubbed to each parcel? ----- Y / N
 - Does this service meet DCPM Standard? ----- Y / N
- Are there any water or sewer connections that require removal? ----- Y / N
- Are there any additional easements needed? ----- Y / N
- Have any Private System plans been submitted for review? ----- Y / N
- Are any of the lots subject to extended connection or other agreements? ----- Y / N
- Does this platting action consolidate a previously connected (on-property) parcel with an unassessed parcel? ----- Y / N

If the parcel or subdivision is within an assessment area, please populate the table below with the relevant information (as balances may change year to year, this table represents a point in time as specified in the column "Year").

| | Levied | Assessment Balance | Year |
|--------------------|--------|--------------------|------|
| Water Lateral | Y / N | | |
| Water Transmission | Y / N | | |
| Sewer Lateral | Y / N | | |
| Sewer Trunk | Y / N | | |

- Comments:
These parcels are located outside of AWWU's water and sewer service areas. AWWU has no objection to this platting action.

Verified By (AWWU):

Date:

February 19, 2021

Anchorage Water & Wastewater Utility  Clearly

3000 Arctic Boulevard • Anchorage, Alaska 99503
Phone 907-564-2774 • Fax 907-562-0824 • www.awwu.biz



WMS WATERCOURSE MAPPING SUMMARY

Per the requirements for watercourse verification outlined in Project Management and Engineering Operating Policy and Procedure #8 and Planning Department Operating Policy and Procedure #1 (effective June 18, 2007), MOA Watershed Management Services has inspected the following location for the presence or absence of stream channels or other watercourses, as defined in Anchorage Municipal Code (21.35).

- Project Case Number or Subdivision Name: Palaterra Sub.
- Project Location, Tax ID, or Legal Description: Blocks 2A & 3A
- Project Area (if different from the entire parcel or subdivision): _____

In accordance with the requirements and methods identified, WMS verifies that this parcel, project area, or application:

_____ **DOES NOT** contain stream channels and/or drainageways, as identified in WMS field or archival mapping information.*

~~_____~~ **DOES** contain ~~stream channels~~ and/or ~~drainageways~~ **AND** these are located and identified on submittal documents in general congruence with WMS field and archival mapping information.
*New or additional mapping **IS NOT REQUIRED.****

_____ Contains stream channels and/or drainageways **BUT** one or more streams or other watercourses:
• are **NOT** shown on submittal documents, or
• are **NOT** depicted adequately on submittal documents for verification, or
• are **NOT** located or identified on submittal documents in general congruence with WMS field and archival mapping information.
*New or additional mapping **IS REQUIRED** and must be re-submitted for further review and verification.**

_____ Presence of stream channels and/or drainageways is unknown **AND** field verification is not possible at this time. WMS will verify as soon as conditions and prioritized resources allow.


* Streams omitted in error by WMS or others remain subject to MOA Code and must be shown in new mapping upon identification of the error.

ADDITIONAL INFORMATION:

- | | | | | |
|----------------------------|----------------------------|--|--------------------------------------|--------------------------------|
| <input type="checkbox"/> Y | <input type="checkbox"/> N | WMS written drainage recommendations are available. | <input type="checkbox"/> Preliminary | <input type="checkbox"/> Final |
| <input type="checkbox"/> Y | <input type="checkbox"/> N | WMS written field inspection report or map is available. | <input type="checkbox"/> Preliminary | <input type="checkbox"/> Final |
| <input type="checkbox"/> Y | <input type="checkbox"/> N | Field flagging and/or map-grade GPS data is available. | | |

Inspection Certified By:

Date:



2/18/21

CERTIFICATE OF OWNERSHIP AND DEDICATION

ALL AREAS DESIGNATED FOR THE PUBLIC TRAILS, PARKS, STREETS, ALLEYS, AND OPEN SPACES ARE HEREBY DEDICATED TO THE PUBLIC USE OF THE CITY OF PALM BEACH COUNTY, FLORIDA. THE DEDICATION IS SUBJECT TO THE CITY'S POLICY ON THE PROVISION OF PUBLIC TRAILS, PARKS, STREETS, ALLEYS, AND OPEN SPACES. THE DEDICATION IS SUBJECT TO THE CITY'S POLICY ON THE PROVISION OF PUBLIC TRAILS, PARKS, STREETS, ALLEYS, AND OPEN SPACES. THE DEDICATION IS SUBJECT TO THE CITY'S POLICY ON THE PROVISION OF PUBLIC TRAILS, PARKS, STREETS, ALLEYS, AND OPEN SPACES.

THE CITY OF PALM BEACH COUNTY, FLORIDA, HAS REVIEWED THE PLAT AND THE RECORDING INSTRUMENT AND HAS DETERMINED THAT THE DEDICATION IS IN ACCORDANCE WITH THE CITY'S POLICY ON THE PROVISION OF PUBLIC TRAILS, PARKS, STREETS, ALLEYS, AND OPEN SPACES.

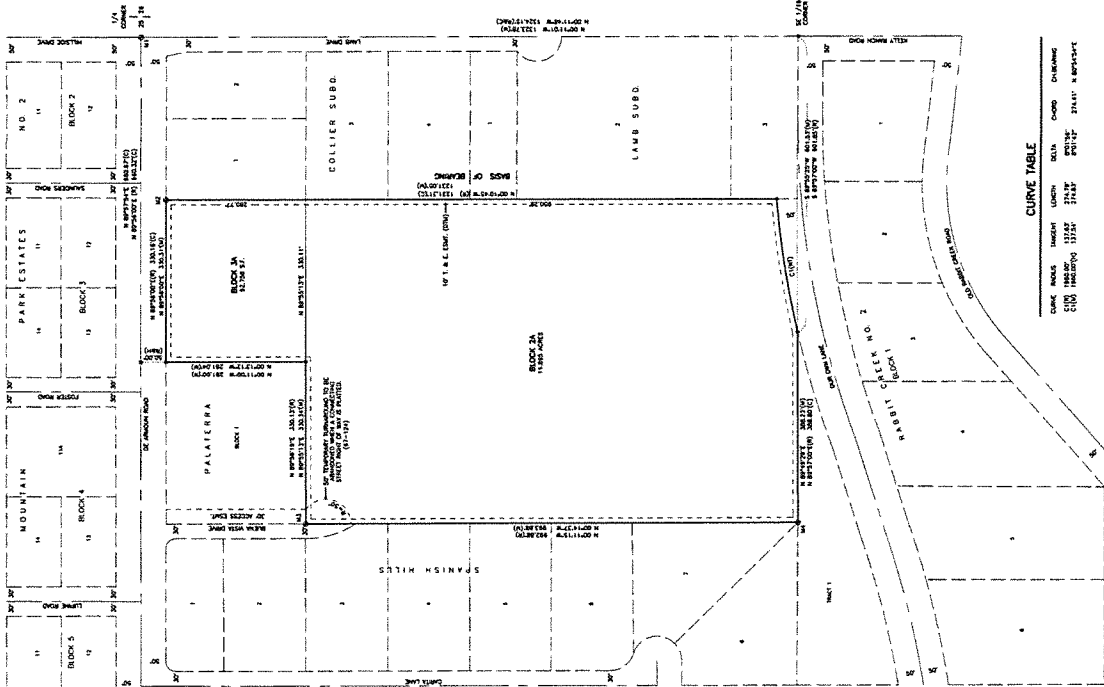
IN WITNESS WHEREOF, THE CITY OF PALM BEACH COUNTY, FLORIDA, HAS CAUSED THESE CERTIFICATES TO BE SIGNED AND SEALED BY ITS CLERK AND THE CITY SEAL TO BE HEREON AFFIXED.

South Beach
 JAMES R. DUNN, Mayor
 JAMES R. DUNN, Mayor
 JAMES R. DUNN, Mayor

NOTARY ACKNOWLEDGMENT FOR NOTARY PUBLIC
 I, James R. Dunn, Notary Public, do hereby certify that the foregoing is a true and correct copy of the original instrument as the same appears in my records.

NOTARY ACKNOWLEDGMENT FOR NOTARY PUBLIC
 I, James R. Dunn, Notary Public, do hereby certify that the foregoing is a true and correct copy of the original instrument as the same appears in my records.

NOTARY ACKNOWLEDGMENT FOR NOTARY PUBLIC
 I, James R. Dunn, Notary Public, do hereby certify that the foregoing is a true and correct copy of the original instrument as the same appears in my records.



CURVE TABLE

| STATION | CHORD | CHORD BEARING |
|----------|---------|-----------------|
| 1+00.00 | 117.14' | S 31° 14' 11" E |
| 1+100.00 | 117.14' | S 31° 14' 11" E |
| 1+200.00 | 117.14' | S 31° 14' 11" E |
| 1+300.00 | 117.14' | S 31° 14' 11" E |
| 1+400.00 | 117.14' | S 31° 14' 11" E |
| 1+500.00 | 117.14' | S 31° 14' 11" E |
| 1+600.00 | 117.14' | S 31° 14' 11" E |
| 1+700.00 | 117.14' | S 31° 14' 11" E |
| 1+800.00 | 117.14' | S 31° 14' 11" E |
| 1+900.00 | 117.14' | S 31° 14' 11" E |
| 2+000.00 | 117.14' | S 31° 14' 11" E |

TAX CERTIFICATION
 I, James R. Dunn, Mayor, do hereby certify that the property described herein is not subject to any special assessment or tax in excess of the amount shown on the attached tax map.

ACCEPTANCE AND DEDICATION BY MUNICIPALITY OF PALM BEACH
 I, James R. Dunn, Mayor, do hereby accept and dedicate the property described herein to the public use of the City of Palm Beach, Florida.

PLAT APPROVAL
 I, James R. Dunn, Mayor, do hereby approve the plat and the recording instrument as shown herein.

NOTARY PUBLIC
 I, James R. Dunn, Notary Public, do hereby certify that the foregoing is a true and correct copy of the original instrument as the same appears in my records.

NOTARY PUBLIC
 I, James R. Dunn, Notary Public, do hereby certify that the foregoing is a true and correct copy of the original instrument as the same appears in my records.

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NOTARY PUBLIC
 I, James R. Dunn, Notary Public, do hereby certify that the foregoing is a true and correct copy of the original instrument as the same appears in my records.



Eastern uphill view from Saunders Rd, 2011



Western downhill view from Saunders Rd, 2011



Eastern uphill view from Lupine Rd, 2011



Palaterra Subdivision Addition 2
Summary of Community Meeting
March 4, 2021

MOA Planning Division Director
4700 Elmore Road
Anchorage, AK 99507

77 notices were mailed on 02/10/2021, 0 returned, see attached for content of notices.

Date: 03/03/2021 @ 7 PM

Duration: 59 minutes

Participants: 27, including presenters

Location: Zoom Meeting, see attached

Subject: Proposed Palaterra Subdivision Addition 2 plat, with variance for intersection distance

This community meeting was held by S4 Group on March 3rd so that the submittal deadline for the Platting Board on May 5th could be met. The board members of the RCCC were invited to the community meeting and Ann Rappoport, the co-president of the RCCC, attended. An offer was made to present at the RCCC March 11, 2021 scheduled meeting and the HCC March 15, 2021 scheduled meeting. Both community councils have accepted. The project location does not lay within the HCC boundaries, but some of the nearby neighbors do lay within the HCC boundaries.

The presentation covered the details of the platting action, variance, and timeline. It also informed the community about how the application process works and how they can view the publicly available related information, once it is available. The following is a brief summary of the questions, comments, and requests made by the community.

Q: Where are/ will the trails be located?

A: The municipal trails coordinator is reviewing the project location and will inform us the location and placement of trails.

Q: (In regards to the cul-de-sac intersection with De Armoun, from the current resident of Collier Subdivision Lot 1) Why does the road directly abut the Collier Subdivision Lot1 lot line? Can it be moved farther away from said property?



A: The cul-de-sac access ROW is placed in such a way because there is an existing house on proposed lot 12. Said house also has a septic system, which the ROW has to be 10 feet away from the nearest standpipe. Both of these factors affect the access position.

Q: Will there be any road access or driveways via Our Own Lane?

A: No, no access is being considered for Our Own Lane.

Q: Will you be removing vegetation from the southern slope of Lot 5, 6, & 7? I have concerns about erosion and flooding.

A: There are no plans to clear or develop the southern slope of the project location. Lots 5, 6, & 7 are very large to allow ample room to develop at the northern ends of the proposed lots.

Q: On previous plats notes have been added that no soil movement or modification to drainage patterns could occur that would impact nearby rights-of-way or neighboring property. I do not see such a note on this plat and would like one to be added.

A: The plat notes you are seeing are notes laid out and required by the planning department. They will tell us what notes need to be added to the plat. I will record your request for our submission though.

Q: What is the drainage plan for the road/access?

A: A drainage plan will be done prior to the plat recording, and requirements will have to be met so as to not negatively affect any neighbouring properties.

Q: Will there be enough room for snow along the cul-de-sac access?

A: This will be a dedicated ROW with a paved road, allowing ample room for snow.

Q: How will water rights be impacted

A: A well and soils report will be required before the plat is approved. The documents will be submitted to the municipality and will be publically available through them.

Q: When will the development start?

A: Likely this summer of 2021.

Q: Will the well and soils reports be finished before this plat is recorded.

A: Yes, all required reports will be submitted for review and approval before a final plat can be approved.

Q: How and when will the community be able to comment to the municipality on this subdivision?



A: As soon as the preliminary plat is submitted and there is a case number the community and start submitting comments and everything submitted is public. Also there will be a public hearing at the Platting Board and community members can attend and speak at it.

Generally, the community had several concerns regarding drainage and the clearing of vegetation. There were also several discussions of where trails might be put. As well as discussions about where current trails actually lay, with some disagreement between community members. There were statements that Our Own Lane collects water in the winter. A request was made to notify community members of the drainage, well, and soil reports. The emails of individuals interested in receiving the reports were collected.

