

Report

2. That the parties hereto are the successors in interest of the water rights and the lands to which said rights were appurtenant under the Decree, to wit:

	PARTY	PREDECESSOR	SHARE OF WATER	REAL PROPERTY	
11	Carl R. Evans <i>STEPHANS</i>	Charles R. Evans	(u) 1/9 40	SW1/4NE1/4, Section 19, Township 12 South Range 37 E.B.M.	* 210
16.6	(Geraldine McNee)	Thomas Barnes	L 1/6	W1/2SW1/4, Section 8, Township 12 South, Range 37 E.B.M.	60AC
16.6	Randy Jones (<i>LISH</i>)	Joseph Bloxham	(u) 1/6	SE1/4, Section 18 Township 12 South, Range 37 E.B.M.	144AC
11	Dunford Weston <i>NIELSEN</i>	Charles R. Evans	(u) 1/9 40	SE1/4SE1/4, Section 20, Township 12 S., Range 37 E.B.M.	200AC
11	Jan B. Evans <i>PAULSON</i>	Charles R. Evans	(u) 1/9 160	Tract in NE1/4, Section 19 and Tract in Section 20, both in Township 12 South, Range 37 E.B.M.	145AC
16.6	Von G. Bloxham	Isaac Bloxham	L 1/6	E1/2NW1/4, Section 18, Township 12 South, Range 37 E.B.M.	60AC
8	Robert Baxter <i>VAUGHN</i>	Ralph Douglass	L 1/12	NE1/4NE1/4, Section 8, Township 12 South, Range 37 E.B.M.	190AC
8	(Carl Barnes)	John Barnes	L 1/12	SW1/4SW1/4, Section 4 and SE1/4SE1/4 of Section 5, Township 12 South, Range 37 E.B.M.	NONE 40AC
98.8					

3. The parties represent and state that they and their predecessors have used their share of all the waters of Cherry Creek continuously during each irrigation season upon the lands owned by them, as above described in paragraph 2.

4. The parties represent and state that the entire flow of Cherry Creek is not adequate to satisfy all the irrigation needs of the respective parties and that there is no water in Cherry Creek available for further appropriation.

*11/20/2011
1954
1/19/2011
1/23/2011*

STATE	Idaho	PROJECT	Cherry Creek Irrigation Group		
BY	R.E.D.	DATE	5-24-77	CHECKED BY	PJN
		DATE	6-22-77	JOB NO.	ENG Class I 7 Farm units
SUBJECT	Gravity Sprinkler System				SHEET 1 OF 5

Date:

Shareholder Groups with Photo Gpm @
Irrigated Ac. Measured Acres Warm night
@ 6.36 gpm/ac

D. Weston	60	110	381.6
C. Evans	60	86	381.6
C. Mock	60	70	381.6
V. Jones	80	80	508.8
V. Bloxham	80	52	508.8
R. Stewart	40	40	254.4
Everett McNice	80	80	508.8
	460	538	508.8

Acresage was based on 2800 gpm.

$$= \frac{6.36 \text{ gpm}}{\text{acre}}$$

Id-40 = 2927 gpm required for 460 acres
Design for land to receive their allotted
water

Nozzle requirement: Peak daily use 0.211"

$$S_m = 40' \quad S_L = 40' \quad 23 \text{ hrs} = 4.0" \text{ Alt} = 0.174'$$

$$\text{Gpm} = \frac{(40') (6.36) (0.174' \text{ per } 24.3 \text{ (0.458 ft)})}{24.3 (0.458 \text{ ft})} = 6.67 \text{ gpm}$$

Because of some irregular fields nozzle
capacity will vary somewhat to utilize
the proposed metered flow

SEE ID-40

Ref SCS 15
Chpt 11 sec
WEHD

Final Job Plan II
4 members - 24 hours

Idaho Cherry Creek Water Group
Eric Olsen 5/80 DWS 3-1-80 1980 ACP # 11
Request & Background 1 11

Through their grant funded position, in a pooling agreement with ASCS, the group has requested technical assistance in installing 5100 ft of pipe. This is part of a ~~larger~~ gravity sewerage system the group is installing in stages. The project is for the initial section from about 250 ft downstream of their diversion structure to the top of Dunford Weston farm. (refer to layout sketch - the request for 5100 ft was based on previous drawings - this appears to be in error - my estimate is 5400 ft).

The present ditch was made about 1920 with a horse pulled plow. According to Carl Evans, his grandfather helped in construction. They started at the present diversion site & followed the water to follow them to make sure the water would flow. After about 4000' they made it to the ridge top & stayed on the ridge the rest of the distance - about 8500 ft. The average grade of the ditch is about 1.7 ft per 100 ft - too steep & the group has had erosion & distribution problems since.

In 1968 Dunford Weston installed a pump & pipeline system on his property with about 1600 ft of 8" & 1000 ft of 6" steel mainline. His system is still in good condition & he wants to continue to use it in conjunction with the gravity pipeline.

Jon Evans showed initial interest in a gravity system in 1975 but he couldn't get all members interested. Preliminary estimates in the SAS indicated the project was feasible.

(continued)

Idaho Cherry Creek Upper Group
Eric Olson 5/80 DWS 5-1-80 1980 ACP #11
Background (continued) 2 11

The drought year of 1977 sparked renewed interest in a gravity system. Members of both the upper & lower groups - seven members in all - made an application for drought funds through ASES to do the system. Evidently financial constraints on some members prevented the project from being started.

