MAPS AND PLANS

FOR THE

SURPRISE VALLEY PROJECT

OF THE

SURPRISE VALLEY WATER COMPANY

LOS ANGELES AND FORT BIDWELL, CAL.

TO BE FILED WITH THE

STATE ENGINEER — NEVADA

CARSON CITY, NEVADA.

MAPS UNDER PERMITS NOS. 1980 AND 2043.

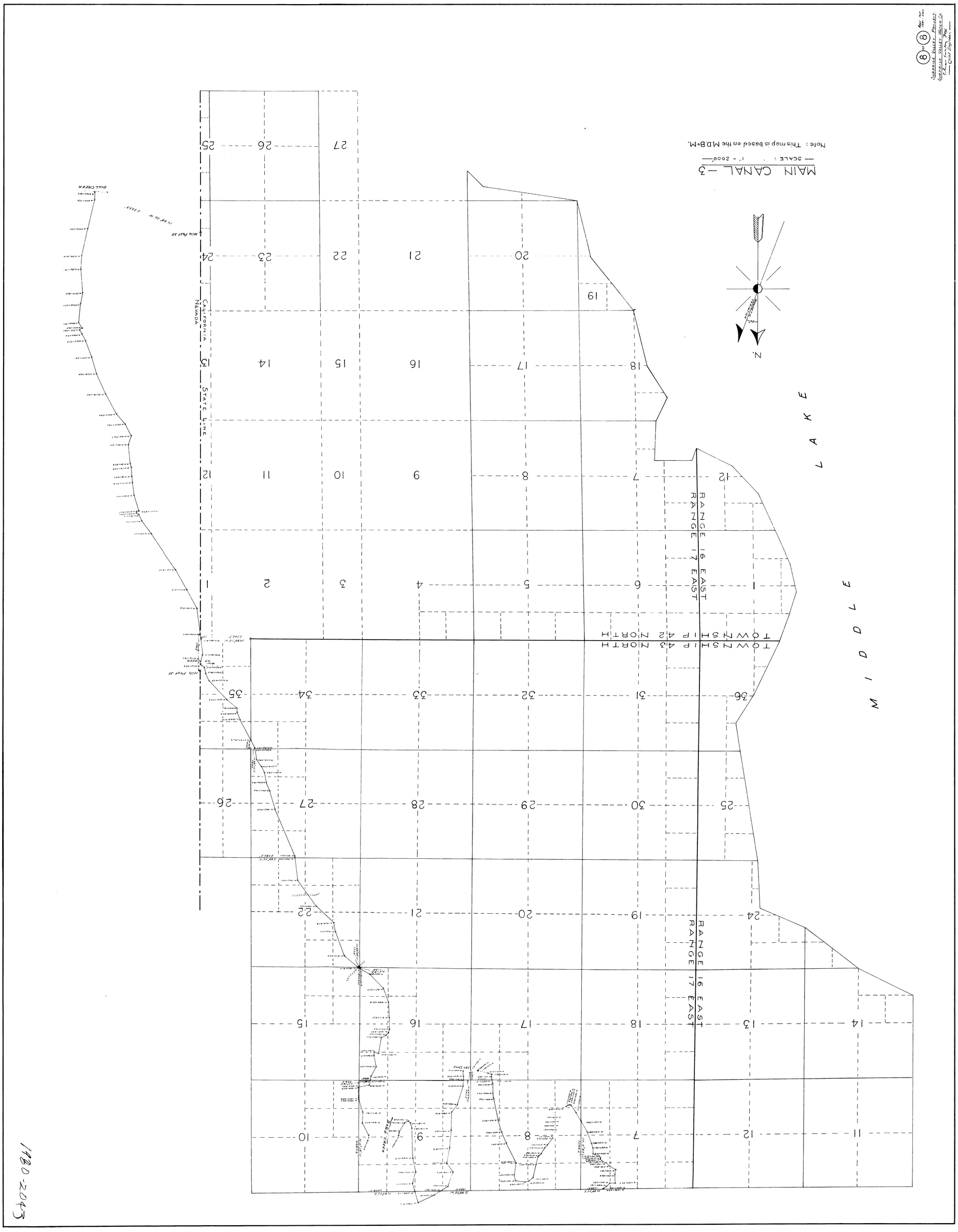
State of California }
County of Modoc } s.s.

I, Chas. Kirby Fox of Fort Bidwell, County of Modoc, State of California, hereby certify that these maps are true and accurate plats of the Surprise Valley Project irrigation works, as taken from the field notes of a survey made under my personal supervision commenced on the 6th day of February, 1911 and ending on the 18th day of October, 1911, and at the instance of the Surprise Valley Water Company; that they represent the works described in Applications No. 1980 and No. 2043, together with the location of streams and ditches in the immediate vicinity.

November 28, 1911.

Chas. Kirby Fox.
Chief Engineer.

