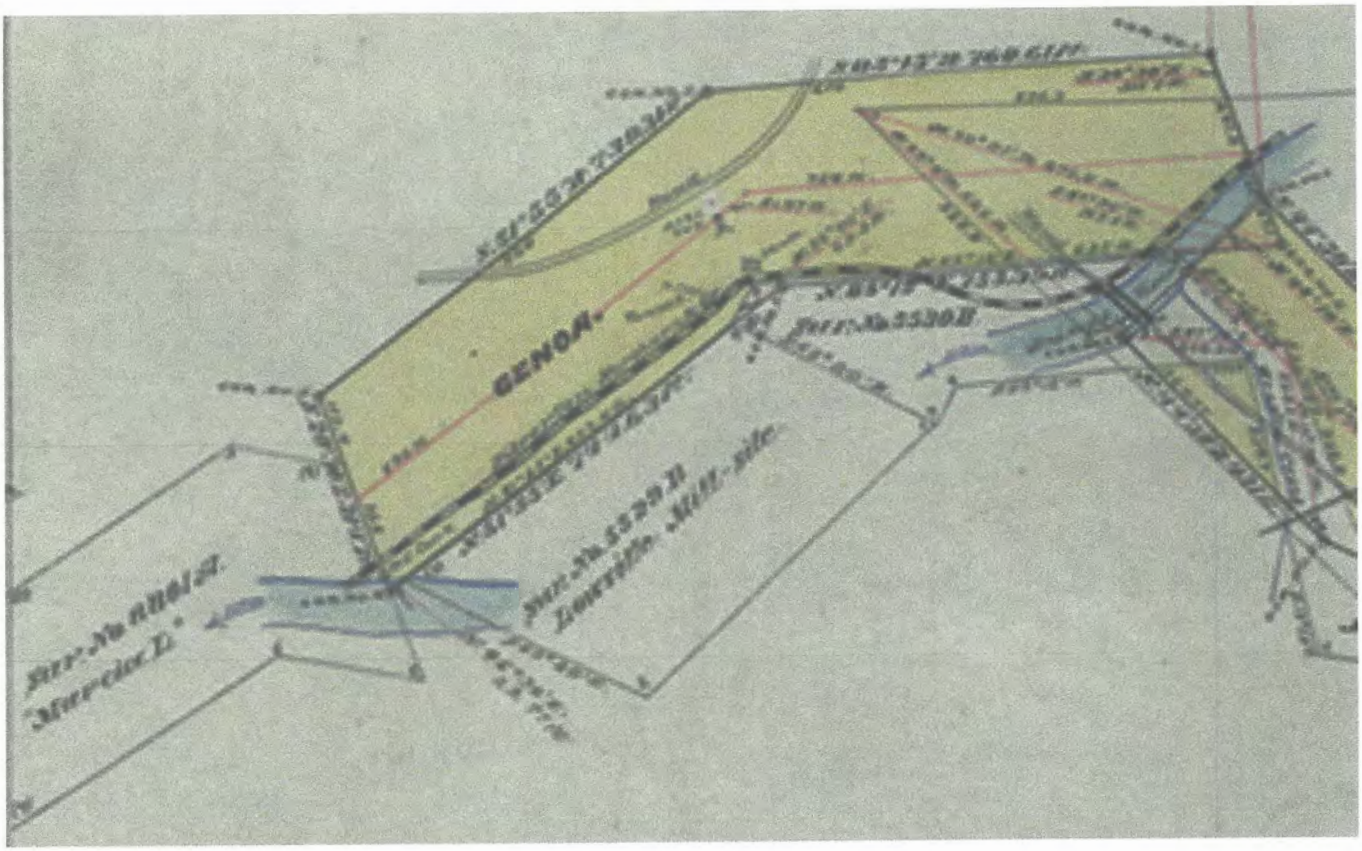
PROPOSED AMENDMENT
TO A PREVIOUSLY APPROVED
2021 COUNTY IMPROVEMENT PERMIT

Proposed Stalo Driveway
Lot 1 Genoa Lode Subdivision
1301 County Road 2
near the Mayflower Mill
San Juan County, Colorado



Applicant:
Joel Stalo
13031 North Fenton Road
Fenton, Michigan 48439
(517) 881-1704

Prepared By:
Engineer Mountain, Inc.
Attn: Lisa Adair PE
962 Reese Street
PO Box 526
Silverton, Colorado 81433
(970) 387-0500
Job No. 2025-105

Submitted:
July 29, 2025

ENGINEER MOUNTAIN, INC.

*SOILS *RETAINING WALLS
*SEPTICS *FOUNDATIONS
*GRADING AND DRAINAGE
*SITE DEVELOPMENT

July 29, 2025

San Juan County
Attn: Willy Tookey
1557 Greene Street
Silverton, Colorado 81433

EMI Job No. 2025-105

Subject: Proposed Amendment to a Previously Approved 2021 County Improvement Permit, Proposed Stalo Driveway, Lot 1, Genoa Lode Subdivision, 1301 County Road 2, San Juan County, Colorado.

Dear Willy:

This submittal has been prepared to describe the proposed improvements at the existing Stalo residence to Lot 1 of the Genoa Lode Subdivision, 1301 County Road 2, across from the Mayflower Mill, in San Juan County. The Owner/Applicant is Joel Stalo of Michigan.

The Stalo residence was approved and constructed in 2021. The existing driveway is unsafe. The Applicant is requesting an access easement across the adjacent property, the MB Mill Site, which is now owned by the County. This is a Proposed Amendment to a Previously Approved County Improvement Permit for a proposed driveway extension.

The Applicant requests review of this project by the Planning Commission at their meeting in 21 days on August 19, 2025.

The proposed improvements consist of a proposed driveway extension to be constructed prior to snow-season. The existing driveway is steep, icy, and adjacent to a cliff.

Please contact Engineer Mountain, Inc. if you have any questions.

Sincerely,

Matt Green, EIT
And Lisa M. Adair, PE
Engineer Mountain, Inc.

Attachments for Willy Tookey:
14 Binders for County Staff, Planning Commission, and County Commissioners
San Juan County Land Use Permit Application Form
Adjacent Land Owner Envelopes
Receipt for County Land Use Permit Application Fee for $840

Cc (binder): Joel Stalo.
Cc (electronic copy): Willy Tookey, Bevan Harris, Dennis Golbricht, Joel Stalo, Gilbert Archuleta, Tyler George., Mark Rudolph, Kim Buck, Karen Srebacic-Sites

PO Box 526 - 962 Reese Street - Silverton, Colorado - landline (970) 387-0500 - cell (970) 946-2217

COUNTY LAND USE PERMIT APPLICATION

Proposed Stalo Driveway
Lot 1, Genoa Lode Subdivision
1301 County Road 2
San Juan County, Colorado

Engineer Mountain, Inc.

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Front Cover Photo Credit: USMS Original Mineral Survey Plat

LAND USE PERMIT

San Juan County, Colorado

Applicant: Joel Stalo	Permit No.
Address: 13031 N Fenton RD	
City and State: Fenton, MI 48430	Telephone: (517) 881-1704

****

Description of Use: Proposed driveway extension on County road 2 crossing the MB Mill Site to improve unsafe existing driveway to the existing Stalo residence.

****

Dates and Times of Use: Year-round
Location of Use: Lot 1 Genoa Lode Subdivision

****

Areas of Concern: Applicant should provide attachments for each relevant area
Land Use Administrator will initial approval if appropriate

Property Ownership	_____	Permission of Property Owner	_____
Vicinity Map	_____	Plans and Drawings	_____
Natural Hazards	_____	Zoning Compatibility	_____
Sanitation	_____	Environmental Impacts	_____
Building Permit	_____	Federal and /or State Permits	_____
Security	_____	Emergency Services	_____
Parking	_____	insurance Coverage	_____
Clean Up	_____	County Road Impact	_____
Other	_____	Other	_____

Date Application Submitted: July 29, 2025	By (signature):
Date Permit Issued:	By (signature):
Conditions	
Acceptance of Conditions:	By (signature):

State Documentary Fee
$15.49 05-07-2021

153512
Page 1 of 1
SAN JUAN COUNTY, COLORADO
LADONNA L. JARAMILLO, RECORDER
05-07-2021 09:42 AM Recording Fee $13.00

SPECIAL WARRANTY DEED

State Documentary Fee
Date: May 7, 2021
$ 15.49

THIS DEED, Made this ____ Day of May, 2021

Between ZLM, LLC, A COLORADO LIMITED LIABILITY COMPANY

of the County of Taylor and State of Texas, grantor

and JOEL M. STALO TRUST DATED FEBRUARY 16, 2017

whose legal address is 13031 N. Fenton Road
Fenton, MI 48430

of the County of Genesee and State of Michigan, grantee

WITNESSETH, That the grantor for and in consideration of the sum of
----------TEN DOLLARS AND OTHER GOOD AND VALUABLE CONSIDERATION----------
the receipt and sufficiency of which is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm, unto the grantee, its successors and assigns forever, all the real property together with improvements, if any, situate, lying and being in the County of San Juan and State of Colorado described as follows:

Lot 1, GENOA LODE SUBDIVISION, according to the plat thereof filed for record July 12, 2007 as Reception No. 145836.

TOGETHER WITH but without warranty of title, any and all water, water rights, ditch and ditch rights ponds and reservoir rights, wells and underground water rights and springs and spring rights and related easements and infrastructure appurtenant to or historically used upon the lands conveyed hereby, including one water tap from San Juan County Historical Society.

As known by street and number as: GENOA 1 CR 21
Silverton, CO 81433

TOGETHER with all and singular the hereditaments and appurtenances thereunto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all the estate, right, title, interest, claim and demand whatsoever of the grantor, either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances.

TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the grantee, its successors and assigns forever. The grantor, for itself, its successors does covenant, and agree that the grantor shall and will WARRANT AND FOREVER DEFEND the above bargained premises in the quiet and peaceable possession of the grantee, its successors and assigns, against all and every person or persons lawfully claiming the whole or any part thereof, by, through or under the grantor, except: 2021 taxes due and payable in the year 2022. Subject to Statutory Exceptions as defined in CRS § 38-30-113(5).

The singular number shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders.

IN WITNESS WHEREOF, the grantor has executed this deed on the date set forth above.

ZLM, LLC, A COLORADO LIMITED LIABILITY COMPANY

BY: _____
LARRY ZASTROW, MANAGER/MEMBER

CTS
SJ3810 1650

STATE OF TAYLOR
COUNTY OF TEXAS

The foregoing instrument was acknowledged before me this 4 Day of May, 2021

By: LARRY ZASTROW, MANAGER/MEMBER OF ZLM, LLC, A COLORADO LIMITED LIABILITY COMPANY

My commission expires: 8-26-23

CHEYENNE WATSON
Notary Public, State of Texas
NOTARY ID # 13214562-2
My Commission Exp 08-26-23

Witness my hand and official seal

_____
Notary Public

155585
Page 1 of 12
SAN JUAN COUNTY, COLORADO
LADONNA L. JARAMILLO, RECORDER
10-09-2024 11:35 AM Recording Fee $0.00

After recording, return to:

San Juan County
Attn: William Tookey
1557 Greene Street
Silverton, Colorado 81433

QUITCLAIM DEED

Sunnyside Gold Corporation, a Delaware corporation, with a mailing address of 5075 S Syracuse Street, Suite 800, Denver, Colorado 80237 ("Transferor"), hereby conveys, remises, releases, and quitclaims unto San Juan County, Colorado, a political subdivision of the State of Colorado, by and through the Board of County Commissioners of the County of San Juan, Colorado, whose address is 1557 Greene Street, Silverton, Colorado 81433 ("Transferee"), all of Transferor's right, title and interest in the real and personal property located in San Juan County, Colorado, more particularly described as follows:

(A) All of the real property and real property interests owned by Transferor in San Juan County, Colorado, including the real property described on **Exhibit A**, but specifically excluding any interests of Transferor in rights-of-way, easements, or other access agreements/instruments that are not appurtenant to the Land, and such excluded interests shall include the rights-of-way, easements and other access agreements/ instruments identified on **Exhibit B**. The real property and real property interests described on Exhibit A less the excluded property interests described above to be referred to as the "Land";

(B) All attached buildings and structures and all equipment, fixtures, and other improvements owned by Transferor and located at, or used in connection with the ownership, operation, or maintenance of the Land, including without limitation all mechanical equipment and other equipment used in the operation of the Land (collectively, "Improvements"); and

(C) All of Transferor's right, title, and interest in and to all rights of way, tenements, hereditaments, easements, rights, interests, claims, minerals and mineral rights, water and water rights, utility capacity, common property rights, and appurtenances in any way belonging or appertaining to the Land and all of Transferor's right, title, and interest in and to all adjoining streets, alleys, private roads, parking areas, curbs, curb cuts, sidewalks, landscaping, signage, sewers, and public ways (collectively, "Appurtenant Rights").

The Land, Improvements, and Appurtenant Rights described above are collectively referred to herein as the "Property."

PROVIDED THAT Transferor makes no representations or warranties regarding the condition of the Property, including, without limitation, the physical and environmental condition of

any real property, improvements, appurtenances or any other rights and title of the Transferor, if any, associated therewith.

AND PROVIDED THAT this conveyance and Quitclaim Deed is subject to the terms and conditions, covenants, obligations and responsibilities set forth in that certain Property Transfer Agreement entered by and between Transferor and Transferee, dated October 1, 2024 (the "Underlying Agreement"). Any term not defined herein shall have the same meaning as set forth in the Underlying Agreement. The provisions following this paragraph are from the Underlying Agreement. To the extent of any conflict or discrepancy between this Quitclaim Deed and the Underlying Agreement with respect to such provisions or any other terms and conditions, covenants, obligations and responsibilities, the Underlying Agreement shall control.

AND FURTHER PROVIDED THE FOLLOWING:

(A) Assumption of Obligations and Liabilities.

(i) Obligations of US-CO Consent Decree. As of and after the Closing Date, Transferee agrees to fully comply with, and be bound by, all provisions of Section XII of the US-CO Consent Decree applicable to Transferor and the related penalty provisions of Paragraph 11.b of US-CO Consent Decree, and requirements for subsequent conveyances by Transferee more fully set forth in paragraph (D) below. As of and after the Closing Date, Transferor shall be relieved of any and all of its obligations under Section XII and related penalty provisions of Paragraph 11.b of the US-CO Consent Decree, and shall take no further actions under or otherwise related to Section XII of the US-CO Consent Decree, including for any future response actions referenced in Paragraph 36 in Section XII of the US-CO consent Decree or institutional controls referenced in Paragraph 37 in Section XII of the US-CO Consent Decree, at or related to the Property.

(ii) Other Obligations and Liabilities. As of and after the Closing Date, Transferee agrees to assume and be responsible for any and all obligations and liabilities, of any kind, character or nature, related to the Property and arising from any matters relating to the Transferee's ownership, use or non-use of, or actions or failures to act with respect to, the Property after the Closing Date, including, but not limited to, liabilities arising out of either pending or unasserted claims or litigation and any such liability or obligations under Environmental Laws (defined below) for or related to the Property. In connection with Transferee's assumptions herein, Transferee expressly acknowledges and understands that the Property may have been mined or operated or used as sites for tailings or other waste and refuse disposal and as such, may be subject to statutes, laws, regulations, permits or orders imposing obligations in connection therewith (collectively, the "Environmental Laws").

(B) Release and Covenant Not to Sue by County. As of Closing and as to the Property being acquired by Transferee, on behalf of itself and its successors and assigns,

Transferee hereby releases any and all claims it may have, now or in the future, against Transferor and Transferor's Affiliated Parties (as defined below) (collectively, the "Released Parties") with respect to (i) any matters arising from or related to the Bonita Peak Mining District Site arising or accruing after the Closing Date, (ii) any matters relating to the Transferee's ownership, use or non-use of, or actions or failures to act with respect to, the Property after the Closing Date, including the environmental or physical condition of the Property, and (iii) all matters addressed in the US-CO Consent Decree. To the maximum extent permitted by law, Transferee fully and forever covenants not to sue or to institute or cause to be instituted any action in any federal, state or local agency or court against the Released Parties for indemnification or otherwise regarding any claims or matters released by Transferee in this Agreement and any obligations and liabilities assumed by Transferee under this Agreement. "Transferor's Affiliated Parties" shall mean the Transferor, any assignee of Transferor, any Affiliate (as defined below) of Transferor, and all of their respective owners, directors, agents, officers, and employees. "Affiliate" means any entity, that directly or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with the subject entity or entities.

(C) Termination and Release of Existing Contractual Liabilities. Pursuant to that certain Land Exchange and Consolidation Agreement dated May 29, 2007 (the "2007 Agreement"), by and between Transferor and Transferee, the Transferee agreed to and thereafter quitclaimed to Transferor its interests in Eureka Parcels 1-6, located within the abandoned Eureka Townsite (collectively, the "Eureka Parcels") (which such parcels are to be re-conveyed to Transferee pursuant to the Underlying Agreement), subject to certain indemnification obligations of Transferor in favor of Transferee for and related to the Eureka Parcels, as set forth in Section 9 of the 2007 Agreement. By Closing the Underlying Agreement, Transferee hereby terminates and fully and forever releases Transferor from the indemnification obligations of Transferor under the 2007 Agreement with respect to the Eureka Parcels and agrees that such indemnification obligations of Transferor shall be null, void and of no further force or effect after Closing.

(D) Future Conveyances. Transferee agrees that in any subsequent conveyance of all or any portion of the Property, or any interest in the Property (including without limitation any grant of an easement burdening any of the Property or any grant of a lease of all or any part of the Property), Transferee shall include the following provisions in the deed or other conveyance instrument, and include applicable dates and recording information for this Quitclaim Deed from Transferor to Transferee:

> Grantee hereby agrees to (i) accept the property subject to the covenants, obligations and responsibilities set forth in that certain Quitclaim Deed dated as of _____ 2024, and recorded on _____ 2024, as Document #_____ in the real property records of San Juan County, Colorado and (ii) abide by and enforce the covenants and assume, undertake and perform the obligations and responsibilities as the owner of property in accordance with the terms and

conditions of such Quitclaim Deed. Grantee hereby further agrees to be bound by the release and covenant not to sue provisions set forth in the foregoing Quitclaim Deed.

Grantee hereby further agrees that in any subsequent deed or other conveyance instrument, it shall require that the grantee in such deed or conveyance instrument either (i) execute a deed or conveyance instrument which contains the agreements set forth in the immediately preceding paragraph, or (ii) execute a separate acknowledgment attached to the deed or conveyance instrument which contains the agreements set forth in the immediately preceding paragraph.

TO HAVE AND TO HOLD under Transferee, and Transferee's successors and assigns, forever.

EXEMPT FROM DOCUMENTARY FEE PURSUANT TO C.R.S. 39-13-104(1)(a)

[Remainder of page intentionally left blank.]

DATED this 3rd day of Oct., 2024.

TRANSFEROR:

Sunnyside Gold Corporation,
a Delaware corporation

By: Matt D. Litt
Name: MARTIN D LITT
Title: President + G.C.

STATE OF Colorado)
: ss.
County of Denver)

The foregoing instrument was acknowledged before me this 3rd day of October, 2024, by Martin O. Litt, as President & G.C. of Sunnyside Gold Corporation, a Delaware corporation.

Cory Falbo [signature]
Notary Public for the State of Colorado
Cory Falbo
(Printed Name)
Residing at: Denver, Colorado
(City) (State)
My commission expires: March 18, 2028
(Month/Day/Year)

(S E A L)

CORY FALBO
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20244011021
MY COMMISSION EXPIRES MARCH 18, 2028

TRANSFEREE:

San Juan County, Colorado,
a political subdivision of the State of Colorado, by and through the Board of County Commissioners of the County of San Juan, Colorado

By: _____
Name: Austin Lashley
Title: Chairman

Attested to by the Clerk to the Board:

STATE OF Colorado)
: ss.
County of San Juan)

The foregoing instrument was acknowledged before me this 9 day of October, 2024, by Austin Lashley, as Chairman for San Juan County, Colorado, a political subdivision of the State of Colorado, by and through the Board of County Commissioners of the County of San Juan, Colorado.

_____[signature]
Notary Public for the State of Colorado
Charles Alex Lanis
(Printed Name)
Residing at: [redacted] Silverton, Colorado
(City) (State)
My commission expires: July 2, 2028
(Month/Day/Year)

(SEAL)
CHARLES ALEX LANIS
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20244024794
MY COMMISSION EXPIRES JULY 2, 2028

Exhibit A

Description of Land

The following real property is located in Township 42 North, Range 6 West, Township 42 North, Range 7 West, and Township 41 North, Range 7 West, N.M.P.M.

Property Tax Parcel ID	Description/Claim Name and Mineral Survey No.
#47730190030005	EUREKA TOWNSITE LOT 5 ACCORDING TO THE RECORDED BOUNDARY ADJUSTMENT THEREOF FILED FOR RECORD SEPTEMBER 30, 2011 AS RECEPTION #148168
#47730190030006	EUREKA TOWNSITE LOT 6 ACCORDING TO THE RECORDED BOUNDARY ADJUSTMENT THEREOF FILED FOR RECORD SEPTEMBER 30, 2011 AS RECEPTION #148168
#47730190050004	CASH ER LODE - MS 134 (UND 9/10 INT IN 10.5 ACRES), CENTENNIAL - MS 16635, NASBY - MS 2508, ROVING RANGER LODE - MS 151 A, TAGNER - MS 16804, WHITE STAR - MS 14368
#47730300020001	EUREKA TOWNSITE LOT 1 ACCORDING TO THE RECORDED BOUNDARY ADJUSTMENT THEREOF FILED FOR RECORD SEPTEMBER 30, 2011 AS RECEPTION #148168
#47730300020002	EUREKA TOWNSITE LOT 2 ACCORDING TO THE RECORDED BOUNDARY ADJUSTMENT THEREOF FILED FOR RECORD SEPTEMBER 30, 2011 AS RECEPTION #148168
#47730300020003	EUREKA TOWNSITE LOT 3 ACCORDING TO THE RECORDED BOUNDARY ADJUSTMENT THEREOF FILED FOR RECORD SEPTEMBER 30, 2011 #148168
#47730300020004	EUREKA TOWNSITE LOT 4 ACCORDING TO THE RECORDED BOUNDARY ADJUSTMENT THEREOF FILED FOR RECORD SEPTEMBER 30, 2011 #148168
#47750090050001	CASHIER - MS 442, ORIENTAL - MS 566, PRIDE OF THE ALPS - MS 572
#47750100050003	EMMA - MS 2273, LULU CARROLL - MS 873, MOTHER GOOSE - MS 17234, MOULTRIE LODE - MS 173, PAYMASTER - MS 1301, PONY - MS 2336 (UND 2/3 INT IN 8.10 ACRES)
#47750100050031	MIDNIGHT - MS 5616
#47750100050051	TAGGART - MS 2338 (UND 1/3 INT IN 7.22 ACRES)

Property Tax Parcel ID	Description/Claim Name and Mineral Survey No.
#47750110050002	PALOS - MS 18732, PALOS #1 - MS 18732, PALOS #2 - MS 18732, SUNNYSIDE #2 - MS 20003, SUNNYSIDE EXT - MS 1180, TERRY - MS 17986, MASTODON - MS 216, NO NAME - MS 2272, CROWN JEWEL - MS 20003, DOCTOR - MS 2093 A, ESMARALDA - MS 16165, GOLD PRINCE - MS 20003
#47750110050022	FEARLESS - MS 17011
#47750130050001	MUSKEGON - MS 1394, RARUS - MS 1401, NANTUCKET - MS 6954 (UND 5/12 INT IN 10.28 ACRES), DENVER - MS 1403, ALMA - MS 1708, CHARLTON - MS 1706
#47750130050003	CLIMAX #3 - MS 19474, TIP TOP - MS 18108, TIP TOP #2 - MS 19474, TIP TOP #3 - MS 19474
#47750140050002	REPUBLIC - MS 12724, RUBY - MS 18020, SHOSHONE - MS 17201, SILVER BOW - MS 18020, SUNNYSIDE - MS 438, SUNNYSIDE ANNEX - MS 16668, THUNDERBERG - MS 1395, WEDGE - MS 18160, ANACONDA - MS 18020, BAVARIAN - MS 1396, BRIGGS - MS 8400, BUTTE CITY - MS 18020, CLIMAX - MS 12723, CLIPPER - MS 1689, HERMAN - MS 1397, HIDDEN TREASURE EXT - MS 20003, LAKE - MS 2027, LAST CHANCE - MS 17901, LITTLE MARY - MS 2038, METROPOLIS - MS 1398, PEARL - MS 5975, QUAIL - MS 20003, RAYMOND - MS 18020
#47750150050001	GEORGE WASHINGTON - MS 2028, GRAND VIEW - MS 17202, MOUNTAIN SHEEP - MS 17432, OREGON - MS 17233
#47750150050002	HONECK - MS 16200, SILVER KING - MS 1857
#47750150050011	PAYMASTER - MS 18080, WATERLOO - MS 17429
#47750160050006	EMMA #1 - MS 17538, EMMA #2 - MS 17538, SMUGGLER - MS 1758
#47750220050003	AMA - MS 18849, BLUE HEEL - MS 18849, DOVER - MS 1690, GOLD PEAK - MS 16393, JOE - MS 18849, MILANO - MS 16393, RED - MS 18849, ROCK - MS 18849, ROSA - MS 18849, ROSSO - MS 18849, ROUENA O - MS 16393, TREASURE - MS 18849, YANKEE BOY - MS 18849
#47750230050001	BEAUBREC - MS 1709
#47750230050002	A D SEARL - MS 1714, DANEBURG - MS 1780, HILDERBRAND - MS 1707, KNICKERBOCKER - MS 1717, UNDERWOOD - MS 1719
#47750240050001	BLUCHER - MS 1400, EIGHTY NINE - MS 16997, ESTEY - MS 13189, LIZZIE NORRIS - MS 1702,

Property Tax Parcel ID	Description/Claim Name and Mineral Survey No.
	GRAND - MS 2573, GRAND PRIZE - MS 1701, GREAT EASTERN - MS 1691, NEW YORK - MS 8399, WELLINGTON - MS 16997, SUNBEAM - MS 1419
#48290090010033	BEND PLACER - MS 11596, C H MILL SITE - MS 20594. FORMERLY PART OF SCHEDULE 48290090010031
#48290090010039	SUNNYSIDE GOLD CORPORATION - PERINO BOUNDARY ADJUSTMENT PARCEL C, RECORDED AS RECEPTION NO. 151146, IN SUSPENDED T41N R7W. FORMERLY PART OF ANN HARRIS PLACER - MS 11596 AND FORMER PARCEL BB, RECORDED AS RECEPTION NO. 186140. FORMERLY PART OF SCHEDULES 48290090010003 AND 48290090010036.
#48290090010041	SUNNYSIDE GOLD CORPORATION - PERINO BOUNDARY ADJUSTMENT PARCEL E, RECORDED AS RECEPTION NO. 151146, IN SUSPENDED T41N R7W. FORMERLY PORTIONS OF M D THATCHER - MS 17699 AND POLAR STAR MILL SITE - MS 7608. FORMERLY PART OF SCHEDULE 48290090010031 AND 48290090010032.
#48290090010042	SUNNYSIDE GOLD CORPORATION - PERINO BOUNDARY ADJUSTMENT PACEL F, RECORDED AS RECEPTION NO. 151146, IN SUSPENDED T41N R7W. FORMERLY PART OF PETER PLACER - MS 11596, AND SMALL PORTIONS OF M D THATCHER - MS 17699 AND BLM TRACT 41. FORMERLY PART OF SCHEDULE 48290090010031 AND 48290090010032.
#48290090010043	BLAIR PLACER - MS 841, GOLD -MS 14012, JEANNETTE ROUX PLACER MS 11596 MINERAL RIGHTS ONLY, RIVERSIDE (PART) - MS 8801, H V B MILL SITE - MS 20594 B. FORMERLY PART OF SCHEDULE 48290090010003
#48290090010044	TRACTS 42, 43, 44, 45, AND PARCEL DD IN T41N R7W
#48290100010006	BUENA VISTA - MS 14012, M B MILLSITE - MS 20595 B, N N MILLSITE - MS 20595 B, T H W M S TRACT A - MS 20595 B, T H W M S TRACT B - MS 20595 B

Exhibit B

Excluded Rights-Of-Way, Easements and Other Access Agreements/Instruments

Any and all existing rights and obligations identified in the following:

1. Land Use Permit (COC-80047) issued by the United States Department of Interior, Bureau of Land Management to the Sunnyside Gold Corporation.

2. Right-of-Way Temporary Use Permit (COC-077429) issued by the United States Department of Interior, Bureau of Land Management to the Sunnyside Gold Corporation.

3. Access Easement from Larry R. Perino to the Sunnyside Gold Corporation, dated July 12, 2017.

4. Easement Agreement between Frank Baumgartner, Sial Exploration Inc., and Osiris Gold, Inc. and the Sunnyside Gold Corporation, dated November 4, 2002, recorded January 16, 2003, in the records of the Clerk and Recorder of San Juan County as Document No. 142337.

5. Access Agreement between the Sunnyside Gold Corporation and Jack Brendlinger, dated October 18, 2020.

6. Access Agreement between the Sunnyside Gold Corporation and Le Roy W. Goodwin II, dated October 12, 2020.

7. Access Agreement between the Sunnyside Gold Corporation and Jeff and Jerry Sandberg, dated October 5, 2020.

8. Access Agreement between the Sunnyside Gold Corporation and the Silverton Lakes RV Resort LLC, dated September 29, 2020.

9. Access Agreement between the Sunnyside Gold Corporation and Houghton Unlimited LLC, dated September 14, 2020.

10. Access Agreement between the Sunnyside Gold Corporation and Delmar E. Calhoun, dated August 31, 2020.

11. Access Agreement between the Sunnyside Gold Corporation and Thomas J. & Jean L. Merson Revocable Trust, dated August 31, 2020.

12. Access Agreement between the Sunnyside Gold Corporation and the San Miguel Power Association, dated August 30, 2020.

13. Access Agreement between the Sunnyside Gold Corporation and Mace L. and Cheryl L. Pemberton, dated August 21, 2020.

14. Access Agreement between the Sunnyside Gold Corporation and the Paul H. & Nancy Painter Trust, c/o Gregg Painter, dated August 8, 2020.

15. Access Agreement between the Sunnyside Gold Corporation and Lisa D. and Shawn W. Merrill, dated August 7, 2020.

16. Access Agreement between the Sunnyside Gold Corporation and GrayJay Meadows LLC, dated August 7, 2020.

17. Access Agreement between the Sunnyside Gold Corporation and Charles Jacob Csira, dated November 1, 2019.

18. Access Agreement between the Sunnyside Gold Corporation and Tim A. Edgar and Pam Killebrew, dated November 1, 2019.

19. Access Agreement between the Sunnyside Gold Corporation and the Katherine Smith Trust, dated November 1, 2019.

20. Access Agreement between the Sunnyside Gold Corporation and Larry Perino, dated November 1, 2019.

21. Access Agreement between the Sunnyside Gold Corporation and Loren Lew, dated November 1, 2019.

22. Access Agreement between the Sunnyside Gold Corporation and Mi Casa es Su Casa and Dan Dugi Defined Benefit Trust, dated November 1, 2019.

23. Access Agreement between the Sunnyside Gold Corporation and Michael K. Meuer, dated November 1, 2019.

24. Access Agreement between the Sunnyside Gold Corporation and Ryan and Cherie Naffzinger, dated November 1, 2019.

25. Access Agreement between the Sunnyside Gold Corporation and the San Juan County Historical Society, dated November 1, 2019.

26. Access Agreement between the Sunnyside Gold Corporation and the Sidehill Mugwump Protection Society, dated November 1, 2019.

27. Access Agreement between the Sunnyside Gold Corporation and Vernon & Amanda Bridgewater, dated November 1, 2019.

28. Access Agreement between the Sunnyside Gold Corporation and ZLM LLC, dated November 1, 2019.

29. Access Agreement between the Sunnyside Gold Corporation and the San Juan County Historical Society, executed on January 1, 1999.

30. Access Agreement between the Sunnyside Gold Corporation and the San Juan County Historical Society, executed on September 15, 1998.

31. Access Agreement between the Sunnyside Gold Corporation and Aerodium Inc., executed on March 31, 1997.

32. Access Agreement between the Sunnyside Gold Corporation and Glen E. Nordlander, executed on March 31, 1997.

33. Access Agreement between the Sunnyside Gold Corporation and ASARCO, Inc., dated November 8, 1996.

34. Access Agreement between the Sunnyside Gold Corporation and TUSCO, Joseph Baldwin, and Michael Combs, dated November 6, 1996, recorded November 21, 1996, in the records of the San Juan County Clerk and Recorder as Document No. 138422.

Property Records
San Juan County Colorado

PARCEL N2365

48290100010055

Owners

STALO JOEL M TRUST
13031 N FENTON RD
FENTON, MI 48430-1125

Parcel Summary

Location	1301 COUNTY ROAD 2 SILVERTON, CO 81433
Use Code	RS: Residential Real Estate
Tax District	101: Outer County
Mill Levy	37.529000
Acreage	4.7800
Section	10
Township	41
Range	7
Neighborhood	Outer County Nbhd

Legal Description

GENOA - 14024 LOT 1 ACCORDING TO THE PLAT THEREOF FILED
JULY 12, 2007 S RECEPTION 145836

GSA GIS | Photo

Current Values

STANDARD	2025
Market Value	$877,798
Exempt Value	$0
Taxable Value	$877,798
Assessed Value	$54,863
School Assessed Value	$61,884
Estimated Taxes	$2,182

Value History

	2024	2023	2022	2021	2020
Market Value	$803,496	$348,491	$59,780	$59,780	$26,600
Exempt Value	$55,000	$15,000	$0	$0	$0
Taxable Value	$748,496	$333,491	$59,780	$59,780	$26,600
Assessed Value	$50,149	$22,561	$17,336	$17,336	$7,714
School Assessed Value	$0	$0	$0	$0	$0
Estimated Taxes	$1,832	$800	$609	$590	$260

The estimated tax amount is merely an estimate based on the best information available. Assessment rates and mill levies may not be finalized until December. Tax Notices are mailed in January for the preceding year.

Document/Transfer/Sales History

Official Record	Date	Type	V/I	Sale Price	TASP	Ownership	Sale Code
153512	2021-05-04	Special Warranty Deed	Vacant	$154,900		Grantor: ZLM LLC Grantee: STALO JOEL M TRUST	Z_Val
151159	2017-06-02	Quit Claim Deed	Vacant	$0		Grantor: ZASTROW LARRY Grantee: ZLM LLC	
143299	2004-03-04	Special Warranty Deed	Vacant	$42,500		Grantor: ASARCO INC Grantee: ZASTROW LARRY	Q
143299	2004-03-04	Special Warranty Deed	Vacant	$42,500		Grantor: ASARCO INC Grantee: ZASTROW LARRY	Q

Buildings

Building # 1, Section # 1, Main Home, Single-Family Residence, 1 1/2 Story Finished

Type	Model	Heated Sq Ft	YrBlt	EFY	Code	Description
RES	0001	1643	2022	2023	1222	Residence on Mining Claim

Components

Code	Description	
108	Frame, Siding, Wood	100%
213	Metal, Formed Seams	100%
308	Floor Radiant, Hot Water	85%
402	Automatic Floor Cover Allowance	
502	Automatic Appliance Allowance	
601	Plumbing Fixtures	12.000
622	Raised Subfloor	1408.000
701	Attached Garage	560.000
903	Wood Deck	643.000

Structural Elements

Type	Description	Qty
BED	Bedrooms	3.00
BTHF	Bath-Full	2.00

Sub Areas

Type	Gross Area	Percent of Base	Adjusted Area
GBA	1,643	100%	1,643

Extra Features

Code	Description	Length	Width	Units	Unit Price	AYB	% Good Condition	Final Value
MISC	MISCELLANEOUS			.00	$0.00	2022	100%	$0
MISC	MISCELLANEOUS			.00	$0.00	2022	100%	$0
MISC	MISCELLANEOUS			.00	$0.00	2022	100%	$0

Land Lines

Code	Description	Zone	Units	Unit Type	Acreage	Value	Notes
1122	Residential Mining Claim Land		4.78	Acres	4.78	$255,736	GISid: 3520. GENOA - 14024 (LOT 1)

Notices

2024

2023

Property Records
San Juan County Colorado

PARCEL N2347

48290100010006

Owners

SAN JUAN COUNTY
PO BOX 466
SILVERTON, CO 81433-0466

Parcel Summary

Location	SILVERTON, CO 81433
Use Code	MN: Patented Mining Claim Real Estate
Tax District	101: Outer County
Mill Levy	37.529000
Acreage	23.4320
Section	5
Township	41
Range	7
Neighborhood	Outer County Nbhd

Legal Description

BUENA VISTA - 14012, M B MILLSITE - 20595 B, N N MILLSITE - 20595 B, T H W M S TRACT A - 20595 B, T H W M S TRACT B - 20595 B

GSA GIS

Current Values

STANDARD	2025
Market Value	$1,020,697
Exempt Value	$1,020,697
Taxable Value	$0
Assessed Value	$0
School Assessed Value	$0
Estimated Taxes	$0

Value History

	2024	2023	2022	2021	2020
Market Value	$49,350	$24,674	$20,477	$20,477	$22,727
Exempt Value	$30,338	$0	$0	$0	$0
Taxable Value	$19,012	$24,674	$20,477	$20,477	$22,727
Assessed Value	$5,304	$6,885	$5,938	$5,938	$6,591
School Assessed Value	$0	$0	$0	$0	$0
Estimated Taxes	$194	$244	$209	$202	$222

The estimated tax amount is merely an estimate based on the best information available. Assessment rates and mill levies may not be finalized until December. Tax Notices are mailed in January for the preceding year.

Document/Transfer/Sales History

Official Record	Date	Type	V/I	Sale Price	TASP	Ownership	Sale Code
155585	2024-10-09	Quit Claim Deed	Vacant	$0		Grantor: SUNNYSIDE GOLD CORP Grantee: SAN JUAN COUNTY	R

Buildings

None

Land Lines

Code	Description	Zone	Units	Unit Type	Acreage	Value	Notes
9136	County Patented Mining Claim		435,600.00	Sqft	10.00	$435,600	GISid: 1932. BUENA VISTA - 14012

Code	Description	Zone	Units	Unit Type	Acreage	Value	Notes
9136	County Patented Mining Claim		195,366.00	Sqft	4.49	$195,366	GISid: 5477. M B MILL SITE - 20595
9136	County Patented Mining Claim		205,908.00	Sqft	4.73	$205,908	GISid: 6106. N N MILL SITE - 20595
9136	County Patented Mining Claim		145,926.00	Sqft	3.35	$145,926	GISid: 8064. T H W MILL SITE (TRACT A) - 20595
9136	County Patented Mining Claim		37,897.00	Sqft	0.87	$37,897	GISid: 8065. T H W MILL SITE (TRACT B) - 20595

Notices

2024
2023

Disclaimer

All parcel data on this page is for use by the San Juan County Assessor for assessment purposes only. The summary data on this page may not be a complete representation of the parcel or of the improvements thereon. Building information, including unit counts and number of permitted units, should be verified with the appropriate building and planning agencies. Zoning information should be verified with the appropriate planning agency. This is a true and accurate copy of the records of the San Juan County Assessor's Office as of July 24, 2025.

LIST OF ADJACENT LAND OWNERS
Proposed Stalo Driveway
Lot 1, Genoa Lode Subdivision
1301 County Road 2
San Juan County, Colorado

Engineer Mountain, Inc.
Last Revised 5/9/25

Property Owner	Property
Vernon Bridgewater 22 Road 2345 Aztec, NM 87410	Alexandria Lode Aurora Lode Valley Forge Lode Extension
San Juan County PO Box 466 Silverton, CO 81433	Bend Placer Buena Vista Lode E C W Mill Site Gold Lode H M Mill Site H V B Mill Site M B Mill Site N N Mill Site S Mill Site T H W Mill Site Tract A T H W Mill Site Tract B Tract 42 Tract 43
Dan Dugi Defined Benefit Trust PO Box 444 Silverton, CO 81433	Blair Mountain Placer George Hesse Lode
Charles Csira 1278 Glenneyre St #214 Laguna Beach, CA 92651	Lot 2 Genoa Lode Subdivision
Samuel Cribbs 365 Johnny Counts Rd. Jackson, WY 83001-2627	Helena Roux Lode
Watts Revocable Trust PO Box 696 La Mesa, CA 91944	Lowville Mill Site Maxwell Mill Site

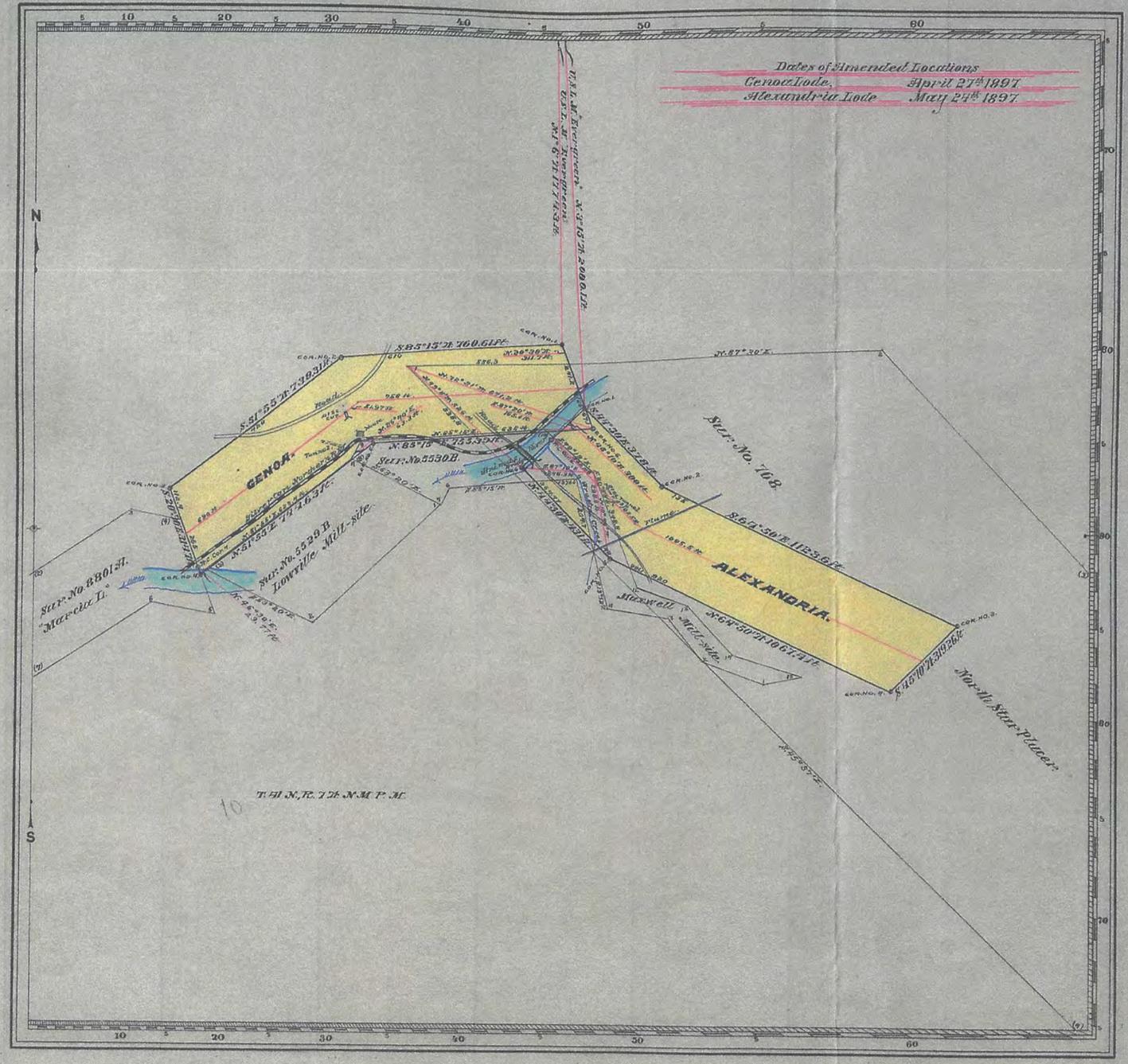
LIST OF ADJACENT LAND OWNERS
Proposed Stalo Driveway
Lot 1, Genoa Lode Subdivision
1301 County Road 2
San Juan County, Colorado

Engineer Mountain, Inc.
Last Revised 5/9/25

Property Owner	Property
Ryan and Cherie Naffziger 123 El Diente Dr Durango, CO 81301	Marcia L Lode
Pam Killebrew and Tim Edgar PO Box 117 Crawford, CO, 81415	Southside Lode
William Simon 8185 County Road Durango, CO 81301	Smyrna M S
Gerald Hensler PO Box 625 Fort Garland, CO 81133	Tiger Mill Site
San Juan County Historical Society PO Box 154 Silverton, CO 81433	Valley Forge Lode


VALLEY FORGE
TRACT 45
BUENA VISTA
TRACT 43
S MILL SITE
H M MILL SITE
TRACT 42
T H W MILL SITE (TRACT B)
N N MILL SITE
AURORA
VALLEY FORGE EXT
M B MILL SITE
GENOA (LOT 2)
TIGER M S
H V B MILL SITE
GOLD
C H MILL SITE
T H W MILL SITE (TRACT A)
GENOA (LOT 3)
ALEXANDRIA
LOWVILLE M S
MAXWELL M S
ALEXANDRIA
AURORA
HELENA ROAR
VALLEY FORGE EXT
AURORA
BENO PLACER
SMYRNA M S
GEORGE HESSE
MARCIAL
MARCIAL M S
GEORGE HESSE
ESTHER ALLEN (POWERHOUSE PUD TRACT B)
BLAIR MOUNTAIN PLACER
PLACER (POWERHOUSE PUD TRACT A)
ROCHESTER M S
STHER ALLEN (part)

(4-675)



Dates of Amended Locations
Genoa Lode, April 27th 1897
Alexandria Lode May 24th 1897

Rec'd. S.G.O. May 31st 1900.
" " " September 11th 1900.

E.B.M.
B.M.T.
&.R.R.
FD

Claim Located 18

Mineral Survey No. 14027

Lot No.

Durango Land District.

PLAT

OF THE CLAIM OF

EDWARD G. STOIBER ET AL.,

KNOWN AS THE

GENOA AND ALEXANDRIA LODES,

IN ANIMAS MINING DISTRICT,
SAN JUAN COUNTY, COLORADO
Containing an Area of 19.002 Acres.
Scale of 300 Feet to the inch.
Variation 14°30' East
SURVEYED May 22nd 1900 BY
R. N. Hollis U.S. Deputy Mineral Surveyor,

The Original Field Notes of the Survey of the Mining Claim of Edward G. Stoiber et al., known as the Genoa and Alexandria Lodes, from which this plat has been made under my direction, have been examined and approved, and are on file in this Office; and I hereby certify that they furnish such an accurate description of said Mining Claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects or permanent monuments as will perpetuate and fix the locus thereof.