In the spring of 1979 Randy Jones went ahead - on his own - & installed about 3800 ft of 6"-PIP-100 psi pipe, from Carl Evans' pond into his own field 1300'.

Later in the autumn of '79 I was first introduced to the group. Carl Evans called & said he wanted to install some 10"-PIP-100 psi pipe through Dunford Weston's property. He asked me if it would work OK as part of the group's pipeline. After meeting with him, his son Jan, Dunford Weston and contractor Cordell Williams, on alternatives for a possible group system, I agreed the 10" would be alright, but would limit the number of acres that could be irrigated. The group said this was OK as Cherry Creek flow was so low later in the year. At his own expense Carl installed the 10" thru Weston's & 600 ft into his own property. Cordell Williams was contractor on this - as well as Randy Jones' installation earlier.

This spring the group - Dunford Weston, Carl Evans, Jan Evans, & Randy Jones - applied for & was approved ACP cost-sharing for installing 12" pipe from Weston's to the top. This leaves a section of 8" through Carl's & Jan's with no definite plans for being installed.

Idaho Cherry Creek Upper Group
 Eric Olson 5/80 DWS 5-1-80 1950 ACP #11
 Inventory of resources 3 11

Water rights : Cherry creek divided in half at division between upper & lower groups. Upper group split has changed since previous designs due to land & water right trades. Split is now one-quarter to each of the four members. This will be done by using flow control nozzles. Best division appears to be 4 gpm per nozzle at Weston's and 6 gpm per nozzle at each of the others. To attain equal split Weston will run 50% more nozzles.

Because decision has been made by members on pipeline sizes — use 5 fps velocity limitation for maximum flow condition & number of acres to be irrigated:

Pipe diam.	Flow at 5 fps	Members	GPM/member
12"	1660	4	415
10"	1150	3	383
8"	740	2	370
6"	420	1	420

Most limiting is 8" at 740 gpm, this will supply 2 members, so use 370 gpm per individual.

Sheet 4 indicates a 6.35 gpm per acre requirement

$$\frac{370 \text{ gpm}}{6.35 \text{ gpm/acre}} = 58 \text{ Acres/member}$$

Each member has well over 58 irrigable acres.

Present ditch will be retained to utilize early run-off by surface irrigation.

ID-ENG-40
Rev. 3
11/77

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
SPRINKLER SYSTEM DESIGN DATA

NAME Cherry Creek Irr. Co. DATE 4/80 PREPARED BY Eric Deor
SCD Portland COUNTY Bonneville ENGN. JOB CLASS 11
Reviewed by DWS 4/1/80

I. INVENTORY *Elevation: 5000 to 5150 ; Northern aspect*

Total Acres _____ Crop Acres _____ Climatic Area III
Water Source Creek Amt. Available 1/2 of Seasonal Variation yes
Energy Source Creek Flow X
(Electric) (Int. Comb - Fuel) (Gravity)

II. SOILS DATA

USDA Soils Class Majority	Total Available WHC (in/ft.)					Depth To		Maximum Intake Rate in/hr.
	0-1	1-2	2-3	3-4	4-5	Inhibiting Layer (ft)	Water Table	
<u>Rexburg sil</u>	<u>2.2</u>	<u>2.2</u>	<u>2.2</u>	<u>2.2</u>	<u>2.2</u>	<u>none</u>	<u>none</u>	<u>2.3</u>

III. DETERMINATION OF WEIGHTED CONSUMPTIVE USE

Crop	Acres (A)	June	July	August
<u>Alfalfa - green</u>	<u>1/2</u>			
<u>Barley</u>	<u>1/2</u>			

IV. WATER MANAGEMENT INFORMATION

Crop	Root Zone Depth (ft)	Total WHC (Inches)	Stress Point (%TWHC)	Max. Net Replacement (Inches)	Peak Daily C.U.	Max. Freq. @ Peak C.U. @ Max. Net.
<u>Alfalfa</u>	<u>5'</u>	<u>11.0</u>	<u>50</u>	<u>5.5</u>	<u>0.23</u>	<u>24</u>
<u>Barley</u>	<u>4'</u>	<u>8.8</u>	<u>50</u>	<u>4.4</u>	<u>0.19</u>	<u>23</u>

V. DESIGN DATA -

Based on weighted consumptive use, 65% Eff., 510 MPH winds, 0.6 Wind Factor

	Application		Peak Daily C.U. * (Weighted)	Frequency (F) (Days)	System Requirements	
	Net (D)	Gross			(Total gpm) (Q)	gpm/ac
Maximum	<u>4.4</u>	<u>6.3</u>	<u>0.21</u>	<u>21</u>		<u>6.35</u>

(1) (4.4)
 $Q = 453 A D = \text{system capacity}$
 $\frac{F H \text{ Eff.}}{(21)(23)(65\%)}$
H = Total operating hours/day
Use 23 hours

* Use controlling weighted monthly
consumptive use and determine peak
daily consumptive use from Table
XIV in Idaho Irrigation Guide.