1980-2043



1980-2043

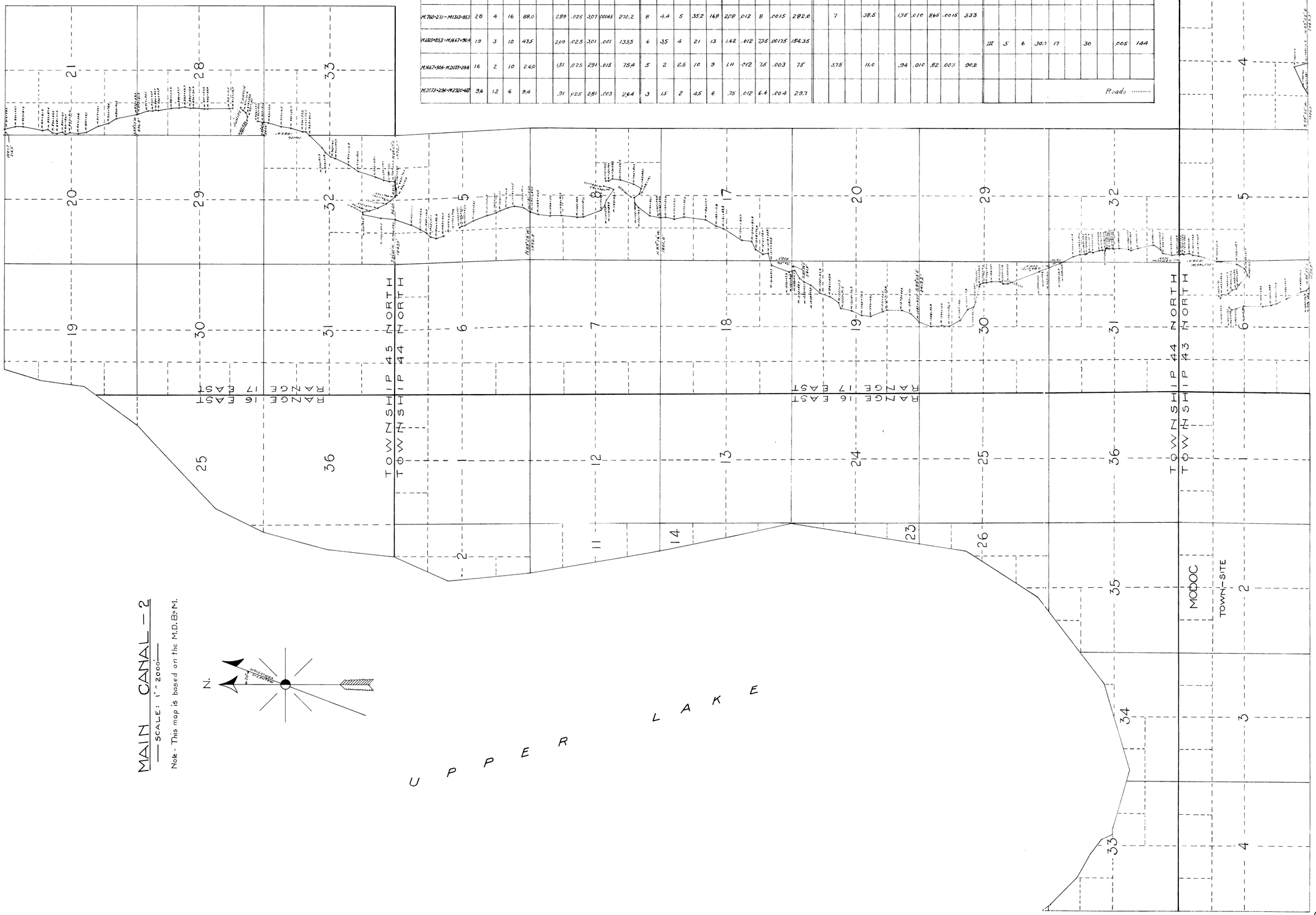
8 of 8 Rev. No. 1980-2043

Surprise Valley Project
Surprise Valley Water Co.
Chief Engineer

1980 - 2043

SCHEDULE.

Stations.	Canal shown in solid black.																								Tunnel shown in dotted black.								
Hydraulic Data.	w (ft.)	d. (ft)	b.w. (ft.)	a. sq.ft.	w.p. (ft)	r.	n.	v.	S.	discharge (sec. ft.)	w. (ft.)	d (ft.)	d' (ft.)	u (sq.ft.)	w.p. (ft.)	r	n.	v	S	Disc. (sec. ft.)	u (sq.ft.)	d. (ft.)	b.w. (ft.)	a. (sq.ft.)	w.p.	r.	n.	v	S.	Disc. (sec. ft.)	Type	w. (ft.)	d (ft.)	a (sq.ft.)	w.p. (ft.)	r.	n.	v.	S.	Disc. sec. ft.
Q Line M 0+00 - M 760 + 27.1	3.9	3	30	103.5		2.54	.025	3.01	.00015	311.5	9	4.4	5	46	17.8	2.25	.012	8.36	.0015	334.0		7		38.5		1.75	.010	8.65	.0015	333	I	4.7	6.8	27.2	16.3	1.67	.010	13.6	.004	378
M 760+27.1 - M 1313+85.3	2.8	4	16	88.0		2.89	.025	3.07	.00065	270.2	8	4.4	5	35.2	16.8	2.08	.012	8	.0015	282.0		7		38.5		1.75	.010	8.65	.0015	333	II	6	7	36.0	19.0	1.89	.012	12.3	.004	443
M 1313+85.3 - M 1667+90.4	1.9	3	10	43.5		2.09	.025	3.01	.001	133.5	6	3.5	4	21	13	1.62	.012	7.35	.00175	154.35											III	5	6	30.0	17		30		.005	144
M 1667+90.4 - M 2013+28.4	1.6	2	10	26.0		1.51	.025	2.91	.015	75.4	5	2	2.5	10	9	1.11	.012	7.5	.003	75		3.75		11.0		.94	.010	8.2	.003	90.2										
M 2013+28.4 - M 2320+46.8	9.6	1.2	6	9.4		.91	.025	2.81	.003	26.4	3	1.5	2	4.5	6	.75	.012	6.6	.004	29.7																				Roads .....



