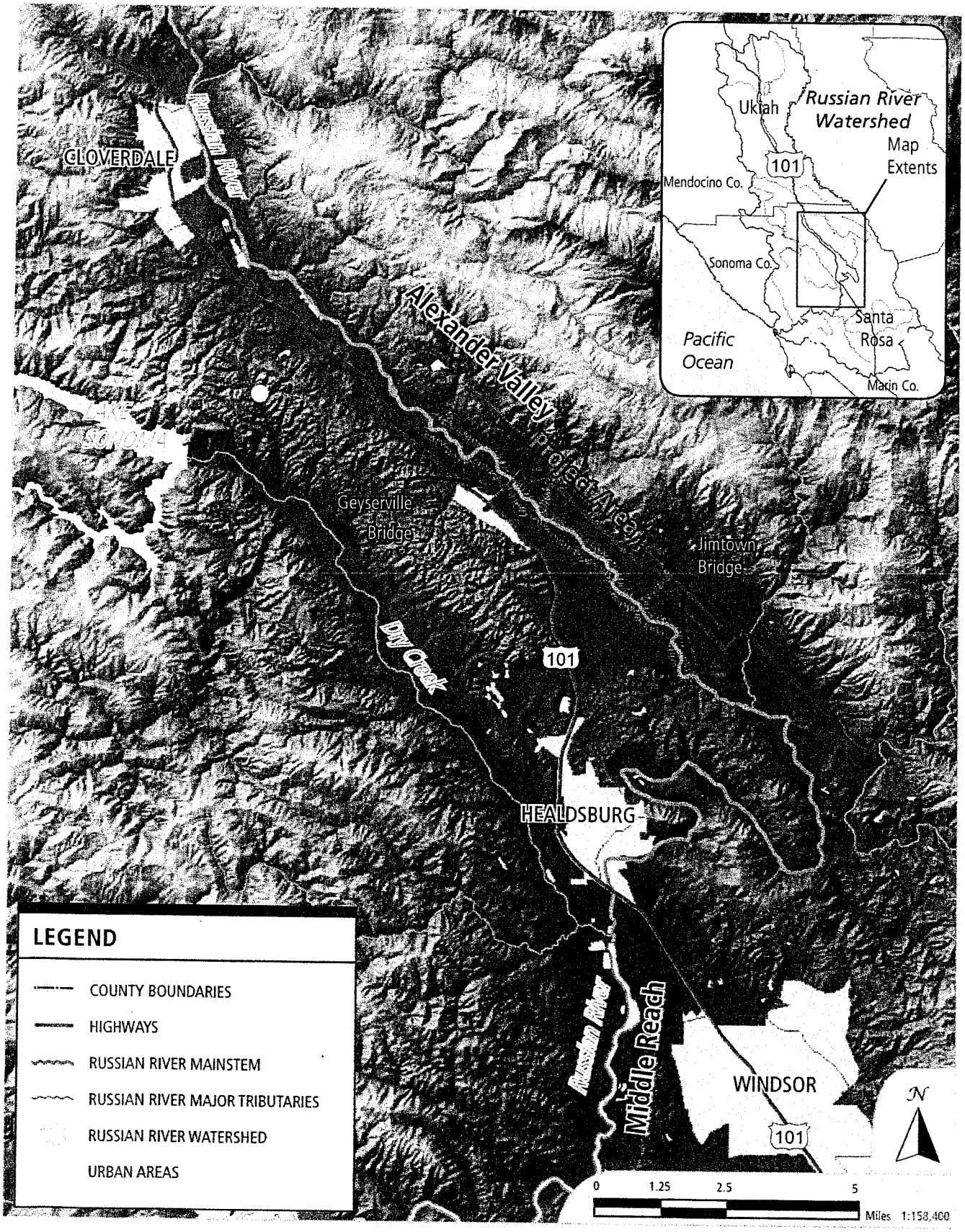
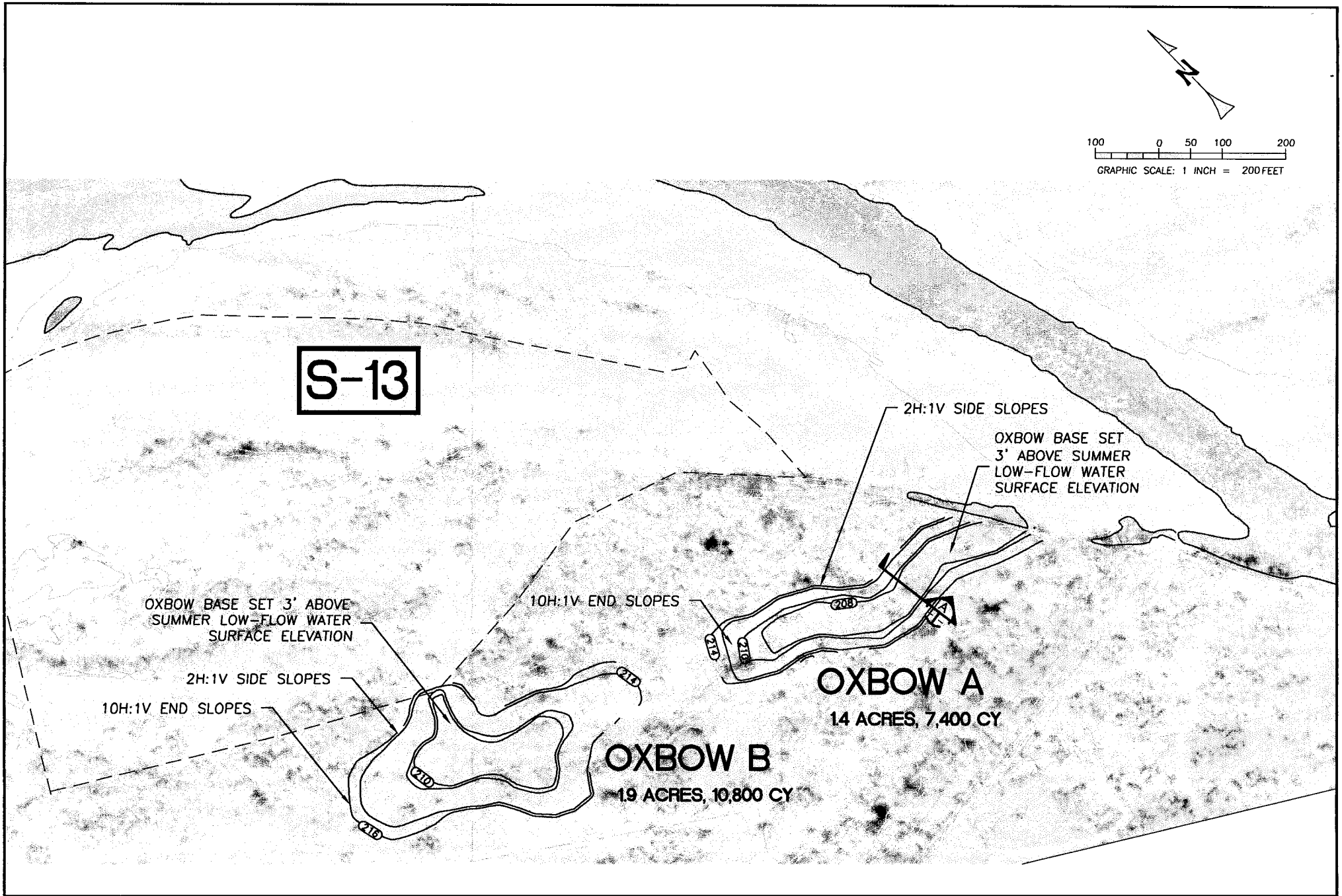


FIGURE 1: PROJECT SITE VICINITY MAP.

500 Seabright Ave, Suite 202 Santa Cruz, CA 95062
PH 831.427.0288 FAX 831.427.0472



Swanson Hydrology + Geomorphology
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

LEGEND

- EXISTING GROUND CONTOURS
- FINISHED GRADE CONTOURS (200)
- LIMITS OF MINING (2006)
- PARCEL BOUNDARY

ALEXANDER VALLEY
RIVER ENHANCEMENT PLAN

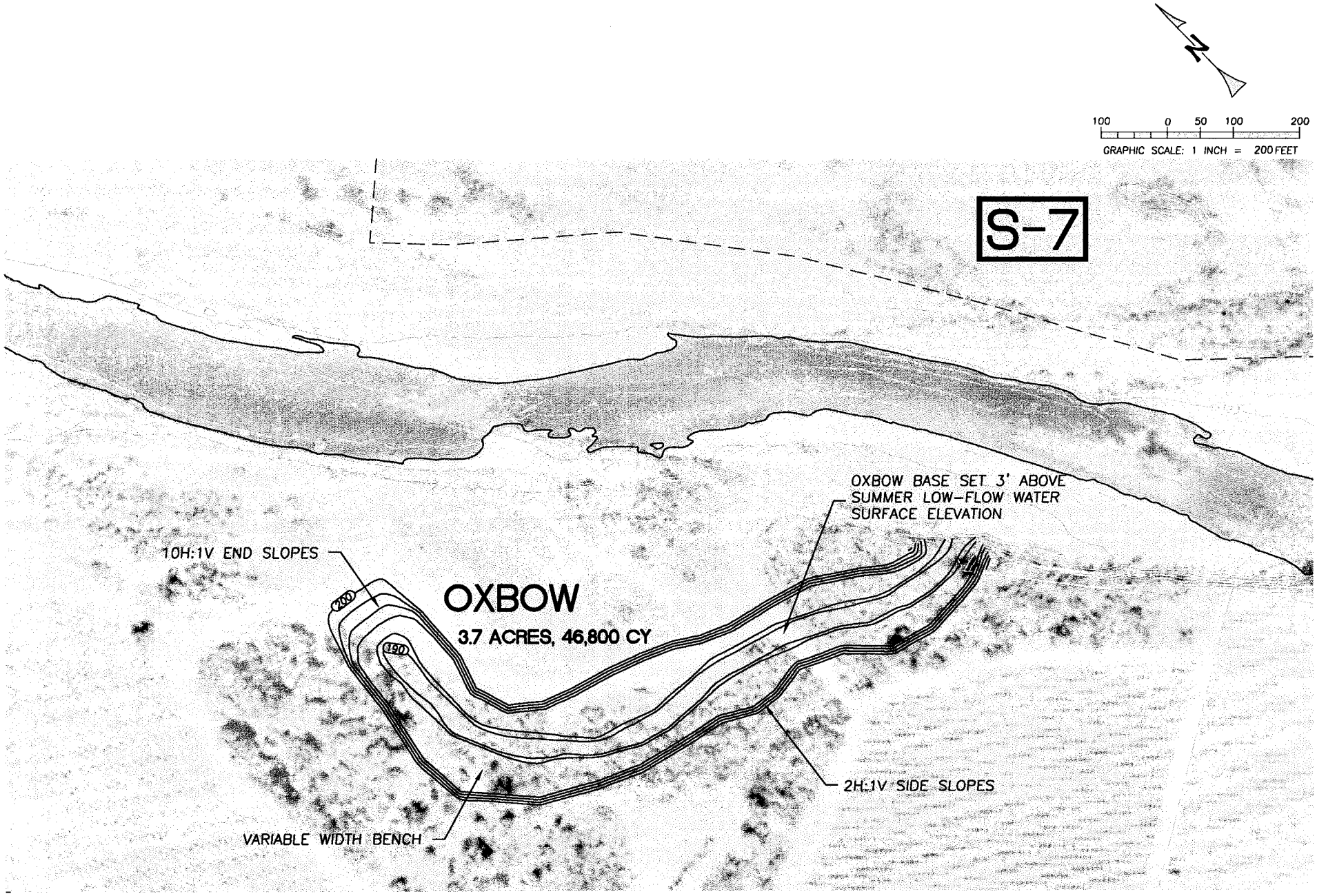
BAR S-13
OXBOWS

DRAFT

NOT FOR CONSTRUCTION

DATE: 7/1/08
JOB NO.: 08-655

FIGURE 2A



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500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

LEGEND

- EXISTING GROUND CONTOURS
- FINISHED GRADE CONTOURS (200)
- LIMITS OF MINING (2006)
- PARCEL BOUNDARY

ALEXANDER VALLEY
RIVER ENHANCEMENT PLAN

BAR S-8
OXBOW

DRAFT

NOT FOR CONSTRUCTION

DATE: 7/1/08
JOB NO.: 08-655

FIGURE 2B

Table Characteristics of Bars Tentatively Proposed for First Cycle of Mining Operations					
Bar	APN	Parcel Size (ac)	Proposed Skimming Area (ac)	Quantity (cy)	Quantity (tons)
S-14	141-190-056	52.2	6.7	89,681	134,522
S-13	141-190-056 141-190-059	52.2 35.5	19.1	235,230	352,845
S-9	140-230-037 140-080-016	81.8 136.2	8.6	109,287	163,931
S-8	140-080-016	136.2	19.4	272,426	408,639
S-7	140-080-016	136.2	17.0	130,422	195,633
S-4	140-060-002 131-050-004	150.8 304.7	21.0	180,437	270,656
SD-5	131-050-004	304.7	4.3	187,630	281,445
SD-4	131-050-004 131-060-024	304.7 64.6	13.9	50,189	75,284
			110.0	**1,255,302**	**1,882,953**

Note: ac = acres; APN = assessor's parcel number; cy = cubic yards. Mining would be limited to a maximum of 350,000 tons per year. The phasing of mining operations is subject to change based on the AMS.
Source: Syar 2008

FIGURE 3: Characteristics of first eight bars proposed for mining.