Idaho
Eric Olsen
Mainline
Cherry Creek Upper Group
also DW5
Hydraulics
5-1-80

Stations	Length in Feet	Pipe Size & Type	Flow in cfs	Velocity in ft/sec	Fric. Loss in ft/1000 ft	Sec. Loss ft	Σ Head Loss ft	Ground Elevation ft	Dynamic Pressure ft	Static Pressure ft
0+00		(All PIP)								
54+00	5400	12" dia. SDR 41	1488 (3.3 cfs)	4.5	4.7	25.4	25.4	5240		0
81+00	2700	10" dia.	1116 (2.5 cfs)	4.8	6.8	18.4	43.8	5160	54.6 (24 psi)	80
87+00	600	SDR 41	1056 (2.35 cfs)	4.5	6.0	3.6	47.4	5095	101.2 (44 psi)	145
94+00	900	—	744 (1.66 cfs)	5.0	9.4	8.5	55.9	5085	107.6 (47 psi)	155
104+00	800	8" dia.	744	5.0	9.4	7.5	63.4	5075	109.1 (47 psi)	165
110+00	600	SDR 41	744	5.0	9.4	5.6	69.0	5060	116.6 (50 psi)	180
117+00	700	—	558 (1.24 cfs)	3.9	5.8	4.1	73.1	5050	121.0 (52 psi)	190
127+00	1000	6" dia.	372 (0.83 cfs)	4.4	10.2	10.2	83.3	5035	131.9 (57 psi)	205
133+00	600	SDR 41	372	4.4	10.2	6.1	89.4	5020	136.7 (59 psi)	220
140+00	700		180 (0.4 cfs)	2.0	2.7	1.9	91.3	5010	140.6 (61 psi)	230 ^{100 psi static}
								5000	148.7 (64 psi)	240 ^{104 psi static}

Elevations from USGS benchmarks: Mainline Summit & Downey about 5
Friction losses from chart 4-C Idaho Irrigation Guide

No quick closing valves to be installed in system -
Working pressure maximum = 64 psi, no velocities
over 5 fps, so 100 psi pipe OK. Static pressure = pressure rating
Pipe line main follows dotted grade. 5 pps.

Idaho
Eric Olson

5/80

Cherry Creek Upper Group

1990 ACP #11
Revised 6 11

Pipeline Thrust blocks Designs

Std
430 DD
p. 283

$$A = \frac{98 H D^2}{B} \left(\sin \frac{a}{2} \right) K C$$

Where: A = Thrust block bearing area req'd
H = Max. working pressure in ft.
D = Inside diam. of pipe in ft.
B = Allowable bearing pressure of soil in lb/ft² - Use 2000 as silt loam similar to med. clay which can be spaded.
a = deflection angle of pipe bend
K = 1.6 for installation depth of 2.5 ft.
C = 0.7 for dead ends & tees - using a = 90°, otherwise = 1

Station

54+00 - 12"-10" tee, H = 55 ft

$$A = \frac{(98)(55)(1.0^2)}{2000} \sin \frac{90^\circ}{2} (1.6)(0.7) = 2.1 \text{ ft}^2$$

use 24" x 24" x 8" around
10" tee

87+00 10"-8" reducer (after 8" installed)
10" dead end (before " ")

$$A = \frac{(98)(108)(0.83^2)}{2000} \sin \frac{90^\circ}{2} (1.6)(0.7)$$

= 2.9 ft² use 24" x 24" x 8" around
10"

Other blocks to be installed after
8" pipe is put in.

use same design 24" x 24" x 8"
at stations 117+00, 127+00, 140+00

Idaho Cherry Creek Upper Group
 Eric Olson 5/80 DWS 5-1-80 1930 ACP #11
 Pipe Inlet Struct. Design 8 11

EFM 1A
 App #4
 EFM
 Etk 3-8

Data : Max. flow = 1500 gpm = 3.3 cfs
 Pipe - 12" PIP SDR 41
 Area = 0.739 ft²

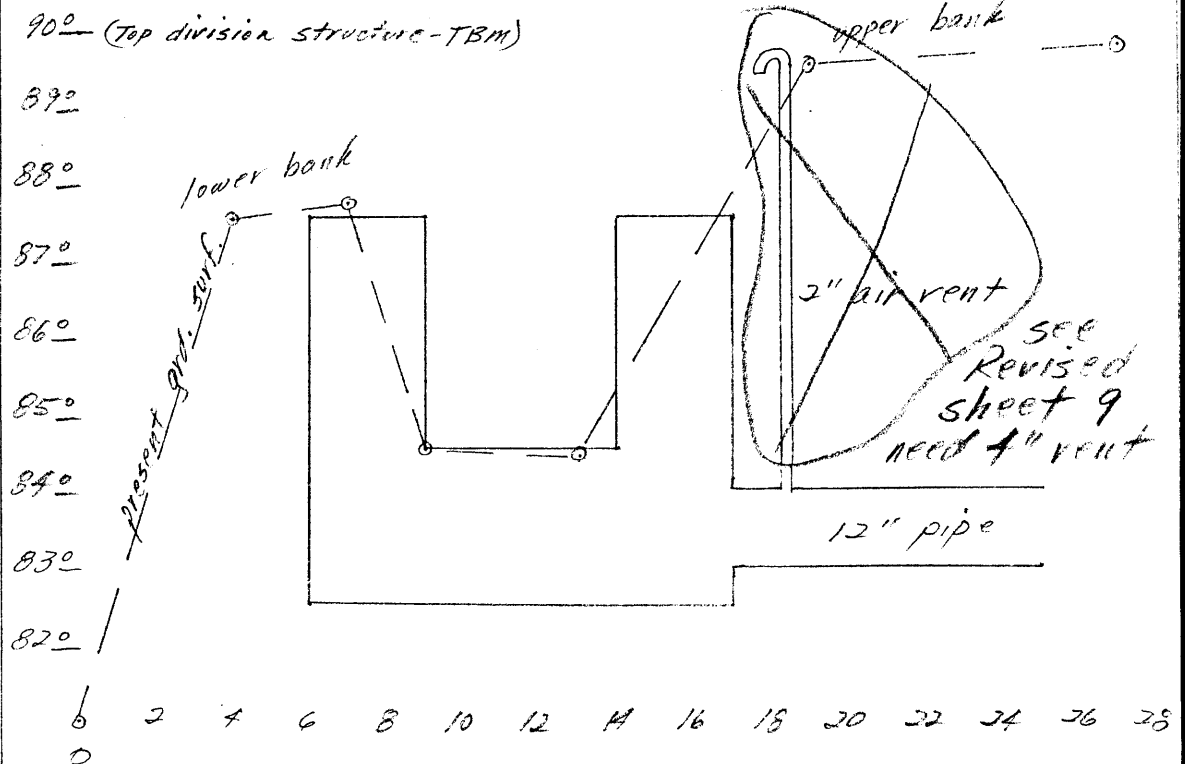
Entrance $K_e = 0.5$ for flush,
 sharp corner inlet