Community Meeting Notification: Palaterra Subdivision Platting Action

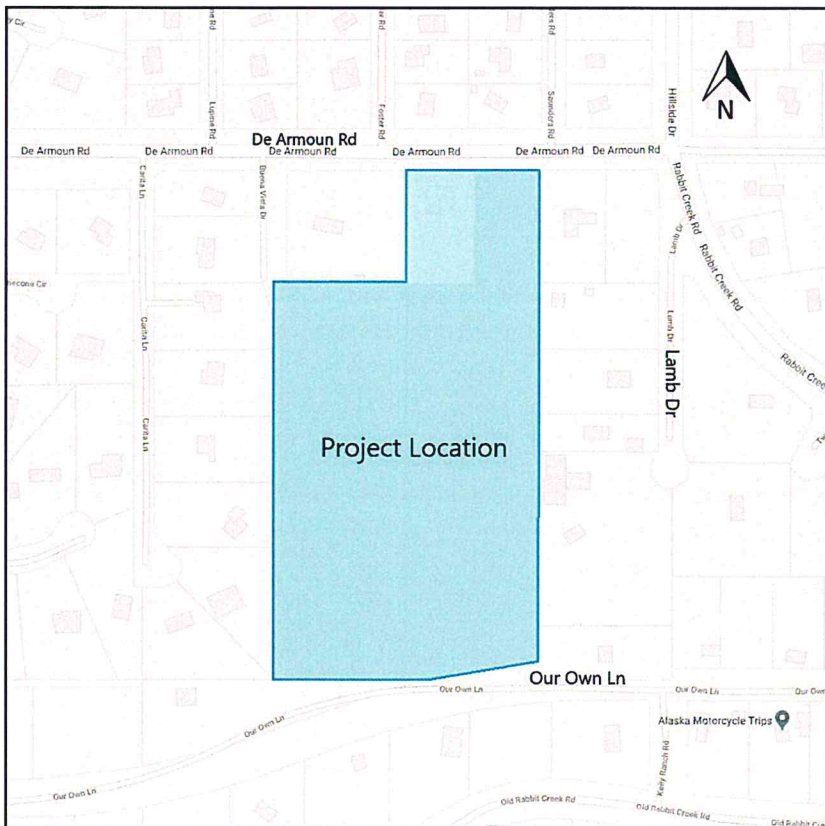
WEDNESDAY, MARCH 3 @ 7 PM

This is a Zoom Meeting
Meeting ID: 998 3604 6463
Passcode: 379146
Local Dial In Number: +1 253 215 8782

S4 Group, LLC will be holding a Zoom presentation for the Rabbit Creek Community for a platting action. Wherein representatives of the proposed project will provide an overview of the platting action, project schedule, and will be able to answer questions. If you are not able to make this meeting, you can still contact us with any questions or concerns regarding the project at: craigb@s4ak.com or (907) 306-8104.

The project site is located south of De Armoun Rd and west of the intersection of De Armoun Rd, Upper Dearmoun Rd, Hillside Dr, and Rabbit Creek Rd; also known as, Palaterra Block 2A & 3A.

For instructions on how to join a Zoom Meeting go to: support.zoom.us/hc/en-us/articles/201362193-Joining-a-Meeting



«Name»
«Street»
«City», «AK» «Zip»

Zoom Provided Meeting Detail Report
Palaterra Subdivision Community Meeting

| Meeting ID | Participants | Name (Original Name) | User Email | Join Time | Leave Time | Duration (Minutes) |
|---------------|--------------|------------------------------|-----------------------------------|----------------|----------------|--------------------|
| 998 3604 6463 | 27 | Ron Yeager | ron.j.yeager@gmail.com | 3/3/2021 18:46 | 3/3/2021 19:43 | 57 |
| 998 3604 6463 | 27 | Kate Sauve (Host) | kate@s4ak.com | 3/3/2021 18:46 | 3/3/2021 19:45 | 59 |
| 998 3604 6463 | 27 | Ben Phipps | | 3/3/2021 18:50 | 3/3/2021 19:43 | 53 |
| 998 3604 6463 | 27 | Craig Bennett | | 3/3/2021 18:53 | 3/3/2021 19:44 | 52 |
| 998 3604 6463 | 27 | Dan's iPhone | | 3/3/2021 18:56 | 3/3/2021 19:10 | 15 |
| 998 3604 6463 | 27 | Chaput_Cindy | chaput_cindy@asdk12.org | 3/3/2021 18:56 | 3/3/2021 19:43 | 48 |
| 998 3604 6463 | 27 | Brandon Marcott | | 3/3/2021 18:57 | 3/3/2021 19:44 | 48 |
| 998 3604 6463 | 27 | Derek Strickland | | 3/3/2021 18:58 | 3/3/2021 19:45 | 47 |
| 998 3604 6463 | 27 | RCCC Ann Rappoport | | 3/3/2021 18:58 | 3/3/2021 19:44 | 46 |
| 998 3604 6463 | 27 | John Reese | j.edgar@gmail.com | 3/3/2021 18:59 | 3/3/2021 19:44 | 45 |
| 998 3604 6463 | 27 | Brande McGovern | | 3/3/2021 18:59 | 3/3/2021 19:44 | 45 |
| 998 3604 6463 | 27 | Michelle Turner | anchoragearea.democrats@gmail.com | 3/3/2021 18:59 | 3/3/2021 19:43 | 44 |
| 998 3604 6463 | 27 | 19072273881 | | 3/3/2021 18:59 | 3/3/2021 19:35 | 36 |
| 998 3604 6463 | 27 | mblakeslee | | 3/3/2021 19:00 | 3/3/2021 19:30 | 31 |
| 998 3604 6463 | 27 | Paul | | 3/3/2021 19:00 | 3/3/2021 19:44 | 44 |
| 998 3604 6463 | 27 | Dianne Holmes (Chuck Holmes) | | 3/3/2021 19:01 | 3/3/2021 19:45 | 44 |
| 998 3604 6463 | 27 | Josh Brown | | 3/3/2021 19:02 | 3/3/2021 19:30 | 28 |
| 998 3604 6463 | 27 | Nowlin Withers | nowlinw@icloud.com | 3/3/2021 19:04 | 3/3/2021 19:43 | 39 |
| 998 3604 6463 | 27 | Kelly McGovern | mcgovern@gci.net | 3/3/2021 19:05 | 3/3/2021 19:43 | 39 |
| 998 3604 6463 | 27 | iPad (2) | | 3/3/2021 19:06 | 3/3/2021 19:14 | 8 |
| 998 3604 6463 | 27 | Nancy Pease | | 3/3/2021 19:06 | 3/3/2021 19:43 | 37 |
| 998 3604 6463 | 27 | Bill Taylor | | 3/3/2021 19:07 | 3/3/2021 19:33 | 26 |
| 998 3604 6463 | 27 | iPad (2) | | 3/3/2021 19:15 | 3/3/2021 19:15 | 1 |
| 998 3604 6463 | 27 | Riki Lebman | skateskis@gmail.com | 3/3/2021 19:15 | 3/3/2021 19:43 | 28 |
| 998 3604 6463 | 27 | iPad (2) | | 3/3/2021 19:15 | 3/3/2021 19:45 | 30 |
| 998 3604 6463 | 27 | Judy Michael | | 3/3/2021 19:18 | 3/3/2021 19:43 | 25 |
| 998 3604 6463 | 27 | Dan's iPhone | | 3/3/2021 19:11 | 3/3/2021 19:44 | 34 |



March 8, 2021

NGE-TFT Project 5969-21

Colony Builders, Inc.
9420 Vanguard Drive
Anchorage, AK 99507

Attn: Bill Taylor - Owner

**RE: PRELIMINARY ASSESSEMENT OF GENERAL SUBSURFACE CONDITIONS
ACROSS PROPOSED LOTS 1-12 OF THE RE-PLAT OF THE PALATERRA
SUBDIVISION - ANCHORAGE, ALASKA**

Bill,

Per your recent request, we (Northern Geotechnical Engineering, Inc. *d.b.a.* Terra Firma Testing) have prepared this letter to summarize our preliminary assessment of the general subsurface conditions that we expect to occur across proposed Lots 1-12 of the Palaterra Subdivision in Anchorage, Alaska. We based our preliminary assessment on publicly-available, archived subsurface data for properties immediately surrounding the project site, which is currently on-file with the Municipality of Anchorage (MOA).

1.0 Project Background

The project site is located south of DeArmoun Road, approximately 300 feet west of its intersection with Hillside Drive in Anchorage, Alaska. The project site currently consists of two adjacent parcels, whose legal descriptions (as we understand them to be) are as follows:

- Block 2A of the Palaterra Subdivision, and
- Block 3A of the Palaterra Subdivision.

The western half of Block 3A has been previously developed and contains a two-story, single-family home whose street address is 7200 DeArmoun Road. The remaining portion of Block 3A, and all of Block 2A, are undeveloped and vegetated with mature birch, spruce, and alder trees. The project site is approximately 17 acres in total area and gradually slopes down to the south, except for the southern third of Block 2A, which slopes steeply down to the south (with approximately 30 feet of total vertical relief). We have included a recent topographic survey of the project site in Figure 1 of this report for reference.

The Blocks 2A & 3A are to be re-platted into 12 individual residential lots which will be known as Lots 1-12 of the Palaterra Subdivision. The proposed lots will be serviced via a paved residential street which will run south from DeArmoun Road (approximately 700 to 800 feet) and terminate in a cul-de-sac near the center of the proposed subdivision. Lots 1-11 of the proposed subdivision are to be developed for residential construction of single-family homes (proposed Lot 12 will

contain the house already constructed at 7200 DeArmoun Road). Each proposed lot is to be serviced by its own private on-site domestic drinking water well and sanitary septic system. The general layout of the proposed subdivision is detailed in the drawing contained in Figure 1 of this report.

2.0 Anticipated Site Conditions

We reviewed publicly-available, archived subsurface data for properties immediately surrounding the project site which is currently on-file with the MOA. We have included an image in Figure 2 of this report (which we obtained from the MOA) which details the approximate location and codified identification of the individual subsurface explorations that we evaluated as part of our preliminary assessment and we have included copies of the individual exploration logs that we reviewed in Appendix A of this report.

2.1 Generalized Subsurface Conditions

Based on our review of the available subsurface information currently on-file with the MOA, it appears that the project site is likely underlain by interbedded deposits of glacially-derived sediments consisting of varying mixtures of silt, sand, and gravel. The thickness and lateral extent of individual sediment layers appears to vary, and it is difficult to predict how these sediment layers may vary across the project site. However, the existing subsurface information suggests that the surficial sediments (< 15 feet below the ground surface) generally grade from more silt-rich deposits (e.g., silt and sandy silt) across the northeast portion of the project site to more coarse-grained deposits (e.g., sand and gravel) across the southwest portion of the project site.

Percolation test results for adjacent properties suggest that the silt-rich sediments exhibit percolation rates ranging from approximately 20 to 180 minutes per inch, whereas the coarse-grained sediments exhibit percolation rates on the order of 1 to 5 minutes per inch.

2.2 Surface Water

A review of the MOA Wetlands Atlas database indicates that there are no mapped wetlands or other previously mapped surface waters on the project site. We have included an image of the project site that we downloaded from the MOA Wetlands Atlas in Figure 3 of this report.

2.3 Groundwater

The existing subsurface information for surrounding properties suggests that the project site is likely devoid of a laterally continuous shallow groundwater table, although some perched lenses of groundwater may exist in some of the coarse-grained sediment deposits. However, we expect that any perched shallow groundwater zones will have a relatively small aerial extent and/or volume.

Water well driller's logs for surrounding properties suggest that static groundwater levels in the area range from approximately 70 to 220 feet below the existing ground surface.

2.4 Frozen Soils

None of the subsurface information that we reviewed as part of our preliminary assessment suggests that permafrost may underlie the project site, and we do not anticipate permafrost to occur anywhere across the project site.

We appreciate the opportunity to provide you with our professional service. Please contact us directly with any questions or comments you may have regarding the information we have presented in this report or if you have any further questions or requests.