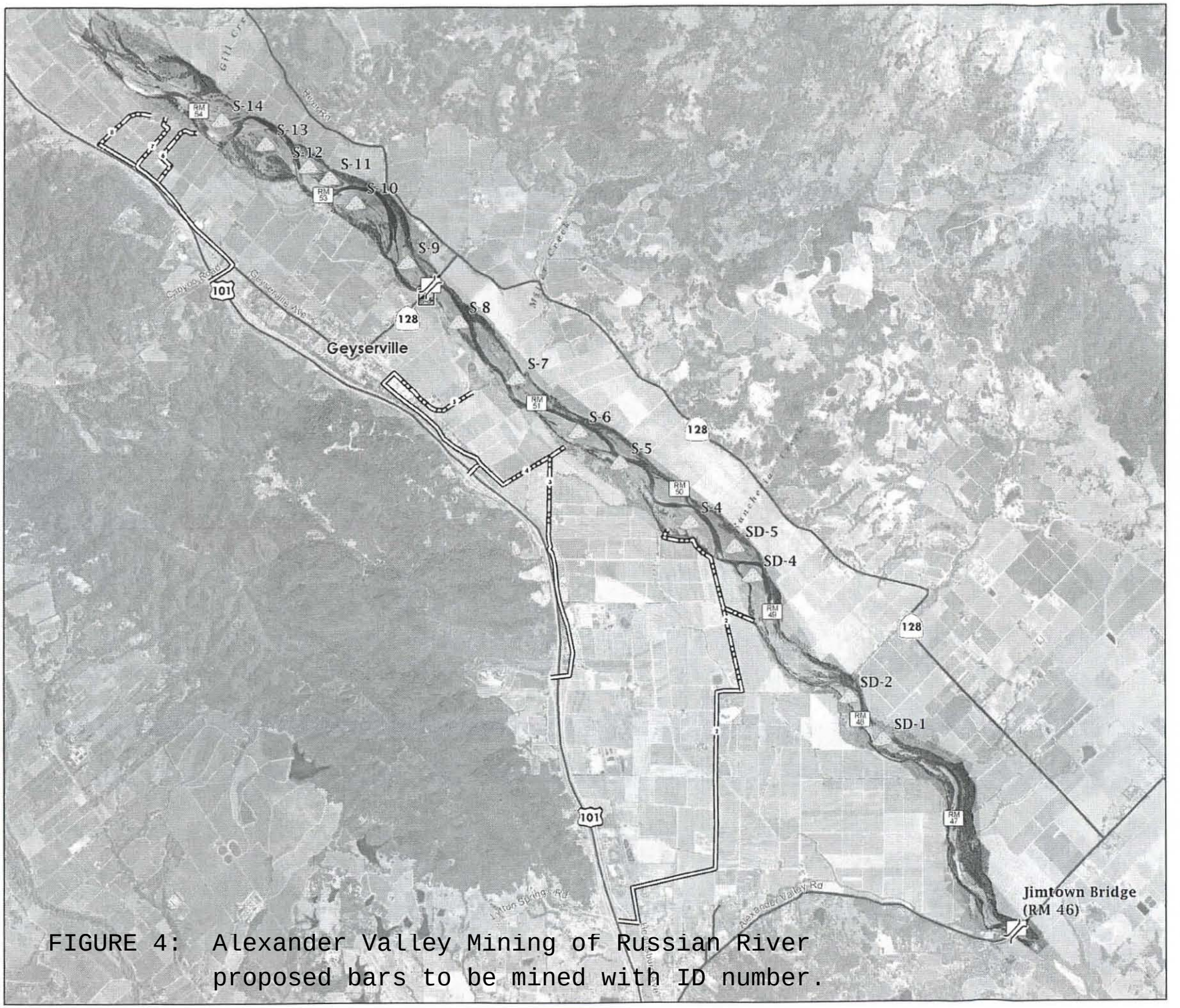
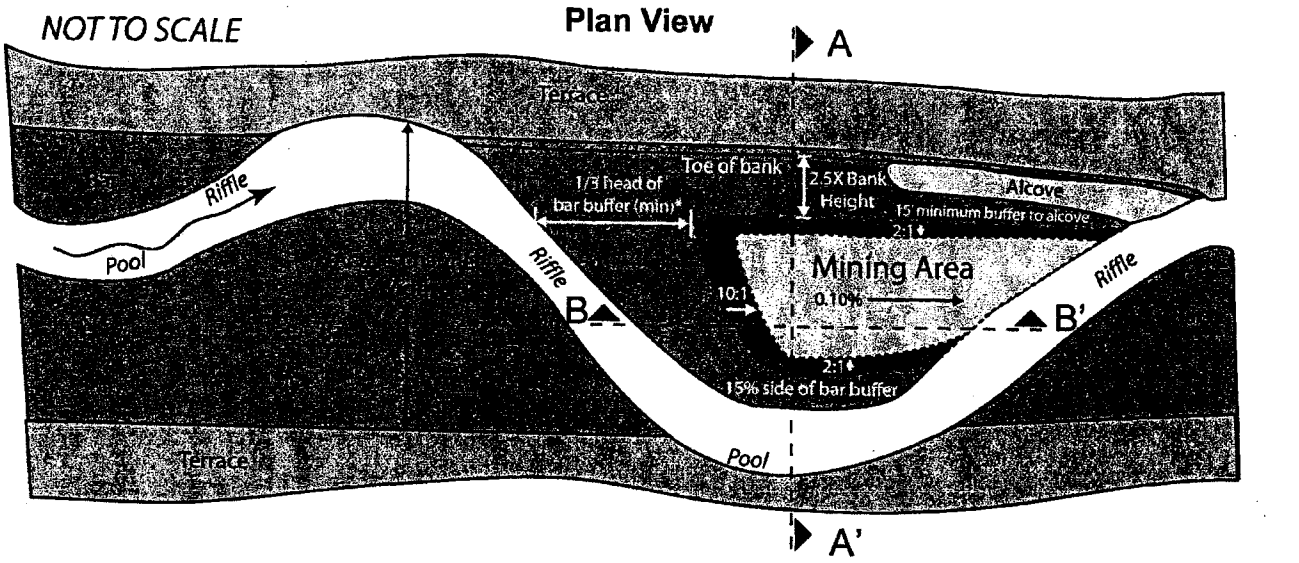
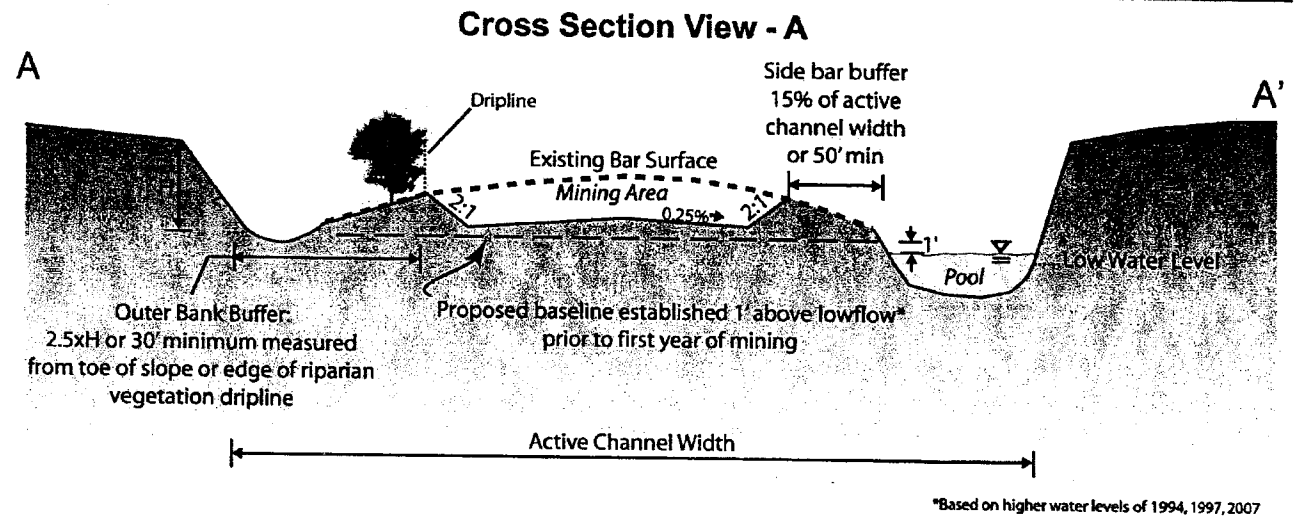
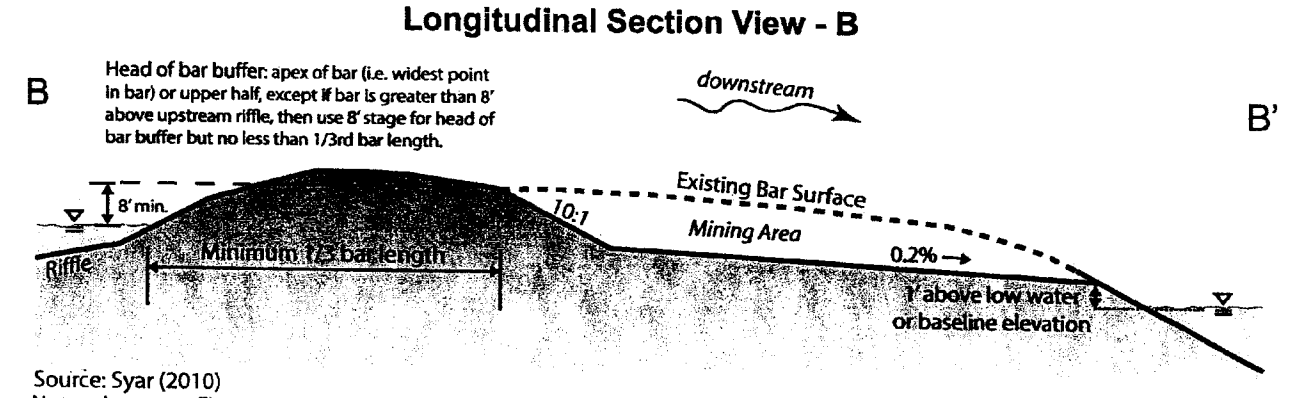


FIGURE 4: Alexander Valley Mining of Russian River proposed bars to be mined with ID number.