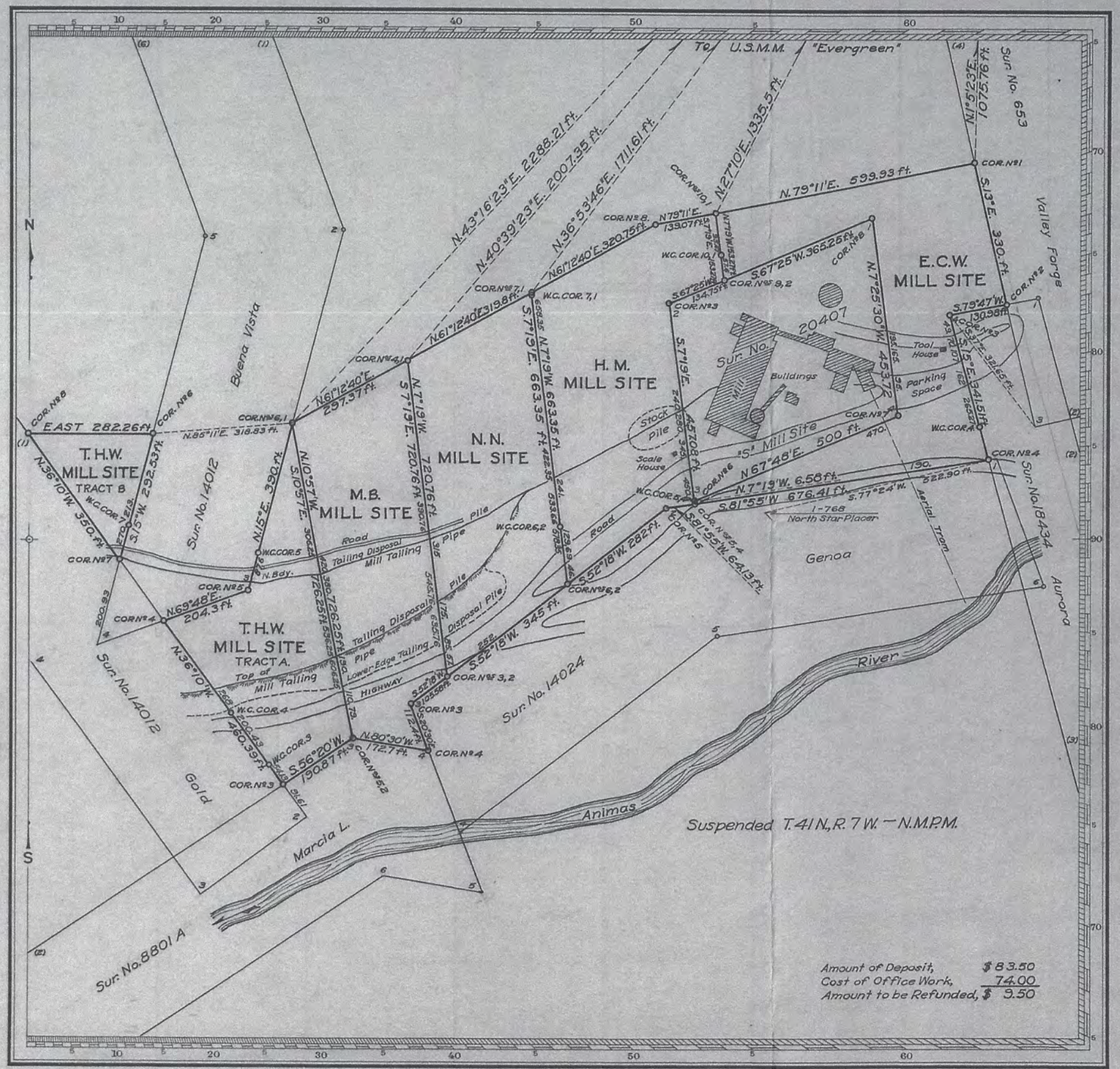
I further certify that Five Hundred Dollars worth of labor has been expended or improvements made upon said Mining Claim by claimants or their grantors, and that said improvements consist of two tunnels and a cut, as appears by the affidavit of the deputy surveyor; that the location of said improvements is correctly shown upon this plat, and that no portion of said labor or improvements has been included in the estimate of expenditures upon any other claim.

And I further certify that this is a correct plat of said Mining Claim made in conformity with said original field notes of the survey thereof, and the same is hereby approved.

U.S. Surveyor General's Office.
Denver, Colorado
October 9th, 1900

C.C. Goodale
U.S. Surveyor General for
Colorado

(4-675)



Amount of Deposit, $83.50
Cost of Office Work, 74.00
Amount to be Refunded, $ 9.50

Mineral Survey No. 20595

Pueblo Land District.

PLAT

OF THE CLAIM OF

SHENANDOAH-DIVES MINING COMPANY

KNOWN AS THE

E.C.W., H.M., N.N., M.B. AND T.H.W. MILL SITES

IN ANIMAS MINING DISTRICT, SAN JUAN COUNTY, COLORADO

Scale of 200 Feet to the inch.
Variation 15°22' East

SURVEYED SEPTEMBER 7, 1938 BY

Henry S. Sanderson, Mineral Surveyor; General Land Office

The Original Field Notes of the Survey of the Mining Claim from which this plat has been made under my direction, have been examined and approved, and are on file in this Office; and I hereby certify that they furnish such an accurate description of said Mining Claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects or permanent monuments as will perpetuate and fix the locus thereof.

~~I further certify that Five Hundred Dollars worth of labor has~~ been expended or improvements made upon, or for the benefit of each location embraced in said mining claim by claimant

or grantors and that said improvements consist of

that the location of said improvements is correctly shown upon this plat, and that no portion of or interest in said labor or improvements has been included in the estimate ~~of expenditures upon any other claim.~~

And I further certify that this is a correct plat of said Mining Claim made in conformity with said original field notes of the survey thereof, and the same is hereby approved.

Office of Supervisor of Surveys
Denver, Colorado, March 18, 1939

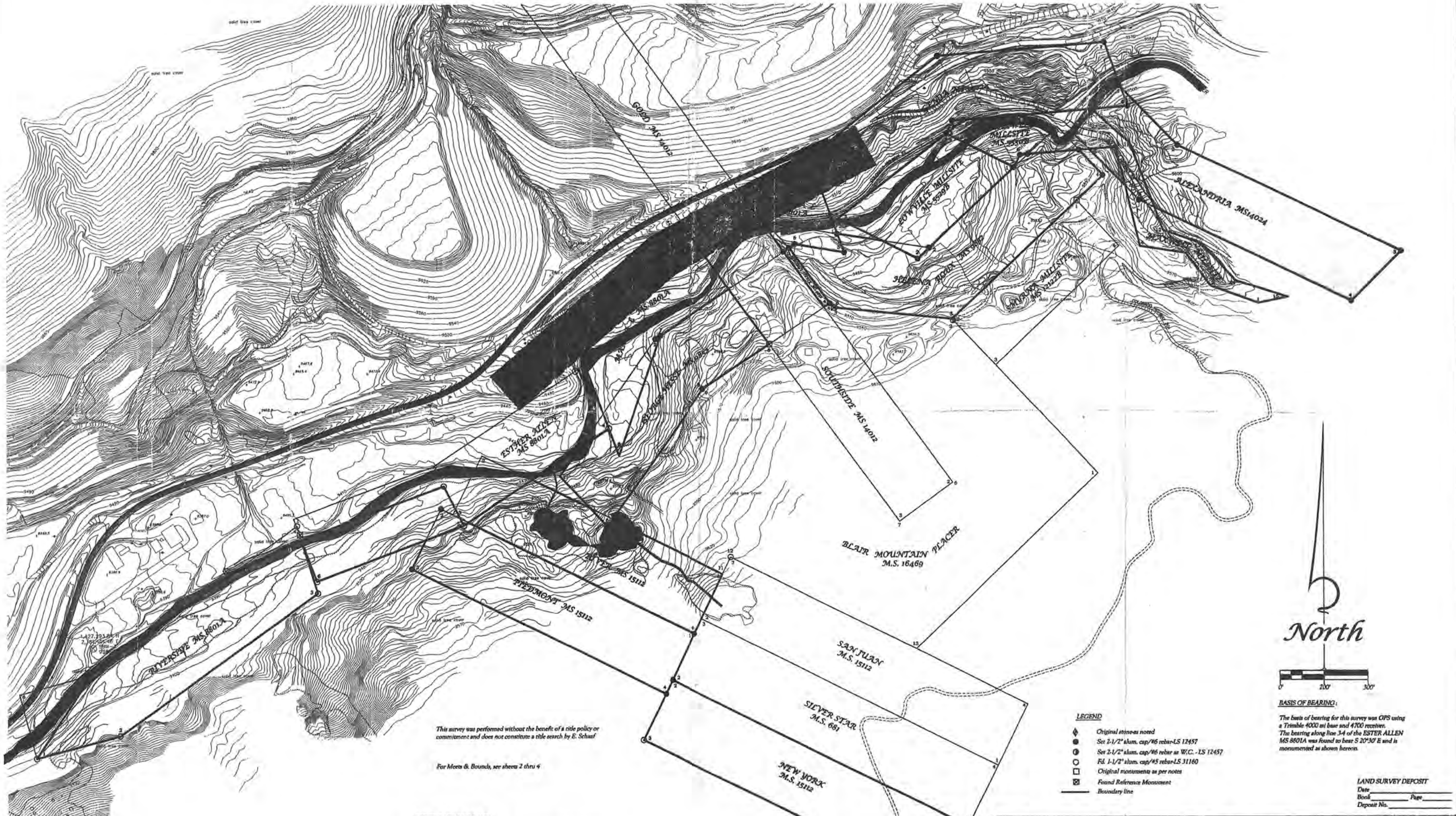
Russell H. Allen
Administrative Cadastral Engineer

ENGRAVED AND PRINTED BY THE GEOLOGICAL SURVEY

ASARCO

Lowville Millsite MS 5529B, Maxwell Millsite MS 5530B, Esther Allen MS 8801A, Marcia L MS 8801A, Riverside MS 8801A, George Hess MS 9852, Helena Roux MS 9852, Alexandria MS 14024, Genoa MS 14024, New York MS 15112, Piedmont MS 15112, and River MS 15112

Located in unsurveyed Township 41 North, Range 7 West, of the New Mexico Principle Meridian



This survey was performed without the benefit of a title policy or commitment and does not constitute a title search by E. Schaaf

For Meets & Bounds, see sheets 2 thru 4

LEGEND

- Original stone as noted
- Set 2-1/2" alum. cap/#6 rebar-LS 12457
- Set 2-1/2" alum. cap/#6 rebar as W.C. - LS 12457
- Fd. 1-1/2" alum. cap/#5 rebar-LS 31160
- Original monuments as per notes
- Found Reference Monument
- Boundary line

BASIS OF BEARING:

The basis of bearing for this survey was GPS using a Trimble 4000 ssi base and 4700 receiver. The bearing along line 3-4 of the ESTER ALLEN MS 8801A was found to bear S 20°30' E and is monumented as shown hereon.

LAND SURVEY DEPOSIT
Date ______
Book ______ Page ______
Deposit No. ______

CERTIFICATE OF SURVEY

I, Earnest E. Schaaf, a Registered Land Surveyor in the State of Colorado, do hereby certify that this plat accurately represents a survey made by me or under my direction and supervision. I further certify that the monuments shown hereon actually exist, and that [illegible] are shown.

Signature
PLS No. 12457
Seal

NOTICE 13-80-105 C.R.S. as amended

ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

U.S. MINERAL SURVEYORS
REGISTERED LAND SURVEYORS
AK, AZ, CO, NM, NV

E. SCHAAF & ASSOCIATES, INC.
361 PALMER ST., DELTA, COLORADO 81416 EMAIL : eeschaaf@aol.com

PLAN SCALE: 1"=200'	REVISIONS:
FIELD CREW: EES, KES, TC, RP	
DRAFTER: EES	
SHEET 1 of 4	

MINERAL SURVEYS
MS 5529B, MS 5530B, MS 8801A, MS 9852, MS 14024 and MS 15122
SAN JUAN COUNTY, COLORADO

ASARCO
1150 N. 7th Ave.
Tucson, AZ 85705

FW: 12/20/03 | JOB #: 2003-65

DRAWING NUMBER
MAP # 185

SPECO PRODUCTS • NEW HOPE, MINNESOTA
RECEIVED BY PRINT HOUSE 6/22
PRINTED BASE BY PRINT HOUSE 6/22

DRAWING NUMBER
Genoa Lode Subdivision

SPECO PRODUCTS • NEW HOPE, MINNESOTA
RECEIVED BY PRINT HOUSE 6/22
PRINTED BASE BY PRINT HOUSE 6/22

DRAWING NUMBER
Recorded # 185[illegible]

SPECO PRODUCTS • NEW HOPE, MINNESOTA
RECEIVED BY PRINT HOUSE 6/22
PRINTED BASE BY PRINT HOUSE 6/22

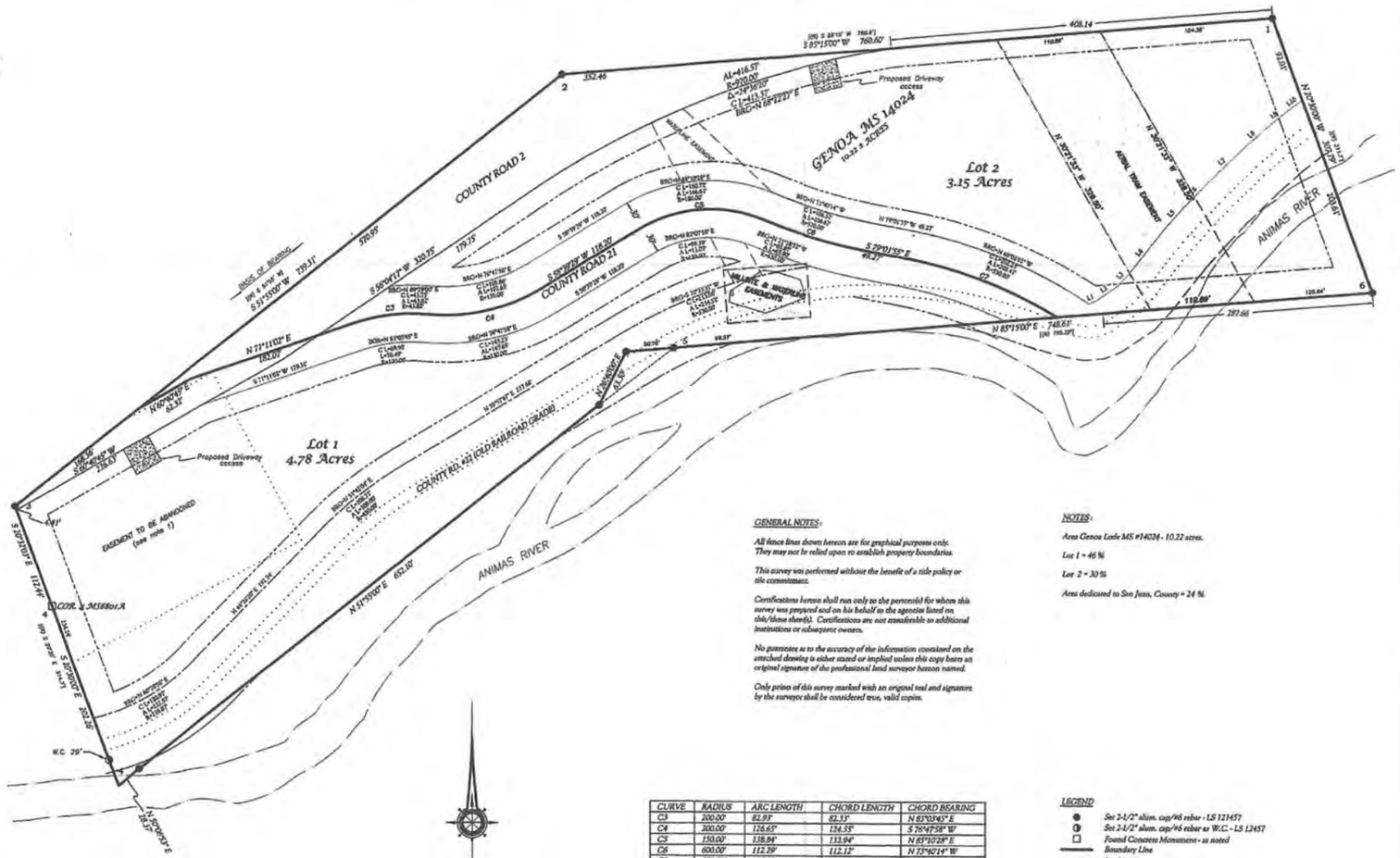
DRAWING NUMBER

SPECO PRODUCTS • NEW HOPE, MINNESOTA
RECEIVED BY PRINT HOUSE 6/22
PRINTED BASE BY PRINT HOUSE 6/22

GENOA LODE SUBDIVISION

GENOA MS 14024,

located in unsurveyed Township 41 North, Range 7 West, of the New Mexico Principle Meridian, San Juan County, Colorado



GENERAL NOTES:

All fence lines shown hereon are for graphical purposes only. They may not be relied upon to establish property boundaries.

This survey was performed without the benefit of a title policy or title commitment.

Certifications hereon shall run only to the person(s) for whom this survey was prepared and on his behalf to the agencies listed on this/these sheet(s). Certifications are not transferable to additional institutions or subsequent owners.

No guarantees as to the accuracy of the information contained on the attached drawing is either stated or implied unless this copy bears an original signature of the professional land surveyor hereon named.

Only prints of this survey marked with an original seal and signature by the surveyor shall be considered true, valid copies.

NOTES:

Area Genoa Lode MS #14024 - 10.22 acres.

Lot 1 = 46 %

Lot 2 = 30 %

Area dedicated to San Juan, County = 24 %

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C3	200.00'	82.93'	82.33'	N 85°03'45" E
C4	200.00'	126.65'	124.55'	S 76°47'58" W
C5	150.00'	138.84'	133.94'	N 85°10'28" E
C6	600.00'	112.39'	112.12'	N 73°30'14" W
C7	300.00'	165.15'	164.40'	S 69°34'11" E

LINE	BEARING	DISTANCE
L1	S 67°59'30" W	8.21'
L2	N 55°49'31" E	27.34'
L3	S 43°18'34" W	30.36'
L4	N 37°59'50" E	43.72'
L5	N 41°56'05" E	28.90'
L6	N 44°05'39" E	37.77'
L7	S 46°05'35" W	41.56'
L8	S 48°07'34" W	37.79'
L9	S 51°21'06" W	25.24'
L10	S 54°00'39" W	20.64'

LEGEND

- Set 2-1/2" alum. cap/#6 rebar - LS 12457
- Set 2-1/2" alum. cap/#6 rebar w/ W.C. - LS 12457
- Found Concrete Monument - as noted
- Boundary Line
- Lot Lines
- Setback Lines
- Historical Society Easements
- County Road R.O.W.

BASIS OF BEARING:

The NW line of the Genoa MS 14024 between corners 2 & 3 is assumed to bear N. 51° 23' 05" E. and is monumented as shown hereon. All other bearings are relative thereto.

CERTIFICATE OF SURVEY:

I, Earnest E. Schaaf, a Registered Land Surveyor in the State of Colorado, do hereby certify that this plat accurately represents a survey made by me or under my direction and supervision. I further certify that the monuments shown hereon actually exist, and that their location is correctly shown.

Signature
PLS No. 12[illegible]
Date
Seal

DEDICATION:

I, Larry Zastrow, being the owner of the land described as follows:

The Genoa Lode MS #14024 located in the unsurveyed Township 41 North, Range 7 West, of the New Mexico Principle Meridian, San Juan County, Colorado.

Under the name Genoa Lode Subdivision, have laid out, platted and/or subdivided the same as shown on this plat and do hereby dedicate to the public at large the County Roads and Old Railroad Grade as shown hereon and hereby dedicate those portions of land labeled as the Waterline, Tram, and Millsite easements for the installation and maintenance of public utilities as shown hereon. The undersigned owners, mortgagees and beneficiaries under deeds of trust, hereinafter known as dedicators, for themselves, their heirs, successors and assigns, covenant and agree with San Juan County that no development, construction or improvements, shall be permitted unless and until all required public improvements, as defined by the subdivision regulations of San Juan County, are in place and accepted by San Juan County or cash funds or other security satisfactory to the County for the improvements are provided to San Juan County.

In witness where of Larry Zastrow has subscribed his name
this 12 day of July, A.D. 2007

By: _____
Larry Zastrow

NOTARIAL:

State of Colorado)
) ss.
County of San Juan)

The foregoing signature(s) was (were) acknowledged before me this 13th day of July, A.D. 2007, by Larry Zastrow

My Commission Expires: 8/31/08
My Address is [illegible] Weatherford, TX 76133
Witness My Hand and Official Seal

_____
Notary Public

JESSICA A. CRABB
NOTARY PUBLIC
STATE OF COLORADO

EASEMENT NOTES:

1. The portion of the easement shown on this plat and shown as "EASEMENT TO BE ABANDONED" shall be abandoned by San Juan County to the owner of Lot 1 of the Genoa Lode Subdivision. The legal description of this easement is shown and described hereon this plat.

2. The easement shown on this plat and called "MILLSITE EASEMENT" shall be dedicated to the San Juan Historical Society. Due to its natural deteriorating condition, all items of historical significance that are directly related to the historic millsite and located within lot 2 of the Genoa Lode Subdivision, shall be maintained by the San Juan Historical Society. San Juan County and the Owner(s) of lot 2 of the Genoa Lode Subdivision shall bear no responsibility for the upkeep and maintenance of these historic sites.

3. The Easement shown on this plat and called "TRAM EASEMENT" shall be dedicated to the San Juan Historical Society. Due to its natural deteriorating condition, all tramway poles, lines or items of historical significance that are directly related to the historic tramway and located within lot 2 of the Genoa Lode Subdivision, shall be maintained by the San Juan Historical Society. San Juan County and the Owner(s) of lot 2 of the Genoa Lode Subdivision shall bear no responsibility for the upkeep and maintenance of these historic sites.

4. The COUNTY ROAD R.O.W's and the "OLD RAILROAD GRADE R.O.W" are hereby dedicated to San Juan, County and have presidency over all other easements as shown hereon.

SAN JUAN COUNTY BOARD OF COMMISSIONERS' APPROVAL:

This plat was reviewed and approved by the San Juan County Board of Commissioners' on this 11th day of July, 2007.

By: Ernest F. Kuhlman

SAN JUAN PLANNING COMMISSION APPROVAL:

This plat was reviewed and approved by the Silverton Planning Commission on this 12th day of July, 2007.

By: Alfred Reder

SAN JUAN HISTORICAL SOCIETY:

This plat was reviewed and approved by the San Juan County Historical Society on this 11 day of July, 2007.

By: Beverly E. Rich

SAN JUAN COUNTY CLERK AND RECORDER'S ACCEPTANCE:

This plat was accepted for filing in the office of the Clerk and Recorder of San Juan County, Colorado, on this 12th day of July, A.D. 2007; Reception Number [illegible] Time 11:19 AM, Book 3, Page ---

Date 7-12-07

PLAT REFERENCES:

Mineral Surveys of MS 5529B, MS 5530B, MS 6801A, MS 9852, MS 14024 & MS 15122, San Juan County, Colorado done by Earnest E. Schaaf, PLS 12457, dated 12/20/03.

U.S. MINERAL SURVEYORS
REGISTERED LAND SURVEYORS
IN COLORADO

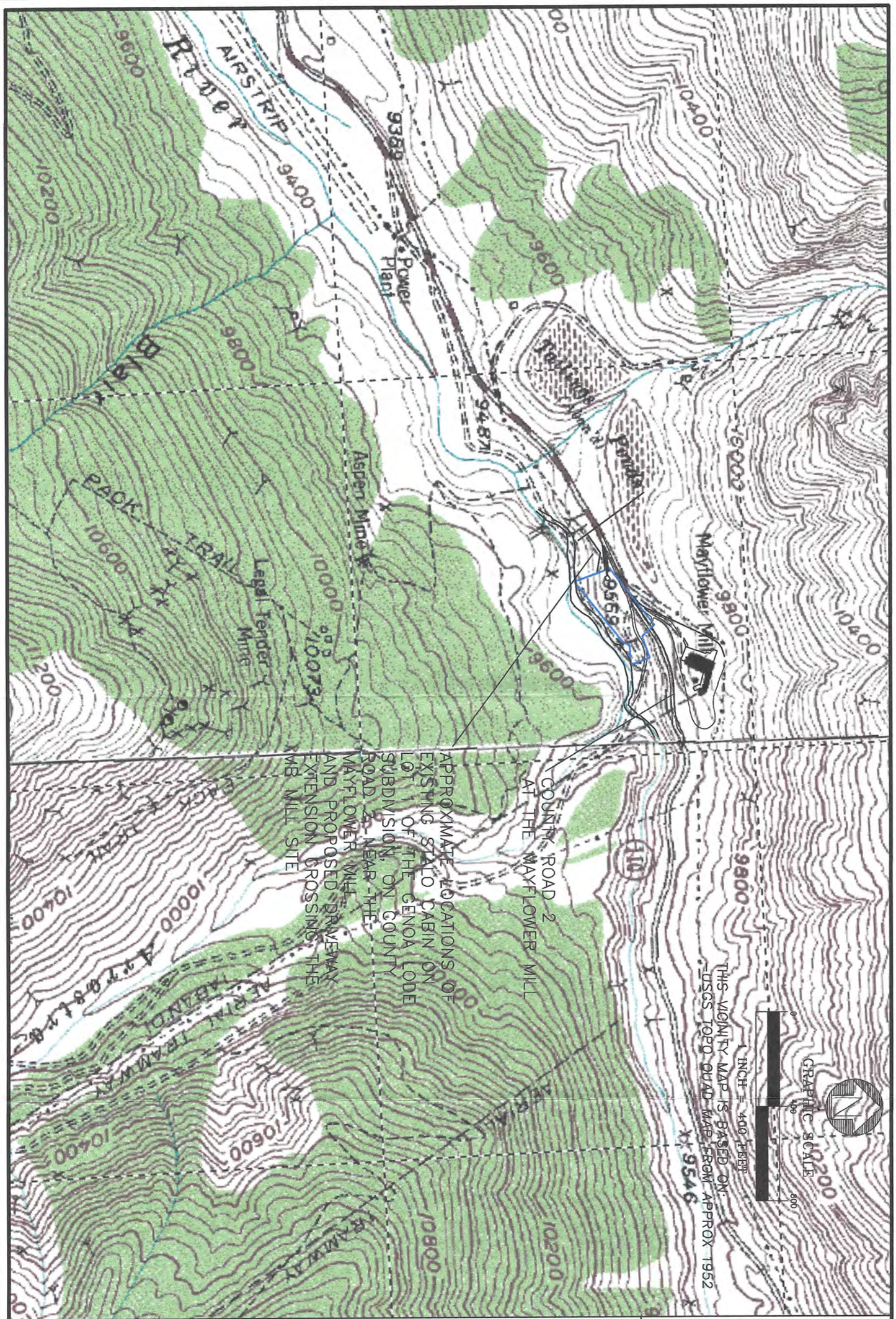
SOUTHWEST LAND SURVEYING LLC
1315 Snowden St., Silverton, CO 81433
(970) 387-0600 Silverton (970) 874-2680 Delta
(970) 874-0883 fax
EMAIL: lonchas@aol.com

PLAN SCALE: 1"=60'	REVISIONS:
FIELD CREW: KES	
DRAFTER: RWP, EES	
SHEET 1 of 1	

GENOA LODE SUBDIVISION
of the Genoa MS 14024
located in unsurveyed T. 41 N., R. 7 W., N.M.P.M.,
San Juan, County, Colorado

Larry Zastrow
826 Chanticleers
Abilene, TX 79602

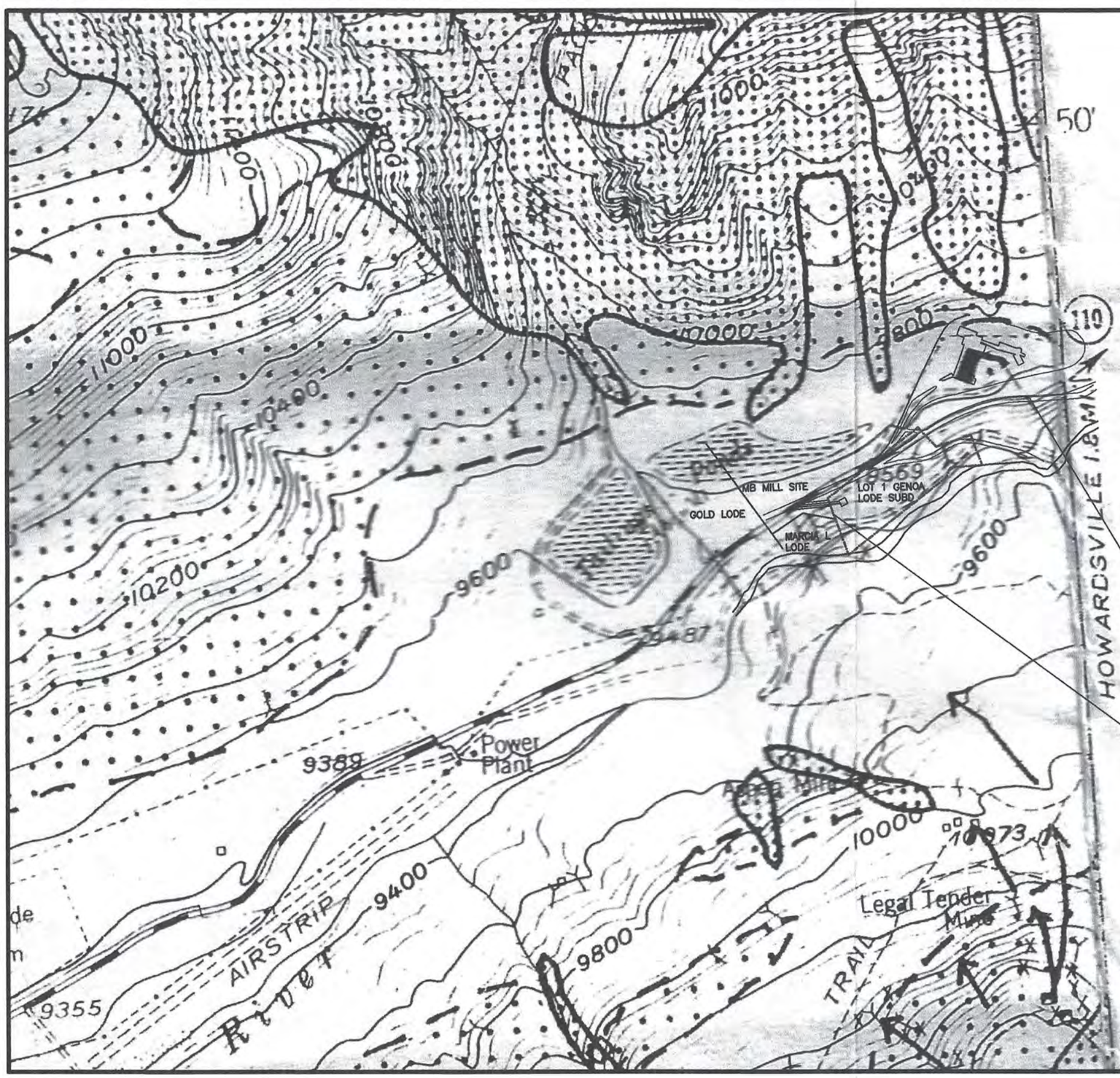
FB: --
JOB #: 2006-45



SHEET 1 OF 4

DATE: AUGUST 23, 2006	VICINITY MAP
DRAWN BY: LMA/JG/MM	PROPOSED STALO DRIVEWAY EXTENSION
LAYOUT/LMAN: STALO VIC/HYDROVIC	ACROSS MB MIL SITE TO LOT 1 GENOA LODE SUBDIVISION
3-179-L/179-A/dra/2018 Luther Elec...	CR 2 NEAR THE MAYFLOWER MILL, SAN JUAN COUNTY, CO
LAST REVISED: JULY 25, 2025	

ENGINEER MOUNTAIN INC.
*SOILS *RETAINING WALLS
*SEPTICS *FOUNDATIONS
*GRADING AND DRAINAGE
*CIVIL SITE DEVELOPMENT
P.O. BOX 526, SILVERTON, CO 81433
(970) 387-0500 engineermountaininc@gmail.com



GRAPHIC SCALE

0 300 600

1 INCH = 300 FEET

THIS PLAN SHEET IS APPROXIMATE AND IS BASED ON:
- USGS TOPO QUAD MAP FROM APPROX 1952
- COUNTY ADOPTED AVALANCHE HAZARDS MAP
- SCHAAF AND LARSON SURVEYS FOR ASARCO AND SJCHS
- THE TAILINGS PONDS, COUNTY ROAD, FORMER RUNWAY, AND VICINITY HAS CHANGED SIGNIFICANTLY IN PLACES COMPARED TO THE USGS TOPO QUAD FROM THE 1950S

COUNTY ROAD 2
AT THE MAYFLOWER MILL

APPROXIMATE LOCATIONS OF EXISTING STALO CABIN ON LOT 1 OF THE GENOA LODE SUBDIVISION, ON COUNTY ROAD 2, NEAR THE MAYFLOWER MILL, AND PROPOSED DRIVEWAY EXTENSION CROSSING THE MB MILL SITE

*SOILS *RETAINING WALLS
*SEPTICS *FOUNDATIONS
*GRADING AND DRAINAGE
*CIVIL SITE DEVELOPMENT

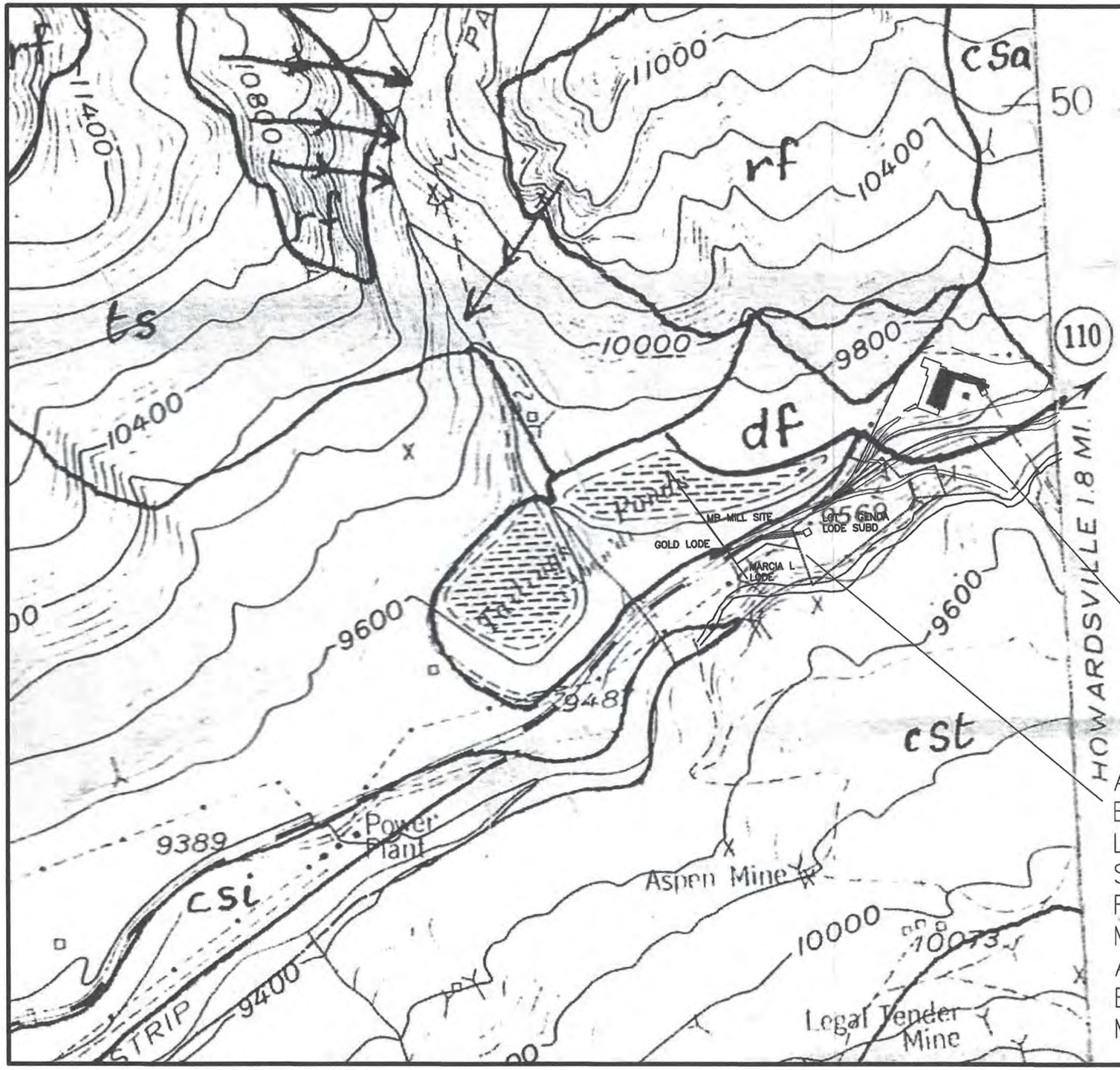
ENGINEER MOUNTAIN INC.

P.O. BOX 526, SILVERTON, CO 81433
(970) 387-0300 engineermountaininc@gmail.com

SITE PLAN ON COUNTY AVALANCHE HAZARDS MAP
PROPOSED STALO DRIVEWAY EXTENSION
ACROSS MB MIL SITE TO LOT 1 GENOA LODE SUBDIVISION
CR 2 NEAR THE MAYFLOWER MILL, SAN JUAN COUNTY, CO

DATE: AUGUST 23, 2006
DRAWN BY: LMA/JG/MM
LAYOUT/LMAN: STALO AVY X 2
3-179-L/179-A/dro/2018 Luther Elec...
LAST REVISED: JULY 25, 2025

SHEET 2 OF 4



GRAPHIC SCALE

0 300 600

1 INCH = 300 FEET

THIS PLAN SHEET IS APPROXIMATE AND IS BASED ON:
-USGS TOPO QUAD MAP FROM APPROX 1952
-COUNTY ADOPTED GEOHAZARDS HAZARDS MAP
-SCHAAF AND LARSON SURVEYS FOR ASARCO AND SJCHS
-THE TAILINGS PONDS, COUNTY ROAD, FORMER RUNWAY, AND VICINITY HAS CHANGED SIGNIFICANTLY IN PLACES COMPARED TO THE USGS TOPO QUAD FROM THE 1950S
-THE MANMADE TAILINGS PONDS AFFECT THE SURROUNDING NATURAL HAZARDS AT THE PROJECT SITE

COUNTY ROAD 2
AT THE MAYFLOWER MILL

APPROXIMATE LOCATIONS OF EXISTING STALO CABIN ON LOT 1 OF THE GENOA LODE SUBDIVISION, ON COUNTY ROAD 2, NEAR THE MAYFLOWER MILL, AND PROPOSED DRIVEWAY EXTENSION CROSSING THE MB MILL SITE

*SOILS *RETAINING WALLS
*SEPTICS *FOUNDATIONS
*GRADING AND DRAINAGE
*CIVIL SITE DEVELOPMENT
ENGINEER MOUNTAIN INC.
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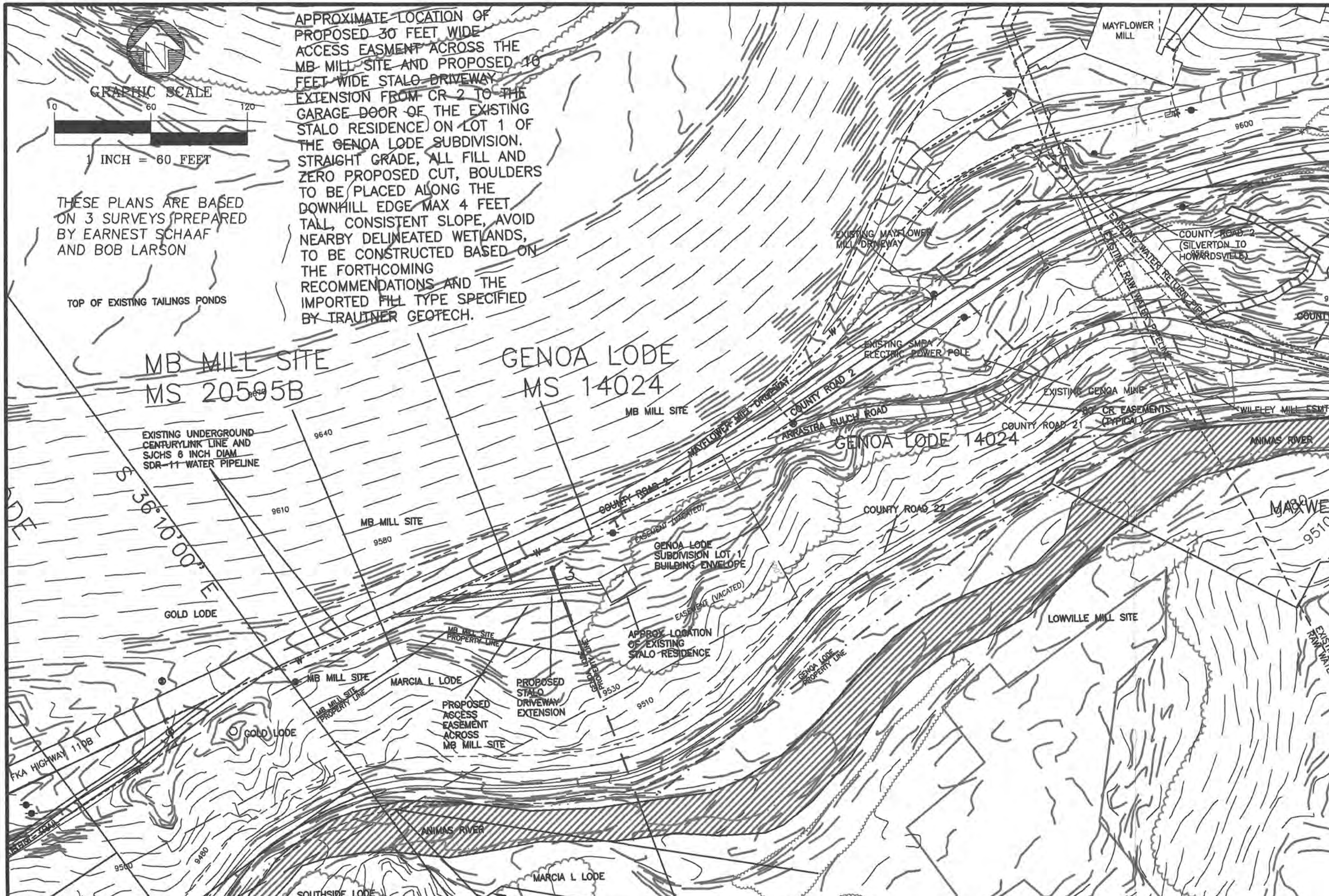
(970) 387-0500 engineermountaininc@gmail.com

SITE PLAN ON COUNTY GEOHAZARDS MAP
PROPOSED STALO DRIVEWAY EXTENSION
ACROSS MB MIL SITE TO LOT 1 GENOA LODE SUBDIVISION
CR 2 NEAR THE MAYFLOWER MILL, SAN JUAN COUNTY, CO

DATE: AUGUST 23, 2006
DRAWN BY: LMA/JG/MM
LAYOUT/LMAN: STALO GEOHAZ X 2
3-179-L/179-A/dra/2018 Luther Elec...
LAST REVISED: JULY 25, 2025

SHEET 3 OF 4



GRAPHIC SCALE
0
60
120
1 INCH = 60 FEET
APPROXIMATE LOCATION OF PROPOSED 30 FEET WIDE ACCESS EASMENT ACROSS THE MB MILL SITE AND PROPOSED 10 FEET WIDE STALO DRIVEWAY EXTENSION FROM CR 2 TO THE GARAGE DOOR OF THE EXISTING STALO RESIDENCE ON LOT 1 OF THE GENOA LODE SUBDIVISION. STRAIGHT GRADE, ALL FILL AND ZERO PROPOSED CUT, BOULDERS TO BE PLACED ALONG THE DOWNHILL EDGE MAX 4 FEET TALL, CONSISTENT SLOPE, AVOID NEARBY DELINEATED WETLANDS, TO BE CONSTRUCTED BASED ON THE FORTHCOMING RECOMMENDATIONS AND THE IMPORTED FILL TYPE SPECIFIED BY TRAUTNER GEOTECH.
THESE PLANS ARE BASED ON 3 SURVEYS PREPARED BY EARNEST SCHAAF AND BOB LARSON
TOP OF EXISTING TAILINGS PONDS
MAYFLOWER MILL
9600
EXISTING MAYFLOWER MILL DRIVEWAY
EXISTING WATER RETURN PIPE
EXISTING RAW WATER PIPELINE
COUNTY ROAD 2 (SILVERTON TO HOWARDSVILLE)
EXISTING SMPA ELECTRIC POWER POLE
MB MILL SITE MS 20595B
GENOA LODE MS 14024
MB MILL SITE
MAYFLOWER MILL DRIVEWAY
COUNTY ROAD 2
ARRASTRA GULCH ROAD
EXISTING GENOA MINE
60' CR EASEMENTS (TYPICAL)
COUNTY ROAD 21
WILFLEY MILL ESMT
ANIMAS RIVER
GENOA LODE 14024
EXISTING UNDERGROUND CENTURYLINK LINE AND SJCHS 6 INCH DIAM SDR-11 WATER PIPELINE
9640
S 36°10'00" E
9610
MB MILL SITE
9580
COUNTY ROAD 2
EASEMENT (VACATED)
GENOA LODE SUBDIVISION LOT 1 BUILDING ENVELOPE
COUNTY ROAD 22
MAXWEL
9510
GOLD LODE
MB MILL SITE PROPERTY LINE
GENOA LODE PROPERTY LINE
EASEMENT (VACATED)
APPROX LOCATION OF EXISTING STALO RESIDENCE
LOWVILLE MILL SITE
EXISTING RAW WATER
MB MILL SITE
MARCIA L LODE
MB MILL SITE PROPERTY LINE
PROPOSED STALO DRIVEWAY EXTENSION
PROPOSED ACCESS EASEMENT ACROSS MB MILL SITE
9530
9510
GOLD LODE
FKA HIGHWAY 110B
ANIMAS RIVER
9480
9500
SOUTHSIDE LODE
MARCIA L LODE

ENGINEER MOUNTAIN INC.
*SOILS *RETAINING WALLS
*SEPTICS *FOUNDATIONS
*GRADING AND DRAINAGE
*CIVIL SITE DEVELOPMENT
P.O. BOX 526, SILVERTON, CO 81433
(970) 387-0500 engineermountaininc@gmail.com

SITE PLAN WITH TOPO
PROPOSED STALO DRIVEWAY EXTENSION
ACROSS MB MILL SITE TO LOT 1 GENOA LODE SUBDIVISION
CR 2 NEAR THE MAYFLOWER MILL, SAN JUAN COUNTY, CO

DATE: AUGUST 23, 2006
DRAWN BY: LMA/JS/MM
LMAN/LAYOUT: STALO SITE TOPO x 2
3-129-L/179-A/dro/2018 Luther Elec...
LAST REVISED: JULY 26, 2025

SHEET
4
OF 4

PROJECT NARRATIVE
Proposed Stalo Driveway
Lot 1, Genoa Lode Subdivision
1301 County Road 2
San Juan County, Colorado
Engineer Mountain, Inc.