$$\begin{aligned} \text{Entrance head loss} &= (K_e + K_v) \left[\frac{(Q/A)^2}{2g} \right] \\ &= 1.5 \left(\frac{4.47^2}{64.4} \right) \\ &= 0.31 \text{ ft use } 6'' \end{aligned}$$

Screen Area Req'd

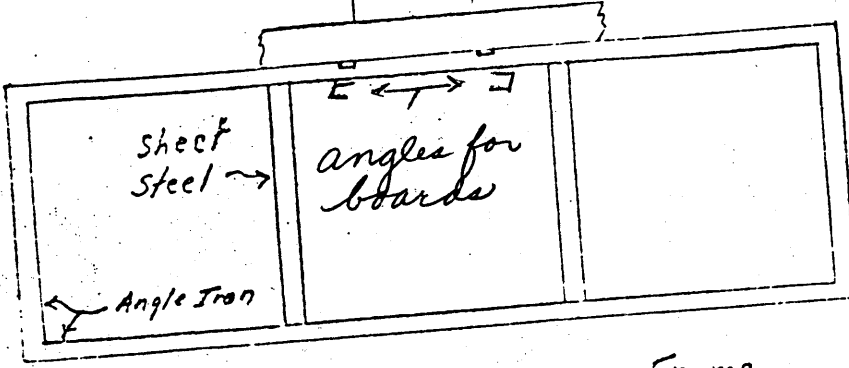
Assume 0.5 fps thru screen &
 50% clogged - $A = Q/v (2) = 3.3(4) = 13.2 \text{ ft}^2$
 40 # provided - OK

Inlet Layout (Cross Section Sketch)



