







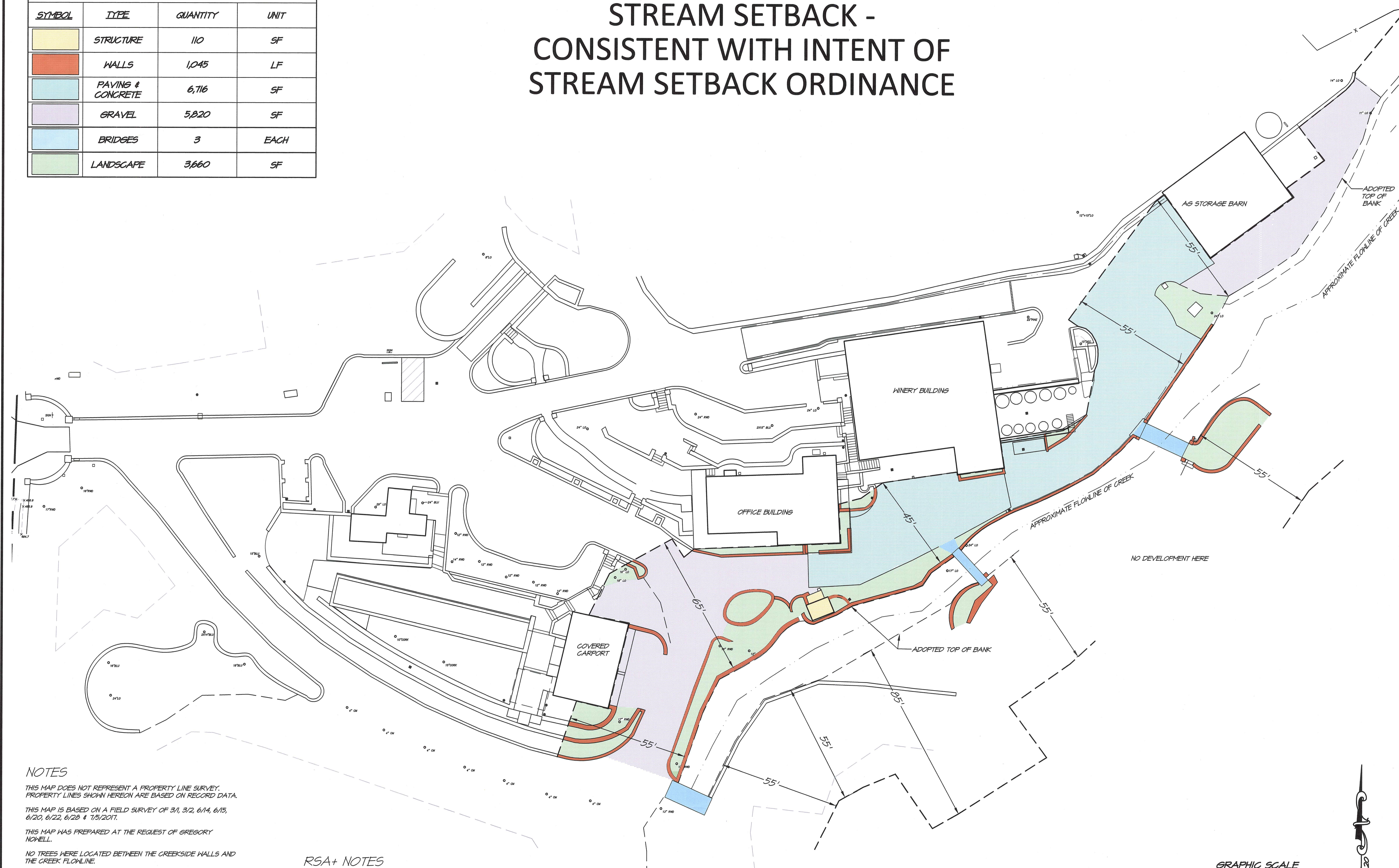
“E”