Owner/Applicant Name:	Joel Stalo of Michigan
Project Location:	Lot 1, Genoa Lode Subdivision, 1301 County Road 2, San Juan County, Colorado, Township 41 North, Range 7 West, Section 10, N.M.P.M. Parcel Number 48290100010055
Existing Development:	Existing Stalo residence, driveway, and a septic system on County Road 2 across from the Mayflower Mill.
Proposed Development:	Proposed driveway extension due to unsafe existing driveway.
Access:	The access is an existing driveway across County Road 2 from the Mayflower Mill. The existing driveway is steep, icy, and adjacent to a cliff.
Zoning:	Mountain Zoning District.
Water Service:	The Applicant has existing water from a tap on the Mayflower Mill's water main, which is a private water treatment system managed by the San Juan County Historical Society.
Sewer Service:	The Applicant has an existing septic system.
Previous Permits:	A San Juan County 2021 Improvement Permit was approved prior to the construction of the now-existing driveway and residence at this project site. The approved County Permit and some of the site Subdivision documents are included in this submittal for your review.
Surveying:	The Survey Plat for the Genoa Lode Subdivision was prepared by Professional Licensed Surveyor (PLS) Earnie Schaaf of Southwest Land Surveying LLC of Silverton. A copy of the survey plat is included within this application for your review.
Subsurface Conditions:	Trautner Geotech prepared a geotechnical report dated July 19, 2021, which is included in this application for your review.
County Geohazards Map:	The vicinity map for this project site has been overlaid onto the County Geohazard Map. The plan is included within this booklet for your review.

PROJECT NARRATIVE
Proposed Stalo Driveway
Lot 1, Genoa Lode Subdivision
1301 County Road 2
San Juan County, Colorado

Engineer Mountain, Inc.

County Avalanche Map: The vicinity map for this project site has been overlaid onto the County Avalanche Hazard Map. The plan is included within this booklet for your review.

Structures: The existing Stalo residence was constructed on Lot 1 in 2021.

County Ord. 2020-01 Per County Ordinance 2020-01, an ordinance concerning mine waste remediation areas in San Juan County, the Inventory for parcels requiring a CDPHE signoff was reviewed to verify if any of the lots included in this project are subject to County Ordinance 2020-01. The M B Mill Site, owned by San Juan County, where the proposed driveway extension is located, is on the Inventory. Therefore we are sending an electronic copy of this application to the CDPHE. The Genoa Lode Subdivision is not listed on the Inventory.

SAN JUAN COUNTY, COLORADO

DRIVEWAY AND ROAD ACCESS PERMIT

Improvement
Permit No. _____

Applicant: Joel Stalo
1301 County Road 2
San Juan County, Colorado

Location of Proposed Driveway or Access on County Road No. 2:

Proposed driveway extension on the existing driveway at 1301 CR 2. The existing driveway is steep, icy, and adjacent to a cliff.

Description of Proposed Driveway or Access, including materials to be used:

Proposed driveway extension from edge of CR 2 to the existing Stalo Residence garage door, with proposed fill, and zero proposed cuts, and boulders along the downhill edge, constructed of imported fill, TBD by Trautner Geotech.

Comment and Recommendations of County Road Supervisor:

Terms and Conditions of Issuance of Permit (or reason for denial):

Permit Approved _____ or Denied _____. Date: _____

Land Use Administrator: _____

BOARD OF COUNTY COMMISSIONERS
San Juan County

P.O. Box 466 Silverton, Colorado 81433 970-387-5671

RELATIONSHIP OF PROPERTY TO COUNTY ROAD AND STATE HIGHWAY SYSTEMS

I, the undersigned, applicant engaged in the processing of Application for Improvement Permit No. _____, San Juan County, Colorado, do hereby acknowledge the following facts:

1. The real property' which is the subject of said application is on this date located approximately 0 *from* County Road No. 2, the nearest designated and publicly maintained county road.

2. Said County Road No. 2 is on this date maintained on an Year-round basis by San Juan County.

3. The real property which is the subject of said application is on this date located approximately 2.75 from Colorado State Highway No. 550, the nearest designated state or federal highway.

4. Said Colorado State Highway No. 550 is on this date maintained on a year-round basis by either San Juan County or the Colorado Division of Highways.

5. A Driveway Permit will be necessary for any private access or egress relating to said real property which intersects any designated Colorado State Highway or Federal Highway.

Signed and dated this _____ (day) day of July (month), 2005 (year).

Applicant

ATTEST:

_____

Position:

July 29, 2025
Clerk and Recorder
San Juan County
P.O. Box 466
Silverton, Colorado 81433

Subject: Access Easement across the MB Mill Site USMS No. 20595B, to access the Lot 1 of the Genoa Lode Subdivision, located on County Road 2, near the Mayflower Mill, in San Juan County, Colorado.

EASEMENT DEED

To whom it may concern,

For Ten Dollars ($10.00) and other good and valuable consideration, San Juan County, Grantor, 1557 Greene Street, Silverton, Colorado, does hereby grant and
convey to the owners of Lot 1 of the Genoa Lode Subdivision, Grantees,
Joel M Stalo Trust, 13031 N Fenton Road, Fenton, MI, 48430 their successors and assigns, a non-exclusive access easement across the MB Mill Site USMS No. 20595B, to Lot 1 of the Genoa Lode Subdivision. Said easement is further described as follows:

The MB Mill Site is adjacent to Lot 1 of the Genoa Lode Subdivision. Access to Lot 1 of the Genoa Lode Subdivision will be from County Road 2, through the MB Mill Site. The location of the thirty-foot wide easement across the MB Mill Site will be in the as-built location of the proposed driveway extension which shall be constructed as shown on the attached Exhibit A (map). The easement shall include fifteen feet of easement width on each side of the proposed as-built driveway extension centerline. The proposed driveway extension shall be constructed of adequate fill per Trautner Geotech's recommendations and zero cuts are permitted.

This access easement shall be in effect in perpetuity in the event that ownership of any or all of the properties' changes. Additionally, the easement shall be as shown on the attached one-page Exhibit A.

A signed copy of this easement deed shall be filed in the San Juan County Colorado Courthouse.

Page 2 of 3: Signature Page.

Page 3 of 3: Exhibit A.

- EASEMENT DEED across the MB Mill Site to Lot 1 of the Genoa Lode Subdivision -

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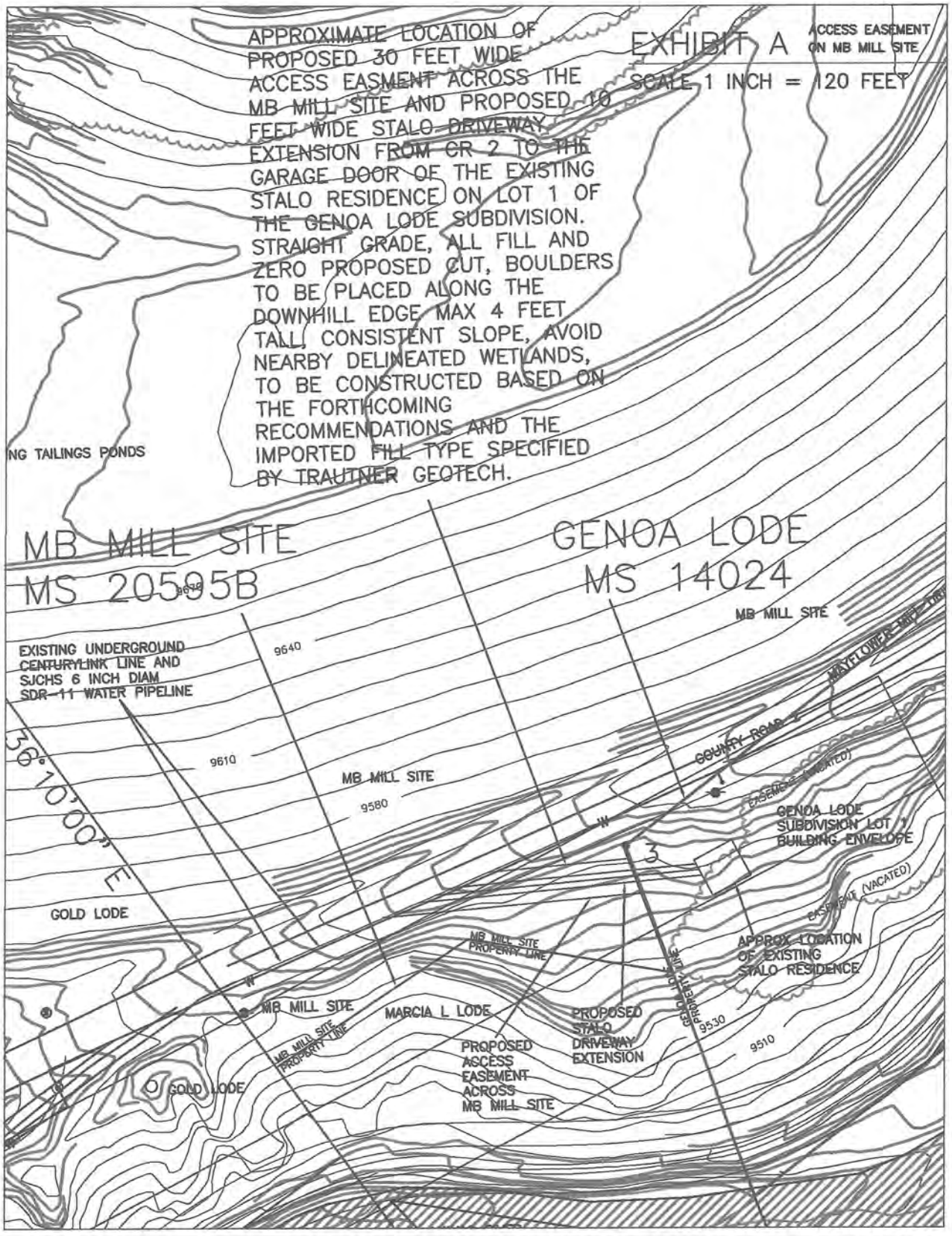
Signature of Chairman of the Board of County Commissioners Austin Lashley, representing San Juan County, the Owner of the MB Mill Site USMS No. 20595B.



*SOILS *RETAINING WALLS
*SEPTICS *FOUNDATIONS
*GRADING AND DRAINAGE
*CIVIL SITE DEVELOPMENT
ENGINEER MOUNTAIN, INC.
formerly MACKIE Engineering
P.O. BOX 526, SILVERTON, CO 81433
(970) 387-0500 engineermountaininc@gmail.com

EXHIBIT A – ACCESS EASEMENT DEED

ACROSS MB MILL SITE TO GENOA LODE

CR 2, SAN JUAN COUNTY, CO

DATE: OCTOBER 20, 2003
DRAWN BY: JG/LMA
LAYOUT: STALO EXH A
3-179/179-L/179-Arr/dra/2018...dwg
LAST REVISED: JULY 25, 2025

SHEET 1 OF 1

Claim Name	Parcel ID Number	Mineral Survey Nunber	Patent
A J BRILEY	47770000040003	2600	15955
A P HILL	47750160050027	1922	12437
ACHILLES	48310180010102	2580	17219
ADVENTURE	47750140050004; 47750140050044	14443	36006
ALICE	47750160050027	17371	43397
AMERICAN EAGLE	47750160050013	13270	32580
AMERICAN EAGLE M S	47750160050012	13270	32580
ANGLO SAXON	47750160050028	14875	40966
ANGLO SAXON PLACER	47750310040007	16687	41909
ANIMAS BELLE	47750110050006	4854	17904
ANN HARRIS PLACER (PARCEL C of Sunnyside Gold Corporation - Perino Boundary Adjustment)	48290090010039	11596	28491
AQUILLA	48310180010102	42	1834
BANDORA	48270000030023	7416	23280
BASTILE	47750160050017; 47750160050172; 47750160050173	15680	46082
BELCHER	47750160050013	2044	14878
BEN BUTLER	45690250050006	1291	25653
BEND PLACER	48290090010033	11596	28491
BENJAMIN FRANKLIN	47750140050004; 47750140050044	1011	7817
BERDILLA	47750180040005	1524	11398
BLAIR MOUNTAIN PLACER	48290100010012	16469	43204
BLAIR PLACER (part)	48290090010043	841	7983
BOSTON	45690360050004	54	3294
BREWSTER	47770240040002	15697	36439
BROOKLYN	47750190040007; 47750190040071	18982	298380
BROUILLET	47750310010009	19125	258712
BUENA VISTA	48290000010013	14017	34052
BULLION KING	47770000040003	2604	16060
BURROWS #2	45690360050006	107	3910
BYRON	47730170050013	419	6473
BYRON M S	47730170050010	419	6473
C H MILL SITE	48290090010033	20594	1126475
CARBON LAKE	47770130040019	1177	9128
CATARACT	48270000030023	20459	1050666
CLIPPER	47750140050002	1689	14301
COMET	47750120050005	17034	41816
CONGRESS	47770240040006; 47770240040111	1259	10127
CYNIC	47730170050001	126	2985
DEAN B	47750160050016	16795	40581
DEWITT	45690360050004	52	3271
DOOLEY	47750190040009; 47750200040007	18624	149242
E PLURIBUS	47750090050008	520	6060
EDWARD	47730170050001	210	5944
EUREKA POWER M S	47730190050014	16977	42149
EVENING STAR	47750120050004; 47750120050041; 48290120010111	17034	41816
FAMILY	45690360060002	4801	17907
FATTED CALF	47750100050001	18247	110836
Forest Lily MS	47730080050002	4835	18679
FOREST QUEEN #10	47730310050001	18843	156409
FRANKLIN	45690360050006	1739	11030
GALENA QUEEN	47770130040005; 47770130040053; 47770130040054; 47770130040055; 47770130040056; 47770130040057	2061	15364
GEM	48270040040005	13249	32742
GOLD	48290090010043	14012	34052
GORILLA	47750010010001	17549	43631
GOVERNOR	47750160050027	17371	43397
GOVERNOR	48270040040006	13249	32742
GRAND MOGUL	47750100050009	521	5970
GRAY COPPER	47750090050018	20377	1035597
GREENFIELD	45690360050018	49	3143
H M MILL SITE	48290090010010	20595	1120728
H V B MILL SITE	48290090010043	20594	1126475
HARRISON M S	47750160050028	14710	37311
HERBERT PLACER	47750210050011	13562	35681
HERCULES	47750180040044	18626	139274
HIDDEN HAND	47750140050004; 47750140050045	1658	14262
HIDDEN TREASURE	47750110050121	5010	17563
HIGH JACK	45710300050005	20470	1062852
Howardsville MS	48290020010022	9883	27301
HOWARDSVILLE PLACER (buildable portion)	48290010010091; 48290010010091	942	6908
I X L	47750160050027	1923	37468

IRON MASK	47750140050004; 47750140050044	14443	36006
IRON SILVER	47770230040012; 47770230040125	4599	16219
JEANNETTE ROUX PLACER (Tailings Pond Part)	48290090010043	11596	28491
JOHN H FRENCH PLACER	47730310050022	45	2490
JOHN H FRENCH PLACER	47730310050021	45	2490
JUNCTION	47770140040008	19335	365180
JUNCTION #1	47770140040008	19335	365180
JUNCTION #2	47770140040008	19335	365180
JUPITER	47750120050061	17034	41816
KANSAS CITY	47750190040006; 47750190040062; 47750190040065	18494	125561
Katy MS	48290110010001	797	7488
KILLARNEY	47770140040007; 47770140040009	2690	17339
L C M MILL SITE	47750210050006	20726	1131333
LA GARITA	47730060050016; 47730060050161	18221	0
LAST CHANCE	47750140050002	17901	110023
LETTER B	47750160050013	2045	14901
LIBBIE BAUDER EXT	47750160050027	17371	43397
LITTLE MARY	47750140050002	2038	15010
LITTLE TODD	48270000030023	7416	23280
LONDON	45690360050018	5961	22971
LONGFELLOW	47770140040008	5341	17913
LUCKY JACK	45710300050005	17907	45542
M B MILL SITE	48290100010006	20595	1120728
M D THATCHER (PARCEL D of Sunnyside Gold Corporation - Perino Boundary Adjustment)	48290090010040	17699	45664
MAY	47750310010009	19125	258712
MINERAL KING	47750180040005	2051	11816
MORNING STAR	47770230040012; 47770230040124	6793	21105
MORNING STAR	47750120050061	17034	41816
MOUNTAIN QUEEN	47750100050001	792	8979
N N MILL SITE	48290100010006	20595	1120728
NATALIE PLACER	47750280050004	15171	39983
NOBLE	48270000030023	7416	23280
None Such MS	48290020010023	1864	23894
OREGON	47750150050001	17233	42968
ORIENTAL	47770230040012; 47770230040125	16099	39190
ORLEANS M S	47750210050021	15061	38352
PARADOX	47770130040110	19343	377099
PARALLEL	45690350060016	18152	240272
PETER PLACER (PARCEL F of Sunnyside Gold Corporation Perino Boundary Adjustment)	48290090010042	11596	0
PIEDMONT	48290090010035	15112	37830
POLAR STAR M S (PARCEL E of Sunnyside Gold Corporation - Perino Boundary Adjustment)	48290090010041	7608	0
PRIDE OF THE ROCKIES	47750110050121	7628	31534
PRIDE OF THE WEST	48310190010005	41	2250
QUEEN OF THE WEST	45690360060012	1215	9385
RED CLOUD	45690360050006	120	3909
REGULATOR M S (E of Cunningham Creek)	48310180010030; 48310180010031	154	3295
REPUBLIC	47750140050002	12724	31197
RICHMOND	48310190010005	678	8313
RIVER	48290090010035	15112	37830
ROB ROY	47730170050001	499	7784
ROB THE RANTER	47750090050014	778	8834
ROYAL CHARTER	48290110010004	1710	11359
SALEM	47770130040109	1178	15951
SAMPSON M S	47750160050014	1618	11520
SAN JUAN	48290100010004	15112	37830
SELMA #1	47770130040006	19343	377099
SENATOR	47730190050014	16804	40898
SHAMROCK	47750010010002	17549	43631
SILVER LEDGE	47770230040012; 47770230040122	1523	17456
SILVER PITCHER	47770130040005; 47770130040053; 47770130040054; 47770130040055; 47770130040056; 47770130040057	2062	15365
SPARTA	47770240040003	18626	139274
SUCCESS PLACER	47750160050014	1914	11521
T H W MILL SITE (TRACT A)	48290100010006	20595	1120728
T H W MILL SITE (TRACT B)	48290100010006	20595	1120728
THERESA	47750090050008	15968	40372
THERESA M S	47750090050033	15968	40372
THUNDERBERG	47750140050002	1395	9388
TRACT 41 (PARCEL A of Sunnyside Gold Corporation - Perino Boundary Adjustment)	48290090010037	0	186140

TRACT BB (PARCEL B of Sunnyside Gold Corporation - Perino Boundary Adjustment)	48290090010038	0	186140
TRAIL S 500 FT	48310180010030	130	3096
TURKOIS	47770230040128; 47770230040129	1496	9589
VENUS	47750120050061	17034	41816
Vienna Placer	48290110010005	14057	34524
W M G L	47730060050005	19931	898231
WALKYRIE	47730060050005	19931	898231
WASHINGTON	45690250060015	104	4042
WINNING	47770000040121; 47770000040123	11560	29635
YOUNG	47750090050008	16523	39991
ZOO	47770000040121; 47770000040123	11560	29635


Measure
LEGEND
R4SBCx
Animas Forks Rd
PUBFx
PEM1E
R4SBA
County Road 52
County Road 2
PSS1B
PEM1B
R3UBG
R3UBF
Aspen Rd
PUBG
1:2,257
829 | -107.630
U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov | Maxar, Microsoft | Esri Community Maps Co...
POWERED BY esri

Wetland Delineation

Joe Stalo

San Juan County, Colorado

Prepared by:
Dr. Jake Kurzweil
Hydrologist

Mountain Studies Institute
SAN JUAN MOUNTAINS, CO

This Wetland Delineation has been conducted in accordance with 1987 United States Army Corps of Engineers Wetland Delineation Manual, Western Mountains, Valleys, and Coast Region.

Wetland Description

The Mountain Studies Institute delineated the property owned by San Juan County and Ryan Naffziger, directly to the west of the property owned by Joel Stalo in San Juan County, Colorado, on June 19th, 2025. This project was authorized by Joal Stalo and Lisa Adar. This work occurred during the lull between spring snowmelt runoff, and the summer monsoonal pattern. Typical weather and precipitation patterns were present during the delineation that included clear sunny skies, no precipitation within the last two weeks, and warm temperatures (78 °F). This site is at the base of storm peak as well as below County Road 2 and the Mayflower Mill tailings piles. It is a perched, low angle wet meadow that is located on a terrace before dropping off a shear cliff into the Animas River. This is largely a surface water fed system, with minimal groundwater contributions (*Figure 1*).

Figure 1. Aerial view of Wetland Delineation for Joal Stalo. The wetland boundary is blue, while upland delineation points are in black and wetland delineation points are in green.

This delineation was authorized by Joel Stalo and Lisa Adar to understand if a new driveway would impact waters of the either the United States or the State of Colorado.

Stalo 1A/1B

Plots Stalo 1A and Stalo 1B are located at the southern toe of the perched, isolated wet meadow and located towards the southern tip of the area of Interest. These sites were very similar to one another, with 1A having a slope of 5% while plot 1B had a slope of roughly 7%. Both had identical soils with over 16 inches of loamy mucky mineral soils. The vegetation was well established with solid roots extending upwards of 10 inches into the soil matrix. Plants were dominated by *Juncus balticus* in site Stalo 1A, while Stalo 1B was dominated by *Carex pregracilis* (*Figures 2 and 3*). Soil depths increased moving downslope, which is indicative of more sustained hydrologic input allowing for a greater amount of vegetation to grow and decompose over many decades. These sites were flanked by bare earth on the east and west flanks, with a substantial cliff to the south and west. Although the soil was damp, it was not saturated, but surface water drainage patterns are present throughout the site.

Figure 2. On the left is the site photo for Stalo 1A, on the right is the full soil pit for Stalo 1A.

Figure 3. On the left is the site photo for Stalo 1B, on the right is the full soil pit for Stalo 1B.

Stalo 2B

Stalo 2B (*Figure 4)* is also located in the delineated boundary and is similar to plots Stalo 1A and Stalo 1B. It is closer to Couty Road 2 and had a shallower soil pit before hitting the local bedrock. This site is dominated by the wet meadow characteristics and represents the northern edge of the delineated wetland. Like Stalo 1A it was also dominated by *Juncus balticus*, with some *Poa pratensis* present as well. The soils were identical to the lower sites, with less depth. This continues to support the idea that more continuous water is available in the lower (southern) portions of the wetland as surface water continues to accumulate as it moves down the system. Although the soil was damp, it was not saturated. Drainage patterns were visible, coming off Country Road 2, and vegetation was well established with roots extending upwards of 8 inches into the soil column. Like Stalo 1A/1B, Stalo 2B is flanked on the east and west by bare ground, with the west being a substantial cliff.

Figure 4. On the left is the site photo for Stalo 2B, on the right is the full soil pit for Stalo 2B.

Stalo 2A

Stalo 2A (*Figure 5)* is located at the northern end of the area of interest and represents a dry, upland habitat. Although this site does have drainage patterns, the vegetation and soils are not hydrophilic and hydric respectively. When viewing the soil matrix, it had a large deviation from the other sites with stratigraphy that was not present at the other sites. At the surface, there was a small layer of organic mucky loam, but this was followed by an iron mineral layer, and a subsequent sandy loam layer. This variation is likely due to the deposition of mineral materials from the eroding mountain above as well as sediments washing off County Road 2. Vegetation was dominated by *Bromus inermis,* with other upland plants present such as *Festuca saximontana, Poa pratensis, and Taraxacum officinale* present. This site is flanked to the west by bare ground and a steep cliff, to the east by bare ground, to the north by bare ground and County Road 2, and to the south by the wet meadow.

Figure 5. On the left is the site photo for Stalo 2B, on the right is the full soil pit for Stalo 2B.

Wetland Boundaries

Wetland boundaries were determined via field observations following the methods in accordance with 1987 United States Army Corps of Engineers Wetland Delineation Manual, Western Mountains, Valleys, and Coast Region. We followed the paired plots method and bracketed the margins of the wetland with our pairs. Initially we thought the boundary would be between Stalo 1A and Stalo 1B, but after completing both plots we determined that both were in fact wet meadows. We then established sites Stalo 2A and Stalo 2B to bracket the northern wetland margin. Sites were not placed on the east, west, or south as these areas were either rocky outcrops and cliffs, or completely bare ground with visibly sandy mineral soils. Plots were selected to compare jurisdictional to non-jurisdictional areas within the area of interest. Plots had similar geomorphological characteristics and sites were individual documented for hydrology, soils, and vegetation. Our results indicate that there is a wet meadow present and is 0.10 acres in size.

Existing field conditions

The delineation was completed on June 19th, 2025. Although there was a low snowpack this year, field conditions were emblematic of June field conditions with warm, dry, and sunny conditions. Soils were still damp from a combination of the recent snow melt and a large tropical storm that hit the San Juans in the beginning of June in 2025.

Hydrology

The wet meadow exists on this site due to surface water draining off of storm peak, located directly to the north of the site. This water likely comes from overland flow, across County Road 2, creating many drainage paths and patterns across the wet meadow. This site sits at the base of the large storm peak and bellow the steep slopes of the Mayflower Mill site and as the surface water comes onto the low sloped terrace, the surface water hits the vegetation, slows down, and infiltrates into the soil matrix. It is also possible that some groundwater is present, although it is minimal. If it were substantial, we would likely see a fen at this site, which is common for these slope transitions at this elevation.

Soils

The soils present in the delineated wetland were very homogeneous and consisted of 18 to 20 inches of 10yr 2/2 dark organic, mucky loamy soils. Roots were well established extending deep into the soil, helping keep it in place. When wetted, there was a distinctly greasy feelings with the presence of partially decomposed organic materials indicating a loamy mucky mineral soil indicator.

Plant Communities and Habitat Types

The plant communities found within the saturated areas were formed by surface water discharge from slopes NNW of the site. Above the site, there is a large capped tailings pile and County Road 2. Presently, the site is fed from run-off and groundwater flow from the capped tailings pond and surface run-off from the adjacent County Road 2. This area is dominated by Juncus and some Carex with *Juncus balticus* (FACW), *Juncus drummondii* (FACW), and *Carex praegracilis* (FACW) being the primary indicator species present. Adjacent to the site, new growth of *Populus tremuloides* and several mature *Dasiphora fruticosa* were observed. The vegetation characteristics of this site fit the NWI classification of freshwater emergent wetland.

Contact Information for the Applicant

Joel Stalo is the owner of the property.
jmstalo@yahoo.com

Data Sheets

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region
See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Stalo City/County: Silverton/San Juan Sampling Date: 2025/06/19
Applicant/Owner: Joel Stalo State: CO Sampling Point: 1A
Investigator(s): MSI - Kurzweil and Culpepper Section, Township, Range: 9, 41, 7
Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none): none Slope (%): 5
Subregion (LRR/MLRA): LRR E, MLRA 48A Lat: 37.82652 Long: -107.63063 Datum: WGS84
Soil Map Unit Name: CO672 NWI classification: PEM1B
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes X No ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 1m^2)			
1. *Juncus balticus*	22	Yes	FACW
2. *Potentilla ovina*	2	No	UPL
3. *Poa pratensis*	1	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	25 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	22	x 2 =	44
FAC species	1	x 3 =	3
FACU species	0	x 4 =	0
UPL species	2	x 5 =	10
Column Totals:	25 (A)		57 (B)

Prevalence Index = B/A = 2.28

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: 1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-18	10YR 2/2	100					Mucky Loam/Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 1 cm Muck (A9) (LRR D, G)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- X Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (LRR A, E)
- ___ Iron-Manganese Masses (F12) (LRR D)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 18

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
- x Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region

See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Stalo City/County: Silverton/San Juan Sampling Date: 20250619

Applicant/Owner: Joel Stalo State: CO Sampling Point: 1B

Investigator(s): MSI - Kurzweil and Culpepper Section, Township, Range: 9, 41, 7

Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none): none Slope (%): 5

Subregion (LRR/MLRA): LRR E, MLRA 48A Lat: 37.82652 Long: -107.63063 Datum: WGS84

Soil Map Unit Name: CO872 NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 1m^2)			
1. *Carex praegracilis*	55	Yes	FACW
2. Juncus drummondii	5	No	FACW
3. *Poa pratensis*	2	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	62 =Total Cover		
Woody Vine Stratum (Plot size: 36)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	62 (A)		126 (B)
Prevalence Index = B/A =			2.03

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ 5 - Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: 1B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/2	100					Mucky Loam/Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 1 cm Muck (A9) (LRR D, G)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A16)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- X Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (LRR A, E)
- ___ Iron-Manganese Masses (F12) (LRR D)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 20

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
- x Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region

See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Stalo | City/County: Silverton/San Juan | Sampling Date: 20250619

Applicant/Owner: Joel Stalo | State: CO | Sampling Point: 2A

Investigator(s): MSI - Kurzweil and Culpepper | Section, Township, Range: 9, 41, 7

Landform (hillside, terrace, etc.): hillside | Local relief (concave, convex, none): none | Slope (%): 5

Subregion (LRR/MLRA): LRR E, MLRA 48A | Lat: 37.82652 | Long: -107.63063 | Datum: WGS84

Soil Map Unit Name: CO672 | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____significantly disturbed? Are "Normal Circumstances" present? Yes____ No____

Are Vegetation____, Soil____, or Hydrology____naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes____	No X	Is the Sampled Area within a Wetland? Yes____ No X
Hydric Soil Present?	Yes____	No X	
Wetland Hydrology Present?	Yes____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 1m^2)			
1. *Bromus inermis*	35	Yes	UPL
2. *Festuca saximontana*	2	No	UPL
3. *Poa pratensis*	4	No	FAC
4. *Taraxacum officinale*	1	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	42 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum 58

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	4	x 3 =	12
FACU species	1	x 4 =	4
UPL species	37	x 5 =	185
Column Totals:	42 (A)		201 (B)
Prevalence Index = B/A =			4.79

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ 5 - Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes____ No X

Remarks:

SOIL

Sampling Point: 2A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 4/3	100					Mucky Loam/Clay	
2-3	10YR 4/6	65	7.5R 5/8	35			Sandy	
3-18	10YR 2/2	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 1 cm Muck (A9) (LRR D, G)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (LRR A, E)
- ___ Iron-Manganese Masses (F12) (LRR D)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 18

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
- x Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region

See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Stalo City/County: Silverton/San Juan Sampling Date: 20250619

Applicant/Owner: Joel Stalo State: CO Sampling Point: 2B

Investigator(s): MSI - Kurzweil and Culpepper Section, Township, Range: 9, 41, 7

Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none): none Slope (%): 5

Subregion (LRR/MLRA): LRR E, MLRA 48A Lat: 37.82652 Long: -107.63083 Datum: WGS84

Soil Map Unit Name: CO672 NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 1m^2)			
1. *Juncus balticus*	30	Yes	FACW
2.	0		
3. *Poa pratensis*	25	Yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	55 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum 45

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	55 (A)		135 (B)

Prevalence Index = B/A = 2.45

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ 5 - Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: 2B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-17	10YR 2/2	100					Mucky Loam/Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 1 cm Muck (A9) (LRR D, G)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A16)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- X Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (LRR A, E)
- ___ Iron-Manganese Masses (F12) (LRR D)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 17

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
- x Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Town of Silverton
PO Box 250
Silverton, CO 81433
970-387-5522

SAN JUAN COUNTY
PO Box 466
Silverton, CO 81433
970-387-5766

Date: September 19, 2021.

Project: Proposed Stalo Residence, Lot 1, Genoa Lode Subdivision, on County Road 2 at Arrastra Gulch Road, San Juan County, Colorado.

Applicants/Owner: Emily Huston-Stalo, Joel Stalo; Joel M. Stalo Trust.
Applicant Phone Number: Joel Stalo cell phone (517) 881-1704.
Applicant Email Address: jmstalo@yahoo.com
Consultants: Architect Christopher Clemmons of Mountain Grain LLC, Tom Harrison PE of Trautner Geotech, Chad Engelhardt of Engelhardt Environmental.
Owner Written Permission: N/A, the Applicants Mr. & Mrs. Stalo are representing the family trust Property Owner "Joel M. Stalo Trust."

Site: Lot 1, Genoa Lode Subdivision, per Subdivision Plat prepared by Earnie Schaaf, filed at County Courthouse on July 12, 2007.

Existing Site Use/Structures: Lot 1 is a 4.78 acre vacant parcel, located on County Road 2 (CR 2) at CR 21 (Arrastra Gulch Road), bordered by CR 22 and the Animas River. The site has existing San Juan County Historical Society easements (at Mears-Wilfley Mill Site, and existing Mayflower Mill water lines) along the river bank, existing Mayflower Mill water lines, associated water system appurtenances, existing overhead and underground electric, power pole(s) and appurtenances, existing abandoned railroad grade, existing County Roads and County Road easements, existing grass/aspen vegetation, existing vehicle pulloff alongside CR 2.

Proposed Improvements: Proposed single family residence, septic system, water service line, underground electric service line, driveway, screening, and a wooden fence (6 feet tall by 80 feet long alongside CR 2).

Form and Fee: County Improvement Permit Application Form; County Improvement Permit Application Fee for Administrative Review of $300 was paid by check to the County Treasurer by Joel Stalo, received July 20 (per attached County Treasurer email). Four paper copies of the application were requested/submitted in binders. Electronic transmittal of the Geotech Report occurred by email after binders were submitted. Application was posted on County Website, without the Geotech Report.

Subdivision Information: The site is Lot 1 in the previously approved 2007 Genoa Lode Subdivision.

Zoning: Mountain Zoning District. The proposed land use of "single family residential" is consistent

with the Mountain Zone regulations. The Lot size of 4.78 acres is less than the specified minimum of 5 acres per dwelling unit. However, the site is a Lot that was previously approved at that size intended for single family residential use by the County in 2007, and the Lot is located in an approved County Subdivision. The Lot ended up below 5 acres because of the land dedicated by the subdivider to the County and the Historical Society. Minimum setbacks (distance from improvements to the property line) in the Mountain Zone are 20 feet adjacent to Public Land, and 30 feet adjacent to privately-owned land. While this subdivision was being reviewed, the County minimum setbacks changed from 50 feet to 20-30 feet.

Overlay Districts:

(1) This site is within the Town-County Mutual Area of Interest Overlay District, therefore this letter is being forwarded to Town Staff.
(2) This site is visible from historic sites/districts therefore it is included in the Scenic Preservation Overlay District.

Previous County Requirements:

(1) SUBDIVISION PLAT- The Applicants' consultant submitted the Genoa Lode Subdivision Survey Plat (prepared by Schaaf, filed July 12, 2007). Subdivision Plats have "Plat Notes" that include (1) notices to individual Lot Owners, as well as (2) Subdivider and/or Lot Owner requirements. The Applicants shall review and comply with all Plat Notes on the attached Subdivision Plat.
(2) SIA- In August the Planning Director located the 2007 Subdivision Improvements and Lien Agreement (SIA) from the County Courthouse. The Applicants shall review and comply with the requirements of the attached SIA.
(3) COUNTY HIRC REQUIREMENTS- recommendation letter from County Historic Impact Review Committee is attached. Applicants shall review and comply with all of the HIRC recommendations.
(4) MISC COUNTY DOCUMENTS-Staff Reports from 2006 and 2007 were located and are attached. Applicants shall review and comply with the requirements noted in those Staff Reports.
(5) Building Envelope and Screening - The County files indicate that there was a defined, staked/flagged Building Envelope for Lot 1 in 2006. The proposed structure, Building Envelope, and the screening requirements were evaluated by the County staff at that time. The current Building Envelope appears to be in a similar location as the previously defined Building Envelope. The current proposed structure is likely to have a somewhat different design/orientation than what was proposed in 2006. The old documents indicate that adequate screening was emphasized as a concern, and that screening would be further evaluated during the construction stage. The County documents also indicate that the site would be subject to the requirements of Section 7-116 Scenic Preservation. Therefore, screening of the proposed structure may be required, that possibility can be evaluated during the construction phase; and if necessary, County Staff can recommend vegetative screening, intended to obscure the view of the structure from County Road viewpoints, and to protect historic sites; and if the Applicants would like to discuss any possible forthcoming screening recommendations, they can do so with the County Commissioners for a final determination.
(6) Setbacks – In the County documents there are Subdivision setbacks of 50 feet described, a Mountain Zone setback of 50 feet described (and a 100 feet setback from County Roads as part of the Scenic Overlay District regulations). It appears that the current proposal has a 30 feet setback

shown, but would also comply with the previous 50 feet setbacks mentioned in the 2006-2007 documents.

Application Requirements: Below is an excerpt of the required uniform County Permit Application submittal items. Additional items are required for certain proposals and depending on site characteristics. For the full text, refer to the 2017 County Zoning and Land Use Regulations posted on the County website.

An application for Improvement or Use Permit, upon which the applicant shall provide all requested information relative to the proposed activity, use, improvement or development prior to the issuance of an Improvement or Use Permit....
The application **form** *contains certain information and requirements, as enumerated in Chapter 3, and the applicant is responsible for submitting a complete application....It is the responsibility of the applicant to obtain dated and signed approval for each and every clearance from the agency or official responsible for granting such approval, prior to the issuance of an Improvement or Use Permit. An Improvement or Use Permit shall be issued by the Land Use Administrator only after every item required by this Code or any other applicable County regulation has been satisfactorily complied with, either by certification that it does not apply, by approval, or by approval with specific stipulations which upon issuance shall become stipulations on the Permit itself.*
No application for any permit or other land use approval will be processed so long as any property taxes levied against the property are unpaid. No Improvement or Use Permit shall be issued unless and until all **fees** *and costs ... are paid in full.*
Each application for an Improvement or Use Permit shall include, or be accompanied by, the following information:
The name, mailing address, street or rural address, telephone number and e-mail address of: The **applicant** *for the permit.*
All **owners** *of the property, including owners of any mineral rights, water rights, timber, etc., who might be affected by the proposal. Any agents authorized to act on behalf of the owner or the applicant. If the applicant is not the owner of the property, the applicant shall include a signed letter of* **authorization** *from the property owner allowing them to submit the application. Any contractor retained or to be retained to accomplish any portion of the improvement.*
Proof of **ownership** *of the property (including all mineral rights)...and of deeded* **access** *to the property.....in the event the property is not owned in its entirety by the applicant, proof of binding, irrevocable consent of all owners of the property or of any mineral rights ... In case of an application to conduct any mining activity, a lease of the property of sufficient duration to permit the completion of all activities intended under the development application may suffice.*
Legal description of the property, to include: Parcel name, if any. **Survey** *number, tract number or other recorded identifying number of the parcel. Location of the parcel by Township, Range and Section.* **Acreage** *of the entire parcel involved, to the nearest tenth of an acre.* **Zoning** *classification of the parcel.*
A **vicinity map** *showing the surveyed boundaries of the property shall be depicted on a USGS 1:24,000 topographic map.*
A list of the names and mailing addresses for all property **owners within 1,500 feet** *of the perimeter of the property to be developed, accompanied by preaddressed, stamped legal* **envelopes** *for each name on the list. This requirement shall not apply to improvement permits sought to build a single family dwelling in an existing approved subdivision or PUD.*
If the application concerns a ... use which is not allowed by right, the County shall require: A certified survey plat of the property (or of any portion thereof proposed to be developed if less than the entire parcel is to be developed) together with all roads or other means of accessing the property shown to the nearest public road ... bearing to an established survey monument, mineral monument, bench mark or other monument. The survey plat shall be drafted on mylar sheets, wet stamped and signed by a Colorado licensed surveyor and filed for the record in San Juan County Clerk and Recorder's Office. The licensed surveyor shall establish and certify permanent **monuments** *at each corner of the property...*
A general or conceptual **site plan** *at Sketch Plan Review and a detailed, accurate site plan at Preliminary and/or Final Review illustrating the following: (i) Location and dimensions of all* **proposed improvements**, *buildings, other* **structures** *and building or activity envelope, including the distance from property boundaries; Location of all existing and proposed elevation* **contours** *at 2-foot intervals within the building or activity envelope; (ii) Location and size of cistern, well or* **water** *lines; (iii) Location and size of* **septic** *system...; (iv) Location and size of any other improvements such as patios, decks, storage* **sheds**, **solar** *collectors/panels,* **generators**, **propane** *tanks, trash receptacles,* **electric** *lines, etc.; (v) Location and dimensions of* **access driveways**, *walkways and parking areas; (vi) Identification and location of any* **historic** *features and historic* **trails** *on the property including description, location and dimensions; and (vii) Location and width of any easements or rights-of-way for* **County roads**, *trails and Federal government roads. The exact location of all proposed improvements and building sites (or building/activity envelope) must be identified on the property via the installation of survey* **stakes** *and survey flagging. Upon approval of the Improvement or Use Permit, flagging and/or staking that identifies the exact location of the approved building footprint or building/activity envelope in relationship to the property boundary shall be installed by a Colorado licensed* **surveyor** *to identify the development and building location(s) during the building permit and construction process...*

..Proof of an **adequate water** *source... The County requires an engineered waste disposal system or other proven* **waste disposal** *system in addition to* **San Juan Basin Health approval**... *Written approval of an access easement or other irrevocable or permanent grant of* **access** *from the U.S. Forest Service (USFS) or the Bureau of Land Management (BLM), as appropriate, if a new or improved road or driveway crosses public land...*
The application is attached, it was reviewed by the Planning Director, and it is adequately complete.

Adjacent Land Owner (ALO) Notification: ALO envelopes and notification are not required, according to the County regulations above, because the project involves a "single family dwelling in an existing approved Subdivision." An adjacent land owner list is included in the application.

Comparison of the Proposed Improvements to the Master Plan: *All applications for review under this Chapter will be examined initially to determine whether the proposal is consistent with the County's Master Plan.*
The 2010 Town/County Master Plan is posted on the Town of Silverton website and the San Juan County Colorado website. Some applicable excerpts from the Master Plan, that relate to the proposed Stalo Residence on Lot 1 of the Genoa Lode Subdivision, are the following:
Page 20, "...cluster structures in focused growth areas..."
Page 21, "...LU-2.1 Encourage most future development to occur in the following growth economic corridors...
Page 35, "Economic corridors are represented on the map ... economic corridors are suitable for residential, light industrial, and flexible commercial uses and already contain existing residential development ... focus future development ... into economic corridors that are environmentally suitable ..."
In the Master Plan, the map on Page 36 titled "Economic Corridors San Juan County" shows this site within a County Economic Corridor. The proposed Stalo Residence on Lot 1 of the Genoa Lode Subdivision appears to be consistent with applicable portions of the Master Plan.

Comparison of the Proposed Improvements to the County Regulations:
If consistent with the Master Plan, all applications will be reviewed to determine whether, based upon the objective facts contained within the record before the reviewing body:
The proposal will have any adverse impact on **public health, safety,** *morals or welfare.*
The proposed residence and associated improvements are not expected to create a significant adverse impact on public health, safety, morals, or welfare.
Adequate potable **water** *is available or can be developed to safely support the proposed use, including fire control and suppression.*
The Animas River exists at the site. An existing water line with treated water (originating from the private water system at the Mayflower Mill Water Treatment Plant operated by the San Juan County Historical Society) is located on the site. A water tap is installed at the site. A proposed water service line will convey the treated domestic water to the proposed residence.
Adequate **sewage** *disposal can be provided to support the proposed use.*
The proposed septic system will serve as "adequate sewage disposal" for the proposed residence and shall be constructed in compliance with applicable San Juan Basin Health Department regulations.
The proposed use will have any adverse effect on public or private **property** *in the vicinity of the development.*
The proposed residence and associated improvements are not expected to create an adverse impact on the nearby properties.
The proposed use will have any adverse effect on **scenic values**, *historic sites or structures, air or water or* **environmental** *quality, wildlife (including habitat, food sources, migration routes, hunting, etc.), erosion or other geological condition.*
The proposed residence and associated improvements are not expected to create a significant adverse impact on scenic values, historic sites/structures, air/water/environmental quality, wildlife, erosion, or other geological condition. Protection of the scenic vistas (by requiring adequate screening of man made items, as viewed from nearby County Roads and public trails) is important to the community and

the Board of County Commissioners, and all structures/improvements are subject to County Staff/Commissioner screening requirements during/after construction.

Adequate road **access** *exists or can be developed to ensure access appropriate to the use, including access for emergency services...*

The site currently has existing vehicular "adequate road access" from CR 2. Plowing is occurring on CR 2 (but not guaranteed). There are rare instances when CR 2 is temporarily closed due to spring avalanche events. No comments have been received from County Road and Bridge Department Supervisor to-date. His comments are required prior to any grading/driveway construction.

Adequate road access exists or can be developed to ensure access appropriate to the use, including access for **emergency services.**

The site currently has emergency services vehicular access which is better than most County sites. However, all County Applicants are required to acknowledge "emergency services in San Juan County may not be available in a timely manner and may not be available at all."

Adequate **utilities** *are or can be made available for the proposed use, unless deemed unnecessary or not practical.*

The proposed residence will have "adequate utilities for the proposed use," including water, a septic system, and proposed underground electric.

Adequate **emergency services** *exist to serve the proposed use, unless deemed unnecessary or not practical.*

Adequate local emergency service agencies exist, to serve the occupants of the proposed residence. Issuance of this permit is not expected to create an increased capacity burden on those agencies.

There are natural **hazards** *which may adversely affect the site or the proposed use of the site...*

There are some natural hazards near the site but they are mapped as outside of the building envelope. The Applicants' consultant submitted the two County Hazard Maps. The Lot 1 building envelope appears to be free from known avalanche hazard. The building envelope is located in a geologic area of CST colluvial slope. A portion of the site is subject to a potential slope stability issue which appears to be adequately addressed in the attached Geotech Report. Expansive soil can be considered a geologic hazard which has also been addressed in the Geotech Report. The Applicants are responsible for ensuring that all recommendations in the attached Geotech Report shall be followed.

Scenic Quality and Visibility:

Scenic Quality Report. All development proposals, including structures associated with mining activities shall be required to include a Scenic Quality Report as part of the Sketch Plan submittal. ... In order to minimize visual impacts to view sheds and view corridors, additional setbacks, landscaping, screening or design requirements may be required by the County to preserve the natural beauty and historical resources of the area.

Each report shall include: (a) The designated view sheds shall include natural and historic features as seen from and toward the site.

Provide written descriptions of these view sheds and how they will be preserved. Existing site photos and graphic depictions of the proposed development shall be submitted so that staff, the Planning Commission and the Board of County Commissioners can assess the visual impacts of the project on the view shed and the effectiveness of proposed mitigation measures.