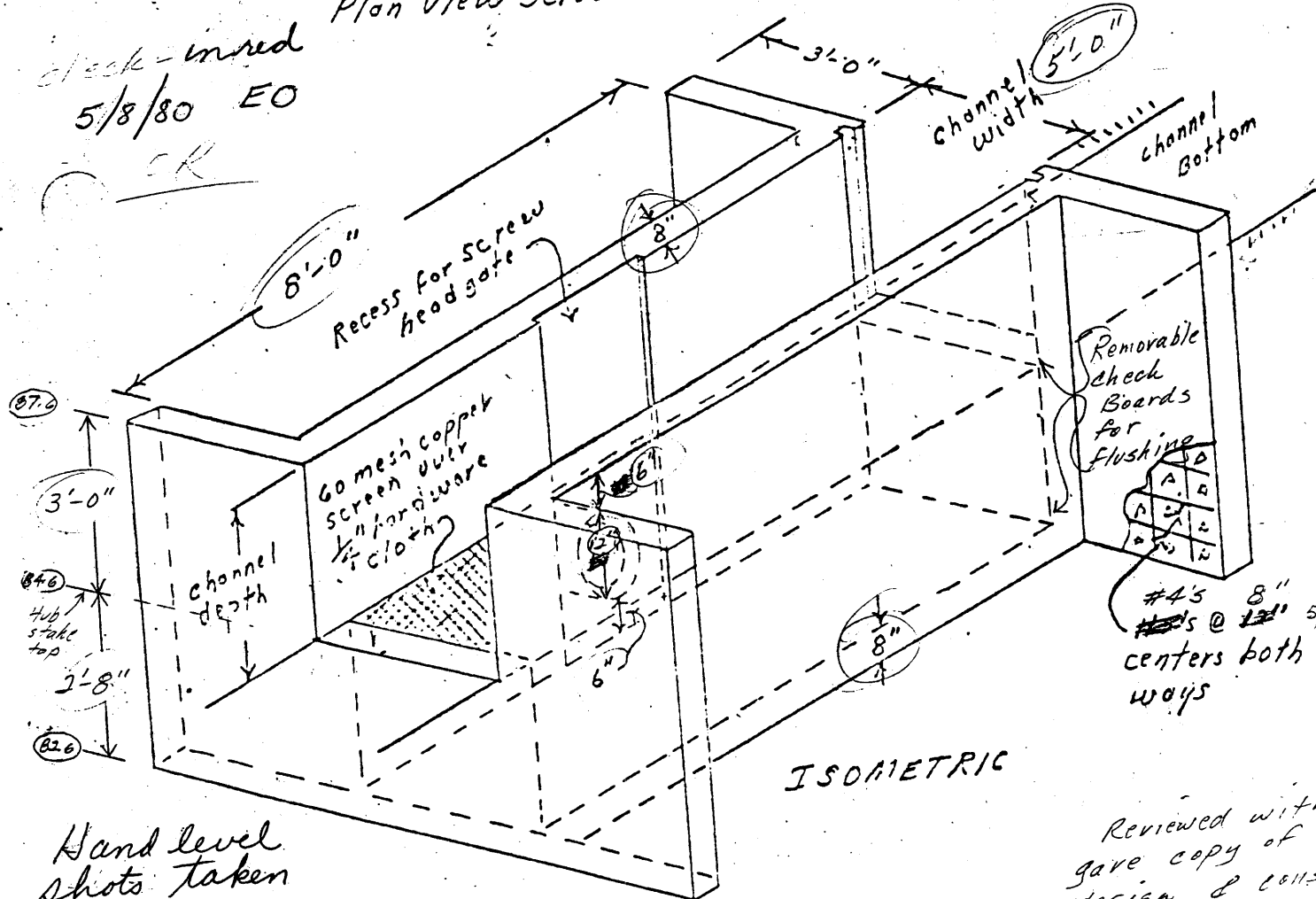
~~3" 4" EO~~
5/2/80
Air Vent

Supports for screen
frame can be steel
dowels or bolts
imbedded into conc.
walls. 18" center to
center maximum



Plan View Screen Frame

check - in red
5/8/80 EO



ISOMETRIC

Hand level
shots taken
to check
elev - OK

Flow Thru Intake Structure For Gravity Flow Sprinkler Systems

Reviewed with &
gave copy of
design & const.
spec 587 to
contractor - he
understands design
OK. ED 5/2/80

Waho Cherry Creek Upper Group
 Eric 01300 5/80 JWS 5-1-80 1980 ACP #11
 Dunford Weston-on farm system design 10 11

Refer to sheet A for design data.

Nozzle spacing $S_L = 40$ ft, $S_M = 30$ ft
 Min. wetted diam = $30 / 0.6 = 50$ ft
 Spr. Head - Rainbird 20 L TNT
 or equivalent - $1/64"$,
 4 gpm flow control, 25' p.s.i.
 wetted diam. = 55 ft.

Application rate = $\frac{0.3 \text{ (ft)}}{30 \text{ (ft)}} = 0.01 \text{ in/hr}$

Application time = 23 hrs/set

Net application = $(0.01) (23) (0.65) = 1.50"$

Max. hr. cycle = $\frac{1.5}{0.01} = 150 \text{ days}$

Actual frequency = 17 days

Laterals minimum = $\frac{57 \text{ sets}}{3.2 \text{ days}} = 3.9 \text{ (3" dia.)}$

System capacity: 93 nozzles @ 4 gpm
 = 372 gpm

Friction loss in main (steel, $n = 0.012$)
 Irr Guide Chart 4-5

0+00 - 5+00	- 372 gpm	- 8"	- 4.5 ft/100'	= 2.7 ft loss
5+00 - 11+00	- 272	- 6"	- 2.5	1.2
11+00 - 16+00	- 192	- 6"	- 1.3	0.6
16+00 - 21+00	- 124	- 6"	- 2.4	1.2
21+00 - 26+00	- 76 gpm	- 6"	- 1.0	0.5
				$\Sigma = 6.2 \text{ ft Loss}$

60 ft elev diff. - OK

Idaho Cherry Creek Upper Group
Eric Olsen 5/80 DWS 5-1-80 1950 ACD #11
C. Evans, J. Evans, R. Jones systems design 11 11

Refer to Sheet 4 for design data

Nozzle spacing: $5l = 40 \text{ ft}$, $5m = 60 \text{ ft}$.
Min. wetted diam. $60 \text{ ft} / 0.6 = 100 \text{ ft}$.

Spr. Heads - Rain Bird 30 EW TNT
or equivalent - "64"
6 gpm flow control
50 psi, W.D. = 100 ft.

Application rate = $\frac{6.3 (6)}{40 (60)} = 0.241 \text{ in./hr}$

Time = 23 hrs. 15-8

Net application = $(0.241)(23)(0.65) = 3.6 \text{ "}$

Max. Irr. Cycle = $\frac{3.6}{0.21} = 17 \text{ days}$

Actual frequency: C. Evans = 17 days
J. Evans = 17 days
R. Jones = 16 days

Laterals minimum: C. Evans = $\frac{60 \text{ sets}}{17 \text{ days}} = 3.5 (4")$
(All laterals -
4" flow hard) J. Evans = $\frac{60 \text{ sets}}{17 \text{ days}} = 3.5 (4")$

R. Jones: $\frac{32 \text{ sets}}{17 \text{ days}} = 2.0 (4")$

System capacities (each)

62 nozzles @ 6 gpm = 372 gpm

All laterals run downhill -

Longest lateral with least drop will
be on San Evans:

38 nozz @ 6 gpm = 9 psi loss

$P_m = 50 \text{ psi} (50\%) = 10 \text{ psi}$ permissible
loss > 9 psi
OK

Rain Bird
slide.

CHERRY CREEK IRRIGATION GROUP

Funding Request

for

EMERGENCY IRRIGATION WATER FOR CROPLAND

PURPOSE:

As a result of a drought situation, the shareholders on the Cherry Creek drainage are requesting funding for a pipeline project which will consolidate source water into one system. The pipeline will eliminate $3\frac{1}{2}$ miles of gravel-bottom ditch and 3 miles of soil-bottom ditch.