Sincerely,

Northern Geotechnical Engineering, Inc. *d.b.a.* Terra Firma Testing



Andrew C. Smith, CPG
Senior Geologist



Keith F. Mobley, P.E.
President





FIGURES



Exploration location map downloaded from MOA Soil Boring App @ <https://muniorg.maps.arcgis.com/apps/>

● = APPROX LOCATION OF SUBSURFACE EXPLORATION

SW####B### = MOA SUBSURFACE EXPLORATION LOG ID



NORTHERN GEOTECHNICAL ENGINEERING, INC.
TERRA FIRMA TESTING

| | |
|--|-------------------------------|
| FIGURE TITLE: SUBSURFACE EXPLORATIONS FROM MOA ARCHIVE | |
| PROJECT NAME: LOTS 1-12, PALATERRA SUBDIVISION | PROJECT ID: 5969-21 |
| PROJECT LOCATION: ANCHORAGE ALASKA | FIGURE NUMBER: 2 |



| Legend | | | | | |
|--------|------------------------|--|----------------------|--|--------------------|
| | A - High Valuation | | Open Channel | | Curb Inlet |
| | B - Moderate Valuation | | Pipe | | Manhole |
| | C - Low Valuation | | Subdrain | | Catchbasin Manhole |
| | D - Undesignated | | Vegetated Swale | | Clean-out |
| | P - Potential | | Ephemeral Channel | | Drywell |
| | U - Not Classified | | MOA 100-Scale Grid | | Lift Station |
| | Lake | | Parcel Boundary | | OGS |
| | Stream | | Subdivision Boundary | | Top Intake Manhole |
| | | | | | Weir |

Image cropped from Sheet 96 of the 2021 MOA Wetlands Atlas



NORTHERN GEOTECHNICAL ENGINEERING, INC.
TERRA FIRMA TESTING

| | | |
|--|--|-------------------------------|
| FIGURE TITLE: MOA MAPPED WETLANDS | | PROJECT ID: 5969-21 |
| PROJECT NAME: LOTS 1-12, PALATERRA SUBDIVISION | | FIGURE NUMBER: 3 |
| PROJECT LOCATION: ANCHORAGE ALASKA | | |



APPENDIX A

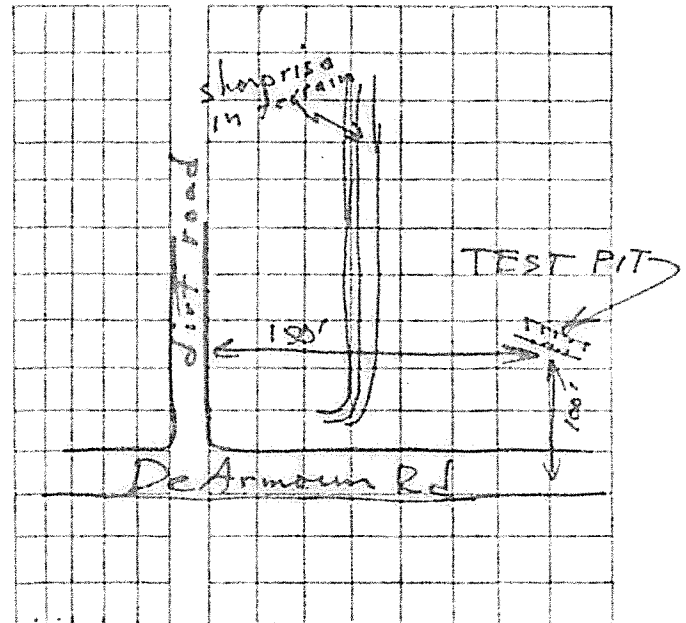
MOA EXPLORATION LOGS



Performed For GALE BALDERSON Dated Performed 4-22-74
 Legal Description: Lot 13 Block 4 Subdivision Mt. Park Estates #2
 This Form Reports Soils Log x Percolation Test _____

- Soil Test Must Be Logged To 4' Below Proposed Seepage System -

| Depth Feet | Soil Characteristics |
|------------|-----------------------------|
| 1 | Topsoil (0-1.5) |
| 2 | |
| 3 | silty sand (1.5-13') SM:250 |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |



Was Ground Water Encountered? NO
 If Yes, At What Depth? _____

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
| | | | | | |
| | | | | | |

| Reading | Date | Gross Time | Net Time | Depth to H ₂ O | Net Drop |
|---------|------|------------|----------|---------------------------|----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Percolation Rate _____ Minute
 Proposed Installation: Seepage Pit _____ Drain Field _____
 Depth of Inlet _____ Depth to Bottom of Pit or Trench _____

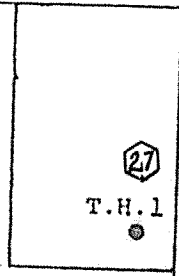
COMMENTS: _____

Test Performed BY TA Sexton Date Certified BY: _____
 Date: _____

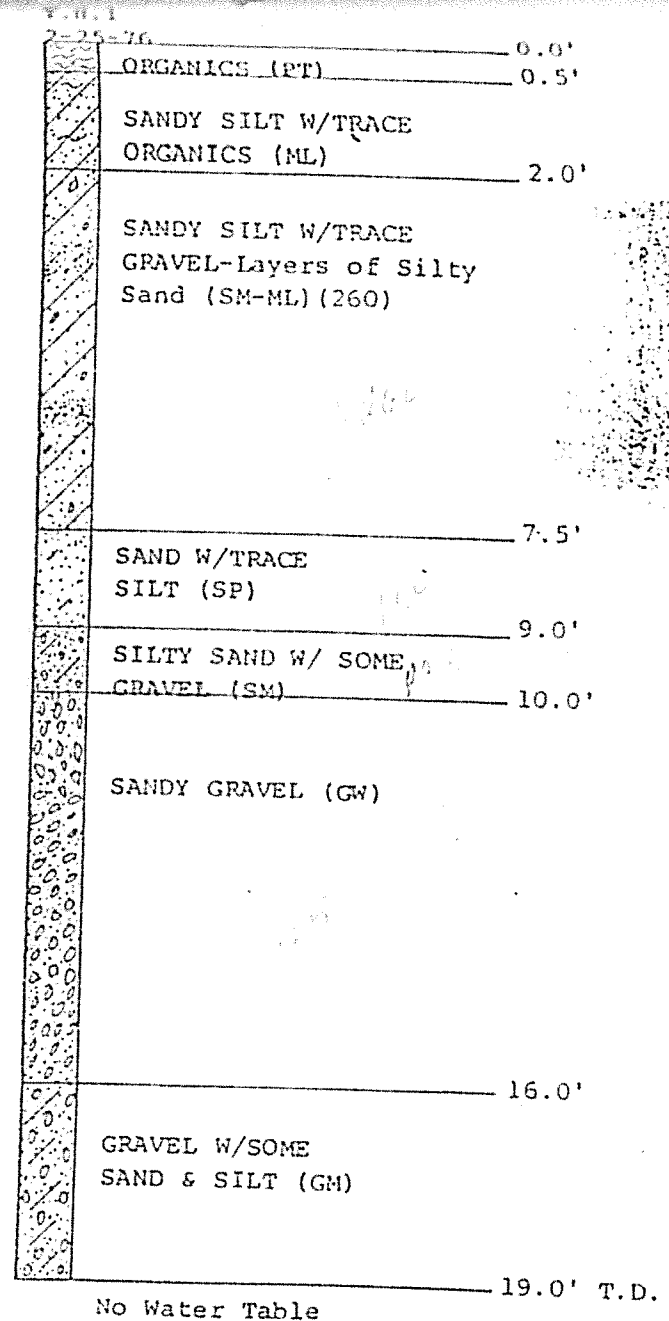


SAUNDERS

DEARMOUN



T.H. 1



Log Represents
Location of Test Hole
Lot 12 Block 3
Mountain Park Estates No.2

REC
M

Consultants Inc.
ANCHORAGE FAIRBANKS ALASKA JUNEAU

Joyce Construction Co.
Log of Test Hole
Anchorage, Alaska

| | | | | | |
|-------------|---------------|------------|-------------|------------------|--------------|
| DATE 3-5-76 | SCALE 1" = 3' | DWN BY MAM | CHKD BY WED | PROJ. NO. 656204 | DWG NO. A-05 |
|-------------|---------------|------------|-------------|------------------|--------------|

RAMPART DRILLING WORKS
BOX 1369, STAR ROUTE A ANCHORAGE, ALASKA 99502
344-7711

27a

SIX INCH WATER WELL DRILLED AND CASED OUT TO THE DEPTH OF 250 feet

DRILLED AT THE RATE OF \$17.00 PER FOOT.

PROPERTY OWNER Mr. James Joyce 344-8883

LOCATION OF WELL SITE Lt. 12 Blk. 3 Sub: M.D. No 2

DRILLER Bernie Claus of Rampart Drilling Works

WELL LOG:

0--33' Sandy clay with 15% gravel. Several small boulders.

33--90' Loose gravel.

90--155' Hardpan and cobbles.

155--220' Gravel and cobbles with 20% clay binder.

220--249' Sandy gravel. Some signs of water. Silty material.

249--251' Water bearing material. Gravel. Producing eight GPM plus. Fifty foot head of water standing.

Cost of Drilling: \$4250.00

Well Seal: \$20.00

COST INCLUDES ALL LABOR AND MATERIAL FOR COMPLETION OF SAID DRILLING.

WRITE CHECK PAYABLE TO RAMPART DRILLING WORKS FOR THE SUM OF \$4270.00

THANK YOU VERY MUCH.

BERNIE CLAUS OF RAMPART DRILLING WORKS

DATE Oct. 1st. 76

Bernie Claus

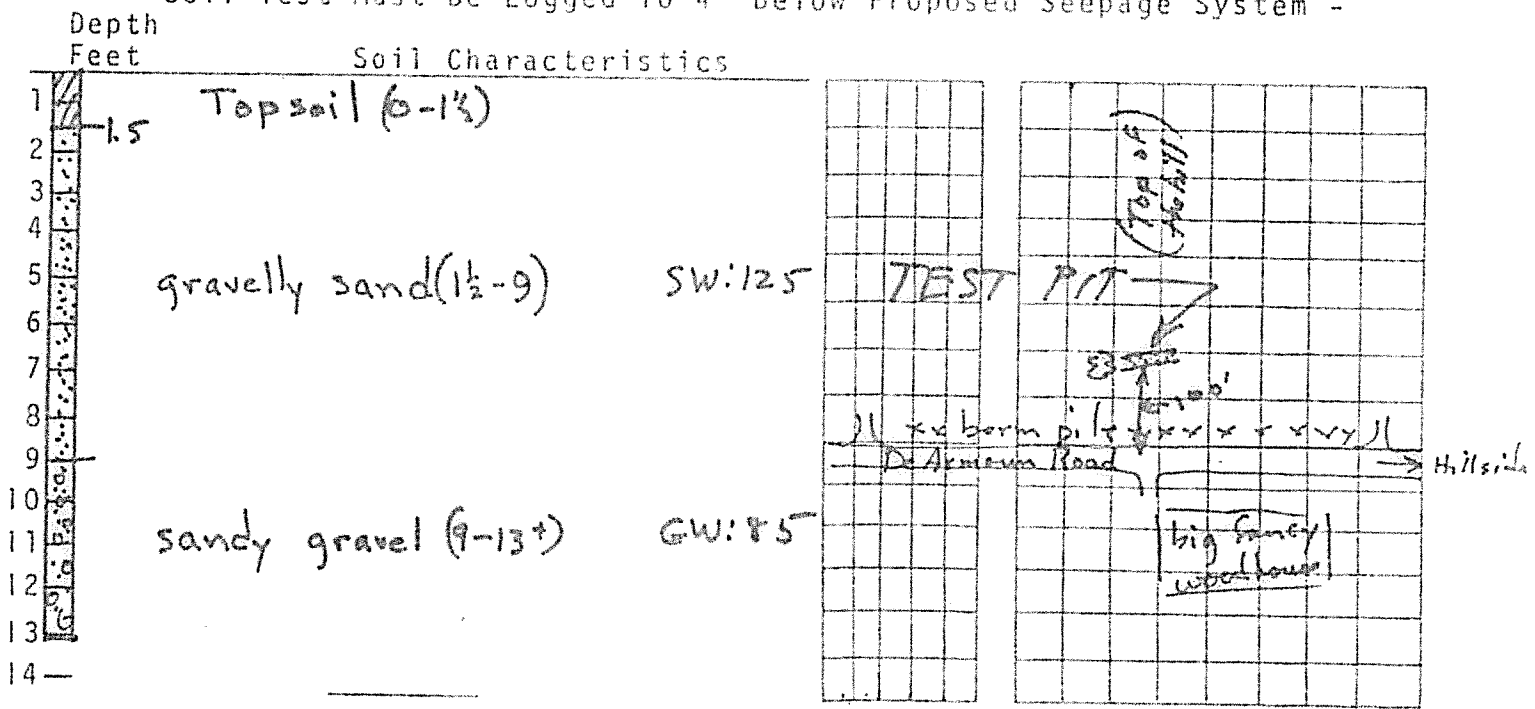
SERVICE CHARGE OF 1% PER MONTH WILL BE ADDED

ANCHORAGE AREA BOROUGH
 DEPARTMENT OF ENVIRONMENTAL QUALITY
 3330 "C" Street
 ANCHORAGE, ALASKA 99503

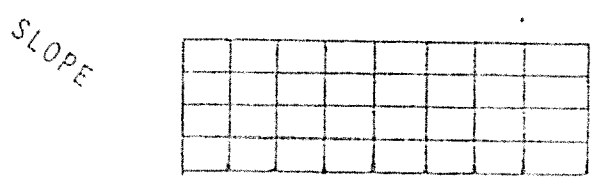
Case # 28

Performed For GALE BALDERSON Dated Performed 4-21-74
 Legal Description: Lot 13 Block 3 Subdivision Mt. Park Estates #2
 This Form Reports Soils Log X Percolation Test _____

- Soil Test Must Be Logged To 4' Below Proposed Seepage System -



Was Ground Water Encountered? NO
 If Yes, At What Depth? _____



| Reading | Date | Gross Time | Net Time | Depth to H ₂ O | Net Drop |
|---------|------|------------|----------|---------------------------|----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Percolation Rate _____ Minute
 Proposed Installation: Seepage Pit _____ Drain Field _____
 Depth of Inlet _____ Depth to Bottom of Pit or Trench _____

COMMENTS: _____

Test Performed BY TA Sexton Date Certified BY: _____
 Date: _____

R&M

R & M CONSULTANTS, INC.

R & M CONSULTANTS, INC.
1000 W. 10TH AVENUE
ANCHORAGE, ALASKA 99501

April 8, 1977

R & M No. 751137



Ms. Mildred F. Hirth
c/o Globe Realty
2805 Dawson Street, Suite 101
Anchorage, Alaska 99503

RE: Test Hole and Soil Log Report for Sanitary System,
Lot 12, Block 2, Mountain Park Estates, No. 2, Anchorage, Alaska

Dear Ms. Hirth:

We are submitting herewith the test boring results and our comments regarding soil conditions encountered at the subject site. This investigation was performed in accordance with the April 6, 1977 request of Anita Bates and those procedures outlined in a letter dated July 15, 1975, by Mr. Rolf Strickland of the Municipality of Anchorage, Department of Environmental Quality.