The Scenic Quality Report may be referred to the Historic Review Committee for review and comments regarding any impacts to historical assets of the area including historic structures, sites and other cultural assets located within San Juan County.

Evidence shall be provided to show that the location of the structure is designed to minimize the visual impacts and that it does not detract from the scenic quality of adjacent public lands, existing trails or historic resources.

Include evidence to demonstrate that the site improvements are designed and/or oriented in ways that allow them to blend in with and utilize the natural topography and vegetation.

The report shall include, but not limited to, site photos, perspective sketches, photo simulations and/or three-dimensional models at an appropriate scale.

Provide written descriptions and photos of the proposed building materials, colors and textures. Utilizing and integrating elements, colors and textures found naturally in the landscape are strongly encouraged while use of reflective materials, such as highly reflective glass or metals is prohibited.

Describe any plans to remove and store topsoil on-site, prior to any grading or excavation, and how it will be replaced and reused for re-grading and re-vegetation purposes.
Provide a written description and plans that illustrate how the proposed development has been integrated into the landscape and that site disturbance and grading have been minimized. Roads, structures and other improvements shall bear a logical relationship to existing topography, vegetation and other site features.
Show how utilities will be located and installed in ways that will minimize impacts to the view shed and natural environment

A Scenic Quality Report was submitted. Photos, proposed cabin renderings, and text information were included, depicting the predicted view of the structure from various nearby County Roads. There are several County Roads from which the proposed structure could potentially be partially visible. The closest County Roads are CR 2, CR 22 (Lower River Road old railroad grade from the Powerhouse site to Arrastra along the Animas River), and CR 21 (Arrastra Gulch Road). There is also the possibility of viewing the proposed structure from CR 20/20A (which exists from Arrastra through "Aspen Town" to Blair Gulch.) I would expect that the two places the cabin will be most visible would be from CR 2, and from the Arrastra Gulch Road near the Arrastra Bridge. The tallest part of the structure will be setback from an edge over the Animas River. Thus a driver near the Arrastra Bridge could look up towards CR 2 and possibly see the structure. Viewing the structure from the vicinity of the Smyrna Mill Site or Aspen Mine ("Aspen Town") on CR 20/20A is unlikely due to dense evergreens. The screening would be best determined during and after construction rather than before. Screening "may be required" between the structure and CR 2. A fence is proposed, along CR 2, for the multiple purposes of screening, yard privacy, dust/noise mitigation, visual/vehicular traffic buffer. The County Staff has determined that the fence (wooden, 83 feet long by 6 feet tall) would need review from the Board of County Commissioners. The Applicants can therefore determine during/after construction, whether to proceed with the proposed fence, or whether to consider vegetative screening in addition to or instead of the proposed fence. Screening can be required by the County Staff during/after construction, to block hard to predict views of the proposed structure, from any of the nearby County Roads. The Scenic Report also mentions the Hazelton Trail. Another public trail in the area is the Historical Society Mill Pipeline Trail which is mostly a footpath alongside driscoll pipe that runs above/parallel to Arrastra Gulch. County Staff will evaluate and recommend screening, as necessary, to reduce visual impacts, from nearby County Roads/public trails, during construction, and if desired, the Applicants may discuss those County Staff screening requirements with the County Commissioners, for a final determination. It is recommended that enough room (yard space) be provided along the steep bank at the back/deck of the proposed structure, to accommodate screening vegetation, if possible. That means the ten foot setback from steep edge might be increased to accommodate some potential vegetative screening, as well as providing some extra setback from the edge for slope stability purposes.

Excerpt of Section 4-110: The Applicant and Owner is hereby advised of the following requirements for all County Permits:

All Improvement and Use Permit applications for individual development sites shall comply with the following design standards: The design and development of the site shall preserve, to the greatest extent possible, the natural terrain and drainage of the land, the existing topsoil and existing vegetation. Disturbed areas shall be re-vegetated with native plant, grass and wildflower species that are certified weed free as soon as possible after disturbance in order to prevent the establishment and dominance of non-native invasive species.

Areas of proposed excavation/trenching shall be reseeded in accordance with the above requirement.

Areas subject to hazardous conditions, such as avalanche, flood, land slide, rock fall, mud flow, open mine shaft, corrosive water, etc., shall be identified and shall not be built upon or used until satisfactory plans have been approved by the County for eliminating or appropriately mitigating such hazards. The provisions of Chapters 8, 9, 10 and 11 shall govern the evaluation of those natural hazards.

Possible and known hazards at and near the site have been evaluated by the Applicants' consultants. Those included nearby avalanche and debris flow events, expansive soil evaluated in the Geotech Report, and a potential slope instability evaluation/recommendations in the Geotech Report. The Applicants should be aware that there is a potential man made hazard near this site which is Federally/State permitted "tailings ponds." That consists of fine soil (typically gold and grey colored sand) which is a waste product of mining/milling. Those tailings ponds are located above the site/proposed structure. It is unlikely but those tailings ponds have failed before and could cause a debris flow onto the project site. The EPA is currently considering placement of additional tailings on those tailings ponds. Tailings generally contain heavy metals such as lead and arsenic. It is expected that there is currently a thin layer of tailings on this site. It should be considered uncompacted and potentially contaminated fill, and generally should be removed from below concrete/foundation areas. If tailings (gold/grey sand) are found during your site excavation, they should be properly removed and disposed of, if possible; contact Planning Department if you have questions. Site excavator/worker protection (such as dust masks) should be used during excavation/construction as a precaution (especially if the weather is dry/windy). Thus there is a man made hazard at/near the project site, due to existing/proposed mining activity, and the tailings ponds, which has long been listed in open pubic records as a CERCLA/RECRA site. The County assumes no liability for any unforeseen injury/property damage/claims resulting from natural hazards at/near the site, vehicular traffic, and/or from the nearby existing/proposed tailings ponds/mining activity.

Natural features such as riparian areas, wetlands, fens, tarns, springs, streams, rivers, ponds, lakes shall be protected from development with adequate setbacks for any building and other site improvements; minimum required setbacks are: Rivers and Streams: 40 feet for residential development. Fens: 30 feet for all development.

There do not appear to be any wetlands at the building envelope on this site.

The applicant shall dedicate an easement sixty (60) feet in width or greater, if necessary for good engineering practices as determined by the County Roads Supervisor, for any County roads that cross their property...

The application has a Survey Plat and plans that appear to comply with this requirement.

The applicant shall allow continued public access on any historic public trails that cross the property. Applicant shall dedicate a trail easement ten (10) feet in width as measured from the existing trail centerline and having five (5) feet on each side; public access signage may be installed by the County.

If there are existing trails at the site access shall remain open.

New driveways providing access to private property from County roads shall start from the existing roadway elevation. The County Road shall not be filled, cut or re-graded. Driveway intersections with County roads should be minimized whenever feasible and the use of shared driveway access is strongly encouraged.

There is a proposed driveway at this site. The driveway construction shall be in accordance with any forthcoming requirements of the County Road and Bridge Department Supervisor. The application includes a proposed driveway culvert. The Applicants shall consult with the County Road and Bridge Supervisor prior to the purchase of culvert, installation, and the driveway grading. No comments have been received yet from the County Road and Bridge Department Supervisor. A copy of this letter will be given to him. Prior to grading, contact Louie Girodo, office 970-387-9932.

Gates, posts, or permanent manmade structures shall not be built within thirty (30) feet from the edge of a County roadway. Additionally, no fences, berms or other manmade structures/features may be approved on a site due to potential visual or other environmental impacts.

There is a proposed fence, wooden, 6 feet high, 83 feet long, alongside CR 2, shown as 30 feet from edge of road. The County Staff has determined that due to the potential visual impact of the fence, the Board of County Commissioners would need to review that proposed fence. During/after construction of the structure, the Applicants may decide to proceed with the proposed fence in which case it will need to be reviewed and approved by the County Commissioners prior to fence construction. Alternately the Applicants may decide to propose vegetative screening, in addition to, or instead of the

proposed fence, and/or "adequate screening" shall be determined during/after construction of the proposed structure by the County Staff. If the Applicants would like to discuss any forthcoming adequate screening recommended by the County Staff, they can discuss the screening with the County Commissioners for a final determination. The proposed fence cannot be approved at this time, without the review/approval of the Board of County Commissioners.

The applicant shall obtain all necessary permits and shall comply with all applicable regulations from agencies such as San Juan Basin Health Department for septic and wastewater systems, Colorado State Division of Water Resources for well water, and Colorado Division of Oil and Public Safety for propane tanks.

Applicants are responsible for obtaining all required local, State, and Federal permits and full compliance with those regulations.

In addition to obtaining any required permits for an individual waste disposal system, the burden shall be on the applicant to demonstrate convincingly that (1) the proposed waste disposal system will adequately handle or treat any generated wastes, regardless of any variables such as climate, elevation, soils, use, number of occupants, length of occupation/season, type of structure, etc.; and (2) that the system as designed will protect public health and the environment from any adverse effects of operation of the system regardless of any variables. Any change in the waste disposal system shall require appropriate approval by the Board of County Commissioners and the San Juan Basin Health Department.

The proposed septic system design is included in the application. I found no approval signature on the San Juan Basin Health Department (SJBH) septic permit form. However the proposed septic system design has probably been approved for construction at this time. All County permits are contingent on the septic system approval from SJBH. The applicants are required to notify SJBH and the designer prior to construction of the proposed septic system. The Applicants are required to utilize a SJBH Licensed Septic Installer. The County requires minimum property line setbacks of 20 feet adjacent to Public Land, 30 feet adjacent to privately-owned land, whereas SJBH requires 10 feet minimum from septic system to property line. For the proposed septic system improvements, the County minimum setbacks shall be maintained if at all possible. If unavoidable, then the County has previously approved septic system components that are a minimum of 10 feet from the property line. Existing water lines do exist at the site, and all applicable SJBH water/sewer setbacks shall be maintained. There are no known existing water wells within 100 feet of the proposed septic system. The proposed septic system design appears to meet the requirement for an adequate "waste disposal system."

The hauling of potable water and storage in a cistern may be allowed, provided the applicant demonstrates that the proposed cistern capacity will adequately supply potable water and fire suppression water for the structure regardless of the number of occupants, length of occupation or natural conditions that may affect the water supply. A change in use will require review of the water source and supply system by the County.

The proposed residence will receive water from the private water system operated by the San Juan County Historical Society. Due to known mining activity and the presence of tailings in the area, which can potentially contain various heavy metals/contaminants, including arsenic and lead, water quality testing is recommended prior to use, and annually thereafter.

Individual building sites shall be placed on the Town of Silverton's utility billing system for water and refuse prior to issuance of a building permit. Any applicant who obtains water from an approved permitted on-site well or purchases potable water from an acceptable source may be placed on the Town of Silverton's billing system for refuse only. All solid waste, garbage and refuse, shall be kept within the building, in a separate secure enclosed area or in wildlife/bear-resistant containers until it is disposed at the Transfer Station.

Town of Silverton utility billing is a standard requirement for mining claims upon receipt of a County permit, in particular trash billing on claims that have on-site water and sewer. Mining claim owners are responsible for taking trash to the transfer station located on County Road 2 close to Silverton.

Propane tanks that are 250 gallons and larger shall be buried where geologic conditions permit when there may be a risk of wildfire and a threat to public safety.

The application makes no mention of any proposed propane at this site. Any propane would need to comply with NFPA codes including ten feet minimum from any part of propane tank to any structures/combustibles.

Any generators used for non-construction power on the property shall be properly baffled or enclosed in a structure to eliminate noise impacts.

The application makes no mention of any proposed generator at this site. The site has electric. Any on-site generator shall comply with the County regulations.

Any wood-burning stove or device used on the site shall be the type and model approved by the Environmental Protection Agency (EPA) and shall be equipped with an approved chimney cap or spark arrestor to minimize the risk of wildfire.

The Applicants shall comply with this section of 4-110 if a wood-burning device is utilized.

The potential need for any geotechnical, structural, hydrologic and similar engineering studies and design criteria, such as those for engineered foundations and drainage and runoff control shall be examined by the County Building Official and addressed at the building permit stage.

All recommendations in the Geotech Report shall be followed. For additional information about Building Permit Application requirements, please contact Town/County Building Inspector at "bmacdougall@silverton.co.us" or (970) 946-9031.

The building site shall comply with the following wildfire prevention standards: Only fire-resistant materials that maintain a Class B rating or better shall be used for the construction of roof structures. Wooden or shake shingles are not permitted. The applicant shall create a plan for defensible space based upon the types of structures to be protected, the topography of the area, and the types and density of vegetation present in the area. An annual assessment of defensible space shall be conducted by the property owner to ensure the following: (1) Trees and shrubs are properly thinned and pruned within the defensible space. Slash produced from thinning and construction operations is disposed of offsite (in a location with no fire hazard), or properly mulched. (2) Roof and gutters are clear of debris. (3) Branches overhanging roofs and chimneys are removed. (4) Chimney screens are in place and in good condition. (5) Vegetation is removed from within fifteen (15) feet of chimneys. (6) Grass and weeds are mowed to a low height. (7) Fire extinguishers are checked and in good working condition. (8) Driveways and access points are cleared sufficiently to allow for emergency equipment that is compatible with the County road conditions. (9) Escape routes are posted when appropriate. (10) Trash and debris accumulations are removed from the defensible space (11) Firewood is stacked at least fifteen (15) feet from any structure.

The Applicants are required to plan on defensible space, to reduce any potential fire hazards at the site/proposed residence. For further guidance consult the "Colorado Firewise" pamphlet available online.

Exterior building materials shall be naturalistic, subdued and nonreflective to minimize the visibility of the structure.

Non-reflectivity and minimal glazing (minimal glass and windows) are County requirements for all proposed structures, roofing, and building materials.

If necessary, adequate screening shall be installed to further reduce the visual impact of the structures, gas tanks or other site improvements.

The visibility of the proposed structure shall be evaluated by the County Staff during a site visit during/after construction. The visibility of the structure will be evaluated from nearby County Roads and public trails and screening may be required to reduce that impact. If the Applicants have any questions about the County Staff screening requirements, then the Applicants can discuss those requirements with the Board of County Commissioners for a final determination.

Exterior lighting, if used, shall provide a safe residential setting while preserving the Dark Sky environment and view of the stars. (a) Fixture styles, materials and colors should be compatible with the rural mountain character of the area and the scale should be consistent with their function. Exterior lighting shall be attached to the structure, shielded and down-cast. In all cases, lighting should be minimal and not extend beyond its tasks. (b) Full cut-off fixtures are required. Motion detectors are not encouraged and timers are prohibited. (c) Spillover or accent landscape lighting shall not be permitted. Lighting shall reflect downward away from adjoining properties. (d) The use of low wattage long-life lighting products is preferred. The use of photo voltaic or other renewable energy sources for lighting is encouraged. High intensity sodium vapor or similar lighting is prohibited. (e) Lighting shall not be allowed during times when the structure is unoccupied except if activated by a motion detector.

The application mentions proposed minimal lighting, intended to comply with the County dark sky regulations as described above.

Skyline Development Standards... Any improvement or use for which a permit is required shall not be silhouetted against the sky on hillsides or ridges as viewed from any San Juan County Road, State Highway, the Town of Silverton, or the Durango & Silverton Narrow Gauge Railroad...

The proposed structure is not expected at this time to be silhouetted against the sky. The structure will be further evaluated by County Staff during construction. Screening may be required by the County Staff (and/or County Commissioners) based on that evaluation, to reduce the impacts of any skylining and/or visibility, as viewed from nearby County Roads and public trails.

A Land Use or Improvement Permit must be issued by the County when the County finds that the applicant has sustained the burden of proof that the proposed development, activity or use, including best management practices, if any, does not present or create an adverse effect to the resources sought to be protected or utilized within the overlay district, or districts. Such a permit will be denied when the County determines that the applicant has not sustained such burden of proof.

The applicant has demonstrated compliance with the requirements. The exception would be that the County Staff has determined that the proposed fence could cause a visual impact and cannot be approved at this time, as the proposed fence would require Board of County Commissioners review.

Summary: The County Improvement Permit Application for the Proposed Stalo Residence, on Lot 1, Genoa Lode Subdivision has been administratively reviewed, and appears to be in general compliance with the Master Plan, the County Zoning and Land Use Regulations, and the previous County Subdivision requirements. The proposed improvements are hereby conditionally approved, with the exception of the proposed fence. The County Staff has determined that the proposed fence cannot be approved at this time, as it would require Board of County Commissioner review. This County Permit Application is conditionally approved with the following Conditions of Approval. Please review and acknowledge agreement with the following Conditions, by signing at the bottom of this document, in the presence of a Notary Public. A signed notarized copy shall be filed at the San Juan County Courthouse prior to commencing the Work. Contact County Clerk Ladonna Jaramillo at (970) 387-5671 for assistance on filing a document at the County Courthouse. Please see the following page(s).

Thank you,

Lisa M. Adair PE
Town & County Planning Director
Silverton & San Juan County, Colorado.

Regarding: County Improvement Permit Application, Proposed Stalo Residence, Lot 1, Genoa Lode Subdivision, County Road 2, San Juan County, Colorado.

The County Improvement Permit is hereby approved, with the following Conditions of Approval (with the Applicants' acknowledgement of agreement by notarized signature).

1. The proposed improvements, as described and shown in the Application, are herby conditionally approved, with the exception of the proposed fence.
2. If the Applicants wish to proceed with the proposed fence (wood, 6 feet tall, 83 feet long, alongside CR 2) that proposed fence will require Board of County Commissioner review and approval.
3. The visibility of the proposed structure (as viewed from County Roads/public trails) will be evaluated during/after construction, and the County Staff may recommend screening requirements at that time. The Applicants may choose to discuss the County Staff screening requirements with the Board of County Commissioners for a final determination.
4. The County requires minimum setback distances from improvements to property lines of 20 feet where the adjacent land is Public Land, and 30 feet where the adjacent land is privately-owned.
5. Licensed Surveyor shall mark/rope off the adjacent property line, and/or County Road edge-of easement, prior to excavation/construction, where there are proposed improvements within 30 feet of the property line/easement. The purpose is to maintain the minimum setback of 30 feet, and prevent excavator from crossing onto adjacent land/easement.
6. All County Permits are contingent on San Juan Basin Health Department (SJBH) approval of the proposed septic system. Obtain approval of the proposed septic system design prior to concrete placement.
7. Applicants shall contact SJBH and the septic designer prior to commencement of proposed septic system work. Applicants are required to use a SJBH Licensed Septic Installer for the proposed septic system work.
8. Applicants shall comply with all recommendations contained within the Trautner Geotech Report.
9. County and San Juan Basin Health Department (SJBH) minimum property line setbacks differ. The County requires 30 feet adjacent to privately-owned land, while SJBH requires 10 feet. Unless unavoidable there shall be a minimum of 30 feet between all proposed septic components and the property line.
10. Building materials shall meet the requirements of the San Juan County Land Use Regulations, including natural colors (matching the surrounding terrain/geology/vegetation), non-reflective building materials/roofing, and minimal glazing. Fire resistant building materials are encouraged.
11. San Juan County requires reseeding of any disturbed soil ground surface with certified weed free native seed. Reseeding shall comply with the applicable San Juan County Zoning and Land Use Regulations.
12. The Applicants hereby acknowledge that emergency services in San Juan County may not be available in a timely manner and may not be available at all.
13. Applicants hereby indemnify the County for any injury/claims that may occur as a result of natural hazards, mining activity, the presence of nearby tailings ponds, and vehicular traffic.
14. Applicants shall obtain, and comply with, all forthcoming requirements from the County Road and Bridge Supervisor, prior to proposed driveway/culvert construction.
15. Applicants shall apply for a County Building Permit and shall comply with the requirements of the Building Inspector.
16. All existing/proposed lighting at this site shall comply with the County's "dark sky" regulations.
17. The proposed improvements shall comply with the San Juan County Zoning and Land Use

Regulations, which are posted on the County website, including but not limited to: Section 4-110 DESIGN AND DEVELOPMENT STANDARDS FOR ALL IMPROVEMENT AND USE PERMITS.

18. The violation of San Juan County Zoning and Land Use Regulations shall cause this permit to be void. If requirements differ, the most stringent shall apply.
19. All State and Federal permits are required, as a condition of this County permit, which shall be obtained prior to commencement of the work. Applicants shall comply with all applicable State and Federal regulations. Failure to comply with State and Federal regulations shall void this County permit.
20. The Applicant(s)/Owner(s) shall cause this List of Conditions of Approval to be signed in the presence of a Notary Public and shall file this document at the San Juan County Colorado County Courthouse.

By signature the Applicant(s)/Owner(s) do/does hereby acknowledge and agree to the above listed County Improvement Permit Conditions of Approval. This signed notarized page shall be filed at the San Juan County Clerk's Office.

Signature:_____

Print Name:_____

STATE OF _____)
) ss.
County of _____)

The foregoing document was acknowledged before me this _____day of_____, 20_____by _____.

Witness my hand and official seal._____
Notary Public

My commission expires:_____.

Signature:_____

Print Name:_____

STATE OF _____)
) ss.
County of _____)

The foregoing document was acknowledged before me this _____day of_____, 20_____by _____.

Witness my hand and official seal._____
Notary Public

My commission expires:_____.

Application for Improvement Permit

Sketch Plan Submittal

Proposed Stalo Family Cabin
TBD County Road 2
Silverton, Colorado 81433
Genoa Lode Subdivision – Lot 1
Part of the Genoa MS 14024
Recorded Reception #145836

Applicant:
Joel Stalo and Emily Huston-Stalo
13031 N Fenton Rd
Fenton, MI 48430
(517) 881-1704

Prepared By:
Mountain Grain, LLC
P.O. Box 4090
Durango, Colorado 81302
(970) 515-7882

July 9, 2021

San Juan County
Attn: Lisa Adair, Planning Director
1360 Greene St
Silverton, Colorado 81433

Subject: Application for Improvement Permit – Sketch Plan Review
Proposed Stalo Family Cabin located at TBD County Road 2, Lot 1 of the Genoa Lode Subdivision, MS 14024, near Silverton, San Juan County, Colorado.

Ms. Lisa Adair:
This submittal has been prepared to describe the proposed improvements on Lot 1 of the Genoa Lode Subdivision, owned by Joel Stalo and Emily Huston-Stalo. Genoa Lode is an approved Subdivision which was established for residential use in 2007.

The attached documents have been prepared for a San Juan County Application for Improvement Permit as a "Sketch Plan Review". The Applicant requests administrative review of this project by the Planning Director, and to consider approval contingent upon receiving a favorable geotechnical report for the proposed structure location.

The property is located within San Juan County's Future Land Use Plan "Economic Corridor", which is designated to be suitable for residential development because of its moderately sloping terrain and year-round access. The proposed improvements consist of a 1,400 SF single-family residence, attached 530 SF garage with driveway access, and utility improvements. Integral to this improvement, a moderately sized 1/3 acre building envelope is being proposed, which will provide ample room in coordinating the home's final build location on the 4.78-acre lot. The proposed envelope shall meet all county setback requirements, while also insuring a safe and practical design and construction operation.

Please contact Mountain Grain, LLC if you have any questions.

Sincerely,

Christopher M. Clemmons
Mountain Grain, LLC

Table of Contents

San Juan County, Colorado

Application for Improvement Permit

Applicant
Name: Joel Stalo + Emily Huston-Stalo
Address: 13031 N Fenton Rd
Fenton, MI 48430 (517) 881-1704 Phone

Owner
Name: Joel M. Stalo Trust
Address: same
Phone

Contractor
Name
Address
Phone

Legal Description of Property:

Genoa Lode - Lot 1
MS 14024

Township 41N. Range 7W. Section 10

Nature of Improvement Planned:

Proposed single-story cabin and associated access, utility and site improvements

Land Use Zone: Mountain Zone

Applicant Signature

Date Application Requested		
Date Submitted for Permit		
Date Permit Issued		
Date Permit Denied		

Reason for Denial

Receipt	FEE PAYMENT	Amount	Date
	Application		
	Building Permit		
	Subdivision/PUD		
	Hearing Notice		

APPROVAL CHECKLIST	Initial	Date
Land Use Administrator		
Ownership of Surface		
Ownership of Minerals		
Vicinity Map		
Certified Survey Plat		
Monumentation		
Basic Plan Map		
Plans and Drawings		
Road System Relationship		
Zoning Compatibility		
State Mining Permit		
Owner Notification		
Avalanche Hazard		
Geologic Hazard		
Floodplain Hazard		
Wildfire Hazard		
Mineral Resource Impact		
Wildlife Impact		
Historic Site Impact		
Watershed Gearance		
County Building Inspector		
Building Permit		
State Electrical Inspector		
Electrical Permit		
San Juan Basin Health Unit		
Sewage Disposal: Test		
Design		
Central Sewage Collection		
State Division of Water Resources		
Adequate Water Source		
Well Permit		
Central Water Distribution		
U.S. Forest Service/BLM		
Access Approval		
State Division of Highways		
Driveway Permit		
Subdivision Variance		
Subdivision Approval		
PUD Approval		

State Documentary Fee
$15.49 05-07-2021

153512
Page 1 of 1
SAN JUAN COUNTY COLORADO
LADONNA L. JARAMILLO RECORDER
05-07-2021 09:42 AM Recording Fee $13.00

SPECIAL WARRANTY DEED

State Documentary Fee
Date: May 7, 2021
$ 15.49

THIS DEED, Made this 7th Day of May 2021

Between ZLM, LLC, A COLORADO LIMITED LIABILITY COMPANY

of the County of Taylor and State of Texas, grantor

and JOEL M. STALO TRUST DATED FEBRUARY 16, 2017

whose legal address is 13031 N. Fenton Road
Fenton MI 48430

of the County of Genesee and State of Michigan grantee

WITNESSETH, That the grantor for and in consideration of the sum of
--------------------TEN DOLLARS AND OTHER GOOD AND VALUABLE CONSIDERATION--------------------
the receipt and sufficiency of which is hereby acknowledged has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm, unto the grantee, its successors and assigns forever, all the real property together with improvements, if any, situate, lying and being in the County of San Juan and State of Colorado described as follows

Lot 1, GENOA LODE SUBDIVISION, according to the plat thereof filed for record July 12, 2007 as Reception No. 145836

TOGETHER WITH but without warranty of title, any and all water, water rights, ditch and ditch rights ponds and reservoir rights, wells and underground water rights and springs and spring rights and related easements and infrastructure appurtenant to or historically used upon the lands conveyed hereby, including one water tap from San Juan County Historical Society

As known by street and number as GENOA 1 CR 2
Silverton CO 81433

TOGETHER with all and singular the hereditaments and appurtenances thereunto belonging, or in anywise appertaining and the reversion and reversions, remainder and remainders, rents, issues and profits thereof and all the estate, right, title, interest, claim and demand whatsoever of the grantor, either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances.

TO HAVE AND TO HOLD the said premises above bargained and described with the appurtenances, unto the grantee its successors and assigns forever. The grantor, for itself, its successors does covenant, and agree that the grantor shall and will WARRANT AND FOREVER DEFEND the above bargained premises in the quiet and peaceable possession of the grantee its successors and assigns, against all and every person or persons lawfully claiming the whole or any part thereof, by, through or under the grantor except 2021 taxes due and payable in the year 2022. Subject to Statutory Exceptions as defined in CRS § 38-30-113(5)

The singular number shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders

IN WITNESS WHEREOF, the grantor has executed this deed on the date set forth above

ZLM, LLC, A COLORADO LIMITED LIABILITY COMPANY

BY: Larry Zastrow
LARRY ZASTROW, MANAGER/MEMBER

STATE OF TAYLOR
COUNTY OF TEXAS

SJ2810 1656

The foregoing instrument was acknowledged before me this 4 Day of May 2021

By LARRY ZASTROW, MANAGER/MEMBER OF ZLM, LLC, A COLORADO LIMITED LIABILITY COMPANY

My commission expires 8-26-23

Witness my hand and official seal

Notary Public

CHEYENNE WATSON
Notary Public, State of Texas
NOTARY ID # 13214562-2
My Commission Exp 08-26-23

SPECIAL WARRANTY DEED

SAN JUAN COUNTY
COLORADO

1557 GREENE STREET
P.O. BOX 466
SILVERTON, COLORADO 81433
PHONE/FAX 970-387-5766 sanjuancounty@frontier.net

September 17, 2018

RE: Gena Lade Subdivision

Mr. Larry Zastrow:

The Genoa Lode Subdivision and Subdivision and Lien Agreement were recorded on July 12, 2007 for the development of two residential lots. In order to proceed with the residential development of these lots you will be required to complete and submit an Improvement Permit application for each lot or a combined application if both lots are developed concurrently. The application(s) will be reviewed by the San Juan County Land Use Administrator to determine that the proposed development is in conformance with the approved Genoa Lode Subdivision and the Subdivision and Lien Agreement. It will also be reviewed to insure that the improvements are in compliance with Section 4-110 and any other applicable section of the San Juan County Land Use Code as applicable.

This review is administrative only unless you need to amend the subdivision, request an exception or request a variance to the Land Use Code. Any request to develop a project that exceeds the approval of the Subdivision or the County Land Use Code would require further review and approval from the appropriate board(s). recommendation and action.

Once the Improvement Permit has been reviewed and approved you will be required to submit a set of building plans to the San Juan County Building Inspector for his review. If the plans are adequate and meet the current building codes, the Building Inspector will issue a Building Permit and construction can begin.

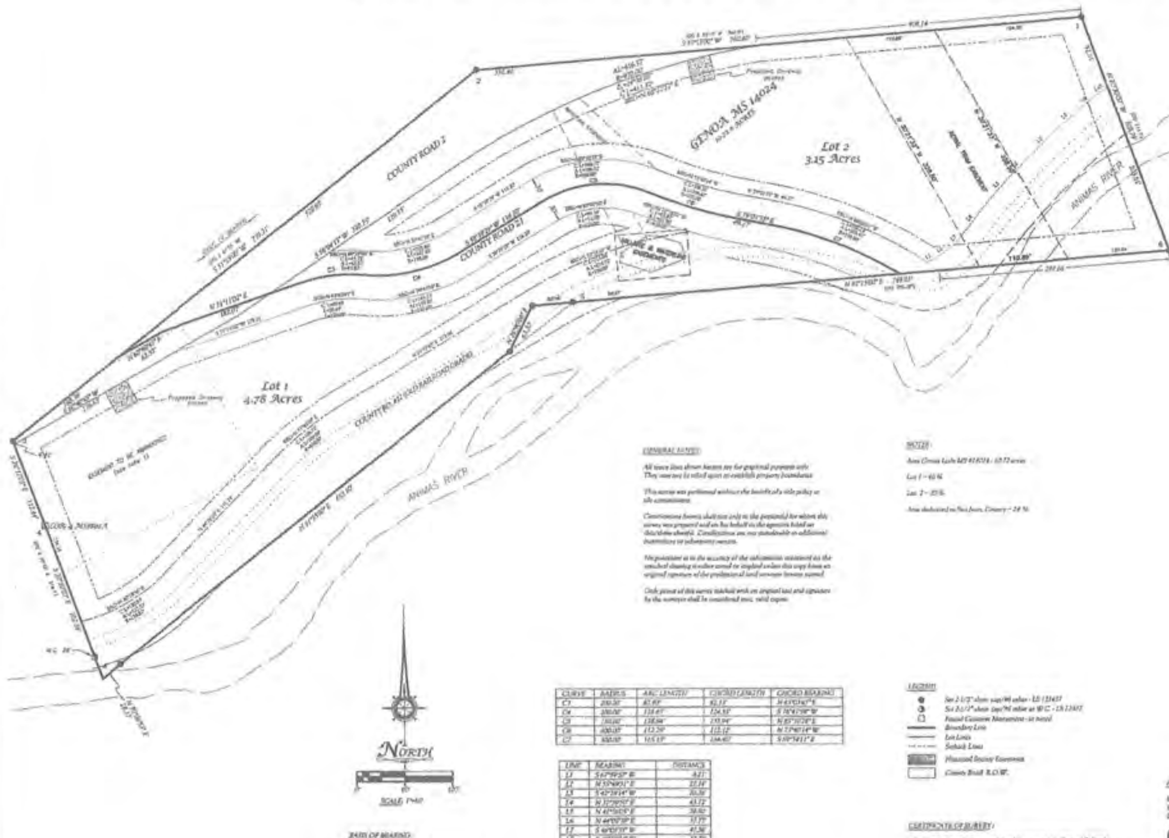
If you have any questions, please contact me at your convenience

William A. Tookey
San Juan County Administrator/Land Use Administrator

GENOA LODE SUBDIVISION

GENOA MS 14024,

located in unsurveyed Township 41 North, Range 7 West, of the New Mexico Principle Meridian, San Juan County, Colorado



GENERAL NOTES:

[illegible]

NOTES:

Area Genoa Lode MS 14024 – [illegible] acres

Lot 1 – [illegible]

Lot 2 – [illegible]

Area dedicated to San Juan County – [illegible]

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C3	[illegible]	[illegible]	[illegible]	[illegible]
C4	300.00'	[illegible]	[illegible]	[illegible]
C5	[illegible]	[illegible]	[illegible]	[illegible]
C6	[illegible]	[illegible]	[illegible]	[illegible]
C7	[illegible]	[illegible]	[illegible]	[illegible]

LINE	BEARING	DISTANCE
L1	[illegible]	[illegible]
L2	[illegible]	[illegible]
L3	[illegible]	[illegible]
L4	[illegible]	[illegible]
L5	[illegible]	[illegible]
L6	[illegible]	[illegible]
L7	[illegible]	[illegible]
L8	[illegible]	[illegible]
L9	[illegible]	[illegible]
L10	[illegible]	[illegible]

BASIS OF BEARING:

[illegible]

LEGEND:

[illegible]

Historical Society Easement

County Road R.O.W.

CERTIFICATE OF SURVEY:

[illegible]

DEDICATION:

I, Larry Zastrow, being the owner of the land described as follows:

The Genoa Lode MS 14024 located in the unsurveyed Township 41 North, Range 7 West, of the New Mexico Principle Meridian, San Juan County, Colorado.

[illegible]

In witness whereof Larry Zastrow has subscribed his name this 12 day of July, A.D. 2007.

By: [signature]

NOTARIAL:

State of Colorado)ss
County of San Juan)

The foregoing instrument was [illegible] acknowledged before me this [illegible] day of [illegible] A.D. 2007 by [illegible]

My Commission Expires: [illegible]

My Address is: [illegible]

Witness My Hand and Official Seal

[signature]

Notary Public

EASEMENT NOTES:

1. [illegible] "EASEMENT TO BE ABANDONED" [illegible]

2. [illegible] "MILLSITE EASEMENT" [illegible]

3. [illegible] "TRAM EASEMENT" [illegible]

4. The COUNTY ROAD R.O.W. and the "OLD RAILROAD GRADE R.O.W." [illegible]

SAN JUAN COUNTY BOARD OF COMMISSIONERS APPROVAL:

This plat was reviewed and approved by the San Juan County Board of Commissioners on this 11th day of July, 2007.

By: Ernest F. Kuhlman

SAN JUAN PLANNING COMMISSION APPROVAL:

This plat was reviewed and approved by the [illegible] Planning Commission on this 13th day of July, 2007.

By: [signature]

SAN JUAN HISTORICAL SOCIETY:

This plat was reviewed and approved by the San Juan County Historical Society on this 11 day of July, 2007.

By: Beverly E. Rich

SAN JUAN COUNTY CLERK AND RECORDERS ACCEPTANCE:

This plat was accepted for filing in the office of the Clerk and Recorder of San Juan County, Colorado, on this 12th day of July, A.D. 2007, Reception Number [illegible], Time [illegible], Book —, Page —

Date 7-12-07

PLAT REFERENCES:

Mineral Surveys of MS [illegible], San Juan County, Colorado done by [illegible]

U.S. MINERAL SURVEYORS REGISTERED LAND SURVEYORS IN COLORADO		SOUTHWEST LAND SURVEYING LLC 1315 Snowden St., Silverton, CO 81433	
PLAT SCALE: 1"=60'	REVISIONS	GENOA LODE SUBDIVISION of the Genoa MS 14024 located in unsurveyed T. 41 N., R. 7 W., N.M.P.M., San Juan, County, Colorado	Larry Zastrow
FIELD CREW			
DRAFTING			
SHEET 1 of 1			

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

List of Adjacent Landowners

Stalo Cabin, Genoa Lode Subdivision

Michael & James Field; Keefe Family Revocable Trust
6219 Saddletree Ln
Yorba Linda, CA 92886

Sunnyside Gold Corp
5075 S Syracuse St, Ste 800
Denver, CO 80237-2712

Tim Edgar & Pam Killebrew
PO Box 117
Crawford, CO 81415-0117

Anthony & Tanya Davis
6812 Bonne Meadow Ln
Lake Charles, LA 70605-0499

Dan Dugi Defined Benefit Trust
146 Post Oak Way
Cuero, TX 77954-2228

Mi Casa Es Su Casa; Dan Dugi Defined Benefit Trust
PO Box 444
Silverton, CO 81433-0444

San Juan County Historical Society
PO Box 154
Silverton, CO 81433-0154

Vernon & Amanda Bridgewater
22 Road 2345
Aztec, NM 87410-9303

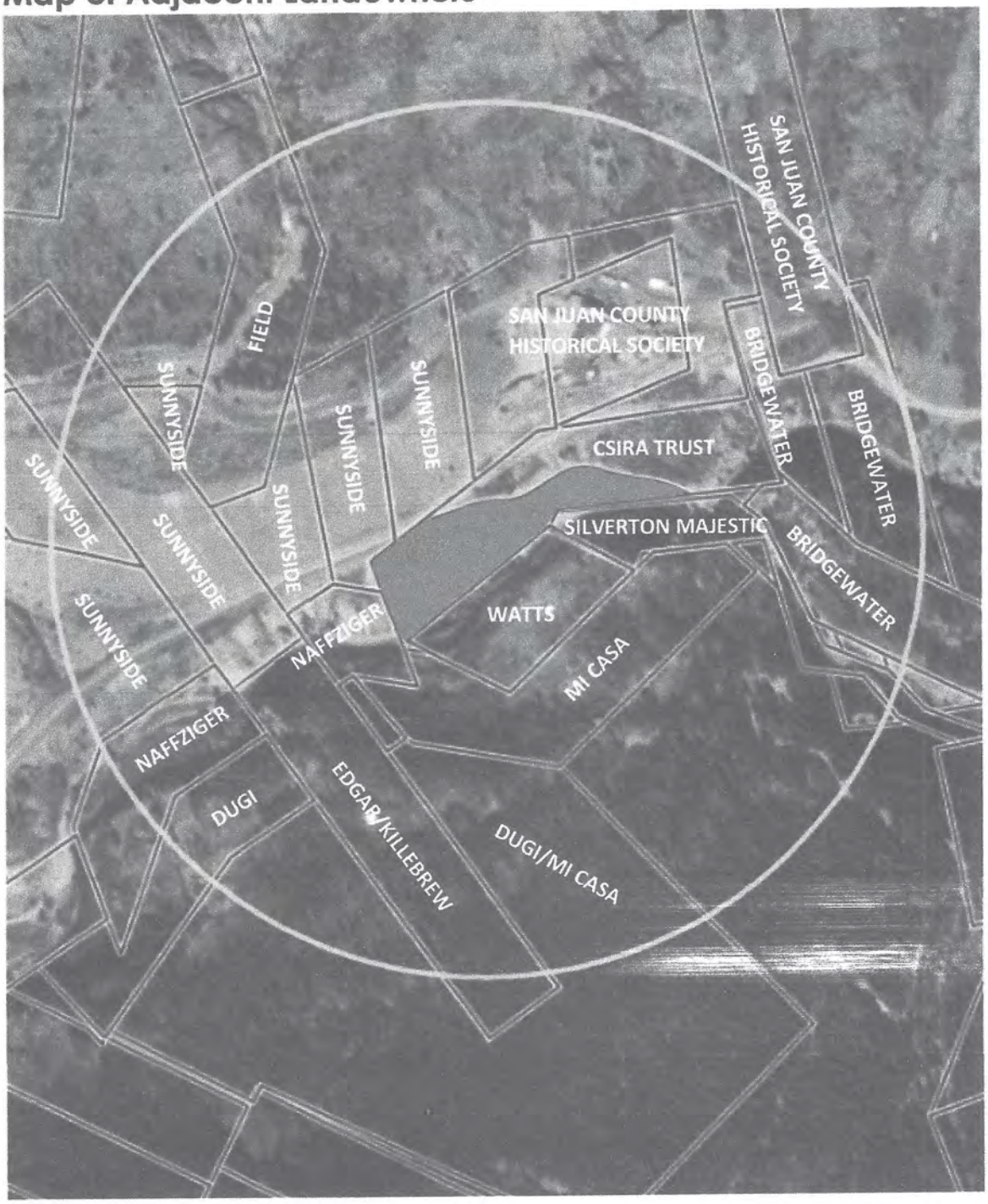
Silverton Majestic LLC; Randey Robinette
58 Snowy Peaks Way
Durango, CO 81303-7015

Ryan & Cherie Naffziger
123 El Diente Dr
Durango, CO 81303-9002

Watts Revocable Trust; Richard Watts
PO Box 697
La Mesa, CA 91944-0697

Csira Trust; Charles Csira
1278 Glenneyre St #214
Laguna Beach, CA 92651-3103

Map of Adjacent Landowners



Project Narrative

Stalo Cabin – Genoa Lode Subdivision

Applicant Name and Address:
Joel Stalo and Emily Huston-Stalo
13031 N Fenton Rd
Fenton, MI 48430
(517) 881-1704

Project Location:
TBD County Road 2
Silverton, Colorado 81433
Genoa Lode Subdivision – Lot 1

Legal Description
Located in part of the Genoa MS 14024, in unsurveyed Township 41 North, Range 7 West, of the New Mexico Principle Meridian, San Juan County, Colorado.

Proposed Development:
One single-family cabin of approximately 1,400 SF

Zoning:
- Mountain Zoning District
- Town/County Zone of Mutual Interest Overlay District
- Historic Preservation District
- Mineral Resource Overlay District

Acreage:
4.78 acres

Water Service:
The Applicant plans to tie into an existing 1" private domestic water tap provided by the San Juan County Historical Society Powerhouse Project central water distribution system. The tap has been installed near the intersection of County Road 2 and the Mayflower Mill driveway and was deemed to supply adequate water to the site sufficient to meet the requirements of the San Juan County Zoning and Land Use Code.

Sewer Service:
An onsite septic system is proposed for the cabin and will be located west of the proposed cabin, as shown on the site plan. Septic test pits have been dug and analyzed on-site, and the system has been engineered by a Colorado Licensed Professional Engineer in accordance with the San Juan Basin Health Department regulations. The septic permit, septic design and associated recommendations by the engineer are included with this application submittal.

Power:
The Applicant plans to tie into the existing pad transformer located along County Road 2 near the north edge of the property. The proposed line will be an underground service line.

Access from County Roads:
The property is located south of County Road 2 and bound along the east by County Road 21. County Road 22 runs through the southern portion of the site along the Animas River. The proposed cabin will be accessed via a new driveway off County Road 2, as shown in the proposed sketch plans provided in this submittal. The driveway will include a culvert, as well as any additional requirements of the County Road and Bridge Department Supervisor. A driveway permit form has been submitted to the Road and Bridge Supervisor.

Heating:
A hydronic radiant floor system will be used as the primary source of heat for the cabin, and a wood stove and possible electric heat will be used as supplemental heat when necessary.

Exterior Lighting:
Exterior lighting will be incorporated near all entry points and along the south façade facing the south. Exterior lighting will be in conformance with San Juan County Dark Sky requirements.

Solid Waste Management:
The Applicant will be responsible for bi-weekly trash disposal provided by Bruin Waste Management. On-site trash will be contained within the provided dumpster at all times until removal to the transfer station.

Landscaping:
Revegetation and landscaping screening will be provided by the Applicant in accordance with the requirements of San Juan County to preserve the natural appearance of the area and minimize visual impact of views. The Applicant will create a defensible space around the proposed cabin by removal of combustible ground cover and thinning of trees and shrubs near the cabin, as recommended by the Colorado State Forest Service Firewise Practices.

Surveying:
A survey plat for this lot was prepared by Earnest E. Schaaf of Southwest Land Surveying LLC and recorded with San Juan County on July 12, 2007. A copy of this survey plat is included with this application submittal.

Subsurface Conditions:
Subsurface conditions have been tested and recorded by Trautner Geotech LLC. However, the finalized report is currently being generated and is not included with this application. The Applicant will furnish this to the County once received by Trautner Geotech.

The final design for the proposed cabin and foundation will take into account the characteristics of the soils, slopes and potential geological hazards in a manner intended to protect the health, safety and welfare of users in the area.

Building Envelope and Siting:
The proposed project site and building envelope will be located on the upper west portion of the property, which is a moderately sloped grassy meadow with pines and aspens, sloping down towards the Animas River. Approximately ten feet to the south of the building envelope lies the bench edge where the property sharply drops off with a continuous steep grade until it reaches County Road 22. The proposed location of the cabin was chosen based on site access, feasibility of construction, septic design, existing natural screening from County Road 2, and avoidance of the steep topography just described. Due to an existing vehicular pull-off area near the intersection of County Road 2 and County Road 21, the Applicant is proposing a privacy screening fence on the south side of the pull-off area. The location of the proposed fence is shown on the Site Plan included with this submittal.

County Avalanche Map:
The Sketch Plan for this project has been overlaid onto the County Avalanche Map, which is included with this application submittal for review. According to the County Avalanche Map, the site does not appear to be within a potential avalanche area.

County Geohazards Map:
The Sketch Plan for this project has been overlaid onto the County Geohazards Map, which is included with this application submittal for review. According to the County Geohazards Map, the proposed building location appears to be in an area of colluvial slopes (cst), specifically an area of thick colluvial or glacial accumulations, generally thicker than 2 meters. Those areas categorized as cst are regarded as potentially unstable, with small slumps along road cuts providing a good indication of the local state of stability.

The proposed foundation for the cabin will follow all excavation and foundation design recommendations found in the soils report provided by Trautner Geotech.

Foundation:
The foundation of the cabin will include concrete stem walls and spread footings that will extend below frost depth and 12" minimum below native grade. The garage will be slab-on-grade with frost-protected spread footings. The deck will include wood posts with concrete spot footings that will extend below frost depth.

Elevation at Structure:
The floor elevation of the proposed cabin is approximately 9,552 ft, which is below 11,000 feet elevation, where the County has limits on cabin square footage.

Cabin Size and Height:
The cabin will be one story and will be approximately 32'x44' with a 12' wide attached garage and 10' deep uncovered deck. The overall footprint of the cabin is relatively square with a simple, single-slope roof, sloping toward the north. The conditioned home area will be approximately 1,400 SF and the garage will be 530 SF.