Encroachment and Exception
Site Plan and Narrative

Use Permit Exception #P19-00153

IMPROVEMENTS WITHIN STREAM SETBACK			
SYMBOL	TYPE	QUANTITY	UNIT
	STRUCTURE	110	SF
	WALLS	1,045	LF
	PAVING & CONCRETE	6,716	SF
	GRAVEL	5,820	SF
	BRIDGES	3	EACH
	LANDSCAPE	3,660	SF

BREMER FAMILY WINERY STREAM SETBACK - CONSISTENT WITH INTENT OF STREAM SETBACK ORDINANCE



NOTES

THIS MAP DOES NOT REPRESENT A PROPERTY LINE SURVEY. PROPERTY LINES SHOWN HEREON ARE BASED ON RECORD DATA.

THIS MAP IS BASED ON A FIELD SURVEY OF 3/1, 3/2, 6/14, 6/15, 6/20, 6/22, 6/28 & 7/5/2011.

THIS MAP WAS PREPARED AT THE REQUEST OF GREGORY NONELL.

NO TREES WERE LOCATED BETWEEN THE CREEKSIDE WALLS AND THE CREEK FLOWLINE.

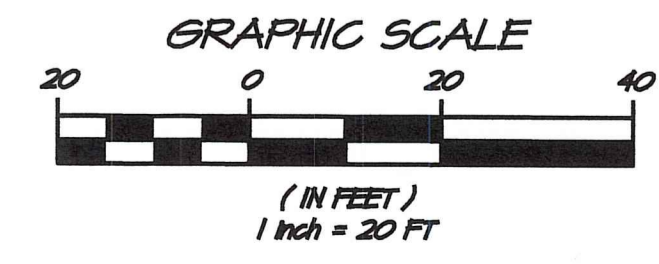
NO ORNAMENTAL TREES WERE LOCATED ON THE WINERY SITE.

THE HORIZONTAL AND VERTICAL DATUM OF THIS MAP IS BASED ON AERIAL MAPPING RECEIVED FROM BREMER FAMILY WINERY IN FEBRUARY 2011.

RSA+ NOTES

MAPPING BY TERRA FIRMA SURVEYS INC, DATED JUNE 11, 2019

STREAM SETBACK BASED ON NAPA COUNTY CODE 18.108.25 AND RSA+ MEMORANDUM DATED JUNE 26, 2019



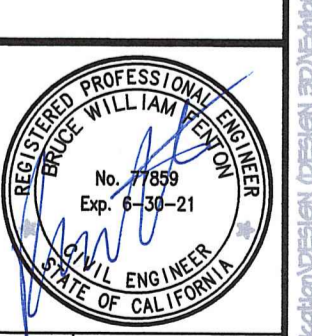
SCALE 1" = 20'

NO.	DATE	BY	APPD

RSA+
RSA+ CONSULTING CIVIL ENGINEERS & SURVEYORS - 1992





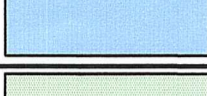


1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE (707) 252-3301
www.rsacl.com