MAIN CANAL — 2

— SCALE: 1" = 2000' —

Note - This map is based on the M.D.B.&M.

(7) OF (8) Sheets

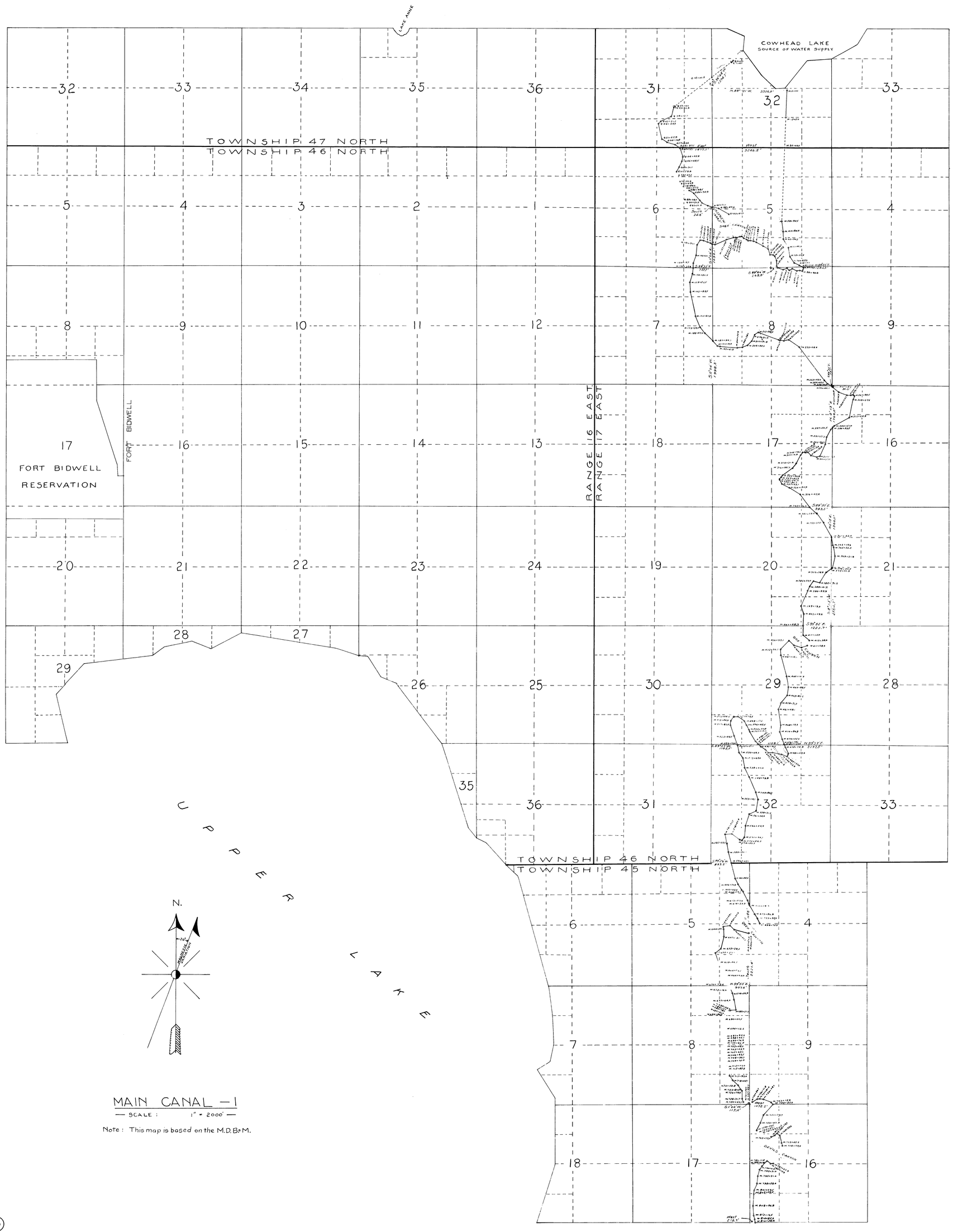
SURPRISE VALLEY PROJECT

SURPRISE VALLEY WATER CO.

James Kirkpatrick

— CHIEF ENGINEER. —

1980-2043



MAIN CANAL — 1

— SCALE : 1" = 2000' —

Note : This map is based on the M.D.B.&M.