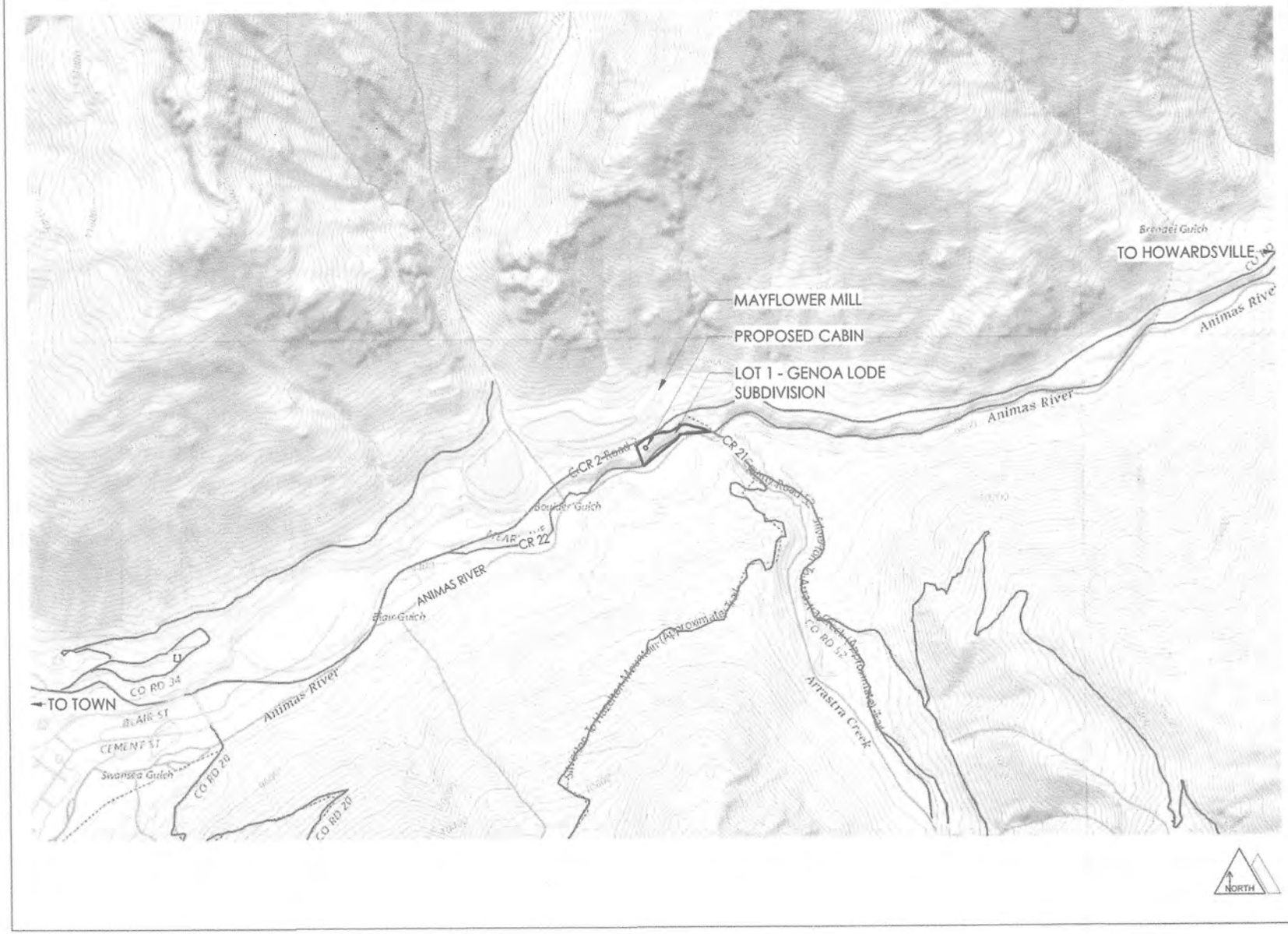
The maximum height of the cabin, which is measured from the lowest adjacent native grade up to the peak of the 3.5:12 roof, is approximately 26'-0", which is below the County height limit of 35 feet.

Building Plans:
Preliminary building plans for the proposed cabin are included in the following section of this package.

Cabin Style:
The simple form and material selection most reflect the mountain contemporary style, but with a focus more on functionality than overly simplistic detailing often seen in current trending home design.

Building Materials:
A colorized rendering of the home, which shows proposed building materials and design vernacular, is included in the Scenic Quality Report for your review. The proposed materials consist of the following:

- Vertical wood siding with a dark stain.
- Composite trim in a dark pre-finished color to accent siding.
- Slate standing seam metal roof with matching trim.
- Wood posts & railing with horizontal stainless-steel cable at deck



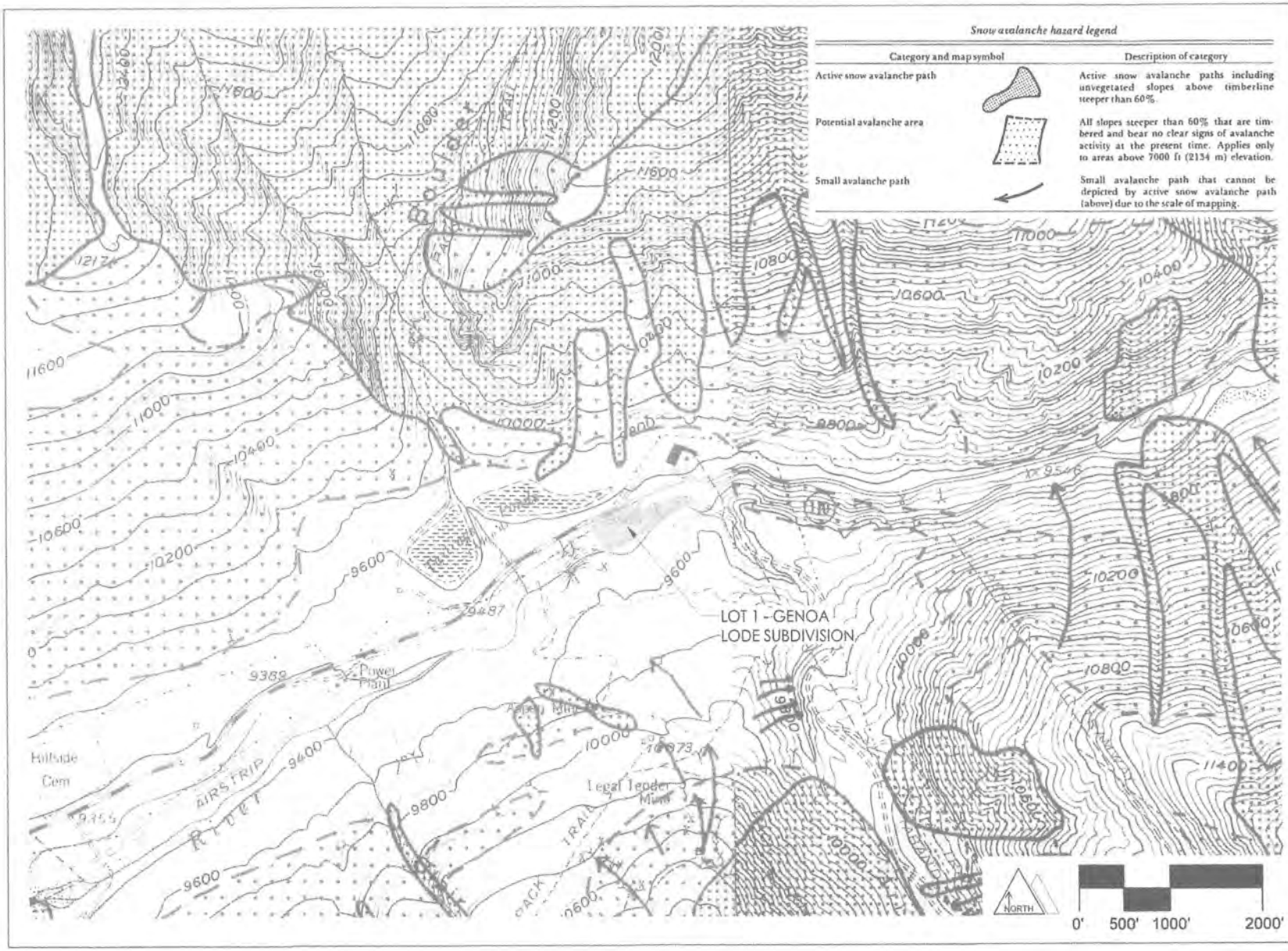
MOUNTAIN grain
ARCHITECTURE
DURANGO, CO 81301
970|515|7882
info@mtngrain.com
mtngrain.com

NEW CONSTRUCTION OF::
THE STALO FAMILY CABIN
GENOA LODE LOT 1
TBD COUNTY ROAD 2
SILVERTON, CO 81433

PROJECT #: 21-07
ASSESSOR'S PARCEL #: 482901000100055

SHEET TITLE: VICINITY MAP
SHEET #: A
SCALE: NTS

IMPROVEMENT PERMIT REVIEW | 07.09.2021



MOUNTAIN grain
ARCHITECTURE
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970|515|7882
info@mtngrain.com
mtngrain.com

PROJECT #: 21-07

ASSESSOR'S PARCEL #: 482901000100055

NEW CONSTRUCTION OF:
THE STALO FAMILY CABIN

GENOA LODE LOT 1
TBD COUNTY ROAD 2
SILVERTON, CO 81433

SHEET TITLE: SKETCH PLAN & COUNTY AVALANCHE MAP

SHEET #: B

SCALE: 1" = 1000'

IMPROVEMENT PERMIT REVIEW | 07.09.2021

RECENT AVALANCHE PATH
EAST OF MAYFLOWER MILL

"AERIAL PHOTO OF RECENT NEARBY AVALANCHE"

PROPOSED HOME LOCATION
APPROX. 1/4 MILE WEST ON CR2
(NOT IN PHOTO)

MOUNTAIN grain
ARCHITECTURE
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mtngrain.com

NEW CONSTRUCTION OF::
THE STALO FAMILY CABIN

GENOA LODE LOT 1
TBD COUNTY ROAD 2
SILVERTON, CO 81433

PROJECT #: 21-07

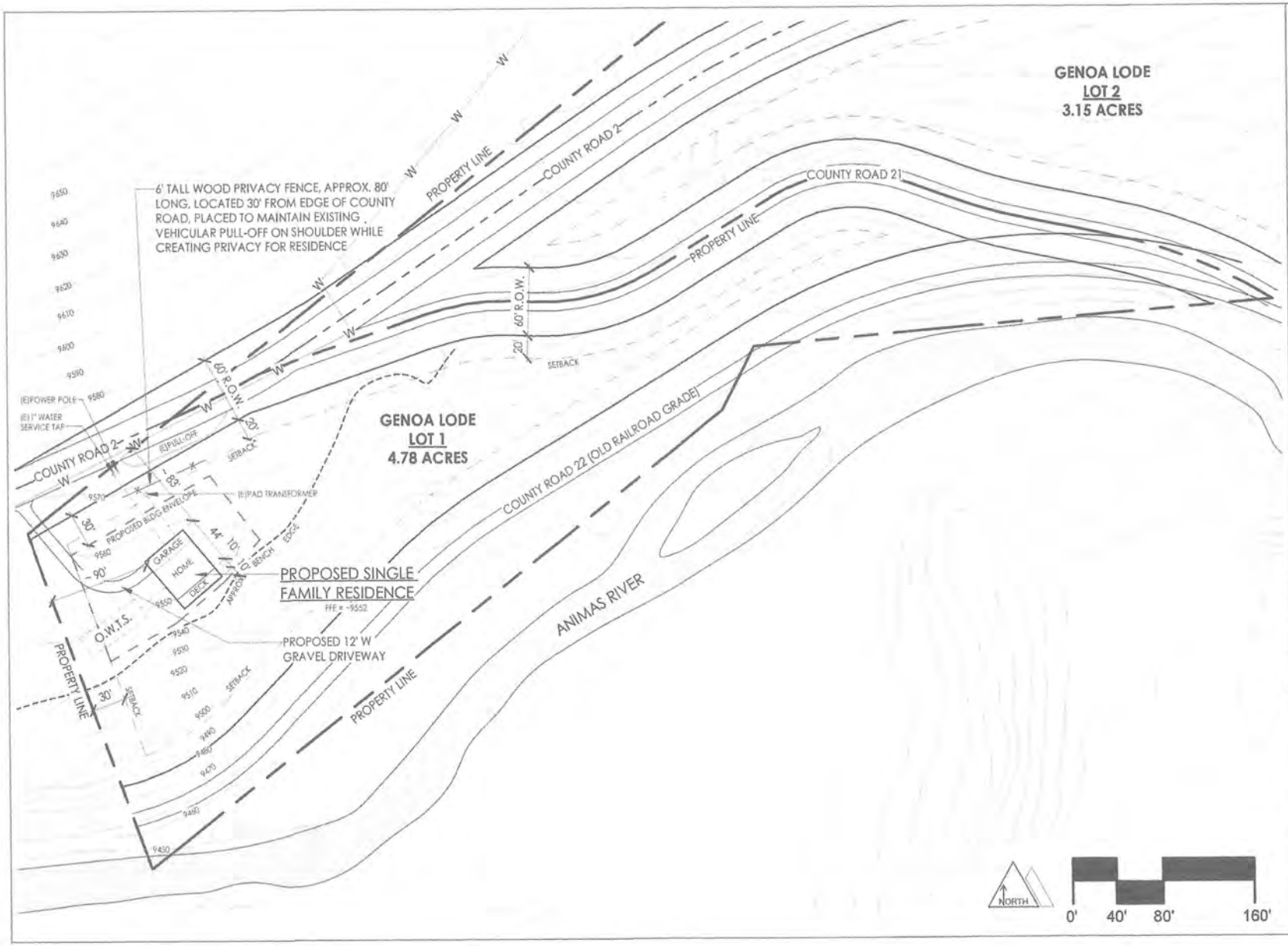
ASSESSOR'S PARCEL #: 482901000100S5

SHEET TITLE: SKETCH PLAN & COUNTY GEOHAZARD MAP

SHEET #: C

SCALE: 1" = 1000'

IMPROVEMENT PERMIT REVIEW | 07.09.2021



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970|515|7882
info@mtngrain.com
mtngrain.com

PROJECT #: 21-07

ASSESSOR'S PARCEL #: 482901000100055

NEW CONSTRUCTION OF::
THE STALO FAMILY CABIN

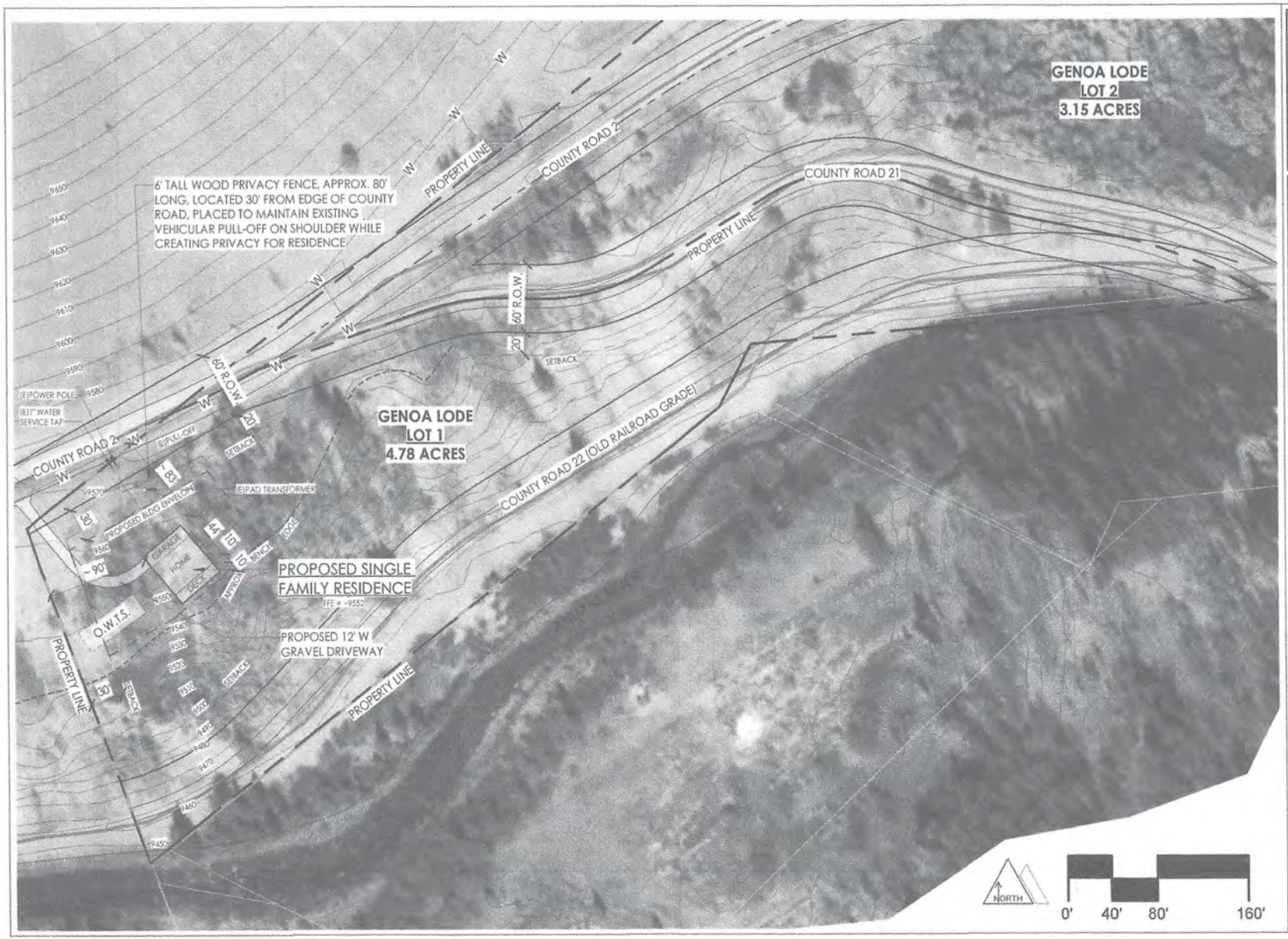
GENOA LODE LOT 1
TBD COUNTY ROAD 2
SILVERTON, CO 81433

SHEET TITLE: SKETCH PLAN WITH TOPOGRAPHY

SHEET #: D

SCALE: 1" = 80'-0"

IMPROVEMENT PERMIT REVIEW | 07.09.2021



MOUNTAIN grain
ARCHITECTURE
DURANGO, CO 81301
970|515|7882
info@mtngrain.com
mtngrain.com

PROJECT #: 21-07

ASSESSOR'S PARCEL #: 482901000100055

NEW CONSTRUCTION OF::
THE STALO FAMILY CABIN

GENOA LODE LOT 1
TBD COUNTY ROAD 2
SILVERTON, CO 81433

SHEET TITLE: SKETCH PLAN WITH AERIAL IMAGE

SHEET #: E

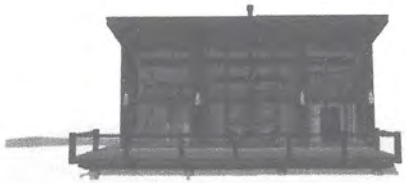
SCALE: 1" = 80'-0"

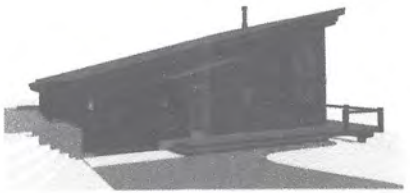
IMPROVEMENT PERMIT REVIEW | 07.09.2021

PEACE OF MINE

JOEL & EMILY STALO FAMILY CABIN

DRAWING INDEX





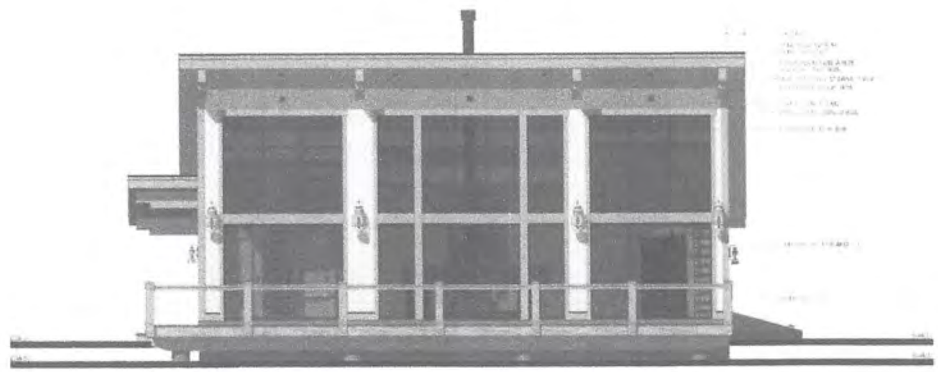
DRAWING DATES:
CONCEPT DRAWINGS - MAY 4, 2021

FRIMODIG DESIGN OF ADA
DESIGN TEAM: MARK & MATT FRIMODIG
8355 BAILEY DR. ADA MI. 49301
PHONE: 676-1891

PEACE OF MINE
JOEL & EMILY STALO FAMILY CABIN
PROPOSED TRACT A (3.1 ACRES) GENOA LODE COUNTY ROAD 55
@ BARNESTRA GULCH - SYMPTON, SAN JUAN COUNTY, COLORADO

SHEET
1/5

SOUTHWEST ELEVATION
SCALE: 1/4" = 1'-0"



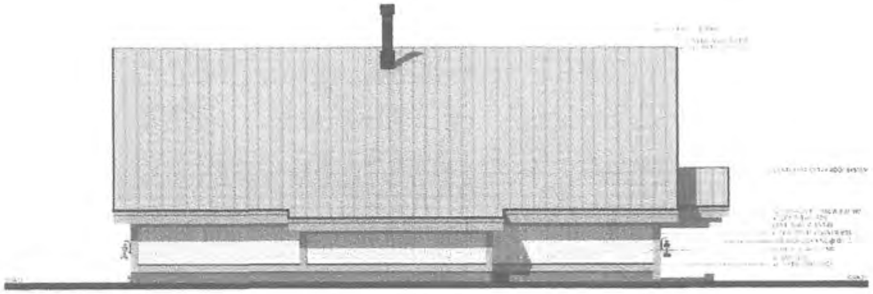
RIVERSIDE ELEVATION
SCALE: 1/4" = 1'-0" SOUTHEAST

PEACE OF MINE
JOEL & EMILY STALO FAMILY CABIN
PROPOSED TRACT 4 (15 ACRES) GENOA LODE COUNTY ROAD 55
@ ARRASTRA GULCH SILVERTON, SAN JUAN COUNTY, COLORADO

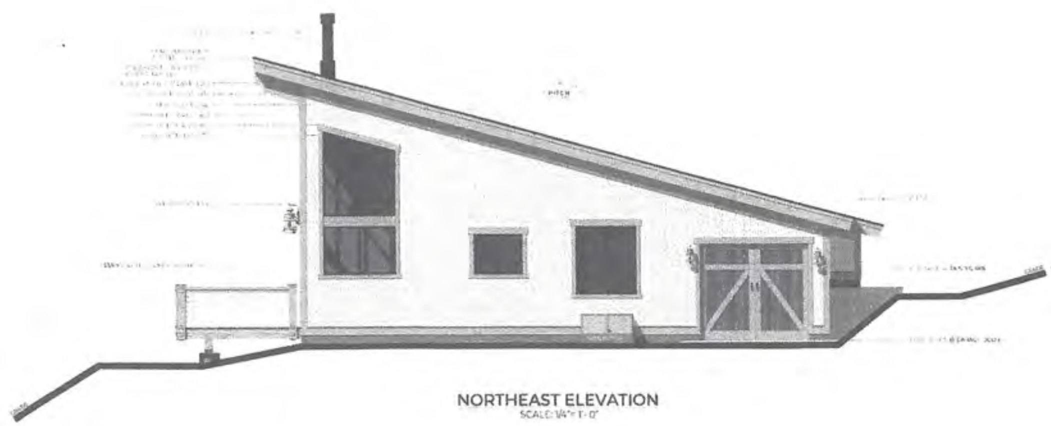
FRIMODIG DESIGN OF ADA
DESIGN TEAM: MARK & MATT FRIMODIG
8355 BAILEY DR. ADA MI. 49301
PHONE: 676-1891

DRAWING DATES:
CONCEPT DRAWINGS - MAY 4, 2021

SHEET
2/5



REAR ELEVATION
SCALE: 1/4" = 1'-0"   NORTHWEST



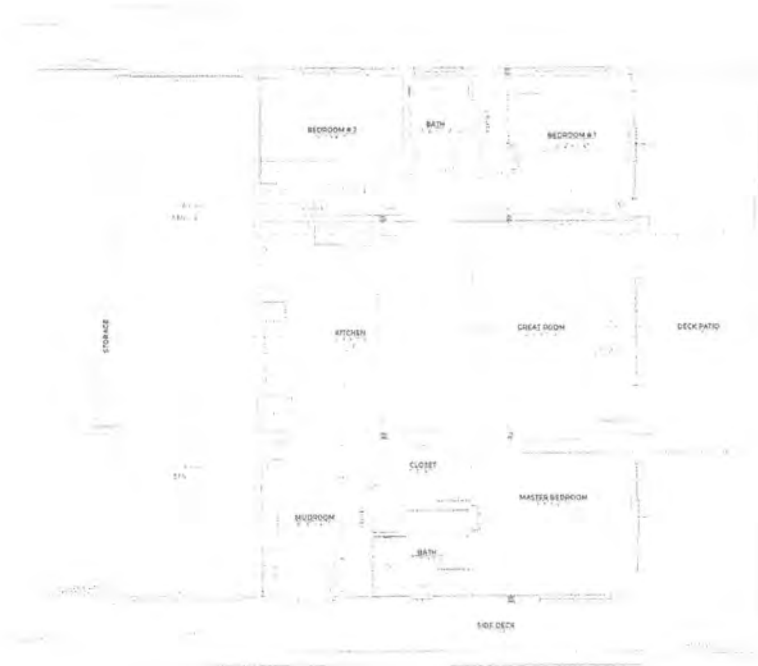
NORTHEAST ELEVATION
SCALE: 1/4" = 1'-0"

PEACE OF MINE
JOEL & EMILY STALO FAMILY CABIN
PROPOSED TRACT A (51 ACRES) GENOA LODE COUNTY ROAD 55
@ ARRASTRA GULCH SILVERTON, SAN JUAN COUNTY COLORADO

FRIMODIG DESIGN OF ADA
DESIGN TEAM: MARK & MATT FRIMODIG
8355 BAILEY DR, ADA MI, 49301
PHONE: 676-1891

DRAWING DATES:
CONCEPT DRAWINGS: MAY 4, 2021

SHEET
3/5



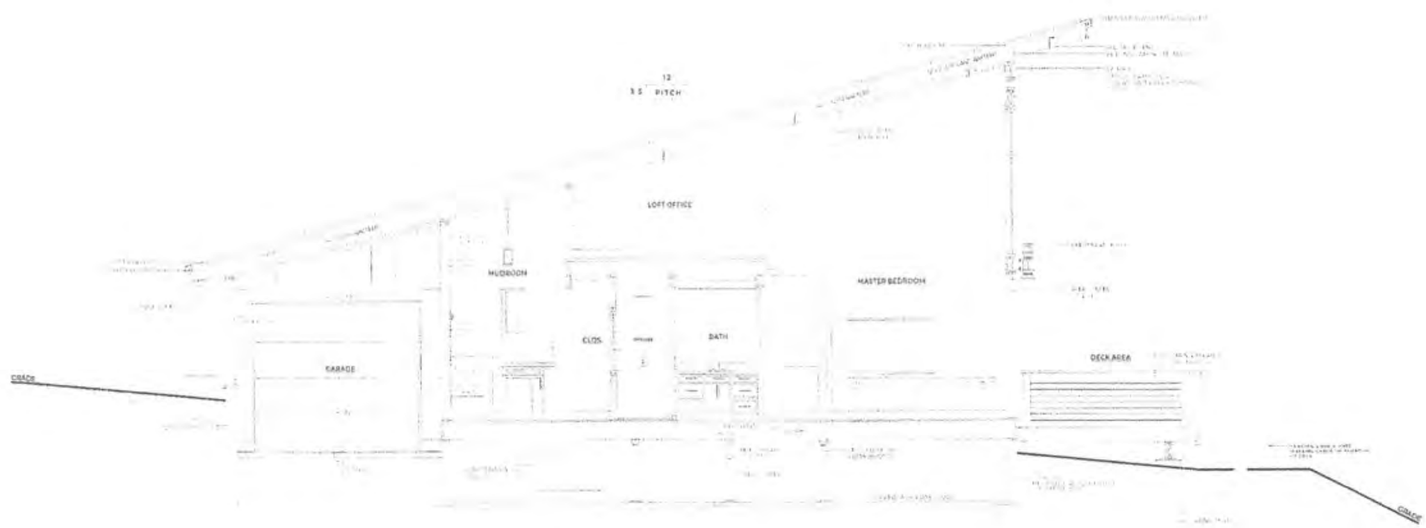
MAIN FLOOR PLAN
SCALE: 1/4" = 1'-0"

PEACE OF MINE
JOEL & EMILY STALO FAMILY CABIN
PROPOSED TRACT A (5.1 ACRES) CENDA LODE COUNTY ROAD 55
@ ARRASTRA GULCH · SILVERTON, SAN JUAN COUNTY COLORADO

FRIMODIG DESIGN OF ADA
DESIGN TEAM: MARK & MATT FRIMODIG
6355 BAILEY DR, ADA MI, 49301
PHONE: 676-1891

DRAWING DATES:
CONCEPT DRAWINGS : MAY 4, 2021

SHEET
4/5



MAIN CROSS SECTION

SCALE: 3/4" = 1'-0"

DRAWING DATES:
CONCEPT DRAWINGS: MAY 4, 2021

FRIMODIG DESIGN OF ADA
DESIGN TEAM: MARK & MATT FRIMODIG
6355 BAILEY DR, ADA MI 49301
PHONE: 676-1691

PEACE OF MINE
JOEL & EMILY STALO FAMILY CABIN
PROPOSED TRACT 4 15.1 ACRES GENOA LODE COUNTY ROAD 55
@ ARRASTRA GULCH SILVERTON, SAN JUAN COUNTY COLORADO

SHEET
5/5

Engelhardt Environmental, LLC.

June 17, 2021

NEW ON-SITE WASTEWATER TREATMENT SYSTEM

PROPERTY OF: Joel Stalo
Genoa Lode, Lot 1
Silverton, CO 81433

SJBPH PERMIT APPLICATION #2021-256

PROJECT NARRATIVE

A new OWTS is proposed at the subject property to serve the future three bedroom residence. SJBPH OWTS permit application number 2021-256 is on file for said improvements. Terrain grades are mild, in the 3-5% range, generally sloping to the southeast. The residence will be served by the San Juan Historic Society via Silver Lake (central water). No water wells are evident within the 100' radius from the planned STA and the proposed OWTS improvements appear to meet all other required setbacks[2].

Site and soil conditions warrant the use of a gravity flow to a STA trench configuration containing Infiltrator™ Chambers. This OWTS is designed in compliance with the requirements of SJBPH 2018 OWTS Regulations[1] and Colorado Department of Public Health and Environment Regulation 43[2]. Engelhardt Environmental, LLC is held harmless regarding OWTS performance over time.

STA location:
- 37°49'35.01"-107°37'48.29" (DMS)
- USDA/NRCS soils are reported as *Quazar very cobbly loam*
- Mean annual precipitation: 26 to 40 inches
- Parent material: Alluvium derived from volcanic rock
- Landform: Alluvial fans

Using a backhoe, soil profile pits were excavated on April 1, 2021 in the vicinity of the planned STA, which resulted in the following soil characterization:

SPP1: 0-10" silt loam;
10-84" loam [granular, weak/moderate] [Soil Type 2];
bedrock/groundwater not encountered

SPP2: 0-8" silt loam;
8-60" loam [granular, weak/moderate] [Soil Type 2];
60" refusal at large boulder;
bedrock/groundwater not encountered

Design Flow: Table 6-1[2]:
Single Family Residential: three bedrooms; QD = 450 GPD [TL 1]
Septic Tank: Table 9-1[2]: 1000 gallon septic tank capacity is required

[1] As adopted; effective January 1, 2018
[2] CDPHE Water Quality Control Commission Regulation No. 43 – *On-Site Wastewater Treatment System Regulation*

engelhardt.environmental@gmail.com
455 Sheol St. Suite 309 · Durango · CO · 81301
970.946.8657

Proposed STA: Three trenches, each with 14 Infiltrator™ Chambers
- From visual and tactile inspection: Table 10-1[2]: Soil Type 2
- Absorption (A) LTAR: Table 10-1[2]: Soil Type 2: LTAR = 0.6 GPD/SF
- STA area required: 450 GPD/0.6 GPD/SF = 750 SF
- Chamber equivalent: 750(0.7) = 525 SF
- Proposed STA = 540 SF

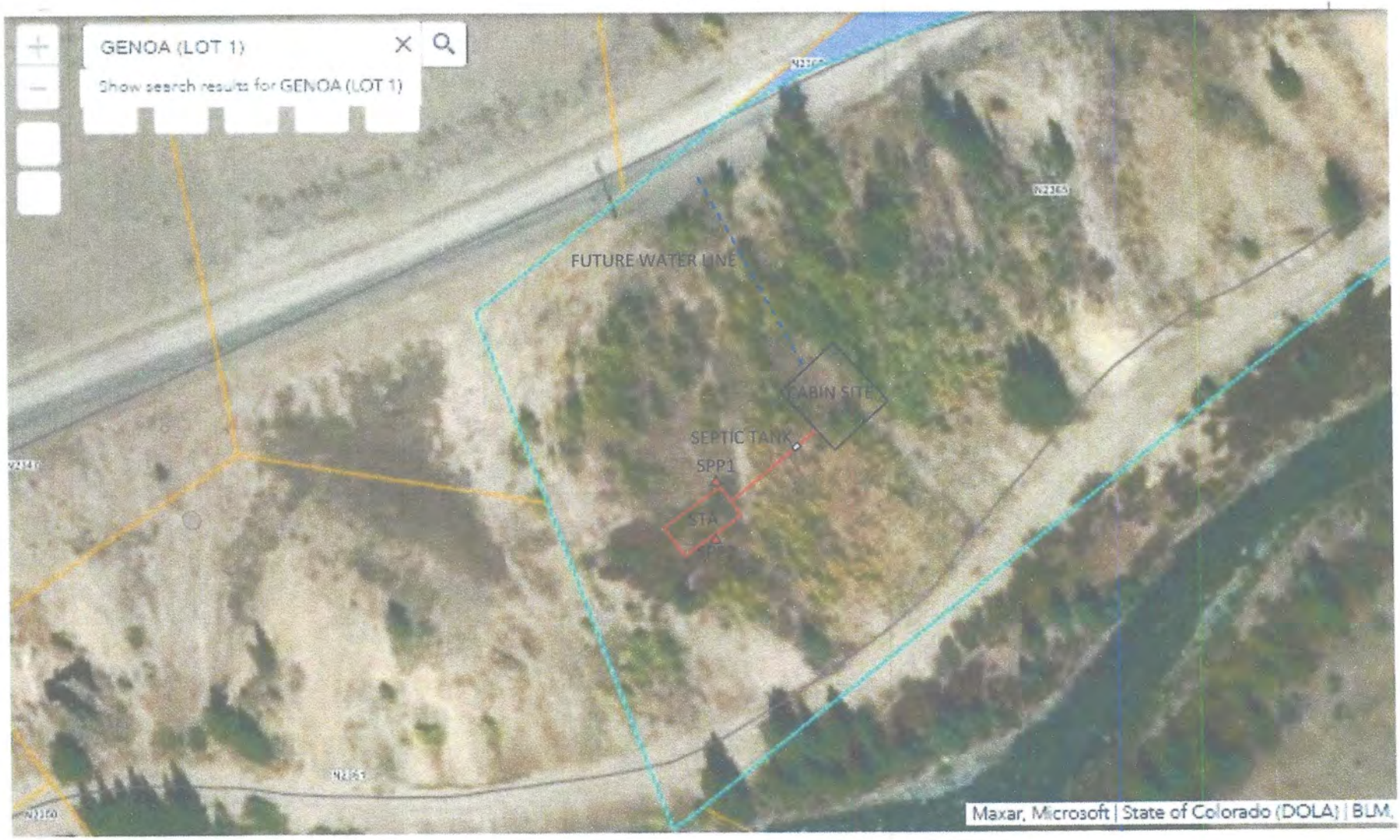
KEYNOTES

- All delivery piping shall be 4" Schedule 40 PVC; slope all pipe runs at a minimum of 1%
- Install new 1000 gallon two-chamber septic tank to the WSW of the proposed residence; set base on compacted structural fill or sand if needed to stabilize, plumb to residence; do not use 90° fittings between said connections and install 2-way-sweep cleanout with threaded cap outside of foundation
- Excavate three level trenches 3' wide, 60' long, and 24" deep; report any soil variations or excavation limitations to Engelhardt Environmental, LLC
- Maintain at least 4' of undisturbed soil separation between each trench excavation
- Align trenches NE to SW on slope contour to maintain consistent excavation depth
- Install 14 Standard Quick-4 Infiltrator™ chambers in each trench (42 total)
- Install Infiltrator™ endcaps at inlet and terminal end of each trench (6 total); install provided splash plate or paver on soil surface inside endcap at inlet end beneath pipe entry/discharge
- Install concrete distribution box with leveling inserts for outlet ports up gradient at north end of trenches; set in wet concrete on tamped native soil to stabilize
- Plumb distribution box to the top cut-out of the three inlet chamber endcaps
- Install poly riser over distribution box with securable access lid at grade
- Install 4" vertical PVC inspection ports at inlet and terminal end of each trench (6 total); friction fit or thread caps; extend inspection ports above grade for potential winter access
- After SJBPH construction inspection, insulate distribution box manhole (to prevent freezing)

GENERAL CONSTRUCTION NOTES

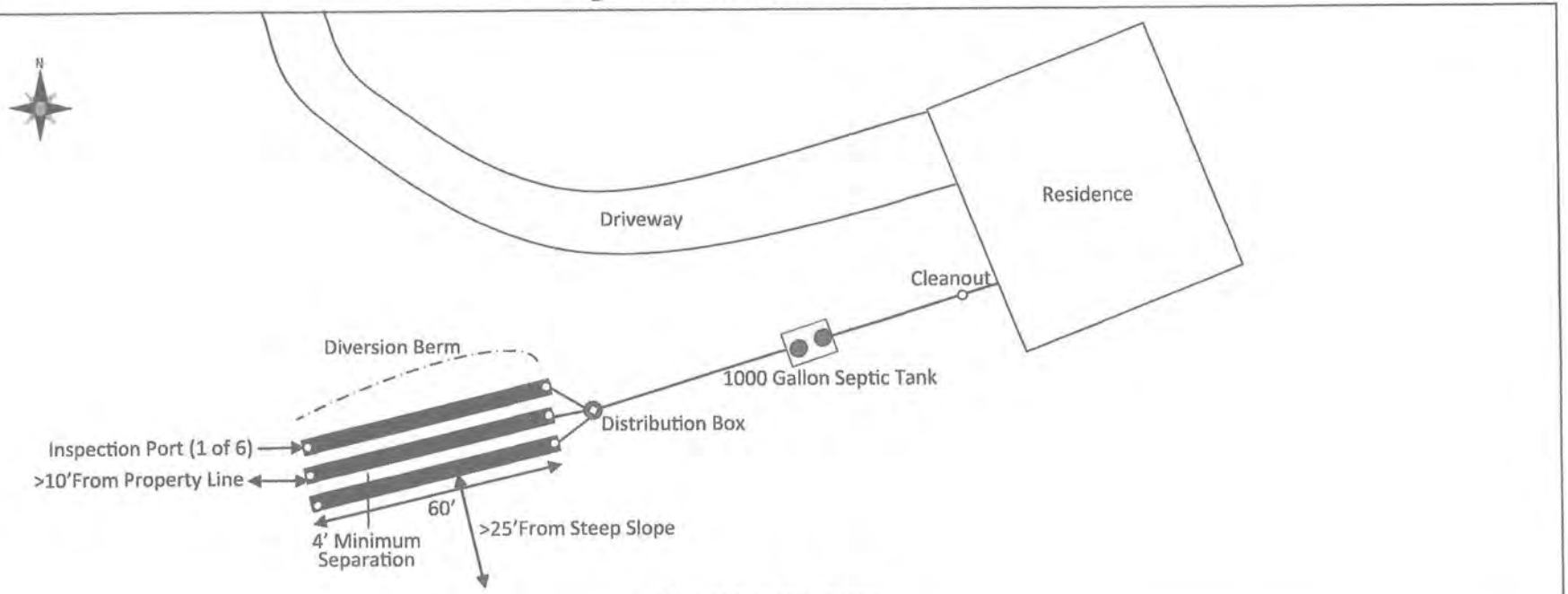
- All OWTS work shall be inspected and certified by SJBPH and designer prior to backfill
- Any changes to approved OWTS design must be approved in advance by SJBPH and designer
- Locate any existing utilities prior to excavation work; call 811 before you dig and/or arrange secondary utility locate as necessary
- Avoid excavation and backfill work during muddy or freezing conditions
- All piping should be 4" Schedule 40 PVC unless otherwise specified
- Ensure watertight seals for all plumbing connections with rubber gasket or solvent PVC weld
- Construct diversion swale or berm above STA to prevent storm water/snowmelt generated intrusion
- Crown STA backfill to offset settling and ensure long-term positive drainage, and seed with dry-land grass seed mix; cover with weed-free straw to stabilize and promote germination
- Do not drive on top of the STA or OWTS components and fence out livestock
- Avoid flushing chemicals and grease/oil into the system
- Discharge from water softener does not require treatment and may adversely affect OWTS performance
- Clean septic tank effluent filter annually by rinsing into the first compartment of the septic tank
- Septic tank pumping and solids removal needs to be completed at a minimum of every 4 years by a licensed septic system cleaner

OWTS SITE PLAN

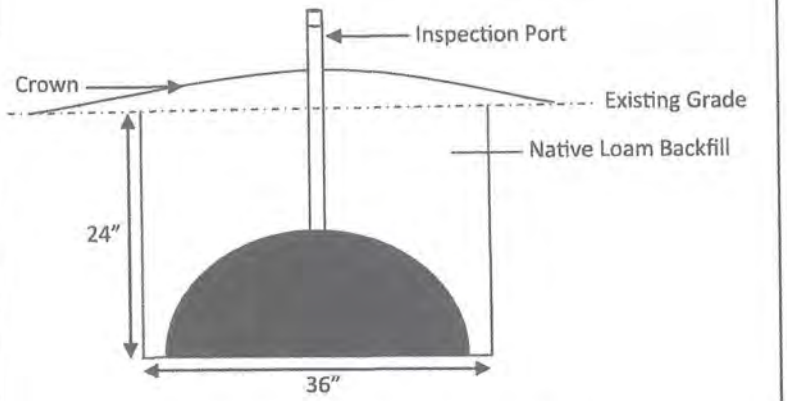


OWTS SITE PLAN

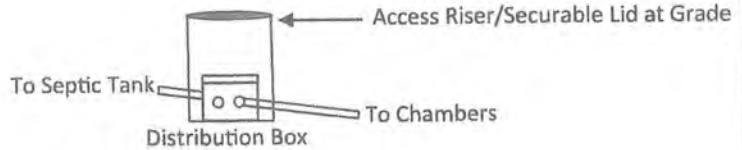
100ft



PLAN VIEW - NTS



STA TRENCH DETAIL - NTS



DISTRIBUTION BOX DETAIL - NTS

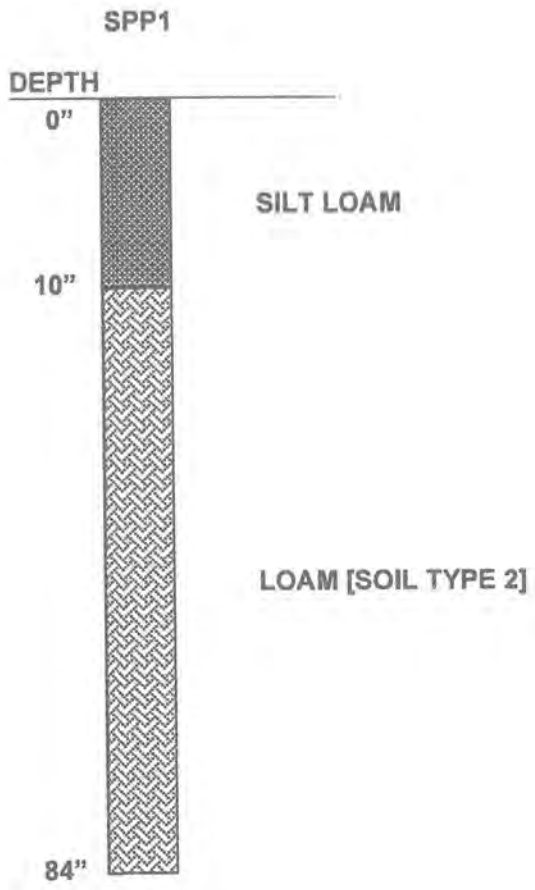
engelhardt.environmental@gmail.com

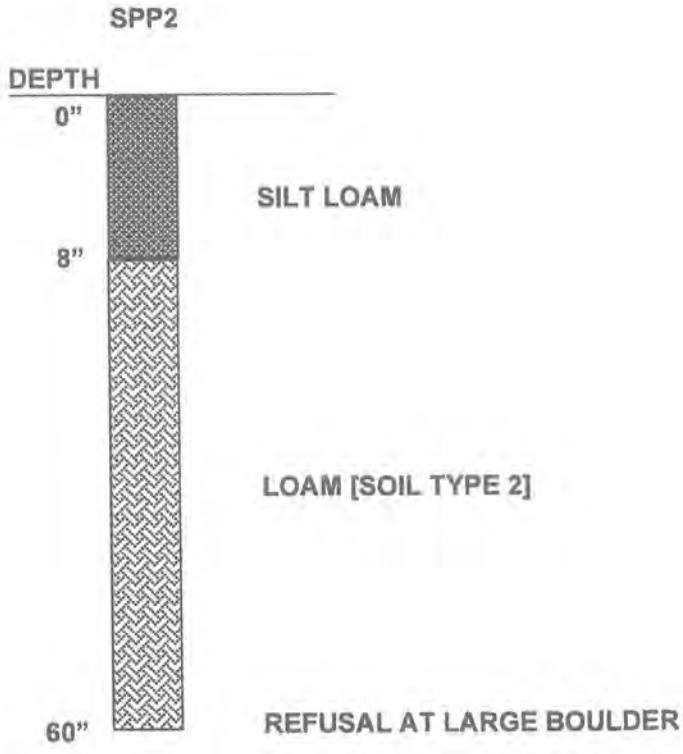
455 Sheol St. Suite 309, Durango, CO 81301
Phone 970-946-8657

Engelhardt Environmental, LLC.