BREMER FAMILY WINERY STREAM SETBACK EXHIBIT ST HELENA CALIFORNIA

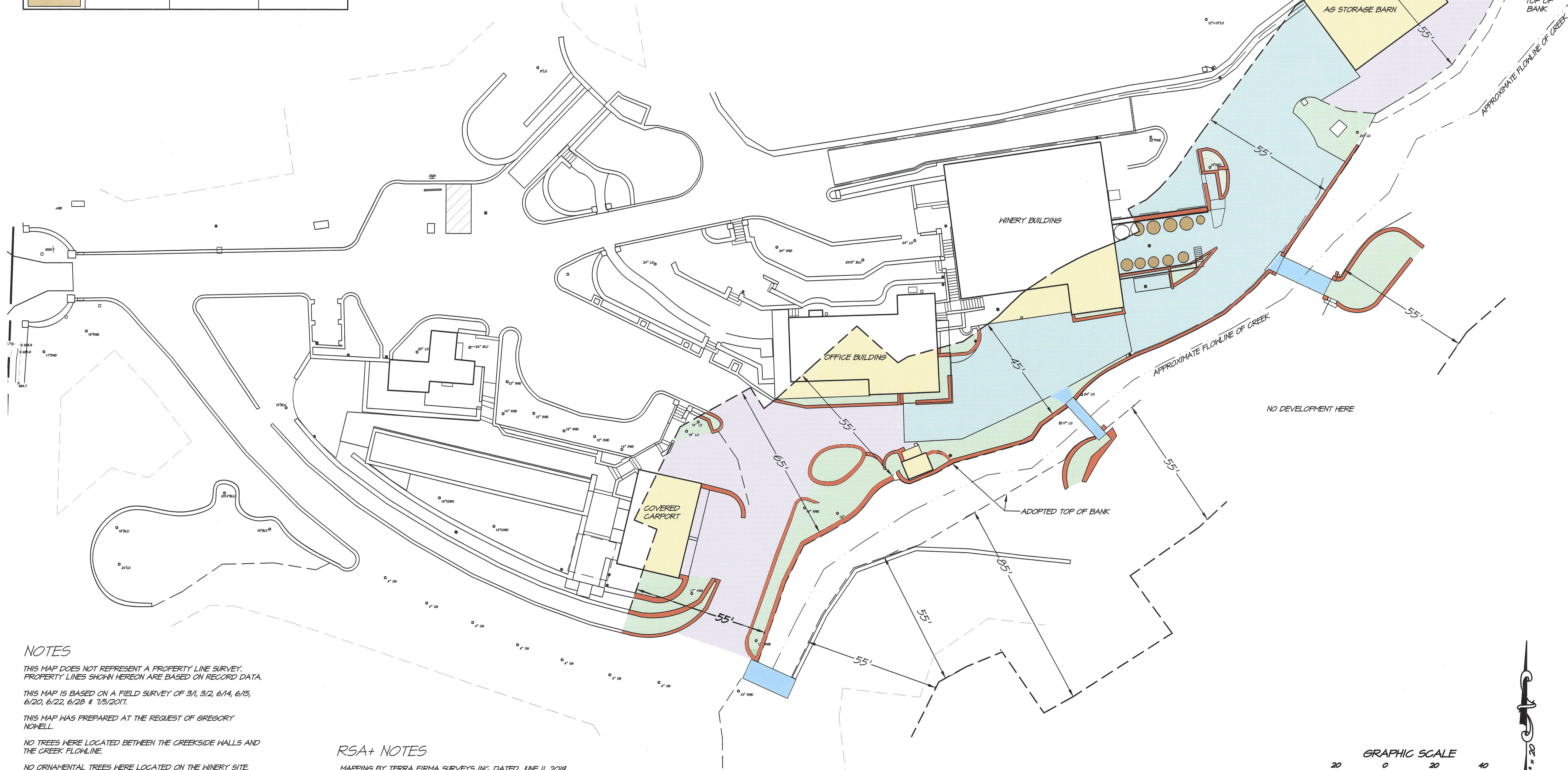


DATE	JUNE 26, 2019
DRAWN	BS
DESIGNED	MSS
CHECKED	MSS
JOB NO.	415025.0
SHEET NO.	EXH1
1 OF 2 SHEETS	

IMPROVEMENTS WITHIN STREAM SETBACK

SYMBOL	TYPE	QUANTITY	UNIT
	STRUCTURE	2,850	SF
	WALLS	1,210	LF
	PAVING & CONCRETE	7,982	SF
	GRAVEL	5,820	SF
	BRIDGES	3	EACH
	LANDSCAPE	3,740	SF
	TANKS	275	SF

BREMER FAMILY WINERY STREAM SETBACK- IMPRACTICAL & NOT CONSISTENT WITH INTENT OF ORDINANCE



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THIS MAP WAS PREPARED AT THE REQUEST OF GREGORY NONELL.

