



**Municipality of Anchorage
Geotechnical Advisory Commission**

A G E N D A

Tuesday, April 27, 2021

12:00 Noon – 1:30 p.m.

Regular Meeting

Virtual Meeting via Microsoft Teams

Join by Link: [Click here to join the meeting](#)
and/or

Join by Conference Call:

Teams Meeting Dial-in Number: (907) 519-0237

Meeting Conference ID: 497 203 916#

- I. CALL TO ORDER
 - A. Establishment of Quorum
 - B. Disclosures
- II. MINUTES
 - A. March 23, 2021
- III. OLD BUSINESS
- IV. NEW BUSINESS
 - A. GAC 2021-01, Palaterra Subdivision Slope-stability Issues
- V. PERSONS TO BE HEARD (3-minute limit)
- VI. COMMITTEE REPORTS
- VII. OTHER BUSINESS
- VIII. STAFF REPORTS
- IX. ADJOURNMENT

Next Regular Meeting: May 25, 2021, via Teams

Tobish, Thede G.

From: Matthew Blakeslee
Sent: Wednesday, April 21, 2021 2:47 PM
To: Tobish, Thede G.
Subject: Geotechnical Concerns- Palaterra Lot

Good Afternoon Thede,

Thank you for calling me back. Here is the information about our slope stability concerns with the proposed Palaterra Lot development.

link to the case file: <http://www.muni.org/CityViewPortal/Planning/Status?planningId=17323>

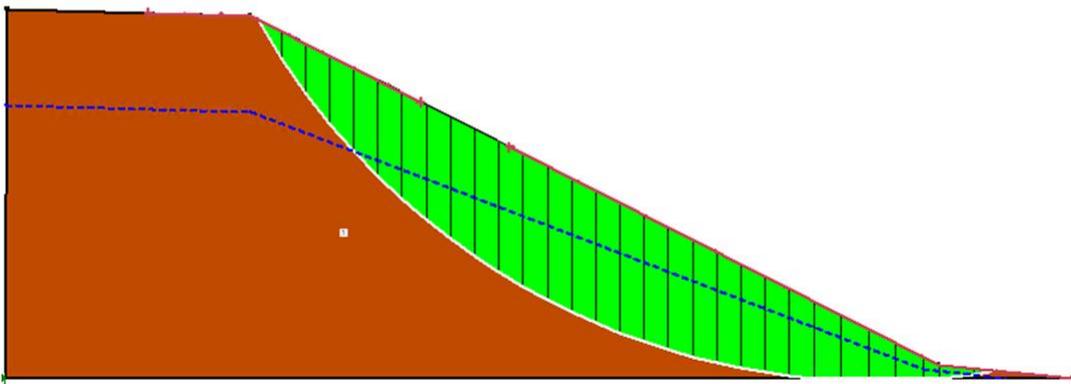
Attached is the proposed plat from S4 group, and the letter drafted from the Rabbit Creek Community Council that was sent to the platting board. Also below is a picture of the slope stability model I built for the slope.

I really appreciate the opportunity to bring this to the GAC. Let me know if you need anything else. My email to send the teams meeting to is mblakeslee@dowl.com

Thank you,
-Matt Blakeslee

Name	Unit Weight (pcf)	Cohesion' (psf)	Phi' (°)
Silty Sand with Gravel	120	0	30

0.95



Platting Board, MOA c/o Corliss Kimmel
David Whitfield, Current Planning Director

PO Box 196650
Anchorage, AK 99519

Subject: Platting Case S12607 - Palaterra Subdivision

Rabbit Creek Community Council (RCCC) has reviewed the plat application for Palaterra Subdivision: S12607. The applicant presented this proposal at a community meeting as well as our March 10 Council meeting, both held by Zoom.