SOIL PROFILE PIT LOGS FOR GENOA LODE, LOT 1, SILVERTON CO

EXCAVATED ON APRIL 1, 2021 WITH BACKHOE
LONG TERM ACCEPTANCE RATE FOR TYPE 2 SOIL,TL1 IS 0.6 GAL/SF/DAY:





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Phone 970-946-8657

Animas-Dolores Area, Colorado, Parts of Archuleta, Dolores, Hinsdale, La Plata, Montezuma, San Juan, and San Miguel Counties

54—Quazar very cobbly loam, 5 to 25 percent slopes

Map Unit Setting

National map unit symbol: srmg
Elevation: 9,000 to 10,700 feet
Mean annual precipitation: 26 to 40 inches
Mean annual air temperature: 32 to 38 degrees F
Frost-free period: 40 to 65 days
Farmland classification: Not prime farmland

Map Unit Composition

Quazar and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quazar

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Mountainbase
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Alluvium derived from volcanic rock

Typical profile

A1 - 0 to 3 inches: very cobbly loam
A2 - 3 to 12 inches: very cobbly loam
Bt - 12 to 26 inches: extremely gravelly clay loam
C - 26 to 60 inches: extremely gravelly clay loam

Properties and qualities

Slope: 5 to 25 percent
Surface area covered with cobbles, stones or boulders: 5.0 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B

Ecological site: R048AY250CO
Other vegetative classification: Thurber's fescue/American vetch-aspen peavine (FETH/VIAM-LALE) (G2202)
Hydric soil rating: No

Minor Components

Needleton
Percent of map unit: 5 percent
Hydric soil rating: No

Clayburn
Percent of map unit: 3 percent
Hydric soil rating: No

Hourglass
Percent of map unit: 2 percent

Data Source Information

Soil Survey Area: Animas-Dolores Area, Colorado, Parts of Archuleta, Dolores, Hinsdale, La Plata, Montezuma, San Juan, and San Miguel Counties
Survey Area Data: Version 15, Jun 5, 2020

SAN JUAN BASIN
public health

Permit # 0256

Year 2021

APPLICATION to Construct, Alter, or Repair an On-site Wastewater Treatment System

Owner: Joel Stalo Phone: 517-881-1704

Site address: Genoa Lode Lot #1 County Road 2

Assessor's parcel # 48290100010 Subdivision: Genoa Lot#: 1

Lot size: 4.78 (acres) # of Dwellings: 1 # of Bedrooms: 3 Water supply: San juan historic society

I acknowledge: (1) This application does not guarantee that an On-site Wastewater Treatment System ("OWTS") can be installed or a building permit issued; (2) The issuance of the OWTS permit does not imply any warranty by San Juan Basin Public Health as to the operation of the OWTS; (3) The OWTS must be constructed in accordance with the San Juan Basin Public Health On-site Wastewater Treatment System Regulations; and (4) The owner of the property assumes the responsibility and liability for the proper maintenance of the OWTS.

Date: 4-15-21 Owner's signature: Joel Stalo

Owner's mailing address: 13031 North Fenton Road, Fenton, MI. 48430

Owner's email address: jmstalo@yahoo.com

[DEPARTMENT USE ONLY]

Permit fee: $ 1023.00 Payment type: CC WEB Rec'd by: MP Date: 04/19/2021

Site Evaluation LTAR: _____ Limiting Zone: _____ Depth: _____

PERMIT to _____ an On-site Wastewater Treatment System

Septic tank(s): _____ Design flow: _____ (gal/day) Distribution: Gravity or Pressure siphon pump

Soil treatment area: _____

Design Specifications and Comments:

Authorization to begin Construction

Permit must be signed by EHS BEFORE construction begins

_____

Environmental Health Specialist Date

Final Inspection The above system has been inspected and found to comply with the above requirements.

_____ _____

System Installed by (name, company, phone) Environmental Health Specialist Date

_____

System Designed by (name, company, phone)

Form revised 2/7/2017

SAN JUAN COUNTY HISTORICAL SOCIETY
POWERHOUSE PROJECT
P.O. BOX 154
SILVERTON, COLORADO 81433

WILLIAM R. JONES,
PROJECT MANAGER
CELL 970-799-2856

TEL 970-387-5444
FAX 970-387-5579

October 15, 2004

Mr. Larry Zastrow
826 Chanticleers
Abilene, TX 79602
325-669-6460
LarryZ@Venicheck.com

Re: Proof of Adequate Water Source

Dear Larry:

This letter is to confirm that the Genoa Lode mining claim USMS # 14024 is eligible for two standard 1" domestic water taps from the Powerhouse Project central water distribution system. This is a private domestic water system as defined under applicable Colorado regulations.

At the present time one tap has been installed near the intersection of CR-2 and the Mayflower Mill driveway consisting of a 1" saddle tap, corp stop valve, service line, meter, and curb stop valve. A second tap will be located off the Arrastra pipeline near where it crosses CR-2 to service a second building site on the easterly end of the property. The saddle tap and corp stop valve are on hand but have not been installed at this time pending further field investigation to find the most suitable location for proper installation.

It is our opinion that these taps will supply adequate domestic water to the sites sufficient to meet the requirements of the San Juan County Zoning and Land Use Code.

A map of the tap locations is attached.

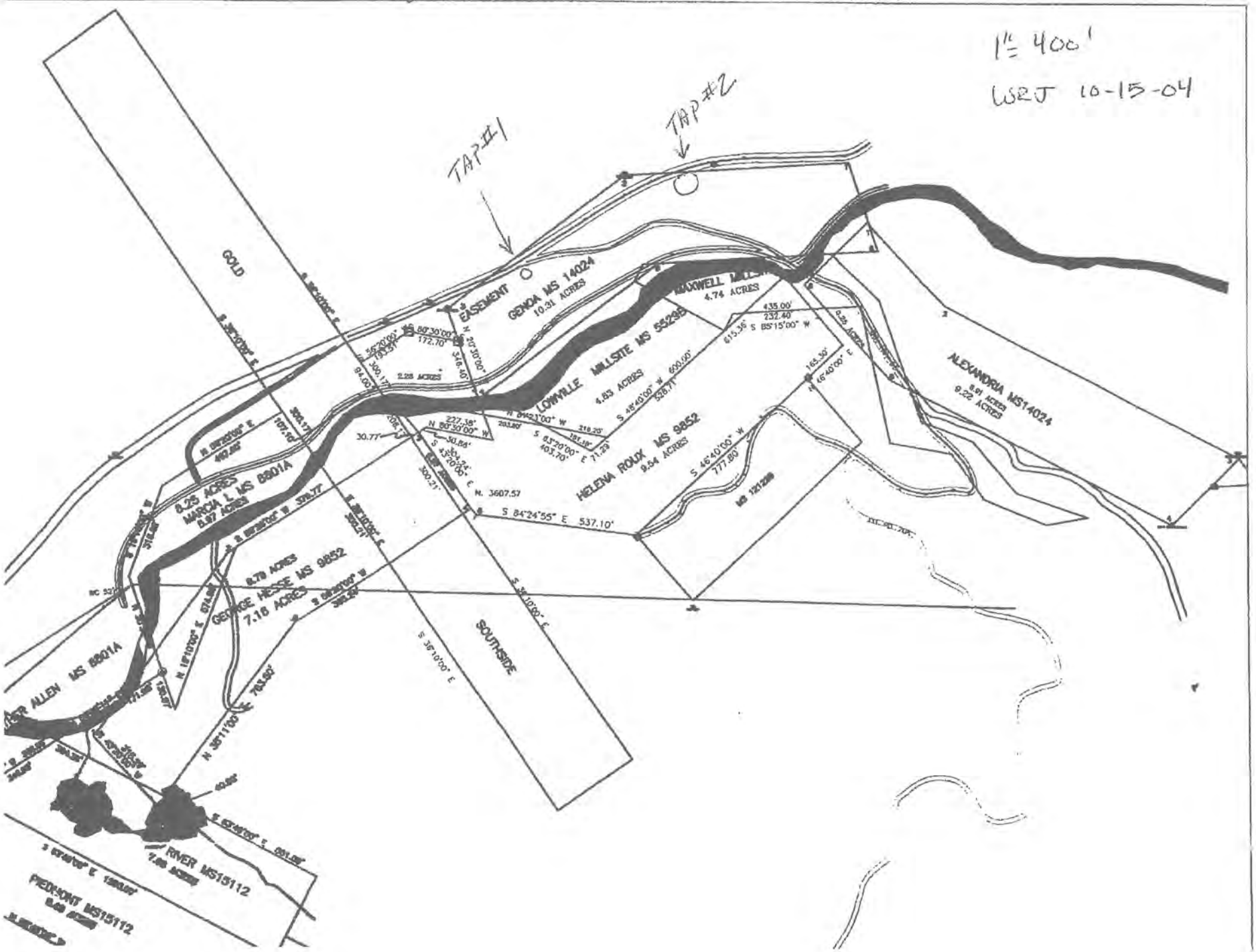
If you have any further questions in this regard please contact me.

Sincerely,

William R Jones
Project Manager

Copy: B Kaiser

WATER TAPS ON GENOA CLAIM



MEMO

To: Larry Zastrow c/o Verichek Inc
Fax 325-676-1679

From: Bill Jones

Re: Revised Tap #2 Location Map

Dear Larry:

The contractor and engineer and I have reviewed the building site location on the easterly end of the Genoa with regard to a practical way to get water to it. Unfortunately it is the opinion of all of us that it is impractical to run a service line from the treated water line location, to the building site. It is just too far for that size of line and would be very difficult to bury adequately to prevent freezing due to the thin soil cover over rock.

What we would propose is a tap on the pressurized raw water line to be located just above where the line crosses the Arrastra Gulch road. Then it is in good position to be run along the road edge and up the existing cat road to the building site. The tap will be placed on the underside of the 6" feed line so it will not freeze. The tap will have a valve built in for easy later connection when you need it. You would need to install a filter system in the house to purify the raw water using UV light if you do not wish to use chlorine. These systems cost around $1,000 .We believe this will be cheaper to install than the cost of running treated water to the site.

This kind of tap is the same deal I am making with other property owners up Arrastra where the raw line runs through. It avoids all the county roads and culverts etc. It will still be hard to bury deeply but being shorter, it is practical to insulate, or set up only for summer use. Cost of water will be less since it is not being treated in or plant.

A tap on the raw overflow return line (which is on surface just above your site) would also be an option but then it would be an unpressurized gravity flow line to a cistern where you would need a pump.

They plan to install these taps this week so let me know if this is a problem.

Thanks,

BJN

Bill Jones
970-799-2856 cell

SAN JUAN COUNTY HISTORICAL SOCIETY
POWERHOUSE PROJECT
P.O. BOX 154
SILVERTON, COLORADO 81433

WILLIAM R. JONES,
PROJECT MANAGER
CELL 970-799-2856

TEL 970-387-5444
FAX 970-387-5579

Mr. Larry Zastrow
826 Chanticleers
Abiline, TX 79602
325-669-6460
LarryZ@Venicheck.com

August 4, 2004

Re: Proposed water tap locations

Dear Larry:

Reams Construction Co has started work on the new Mill/Powerhouse water system. The new pipeline will be starting in a couple weeks or less. I have discussed with them the installation of water taps for adjacent property owners whose land we are crossing. Basically we will install a 1" saddle tap on the 6" line, and just plug it off and mark its location with a stake. Then all you would have to do is dig in that spot and hook up a meter valve and service line.

I believe you said you desired two tap locations along the Genoa MS 14024. As we discussed we would agree to install two taps at the locations you desire at no cost, in exchange for a mutually agreeable pipeline and maintenance easement for the new and existing raw water lines crossing the Genoa. The easement document would be drafted by our attorney and submitted to you for review but we have not yet worked this language up. It would be a fairly simple document.

Since construction will soon begin, we would like to go ahead and install the taps when the pipeline is built since this is the cheapest way to do it. I am enclosing a map of the claim boundaries, topography and the water line is highlighted. I have shown two suggested locations for taps, near flat spots that I think you were interested in. I would ask that you make a copy of the map, mark where you want the two taps, and fax it back to me ASAP and mail the hard copy.

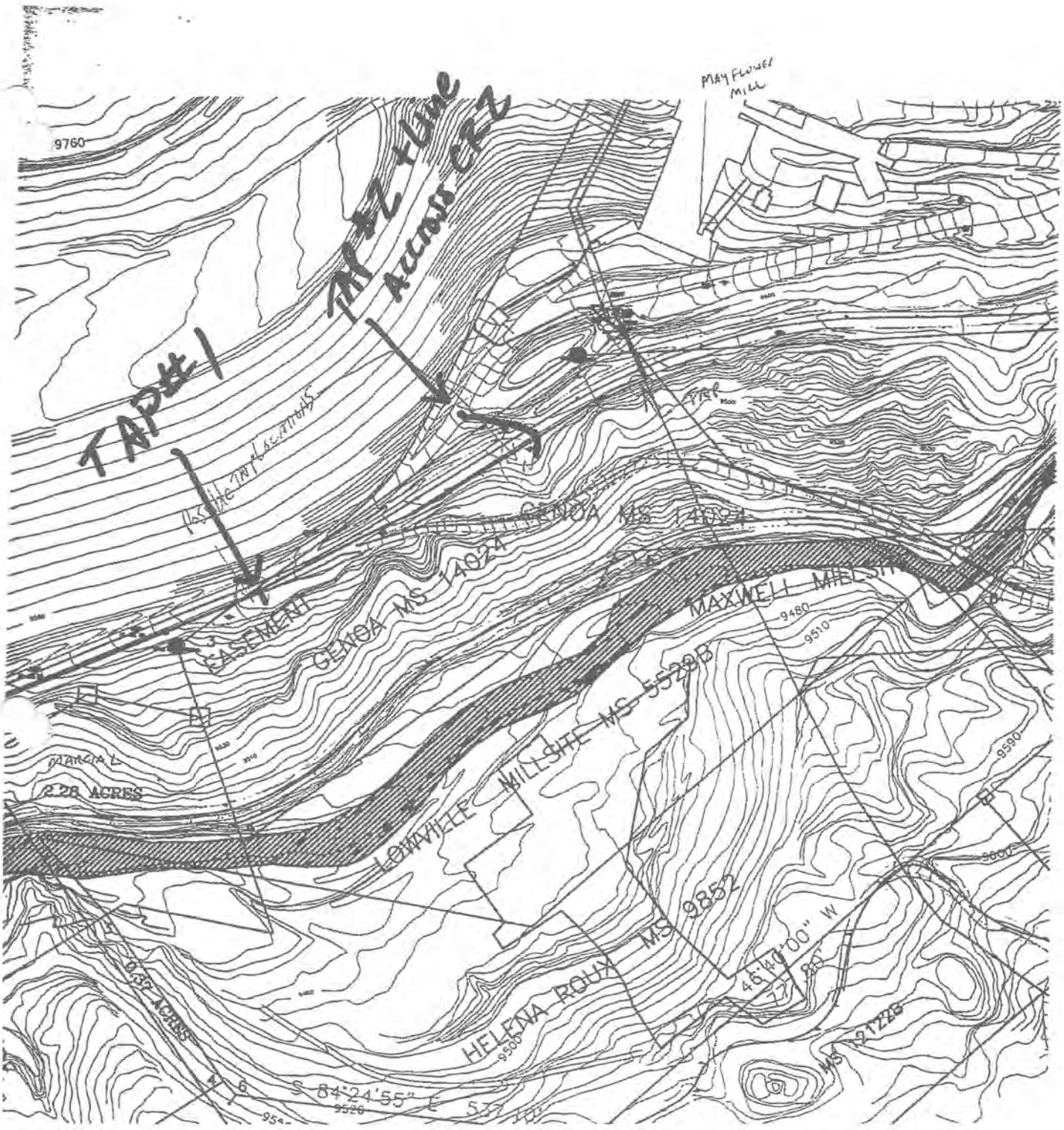
Once the easement is executed, you would be free to hook up to the taps. You would have to hire a contractor to do the physical hooking up, digging, valve and meter box installation to our specifications just like a city tap. You would only pay the going per gallon rate for water usage, but there would be no tap fee, infrastructure fee, or other charges. The water will meet all state and federal drinking standards.

Please look this over and if you have any questions please call me on my cell 970-799-2856 or email at billjones@frontier.net.

Hope to see you again soon and talk railroads not water lines!

Sincerely,

Bill Jones



LARRY ZASTROW TAPS (GENOA TAPS)

BOARD OF COUNTY COMMISSIONERS

San Juan County

P.O. Box 466 Silverton, Colorado 81433 970-387-5671

RELATIONSHIP OF PROPERTY TO COUNTY ROAD AND STATE HIGHWAY SYSTEMS

I, the undersigned, applicant engaged in the processing of Application for Improvement Permit No. _____, San Juan County, Colorado, do hereby acknowledge the following facts:

1. The real property' which is the subject of said application is on this date located approximately Zero *from* County Road No. 2, the nearest designated and publicly maintained county road.

2. Said County Road No. 2 is on this date maintained on an Year-Round basis by San Juan County.

3. The real property which is the subject of said application is on this date located approximately 2 3/4 miles from Colorado State Highway No. 550, the nearest designated state or federal highway.

4. Said Colorado State Highway No. 550 is on this date maintained on a year-round basis by either San Juan County or the Colorado Division of Highways.

5. A Driveway Permit will be necessary for any private access or egress relating to said real property which intersects any designated Colorado State Highway or Federal Highway.

Signed and dated this 23 day of June, 2021.

ATTEST:

Applicant

Position:

BOARD OF COUNTY COMMISSIONERS
San Juan County

P.O. Box 466 Silverton, Colorado 81433 970-387-5671

RELATIONSHIP OF PROPERTY TO COUNTY ROAD AND STATE HIGHWAY SYSTEMS

I, the undersigned, applicant engaged in the processing of Application for Improvement Permit No. _____, San Juan County, Colorado, do hereby acknowledge the following facts:

1. The real property' which is the subject of said application is on this date located approximately Zero *from* County Road No. 21, the nearest designated and publicly maintained county road.

2. Said County Road No. 21 is on this date maintained on an Seasonal basis by San Juan County.

3. The real property which is the subject of said application is on this date located approximately 2 3/4 miles from Colorado State Highway No. 550, the nearest designated state or federal highway.

4. Said Colorado State Highway No. 550 is on this date maintained on a year-round basis by either San Juan County or the Colorado Division of Highways.

5. A Driveway Permit will be necessary for any private access or egress relating to said real property which intersects any designated Colorado State Highway or Federal Highway.

Signed and dated this 23 day of June, 2021.

Applicant

ATTEST:

Position:

BOARD OF COUNTY COMMISSIONERS
San Juan County

P.O. Box 466 Silverton, Colorado 81433 970-387-5671

RELATIONSHIP OF PROPERTY TO COUNTY ROAD AND STATE HIGHWAY SYSTEMS

I, the undersigned, applicant engaged in the processing of Application for Improvement Permit No. _____, San Juan County, Colorado, do hereby acknowledge the following facts:

1. The real property' which is the subject of said application is on this date located approximately Zero *from* County Road No. 22, the nearest designated and publicly maintained county road.

2. Said County Road No. 22 is on this date maintained on an Seasonal basis by San Juan County.

3. The real property which is the subject of said application is on this date located approximately 2 3/4 miles from Colorado State Highway No. 550, the nearest designated state or federal highway.

4. Said Colorado State Highway No. 550 is on this date maintained on a year-round basis by either San Juan County or the Colorado Division of Highways.

5. A Driveway Permit will be necessary for any private access or egress relating to said real property which intersects any designated Colorado State Highway or Federal Highway.

Signed and dated this 23 day of June, 2021.

ATTEST:

Applicant

Position:

SAN JUAN COUNTY, COLORADO

DRIVEWAY AND ROAD ACCESS PERMIT

Improvement
Permit No. _____

Applicant: Joel Stalo + Emily Huston-Stalo
13031 N Fenton Rd
Fenton, MI 48430

Location of Proposed Driveway or Access on County Road No. 2 :

On the south side of County Road 2, west of County Road 21, approximately 2 miles from Town.

Description of Proposed Driveway or Access, including materials to be used:

The proposed driveway will be constructed with as minimal cut and fill as possible, consisting of native gravel soil and be approximately 12 feet wide. The proposed driveway will also have a culvert and/or other drainage improvements deemed necessary.

Comment and Recommendations of County Road Supervisor:

Terms and Conditions of Issuance of Permit (or reason for denial):

Permit Approved _____ or Denied _____. Date: _____

Land Use Administrator: _____

Scenic Quality Report

1. INTRODUCTION AND SITE LOCATION

San Juan County regulations state the following:

All residential development shall be required to submit a Scenic Quality Report at the time of sketch plan submittal.

The following is a Scenic Quality Report for the proposed Stalo Family Cabin, located on Lot 1 of the Genoa Lode Subdivision. This subdivision is located 2 miles northeast of Silverton, on the south side of County Road 2 across the road from the Mayflower Mill.

The project site is located within San Juan County's Future Land Use Plan "Economic Corridor". These economic corridors are suitable for residential development because of their moderately sloping terrain and year-round access.

A Vicinity Map showing the general project location is included in this submittal for reference.

2. PROJECT SITE AND PROPOSED CABIN LOCATION

County regulations require that this Scenic Quality Report adhere to the following:

The designated view sheds shall include natural and historic features as seen from and toward the site. Provide written descriptions of these view sheds and how they will be preserved. Existing site photos and graphic depictions of the proposed development shall be submitted so that staff, the Planning Commission and the Board of County Commissioners can assess the visual impacts of the project on the view shed and the effectiveness of proposed mitigation measures.

The project site, Lot 1 of Genoa Lode Subdivision, consists of 4.78 acres of moderately sloping grassy meadow and steep hillside, with several aspen groves and dispersed evergreens and the entire site sloping towards the Animas River. The property is located south of County Road 2 and bound along the east by County Road 21. County Road 22 runs through the southern portion of the site along the Animas River. The approximate elevation at the building site is 9,552

feet, with slopes varying from 9,571 feet at County Road 2 to 9,468 feet at County Road 22.

The Applicants have chosen to locate their cabin on the western, moderately sloping portion of the site within a grove of aspens, which will provide natural screening from County Road 2. The proposed building site is pushed as far south away from County Road 2 as possible to limit the visual impact from the road and provide privacy, all while remaining on the upper more buildable and accessible portion of the property.

The following photos show the proposed footprint marked with green flags, which includes the cabin with attached garage and south facing deck, totaling 44'x54' in size.

3. VISIBILITY OF THE CABIN FROM COUNTY ROAD 2

County Road 2 will provide driveway access to the proposed cabin and runs along the north edge of the property until the road forks with County Road 21. The proposed cabin will be briefly visible from County Road 2 for a driver heading north or south, with existing natural screening provided by aspen and pine trees surrounding the project site. The Applicant intends to provide additional landscaping screening if necessary to obscure the cabin from County Road 2 drivers.

The image below shows the proposed cabin superimposed onto the site to show approximate scale and visibility from County Road 2.

4. VISIBILITY OF THE CABIN FROM COUNTY ROAD 21

County Road 21 connects County Road 2 and 22, running along the northeast property line, then continues across the river and southeast where it continues as a seasonal recreational trail. The driving surface of County Road 21 adjacent to the property is a naturally graded dirt road. The proposed cabin will be almost entirely screened by natural vegetation from County Road 21 for a driver heading southwest, and not at all visible for a driver heading northeast which would have the cabin to their back.

5. VISIBILITY OF THE CABIN FROM COUNTY ROAD 22

County Road 22 runs through the property along its southern edge alongside the Animas River, which is also the old railroad grade. The driving surface is a naturally graded dirt road used recreationally during all seasons. Due to the steep upward slope to the north of County Road 22, as well as overall change in elevation between the road and building envelope, the proposed cabin will be nearly entirely hidden, but may be partially visible for a driver looking up and away from the road, heading in either direction on County Road 22.

6. VIEWS FROM THE PROPOSED CABIN

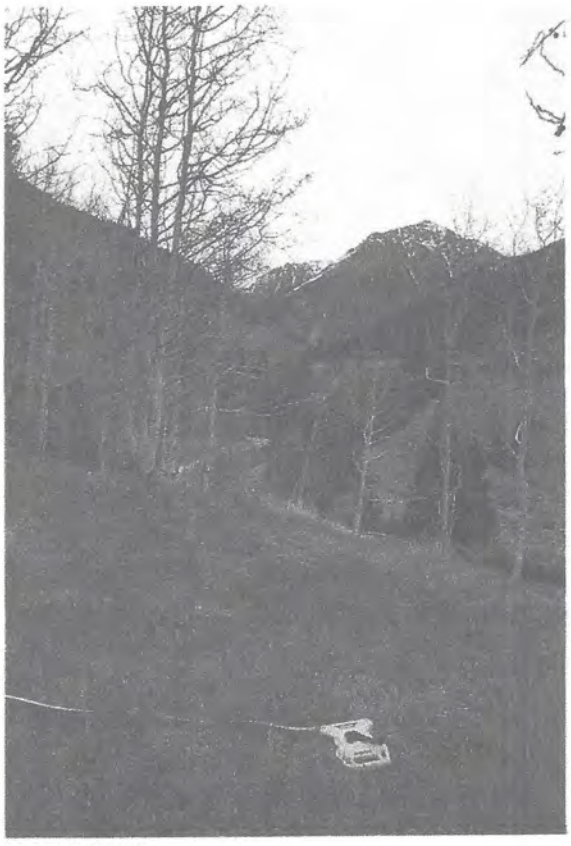
In the County Scenic Quality Report regulations, it is requested that information about the view from the building envelope is provided.

Photos are included below that show views from the proposed cabin looking north, south, east, and west (approximately).

VIEW NORTH

VIEW WEST

VIEW SOUTH



VIEW EAST

7. LOCATION OF STRUCTURE MINIMIZES VISIBILITY FROM PUBLIC LANDS AND EXISTING TRAILS

The County Scenic Quality regulations require the following information:

Evidence shall be provided to show that the location of the structure is designed to minimize the visual impacts and that it does not detract from the scenic quality of adjacent public lands, existing trails or historic resources.

The property is surrounded by privately owned parcels and is not directly adjacent to public land. The one notable trail that may have visibility to the site is Hazelton Mountain Trail, which is accessed from the intersection of County Road 21 and County Road 22 and diverges southwest off of County Road 21.

The location of the cabin was selected intentionally, taking into consideration the proximity to County Roads and views from surrounding parcels. The building site is situated within established aspen groves which provide natural screening from most viewpoints near the site. The Applicant will take additional provisions to limit views from existing trails and nearby public lands by adding landscaping screening as necessary, while still maintaining views from within the cabin.

8. BUILDING DESIGN AND THE NATURAL TOPOGRAPHY AND VEGETATION

County regulations require that the Scenic Quality Report includes information regarding the following:

Evidence to demonstrate that the site improvements are designed and/or oriented in ways that allow them to blend in with and utilize the natural topography and vegetation. The report shall include, but not be limited to, site photos, perspective sketches, photo-simulations and/or three-dimensional models at an appropriate scale.

The proposed cabin is sited within a grove of mature aspens approximately 85 feet from County Road 2, and approximately 19 feet in elevation below County Road 2. The cabin has been situated as far from County Road 2 as is feasible for accessibility and constructability, being located on the upper more moderately sloping portion of the site towards the edge of the natural bench with a steep drop off toward the river below. The moderately sloped location helps minimize the amount of cut and fill required for the cabin's foundation. The proposed design is shown on the Applicant's draft floor plans included in this application.

9. TOPSOIL, UTILITIES, LIGHTING AND DRIVEWAYS

This section describes design features associated with topsoil, location of utilities, exterior lighting, and any proposed driveways.

a) Topsoil

County regulations require that the project should include the following:

Plans to remove and save topsoil, prior to any grading or excavation, and how it will be replaced and reused for re-grading and re-vegetation purposes.

A portion of the topsoil removed at the cabin area during construction will be used in creating a nicely graded driveway and low berm to the west of the driveway. Any additional removed topsoil will be used for vegetation and landscaping as desired by the Applicant and/or required by the County.

b) Utilities

County regulations require that the project should include the following:

Location and installation of utilities in ways that will minimize impacts to the view shed and natural environment.

The project includes a proposed underground septic system and leach field, underground water piping from an existing main on County Road 2, and existing overhead power line and pad transformer with an underground service to the cabin. The septic system location was selected based on existing soils, site conditions and dimensional constraints, as shown on the septic design plans included with this submittal. An existing water tap at County Road 2 will provide water to the cabin and will be constructed in a direct, short run to the cabin. The primary heat source is proposed to be a hydronic radiant system with a supplemental wood stove and possible electric heat system.

All the utilities will be installed with the least amount of disturbance possible to the natural environment, including vegetation preservation and using existing utilities where possible.

c) Exterior Lighting

County regulations require that the project should include the following:

Exterior lighting shall preserve the Dark Sky environment and view of the stars. Provisions requiring shielding of exterior lighting to prevent direct visibility of light bulbs from off-site, directing of all exterior lighting toward either the ground or the surface of a building and prohibiting high intensity sodium vapor or similar lighting.

The proposed exterior lighting for the project will be the minimum necessary to safely access the cabin, as well as additional down-lighting at all entrances and the uncovered deck. All exterior lighting will be fully shielded, will be compatible with the rural mountain character of the area, and will be in conformance with the requirements of San Juan County regulations.

d) Driveways

County regulations require that the project should include the following:

Design and construction plans for roads and associated structures that bear a logical relationship to existing topography to minimize the need for cuts and fills.

One driveway is proposed for this project, which stems off the south side of County Road 2. The driveway location was carefully chosen to get the proper slope, minimize tree removal and to balance the onsite cut and fill.

10. BUILDING MATERIALS

County regulations require that the Scenic Quality Report includes information regarding the following:

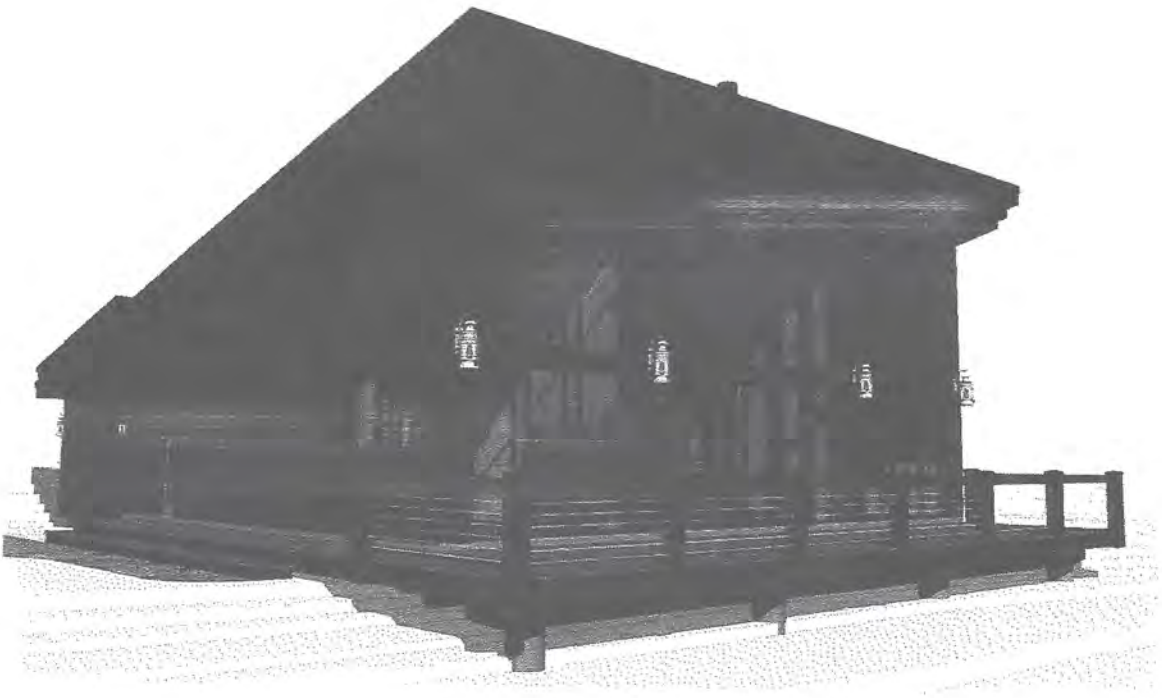
Provide written descriptions and photos of the proposed building materials, colors and textures. Utilizing and integrating elements, colors and textures found naturally in the landscape and prohibition of reflective materials, such as highly reflective glass or metals.

The proposed cabin will include the following materials:

- Vertical wood siding with a dark stain.
- Composite trim in a dark pre-finished color to accent the wood siding.
- Slate standing seam metal roof with matching trim.

- Wood posts & railing with horizontal stainless-steel cable - at deck
- Low-reflective glass on more expansive glazing

The rendering below represents the combination of these materials.



11. CONCLUSION

This project aims to conform to the County Scenic Quality Regulations as shown in this report and is believed to do so as summarized below:

- The Applicant has chosen a building site that will have the least impact to overall visibility and the natural landscape while still maintaining reasonable access from County Road 2.
- The cabin is a one-story home and is downhill from CR 2 and cut into the hill, which helps to minimize the overall and perceived height.
- All proposed utilities will be placed underground to minimize visual obstructions.

- The driveway access is placed in the most feasible location to minimize cut and fill and disturbance to vegetation, while providing a safe access for the Applicant.
- The darker material palette was chosen so the home does not stand out or compete with its natural surroundings.

Thank you for your review and consideration of the proposed Stalo Family Cabin at Genoa Lode. If you have any questions or need additional information please contact Chris Clemmons of Mountain Grain, LLC at 970.515.7882 or Joel Stalo at 517.881.1704.

Lisa Adair

From: mackie@gobrainstorm.net
Sent: Monday, July 26, 2021 7:57 PM
To: Lisa Adair
Subject: Fwd: Stalo Cabin Review Fee

----- Forwarded message from treasurer@sanjuancolorado.us -----
Date: Tue, 20 Jul 2021 09:53:55 -0600
From: Deanna Jaramillo <treasurer@sanjuancolorado.us>
Subject: Stalo Cabin Review Fee
To: mackie@gobrainstorm.net

Lisa,
I received $300 from Joel M Stalo today, says it is for an admin review fee.

—

Deanna M. Jaramillo

San Juan County Treasurer/Public Trustee

P.O. Box 368

Silverton, CO 81433

treasurer@sanjuancolorado.us <treasurer@sanjuancountycolorado.us>

P: 970-387-5488

F: 970-387-5326

----- End forwarded message -----

Lisa Adair

From: Christopher Clemmons <chris@mtngrain.com>
Sent: Friday, July 23, 2021 7:27 AM
To: jmstalo@yahoo.com; Lisa Adair
Cc: Emily Huston
Subject: RE: Genoa Lode
Attachments: 56727GE, Stalo Cabin, Lot 1 Genoa Lode.pdf

Thank you Lisa. We received the Geotech Report this week and have discussed the soils extensively with Tom Harrison of Trautner. They performed a slope stability analysis and determined that the proposed structure and building envelope are outside of the theoretical failure envelope of the steeper sloped area. I have attached the soils report, but please let me know if you require hardcopies or need any additional information.

Thanks,
Chris

Christopher Clemmons, RA, NCARB
Architect
Mountain Grain Architecture
970.515.7882
801 Florida Rd, Suite 12
Durango, Colorado 81301

From: jmstalo@yahoo.com <jmstalo@yahoo.com>
Sent: Tuesday, July 20, 2021 1:08 PM
To: Lisa Adair <ladair@silverton.co.us>
Cc: Christopher Clemmons <chris@mtngrain.com>; Emily Huston <emily.huston@abbvie.com>
Subject: Re: Genoa Lode

Great news!

Thanks Lisa. We appreciate your follow up.

Joel Stalo
517-881-1704

> On Jul 20, 2021, at 2:41 PM, Lisa Adair <ladair@silverton.co.us> wrote:
>
> Chris, Joel,

TRAUTNER GEOTECH LLC
GEOTECHNICAL ENGINEERING, MATERIAL TESTING
AND ENGINEERING GEOLOGY

GEOTECHNICAL ENGINEERING STUDY
PROPOSED STALO CABIN
LOT 1 GENOA LODE
SILVERTON, COLORADO

July 19, 2021

PREPARED FOR:

Joel Stalo
c/o Christopher Clemmons, RA, NCARB
Mountain Grain Architecture
chris@mtngrain.co
PROJECT NO. 56727GE

649 TECH CENTER DRIVE SUITE A • DURANGO, CO 81301 • 970/259-5095 • FAX 970/382-2515

Table of Contents

1.0 REPORT INTRODUCTION

This report presents our geotechnical engineering recommendations for the proposed cabin to be located on Lot 1 of the genoa Lode in Silverton, Colorado. This report was requested by Mr. Christopher Clemmons, Mountain Grain Architecture, on behalf of Mr. Joel Stalo and was prepared in accordance with our proposal dated May 13, 2021, Proposal No. 21213P.

As outlined within our proposal for services for this project the client is responsible for appropriate distribution of this report to other design professionals and/or governmental agencies unless specific arrangements have been made with us for distribution.

Geotechnical engineering is a discipline which provides insight into natural conditions and site characteristics such as; subsurface soil and water conditions, soil strength, swell (expansion) potential, consolidation (settlement) potential, and often slope stability considerations. The information provided by the geotechnical engineer is utilized by many people including the project owner, architect or designer, structural engineer, civil engineer, the project builder and others. The information is used to help develop a design and subsequently implement construction strategies that are appropriate for the subsurface soil and water conditions, and slope stability considerations. We are available to discuss any aspect of this report with those who are unfamiliar with the recommendations, concepts, and techniques provided below.

This geotechnical engineering report is the beginning of a process involving the geotechnical engineering consultant on any project. It is imperative that the geotechnical engineer be consulted throughout the design and construction process to verify the implementation of the geotechnical engineering recommendations provided in this report. Often the design has not been started or has only been initiated at the time of the preparation of the geotechnical engineering study. Changes in the proposed design must be communicated to the geotechnical engineer so that we have the opportunity to tailor our recommendations as needed based on the proposed site development and structure design.

The following outline provides a synopsis of the various portions of this report;

- Sections 1.0 provides an introduction and an establishment of our scope of service.
- Sections 2.0 and 3.0 of this report present our geotechnical engineering field and laboratory studies
- Sections 4.0 through 7.0 presents our geotechnical engineering design parameters and recommendations which are based on our engineering analysis of the data obtained.
- Section 8.0 provides a brief discussion of construction sequencing and strategies which may influence the geotechnical engineering characteristics of the site. Ancillary information such as some background information regarding soil corrosion and radon considerations is also presented as general reference.
- Section 9.0 provides our general construction monitoring and testing recommendations.
- Sections 10.0 and 11.0 provides our conclusions and limitations.

The data used to generate our recommendations are presented throughout this report and in the attached figures.

All recommendations provided within this report must be followed in order to achieve the intended performance of the foundation system and other components that are supported by the site soil.

1.1 Proposed Construction

Architectural details and grading plans were not available at the time of this report. We understand the proposed cabin will likely be a single story structure supported by a steel reinforced concrete foundation system. The floors of the cabin structure will be structurally supported over a crawl space and the floors of the garage will be concrete slab-on-grade. Grading for the structure is assumed to be relatively minor with cuts of approximately 3 to 6 feet below the adjacent ground surface. We assume relatively light foundation loadings, typical of the proposed type of construction.

When final building location, grading and loading information have been developed, we should be notified to re-evaluate the recommendations presented in this report.

2.0 FIELD STUDY

2.1 Site Description and Geomorphology

The approximate 4.78 acre project site is currently vacant. The ground surface across the lot generally slope gently down to the east from County Road 2 in the northern portion of the lot. The slope then steepens down towards the Animas River and County Road 22. The proposed structure will be oriented near where the topography steepens. Vegetation consists primarily of sparse Aspen and Spruce trees and grasses.

2.2 Subsurface Soil and Water Conditions

We advanced two test borings in the vicinity of the proposed structure. A schematic showing the approximate boring locations is provided below as Figure 1. The logs of the soils encountered in our test borings are presented in Appendix A.

Figure 1; Test Boring Location Map

The schematic presented above was prepared using notes and field measurements obtained during our field exploration and is intended to show the approximate test boring locations for reference purposes only.

The subsurface conditions encountered in our test borings consisted of poorly graded gravel with clay, sand, cobbles, and boulders (GC) and sandy lean clay with gravel and cobbles (CL) from the ground surface to depths that ranged from 6 ½ to 12 ½ feet, where we encountered practical auger refusal on boulders.

We did not encounter free subsurface water in our test borings at the time of the advancement of our test borings at the project site. We suspect that the subsurface water elevation and soil moisture conditions will be influenced by snow melt and/or precipitation and local irrigation.

The logs of the subsurface soil conditions encountered in our test borings are presented in Appendix A. The logs present our interpretation of the subsurface conditions encountered in the test borings at the time of our field work. Subsurface soil and water conditions are often variable across relatively short distances. It is likely that variable subsurface soil and water conditions will be encountered during construction. Laboratory soil classifications of samples obtained may differ

from field classifications.

3.0 LABORATORY STUDY

The laboratory study included tests to estimate the strength, swell and consolidation potential of the soils tested. We performed the following tests on select samples obtained from the test borings. The laboratory test results are provided in Appendix B.

- Moisture Content and Dry Density
- Sieve Analysis (Gradation)
- Atterberg Limits, Liquid Limit, Plastic Limit and Plasticity Index
- Swell Consolidation Tests

A synopsis of some of our laboratory data for some of the samples tested is tabulated below.

Sample Designation	Percent Passing #200 Sieve	Atterberg Limits LL/PI	Moisture Content (percent)	Dry Density (PCF)	Measured Swell Pressure (PSF)	Swell or Consolidation Potential
TB-1 @ 4.5'	-	-	4.7	131.9	1,170*	0.0 (% under 500 psf load)
TB-2 @ 5-6.5'	7	34/13	2.5	-	-	-
TB-2 @ 3.5'	-	-	10.2	109.2	1,640*	2.5 (% under 100 psf load)

*NOTES:
1. We determine the swell pressure as measured in our laboratory using the constant volume method. The graphically estimated load-back swell pressure may be different from that measured in the laboratory.
2. * = Swell-Consolidation test performed on remolded sample due to rock content. Test results should be considered an estimate only of the swell or consolidation potential at the density and moisture content indicated.

4.0 FOUNDATION RECOMMENDATIONS

There are two general types of foundation system concepts, "deep" and "shallow", with the designation being based on the depth of support of the system. We have provided a discussion of viable foundation system concepts for this project below. The choice of the appropriate foundation system for the project is best made by the project structural engineer or project architect. We should be contacted once the design choice has been made to provide consultation regarding implementation of our design parameters.

Deep foundations will provide for the least likelihood of post-construction movement of the structure.

4.1 Deep Foundation System Discussion

Deep foundation system design concepts will provide the least likelihood of post-construction movement associated with volume changes within the soil. Deep foundation system design concepts may be viable for this project; however, we anticipate that only a shallow foundation system design is being considered at this time. We are available to develop deep foundation design parameters if desired.

4.2 Shallow Foundation System Concepts

Subsurface data indicate that poorly graded gravel with clay, sand, and cobbles will likely be the predominant soil type encountered beneath shallow foundations. Based on the laboratory analysis, the soils encountered in our borings were found to have a low to moderate swell potential. The anticipated soils at the foundation level are considered suitable for shallow foundation support. Deep foundation system design concepts which include isolation of shallow components including floor systems from shallow soils are less likely to experience post-construction movement due to volume changes in the site soil.

There are numerous types of shallow foundation systems and variants of each type. Shallow foundation system concepts discussed below include:

- Spread Footings (continuous and isolated) and stem walls

The integrity and long-term performance of each type of system is influenced by the quality of workmanship which is implemented during construction. It is imperative that all excavation and fill placement operations be conducted by qualified personnel using appropriate equipment and techniques to provide suitable support conditions for the foundation system.

4.2.1 Spread Footings

A spread footing foundation system consists of a footing which dissipates, or spreads, the loads imposed from the stem wall (or beam) from the structure above. The soil samples tested from the anticipated support elevations in our test borings had a measured swell pressure of about 1,640 pounds per square foot and a swell potential magnitude of about 2.5 percent under a 100 pound per square foot surcharge load. The owner must understand that regardless of the expansive soil mitigation design concepts presented below, if the swell pressure generated by the expansive soil on this site exceeds the minimum dead load which is imposed by the spread footing or other structural components, and the expansive site soils become wetted, uplift of the foundation system and other structural components is highly likely. Drilled piers, or other deep foundation system design will provide the least likelihood of post construction movement associated with soil volume changes.

Uplift associated with swelling soils occurs only where the foundation support soils have been exposed to water; therefore, the uplift may impose shear stresses in the foundation system. The magnitude of the imposed shear stress is related to the swell pressure of the support soil, but is difficult to estimate. Properly designed and constructed continuous spread footings with stem walls (or beams) have the ability to distribute the forces associated with swelling of the support soil. The rigidity of the system helps reduce differential movement and associated damage to the overlying structure. Swelling of the soil supporting isolated pad footings will result in direct uplift of the columns and structural components supported by the columns. Damage to the structure due to this type of movement can be severe. If possible, we recommend that isolated pad footings be avoided and that the foundation system be designed as rigid as is reasonably possible.

High foundation dead load, careful preparation of the support soils, placement of granular compacted structural fill, careful placement and compaction of stem wall backfill and positive surface drainage adjacent to the foundation system all help reduce the influence of swelling soils on the performance of the spread footing foundation system.

We recommend that the footings be designed with a high dead load and supported by a layer of moisture conditioned and compacted natural soil which is overlain by a layer of compacted structural fill material. This concept is outlined below:

- The foundation excavation should be excavated to at least 12 inches below the proposed footing support elevation.
- The natural soils exposed in the bottom of the excavation should be scarified to a depth of about 6 to 8 inches
- The scarified soil should be thoroughly moisture conditioned to about 2 percent above the laboratory determined optimum moisture content and then compacted.
- After completion of the compaction of the moisture conditioned natural soil a 12 inch thick layer of granular aggregate base course structural fill material should be placed, moisture conditioned and compacted.
- The moisture conditioned natural soil material and the granular soils should be compacted as discussed under the Compaction Recommendations portion of this report below.
- In the absence of structural engineering design and for general geotechnical engineering purposes, we recommend the stem walls be designed to act as beams and reinforced with continuous steel reinforcement, 4 reinforcement bars, 2 top and 2 bottom. Taller walls may require additional reinforcement bar.
- The structural engineer should be contacted to provide the appropriate reinforcement bar diameter and locations.