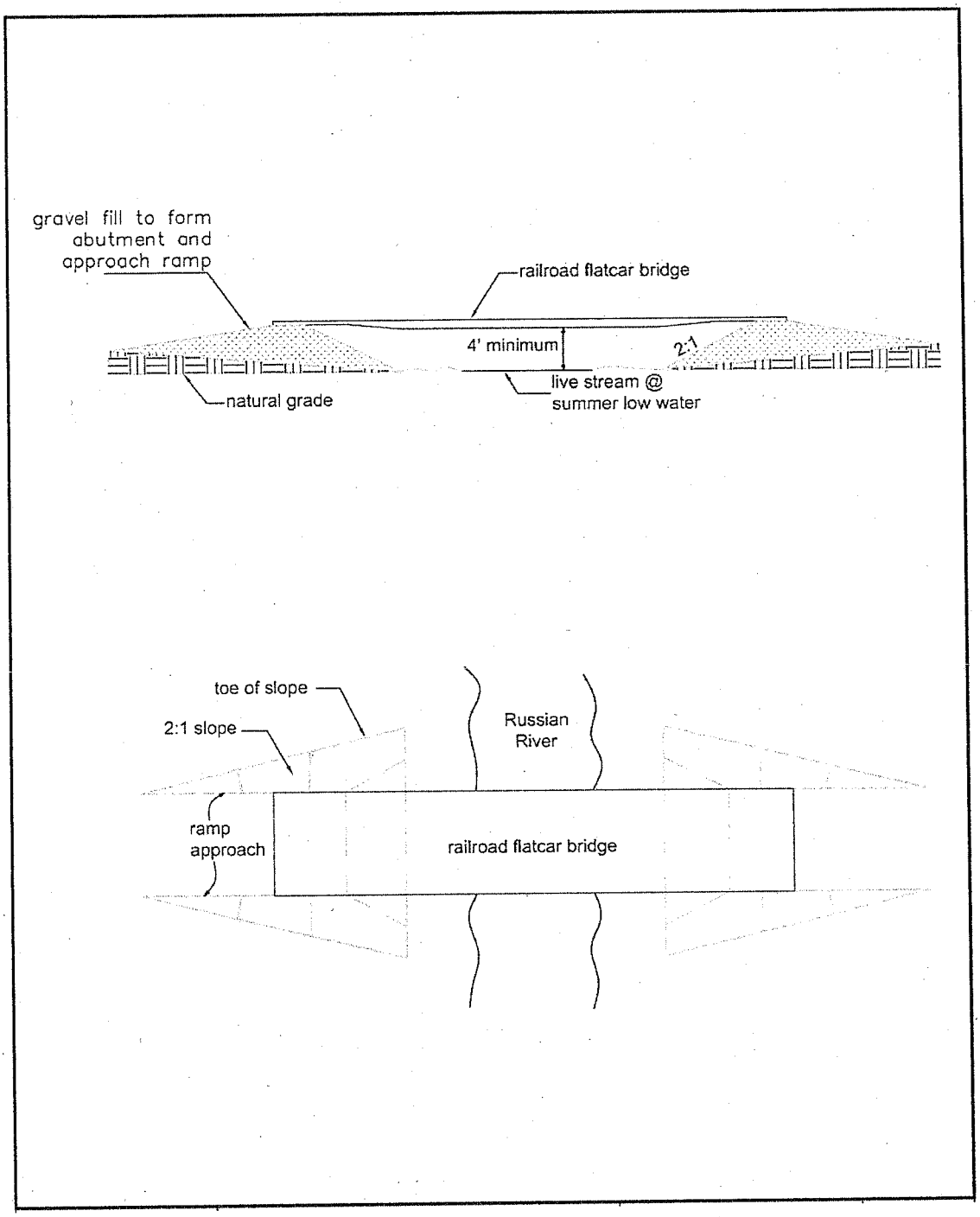






Source: Syar (2010)
Note: please see Figure 1-6 for cross sections

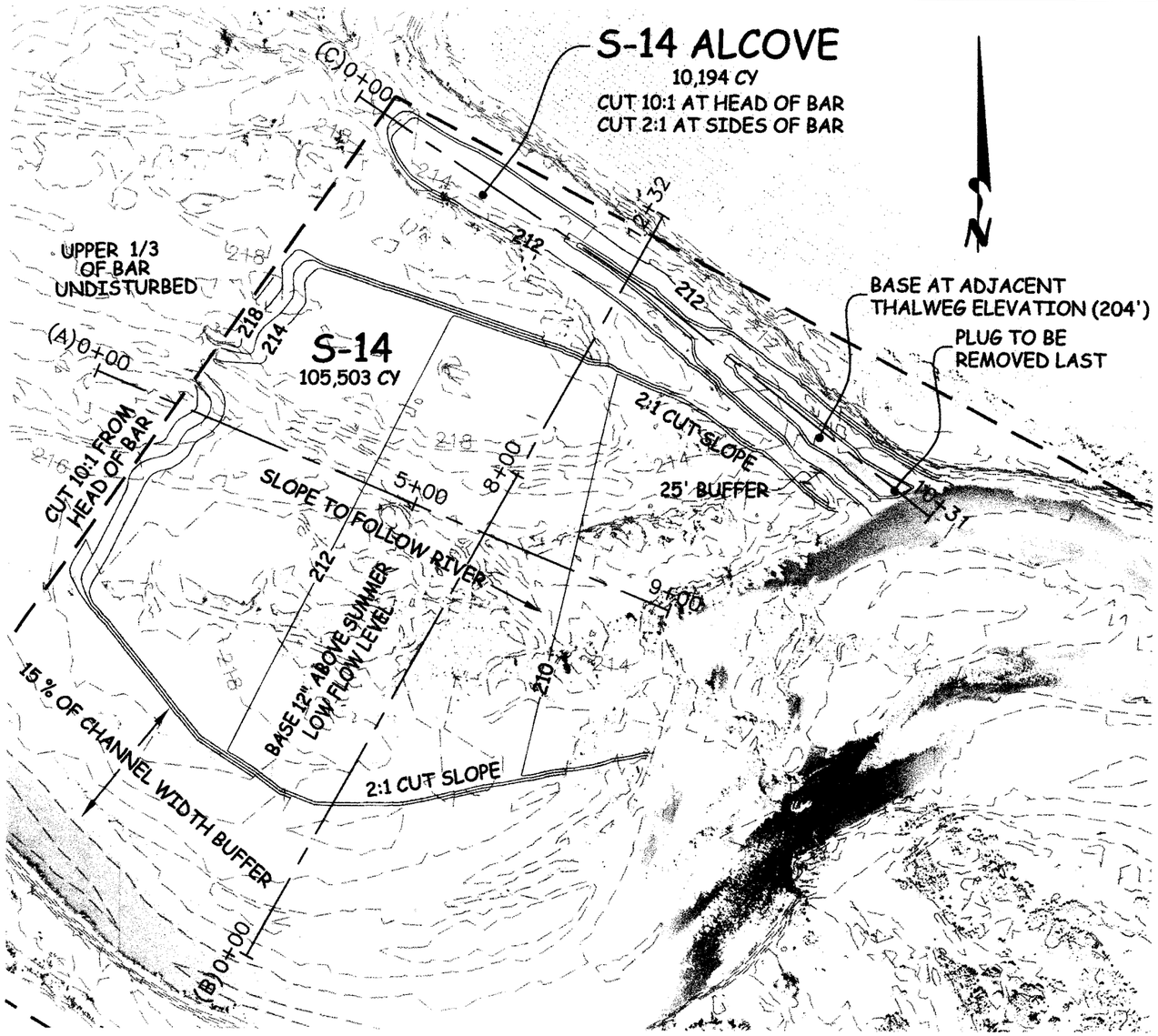
Figure 5

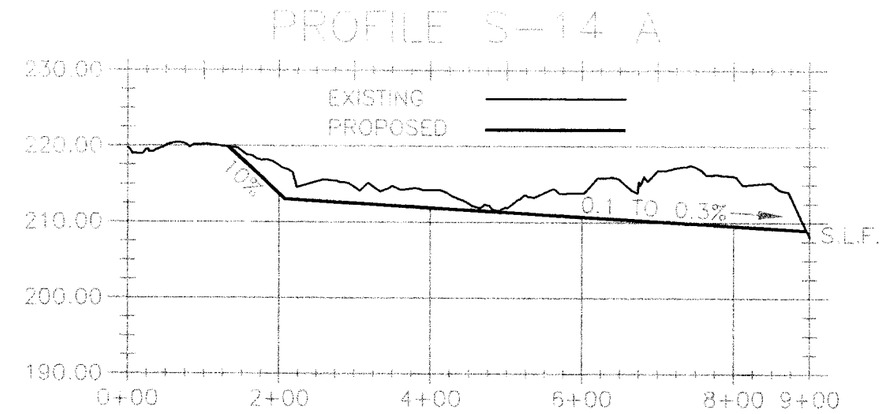


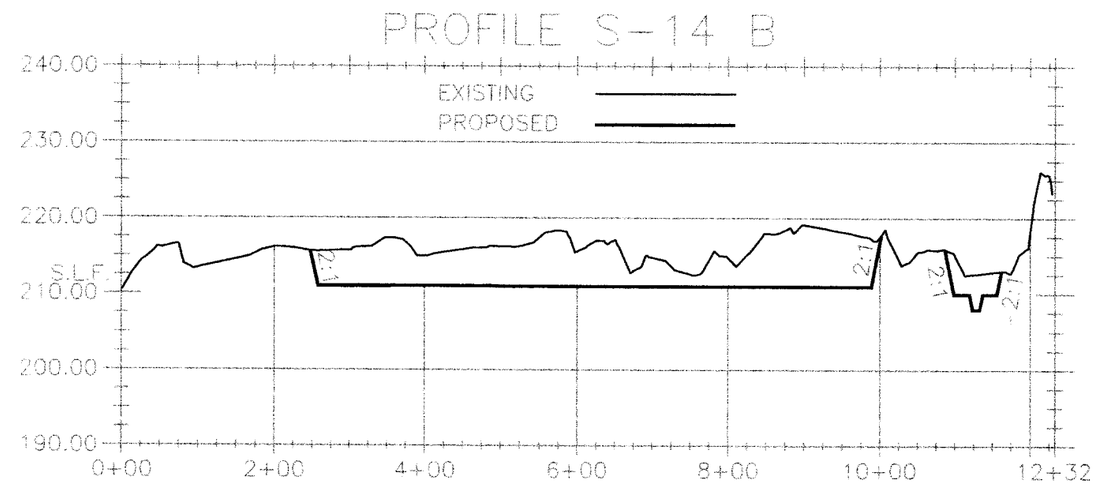
Source: LSA, 2007

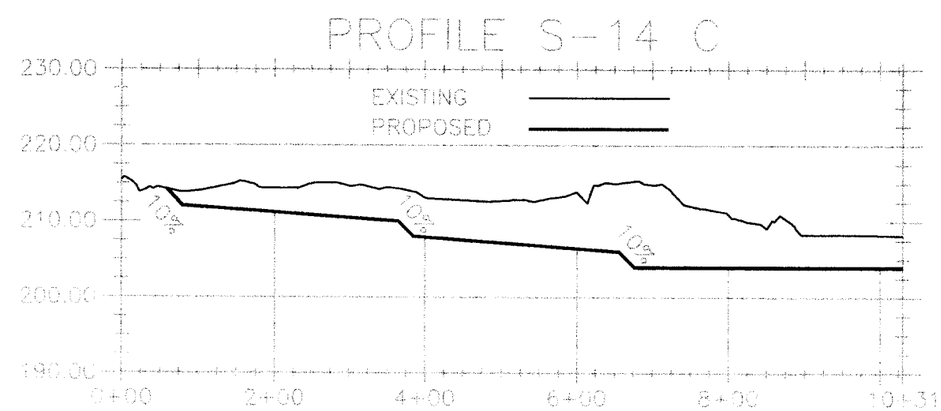
Figure 6

Typical Temporary Bridge







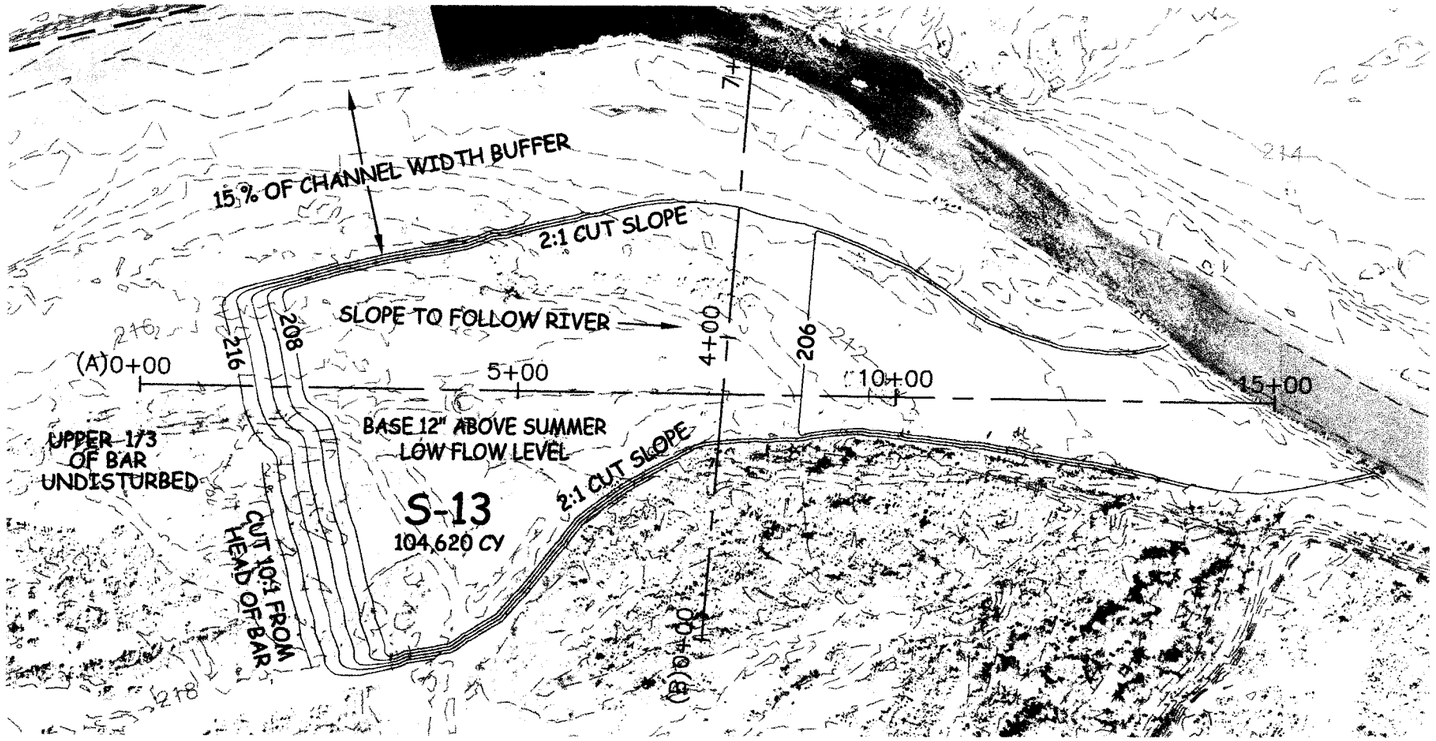


LEGEND

PROPERTY LINE
EXISTING GROUND
PROPOSED GRADING
SUMMER LOW FLOW S.L.F.

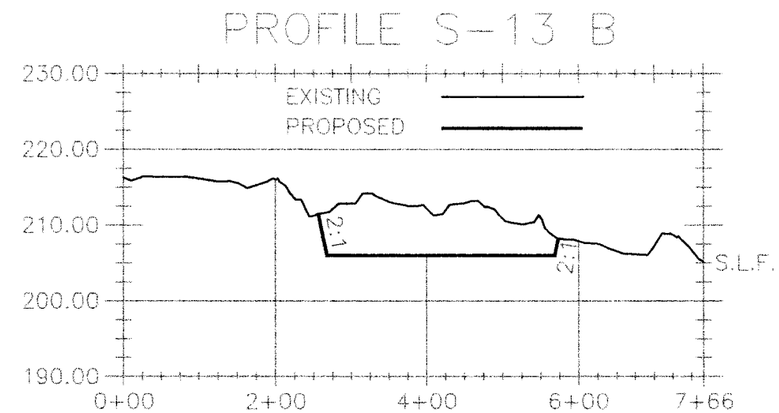
0 200' 1" 600' 3"

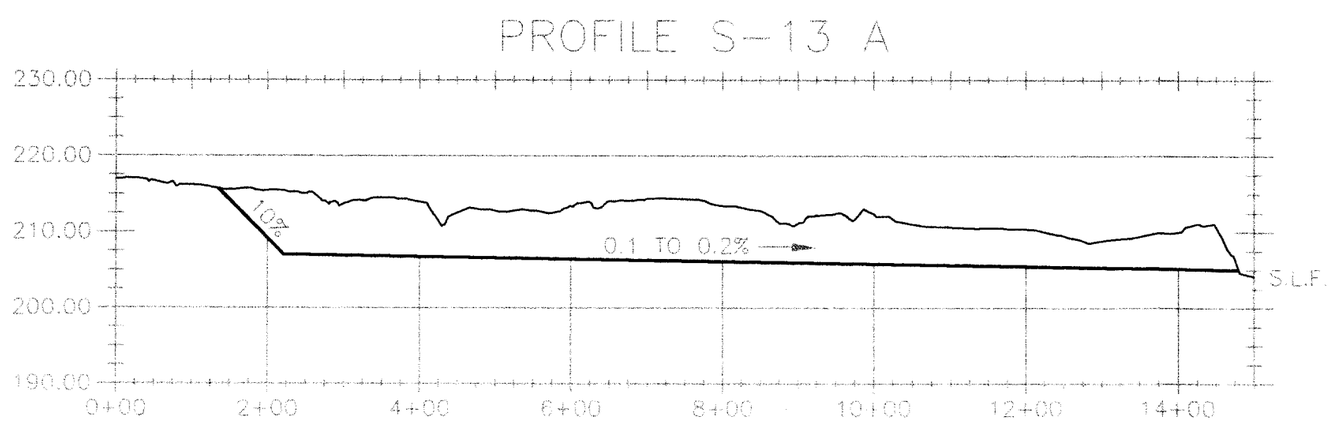
YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-14	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.



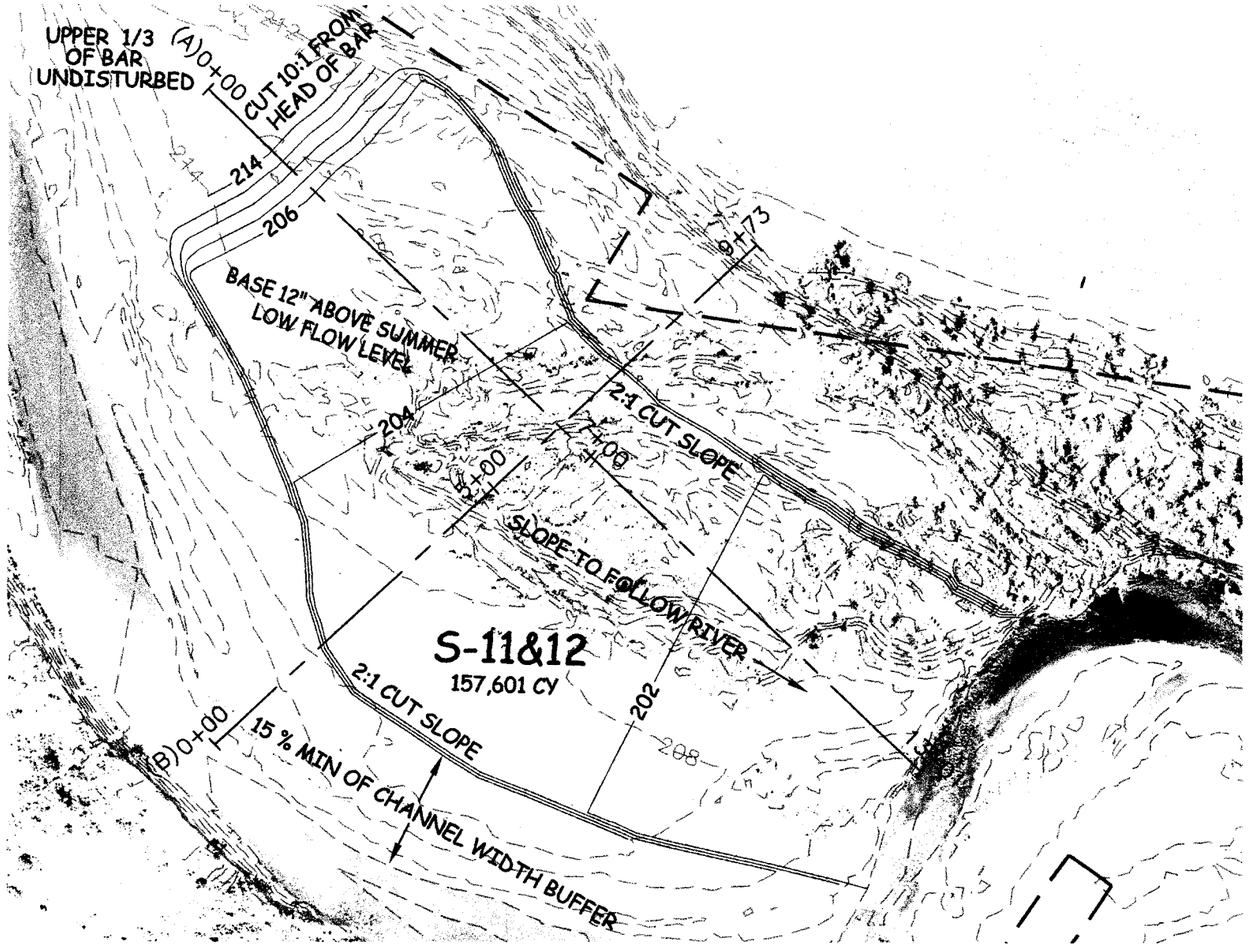
LEGEND

PROPERTY LINE	— —
EXISTING GROUND	- - - -
PROPOSED GRADING	———
SUMMER LOW FLOW	S.L.F.