1980-2043

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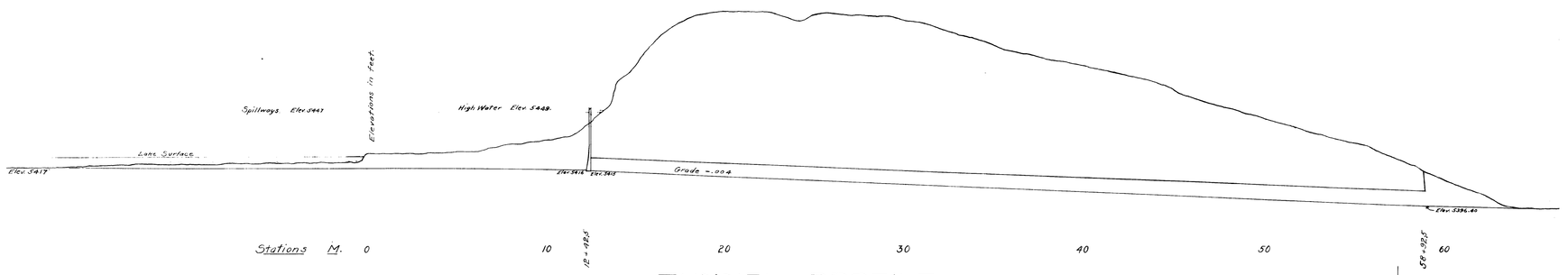
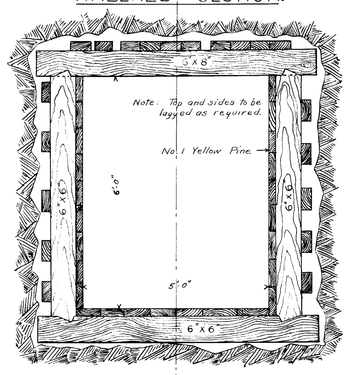
Surprise Valley Project
Surprise Valley Water Co.
Chief Engineer

1980-2043

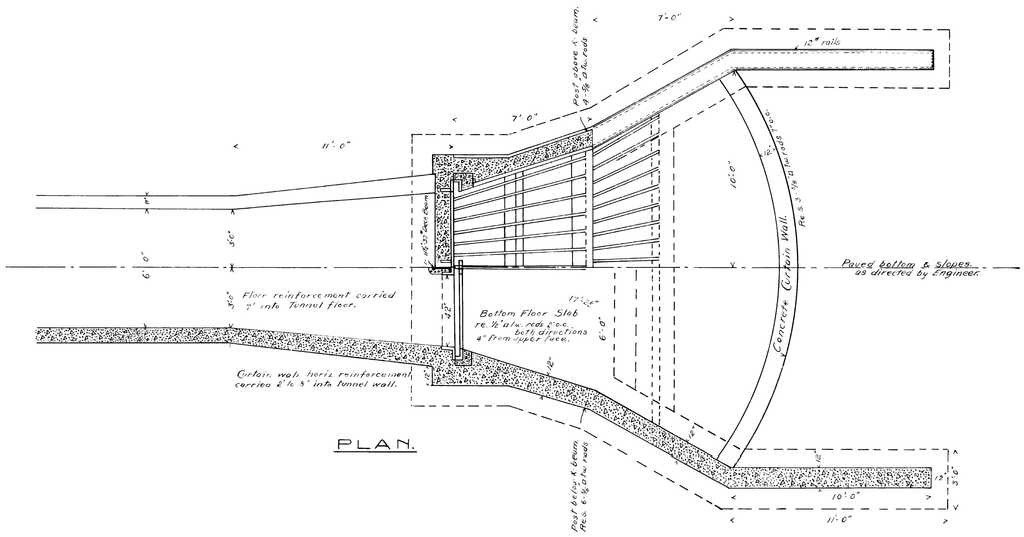


TUNNEL PROFILE.

TIMBERED SECTION.