We recommend that particular attention and detail be given to the following aspects of the project construction for this lot;

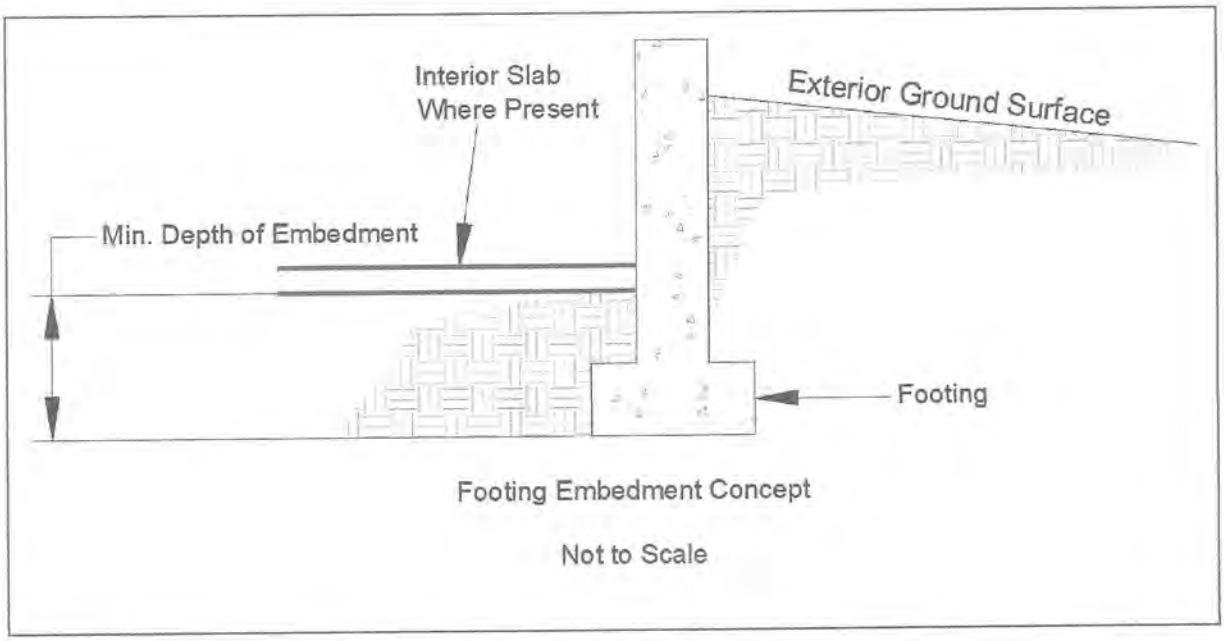
- A subsurface drain system should be installed adjacent to the residential structure foundation system. Recommendations for a subsurface drain system concepts are presented in Section 5.0 of this report.
- The landscaping drainage concept provided in Section 8.5 below is imperative for this site to limit the moisture available to the foundation bearing soils.
- The exterior foundation backfill must be well compacted and moisture conditioned to above optimum moisture content. Recommendations for exterior foundation backfill are provided later in this report.

We recommend below-grade construction, such as retaining walls, crawlspace and basement areas, be protected from wetting and hydrostatic pressure buildup by an underdrain and wall drain system. Topographic conditions on the site may influence the ability to install a subsurface drain system which promotes water flow away from the foundation system. The subsurface drain system concept is discussed under the Subsurface Drain System section of this report below.

The footing embedment is a relatively critical, yet often overlooked, aspect of foundation construction. The embedment helps develop the soil bearing capacity, increases resistance of the

footing to lateral movement and decreases the potential for rapid moisture changes in the footing support soils, particularly in crawl space areas. Interior footing embedment reduces the exposure of the crawl space support soils to dry crawl space air. Reduction in drying of the support soil helps reduce downward movement of interior footings due to soil shrinkage.

All footings should have a minimum depth of embedment of at least one 1 foot. The embedment concept is shown below.



Spread footings located away from sloped areas may be designed using the bearing capacity information tabulated below.

Minimum Depth of Embedment (Feet)	Continuous Footing Design Capacity (psf)	Isolated Footing Design Capacity (psf)
1	1,500	1,800
2	1,800	2,100
3	2,100	2,400

The bearing capacity values tabulated above may be increased by 20 percent for transient conditions associated with wind and seismic loads. Snow loads are not transient loads.

The bearing capacity values above were based on footing placed directly on the natural soils and on a continuous spread footing width of 1.5 feet and an isolated footing width of 3.5 feet. Larger footings and/or footings placed on a blanket of compacted structural fill will have a higher design soil bearing capacity. Development of the final footing design width is usually an iterative process based on evaluation of design pressures, footing widths and the thickness of compacted structural fill beneath the footings. We should be contacted as the design process continues to re-evaluate the design capacities above based on the actual proposed footing geometry.

Footings located on, or near slopes may need to have an additional embedment to establish a suitable footing/slope stability condition for the system. We should be contacted to provide additional information for footings located on, or near, sloped areas.

The settlement of the spread footing foundation system will be influenced by the footing size and the imposed loads. We estimated the total post construction settlement of the footings based on our laboratory consolidation data, the type and size of the footing. Our analysis below assumed that the highest bearing capacity value tabulated above was used in the design of the footings. The amount of post construction settlement may be reduced by placing the footings on a blanket of compacted structural fill material.

The estimated settlement for continuous footing with a nominal width of about 1½ to 2½ feet are tabulated below

Thickness of Compacted Structural Fill (feet)	Estimated Settlement (inches)
0	½-¾
B/2	¼-½
B	<¼

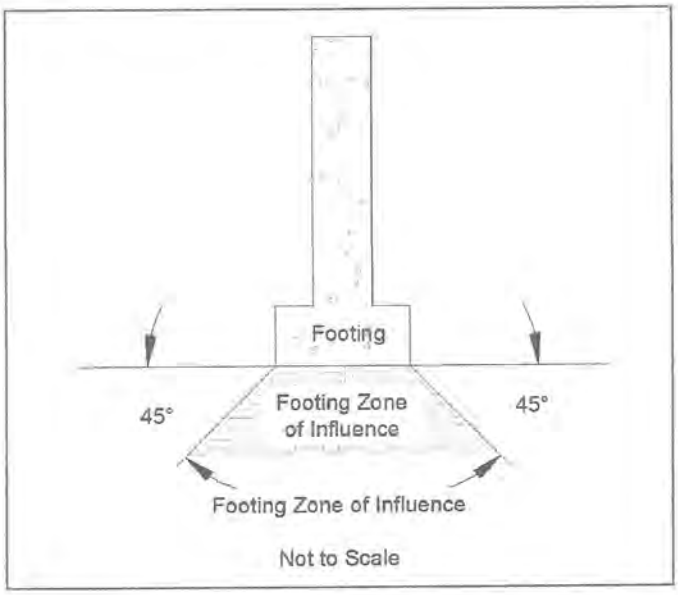
B is the footing width

The estimated settlement for isolated pad footings with a nominal square dimension of about 2 to 3 feet are tabulated below.

Thickness of Compacted Structural Fill (feet)	Estimated Settlement (inches)
0	¾ - 1
B/4	½ - ¾
B/2	¼ - ½
3B/4	< ¼

B is the footing width

The compacted structural fill should be placed and compacted as discussed in the Construction Considerations, "Fill Placement Recommendations" section of this report, below. The zone of influence of the footing (at elevations close to the bottom of the footing) is often approximated as being between two lines subtended at 45 degree angles from each bottom corner of the footing. The compacted structural fill should extend beyond the zone of influence of the footing as shown in the sketch below.



A general and simple rule to apply to the geometry of the compacted structural fill blanket is that it should extend beyond each edge of the footing a distance which is equal to the fill thickness.

We estimate that the footings designed and constructed above will have a total post construction settlement of about 1 inch or less.

All footings should be support at an elevation deeper than the maximum depth of frost penetration for the area. This recommendation includes exterior isolated footings and column supports. Please contact the local building department for specific frost depth requirements.

The post construction differential settlement may be reduced by designing footings that will apply relatively uniform loads on the support soils. Concentrated loads should be supported by footings that have been designed to impose similar loads as those imposed by adjacent footings.

Under no circumstances should any footing be supported by more than 3 feet of compacted structural fill material unless we are contacted to review the specific conditions supporting these footing locations.

The design concepts and parameters presented above are based on the soil conditions encountered in our test borings. We should be contacted during the initial phases of the foundation excavation at the site to assess the soil support conditions and to verify our recommendations.

4.2.2 General Shallow Foundation Considerations

Some movement and settlement of any shallow foundation system will occur after construction. Movement associated with swelling soils also occurs occasionally. Utility line connections through and foundation or structural component should be appropriately sleeved to reduce the potential for damage to the utility line. Flexible utility line connections will further reduce the potential for damage associated with movement of the structure.

5.0 RETAINING STRUCTURES

We understand that laterally loaded walls will be constructed as part of this site development. Lateral loads will be imposed on the retaining structures by the adjacent soils and, in some cases, additional surcharge loads will be imposed on the retained soils from vehicles or adjacent structures. The loads imposed by the soil are commonly referred to as lateral earth pressures. The magnitude of the lateral earth pressure forces is partially dependent on the soil strength characteristics, the geometry of the ground surface adjacent to the retaining structure, the subsurface water conditions and on surcharge loads.

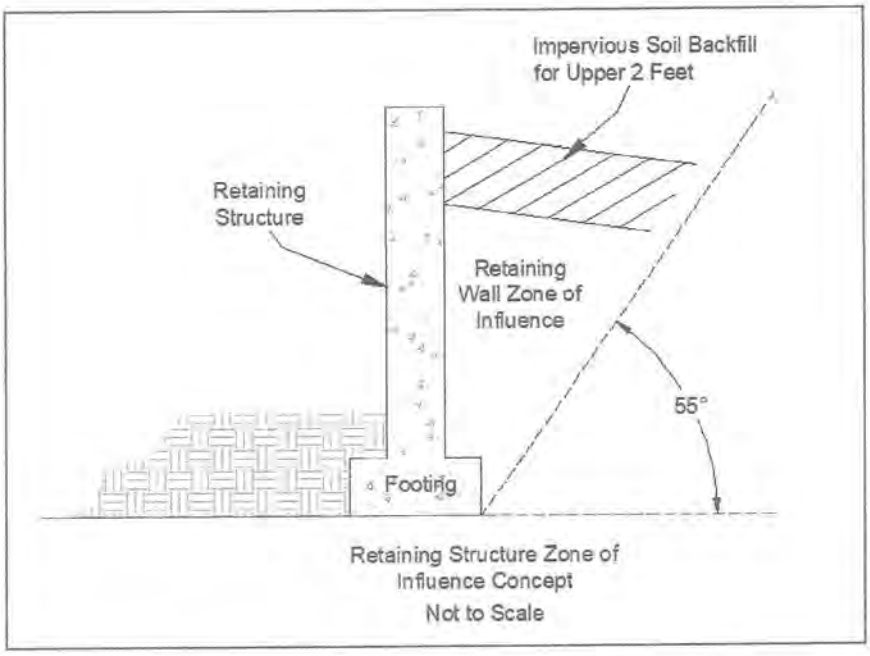
The site soils have a measured swell pressure of 1,640 pounds per square foot. A 1,640 pound per square foot swell pressure will exert approximately 13,120 pounds of force per lineal foot for a wall that retains eight (8) feet of soil. Due to the expansive nature of the site soils we do not recommend that the natural clay soils be used for retaining wall backfill. The retaining walls may be designed using the lateral earth pressure values for imported granular soil that are tabulated below.

Type of Lateral Earth Pressure	Level Granular Soil Backfill (pounds per cubic foot/foot)
Active	35
At-rest	55
Passive	460
Allowable Coefficient of Friction	0.45

The granular soil that is used for the retaining wall backfill may be permeable and may allow water migration to the foundation support soils. There are several options available to help reduce water migration to the foundation soils, two of which are discussed here. An impervious geotextile layer and shallow drain system may be incorporated into the backfill, as discussed in Section 9.5, Landscaping Considerations, below. A second option is to place a geotextile filter material on top of the granular soils and above that place about 1½ to 2 feet of moisture conditioned and compacted site clay soils. It should be noted that if the site clay soils are used volume changes may occur which will influence the performance of overlying concrete flatwork or structural components.

The values tabulated above are for well drained backfill soils. The values provided above do not include any forces due to adjacent surcharge loads or sloped soils. If the backfill soils become saturated the imposed lateral earth pressures will be significantly higher than those tabulated above.

The granular imported soil backfill values tabulated above are appropriate for material with an angle of internal friction of 35 degrees, or greater. The granular backfill must be placed within the retaining structure zone of influence as shown below in order for the lateral earth pressure values tabulated above for the granular material to be appropriate.



If an open graded, permeable, granular backfill is chosen it should not extend to the ground surface. Some granular soils allow ready water migration which may result in increased water access to the foundation soils. The upper few feet of the backfill should be constructed using an impervious soil such as silty-clay and clay soils from the project site, if these soils are available. The 55 degree angle shown in the figure above is approximately correct for most clay soils. The angle is defined by $45 + (\varphi/2)$ where "φ" if the angle of internal friction of the soil.

Backfill should not be placed and compacted behind the retaining structure unless approved by the project structural engineer. Backfill placed prior to construction of all appropriate structural members such as floors, or prior to appropriate curing of the retaining wall concrete, may result in severe damage and/or failure of the retaining structure.

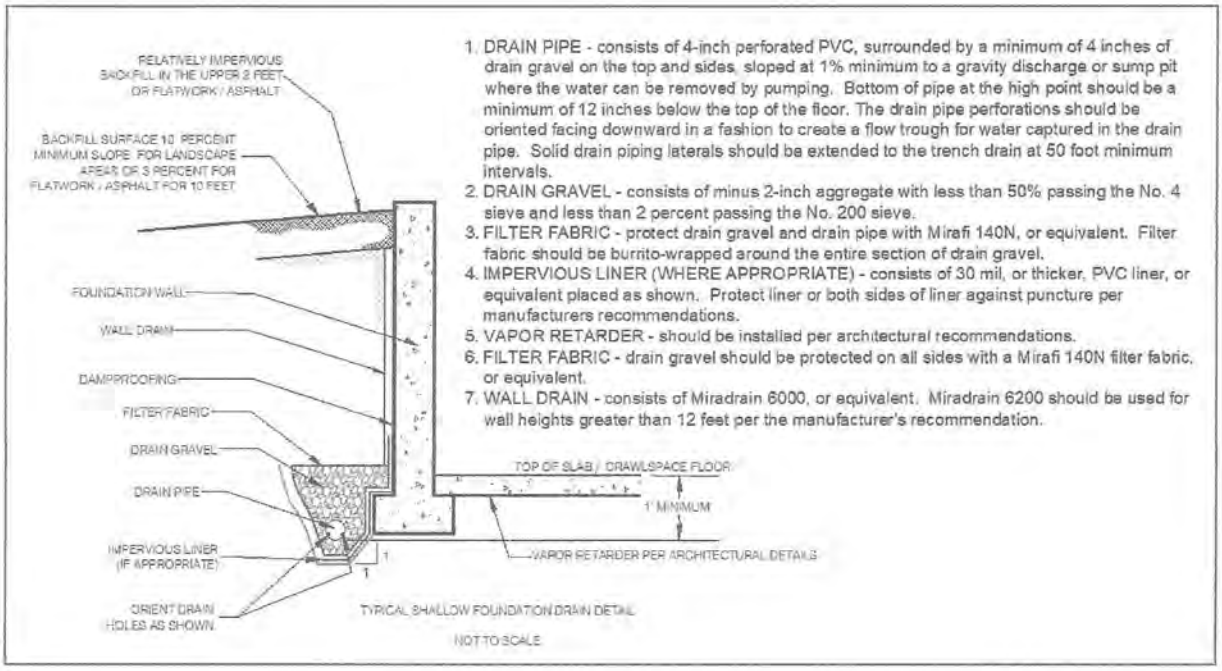
6.0 SUBSURFACE DRAIN SYSTEM

We recommend below-grade construction, such as retaining walls, crawlspace and basement areas, be protected from wetting and hydrostatic pressure buildup by an underdrain and wall drain system. Exterior retaining structures may be constructed with weep holes to allow subsurface water migration through the retaining structures. Topographic conditions on the site may influence the ability to install a subsurface drain system which promotes water flow away from the foundation system. The subsurface drain system concept is discussed under the Subsurface Drain System section of this report below.

A drain system constructed with a free draining aggregate material and a 4 inch minimum diameter perforated drain pipe should be constructed adjacent to retaining structures and/or adjacent to foundation walls. The drain pipe perforations should be oriented facing downward. The system should be protected from fine soil migration by a fabric-wrapped aggregate which surrounds a rigid perforated pipe. We do not recommend use of flexible corrugated perforated pipe since it is not possible to establish a uniform gradient of the flexible pipe throughout the drain

system alignment. Corrugated drain tile is perforated throughout the entire circumference of the pipe and therefore water can escape from the perforations at undesirable locations after being collected. The nature of the perforations of the corrugated material further decreases its effectiveness as a subsurface drain conduit.

The drain should be placed at each level of excavation and at least 12 inches below lowest adjacent finish floor or crawlspace grade. The drain system pipe should be graded to surface outlets or a sump vault. The drain system should be sloped at a minimum gradient of about 2 percent, but site geometry and topography may influence the actual installed pipe gradient. Water must not be allowed to pool along any portion of the subsurface drain system. An improperly constructed subsurface drain system may promote water infiltration to undesirable locations. The drain system pipe should be surrounded by about 2 to 4 cubic feet per lineal foot of free draining aggregate. If a sump vault and pump are incorporated into the subsurface drain system, care should be taken so that the water pumped from the vault does not recirculate through pervious soils and obtain access to the basement or crawl space areas. An impervious membrane should be included in the drain construction for grade beam and pier systems or other foundation systems such as interrupted footings where a free pathway for water beneath the structure exists. A generalized subsurface drain system concept is shown below.



There are often aspects of each site and structure which require some tailoring of the subsurface drain system to meet the needs of individual projects. Drain systems that are placed adjacent to void forms must include provisions to protect and support the impervious liner adjacent to the void form. We are available to provide consultation for the subsurface drain system for this project, if desired.

Water often will migrate along utility trench excavations. If the utility trench extends from areas above the site, this trench may be a source for subsurface water within the proposed basement or crawl space. We suggest that the utility trench backfill be thoroughly compacted to help reduce the amount of water migration. The subsurface drain system should be designed to collect subsurface water from the utility trench and direct it to surface discharge points.

7.0 CONCRETE FLATWORK

We anticipate that both interior and exterior concrete flatwork will be considered in the project design. Concrete flatwork is typically lightly loaded and has a limited capability to resist shear forces associated with uplift from swelling soils and/or frost heave. It is prudent for the design and construction of concrete flatwork on this project to be able to accommodate some movement associated with swelling soil conditions, if possible.

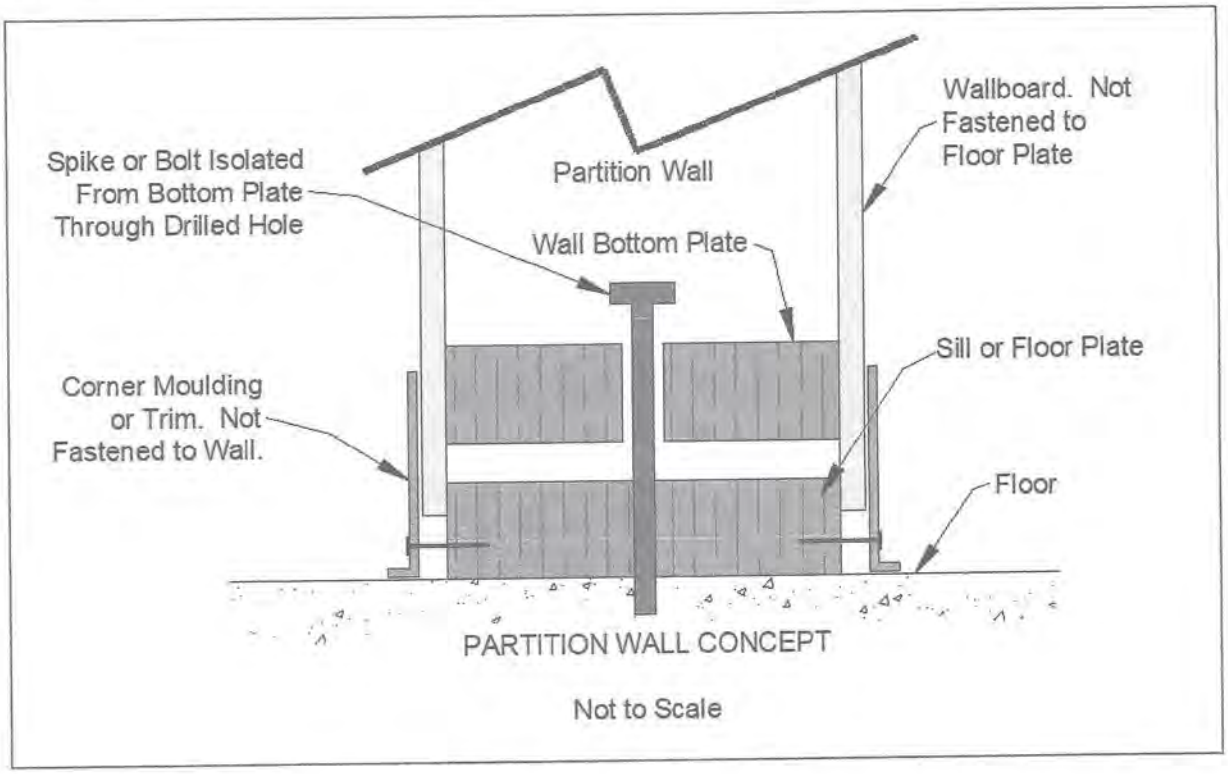
The soil samples tested have a measured swell pressure of about 1,640 pounds per square foot and a magnitude swell potential of about 2.5 percent under a 100 pound per square foot surcharge load. Due to the measured swell potential and swell pressure, interior floors supported over a crawl space are less likely to experience movement than are concrete slabs support on grade. The following recommendations are appropriate for garage floor slabs and for interior floor slabs if the owner is willing to accept the risk of potential movement beyond normal tolerances.

7.1 Interior Concrete Slab-on-Grade Floors

A primary goal in the design and construction of concrete slab-on-grade floors is to reduce the amount of post construction uplift associated with swelling soils, or downward movement due to consolidation of soft soils. A parallel goal is to reduce the potential for damage to the structure associated with any movement of the slab-on-grade which may occur. There are limited options available to help mitigate the influence of volume changes in the support soil for concrete slab-on-grade floors, these include:

- Preconstruction scarification, moisture conditioning and re-compaction of the natural soils in areas proposed for support of concrete flatwork, and/or,
- Placement and compaction of granular compacted structural fill material

Although the soil on this site does not exhibit a high swell potential when wetted, performance of the structure may be improved by isolating the floors from the interior partition walls. Interior walls may be structurally supported from framing above the floor, or interior walls and support columns may be supported on interior portions of the foundation system. Partition walls should be designed and constructed with voids above, and/or below, to allow independent movement of the floor slab. This concept is shown below.



The sketch above provides a concept. If the plans include isolation of the partition walls from the floor slab, the project architect or structural engineer should be contacted to provide specific details and design of the desired system.

If the owner chooses to construct the residence with concrete slab-on-grade floors, the floors should be supported by a layer of granular structural fill overlying the processed natural soils. Interior concrete flatwork, or concrete slab-on-grade floors, should be underlain by scarification, moisture conditioning and compaction of about 6 inches of the natural soils followed by placement of at least 12 inches of compacted granular structural fill material that is placed and compacted as discussed in the Construction Considerations, "Fill Placement Recommendations" section of this report, below.

The above recommendations will not prevent slab heave if the expansive soils underlying slabs-on-grade become wet. However, the recommendations will reduce the effects if slab heave occurs. All plumbing lines should be pressure tested before backfilling to help reduce the potential for wetting. The only means to completely mitigate the influence of volume changes on the performance of interior floors is to structurally support the floors over a void space. Floors that are suspended by the foundation system will not be influenced by volume changes in the site soils. The suggestions and recommendations presented in this section are intended to help reduce the influence of swelling soils on the performance of the concrete slab-on-grade floors.

7.1.1 Capillary and Vapor Moisture Rise

Capillary and vapor moisture rise through the slab support soil may provide a source for moisture in the concrete slab-on-grade floor. This moisture may promote development of mold or mildew

in poorly ventilated areas and may influence the performance of floor coverings and mastic placed directly on the floor slabs. The type of floor covering, adhesives used, and other considerations that are not related to the geotechnical engineering practice will influence the design. The architect, builder and particularly the floor covering/adhesive manufacturer should be contacted regarding the appropriate level of protection required for their products.

Comments for Reduction of Capillary Rise

One option to reduce the potential for capillary rise through the floor slab is to place a layer of clean aggregate material, such as washed concrete aggregate for the upper 4 to 6 inches of fill material supporting the concrete slabs.

Comments for Reduction of Vapor Rise

To reduce vapor rise through the floor slab, a moisture barrier such as a 6 mil (or thicker) plastic, or similar impervious geotextile material is often be placed below the floor slab. The material used should be protected from punctures that will occur during the construction process.

There are proprietary barriers that are puncture resistant that may not need the underlying layer of protective material. Some of these barriers are robust material that may be placed below the compacted structural fill layer. We do not recommend placement of the concrete directly on a moisture barrier unless the concrete contractor has had previous experience with curing of concrete placed in this manner. As mentioned above, the architect, builder and particularly the floor covering/adhesive manufacturer should be contacted regarding the appropriate level of moisture and vapor protection required for their products.

7.1.2 Slab Reinforcement Considerations

The project structural engineer should be contacted to provide steel reinforcement design considerations for the proposed floor slabs. Any steel reinforcement placed in the slab should be placed at the appropriate elevations to allow for proper interaction of the reinforcement with tensile stresses in the slab. Reinforcement steel that is allowed to cure at the bottom of the slab will not provide adequate reinforcement.

7.2 Exterior Concrete Flatwork Considerations

Exterior concrete flatwork includes concrete driveway slabs, aprons, patios, and walkways. The desired performance of exterior flatwork typically varies depending on the proposed use of the site and each owner's individual expectations. As with interior flatwork, exterior flatwork is particularly prone to movement and potential damage due to movement of the support soils. This movement and associated damage may be reduced by following the recommendations discussed under interior flatwork, above. Unlike interior flatwork, exterior flatwork may be exposed to frost heave, particularly on sites where the bearing soils have a high silt content. It may be prudent to remove silt soils from exterior flatwork support areas where movement of exterior flatwork will adversely affect the project, such as near the interface between the driveway and the interior garage floor slab. If silt soils are encountered, they should be removed to the maximum depth of frost penetration for the area where movement of exterior flatwork is undesirable.

If some movement of exterior flatwork is acceptable, we suggest that the support areas be prepared by scarification, moisture conditioning and re-compaction of about 6 inches of the natural soils followed by placement of at least 12 inches of compacted granular fill material. The scarified material and granular fill materials should be placed as discussed under the Construction Considerations, "Fill Placement Recommendations" section of this report, below.

It is important that exterior flatwork be separated from exterior column supports, masonry veneer, finishes and siding. No support columns, for the structure or exterior decks, should be placed on exterior concrete unless movement of the columns will not adversely affect the supported structural components. Movement of exterior flatwork may cause damage if it is in contact with portions of the structure exterior.

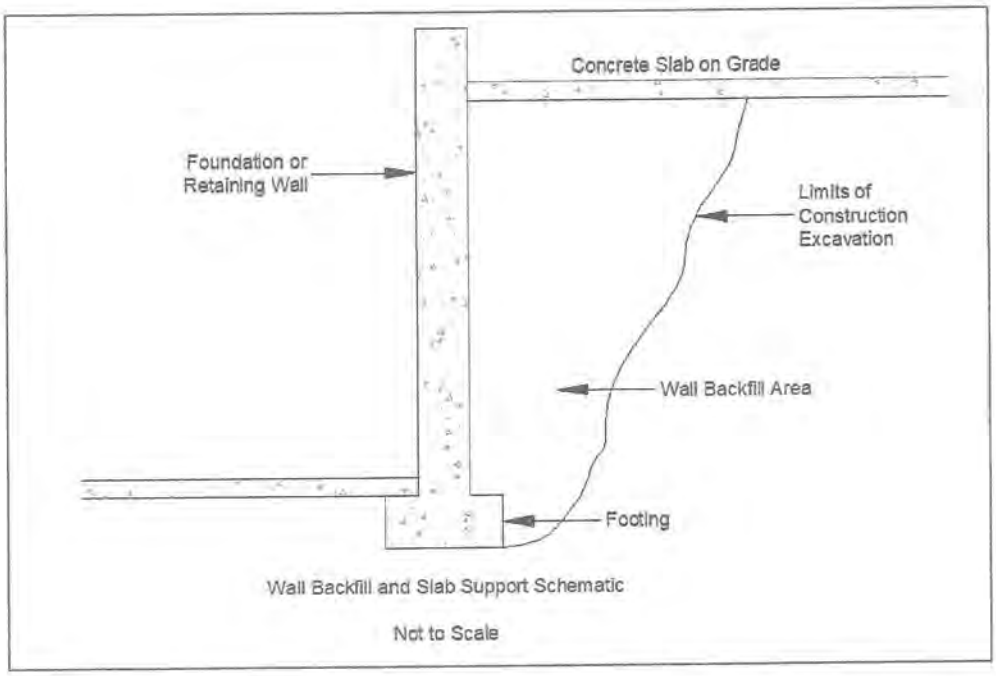
It should be noted that silt and silty sand soils located near the ground surface are particularly prone to frost heave. Soils with high silt content have the ability to retain significant moisture. The ability for the soils to accumulate moisture combined with a relatively shallow source of subsurface water and the fact that the winter temperatures in the area often very cold all contribute to a high potential for frost heave of exterior structural components. We recommend that silty soils be removed from the support areas of exterior components that are sensitive to movement associated with frost heave. These soils should be replaced with a material that is not susceptible to frost heave. Aggregate road base and similar materials retain less water than fine-grained soils and are therefore less prone to frost heave. We are available to discuss this concept with you as the plans progress.

Landscaping and landscaping irrigation often provide additional moisture to the soil supporting exterior flatwork. Excessive moisture will promote heave of the flatwork either due to expansive soil, or due to frost action. If movement of exterior slabs is undesirable, we recommend against placement of landscaping that requires irrigation. The ground surfaces near exterior flatwork must be sloped away from flatwork to reduce surface water migration to the support soil.

Exterior flatwork should not be placed on soils prepared for support of landscaping vegetation. Cultivated soils will not provide suitable support for concrete flatwork.

7.3 General Concrete Flatwork Comments

It is relatively common that both interior and exterior concrete flatwork is supported by areas of fill adjacent to either shallow foundation walls or basement retaining walls. A typical sketch of this condition is shown below.



Settlement of the backfill shown above will create a void and lack of soil support for the portions of the slab over the backfill. Settlement of the fill supporting the concrete flatwork is likely to cause damage to the slab-on-grade. Settlement and associated damage to the concrete flatwork may occur when the backfill is relatively deep, even if the backfill is compacted.

If this condition is likely to exist on this site it may be prudent to design the slab to be structurally supported on the retaining or foundation wall and designed to span to areas away from the backfill area as designed by the project structural engineer. We are available to discuss this with you upon request.

8.0 SLOPE STABILITY ANALYSIS

This section of the report provides our limited slope stability analysis for the estimated slope configuration at the site. We have estimated a limited cut at the top of the steep slope and a distributed load of 1,000 pounds per square foot based on the assumed configuration of the proposed residence. Once final grading plans and loading have been determined, we should be notified to re-evaluate our analysis.

Our study included observations of the topography and geomorphology of the project site and adjacent areas. Slope cross sections of critical portions of the site were prepared based on the site observations and the available topographic maps. The areas analyzed included unstable and potentially unstable slopes and areas where critical components of the proposed site development will be located.

Water must not be allowed to pool on the slope surfaces above the structure. Exterior backfill must be well compacted to ensure that surface water does not readily access the subsurface slope mass. Collected water, such as water obtained from roof gutters or concrete flatwork must be

directed to areas away from the slope surfaces that surround the structure. Subsurface free water must be allowed to drain from the retained soil mass behind retaining walls. Accumulation of subsurface free water within the slope mass on or above the project lot will greatly reduce the long-term stability of the project site slopes and/or structure.

We did not encounter subsurface free water in our test borings at the time of our field study. However, we anticipate that seasonal subsurface water will be present within the slope mass during periods of snow melt or periods of heavy precipitation. Subsurface drain systems may flow water during some periods of the year depending on seasonal precipitation conditions. Adequate subsurface drainage must be constructed to prevent the accumulation of water and hydrostatic pressures behind any project shoring (temporary or permanent) and structure retaining walls.

The geometry of the slope cross section that we analyzed is based on the available topographic data for the project provided by Mountain Grain Architecture.

There are numerous methods and techniques available for slope stability analysis. Most methods include an evaluation of;

- the strength of the soil materials within the slope,
- anisotropies within the slope materials, such as formational material bedding planes, and anomalous soil contacts,
- the subsurface water and soil moisture conditions, and,
- the pre-construction and post-construction geometry of the slope areas where development and construction is proposed.

The data developed during the analysis is condensed and used to estimate the forces within a soil mass that tend to drive movement and the forces that tend to resist movement. The ratio of resisting forces to driving forces is often referred to as the "theoretical slope factor of safety" (FOS) which is a somewhat misleading term to describe this ratio. The ratio is not a true factor of safety, but is a useful mathematical characterization of the forces within a soil mass and the associated stability condition of the slope being analyzed.

A ratio of less than 1.0 indicates that the driving forces within a soil mass are greater than the resisting forces, therefore movement of the slope is occurring. A ratio of 1.0 indicates that the driving forces are equal to the resisting forces, which indicates that movement within the soil can be triggered by only slight increases in the driving forces or slight reductions in the resisting forces. A ratio of greater than 1.0 is an indication that the driving forces are less than the resisting forces and the slope is not moving. Since there are numerous variables and incongruities within most soil masses, a slope is generally not considered as stable unless the ratio is about 1.5 or greater. Generally, slopes or slope/structure combinations with a theoretical factor of safety that is greater than 1.5 are considered appropriate for sites where structures are planned. A factor of safety greater than about 1.3 is often considered as being stable for temporary slope surfaces such as temporary excavation cut slopes or fill slopes.

We used SLIDE 7.0 slope stability software to evaluate the stability of computer modeled slope cross sections of select portions of this site. We primarily used the Modified Bishop's Method of slices to analyze the computer modeled slopes. The Modified Bishop's Method of Slices evaluates

the resisting and driving forces within slices of the sloped soil mass along a theoretical semi-circular failure plane. The semicircular failure plane with the lowest theoretical factor of safety is labeled the critical circle.

We assumed an angle of internal friction (phi) of 28 degrees, drained cohesion of 250 pounds per square foot (psf), and soil density of 120 pounds per cubic foot for the glacial drift ("yellow") in our analysis. We assumed an angle of internal friction (phi) of 35 degrees, drained cohesion of 500 pounds per square foot (psf), and soil density of 140 pounds per cubic foot for the assumed formational material ("green") in our analysis. The analysis shown on Figure 8.1 below indicates the estimated factor of safety for the existing slope conditions of the project lot with an estimate surcharge load from the proposed structure. We obtained a theoretical factor of safety of about 1.534 which should be considered as being marginally stable to stable at the present slope conditions.

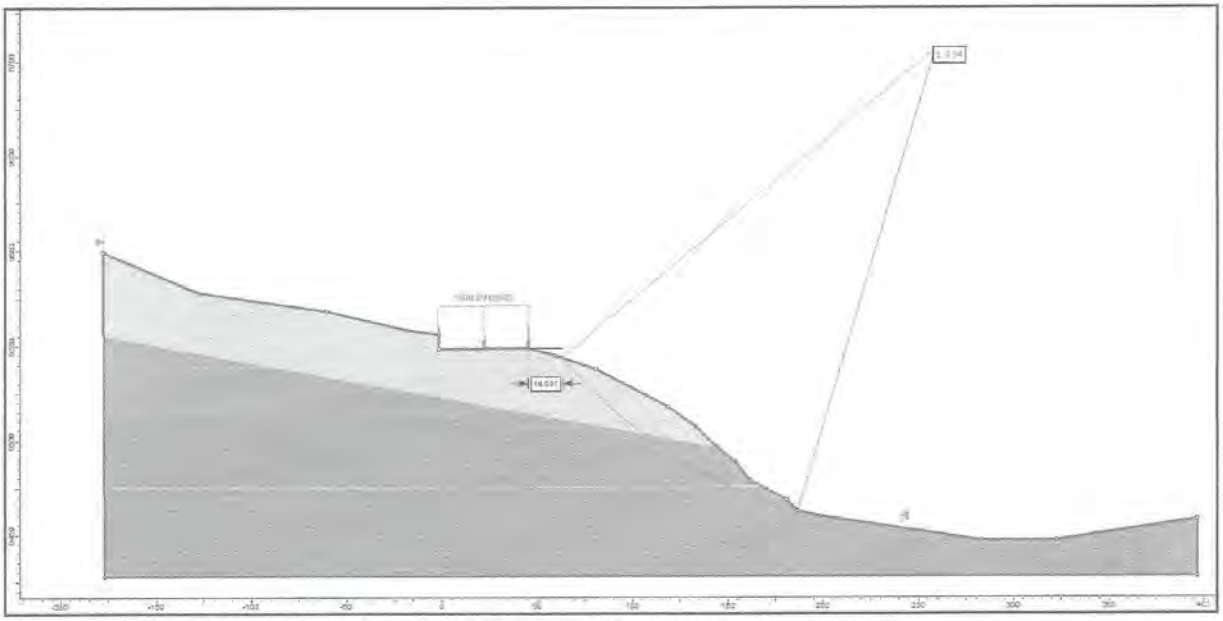


Figure 8.1: Theoretical F.O.S. for the existing slope conditions (Section A), FOS=1.887.

As generally discussed above, the primary variables that will influence the accuracy/suitability of the stability analysis presented above for the existing slope conditions are;

- The depth of the soil materials that overlie the underlying formational materials. We did not encounter formation in our subsurface exploration.
- The applicability of the strength data that we used to represent the soil materials within the slope mass. The soil type, gradation characteristics, plasticity, etc. of the soil materials encountered in the upper portions of the slope surface will have a significant influence on the actual strength characteristics of the soil materials.
- The development of subsurface water and/or more moist soil conditions with a higher moist density will greatly influence the stability conditions (for both temporary and long-term stability conditions).

The soil conditions were found to be highly variable across the site and the strength characteristics of the soil are likely highly variable. The soils ranged from relatively high strength granular soils to low strength clay soils, which were analyzed for strength properties. Although the stability model calculated a "marginally stable to stable" condition for the anticipated slope geometry, variabilities in the subsurface conditions could decrease the theoretical factor of safety at the site to less than 1.5. As shown on Figure 8.1 above, the theoretical failure plane within the soil mass reaches back within 18 feet of the building site location. To increase the stability within the building area, we recommend keeping the structure outside of the theoretical failure envelope and directing surface drainage away from the slopes directly below the house. In addition, we do not recommend fill material be placed along the existing steeper slopes, as this will increase the loads along the steep slopes and will likely cause instability of the slopes directly below the structure.

9.0 CONSTRUCTION CONSIDERATIONS

This section of the report provides comments, considerations and recommendations for aspects of the site construction which may influence, or be influenced by the geotechnical engineering considerations discussed above. The information presented below is not intended to discuss all aspects of the site construction conditions and considerations that may be encountered as the project progresses. If any questions arise as a result of our recommendations presented above, or if unexpected subsurface conditions are encountered during construction we should be contacted immediately.

9.1 Fill Placement Recommendations

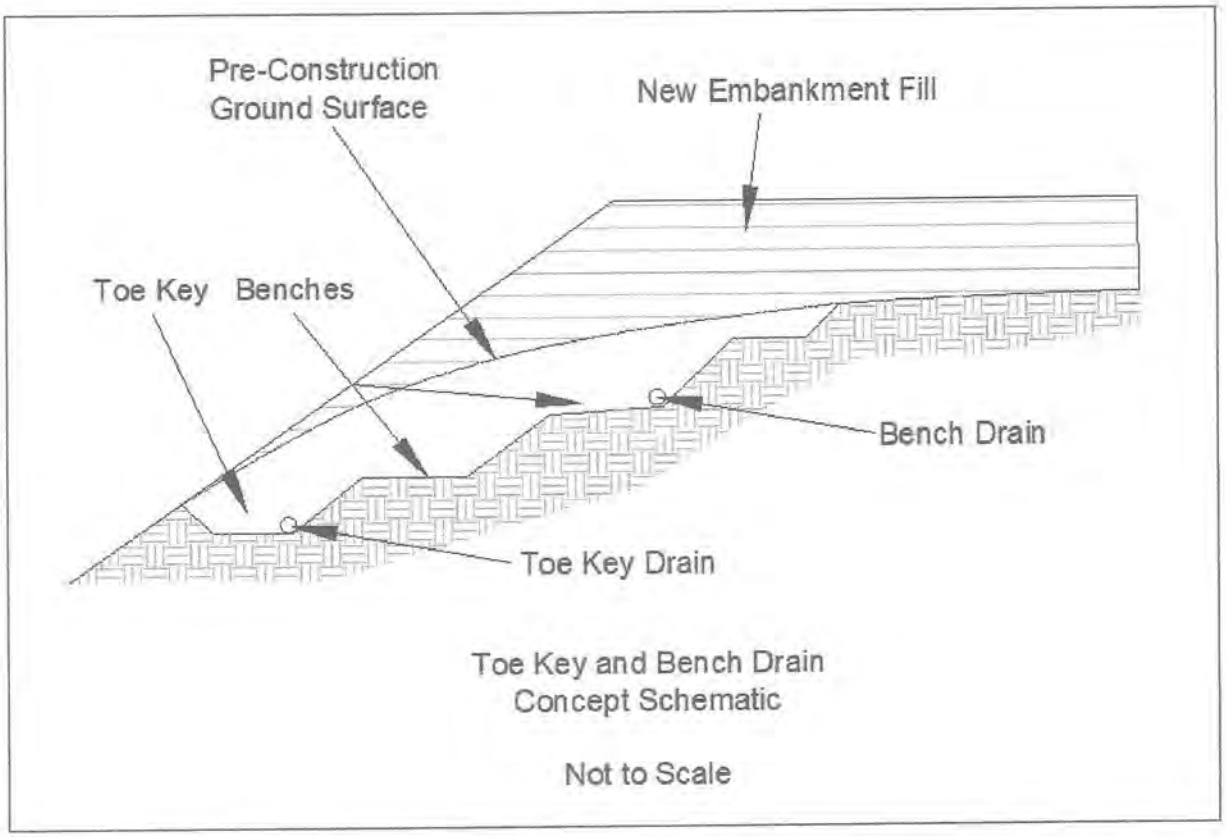
There are several references throughout this report regarding both natural soil and compacted structural fill recommendations. The recommendations presented below are appropriate for the fill placement considerations discussed throughout the report above.

All areas to receive fill, structural components, or other site improvements should be properly prepared and grubbed at the initiation of the project construction. The grubbing operations should include scarification and removal of organic material and soil. No fill material or concrete should be placed in areas where existing vegetation or fill material exist.

We observed evidence of previous site use and existing man-placed fill during our field work. We suspect that man-placed fill and subterranean structures may be encountered as the project construction progresses. All existing fill material should be removed from areas planned for support of structural components. Excavated areas and subterranean voids should be backfilled with properly compacted fill material as discussed below.

9.1.1 Embankment Fill on Slopes

Embankment fill placed on slopes must be placed in areas that have been properly prepared prior to placement of the fill material. The fill should be placed in a toe key and benches constructed into the slope. The concept is shown below.



The width of the toe key should be at least one-fourth of the height of the fill. The elevation difference between each bench, width, and geometry of each bench is not critical; however, the elevation difference between each lift should not exceed about 3 to 4 feet. The benches should be of sufficient width to allow for placement of horizontal lifts of fill material; therefore, the size of the compaction equipment used will influence the bench widths.

Embankment fill material thicker than 5 feet should be analyzed on a site-specific basis. The fill mass may impose significant loads on, and influence the stability of the underlying slope. We suggest that no fill slopes steeper than two and one-half to one (2½:1, horizontal to vertical) be constructed unless a slope stability analysis of the site is conducted.

The toe key and bench drains shown above should be placed to reduce the potential for water accumulation in the embankment fill and in the soils adjacent to the embankment fill. The placement of these drains is more critical on larger fill areas, areas where subsurface water exists and in areas where the slopes are marginally stable.

The toe key and bench drains may consist of a perforated pipe which is surrounded by a free draining material which is wrapped by a geotextile filter fabric. The pipe should be surrounded by 4 to 6 cubic feet of free draining material per lineal foot of drain pipe.

9.1.2 Natural Soil Fill

Any natural soil used for any fill purpose should be free of all deleterious material, such as organic

material and construction debris. Natural soil fill includes excavated and replaced material or in-place scarified material. Due to the expansive characteristics of the natural soil we do not recommend that it be used as fill material for direct support of structural components. The natural soils may be used to establish general site elevation. Our recommendations for placement of natural soil fill are provided below.

- The natural soils should be moisture conditioned, either by addition of water to dry soils, or by processing to allow drying of wet soils. The proposed fill materials should be moisture conditioned to between about optimum and about 2 percent above optimum soil moisture content. This moisture content can be estimated in the field by squeezing a sample of the soil in the palm of the hand. If the material easily makes a cast of soil which remains in-tact, and a minor amount of surface moisture develops on the cast, the material is close to the desired moisture content. Material testing during construction is the best means to assess the soil moisture content.
- Moisture conditioning of clay or silt soils may require many hours of processing. If possible, water should be added and thoroughly mixed into fine grained soil such as clay or silt the day prior to use of the material. This technique will allow for development of a more uniform moisture content and will allow for better compaction of the moisture conditioned materials.
- The moisture conditioned soil should be placed in lifts that do not exceed the capabilities of the compaction equipment used and compacted to at least 90 percent of maximum dry density as defined by ASTM D1557, modified Proctor test.
- We typically recommend a maximum fill lift thickness of 6 inches for hand operated equipment and 8 to 10 inches for larger equipment.
- Care should be exercised in placement of utility trench backfill so that the compaction operations do not damage underlying utilities.
- The maximum recommended lift thickness is about 6 to 8 inches. The maximum recommended rock size for natural soil fill is about 3 inches. This may require on-site screening or crushing if larger rocks are present. We must be contacted if it is desired to utilize rock greater than 3 inches for fill materials.

9.1.3 Granular Compacted Structural Fill

Granular compacted structural fill is referenced in numerous locations throughout the text of this report. Granular compacted structural fill should be constructed using an imported commercially produced rock product such as aggregate road base. Many products other than road base, such as clean aggregate or select crusher fines may be suitable, depending on the intended use. If a specification is needed by the design professional for development of project specifications, a material conforming to the Colorado Department of Transportation (CDOT) "Class 6" aggregate road base material can be specified. This specification can include an option for testing and approval in the event the contractor's desired material does not conform to the Class 6 aggregate specifications. We have provided the CDOT Specifications for Class 6 material below

Grading of CDOT Class 6 Aggregate Base-Course Material	
Sieve Size	Percent Passing Each Sieve
1 inch	100
¾ inch	95-100
#4	30-65
#8	25-55
#200	3-12

Liquid Limit less than 30

All compacted structural fill should be moisture conditioned and compacted to at least 90 percent of maximum dry density as defined by ASTM D1557, modified Proctor test. Areas where the structural fill will support traffic loads under concrete slabs or asphalt concrete should be compacted to at least 95 percent of maximum dry density as defined by ASTM D1557, modified Proctor test.

Although clean-screened or washed aggregate may be suitable for use as structural fill on sites with sand or non-expansive silt soils, or on sites where shallow subsurface water is present, clean aggregate materials must not be used on any site where expansive soils exist due to the potential for water to accumulate in the voids of the clean aggregate materials.