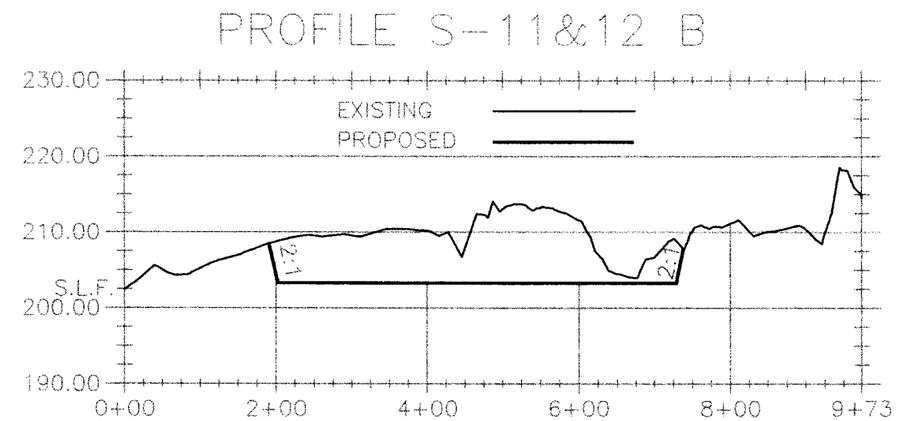


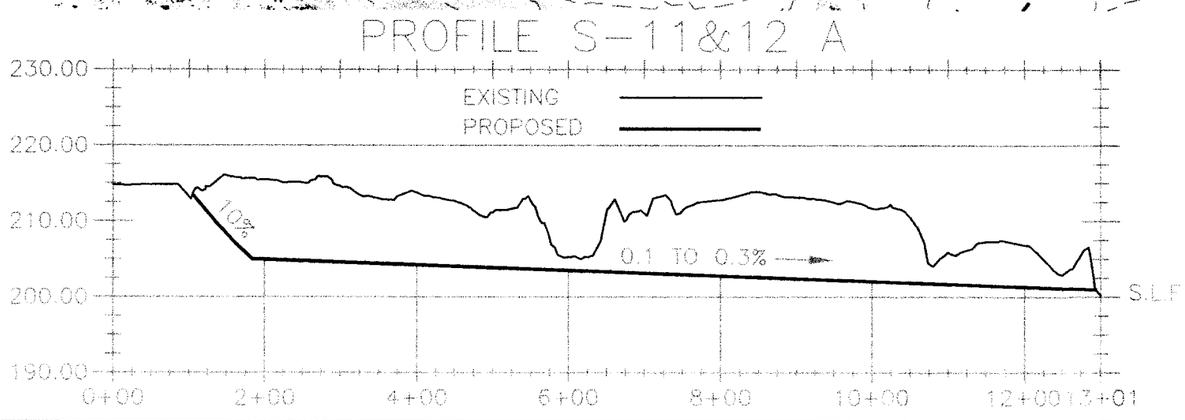
YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-13	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.

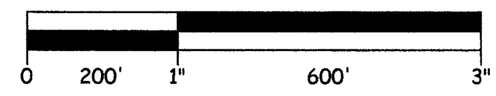


LEGEND

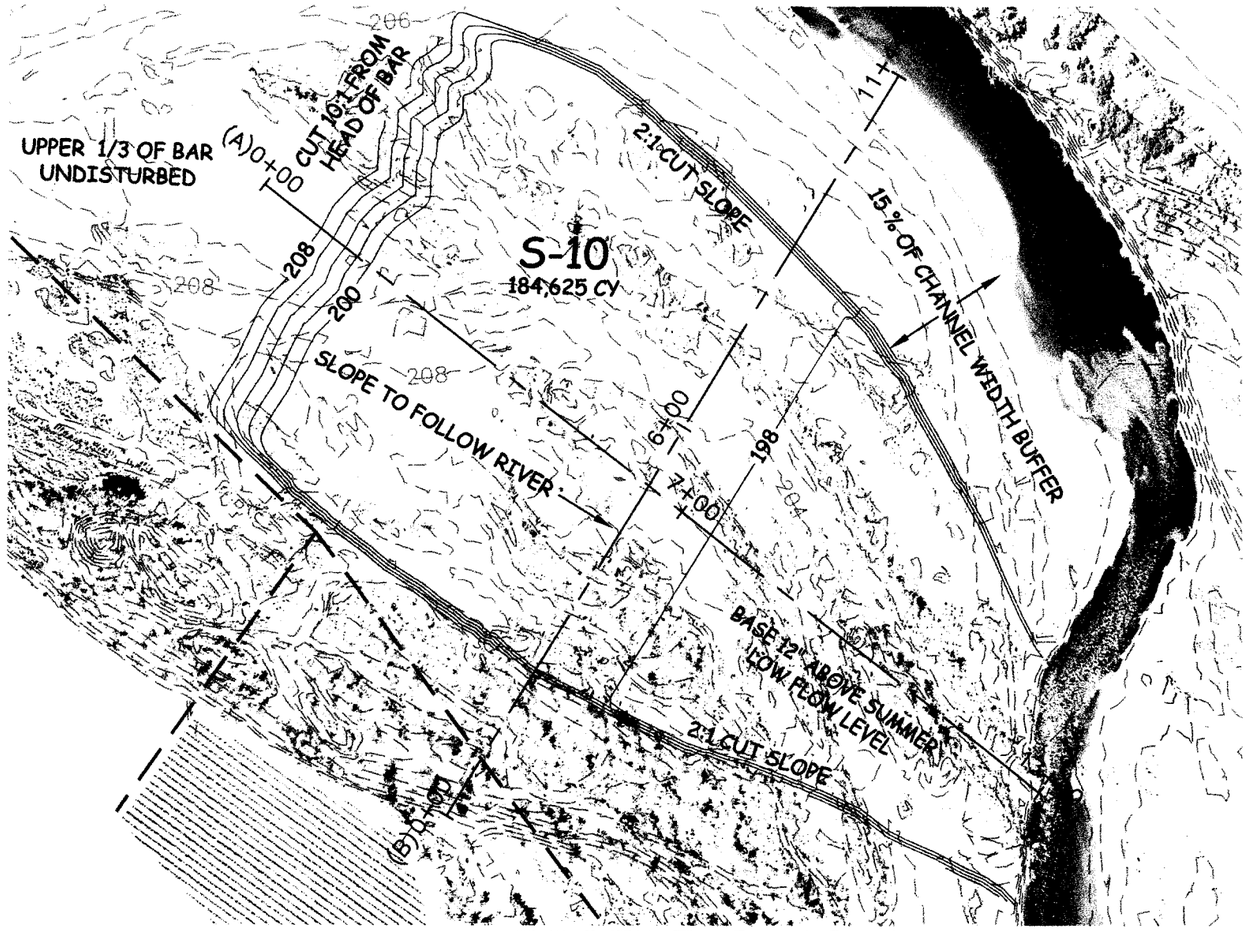
PROPERTY LINE	— —
EXISTING GROUND	
PROPOSED GRADING	
SUMMER LOW FLOW	S.L.F.





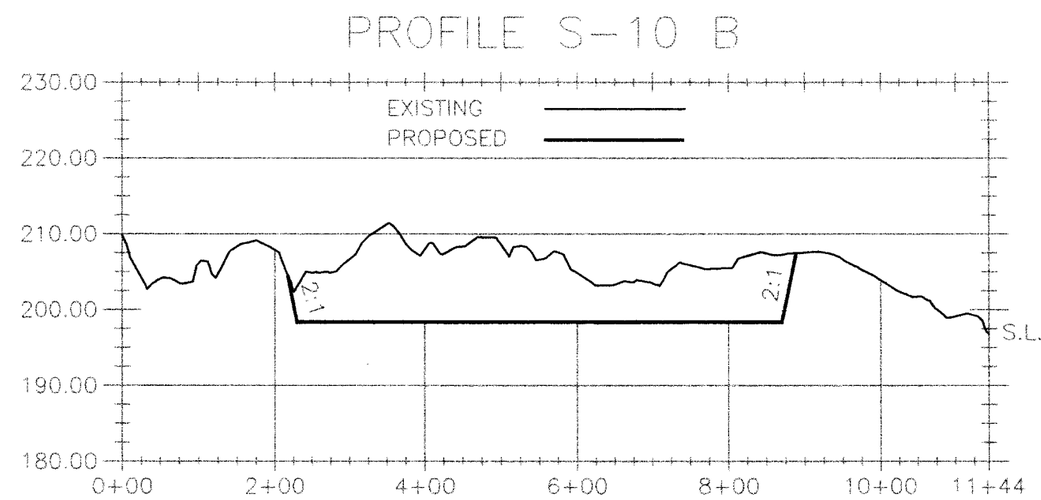


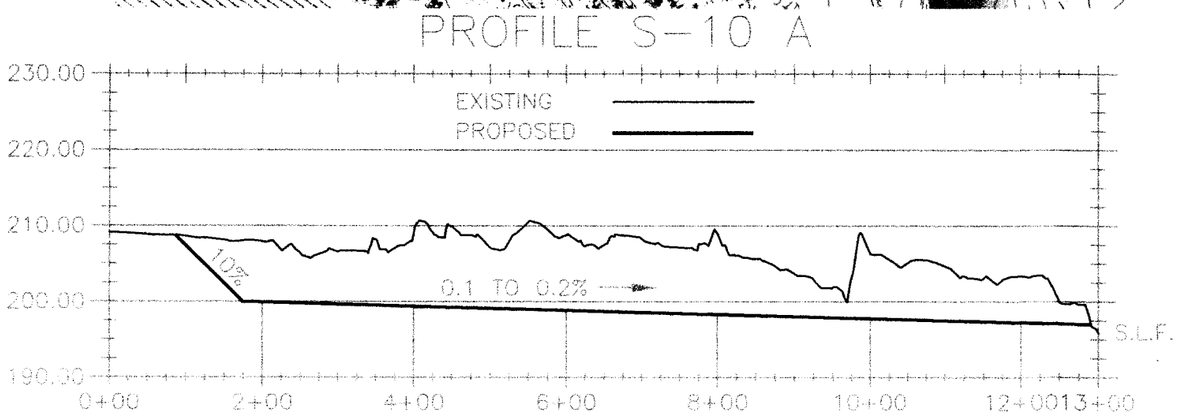
YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-11 & 12	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.

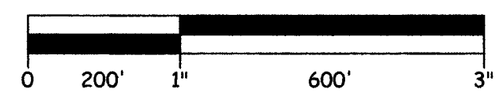


LEGEND

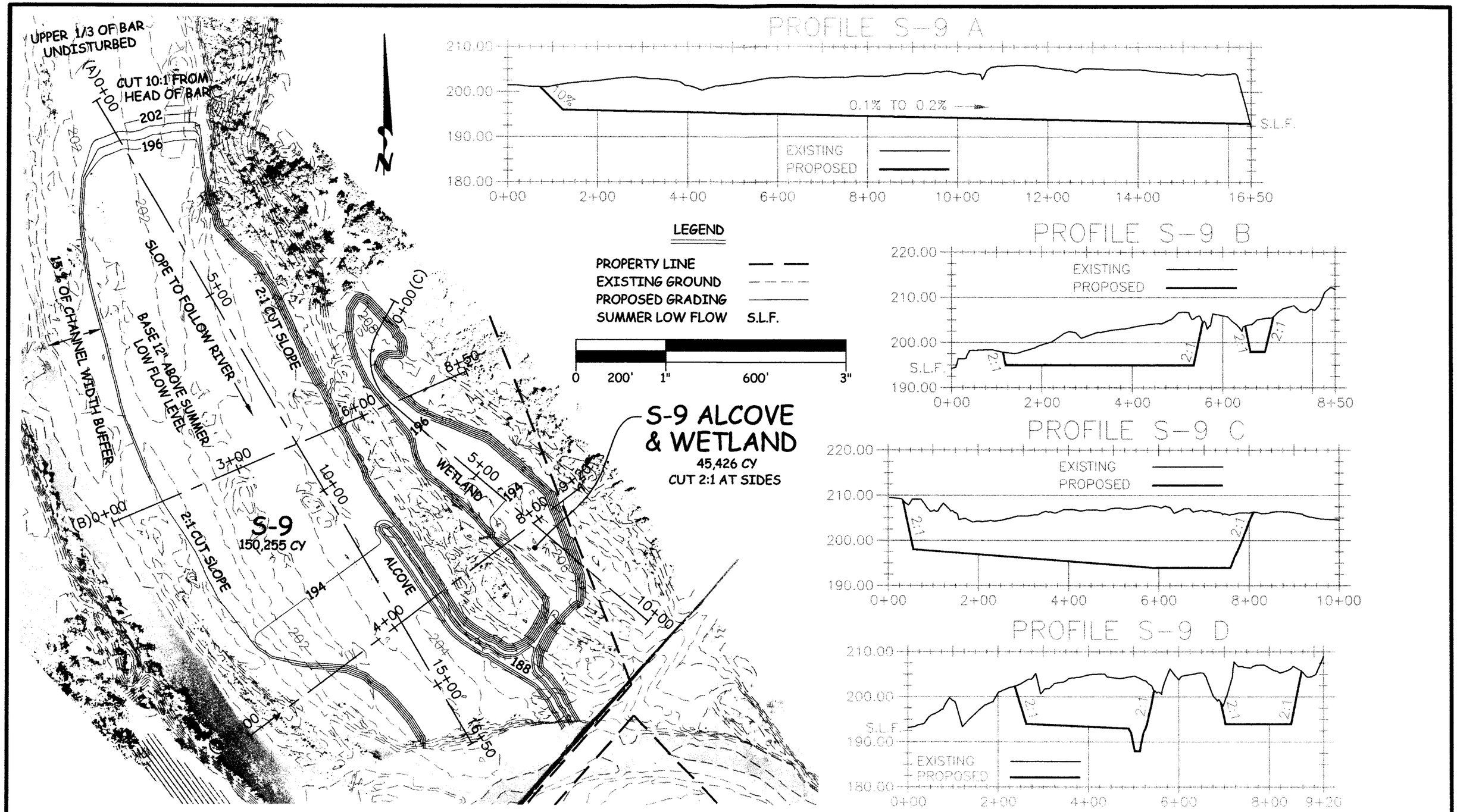
PROPERTY LINE
EXISTING GROUND
PROPOSED GRADING
SUMMER LOW FLOW S.L.F.