RCCC heard various concerns from the community: inadequate data on soils and hydrology; drainage, steep slopes, the need for trail connectivity, and an intersection that requires a variance. The Council is especially concerned about the steep bluff along the south side of this subdivision, with an elevation change exceeding 100 vertical feet and gradients over 50%. These slopes are currently forested. The slopes are highly susceptible to erosion and possible slope failure if the natural vegetation is removed. Therefore, RCCC requests the following additional data and conditions of approval, which may necessitate adjustment to some of the lot boundaries:

- A. The Council requests current data and engineering analysis of the groundwater and the slope stability along the southern side of the subdivision prior to a Platting Board decision on this plat.
 - a. The application lacks engineering studies of the subsurface materials and their physical properties. Borehole logs compiled by S4 Group and documented in their Municipality of Anchorage (MOA) Application for Preliminary Plat suggest the subsurface conditions consist of silty sand to silty sand with gravel; however, there were no samples collected and no laboratory testing was performed on the material.
 - b. There is no current groundwater data within the area of the proposed development. The applicant relies on well logs from the mid 1970s to speculate on water tables, but development and climate change may have rendered those logs inaccurate. RCCC requests a water balance study be conducted to evaluate the current groundwater levels on a monthly basis with calculations documenting how the groundwater level will change with the proposed development. This should include the increased runoff and input from proposed septic drain fields. This information is most pertinent at the top of the steep slope where an increase in groundwater can cause slope failure.
 - c. The slope stability analysis should couple both the engineering/strength properties of the subsurface and the water balance study to accurately measure the risk of slope failure. An increase in the groundwater table will reduce the increase the risk of large-scale slope failure or land sliding.
- B. Retain natural vegetation to control drainage. Given that the parcel's south-west sloping contours drain toward the steep bluffs, the plat should require natural vegetation retention zones on all the lots to minimize changes in the rate and volume of runoff. Natural drainage ways should also be identified and protected through

vegetation retention. This is important for slope stability as well as maintenance of the water quality, volume and periodicity of discharge to nearby Rabbit Creek.

- a. *The Hillside District Plan* Policy 8A on Drainage Management includes the directive to “Maintain native vegetation based on lot size and slope for individual parcels and based on drainage and greenbelt continuity for larger tracts of land.”
 - b. HDP Policy 8-E calls for “no net increase in run-off beyond existing peak flows for up to the 10-year event unless regional [drainage] facilities are in place”.
 - c. 21.07.040.1.c states that good drainage design incorporates the effectiveness of natural systems rather than negating, replacing, redirecting or ignoring them. The features, capacity and function of the existing natural system shall be considered and utilized.”
- C. Steep slope conditions of approval. Three lots (numbered 5, 6, and 7) are primarily located on very steep slopes. These slopes are particularly susceptible to potential erosion, slope instability, and/or drainage impacts on down-gradient properties. Our Council area has witnessed slope failures on the same slope less than ¼ mile away (see figure 1) from the proposed development, and spectacular “blowouts” of groundwater during subdivision development, including at Prominence Pointe (figure 2) and in Potter Creek. Title 21.07.020- (Natural Resource Protection, Section C on steep slope development) requires non-disturbance zones for these slopes: yet this can be hard to enforce on private property as shown in Figure 1. Violations can cause irreversible damage that are very difficult to fix. RCCC suggests two possible solutions to ensure stability of the slopes in the proposed subdivision:
- a. Re-draw the lot boundaries for lots 5, 6, and 7 to end at the crest of the slope and create a green belt to encompass the slope. This could be a common open space zone.
 - b. Designate the steeply sloped area within lots 4, 5, 6, and 7 as natural undisturbed zones and depict these areas on the plat and through plat notes. Require field marking of this zone prior to, and through, construction.
- D. Align a sustainable trail connection from the internal subdivision road to Our Own Lane, in consultation with the non-motorized transportation coordinator and a professional trail designer. This trail will provide a much-needed north-south neighborhood connection because the Rabbit Creek bluff creates a vertical barrier with no north-south connections from DeArmoun neighborhoods to the creek bottom. The Hillside District Plan shows a primary trail corridor in the Rabbit Creek Valley bottom (Map 4.6 of the HDP), roughly following Our Own Lane at the toe of this subdivision. The connection to Rabbit Creek Greenbelt will enhance property values in Palaterra subdivision. The trail may need to traverse the bluff at a gradual angle and be narrow, similar to trails within the Greenbelt. A sustainable trail connection was built down the bluff approximately 1 mile south, at Griffin Street, within the Rabbit Creek Greenbelt Park, so this can be done.
- E. Request for variance to 21.08.030.F.5 for intersection centerline separation: The Council has no objection to the variance to allow the proposed entry road 60 feet west of Saunders Road and 315 feet west of Hillside Drive. The applicant has made a credible case that this is the safest location, compared to the steep grade and poor sight lines at the original intended entry road at Buena Vista Drive.