Clean aggregate fill, if appropriate for the site soil conditions, must not be placed in lifts exceeding 8 inches and each lift should be thoroughly vibrated, preferably with a plate-type vibratory compactor prior to placing overlying lifts of material or structural components. We should be contacted prior to the use of clean aggregate fill materials to evaluate their suitability for use on this project.

9.1.4 Deep Fill Considerations

Deep fills, in excess of approximately 3 feet, should be avoided where possible. Fill soils will settle over time, even when placed properly per the recommendations contained in this report. Natural soil fill or engineered structural fills placed to our minimum recommended requirements will tend to settle an estimated 1 to 3 percent; therefore, a 3 foot thick fill may settle up to approximately 1 inch over time. A 10 foot thick fill may settle up to approximately 3½ inches even when properly placed. Fill settlement will result in distress and damage to the structures they are intended to support. There are methods to reduce the effects of deep fill settlement such as surcharge loading and surveyed monitoring programs; however, there is a significant time period of monitoring required for this to be successful. A more reliable method is to support structural components with deep foundation systems bearing below the fill envelope. We can provide additional guidance regarding deep fills up on request.

9.2 Excavation Considerations

Unless a specific classification is performed, the site soils should be considered as an Occupational Safety and Health Administration (OSHA) Type C soil and should be sloped and/or benched according to the current OSHA regulations. Excavations should be sloped and benched to prevent wall collapse. Any soil can release suddenly and cave unexpectedly from excavation walls, particularly if the soils is very moist, or if fractures within the soil are present. Daily

observations of the excavations should be conducted by OSHA competent site personnel to assess safety considerations.

We did not encounter free subsurface water in our test borings. If water is encountered during construction, it may be necessary to dewater excavations to provide for suitable working conditions.

Scattered boulders were encountered in our test borings and large boulders are known to be present throughout the vicinity. Due to the size of the boulders encountered in the vicinity, if encountered, they may be difficult to remove using conventional excavation techniques and equipment. Removal of large boulders can also create a void of loose soil beneath structural components, which may require additional removal of loose soil and replacement with structural fill. In some instances, it may be preferable to leave boulders in place. Reduction in the thickness of the recommended structural fill beneath footings and slabs may also be prudent to limit disturbance to the bearing soils. If large boulders are encountered in the building footprint, a representative of the geotechnical engineer can provide field observations and provide additional recommendations for subgrade preparation.

If possible, excavations should be constructed to allow for water flow from the excavation the event of precipitation during construction. If this is not possible it may be necessary to remove water from snowmelt or precipitation from the foundation excavations to help reduce the influence of this water on the soil support conditions and the site construction characteristics.

9.2.1 Excavation Cut Slopes

We anticipate that some permanent excavation cut slopes may be included in the site development. Temporary cut slopes should not exceed 5 feet in height and should not be steeper than about 1:1 (horizontal to vertical) for most soils. Permanent cut slopes greater than 5 feet or steeper than 2½:1 must be analyzed on a site specific basis.

We did not observe evidence of existing unstable slope areas influencing the site, but due to the steepness and extent of the slopes in the area we suggest that the magnitude of the proposed excavation slopes be minimized and/or supported by retaining structures.

9.3 Utility Considerations

Subsurface utility trenches will be constructed as part of the site development. Utility line backfill often becomes a conduit for post construction water migration. If utility line trenches approach the proposed project site from above, water migrating along the utility line and/or backfill may have direct access to the portions of the proposed structure where the utility line penetrations are made through the foundation system. The foundation soils in the vicinity of the utility line penetration may be influenced by the additional subsurface water. There are a few options to help mitigate water migration along utility line backfill. Backfill bulkheads constructed with high clay content soils and/or placement of subsurface drains to promote utility line water discharge away from the foundation support soil.

Some movement of all structural components is normal and expected. The amount of movement

may be greater on sites with problematic soil conditions. Utility line penetrations through any walls or floor slabs should be sleeved so that movement of the walls or slabs does not induce movement or stress in the utility line. Utility connections should be flexible to allow for some movement of the floor slab.

Leach fields induce additional moisture into the soil mantle in the vicinity of the field. Leach field located near sloped areas may increase the moisture regime of the soils which may promote slope movement. The leach field should be strategically located so that if slope movement occurs, it will not negatively affect the integrity of the site.

9.4 Exterior Grading and Drainage Comments

The following recommendations should be following during construction and maintained for the life of the structure with regards to exterior grading and surface drainage.

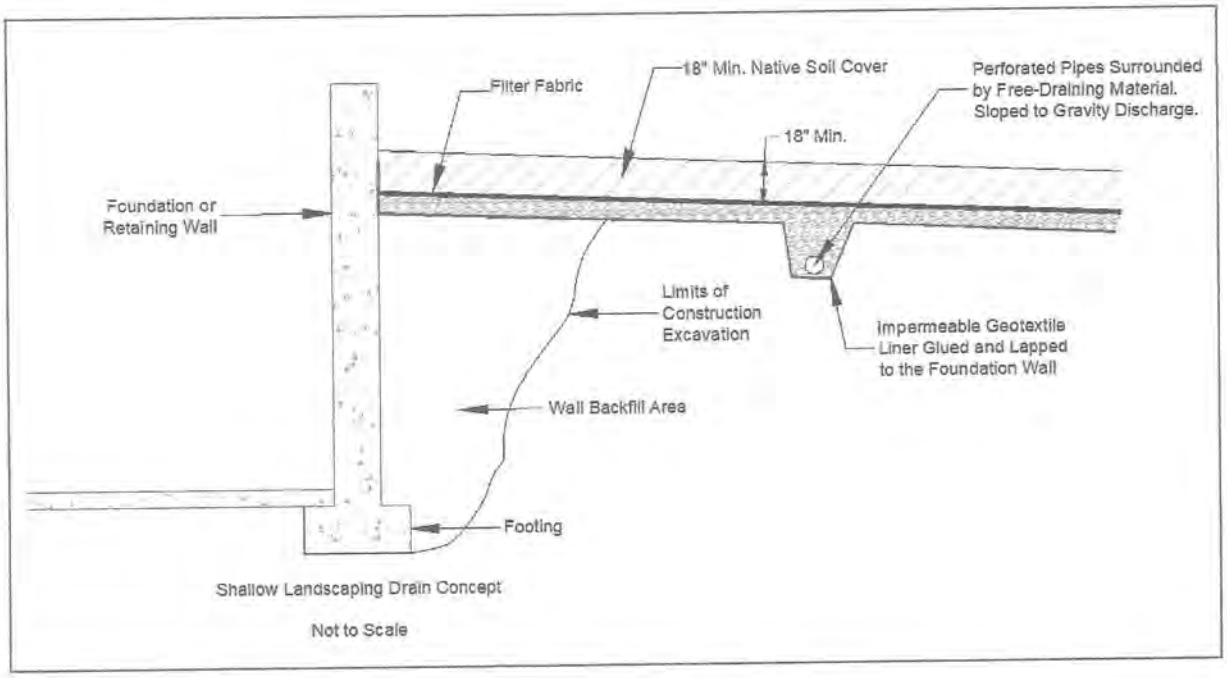
- The ground surface adjacent to the structure should be sloped to promote water flow away from the foundation system and flatwork.
- Snow storage areas should not be located in areas which will allow for snowmelt water access to support soils for the foundation system or flatwork.
- The project civil engineer, architect or builder should develop a drainage scheme for the site. We typically recommend the ground surface surrounding the exterior of the building be sloped to drain away from the foundation in all directions. We recommend a minimum slope of 12 inches in the first 10 feet in unpaved areas and a minimum slope of 3 inches in the first 10 feet in paved areas.
- Water flow from the roof of the structure should be captured and directed away from the structure. If the roof water is collected in an eave gutter system, or similar, the discharge points of the system must be located away from areas where the water will have access to the foundation backfill or any structure support soils. If downspouts are used, provisions should be made to either collect or direct the water away from the structure.
- Care should be taken to not direct water onto adjacent property or to areas that would negatively influence existing structures or improvements.

9.5 Landscaping Considerations

We recommend against construction of landscaping which requires excessive irrigation. Generally landscaping which uses abundant water requires that the landscaping contractor install topsoil which will retain moisture. The topsoil is often placed in flattened areas near the structure to further trap water and reduce water migration from away from the landscaped areas. Unfortunately, almost all aspects of landscape construction and development of lush vegetation are contrary to the establishment of a relatively dry area adjacent to the foundation walls. Excess water from landscaped areas near the structure can migrate to the foundation system or flatwork support soils, which can result in volume changes in these soils.

A relatively common concept used to collect and subsequently reduce the amount of excess irrigation water is to glue or attach an impermeable geotextile fabric or heavy mill plastic to the foundation wall and extend it below the topsoil which is used to establish the landscape vegetation. A thin layer of sand can be placed on top of the geotextile material to both protect the geotextile

from punctures and to serve as a medium to promote water migration to the collection trench and perforated pipe. The landscape architect or contractor should be contacted for additional information regarding specific construction considerations for this concept which is shown in the sketch below.



A free draining aggregate or sand may be placed in the collection trench around the perforated pipe. The perforated pipe should be graded to allow for positive flow of excess irrigation water away from the structure or other area where additional subsurface water is undesired. Preferably the geotextile material should extend at least 10 or more feet from the foundation system.

Care should be taken to not place exterior flatwork such as sidewalks or driveways on soils that have been tilled and prepared for landscaping. Tilled soils will settle which can cause damage to the overlying flatwork. Tilled soils placed on sloped areas often "creep" down-slope. Any structure or structural component placed on this material will move down-slope with the tilled soil and may become damaged.

9.6 Soil Sulfate and Corrosion Issues

The requested scope of our services did not include assessment of the chemical constituents of corrosion potential of the site soils. Most soils in southwest Colorado are not typically corrosive to concrete. There has not been a history of damage to concrete due to sulfate corrosion in the area.

We are available to perform soluble sulfate content tests to assess the corrosion potential of the soils on concrete if desired.

9.7 Radon Issues

The requested scope of service of this report did not include assessment of the site soils for radon production. Many soils and formational materials in western Colorado produce Radon gas. The structure should be appropriately ventilated to reduce the accumulation of Radon gas in the structure. Several Federal Government agencies including the Environmental Protection Agency (EPA) have information and guidelines available for Radon considerations and home construction. If a radon survey of the site soils is desired, please contact us.

9.8 Mold and Other Biological Contaminants

Our services do not include determining the presence, prevention or possibility of mold or other biological contaminants developing in the future. If the client is concerned about mold or other biological contaminants, a professional in this special field of practice should be consulted.

10.0 CONSTRUCTION MONITORING AND TESTING

Engineering observation of subgrade bearing conditions, compaction testing of fill material and testing of foundation concrete are equally important tasks that should be performed by the geotechnical engineering consultant during construction. We should be contacted during the construction phase of the project and/or if any questions or comments arise as a result of the information presented below. It is common for unforeseen, or otherwise variable subsurface soil and water conditions to be encountered during construction. As discussed in our proposal for our services, it is imperative that we be contacted during the foundation excavation stage of the project to verify that the conditions encountered in our field exploration were representative of those encountered during construction. Our general recommendations for construction monitoring and testing are provided below.

- Consultation with design professionals during the design phases: This is important to ensure that the intentions of our recommendations are properly incorporated in the design, and that any changes in the design concept properly consider geotechnical aspects.
- Grading Plan Review: A grading plan was not available for our review at the time of this report. A grading plan with finished floor elevations for the proposed construction should be prepared by a civil engineer licensed in the State of Colorado. Trautner Geotech should be provided with grading plans once they are complete to determine if our recommendations based on the assumed bearing elevations are appropriate.
- Observation and monitoring during construction: A representative of the Geotechnical engineer from our firm should observe the foundation excavation, earthwork, and foundation phases of the work to determine that subsurface conditions are compatible with those used in the analysis and design and our recommendations have been properly implemented. Placement of backfill should be observed and tested to judge whether the proper placement conditions have been achieved. Compaction tests should be performed on each lift of material placed in areas proposed for support of structural components.
- We recommend a representative of the geotechnical engineer observe the drain and dampproofing phases of the work to judge whether our recommendations have been properly implemented.
- If asphaltic concrete is placed for driveways or aprons near the structure we are available to provide testing of these materials during placement.

11.0 CONCLUSIONS

This site has relatively steep slopes located near the proposed structure sites. While we feel that it is feasible to develop this site as planned using relatively conventional techniques we feel that it is prudent for us to be part of the continuing design of this project to review and provide consultation in regard to the proposed development scheme as the project progresses to aid in the proper interpretation and implementation of the recommendations presented in this report. This consultation should be incorporated in the project development prior to construction at the site.

12.0 LIMITATIONS

This study has been conducted based on the geotechnical engineering standards of care in this area at the time this report was prepared. We make no warranty as to the recommendations contained in this report, either expressed or implied. The information presented in this report is based on our understanding of the proposed construction that was provided to us and on the data obtained from our field and laboratory studies. Our recommendations are based on limited field and laboratory sampling and testing. Unexpected subsurface conditions encountered during construction may alter our recommendations. We should be contacted during construction to observe the exposed subsurface soil conditions to provide comments and verification of our recommendations.

The recommendations presented above are intended to be used only for this project site and the proposed construction which was provided to us. The recommendations presented above are not suitable for adjacent project sites, or for proposed construction that is different than that outlined for this study.

This report provides geotechnical engineering design parameters, but does not provide foundation design or design of structure components. The project architect, designer or structural engineer must be contacted to provide a design based on the information presented in this report.

This report does not provide an environmental assessment nor does it provide environmental recommendations such as those relating to Radon or mold considerations. If recommendation relative to these or other environmental topics are needed and environmental specialist should be contacted.

The findings of this report are valid as of the present date. However, changes in the conditions of the property can occur with the passage of time. The changes may be due to natural processes or to the works of man, on the project site or adjacent properties. In addition, changes in applicable or appropriate standards can occur, whether they result from legislation or the broadening of knowledge. Therefore, the recommendations presented in this report should not be relied upon after a period of two years from the issue date without our review.

We are available to review and tailor our recommendations as the project progresses and additional information which may influence our recommendations becomes available.

Please contact us if you have any questions, or if we may be of additional service.

Respectfully,
TRAUTNER GEOTECH

Tom R. Harrison, P.E.
Geotechnical Engineer

APPENDIX A

Field Study Results

TRAUTNER GEOTECH LLC
GEOTECHNICAL ENGINEERING, MATERIALS TESTING AND ENGINEERING GEOLOGY
649 Tech Center Drive, Durango, Colorado, 81301 (970) 259-5065 www.trautnergeotech.com

Field Engineer : C. Deleon
Hole Diameter : 4" Solid
Drilling Method : Continuous Flight Auger
Sampling Method : Mod. California Sampler
Date Drilled : 06/22/2021
Total Depth (approx.) : 12.5 feet
Location : See Figure 1 in Report

LOG OF BORING TB-1

Lot 1 Genoa Lode
Joel Stalo
c/o Christopher Clemmons, RA, NCARB
Mountain Grain Architecture

Project Number: 56727GE

Sample Type
- Mod. California Sampler
- Standard Split Spoon
- Bag Sample

Water Level
- Water Level During Drilling
- Water Level After Drilling

Depth in feet	DESCRIPTION	USCS	GRAPHIC	Samples	Blow Count	Water Level	REMARKS
0–6	Clayey Gravel with Sand and Cobbles, medium dense, moist to very moist, brown	GC			8/6 11/6 8/6 10/6		Organics to 1 foot
6–12	Poorly Graded Cobbles with Clay, Sand, and Gravel, very dense, moist, brown	GC-GP			24/6 42/6		
13	Practical auger refusal at 12.5 feet						

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649 Tech Center Drive, Durango, Colorado, 81301 (970) 259-5095 www.trautnergeotech.com

Field Engineer	: C. Deleon
Hole Diameter	: 4" Solid
Drilling Method	: Continuous Flight Auger
Sampling Method	: Mod. California Sampler
Date Drilled	: 06/22/2021
Total Depth (approx.)	: 6.5 feet
Location	: See Figure 1 in Report

LOG OF BORING TB-2

Lot 1 Genoa Lode
Joel Stalo
c/o Christopher Clemmons, RA, NCARB
Mountain Grain Architecture

Project Number: 56727GE

Sample Type
- Mod. California Sampler
- Standard Split Spoon
- Bag Sample

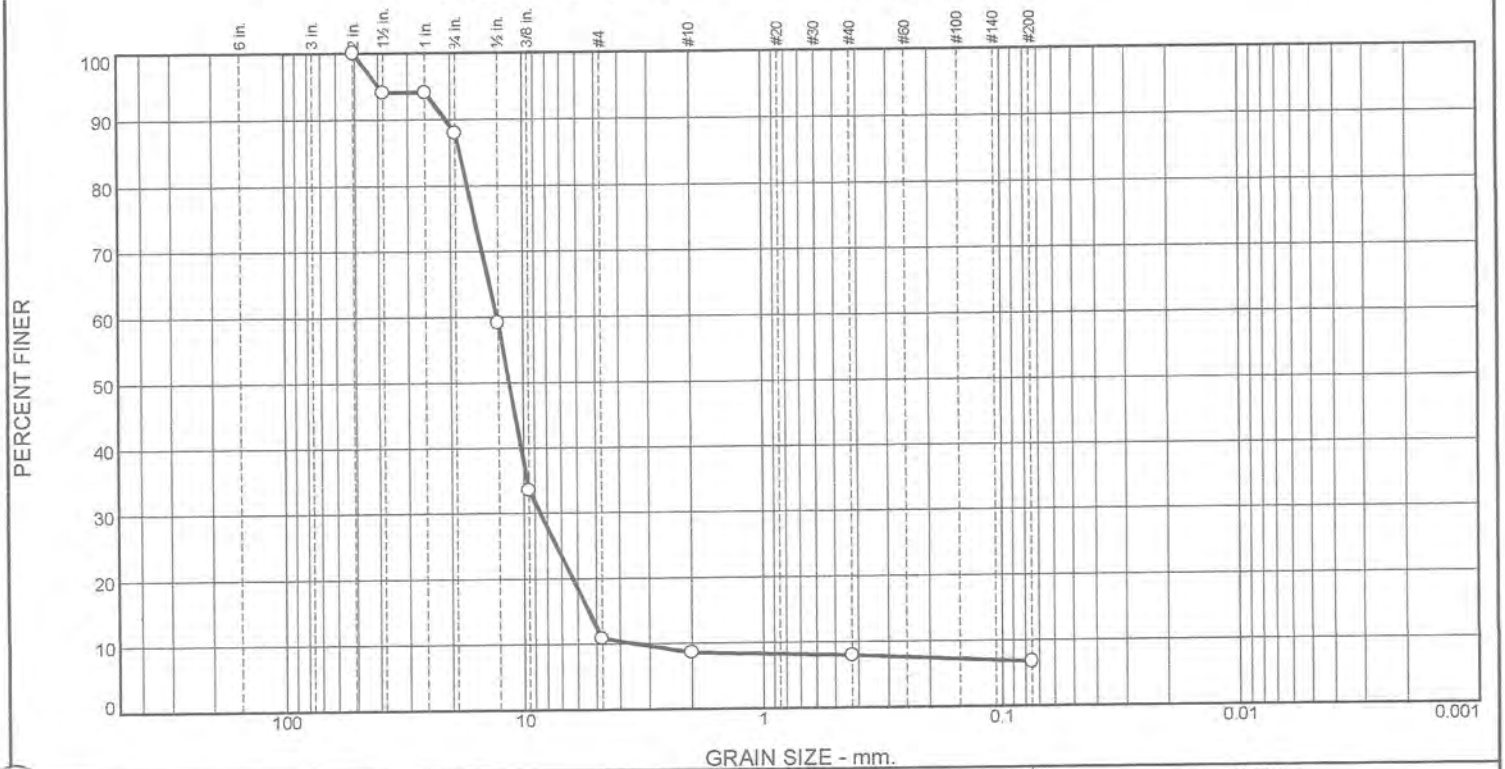
Water Level
- Water Level During Drilling
- Water Level After Drilling

Depth in feet	DESCRIPTION	USCS	GRAPHIC	Samples	Blow Count	Water Level	REMARKS
0	Sandy Lean Clay, few organics, few gravels and cobbles, stiff, slightly moist to moist, red to brown	CL					Organics to 1 foot
4	Poorly Graded Cobbles with Clay, Sand, and Gravel, dense to very dense, slightly moist, tan	GC-GP			23/6 18/6 14/6		
7	Practical auger refusal at 6.5 feet						

APPENDIX B

Laboratory Test Results

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	12	77	2	1	1	7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2	100		
1.5	94		
1	94		
.75	88		
.50	59		
.375	33		
#4	11		
#10	9		
#40	8		
#200	7		

* (no specification provided)

Material Description

GP-GC-Poorly Graded Gravel with Clay

Atterberg Limits

PL= 21 LL= 34 PI= 13

Coefficients

D_{90}= 20.9990 D_{85}= 18.2806 D_{60}= 12.8547
D_{50}= 11.4632 D_{30}= 8.5594 D_{15}= 5.3968
D_{10}= 3.4354 C_u= 3.74 C_c= 1.66

Classification

USCS= GP-GC AASHTO= A-2-6(0)

Remarks

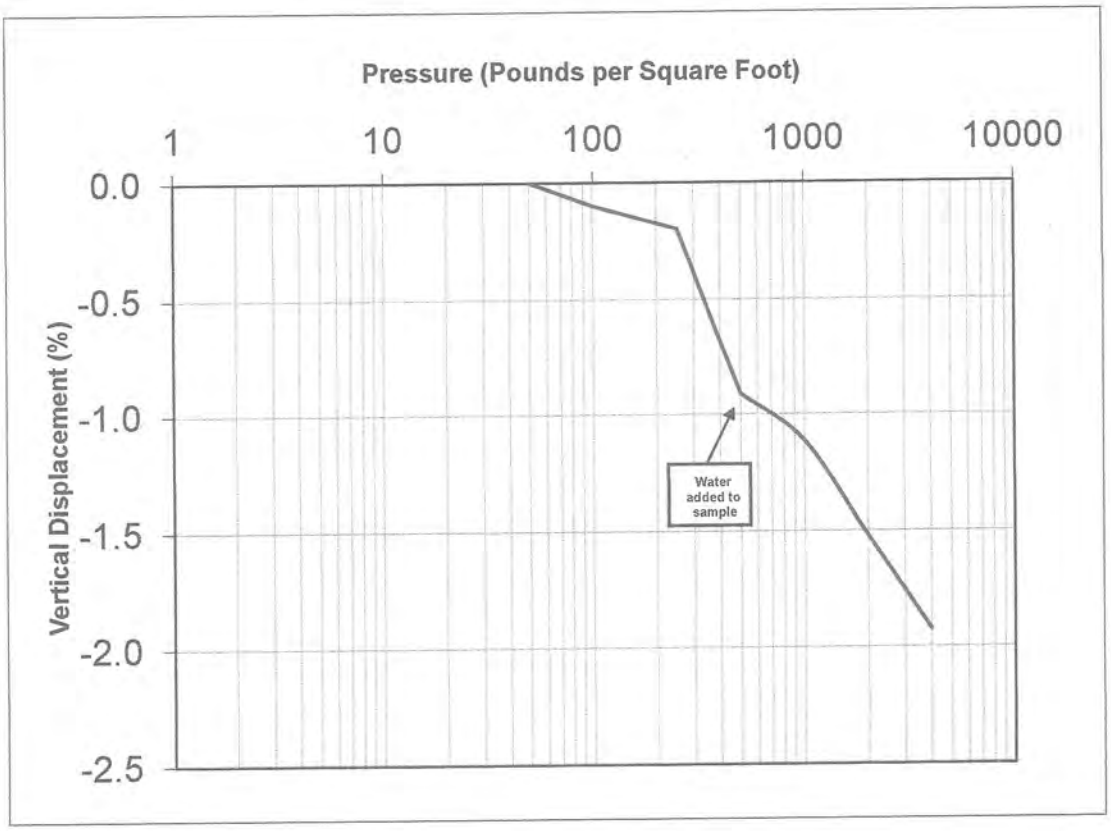
Location: Test Boring 2 **Date:** 6-22-21
Sample Number: 12660-G **Depth:** 5'-6 1/2'

TRAUTNER GEOTECH LLC

Client: Mountain Grain Archhitecture
Project: Lot 1 Genoa Lode, Silverton
Project No: 56727GE **Figure** B.1

Tested By: J. Koch **Checked By:** S. Chiarito

SWELL - CONSOLIDATION TEST

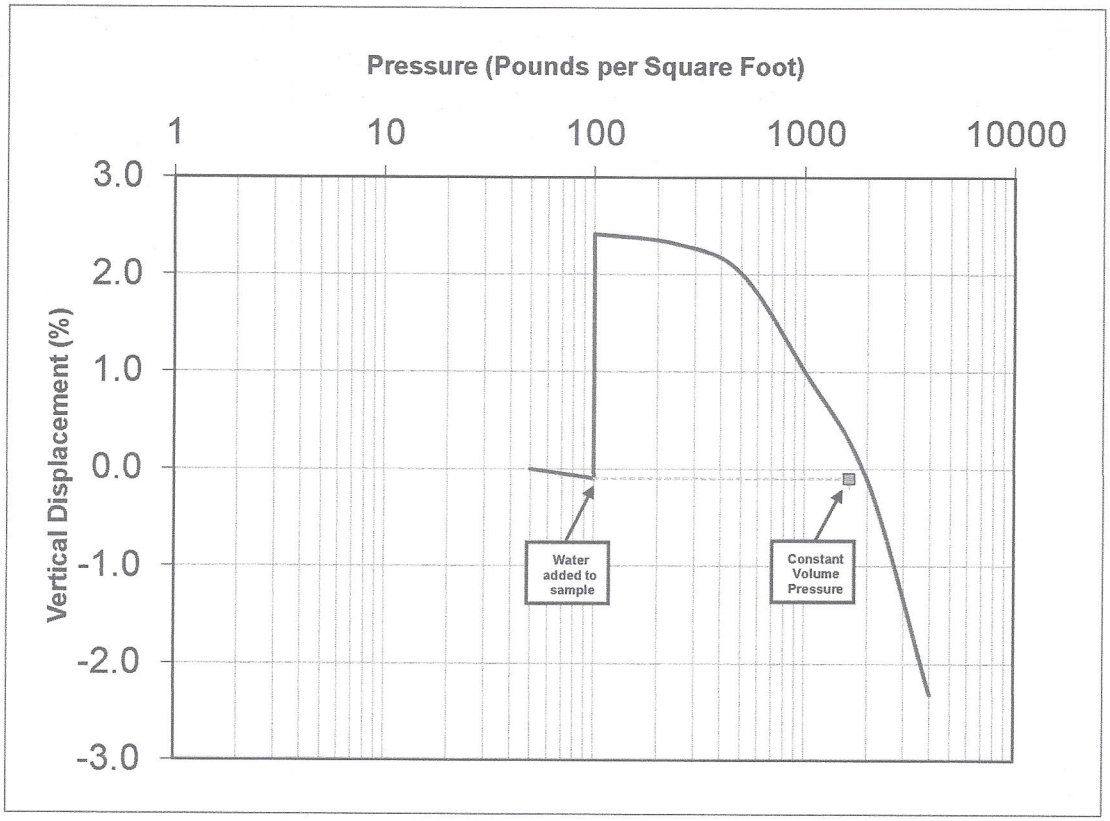


SUMMARY OF TEST RESULTS		
Sample Source:	TB-1 @ 4.5'	
Visual Soil Description:	GC	
Swell Potential (%)	0.0%	
Constant Volume Swell Pressure (lb/ft^2):	1,170	
	Initial	Final
Moisture Content (%):	4.7	12.3
Dry Density (lb/ft^3):	131.9	132.6
Height (in.):	0.987	0.968
Diameter (in.):	1.94	1.94

Note: Remolded Sample; Molded from the portion of sample passing a #10 sieve. Consolidated under 500 PSF prior to initiating load sequence and wetting. Initial values represent the conditions under 50 PSF following the pre-consolidation under 500 PSF.

Project Number:	56727GE
Sample ID:	12660-B
Figure:	B.2

SWELL - CONSOLIDATION TEST



SUMMARY OF TEST RESULTS		
Sample Source:	TB-2 @ 3.5'	
Visual Soil Description:	GC	
Swell Potential (%)	2.5%	
Constant Volume Swell Pressure (lb/ft^2):	1,640	
	Initial	Final
Moisture Content (%):	10.2	20.0
Dry Density (lb/ft^3):	109.2	111.6
Height (in.):	0.994	0.971
Diameter (in.):	1.94	1.94

Note: Remolded Sample; Molded from the portion of sample passing a #10 sieve. Consolidated under 500 PSF prior to initiating load sequence and wetting. Initial values represent the conditions under 50 PSF following the pre-consolidation under 500 PSF.

Project Number:	56727GE
Sample ID:	12660-F
Figure:	B.3

SUBDIVISION IMPROVEMENTS AND LIEN AGREEMENT

THIS AGREEMENT is entered into between the developer, Larry Zastrow 826 Chanticleers, Abilene, Texas 79602 ("Developer"), and San Juan County, Colorado ("the County") pursuant to the Subdivision Regulations of the County. This Agreement shall be effective upon final plat approval of Developer's proposed subdivision. A copy of this Agreement shall be recorded in the land records of San Juan County, Colorado.

WITNESSETH

In consideration of receiving final plat approval from the County for the subdivision known as Genoa Lode Subdivision, Developer and the County agree as follows:

1. Developer will design, construct and install at his own expense the following improvements ("the Required Improvements") all in accordance with the preliminary and final plats and any other plans and documents, as have been approved by the County, and in accordance with the applicable design and construction standards of the County's Subdivision Regulations:

a. Developer will design, construct and install electrical service to both lots.

Installation of such Required Improvements shall be completed no later than July 11, 2009 ("the Completion Date"). All Required Improvements shall be designed and constructed in accordance with good engineering practices. The Developer agrees that the lots created by the Subdivision will not be sold until this required improvement has been completed.

As further security for the completion of the Required Improvements, no building or other permits or certificates of occupancy shall be issued for the construction of any improvements on any lot within the subdivision until completion and acceptance or approval of the Required Improvement.

If the Required Improvements are not designed, installed and constructed by the Completion Date as required, after giving Developer at least fourteen days written notice of failure to complete the Required Improvements, the County may complete the Required Improvements or contract for the completion of thereof and in doing so shall certify to the tax rolls any expenditures incurred by the County. In addition to the actual cost of completion of the Required Improvement, if the County completes or contracts to complete the Required Improvements on Developer's failure to do so, then the County shall be permitted to retain ten percent (10%) of the amount of funds actually expended to complete the Required Improvements, in addition to the actual cost of completion, to compensate the County for its administrative work in overseeing completion of the Required Improvements.

For a period of one year after approval of the final subdivision plat, Developer agrees to correct and repair any defects in any Required Improvements caused by defects in materials or workmanship. The County, any affected utilities, and/or any purchasers of lots within the subdivision may enforce this provision.

This Agreement shall be binding upon the heirs, successors and assigns of the Developer and of the County, provided that Developer may not assign this Agreement without prior express written consent of the County. This Agreement shall be a covenant running with the land as described above and when recorded shall constitute a lien upon all land within the subdivision.

Developer hereby indemnifies and agrees to hold the County, its elected officials, employees, agents, attorneys and representatives harmless from and against any and all claims, liabilities, losses, damages, costs and expenses, including by way of illustration only and without limitation, damage awards and reasonable attorney's fees, expenses and costs suffered or incurred by or imposed upon them, which directly or indirectly arise out of, or are related in any way to, breaches by Developer of any terms of the Agreement. San Juan County shall have no obligation whatsoever to Developer or any other person, specifically including but not limited to, purchasers of lots in the subdivision, arising out of or related in any way to the Required Improvements or Developer's design or installation thereof. No obligations shall arise out of the County's inspection, acceptance or approval of any of the Required Improvements.

This agreement may be enforced by the County in any lawful manner, and the County may compel the Developer to adhere to it by an action for specific performance or an injunction in any court of competent jurisdiction. If any action is necessary to enforce Developer's performance of its obligations under this Agreement, the County shall be entitled to recover all costs of such action or litigation including but not limited to costs, expert and other witness, travel, telephone, copying, fax and other expenses of every type and description whatsoever, including attorneys fees.

No agreement, amendment, modification, waiver, release, approval or consent contemplated by, or relating to, this Agreement shall be valid or effective unless set forth in writing signed by all parties hereto.

Notice to the parties hereto shall be by personal delivery or by certified mail return receipt requested or by fax or electronic means, provided however, that in the case of notice by fax or electronic means, proof of delivery shall be required. Notice shall be effective on receipt or, in the event receipt is denied, three days after transmission or mailing. Notices to the County shall be given c/o County Administrator, San Juan County, Colorado, P.O. Box 466, Silverton, CO 81433, telephone and facsimile - (970) 387-5766. Notices to Developer shall be given to Larry Zastrow, 826 Chanticleers, Abilene, Texas 79602, telephone (325) 669-6460.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the _____ day of _____, _____.

County:
SAN JUAN COUNTY, COLORADO

By:_____
Ernest F. Kuhlman
Chairman

Attest:_____
County Clerk and Recorder

Developer:

_____
Larry Zastrow

State of Colorado
County of San Juan

The foregoing instrument was acknowledged before me this _____ day of _____, _____, by Larry Zastrow who attested under oath that they are the Developer. Witness my hand and official seal.

My commission expires _____

_____
Notary Public

Address of Notary:
_____
_____

MEMORANDUM

July 11, 2007

To: Board of County Commissioners
Fr: William A. Tookey, County Administrator
Re: Larry Zastrow, Genoa Lode Subdivision – Final Plat

Mr. Larry Zastrow has submitted a Final Plat for a two lot subdivision of the Genoa Lode M.S. #14024. The San Juan Regional Planning Commission held a Public Hearing on June 26 2007 to review the application. Upon review the Planning Commission recommends to the Board of County Commissioners that the application be approved provided that an Improvement Agreement is approved that requires the applicant to provide electrical service to both lots within a two year period or prior to the sale of the lots and that the minor corrections are made on the Final Plat.

Property Location and Size: The Genoa Lode is located at the intersection of CR 2 and CR 21 (across from the Mayflower Mill). CR 22 parallels the Animas River within the southern and lowest portion of the claim. The Genoa Lode and has a total area of 10.22 acres. Lot 1 will have an area of 4.78 acres and Lot 2 will have an area of 3.15 acres. While the actual lot sizes are smaller than the 5 acre minimum, the density is still one unit per 5 acres. Additionally, central water will be provided. A density of one unit per 3 acres is allowed when central water is provided.

Current Land Use: Currently the property is vacant except for historic mining and mill features, water pipelines, and the County roads. The applicant previously obtained a County Land Use Permit for storage of equipment on the proposed Lot 1.

Proposed Land Use: The proposal is subdivide the Genoa Lode to create two lots for residential building sites. The property is naturally bisected by CR 21. Mr. Zastrow plans to build a home on the proposed Lot 1 and probably sell Lot 2.

Surrounding Land Use: The historic Mayflower Mill is across CR 2 to the north. Several historic millsites surround the property to the south and west. No "modern" structures have been built near the property except for a small storage shed built on the Marcia L Lode (approved under a Land Use Permit) which is located to the southwest.

Current Zoning: Currently the properties are zoned Mountain Zone, which calls for a minimum of five acre lots and 30 foot setbacks.

Proposed Zoning: No change in zoning is being proposed.

Access: To both Lots 1 and 2 would be from CR 2. Lot 2 may also be served by an existing old road off of 21.

Water Service: Both tracts are to be served with water taps from the Mayflower Mill water system. The tap for Lot 1 is already in place. A water tap for Lot 2 has not yet been installed. A letter verifying service from the Mayflower Mill-Powerhouse pipeline and water system signed by Bill Jones has been included in the application packet.

Sewer Service: Septic systems are being planned for each lot.

Electricity: An overhead electric line parallels CR 2. The applicant plans to connect to this line for electrical service for his home on Lot 1. San Juan County subdivision regulations require that electrical service be provided underground.

Telephone Service: Quest has a phone line buried in CR 2 and could serve both lots. The site does have cell phone service.

Emergency Service: Lots 1 and 2 can easily be accessed via CR 2, in case of emergency. The building site on Lot 2 would have easier access from the Arrastra Gulch road however this would not be maintained during the winter.

Physical Properties: The building envelop on Lot 1 consists of an upper bench with Aspen trees. Tract A then drops off rather steeply to the Animas River. Lot 2, on the eastern side of Co. Rd. 55, contains several small benches on which a small home could be located, but predominantly consists of slopes over 30%.

Natural Hazards: The property is not identified as being in an avalanche zone. However, it is likely that a portion of Lot 2 could be affected by the "Valley Forge" slide. Arthur Mears has completed a site inspection on the site. A site specific study will be required before construction on Lot 2 can occur.

Slope instability may exist on site due to relatively steep slopes. Section 7-115 .5 of the San Juan County subdivision regulations stipulates that "No building construction will occur on slope areas in excess of 25% unless a professional geotechnical and engineered study has been submitted with sufficient information to show the extent of the hazard and the mitigation methods and design measures proposed for use on the site." The building sites a currently proposed would not occur on slopes in excess of 25%. Should the building sites be relocated to slope areas that exceed the 25% a geotechnical and engineered study would be required prior to the issuance of a building permit.

Trash Removal: As per SJC regulations, each lot owner will be required to be on the Town of Silverton Utility Billing system.

Historic Features: The applicant's submittal describes the many historic features on and crossing the Genoa Lode. The Historic Impact Review Committee has toured the property on May 15th and May 18th, 2006. Their extensive report and recommendations are attached. The applicant has provided easement to the San Juan County Historical Society for the Aerial Tram Line and Millsite.

Scenic Preservation: Section 7-116 of the San Juan County subdivision regulations requires a 100 foot setback from adjacent county roads. Because the property is adjacent to three county roads it would not be feasible to require the 100 foot minimum setback. The building sites will meet a minimum 50 foot setback. The building site on Lot 1 may be visible from CR 2 and may require additional screening.

During the previous submittal the preservation of historic features and water, electric and telephone infrastructure were left unresolved. In the Final Plat the San Juan County Historical Society will be given easements for the mill site and tram line.

Water Service 7-114 Utilities and Improvements section .1 (d) requires the construction of a water distribution system be constructed at the expense of the subdivider. A water distribution system has been constructed by the Historical Society. Lot 1 has a water tap on site and a "Will Serve" notice has been provided for water service to Lot 2. I believe this does meet the requirements of the County's Subdivision Regulations.

Telephone Service The Subdivision Regulations does not specifically require telephone service. 7-114 Utilities and Improvements .1(g) includes "other improvements as required by the Board of County Commissioners." Quest does have a phone line located in CR2 adjacent to the proposed subdivision. The property also has access to cell phone service. A deed restriction was required of the Cole Ranch Subdivision that required a satellite phone to each home site until a land line became available. I believe that the county's reasoning to require a subdivision to provide phone service is that generally the subdivision will create a greater density with a greater likelihood of needing emergency services. As a two lot subdivision it is probably not a critical requirement. Additionally, the property owners have the option of connecting to a land line or using a cell phone.

Electrical Service Again, the Subdivision Regulations does not specifically require electrical service. 7-114 Utilities and Improvements .1(g) includes "other improvements as required by the Board of County Commissioners." C.R.S 30-28-133 (3)(e) states: Evidence that provision has been made for facility sites, easements, and rights of access for electrical and natural gas utility service sufficient to ensure reliable and adequate electric or, if applicable, natural gas service for the proposed subdivision. Submission of a letter of agreement between the subdivider and utility serving the site shall be deemed sufficient to establish that adequate provision for electric or, if applicable, natural gas service to a proposed subdivision has been made. Overhead Electric lines are located in CR 2. Electrical Service to each subdivision lot has been consistently required by San Juan County.

Staff Recommendation: This is a simple two lot subdivision. At one time it appeared that the direction of the County was to simplify two lot subdivisions and minimize the requirements. As we look to make some areas more restrictive for development the Planning Commission may want to consider a simplified process for 2 lot subdivisions that occur within the development corridors. Att Staff's request the proposed subdivision has been redesigned to use CR 21 to divide the lots. The applicant has provided easement to the Historical Society to protect historically significant features. Both lots

have access to treated water, phone service and electrical service. To be consistent with previous subdivisions I would recommend that the applicant be required to provide electrical service to both lots.

Staff recommends that the San Juan Regional Planning Commission recommends to the Board of County Commissioners the approval of this Final Plat Submittal. Provided that electrical service drops are provided to both lots. In addition, there are a few minor corrections that need to be made on the final plat.

SAN JUAN COUNTY
HISTORIC IMPACT REVIEW COMMITTEE
SILVERTON, COLORADO

May 22, 2006

Beverly Kaiser,
Land Use Administrator
Silverton, Colorado 81433

Re: Recommendations for Genoa Lode USMS 14024

Dear Beverly:

The San Juan County Historic Impact Review Committee inspected the above claim consisting of two proposed tracts, A and B on May 15th, 2006 and May 18th 2006. Attending were Steve Fearn & Bill Jones (5/15/06) and Scott Fetchenheir, Bill Jones and David Singer (5/18/06).

The Genoa Lode was part of the former Asarco and Silver Lake Mines group of claims and lies along the Animas River adjacent to and just below the Shenandoah-Dives (Mayflower) Mill National Historic Landmark site. The northern corner of the "bend" in the claim lies on the embankment of the mill's storm water drainage collection pond. The mill's water lines cross the claim as shown on the plan maps. In August 2004 the applicant agreed to grant the San Juan County Historical Society an easement for these waterlines in exchange for two water taps. This easement has not yet been prepared by the Society so is not yet executed.

Significant Historic Sites:

The claim contains the site of the Mears-Wilfley Mill constructed about 1916 and located just east of the bend of the claim between County Road 55 and 22. Remnants of the mill, specifically part of a wooden tank and a sand screw, as well as foundation timbers and concrete piers exist. Other sections are probably buried under gravel debris just west of the visible remains. The mill was originally a large timber frame structure whose southern edge lay along the present County Road 22, being the former Silverton Northern Railroad. This site has local, state, and national significance. The Mears-Wilfley Mill was built by Otto Mears and Arthur Redmond Wilfley for the purpose of reprocessing tailings pumped out of Silver Lake. Mears' background in the area and state are well known. Wilfley was a nationally recognized inventor of milling equipment used worldwide and his firm, A.R. Wilfley and Sons in still in business. The Mears-Wilfley Mill contained the largest Wilfley Concentrating Table ever built. The project also was the basis for the invention of the Wilfley "packingless" pump still used today. The mill also was one of the first in the county and state to use flotation. The pumping of about 500,000 tons of tailings to the site remains a significant engineering achievement in San Juan County's history. The Shenandoah-Dives Mining Company and successors used this tailing flume right of way for its Mayflower Mill water line constructed in 1930, which is still in use today.

The committee strongly recommends the Mears-Wilfley Mill site be excluded from any future development with the exception of maintenance that may be required for the Mayflower Mill water line, and that spoil or debris not be dumped onto the site. As the applicant and the San Juan County Historical Society intend to execute an easement for this pipeline, the M-W mill site could be included in such an easement to protect the integrity of the site. The area to be protected may be defined as the area between CR 55 and CR 22 from their intersection and westerly about 335 feet.

It is noted that the proposed property subdivision line shown on EMI sheet 2 and 3 crosses directly through the existing M-W mill ruins. It would be preferred if the boundary could be moved to the east so that the Mears-Wilfley site can remain entirely on one parcel. This would simplify management of this historic asset, and definition of an easement.

The second significant historic site on the Genoa is the Shenandoah-Dives aerial tramway, which crosses Tract B. A 50 year right-of-way agreement between Asarco and S-D M Co. was recorded for this tram in 1929, and expired in 1979. The tram is included as part of the Mayflower Mill's National Historic Landmark designation. The committee strongly recommends development be excluded 50 feet either side of the centerline of this tramline, for a total exclusion width of 100 feet. The building envelope in Tract B would be moved to the west to achieve this. The Committee also notes this exclusion is necessary for safety purposes, in the event of a tram line cable failure.

The third significant historic site is the right of way for the Silverton Northern Railroad. This right of way already belongs to San Juan County and is currently designated by the county as an historic site. No new development should take place on this right of way.

The fourth significant historic site is a wooden box pipe about 12" square, which crosses the claim through Tract B. The lower section near CR 22 is well preserved along with a "wye" tie in to a possible second box pipe located about 25 feet east of the switchback of the old road crossing Tract B. Most other sections of the pipe are very deteriorated. This pipe is the original tailings discharge launder for the Shenandoah-Dives Mill and was constructed in 1929. This pipe took tailings from the mill to the river for disposal. The pipe's discharge point is still visible sticking out from the embankment of CR 22. This culvert was abandoned around 1935 after the introduction of tailings ponds to retain mill tailings, constructed west of the mill.

Ordinarily this pipe would not be considered particularly "significant". However, because it was built as part of the a National Historic Landmark, has a known history, and exists within a well defined historic and technological context, a majority of the HIRC feels that in this case it is a significant historic site. The committee recommends that the better preserved sections of the pipe: at the lower end, the river discharge, and the "wye tie in" be left intact if possible. Other more deteriorated sections may be disturbed by development, but any section disturbed should be documented prior disturbance. To minimize disturbances on Tract B, the existing old road should be used for the basis of any driveways.

Summary

No historic structures or sites were found on the building envelope located on Tract A. If the building envelope on Tract B is moved out of the tramline right-of-way, only the tailings pipe is a significant site and may be built upon if documented prior to being disturbed. The Mears-Wilfley mill and Mayflower pipeline is not located on either building envelope shown on the sketch plan maps and should not be disturbed. See attached sketch map showing the approximate locations of the above historic sites.

Respectfully submitted,

San Juan County Historic Impact Review Committee

Bill Jones,
Chair

SAN JUAN COUNTY
COLORADO

1557 GREENE STREET
P.O. BOX 466
SILVERTON, COLORADO 81433
PHONE/FAX 970-387-5766 sanjuancounty@frontier.net

September 17, 2018

RE: Gena Lade Subdivision

Mr. Larry Zastrow:

The Genoa Lode Subdivision and Subdivision and Lien Agreement were recorded on July 12, 2007 for the development of two residential lots. In order to proceed with the residential development of these lots you will be required to complete and submit an Improvement Permit application for each lot or a combined application if both lots are developed concurrently. The application(s) will be reviewed by the San Juan County Land Use Administrator to determine that the proposed development is in conformance with the approved Genoa Lode Subdivision and the Subdivision and Lien Agreement. It will also be reviewed to insure that the improvements are in compliance with Section 4-110 and any other applicable section of the San Juan County Land Use Code as applicable.

This review is administrative only unless you need to amend the subdivision, request an exception or request a variance to the Land Use Code. Any request to develop a project that exceeds the approval of the Subdivision or the County Land Use Code would require further review and approval from the appropriate board(s). recommendation and action.

Once the Improvement Permit has been reviewed and approved you will be required to submit a set of building plans to the San Juan County Building Inspector for his review. If the plans are adequate and meet the current building codes, the Building Inspector will issue a Building Permit and construction can begin.

If you have any questions, please contact me at your convenience.

William A. Tookey
San Juan County Administrator/Land Use Administrator