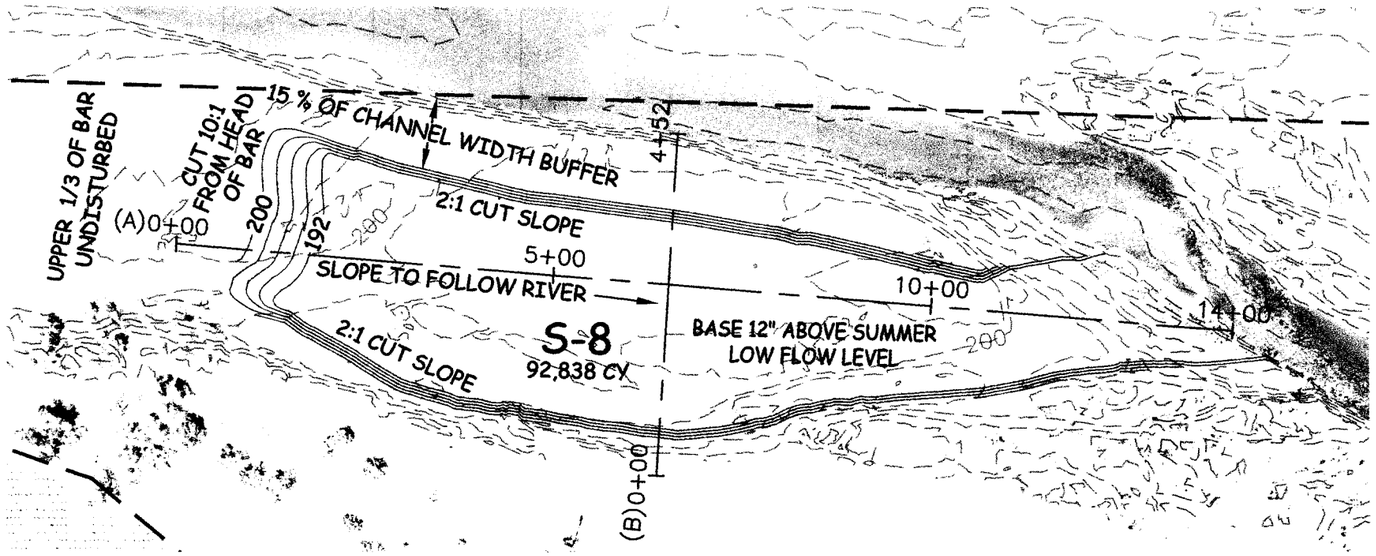




YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-10	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.

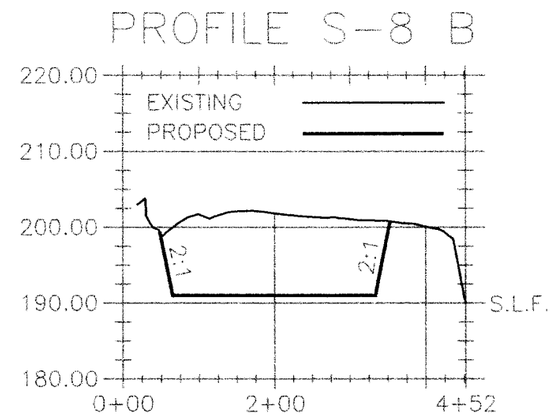


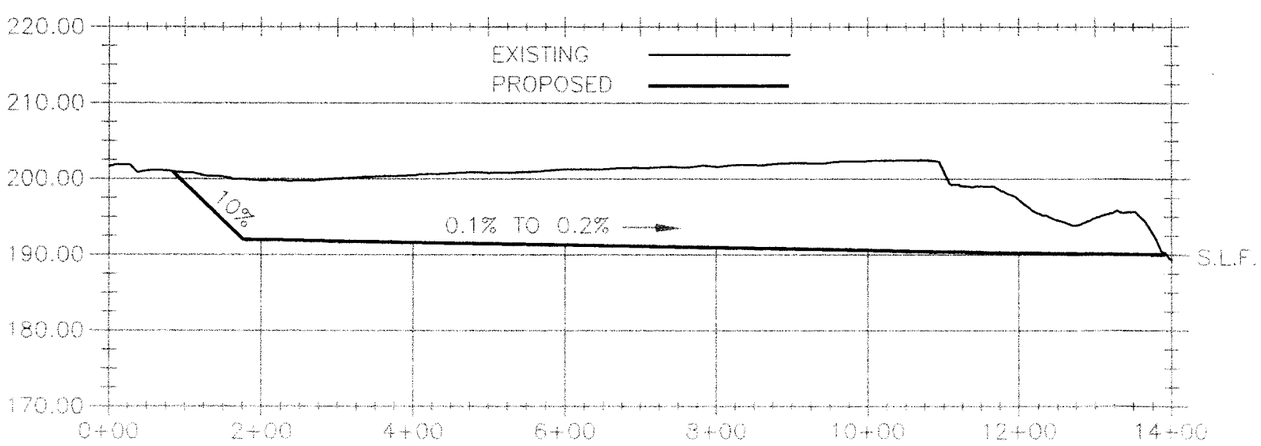
YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-9	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.



LEGEND

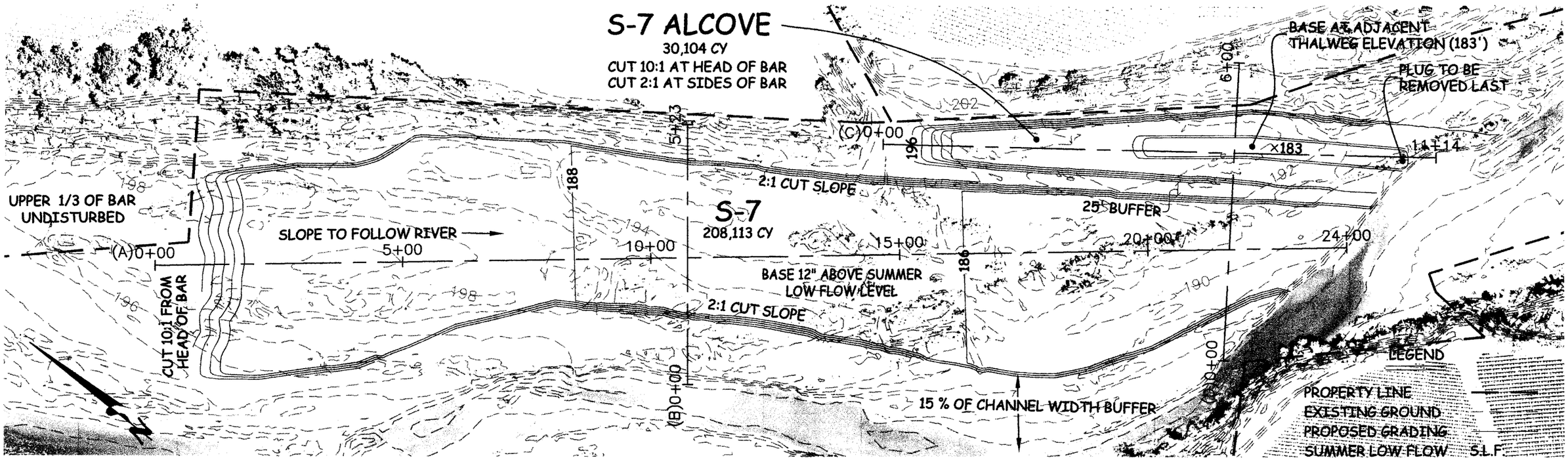
PROPERTY LINE	— —
EXISTING GROUND	- - - -
PROPOSED GRADING	———
SUMMER LOW FLOW	S.L.F.



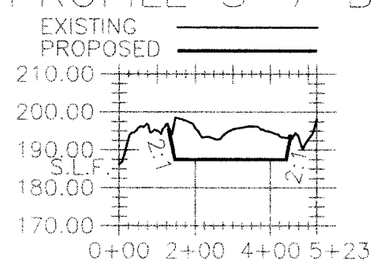


0 200' 1" 600' 3"

YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-8	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.

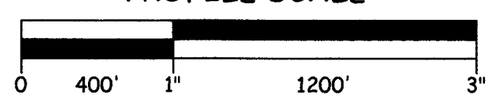


PROFILE S-7 B



PLAN SCALE

PROFILE SCALE



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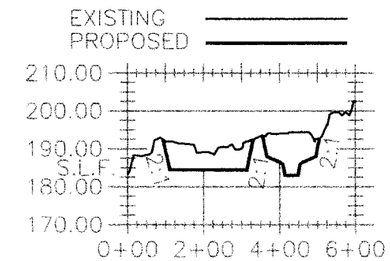

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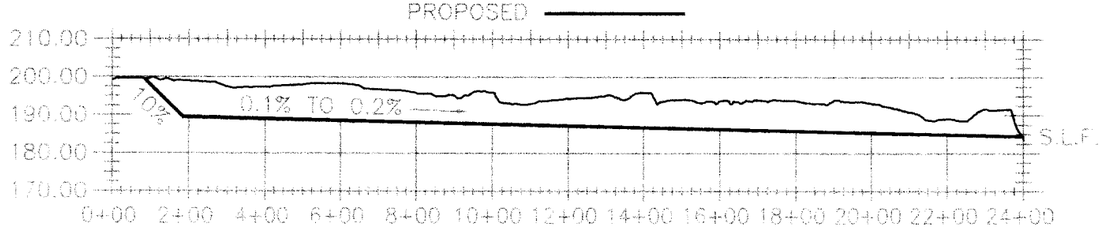

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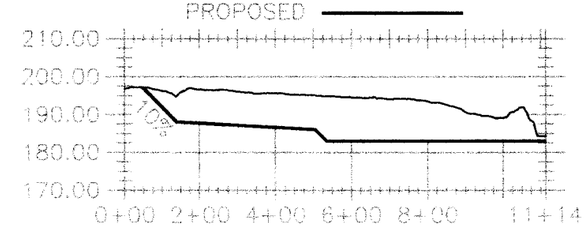
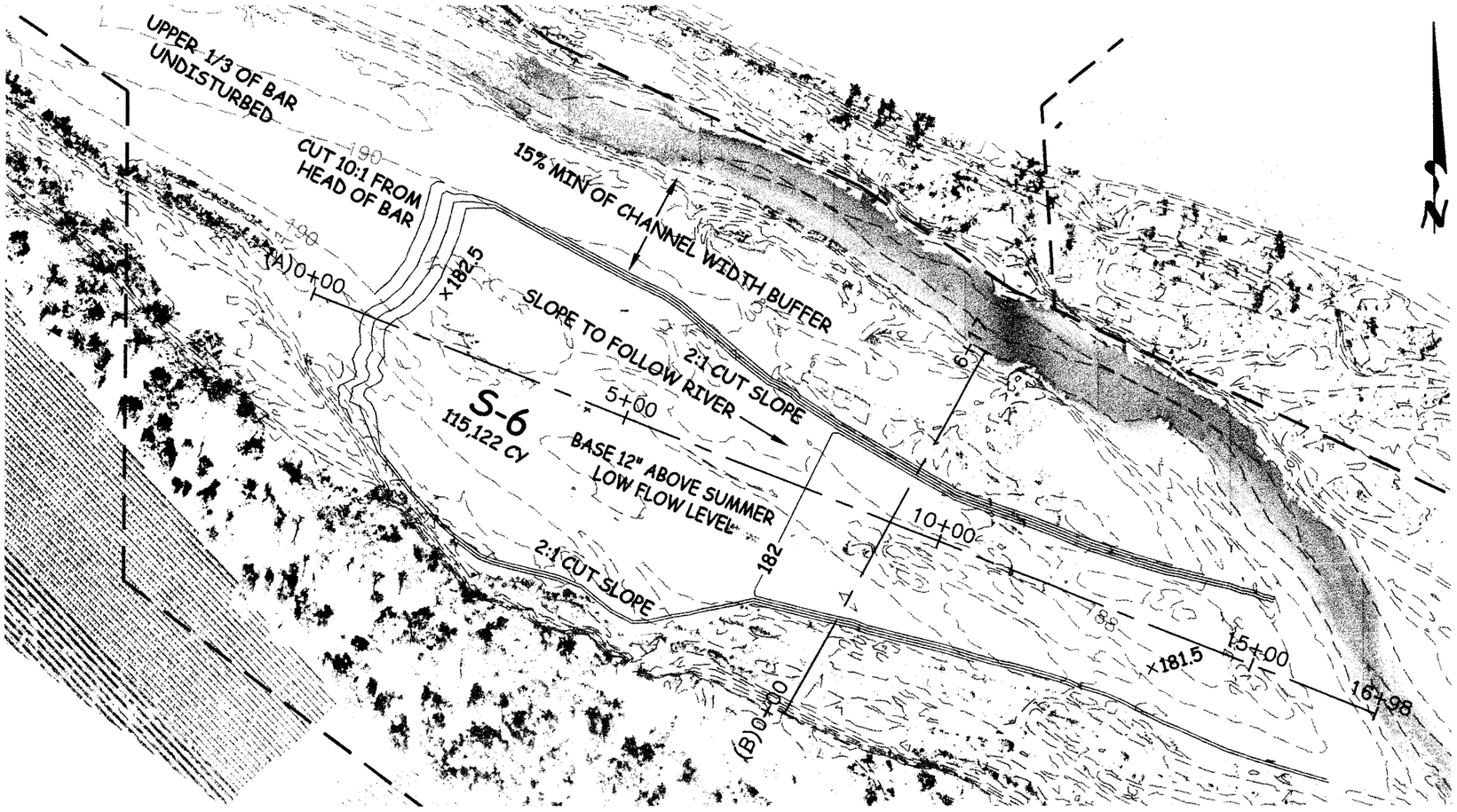
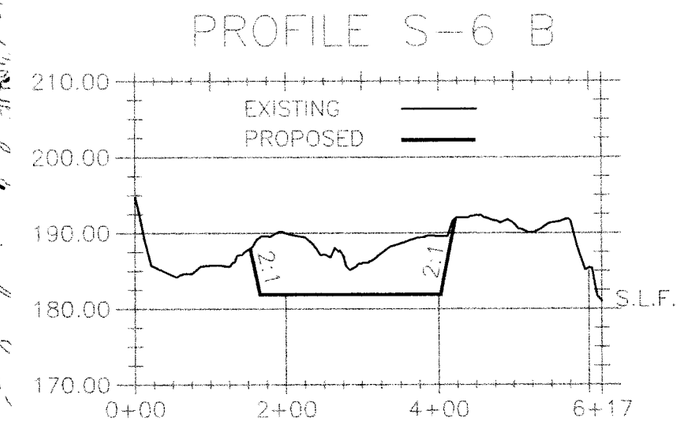