Ann Rappoport
Co-Chair

Carl Johnson
Co-Chair

cc: Dave Whitfield <WhitfieldDR@ci.anchorage.ak.us>
Greg Soule <soulegg@ci.anchorage.ak.us>
KimmelCA@muni.org>|



Figure 1. Slope failure on a section of the Rabbit Creek bluff as a result of a property owner clearing and developing steep slopes in violation of Title 21.07.020- (Natural Resource Protection, Section C on steep slope development).



Figure 2. Slope failure near Prominence Pointe on developed slope.



Scale 1" = 100'

Curve Table				
Curve #	Length	Radius	Delta	Chord
C1	136.18	150.00	052°01'01"	131.55
C2	374.09	747.45	028°40'33"	370.20
C3	112.90	250.00	025°52'28"	111.94
C4(R)	274.63	1960.00	008°01'41"	274.41
C5	31.37	20.00	089°51'15"	28.25
C6	108.94	120.00	052°01'01"	105.24
C7	186.22	777.45	013°43'26"	185.78
C8	202.88	777.45	014°57'07"	202.31
C9	24.93	280.00	005°06'06"	24.92
C10	60.67	280.00	012°24'53"	60.55
C11	40.85	280.00	008°21'29"	40.81
C12	32.18	50.00	036°52'12"	31.62
C13	41.83	50.00	047°56'18"	40.62
C14	35.76	50.00	040°58'29"	35.00
C15	37.97	50.00	043°30'47"	37.07
C16	39.76	50.00	045°33'29"	38.72
C17	66.11	50.00	075°45'21"	61.40
C18	32.18	50.00	036°52'12"	31.62
C19	34.40	220.00	008°57'31"	34.36
C20	64.95	220.00	016°54'57"	64.72
C21	107.66	717.45	008°35'51"	107.56
C22	251.42	717.45	020°04'42"	250.13
C23	163.42	180.00	052°01'01"	157.86

Notes:

- Easements by document shown where plotted and dimensioned for reference purposes only. The recorded easement documents should be used to verify and establish location, rights and permitted used.
- All Lot corners will be set with 5/8" X 30" rebar with 1 & 1/4" yellow plastic cap except as shown.
- 50' Temporary turnaround to be abandoned when a connecting street right of way is platted per plat 67-124.
- Distances shown to the foot are to that foot.
- The property owner and utilities shall not raise, lower, or re-grade the property in a manner that will alter the drainage patterns without prior approval from Municipality of Anchorage Building Safety Office.
- Property owners and utilities shall not obstruct, impede or alter drainage facilities (e.g. swales, ditches) in any way that will adversely impact adjacent properties or rights-of-way.
- All lot lines are non-radial unless otherwise noted.
- Right-of-Way Easement, including terms and provisions thereof, granted to CHUGACH ELECTRIC ASSOCIATION, INC., and its assigns and/or successors in interest, to construct, operate and maintain an electric transmission and/or telephone distribution line or system by instrument recorded January 20, 1953, Book 84 Page 297. (Blanket Easement) Not dedicated this plat. Release of Right-of-Way, recorded October 12, 2017 as Instrument No. 2017-042562-0.
- Right-of-Way Easement, including terms and provisions thereof, granted to CHUGACH ELECTRIC ASSOCIATION, INC., and its assigns and/or successors in interest, to construct, operate and maintain an electric transmission and/or telephone distribution line or system by instrument recorded January 20, 1953, Book 84 Page 298. (Blanket Easement) Not dedicated this plat. Release of Right-of-Way, recorded October 12, 2017 as Instrument No. 2017-042561-0.

TAX CERTIFICATION

All real property taxes levied by the Municipality of Anchorage on the area shown on this plat have been paid in full, and if approval is sought between January 1 and the tax due date, there is on deposit with the chief fiscal officer an amount sufficient to pay estimated real property tax for the current year.