APPLICABILITY:

During normal seasons, Cherry Creek provides water for two main ditches. By the end of April we were forced to use only one ditch and to alternate farms. The gravel-bottom ditch loses approximately 70% from the source to the first irrigated fields. The soil-bottom ditch loses approximately 40%.

The pipeline will also eliminate reliance on seven motorized pump stations and allow all farms to benefit from a gravity irrigation system.

All shareholders have sprinkling facilities to transport water from main pipeline to cropland.

IMPLEMENTATION OF PROJECT:

Surveys, specifications, costs, and technical data have been assembled by shareholder's group and immediate commencement has been assured by the pipeline contractor. Water resources available by July could be in use on cropland.

Summary of costs, specifications, and other data follow.

CHERRY CREEK GROUP

FROM: SPRINKLER SYSTEM DESIGN BY ERIC OLSON (1980)

Four members in group

372 gpm/member % Total $Q = 1488$ GPM (3.32 CFS)

WESTON SYSTEM: 93 Nozz. @ 4 gpm/Nozz.

$S_m = 30'$ 6 laterals (17n, 11n, 15n, 21n, 24n, 5n)

$S_m =$ riser spacing on mainline n = Nozzles

CARL EVANS SYSTEM: 62 Nozz. @ 6 gpm/Nozz.

$S_m = 60'$ 3 laterals (15n, 8n, 39n)

JAN EVANS SYSTEM: 62 Nozz. @ 6 gpm/Nozz.

$S_m = 60'$ 2 laterals @ 31n each

RANDY JONES SYSTEM: 62 Nozz. @ 6 gpm/Nozz.

$S_m = 60'$ 2 laterals (30n & 32n)

Summary of Mainline:

0+00: Inlet structure

start 12" dia. PVC 100 psi SDR 41 PIP $L = 5400'$

Elev. 5240' $\rightarrow$ 5160' $Q = 1488$ gpm

54+00: Tee ... 8" steel to Weston Farm

10" dia. PVC 100 psi SDR 41 PIP to Group $L = 2700'$

Elev. 5160' $\rightarrow$ 5140' $Q = 1116$ gpm

81+00: start of Carl Evans' system

10" dia. PVC 100 psi SDR 41 PIP $L = 600'$

Elev. 5140' $\rightarrow$ 5085' $Q = 1116$ gpm

87+00: Reducer 10" $\times$ 8"

8" dia. PVC 100 psi SDR 41 PIP $L = 700'$

Elev. 5085' $\rightarrow$ 5075' $Q = 1056$ gpm

STATE	Idaho	PROJECT	Cherry Creek Irrigation Group		
BY	R.E.D.	DATE	5-23-77	CHECKED BY	PJN
		DATE	6-22-77	JOB NO.	Eng Class I 7 Adm units
SUBJECT	Gravity Sprinkler System				SHEET 1 OF 5

Date:	Groups with	Photo	GPM @
Shareholder	Irrigated Ac.	Measured Acres	6.36 gpm/ac
D. Weston	60	110	381.6
C. Evans	60	86	381.6
C. Mock	60	70	381.6
V. Jones	80	80	508.8
V. Bloxham	80	52	508.8
R. Stewart	40	40	254.4
Everett McNee	80	80	508.8
	460	538	508.8

Acresage was based on 2800 gpm

$$= \frac{6.36 \text{ gpm}}{\text{acre}}$$

Id-40 = 2927 gpm required for 460 acres
Design for each to receive their share of water

Nozzle requirement: Peak daily use 0.211"

See ID-40

$$S_m = 40' \quad S_L = 40' \quad 23 \text{ dist} = 4.0" \text{ net} = 0.174'$$

Ref Sol 15
Chpt 11 Sec
WEHD

$$\text{Gpm} = \frac{(40') (0.174' \text{ per})}{74.3 (0.438 \text{ ft})} = 6.67 \text{ gpm}$$

Because of some irregular fields nozzle capacity will only somewhat to utilize the proposed metered flow

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

STATE <u>Idaho</u>		PROJECT <u>Cherry Creek Irrigation Group</u>	
DATE <u>5-24-77</u>	CHECKED BY <u>PJN</u>	DATE <u>6-22-77</u>	JOB NO. <u>1</u>
SUBJECT <u>Gravity Sprinkler System</u>			SHEET <u>2</u> OF <u>5</u>

Min. Water Pm = 60 ± 5 - 100'