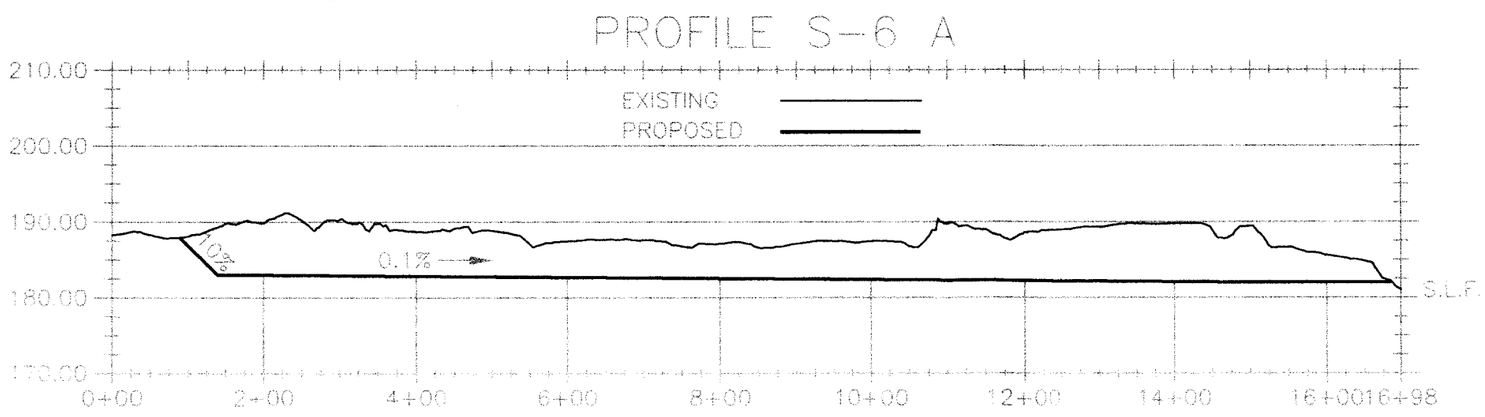
YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-7	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.



LEGEND

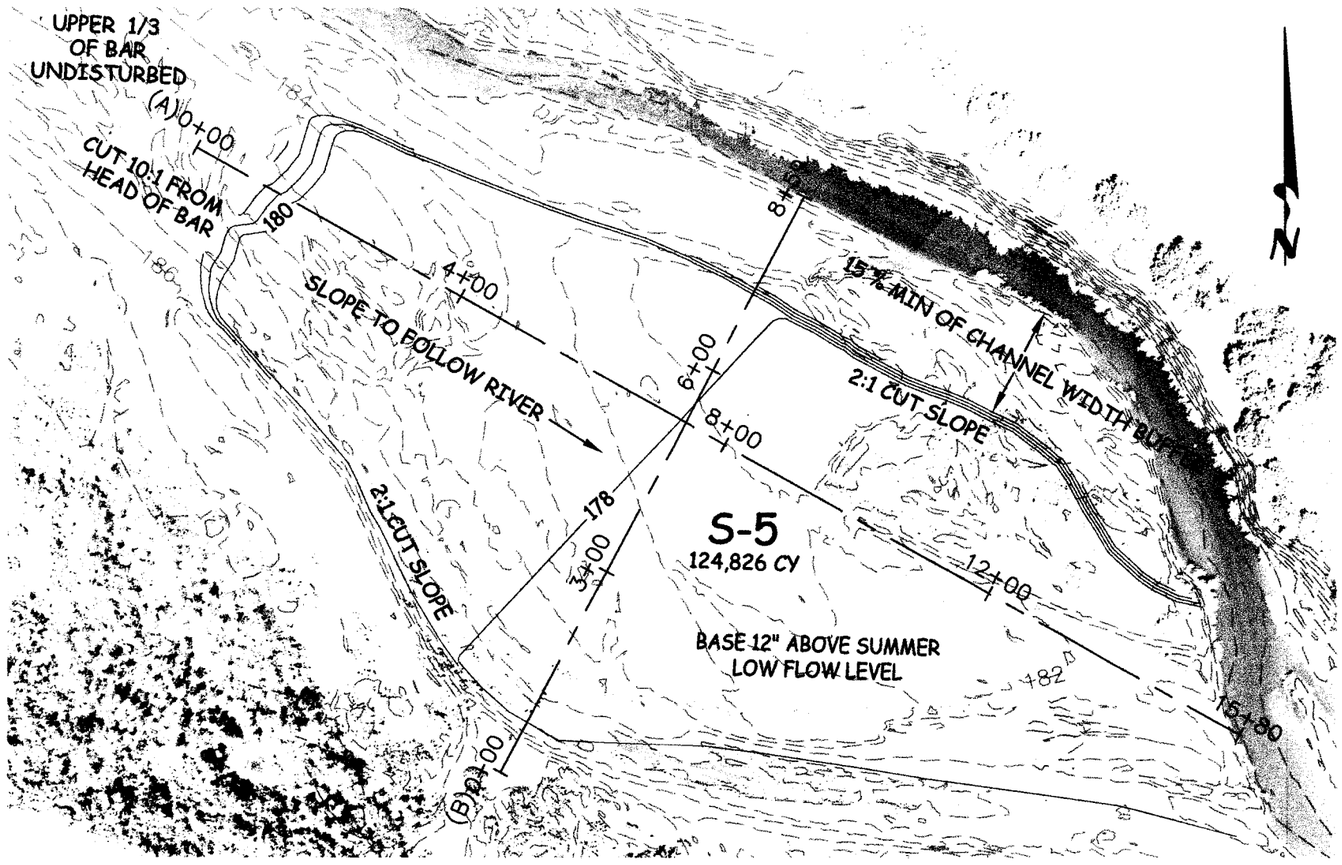
PROPERTY LINE	— —
EXISTING GROUND	- - - -
PROPOSED GRADING	———
SUMMER LOW FLOW	S.L.F.





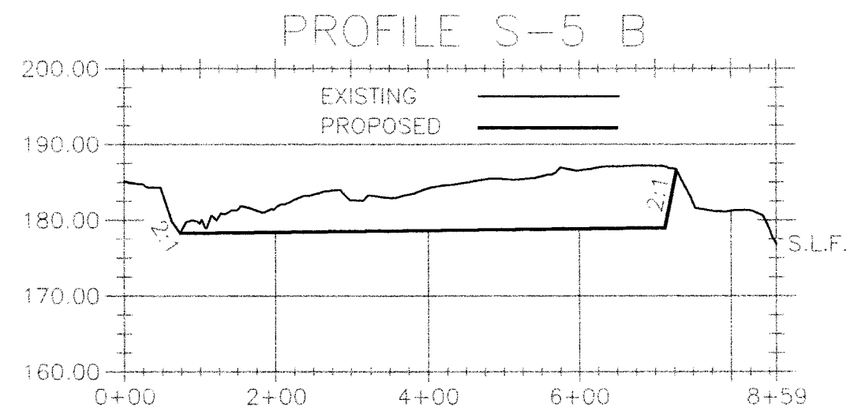
0 200' 1" 600' 3"

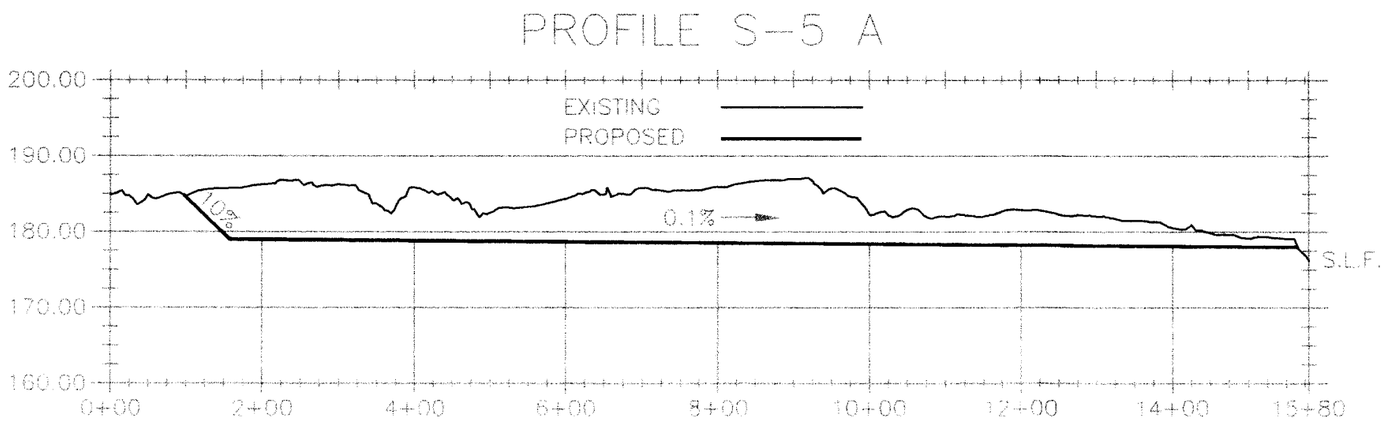
YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-6	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.

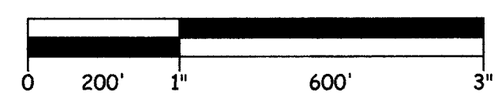


LEGEND

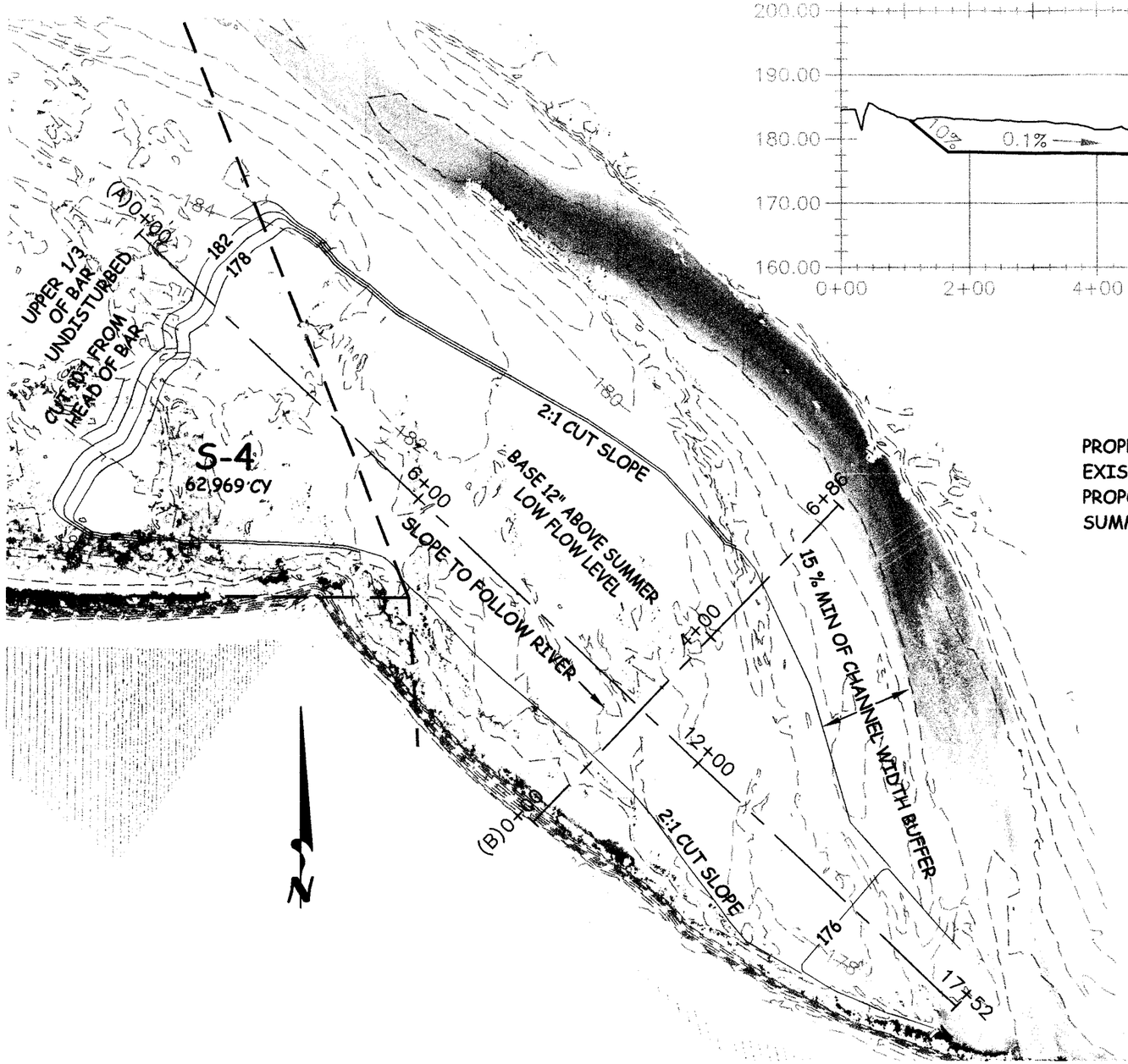
PROPERTY LINE	— —
EXISTING GROUND	- - - -
PROPOSED GRADING	———
SUMMER LOW FLOW	S.L.F.