A single test hole was drilled within the subject site area for the purpose of defining general subsurface soil conditions for the proposed sanitary system. Drilling was accomplished with an auger type drilling rig and the test hole was extended to a total depth of 20 feet below ground surface. The final log of the test hole has been included on Drawing A-01.

Groundwater was not encountered in the test hole while drilling.

A percolation test was performed from a depth indicated on the attached table and reflects average infiltration from that depth to the bottom of the hole.

We appreciate being given this opportunity to be of service to you. Should you have any questions with regard to the above, please do not hesitate to contact us.

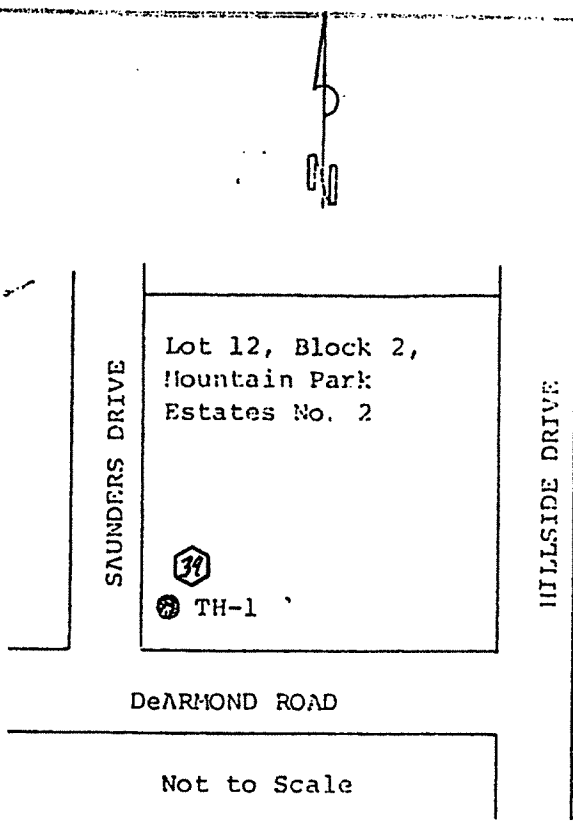
Very truly yours,

R & M CONSULTANTS, INC.

Edward Yarmak, Jr.
Geotechnical Engineer

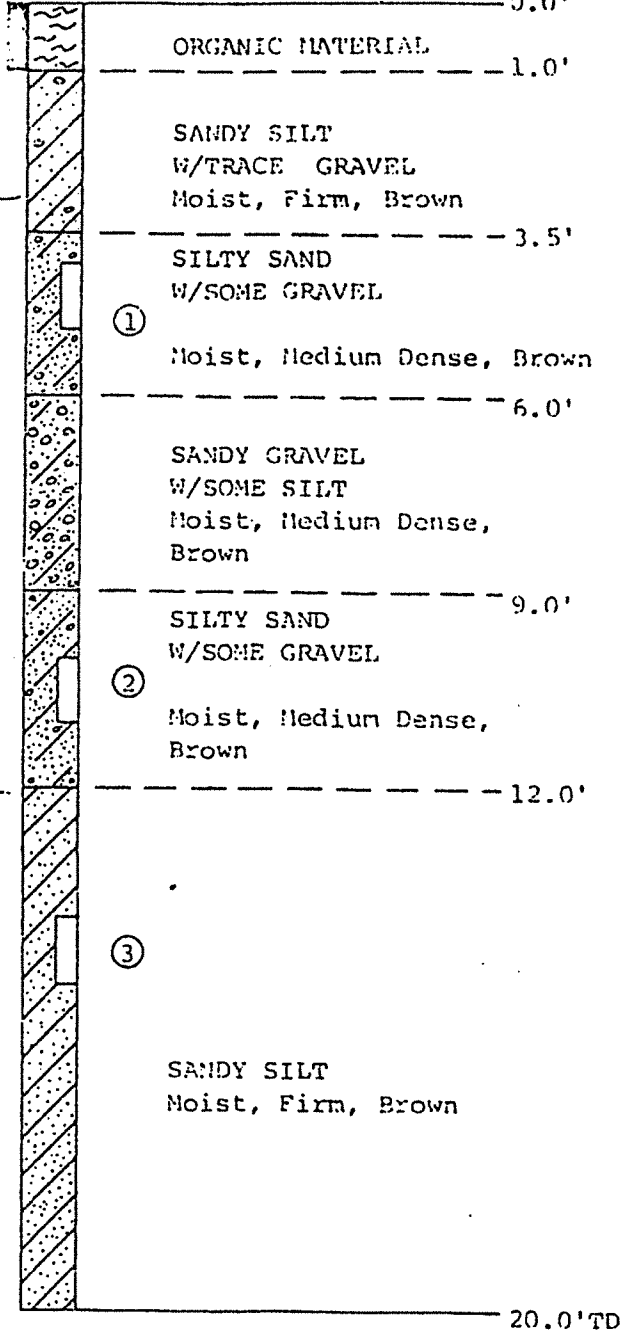
EY/pe

2839



The test hole location is approximate and has not been located by survey methods.

TH-1
4-6-77 All Samples A



Groundwater Table Not Encountered

This log represents subsurface soil conditions within Lot 12, Block 2, Mountain Park Estates Subdivision No. 2 Anchorage, Alaska

DWN: EY
CKD: EY
DATE: 4-8-77
SCALE: 1"=3'

R&M
R&M CONSULTANTS, INC.
ENGINEERS GEOLOGISTS PLANNERS SURVEYORS

SANITARY SEWER TEST HOLE
MILDRED HIRTH
ANCHORAGE, ALASKA

FB
GRID
PROJNO 751137
DWS.NO. A-01

DRILLING LOG

SEP 21 1977

79a

Well Owner Larry Pond, PDQ Homes

Use of Well Dom.

Location (address of: Township, Range, Section, if known; or distance main road)
Lot 12 Block 2 Mountain Park Estates

Size of casing 6" Depth of Hole 225 feet Cased to 221.2 feet

Static water level 180 ft. (~~above~~) (below) land surface. Finish of well (check one) open end ();
 Screen (); Perforated ().

Describe screen or perforation N/A

Well pumping test at 10 gallons per (GPM) (minute) for 1 hours with 100% of drawdown from static level.

Date of completion 8/18/77

WELL LOG

| Depth in feet from ground surface | Give details of formations penetrated, size of material, color and hardness |
|-----------------------------------|---|
| <u>0 TO 2</u> | <u>Casing stickup</u> |
| <u>2 TO 5</u> | <u>Organics</u> |
| <u>5 TO 15</u> | <u>Silty gravel, cobbly</u> |
| <u>15 TO 22</u> | <u>Sand</u> |
| <u>22 TO 35</u> | <u>Silty gravel</u> |
| <u>35 TO 50</u> | <u>Loose gravel, medium</u> |
| <u>50 TO 75</u> | <u>Loose gravelly sand</u> |
| <u>75 TO 95</u> | <u>Silty sandy gravel</u> |
| <u>95 TO 109</u> | <u>Sandy gravel</u> |
| <u>109 TO 125</u> | <u>Silty gravel</u> |
| <u>125 TO 165</u> | <u>Clayey gravel</u> |
| <u>165 TO 174</u> | <u>Sand, gravel & clay</u> |
| <u>174 TO 189</u> | <u>Silty gravel</u> |
| <u>189 TO 220</u> | <u>Sandy gravel</u> |
| <u>220 TO 225</u> | <u>Sandy water gravel</u> |



MUNICIPALITY OF ANCHORAGE
DEPARTMENT OF HEALTH AND ENVIRONMENTAL PROTECTION

Pouch G-650, Anchorage, Alaska 99602 276-2221

PERCOLATION TEST

SOILS LOG - PERCOLATION TEST

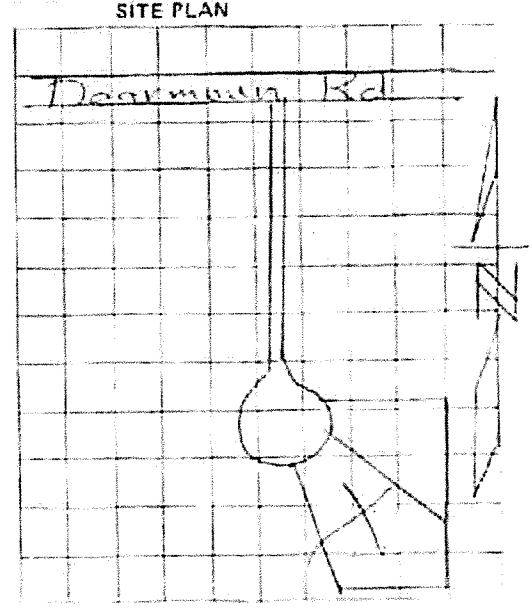
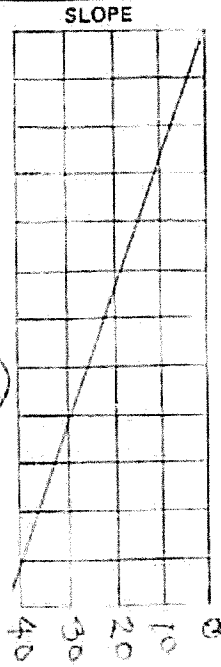
⑦

PERFORMED FOR: Sixto Barrera DATE PERFORMED: Aug. 17, 1977

LEGAL DESCRIPTION: Lot 8, Spanish Hill Subdivision

DEPTH (FEET)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

Organics (Pt)
Clean Sand (SW)
with occasional
layers of silt (ML)



WAS GROUND WATER ENCOUNTERED?

No

IF YES, AT WHAT DEPTH?

S
L
O
P
E

| Reading | Date | Gross Time | Net Time | Depth to Water | Net Drop |
|---------|------|------------|----------|----------------|----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |

PERCOLATION RATE (minutes/inch)

TEST RUN BETWEEN FT AND FT

COMMENTS Recommend a seepage area of 140 square feet per bedroom

PERFORMED BY: Moenig, Gray & Assoc CERTIFIED BY: [Signature] DATE 8-17-77

2931



DAILY DRILLING LOG

SYREN BROS. DRILLING, INC.

274-6437

Anchorage, Alaska 99503

2701 Eagle Street

OWNER OF LAND..... Sixto Herrera..... DEPTH OF WELL..... 255'

ADDRESS..... Admick Hills Sub..... STATIC LEVEL OF WATER FT.....

WELL-SITE..... EAST end of house..... DRAW DOWN FT.....

DATE-STARTED..... 9/16/77..... GALS. PER HR..... 4.25..... 5.00..... 1.00.....

DATE-ENDED..... 9/17/77..... KIND OF CASING..... 6" 17' 1/2" STUDE 2

KIND OF FORMATION:

| | | | | |
|-----------|-----------------|------------------------------|-----------|-------------|
| FROM..... | FT. TO..... 1 | FT. OVERBURDEN..... | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 15 | FT. CLAY | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 25 | FT. CLAY, SAND | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 66 | FT. CLAY, SAND | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 93 | FT. SILTY CLAY, SAND, GRAVEL | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 100 | FT. SILTY SAND, GRAVEL | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 110 | FT. SILT, SMALL GRAVEL | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 183 | FT. RED CLAY, GRAVEL | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 205 | FT. M20. SAND, GRAVEL | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 240 | FT. DRY CLAY, GRAVEL | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 253 | FT. WET CLAY, GRAVEL | FROM..... | FT. TO..... |
| FROM..... | FT. TO..... 255 | FT. GRAVEL, SAND, 1/20 | FROM..... | FT. TO..... |

MISCL. INFORMATION:

DRILLER'S NAME..... WALTER J. SYREN



MUNICIPALITY OF ANCHORAGE
 DEPARTMENT OF HEALTH AND ENVIRONMENTAL PROTECTION
 Pouch 6-650, Anchorage, Alaska 99502 276-2221

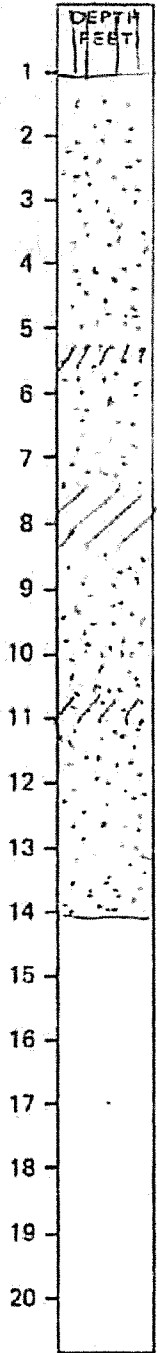
PERCOLATION TEST



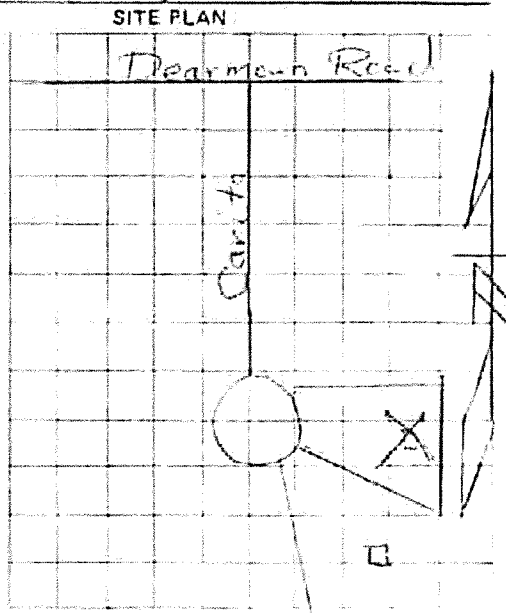
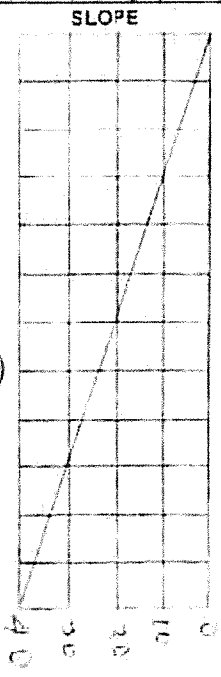
SOILS LOG - PERCOLATION TEST

PERFORMED FOR: John Garcia DATE PERFORMED: Aug. 17, 1977

LEGAL DESCRIPTION: Lot 7, Spanish Hill Subdivision

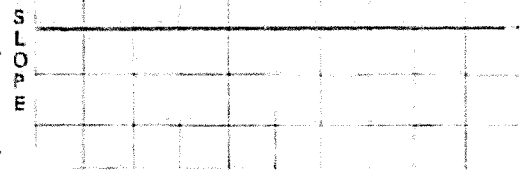


1 Organics Pt
 2
 3 Clean sand (SW)
 4 with occasional
 5 layers of silt (ML)
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20



WAS GROUND WATER ENCOUNTERED? No

IF YES, AT WHAT DEPTH? _____



| Reading | Date | Gross Time | Net Time | Depth to Water | Net Drop |
|---------|------|------------|----------|----------------|----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

PERCOLATION RATE _____ (minutes/inch)

TEST RUN BETWEEN _____ FT AND _____ FT

COMMENTS Recommend a seepage area of 140 square feet per bedroom

PERFORMED BY: MORNING GREY & ASSOC, INC. CERTIFIED BY: [Signature] DATE: 8-17-77

DAILY DRILLING LOG
SYREN BROS. DRILLING, INC.