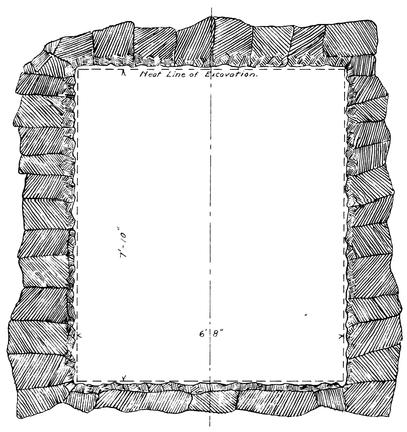


S. = .004
A. = 27.20
W.P. = 16.3
r. = 1.67
n. = .010
V. = 13.65
d. = 372 s.f.

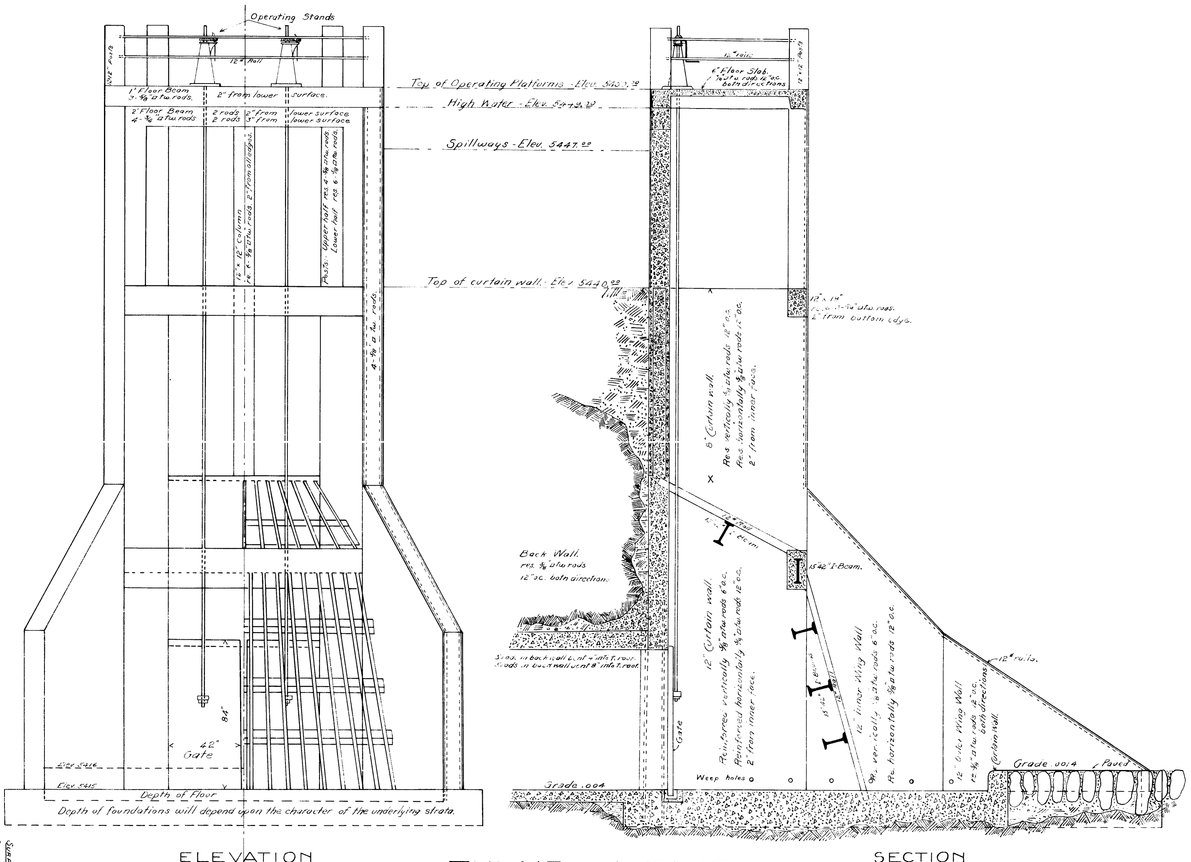


PLAN.

UNLINED SECTION.



S. = .004
A. = 52.20
W.P. = 21.7
r. = 2.42
n. = .030 .025
V. = 5.56' 6.75
d. = 291 s.f 355 s.f



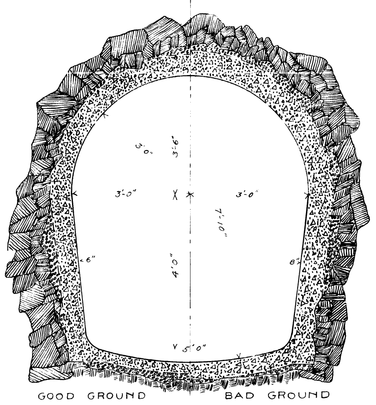
ELEVATION

TUNNEL-INTAKE

SECTION

SCALE: ½ INCH = 1 FOOT.

CONCRETE LINED SECTION.



GOOD GROUND BAD GROUND

S. = .004
A. = 36.00
W.P. = 19.00
n. = .012 .014
V. = 12.3' 10.49
d. = 443 s.f. 378 s.f.

CROSS-SECTIONS OF TUNNEL.

SCALE: ½ INCH = 1 FOOT.

E-2043-1980

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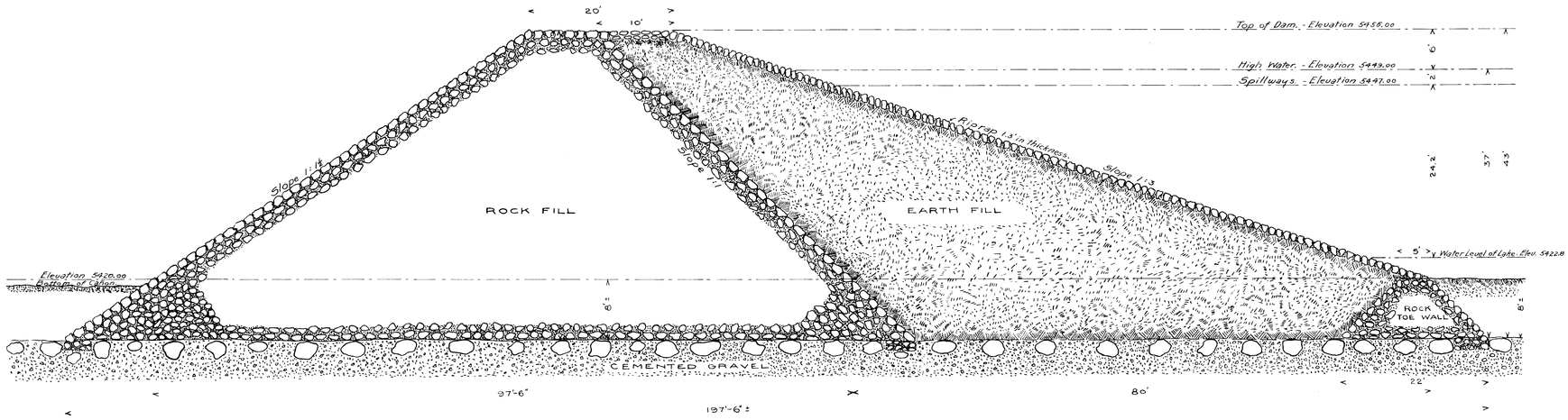
SUPERIOR WATER, LIGHT & POWER COMPANY
Superior Water Supply
Tunnel Intake