Authorized Official _____ Date _____

APPROVALS

Platting Officer _____ Date _____

Municipal Surveyor _____ Date _____

OnSite Water and Wastewater _____ Date _____

Certificate of Ownership and Dedication

I (we), hereby certify that I (we) hold the herein specified property interest in the property described hereon. I (we) hereby dedicate to the municipality all areas depicted for use as public utility easements, streets, alleys, thoroughfares, parks, and other public areas shown hereon. There shall be reserved adjacent to the dedicated streets shown hereon a slope reservation easement sufficient to contain cut and fill slopes of 1.5 feet horizontal for each one foot vertical (1.5 to 1) of cut or fill for the purpose of providing and maintaining the lateral support of the constructed streets. There is reserved to the grantors, their heirs, successors and assigns, the right to use such areas at any time upon providing and maintaining other adequate lateral support, as approved by the municipality.

I (we) hereby agree to this plat, and to any restriction or covenant appearing hereon and any such restriction or covenant shall be binding and enforceable against present and successive owners of this subdivided property.

Name: _____ Title: _____

Signature: _____

Colony Builders Inc.
9420 Vanguard Drive #A
Anchorage, AK 99503

Notary Acknowledgement

Subscribed and sworn before me this _____ day of _____ 2021.

For: _____

My commission expires _____ Notary Public _____

SURVEYOR'S CERTIFICATE

I, Benjamin C. Holmstrom, professional land surveyor, do hereby certify that the plat of _____ is a true and correct representation of lands actually surveyed and that the distances and bearings are shown correctly and that all permanent exterior control monuments, all other monuments, and lot corners have been set and staked, or if final completion is assured by subdivision agreement, they will be set as specified in said subdivision agreement. Lot corners to be set by _____ Monuments to be set by _____

PLAT APPROVAL

Plat approved by the Municipal Platting Authority this _____ day of _____ 2021

Authorized Official _____



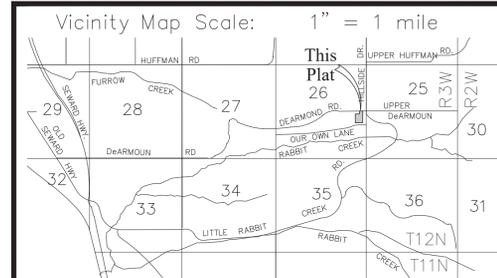
ACCEPTANCE AND DEDICATION BY MUNICIPALITY OF ANCHORAGE

The Municipality of Anchorage hereby accepts for public uses and for public purposes the real property dedicated on this plat including, but not limited to easements, rights-of-way, alleys, roadways, thoroughfares and parks shown hereon.

Dated at Anchorage, Alaska this _____ day of _____ 2021.

Municipal Clerk _____

Mayor of Anchorage _____



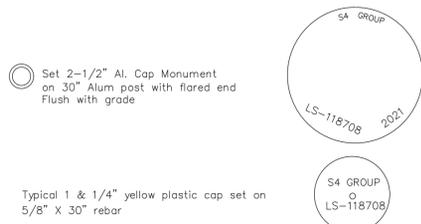
**A Preliminary Plat of:
Lots 1-12,
Palaterra Subdivision
Addition 2, with Variance**

A RESUBDIVISION OF: BLOCKS 2A & 3A, PALATERRA SUBDIVISION, ACCORDING TO PLAT NO. 2019-87, LOCATED WITHIN THE SE1/4, SECTION 26, T12N, R3W, S.M., ANCHORAGE RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA, AND CONTAINING 17.024 ACRES, MORE OR LESS.

S4 Group Land Surveying
Land Development Consultants
Subdivision Specialists
Construction Surveying

124 E 7th Avenue
Anchorage, Alaska 99501
(907) 306-8104
mail@s4ak.com

Scale 1" = 100' Job No: 2021-08 Grid: SW2335
Field Book: MOA Case: S Date: 2/10/2021



Typical 1 & 1/4" yellow plastic cap set on 5/8" X 30" rebar

Legend

- Set monument
- Found monument
- Found 5/8" Rebar
- Found Concrete Post
- (R1) Record as per Plat
- (R2) Record as per Plat
- (R3) Record as per Plat
- (R4) Record as per Plat
- (M) Measured as per this plat
- (C) Calculated as per this plat
- (DTP) Dedicated to the Municipality of Anchorage by this plat
- (NPFS) No Point Found or Set
- (*) Computed as per record plat.
- (NT) Non-Tangent