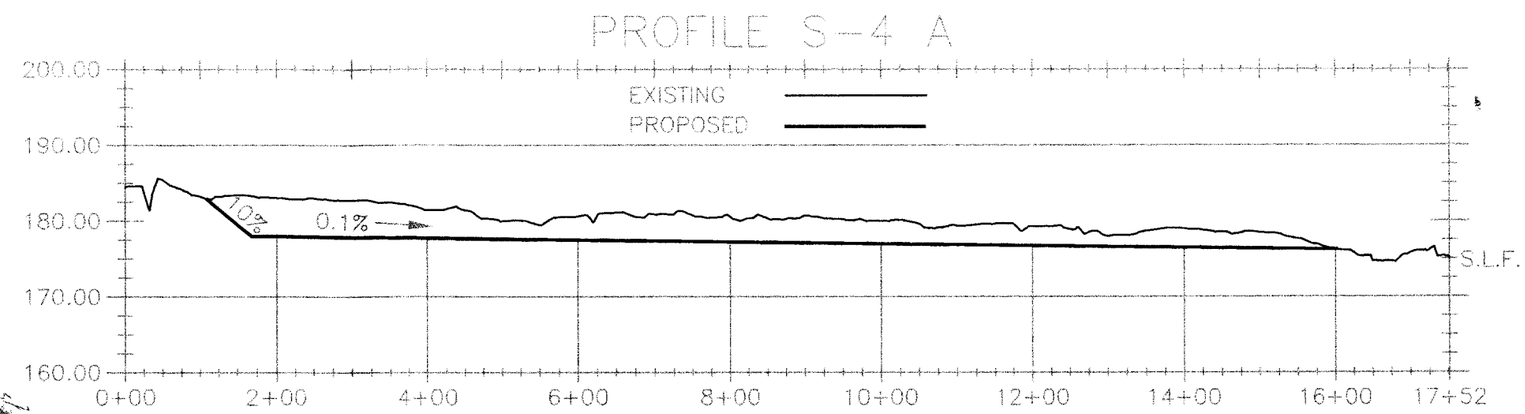






YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-5	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.

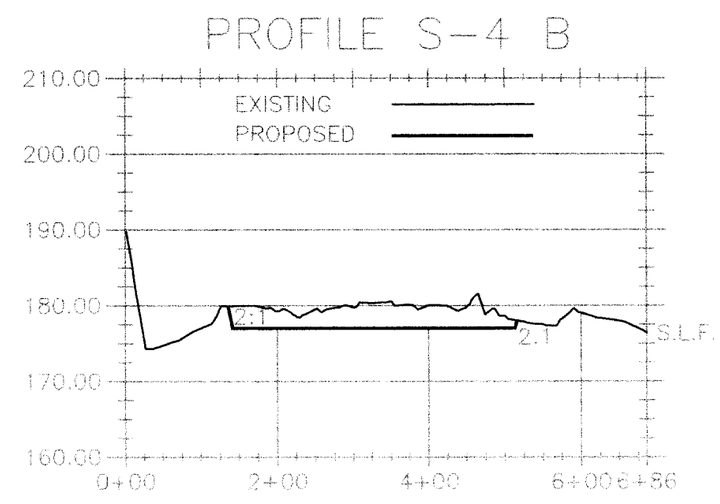




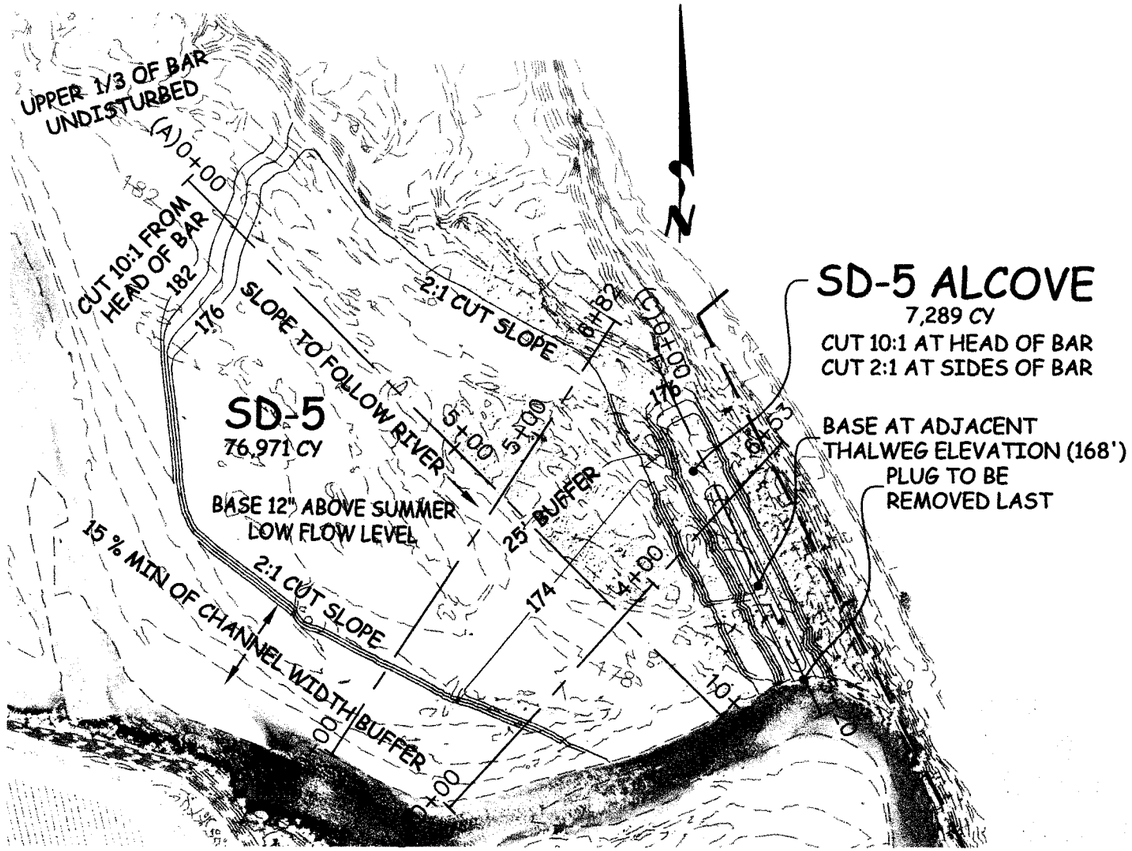
LEGEND

PROPERTY LINE	— —
EXISTING GROUND	- - - -
PROPOSED GRADING	———
SUMMER LOW FLOW	S.L.F.

0 200' 1" 600' 3"



YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-4	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.

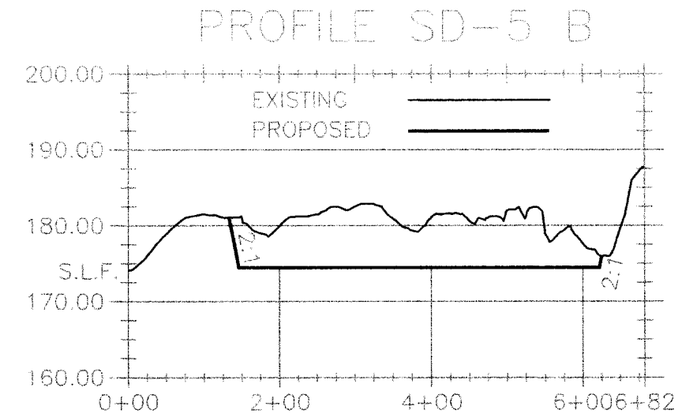


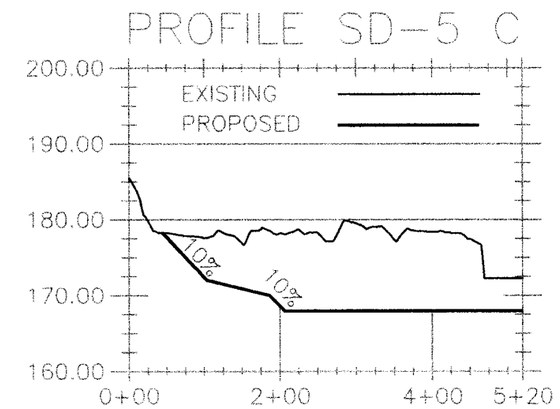
SD-5 ALCOVE

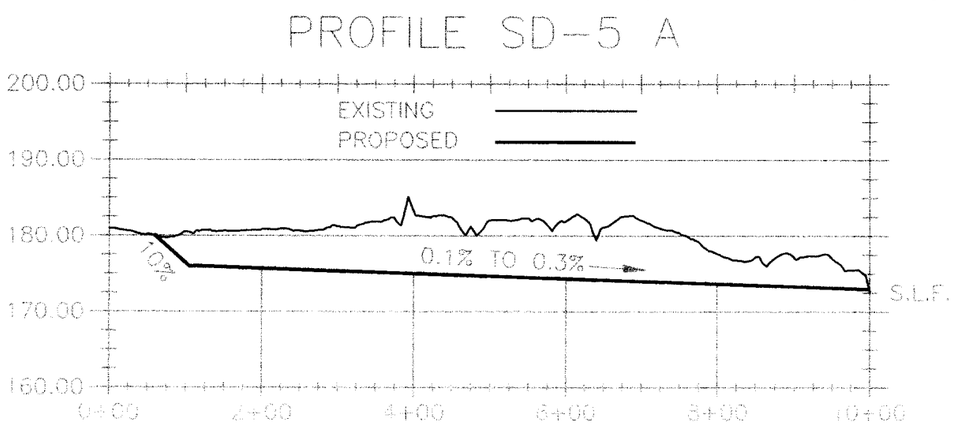
7,289 CY

CUT 10:1 AT HEAD OF BAR
CUT 2:1 AT SIDES OF BAR

BASE AT ADJACENT THALWEG ELEVATION (168')
PLUG TO BE REMOVED LAST



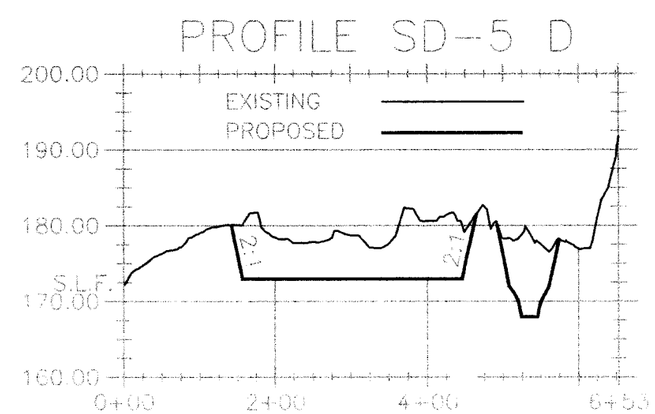




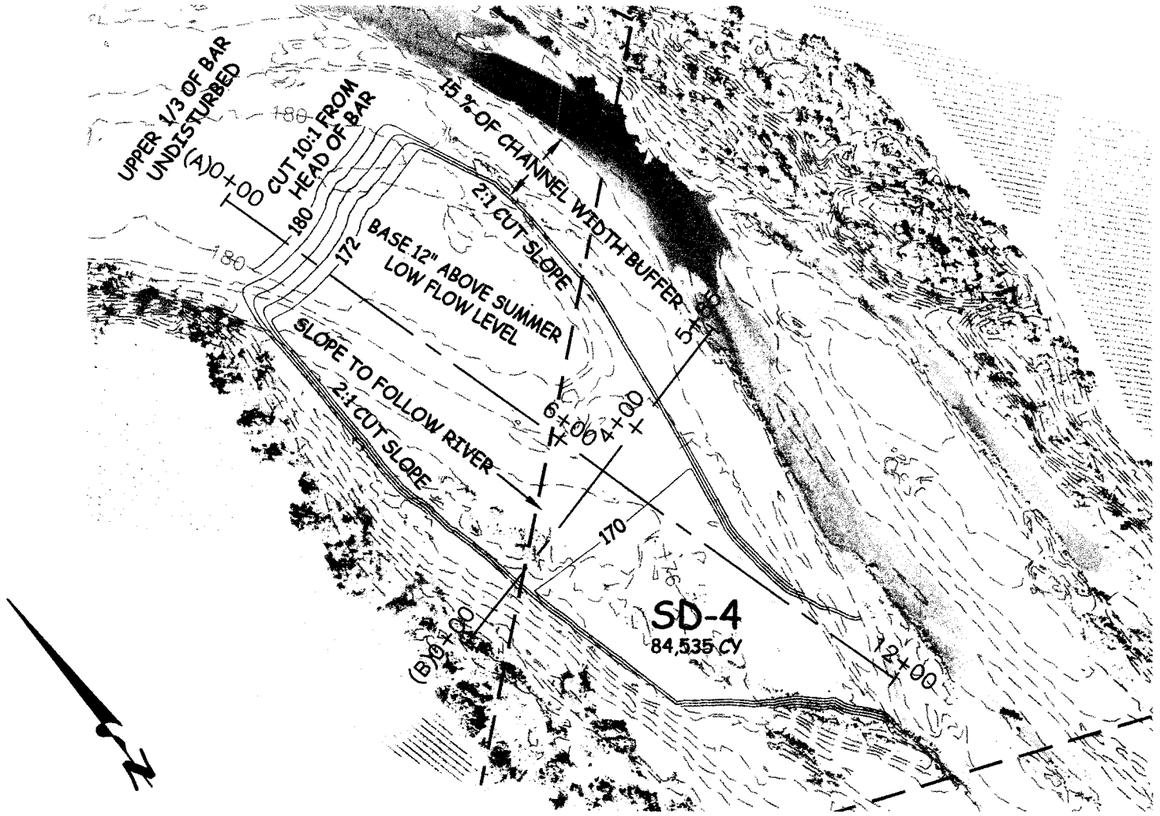
LEGEND

PROPERTY LINE	— —
EXISTING GROUND	- - - -
PROPOSED GRADING	———
SUMMER LOW FLOW	S.L.F.