1980-2043

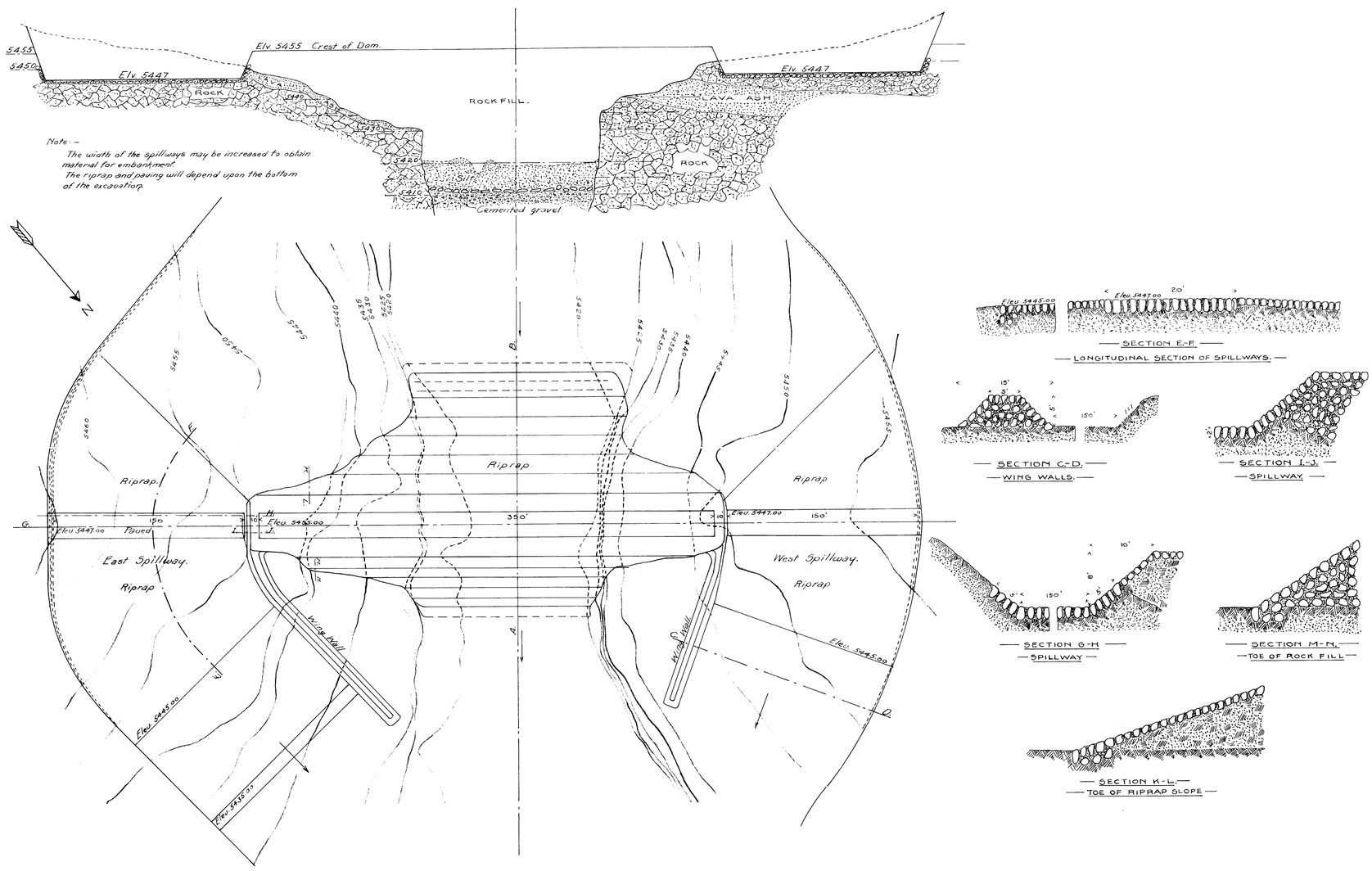
CROSS-SECTION OF DAM

SCALE: 1 INCH = 10 FEET.



PLAN, LONGITUDINAL SECTION AND DETAILS OF DAM

SCALE: 1 INCH = 50 FEET.