2701 Eagle Street

Anchorage, Alaska 99503

274-6437

OWNER OF LAND..... Garcia, John..... DEPTH OF WELL..... 340'
 ADDRESS..... Spanish Hills Sub..... STATIC LEVEL OF WATER FT.....
 WELL-SITE..... West End of Houss..... DRAW DOWN FT.....
 DATE-STARTED..... 9/9/77..... GALS. PER HR..... Approx. 20 Gals. per Minute
 DATE-ENDED..... 9/12/77..... KIND OF CASING..... 6" grade 2

KIND OF FORMATION:

| | | | | | |
|----------|------------|---------------------------------------|----------|------------|--|
| FROM 0 | FT. TO 1 | FT. OVERBURDEN..... | FROM 240 | FT. TO 242 | FT. H ₂ O, brn dirt, 30% rock |
| FROM 1 | FT. TO 10 | FT. brn clay, fine sand & gravel | FROM 242 | FT. TO 270 | FT. Brn dirt, 30% rock |
| FROM 10 | FT. TO 32 | FT. gray clay & few gravel | FROM 270 | FT. TO 282 | FT. fractured rock, 1/2 gal. min. |
| FROM 32 | FT. TO 33 | FT. gray clay & gravel | FROM 282 | FT. TO 340 | FT. fractured rock, making H ₂ O. |
| FROM 33 | FT. TO 65 | FT. mainly gray clay & some gravel | FROM | FT. TO | FT. |
| FROM 65 | FT. TO 90 | FT. silty clay & some gravel | FROM | FT. TO | FT. |
| FROM 90 | FT. TO 97 | FT. silt & 40% gravel | FROM | FT. TO | FT. |
| FROM 97 | FT. TO 108 | FT. silt with small gravel | FROM | FT. TO | FT. |
| FROM 108 | FT. TO 180 | FT. brn dirt & gravel | FROM | FT. TO | FT. |
| FROM 180 | FT. TO 200 | FT. H ₂ O, clay, 5% gravel | FROM | FT. TO | FT. |
| FROM 200 | FT. TO 235 | FT. dry clay, 30% gravel | FROM | FT. TO | FT. |
| FROM 235 | FT. TO 240 | FT. brn dirt, 30% gravel | FROM | FT. TO | FT. |

MISCL. INFORMATION:

DRILLER'S NAME..... Stephen D. Syren.....

Read Carefully and Follow Instructions Exactly

Materials present in very minute quantities. The least care-

3-10

March 5, 1975

P. O. No. 562006

Aztec Builders
2900 Wentworth
Anchorage, Alaska 99504

Re: Test Hole and Soil Log Report for Sanitary System
Spanish Hills Subdivision, Lots 1 through 8

Gentlemen:

We are submitting herewith the test hole results and our comments regarding soil conditions encountered at the subject site. This investigation was performed in accordance with your request of February 27, 1975, and those procedures outlined in a letter dated December 17, 1974 by Mr. Rolf Strickland of the Greater Anchorage Area Borough Department of Environmental Quality.

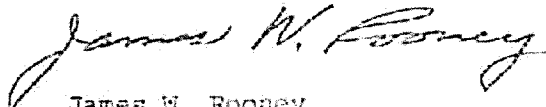
A total of 8 test holes were put down within the subject project area for the purpose of defining general subsurface soil conditions for the proposed sanitary system. Excavation was accomplished with a tractor-mounted backhoe and each test hole was extended to a total depth of 16.0 feet below ground surface. Samples were taken at varying depths in each of the test holes, the results of these samples are enclosed. The final logs prepared for the test holes have been included in Drawing B-03 through B-06.

Ground water was not encountered in any of the test holes.

We appreciate being given this opportunity to be of service to you. Should you have any questions with regard to the above, please do not hesitate to contact us.

Very truly yours,

R & M CONSULTANTS, INC.

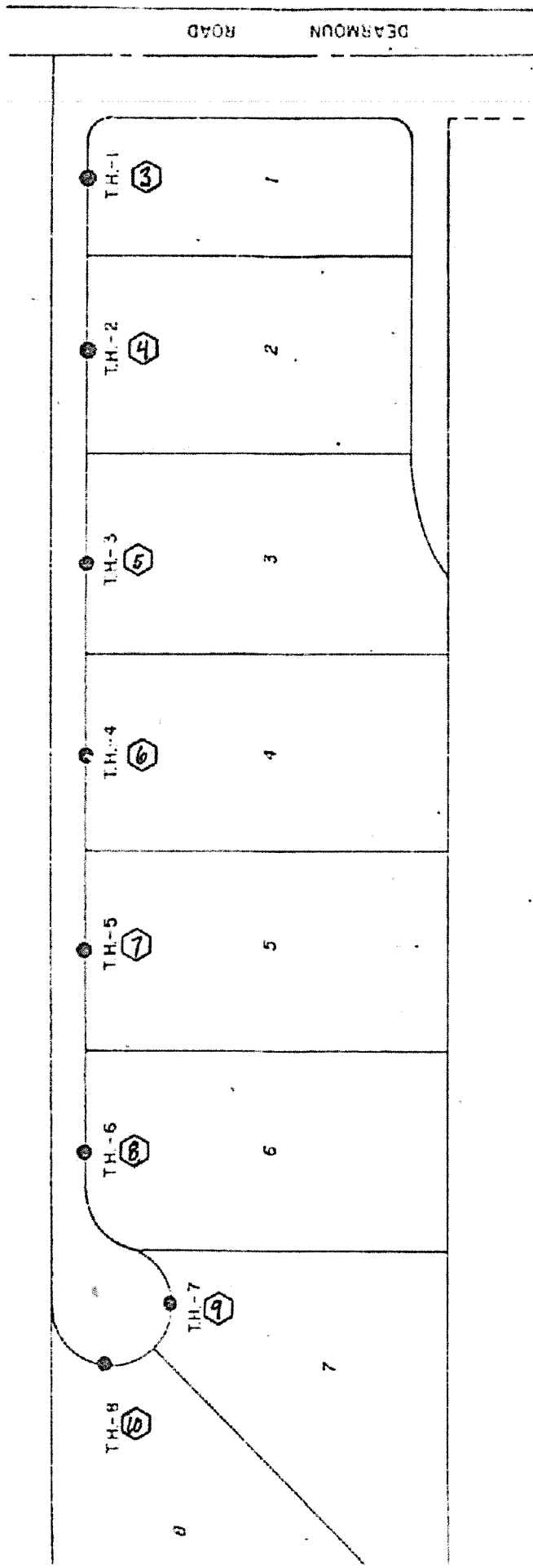


James W. Rooney
Vice President

JWR/WED/ma

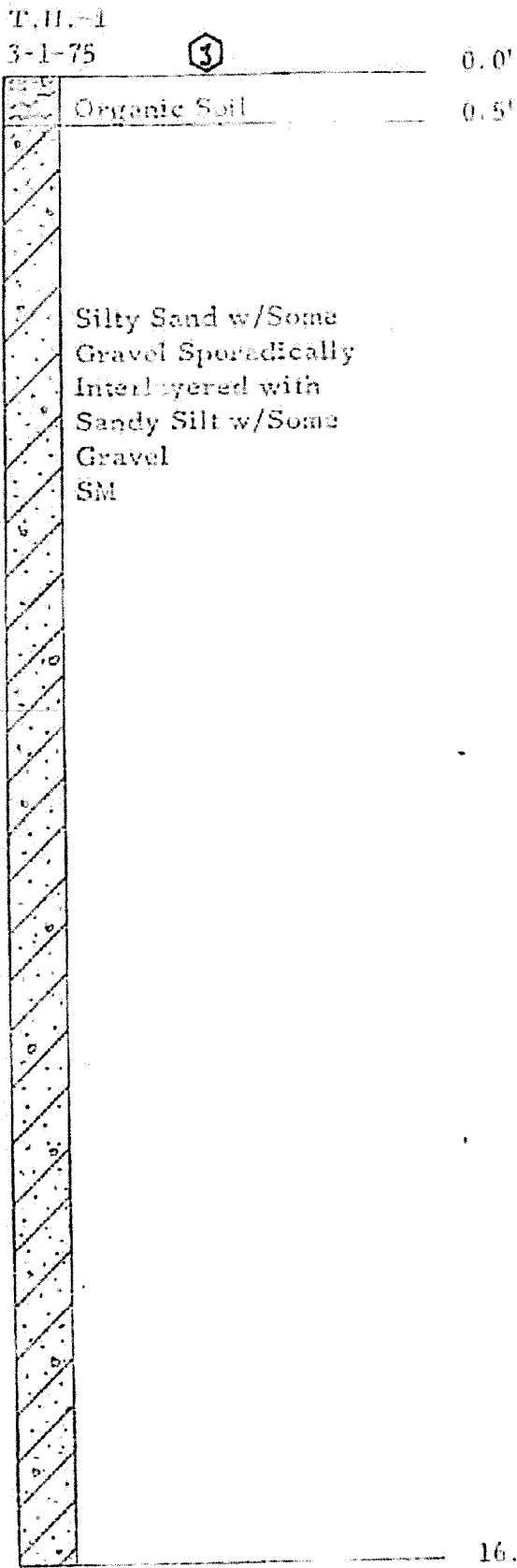
xc: GAAB

S 31082 April 15, 1975
M. J. ...

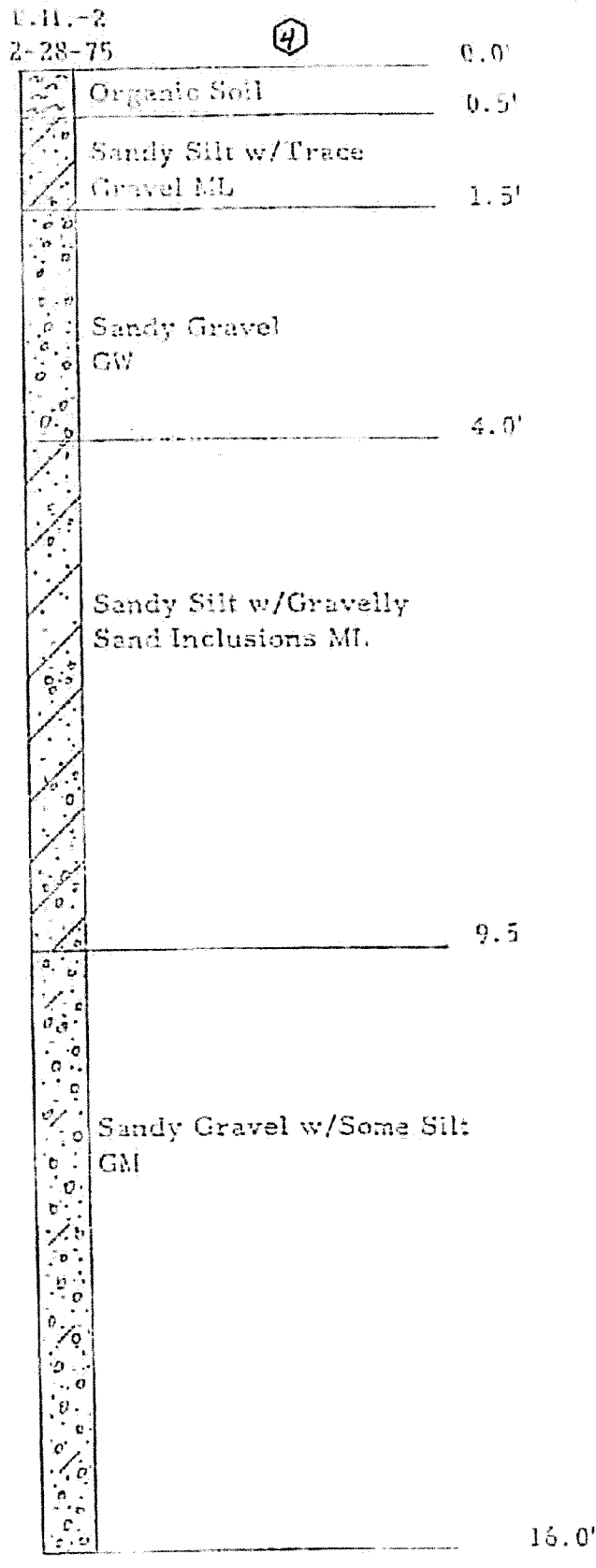


Note: Test Hole Locations Are Approximate.