NO TREES WERE LOCATED BETWEEN THE CREEKSIDE WALLS AND THE CREEK FLOWLINE.

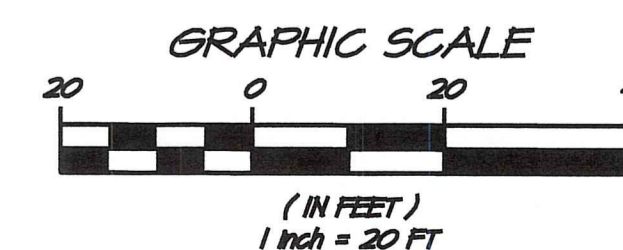
NO ORNAMENTAL TREES WERE LOCATED ON THE WINERY SITE.

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RSA+ NOTES

MAPPING BY TERRA FIRMA SURVEYS INC, DATED JUNE 11, 2019

STREAM SETBACK BASED ON NAPA COUNTY CODE 18.109.25 AND RSA+ MEMORANDUM DATED JUNE 26, 2019



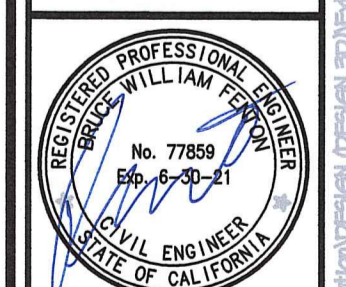
SCALE 1" = 20'

NO.	DATE	BY	APPROV.

515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE (707) 252-3301
WWW.RSACAL.COM

RSA+
REGISTERED PROFESSIONAL CIVIL ENGINEERS & SURVEYORS - 10380

BREMER FAMILY WINERY STREAM SETBACK EXHIBIT ST HELENA CALIFORNIA



DATE	JUNE 26, 2019
DRAWN	EG
DESIGNED	MSS
CHECKED	MSS
JOB NO.	418005.0
SHEET NO.	EXH2
2 OF 2 SHEETS	

	RSA+ CONSULTING CIVIL ENGINEERS + SURVEYORS +	SERVING CALIFORNIA SINCE	1980	1515 FOURTH STREET NAPA, CALIFORNIA 94559 FAX 707 252.4966 OFFICE 707 252.3301
	HUGH LINN, PE, QSD, QSP PRINCIPAL + PRESIDENT	CHRISTOPHER TIBBITS, PE, LS PRINCIPAL + VICE PRESIDENT		
707 252.3301 RSAcivil.com	hLinn@RSAcivil.com	cTibbits@RSAcivil.com		RSACivil.com

#4119005.0
June 26, 2019

Joelle Gallagher, Chair
Napa County Planning Commission
1195 Third Street
Napa, CA 94559

RE: Bremer Winery
Use Permit Stream Protection Evaluation

Dear Joelle:

My name is Phillip Blake, I serve as the Agricultural and Natural Resources Advisor for RSA+, consulting civil engineers and surveyors in Napa, CA. I am a Certified Professional Erosion and Sediment Control in good standing, and have been a certified professional since 1988. Prior to my current 6 years in private consulting, I served as the USDA-NRCS District Conservationist, Napa County between 1982 and 2010, and as an advisor with the USDA Foreign Agricultural Service in 2011.

One of my roles as District Conservationist, (DC) was to serve as an advisor in the formation and development of the Napa County Conservation Regulations. In 1989 through 1991, I provided guidance on various components of the eventual regulations, focusing on soil erosion control, water quality protection, and stream protection measures. Prior to the regulations, no guidance requirements were in place to provide water quality buffers between streams and land development. The Soil Conservation Service Riparian Forest Buffers conservation practice served as the template for county stream setback distance calculations and most of those same technical standards are still in place in county code today. During my tenure as DC in the county, I also developed and oversaw implementation of numerous stream restoration and fisheries enhancement projects and participated as an advisor to the Napa River Total Maximum Daily Load, (TMDL) limiting factors analysis.