Nozzle Set = 1/2" Rainbird Model 36 or 44

30 EWTWT → D. Weston = 6.35 gpm use = 13/16" @ 27 psi

30 W → C. Evans = 4.93 gpm " = 3/16" @ 46 psi 78'

30 W → C. Mock = 7.22 gpm " = 3/16" @ 100 psi

30 W → V. Jones = 7.7 gpm " = 3/16" @ 59 psi

30 E → V. Bloxham = 6.62 gpm " = 1/16" @ 61 psi

30 E → R. Stewart = 4.89 gpm " = 1/16" @ 67 psi

30 W → E. McNeer = 7.7 gpm " = 3/16" @ 59 psi

3" laterals Weston Pm = 57 psi + 0.75(23 psi) = 32.45 psi = 75.0 ft

4" lateral C. Evans Pm = 46 psi + 0.75(34 psi) = 42.25 psi = 112.2 ft

" C. Mock Pm = 51 psi + 0.75(40 psi) = 54.25 psi = 126.5 ft

" V. Jones Pm = 59 psi + 0.75(9.0 psi) = 65.75 psi = 151.9 ft

own main 20' drop + 20' own main line loss = 17.9 ft

" V. Bloxham = 61 psi + 0.75(21 psi - 10 psi) = 69.25 psi = 160 ft

" R. Stewart Pm = 67 psi + 0.75(8.3 psi + 6.0 psi) = 77.23 psi = 179.6 ft

+ 10.0' own main loss = 189.6 ft

" E. McNeer Pm = same as V Jones less than Stewart

All laterals meet 20% operating pressure

Except R Stewart and it = 14.3 psi = 13.5 psi or

Lateral losses from Rainbird calculator

Cherry Creek Irrigation Group
Funding Request

<u>Shareholders</u>	<u>Percentage of cost & Percentage of Water</u>	<u>Irrigated Acres *</u>	
C. Evans	11.11%	60 acres	104
V. Jones	16.67	80	160
E. McNee	16.67	80	80
C. Mock	11.11	60	160
D. Weston	11.11	60	90
R. Stewart	8.33	40	70
V. Elorham	16.67	80	300
Totals	100.00	460	904 Ac

*Acresage based on source intake of 2,800 gallons/minute and 7 gallons/minute output per sprinkler head.

Materials:

- a. Pipe
- 7,920 feet of 15inch plastic pipe (50 lb.)
 - 1,485 feet of 12inch plastic pipe (60 lb.)
 - 2,640 feet of 10inch plastic pipe (80 lb.)
 - 2,640 feet of 8inch plastic pipe (100 lb.)

Total length of pipe 14,685 feet

- b. Flow Meters 7
- c. Settling Pond, cement intake and gravel duct
- d. Joints, valves, and air release valves

Costs:

Pipe	\$57,000
Flow Meters	7,000
Valves, etc.	2,000
Pond	2,000
Installation	13,000
Total	\$80,000

Cost per Acre \$80,000 ÷ 460 acres = \$173 (figures based on land currently under irrigation)

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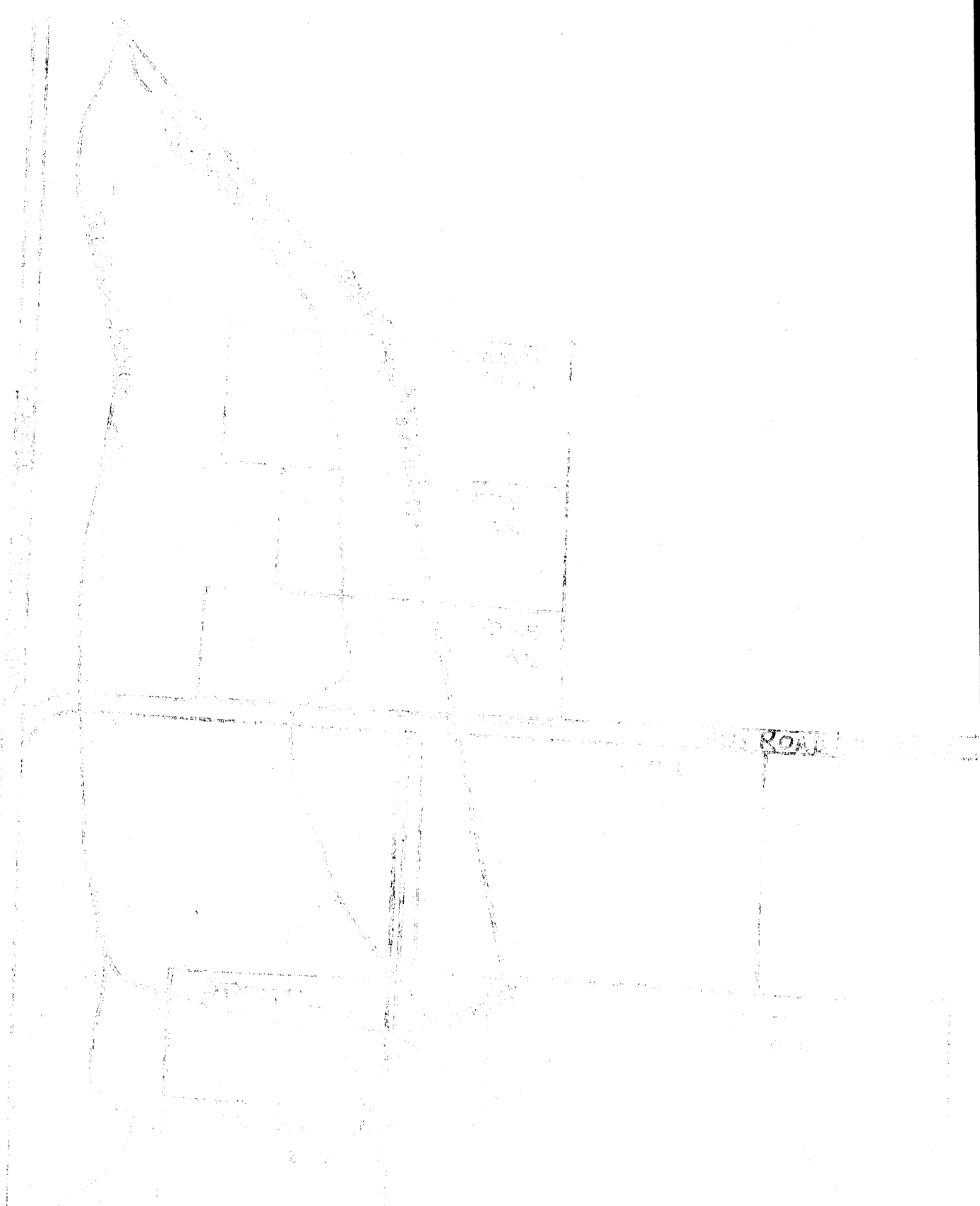