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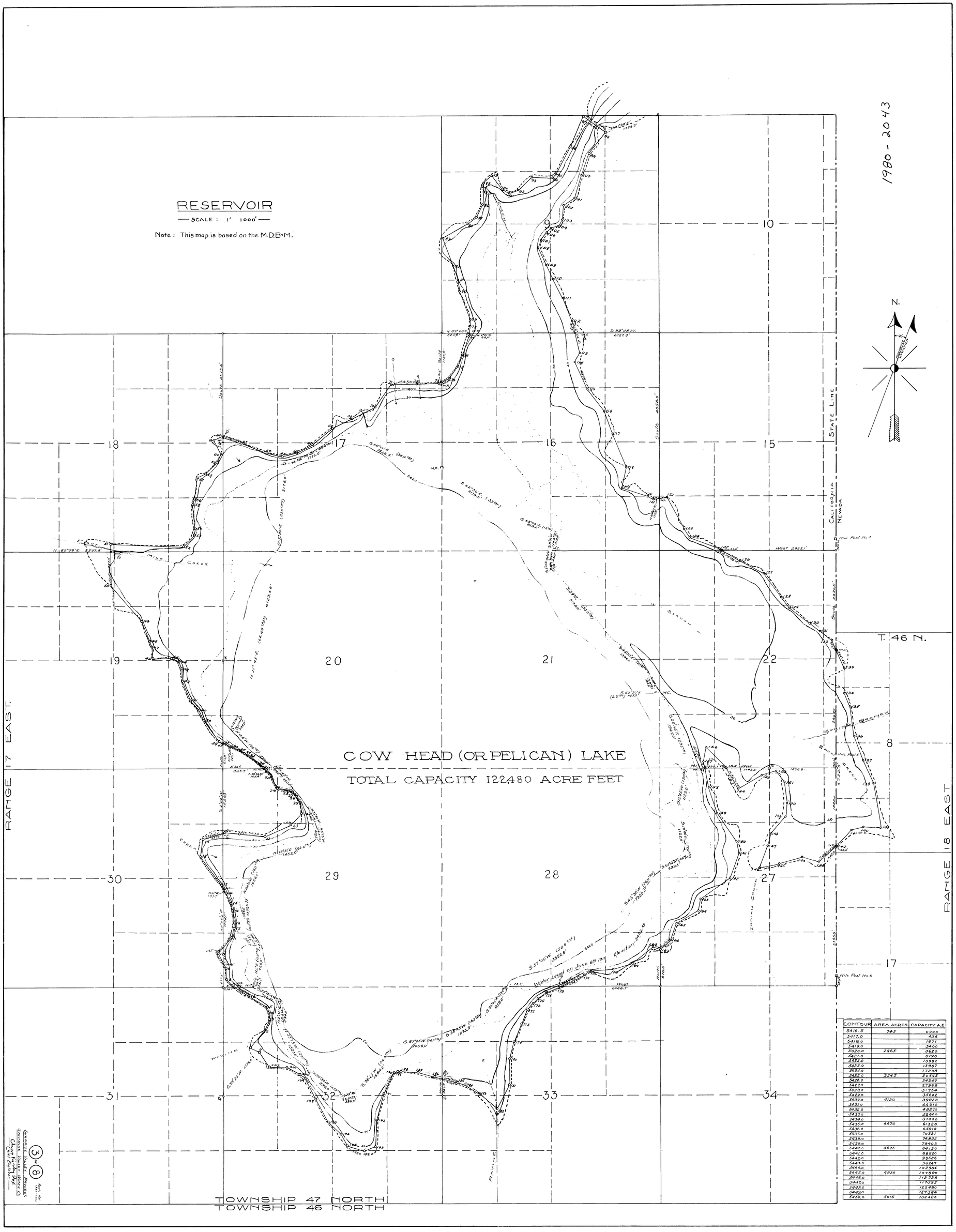
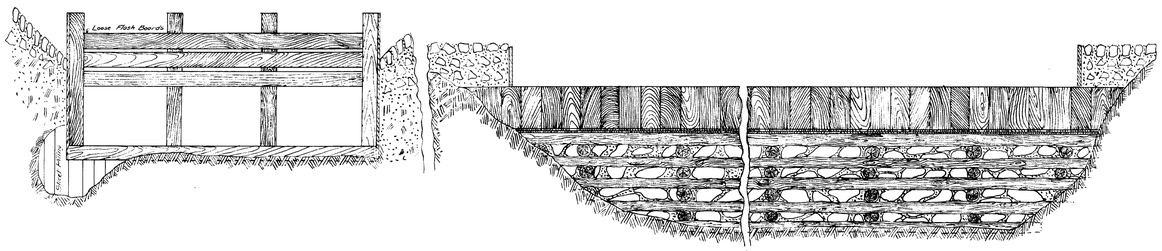
Surprise Valley Project
Surprise Valley Water Co.
Chas. Kirby Jr.
Civil Engineer

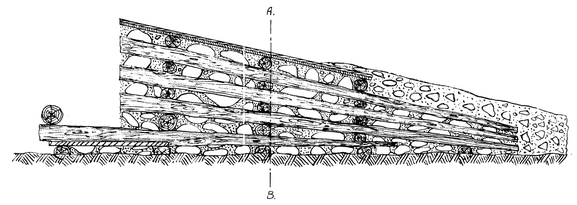
1980-2043



CONTOUR	AREA ACRES	CAPACITY A.F.
5416.5	745	0000
5417.0		434
5418.0		1671
5419.0		3400
5420.0	2465	5620
5421.0		8193
5422.0		10982
5423.0		13987
5424.0		17208
5425.0	3545	20645
5426.0		24247
5427.0		27969
5428.0		31754
5429.0		35602
5430.0	4120	39820
5431.0		44010
5432.0		48270
5433.0		52600
5434.0		57000
5435.0	4470	61320
5436.0		65810
5437.0		70321
5438.0		74852
5439.0		79402
5440.0	4675	84130
5441.0		88820
5442.0		93526
5443.0		98247
5444.0		102984
5445.0	4830	107880
5446.0		112728
5447.0		117595
5448.0		122480
5449.0		127384
5450.0	5015	132480