RSA+ was contacted by representatives of the Bremer Family Winery and asked to examine stream conditions on a headwaters reach that is a tributary to Canon Creek. The particular reach of stream flows through the Bremer parcel. Adjacent to the stream are various structures and components of the Bremer Family Winery, some historic and others more recent. The 350 acre watershed catchment feeds various ephemeral headwaters channels and eventually the Class II stream that passes by the winery. A geomorphically-entrenched canyon encloses and defines the stream thalweg and top of bank before it transitions to a floodplain composed of colluvial and alluvial materials near Deer Park Rd.

In the canyon reach along the winery buildings, the stream is a "Type A2", as defined by the Rosgen stream classification protocol. The Rosgen system is widely recognized and used by hydrologists, geomorphologists, and conservationists providing a scientific mechanism to analyze and determine the stability of a stream reach, and to select the most appropriate conservation treatments to

maintain natural stream function. A2 stream types are naturally entrenched channels, are comprised of boulder substrate bottoms, retain low flow path sinuosity, and are steep in run. By nature, these streams are able to carry large flows within a relatively small cross section, transport sediment efficiently, and are generally quite stable.

My observations, and those of First Carbon Solutions, (March 28, 2019 Biological Report) indicate that overall stream health and riparian function in the upper reach by the winery are in good condition. Hydrologic and hydraulic calculations that I have performed for this reach, indicate that the stream maintains a relatively shallow flow through most storm events, and that even in a rare 100 year event, flow depth varies between 2.4 and 3.0 feet.

Stream setback determinations for this project reach, present a challenge. The canyon-dominated slope of both the stream in relation to the surrounding land create contours that are more parallel with rather than perpendicular to the stream in the upper-most reach. Due to variability in land-to-stream slope relations, land contour measurement protocols in this particular canyon bottom landscape setting results in multiple, sequential polygons of widely varying setback distances, (June 11, 2019 Terra Firma Surveys, Inc. mapping). Setback distances, as required by county code, are measured from the “top of bank” of the stream to the nearest edge of the proposed graded area, using map contours of the land above the determined top of bank. Given this specific setting, we believe that it makes sense to carry, consistent with the intent of the regulations, setback distances through and along the winery reach of stream (as shown in RSA+ Exhibits 1 and 2).

Recommendations

- 1) The historic/maintained walls along the creek geomorphic top of bank provide protection of the stream from outboard overland flow that would otherwise channel runoff erosively overbank into the creek. These walls and the historic retaining walls that buttress and protect hillsides above winery buildings need to be retained, and should be considered as an allowable activity, to provide upland and stream bank stabilization.
- 2) Bremer facilities in the upstream reach include a covered carport, office building, winery building, and ag shop. Setback distances should be measured alternately from the stone walls at top of bank, (both sides of the creek) and from the “edge of rocks” Terra Firma Survey mapping in the uppermost creek reach, (north bank). RSA+ Exhibit 2 notes the setback reference points as “Adopted Top of Bank”.
- 3) In the downstream stream reach of winery facilities where topography is less dominated by canyon contours, stream setbacks vary from 45 to 65 feet. To provide more uniform stream protection buffers, we recommend that a 55 foot setback be applied to the upstream development envelope, except where the pre-1991 development footprint is in closer proximity to the creek.

The county conservation regulations setbacks are intended to provide an effective buffer between the developed land and streams, to protect water quality and to preserve riparian habitat function. It is our opinion that these goals can be achieved with appropriate management and maintenance of storm water management practices within the development envelope.

Respectfully,



Phill Blake
Agriculture & Natural Resources Advisor, CPESC #343

PB/ms

Enclosures:

- Exhibit 1 – “Stream Setback - Consistent with Intent of Stream Setback Ordinance”
- Exhibit 2 – “Stream Setback - Impractical & Not Consistent with Intent of Ordinance”