| | |
|------------------|----------------|
| R & M | CONSULT |
| AZTEC EC | |
| SPANISH MIL | |
| LOCATION | |
| ANCHORAGE | |



No Water Table



No Water Table

NOTE: Test Holes excavated with tractor mounted backhoe

Engineering & Geological Consultants Inc.
ANCHORAGE FAIRBANKS ALASKA JUNEAU

Astec Builders
Log of Test Holes
Anchorage, Alaska

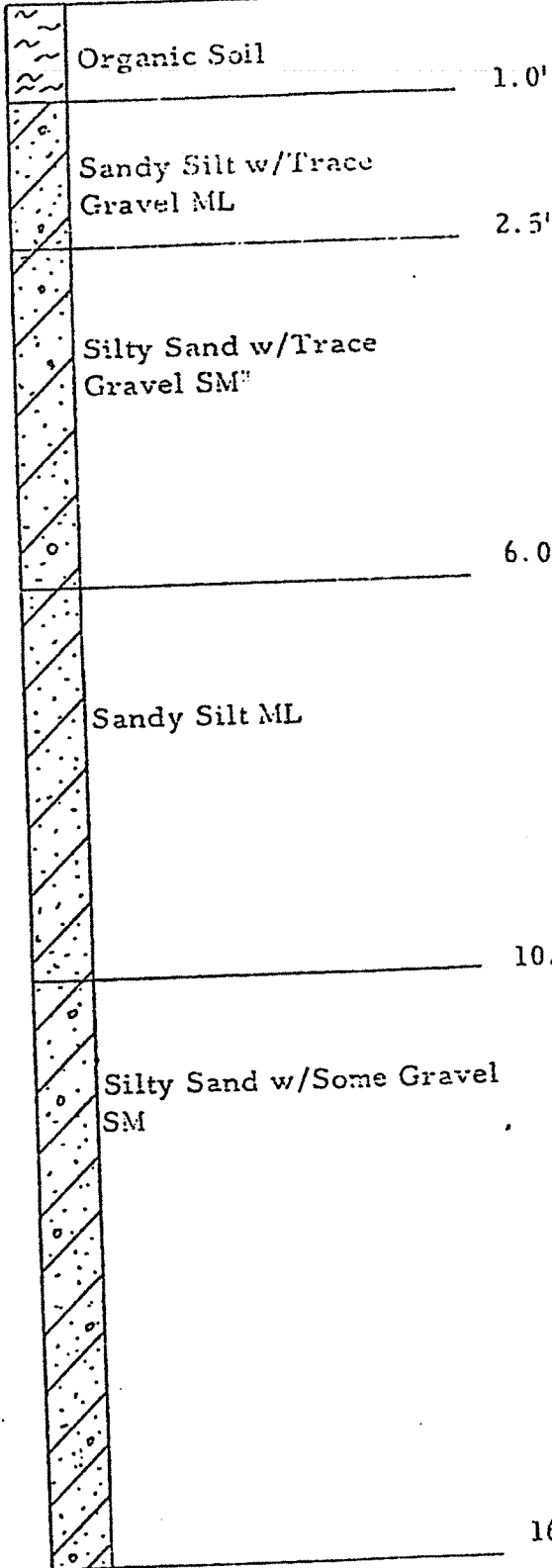
RUCAM

| | | | | | |
|-------------|---------------|-----------------|-----------------|------------------|---------------|
| DATE 3-3-75 | SCALE 1" = 2' | DRAWN BY M.M.H. | CHECKED BY H.J. | PROJ. NO. 56200A | DWG. NO. 3-01 |
|-------------|---------------|-----------------|-----------------|------------------|---------------|

T.H.-3
2-28-75

5

0.0'

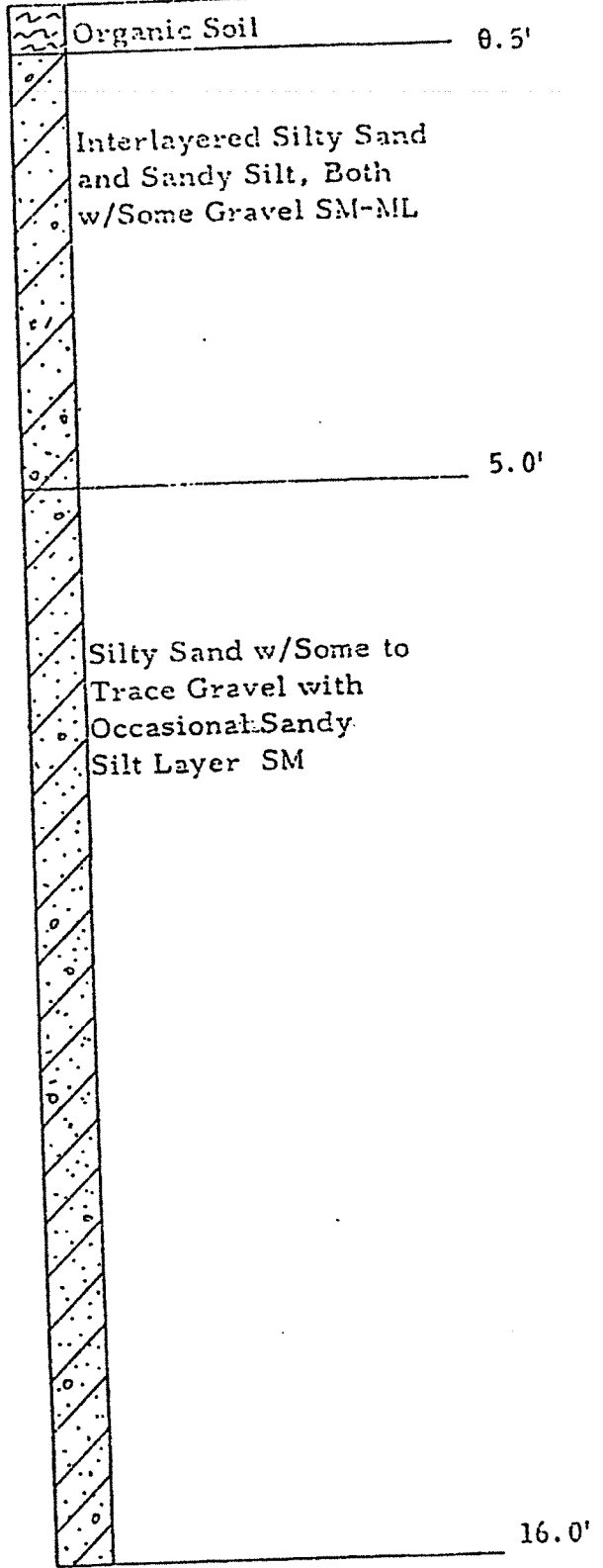


No Water Table

T.H.-4
3-1-75

6

0.0'



No Water Table

NOTE: Test holes extended with tractor mounted backhoe

Engineering & Geological Consultants Inc.
ANCHORAGE FAIRBANKS ALASKA JUNEAU

Aztec Builders
Log of Test Holes
Anchorage, Alaska

R
C
M

DATE 3-3-75

SCALE 1" = 2'

DWN BY MAM

CHKD BY PJ

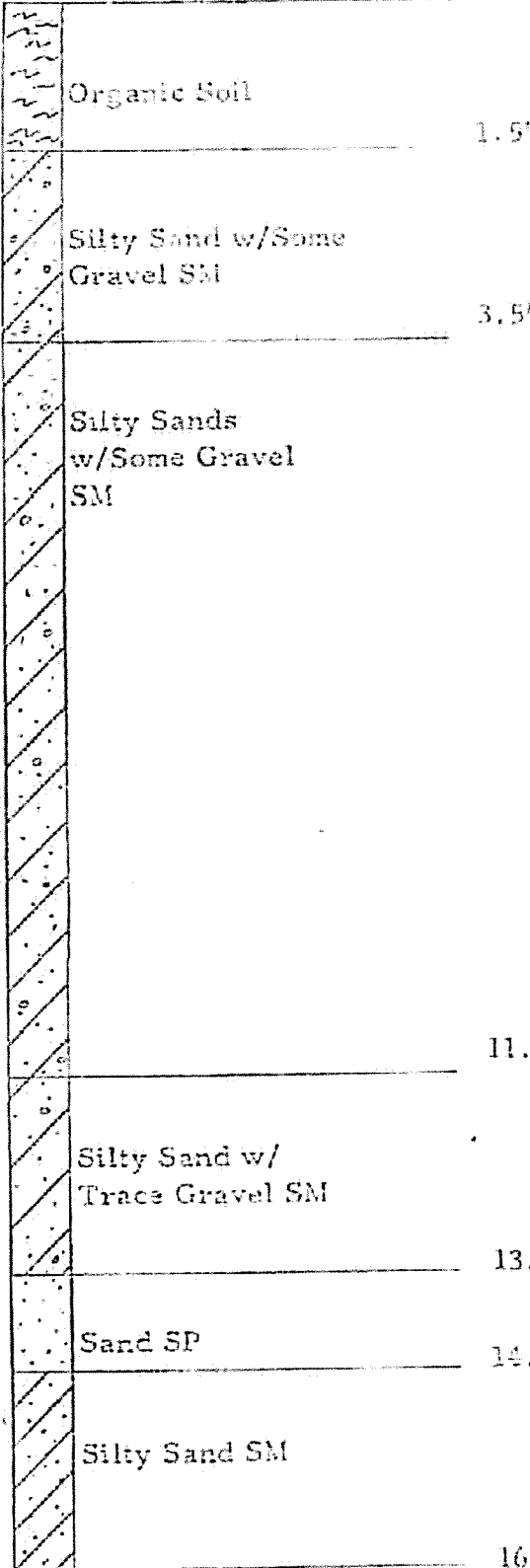
PROJ. NO. 562006

DWG NO. B-04

T.H.-5
3-1-75

⑦

0.0'

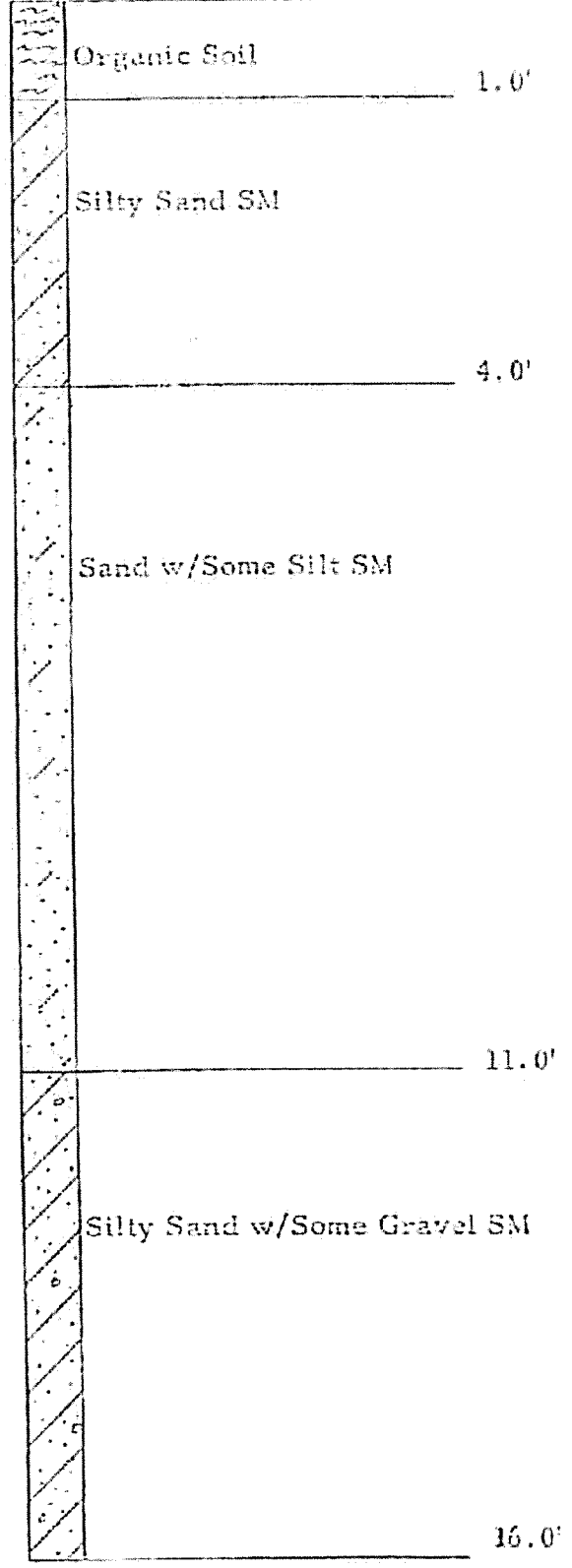


No Water Table

T.H.-6
3-1-75

⑧

0.0'