0 200' 1" 600' 3"

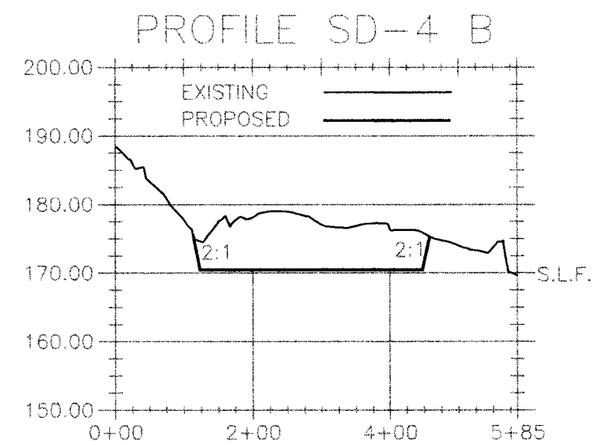


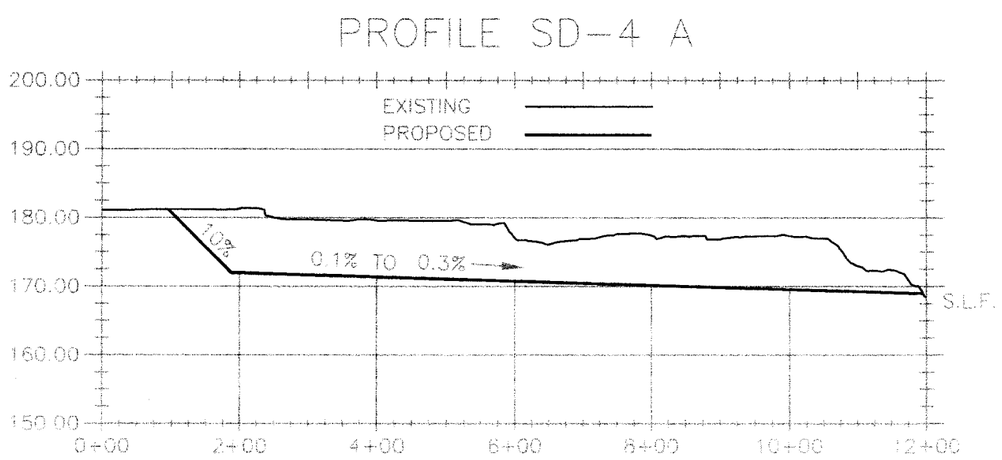
YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY SD-5	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.

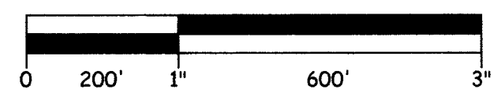


LEGEND

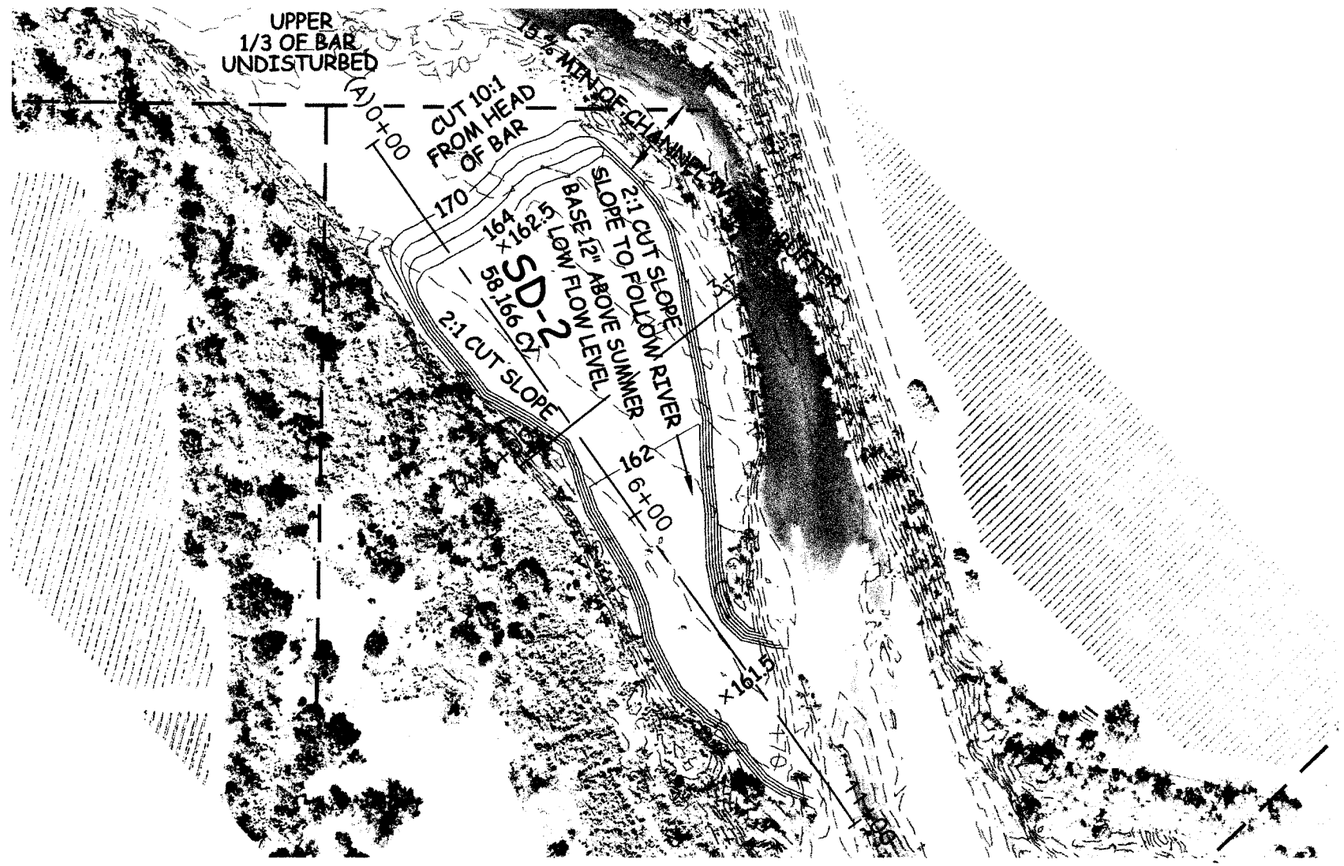
PROPERTY LINE	— —
EXISTING GROUND	- - - -
PROPOSED GRADING	———
SUMMER LOW FLOW	S.L.F.





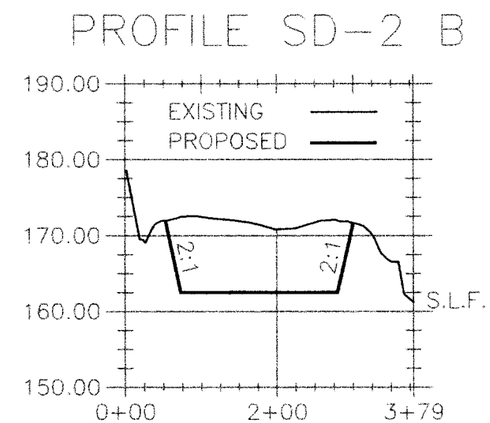


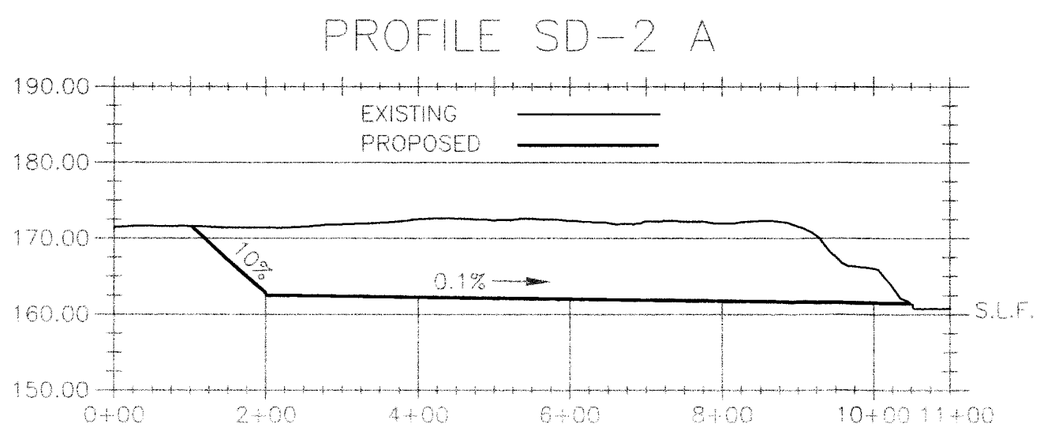
YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY SD-4	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.



LEGEND

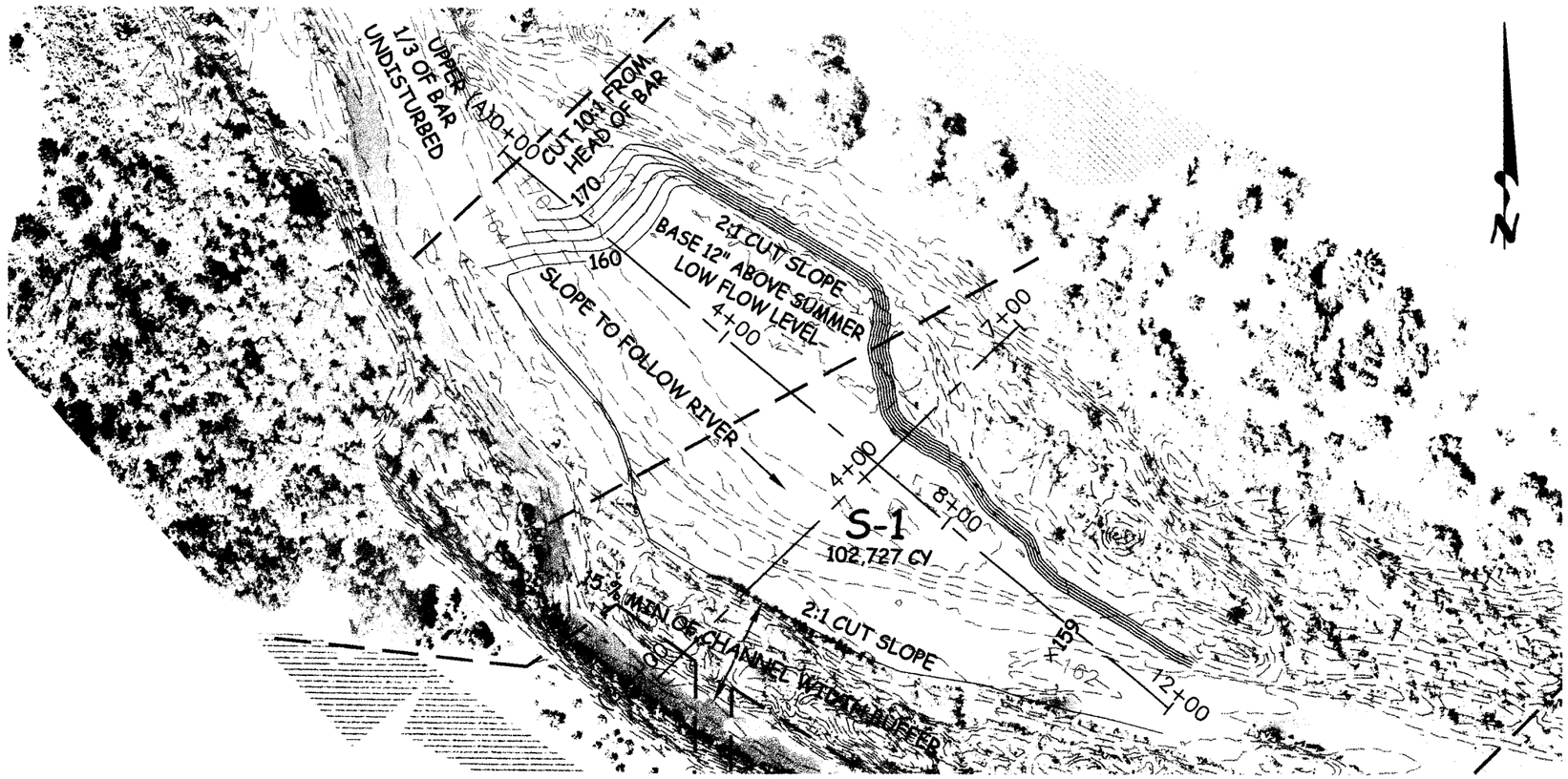
PROPERTY LINE	— —
EXISTING GROUND	- - - -
PROPOSED GRADING	———
SUMMER LOW FLOW	S.L.F





0 200' 1" 600' 3"

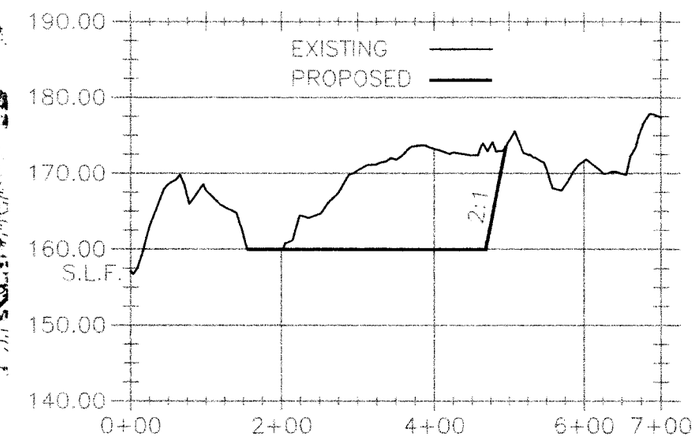
YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY SD-2	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.



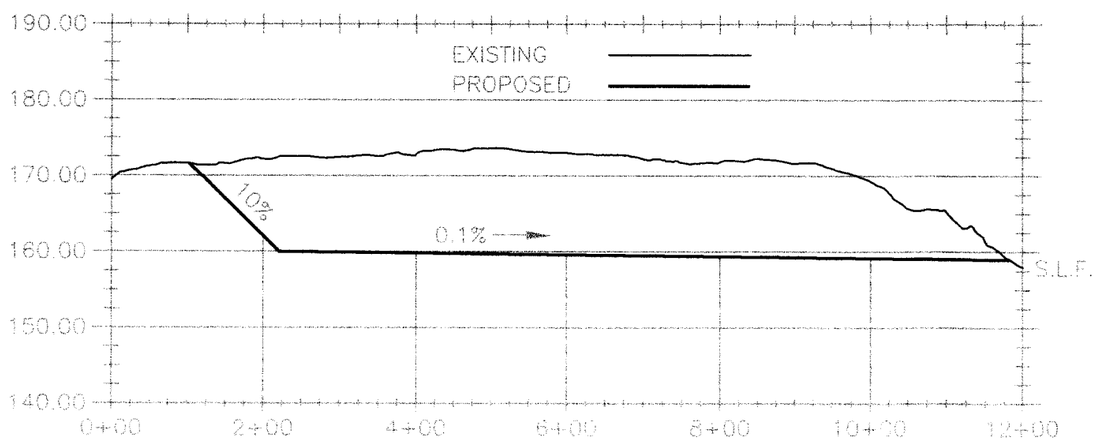
LEGEND

PROPERTY LINE
EXISTING GROUND
PROPOSED GRADING
SUMMER LOW FLOW S.L.F.

PROFILE S-1 B



PROFILE S-1 A



0 200' 1" 600' 3"

YOLANO ENGINEER'S INC. **2301 NAPA-VALLEJO HIGHWAY** **NAPA, CALIFORNIA 94558**	RUSSIAN RIVER ALEXANDER VALLEY S-1	BAR MINING PLAN	SHT. NO. 1 of 1	YOLANO ENGINEER'S INC.