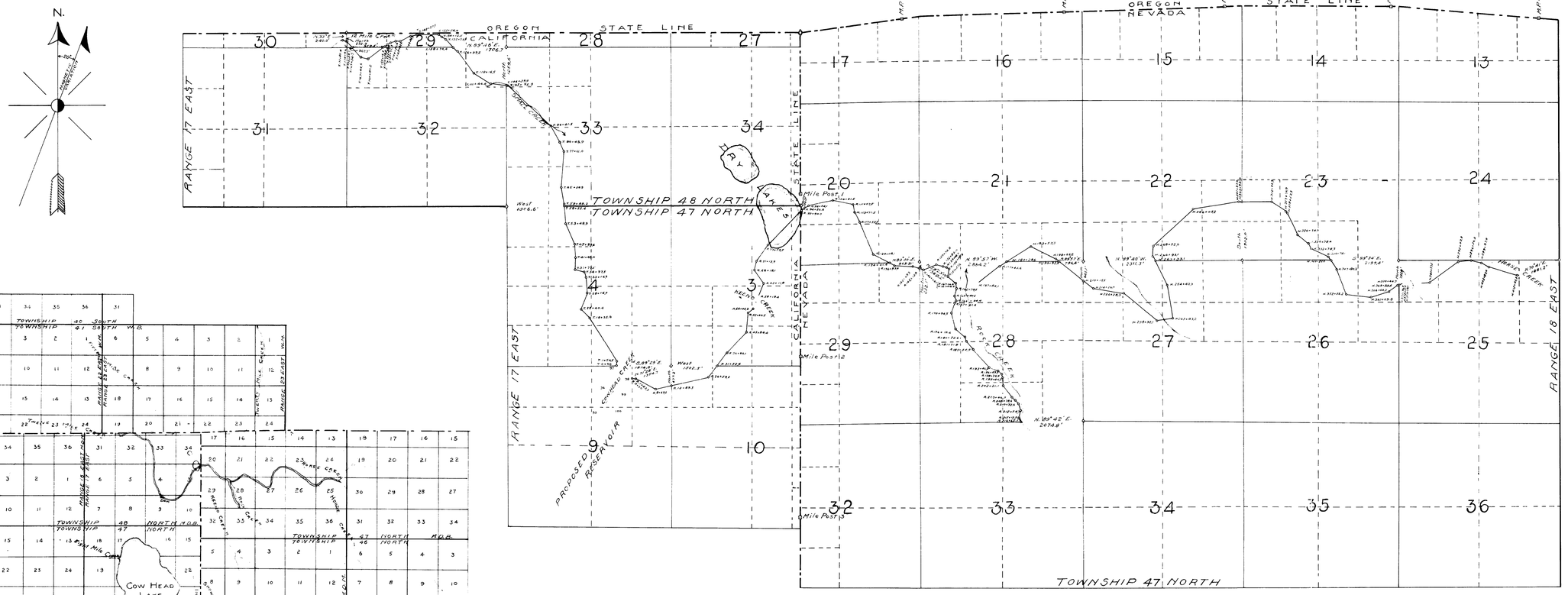


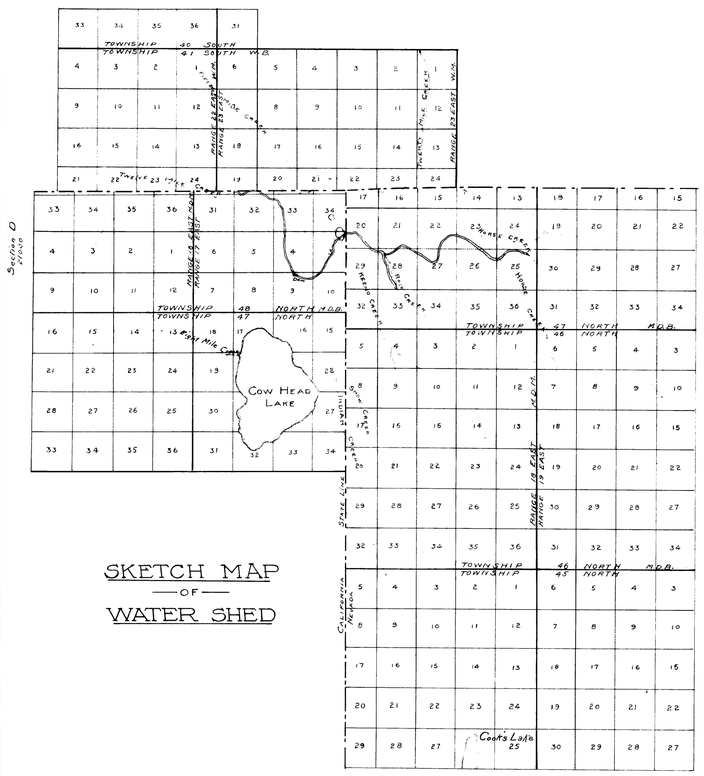
SECTION A-B.



TYPE OF DIVERSION DAM AND INTAKE.

DIMENSIONS DEPEND UPON LOCAL CONDITIONS





SKETCH MAP —OF— WATER SHED

DIVERSION CANALS.

— SCALE : 1"= 2000' —

Note :-This map is based on the M.D.B.&M.

SCHEDULE

Stations	Canal Shown in Solid black																	
Hydraulic Data	w (ft)	d (ft)	bw (ft)	a (sq.ft)	w.p. (ft)	r	n	v	s	discharge (sec.ft)	w. (ft)	d (ft)	d' (ft)	a (sq.ft)	w.p (ft)	r	n	v	s	discharge (sec.ft)
T Line R.161+04A-R214+65	19	3	10	435	20.8	2.09	.025	3.01	.001	133.5			No Flume							
H Line N 161+044-H412+93	16	2	10	26	17.2	1.51	.025	2.91	.015	75.4	5	2	2.5	10	9	1.11	.012	.75	.003	7.5
R Line R0+00-R161-04A	21.2	4.4	8	642	23.8	2.69	.025	3.62	.001	232.4	8	4	4.5	32	16	2	.012	9	.002	28.8

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SUNDRISE VALLEY PROJECT
SUNRISE VALLEY WATER CO.
Chas. Kinsey Jr.
Chief Engineer.

1980-8043