No Water Table

NOTE: Test holes extended with tractor mounted backhoe

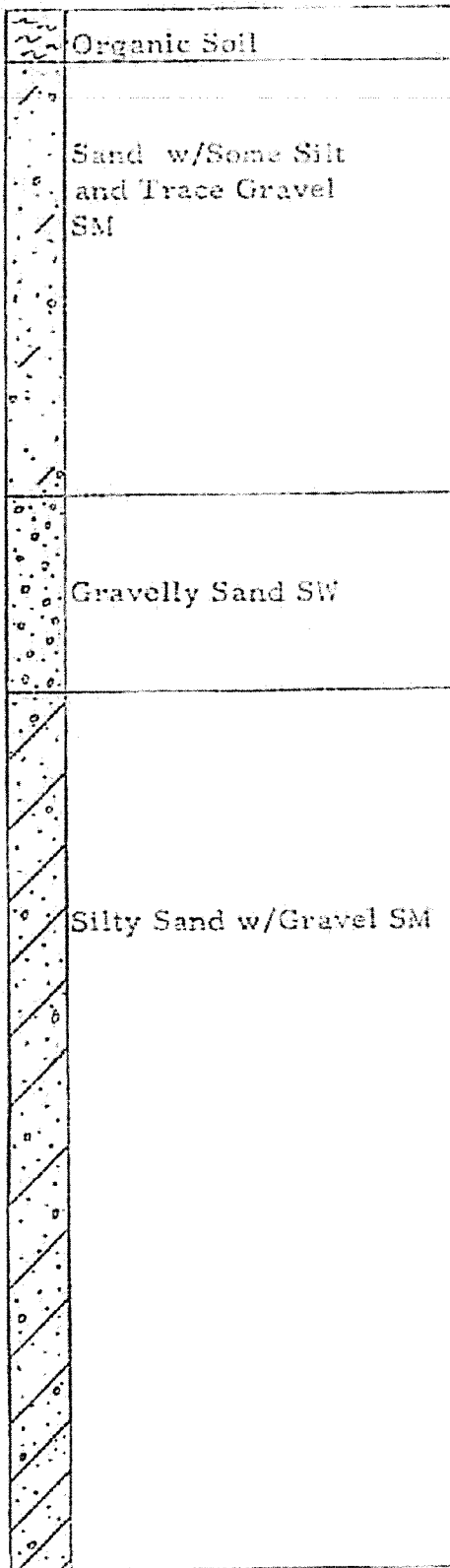
Engineering & Geological Consultants Inc.
ANCHORAGE FAIRBANKS ALASKA JUNEAU

Antec Builders
Log of Test Holes
Anchorage, Alaska

DCM

T.H. -7
3-1-75

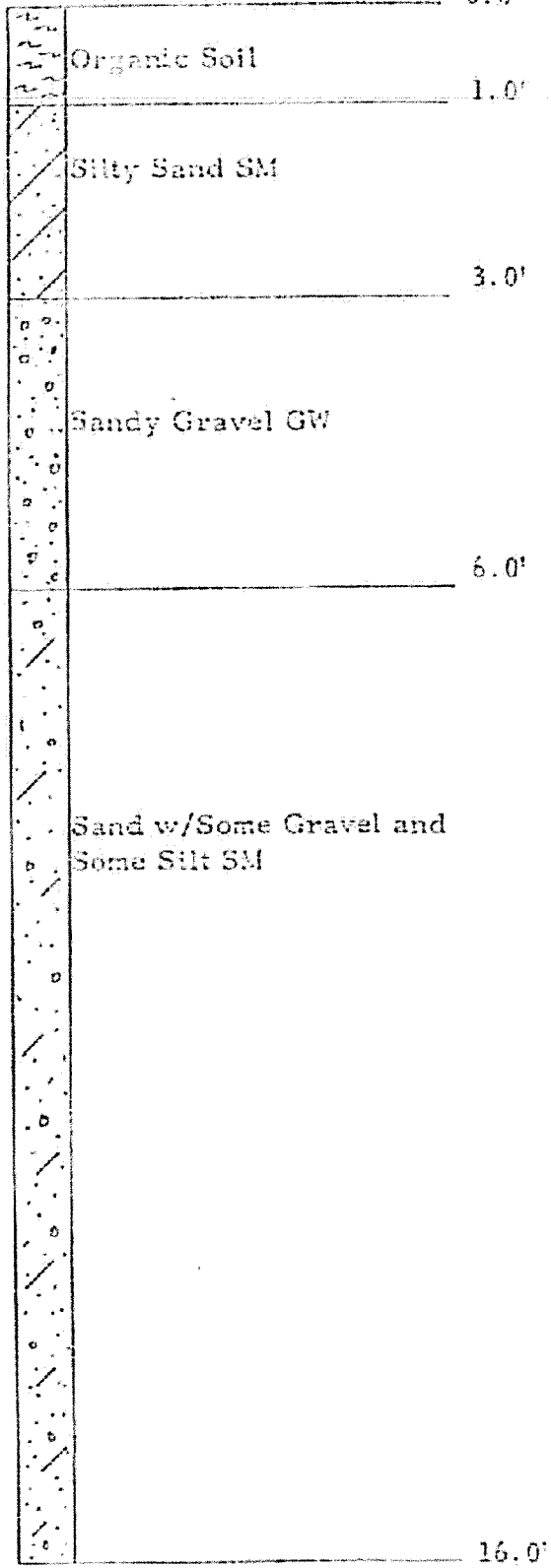
9



No Water Table

T.H. -8
3-1-75

10



No Water Table

NOTE: Test holes extended with tractor mounted backhoe

R
C
M

Engineering & Geological Consultants Inc.
ANCHORAGE FAIRBANKS ALASKA JUNEAU

Artec Builders
Log of Test Holes

Anchorage, Alaska

DATE 3-3-75 SCALE 1" = 2' DOWN BY MAN CHD BY PJ PROJ NO. 562006 DWG NO. B-01

3-10

DATE 3-4-75
 PARTY NO. _____ PAGE NO. _____

R E M Engineering & Geological Consultants
 ANCHORAGE FAIRBANKS ALASKA JUNEAU

SUMMARY OF LABORATORY TEST DATA

PROJECT NO. 562006
 PROJECT NAME Axtec Builders

| ID NO. | BOREHOLE NO. | SAMPLE NO. | DEPTH | 1 1/2" | 1" | 3/4" | 1/2" | 3/8" | 4 | 10 | 40 | 200 | .02 | .005 | .002 | FINE SPG | L.L. | P.I. | WET DENSITY | DRY DENSITY | MOISTURE CONTENT | CLASS. |
|--------|--------------|------------|-------|--------|-----|------|------|------|-----|----|----|-----|-----|------|------|----------|------|------|-------------|-------------|------------------|--------|
| | | | | 51 | 1 | 1 | 8-10 | 100 | 97 | 92 | 82 | 81 | 78 | 75 | 68 | 50 | | | | | | |
| 52 | 2 | 1 | 11-14 | 100 | 80 | 70 | 63 | 60 | 52 | 45 | 37 | 26 | | | | | | | | | | GM |
| 53 | 3 | 1 | 12-16 | | 100 | 95 | 93 | 90 | 83 | 76 | 62 | 44 | | | | | | | | | | SM |
| 54 | 4 | 1 | 10-14 | | | | 100 | 90 | 85 | 79 | 70 | 50 | | | | | | | | | | SM |
| 55 | 5 | 1 | 11-13 | | | | 100 | 95 | 91 | 66 | 43 | 40 | | | | | | | | | | SM |
| 56 | 6 | 1 | 4-5 | | | | | | 100 | 95 | 79 | 18 | | | | | | | | | | SM |
| 57 | 6 | 2 | 9-11 | | | | | 100 | 96 | 92 | 72 | 23 | | | | | | | | | | SM |
| 58 | 7 | 1 | 1-3 | | | | 100 | 98 | 96 | 92 | 67 | 20 | | | | | | | | | | SM |
| 59 | 7 | 2 | 10-12 | 100 | 86 | 84 | 89 | 76 | 69 | 61 | 49 | 35 | | | | | | | | | | GM |
| 60 | 8 | 1 | 3-4 | 100 | 93 | 68 | 54 | 48 | 34 | 23 | 7 | 2 | | | | | | | | | | SM |
| 61 | 8 | 2 | 9-11 | | 100 | 93 | 82 | 79 | 71 | 62 | 25 | 20 | | | | | | | | | | |

NOTE: SIEVE ANALYSIS = PERCENT PASS

MARKS:

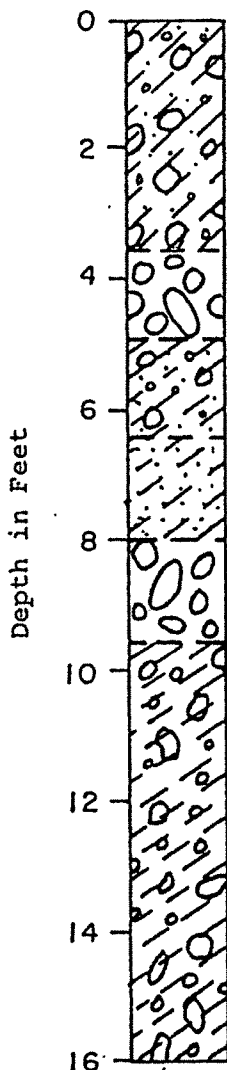
5-26002 APR 15, 1975
 1000 2000 3000

SOILS LOG
PERCOLATION TEST



Performed for Tim Sullivan Date Performed 6/14/76

Legal Description Lot 2, Lamb Subdivision



| | | |
|-----------|--|-------------------------------|
| 0 - 3.5' | - Silty, sandy, poorly graded gravel, GP | Square feet per bedroom = 155 |
| 3.5- 5.0' | - Coarse gravel and boulders, GW-GP | Square feet per bedroom = 110 |
| 5.0- 6.5' | - Silty, sandy, poorly graded gravel, GP | Square feet per bedroom = 155 |
| 6.5- 8.0' | - Sandy silt, ML | Square feet per bedroom = 275 |
| 8.0- 9.5' | - Coarse gravel and boulders, GW-GP | Square feet per bedroom = 110 |
| 9.5-16.0' | - Silty gravel, GM | Square feet per bedroom = 225 |

*6-24-76 11⁴⁵ AM Steve Johnson called to verify that a retest to 20.5 ft in center of trench verified no water to that depth.
R. Stickleland
6-24-76*

Average square feet per bedroom, visual = 186

| Date | Net Time | Depth | Net Drop |
|---------|----------|-----------|----------|
| 6/15/76 | 0 min. | 18.5 in. | 0 in. |
| 6/15/76 | 10 min. | 19.5 in. | 1 in. |
| 6/15/76 | 20 min. | 20.0 in. | .5 in. |
| 6/15/76 | 30 | 20.5 inc. | .5 in. |
| | | | |
| | | | |

Percolation Rate .07 inches per minute

2934-40

Performed By _____ NORTHWEST EXPLORATION SERVICES, INC.



DEPARTMENT OF HEALTH AND ENVIRONMENTAL PROTECTION

Pouch 6-650, Anchorage, Alaska 99502 276-2221

PERCOLATION TEST

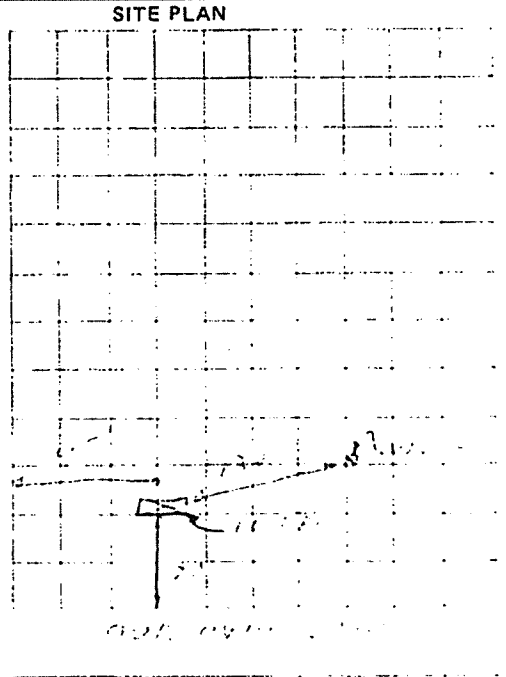
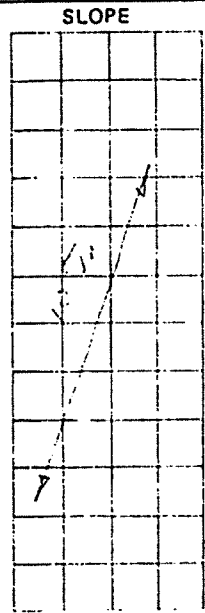
SOILS LOG - PERCOLATION TEST

PERFORMED FOR: CURTIS MACK DATE PERFORMED: 7-7-79

LEGAL DESCRIPTION: L3 LANE 100

DEPTH (FEET) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

0.25
SAND (GAL)
SAND WITH TRUSS (GAL)
SAND WITH TRUSS (GAL)



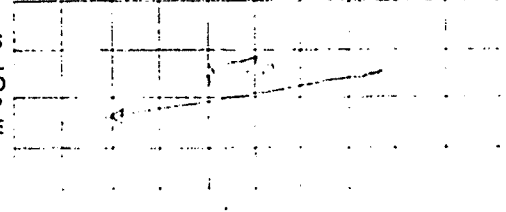
WAS GROUND WATER ENCOUNTERED?

YES

IF YES, AT WHAT DEPTH?

14'

SLOPE



| Reading | Date | Gross Time | Net Time | Depth to Water | Net Drop |
|---------|------|------------|----------|----------------|----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

PERCOLATION RATE _____ (minutes/inch)

TEST RUN BETWEEN _____ FT AND _____ FT

COMMENTS TRENCH DUG AT 10 DEPT WITH 5' ROCK

BOX 1369, STAR ROUTE A ANCHORAGE, ALASKA 99502
344-7714

(B)_a

SIX INCH WATER WELL DRILLED AND CASED OUT TO THE DEPTH OF 150 Feet.

DRILLED AT THE RATE OF \$19.00 PER FOOT.

PROPERTY OWNER Mr. Curtis Mock 344-8681

LOCATION OF WELL SITE St. 3 Blk. Sub. LAMB

DRILLER Bernie Claus of Rampart Drilling Works.

WELL LOG:

0-----26' Silty gravel. 20% clay with 15% sandy material.

26-----74' Gravel with 35% clay binder.

74-----78' Silty water bearing material. Would not clear up.

78---135' Hardpan. Several small boulders.

135--147' Silty sandy wet material. 20% clay.

147--150' Good clean water bearing material producing a possible 9GPM. Water recovery should come back to within 50 Feet of surface. 3/4 Horse Sub. Pump should be installed 10 feet off bottom.

Cost of Drilling: \$19.00 X 150 feet: \$2850.00

Cost of Well Seal: \$21.00

PAID IN FULL

July 20th, 1979
Bernie Claus

COST INCLUDES ALL LABOR AND MATERIAL FOR COMPLETION OF SAID DRILLING.

WRITE CHECK PAYABLE TO RAMPART DRILLING WORKS FOR THE SUM OF \$2871.00

THANK YOU VERY MUCH.

BERNIE CLAUS OF RAMPART DRILLING WORKS

DATE July 19th, 1979

Bernie Claus

SERVICE CHARGE OF 1 1/2% PER MONTH WILL BE ASSESSED ON PAST DUE ACCOUNTS.

De Armoun Rd.



SCALE: 1" = 100'
CONTOUR INT. = 4'

NOTE: Topography and Improvement locations from preliminary subdivision drawing by Hewitt Y. Lounsbury and Associates.

Undeveloped Land

T.H. = Test Boring - 20ft.
P.H. = Percolation Hole

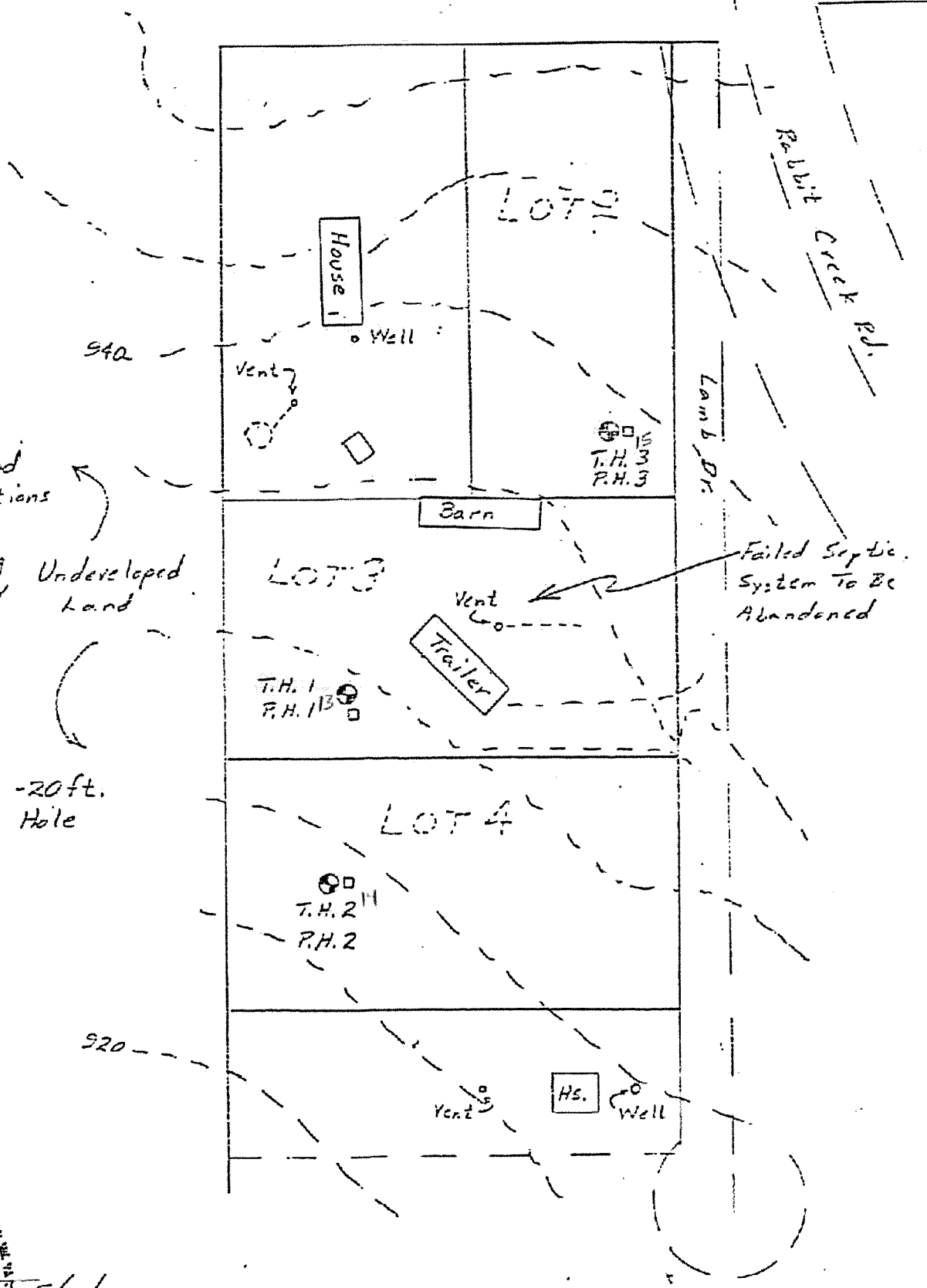


5/20/83

For Judy Collier

Location Sketch For Subdivision Approval
E 1/2 NE 1/4 NE 1/4 SE 1/4

ARCHITECTIVE - ENGINEERING
7127 Old Sevard Rd. S.E.
Bldg. 24 Everett, WA 98148





MUNICIPALITY OF ANCHORAGE
DEPARTMENT OF HEALTH AND ENVIRONMENTAL PROTECTION

825 L. Street, Anchorage, Alaska 99501 264-4720

SOILS LOG - PERCOLATION TEST

PERCOLATION TEST

13

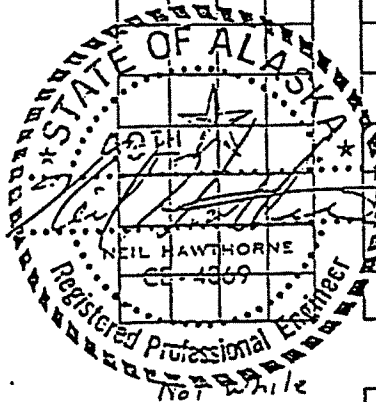
T.H.# 1

PERFORMED FOR: Judy Collier DATE PERFORMED: 5/19 & 5/20-83

LEGAL DESCRIPTION: Lot 3 (Future Lots in) E 1/2, NE 1/4, NE 1/4, SE 1/4 S26 T13N R3W S.M.

| DEPTH (FEET) | Top Soil | SLOPE | SITE PLAN |
|--------------|-------------------------------------|-------|-----------|
| 1 | SM S. Gr Sa Brn To Tan w/Roots -Wet | | |
| 2 | SM Si Gr Sa Tan Moist | | |
| 3 | | | |
| 4 | GM Si Sa Gr Moist | | |
| 5 | | | |
| 6 | GM Same - Moist to Wet | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | ML Gr Sa Si Wet | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | Layer Gr | | |
| 20 | ML Gr Sa Si Moist | | |

| Reading | Date | Gross Time | Net Time | Depth to Water | Net Drop |
|---------|------|------------|----------|----------------|----------|
| 1 | 5/20 | 1:25 | | 9-1 1/8" | |
| 2 | ✓ | 1:50 | 25m | 9-1 7/16 | 5/16 |
| 3 | ✓ | 2:12 | 22m | 9-1 9/16 | 1/8 |
| 4 | - | 2:36 | 24m | 9-1 3/4 | 3/16 |
| 5 | - | 3:05 | 29m | 9-1 15/16 | 3/16 |
| 6 | - | 3:27 | 22m | 9-2 1/16 | 1/8 |



WAS GROUND WATER ENCOUNTERED? Drilling
IF YES, AT WHAT DEPTH? 5'-2" on Second Day in 20' Hole Only

PERCOLATION RATE 176 ± (minutes/inch)

TEST RUN BETWEEN 8 FT AND 8 3/4 FT

COMMENTS Note other cores. Failed system near this hole - Also another system upslope of this hole - See site Plan

PERFORMED BY: Hawthorne CERTIFIED BY: NH DATE: 5/20/83



MUNICIPALITY OF ANCHORAGE
 DEPARTMENT OF HEALTH AND ENVIRONMENTAL PROTECTION
 825 L. Street, Anchorage, Alaska 99501 264-4720

PERCOLATION TEST

14

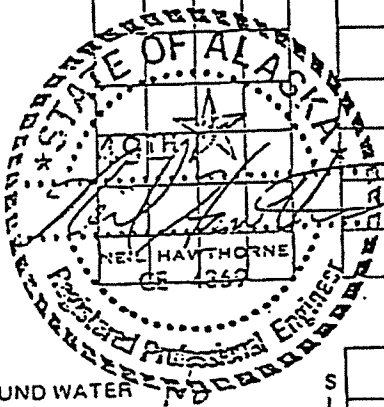
SOILS LOG - PERCOLATION TEST

T.H. # 2

PERFORMED FOR: Judy Collier DATE PERFORMED: May 19 1983

LEGAL DESCRIPTION: Lot 4 (Future Lots in) E 1/2, NE 1/4, NE 1/4, SE 1/4 S 26 T 13 N R 3 W 5 M

| DEPTH (FEET) | Soil Description |
|--------------|------------------------------------|
| Top Soil | |
| 1 SM | S ₁ Gr Sa Roots - Wet |
| 2 SM | S ₁ Gr Sa - Moist - Tan |
| 3 SM | S ₁ Gr Sa - Moist - Tan |
| 4 Sample GM | S ₁ Sa Gr - Moist |
| 5 Sample SM | S ₁ Gr Sa - Moist |
| 6 Sample SM | S ₁ Gr Sa - Moist |
| 7 | |
| 8 Sample ML | Sa Gr Si Moist to Wet |
| 9 | |
| 10 | More Silty |
| 11 | |
| 12 | |
| 13 SM | S ₁ Gr Sa Moist |
| 14 | |
| 15 | |
| 16 | |
| 17 | |
| 18 | Gr Layers |
| 19 | Moist |
| 20 | |



WAS GROUND WATER ENCOUNTERED?

IF YES, AT WHAT DEPTH? None on Second Day

SLOPE

| Reading | Date | Gross Time | Net Time | Depth to Water | Net Drop |
|---------|------|------------|----------|----------------|----------|
| 1 | 5/20 | 1:35 | | 6'-6 1/4" | |
| 2 | ✓ | 1:59 | 24m | 6'-7" | 3/4" |
| 3 | ✓ | 2:23 | 24m | 6'-7 7/8" | 7/8" |
| 4 | ✓ | 2:47 | 24m | 6'-9" | 1 1/8" |
| 5 | ✓ | 3:11 | 24m - | 6'-9 7/8" | 7/8" |
| 6 | ✓ | 3:32 | 21m | 6'-10 9/16" | 1 1/16" |

PERCOLATION RATE 27 to 30 (minutes/inch)

TEST RUN BETWEEN 5'-9" FT AND 6.5' FT

COMMENTS

PERFORMED BY: Neil Hawthorne CERTIFIED BY: NH DATE: 5/20/83



MUNICIPALITY OF ANCHORAGE
 DEPARTMENT OF HEALTH AND ENVIRONMENTAL PROTECTION
 825 L. Street, Anchorage, Alaska 99501 264-4720
 SOILS LOG - PERCOLATION TEST

PERCOLATION TEST

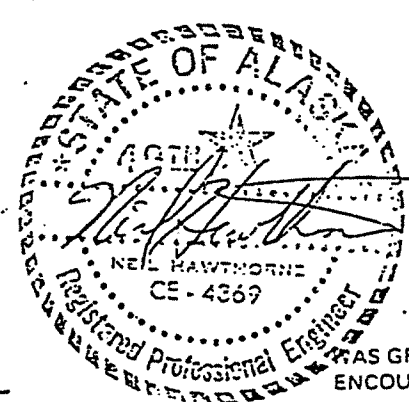
T.H.# 3

15

PERFORMED FOR: Judy Callier DATE PERFORMED: May 19th 20, 83
Lot 2

LEGAL DESCRIPTION: (Future Lots in) E1/2, NE1/4, NE1/4, SE1/4 S26 T13N R3W S.1
 SLOPE SITE PLAN

| DEPTH (FEET) | Soil Description |
|--------------|-------------------------------------|
| 1 | Top Soil Gr Si Sa - Moist to wet |
| 2 | SM More Gr Moist |
| 3 | |
| 4 | |
| 5 | Si Sa Gr Moist |
| 6 | GM |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | Gr Sa Si Moist |
| 14 | ML |
| 15 | |
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | Gr Layer T.D. |



SLOPE

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SITE PLAN

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SLOPE

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WAS GROUND WATER ENCOUNTERED? No
 IF YES, AT WHAT DEPTH? None Second Day

| Reading | Date | Gross Time | Net Time | Depth to Water | Net Drop |
|---------|------|------------|----------|----------------|----------|
| 1 | 5/20 | 1:16 | | 8'-10 1/8" | |
| 2 | ✓ | 1:40 | 24m | 9'-0" | 1 7/8" |
| 3 | ✓ | 2:00 | 20m | 9'-1 3/8" | 1 3/8" |
| 4 | ✓ | 2:05 | | 8'-11 1/2" | |
| 5 | ✓ | 2:30 | 25m | 9'-0 1/16" | 1-3/16" |
| 6 | ✓ | 2:54 | 24m | 9'-1 13/16" | 1 1/8" |
| 7 | ✓ | 2:58 | | 9'-0 1/8" | |
| 8 | ✓ | 3:22 | 24m | 9'-1 1/4" | 1 1/8" |

PERCOLATION RATE 22 (minutes/inch)

TEST RUN BETWEEN 7.5 FT AND 8.0 FT

COMMENTS _____

PERFORMED BY: N Hawthorne CERTIFIED BY: NH DATE: 5/20/83