EXHIBIT C

14440
 Eric Olson - 580 Cherry Creek Upper Group
 OWB 5-1-80 1150 ACP #1
 Inventory of resources 3 11

Water rights: Cherry Creek divided in half at division between upper & lower groups. Upper group split has changed since previous designs due to land & water right trades. Split is now one-quarter to each of the four members. This will be done by using flow control nozzles. Best division appears to be 4 gpm per nozzle at Weston's and 6 gpm per nozzle at each of the others. To attain equal split Weston will run 50% more nozzles.

Because decision has been made by member on pipeline sizes - use 5 fps velocity limitation for maximum flow condition number of acres to be irrigated:

Pipe diam	Flow at 5 fps	Members	GPM/member
12"	1660	4	415
10"	1150	3	383
8"	740	2	370
6"	420	1	420

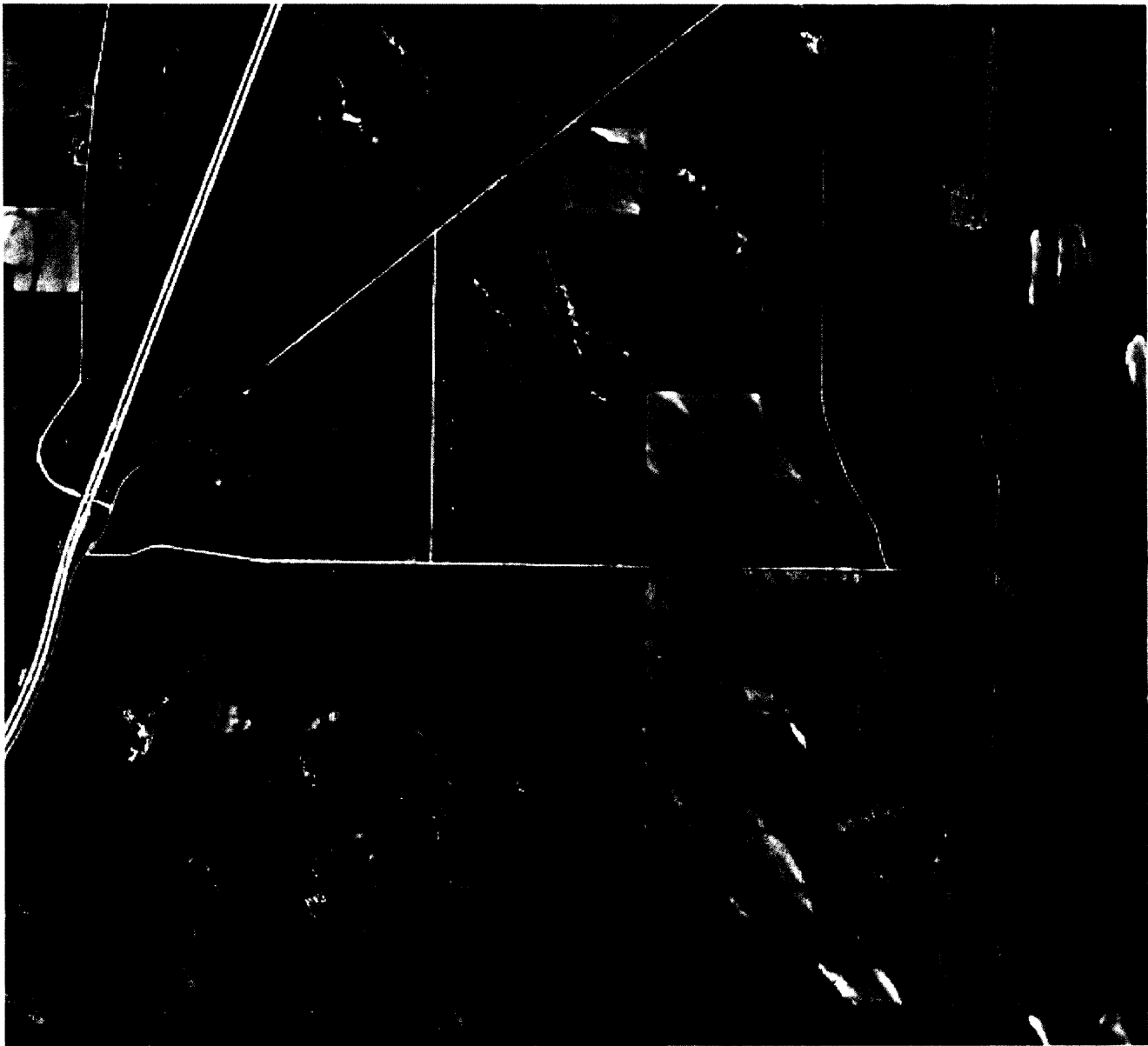
Most limiting is 8" at 740 gpm, this will supply 2 members, so use 370 gpm per individual.

Sheet 4 indicates a 6.35 gpm per acre requirement

$$\frac{370 \text{ gpm}}{6.35 \text{ gpm/acre}} = 58 \text{ Acres/member}$$

Each member has well over 58 irrigable acres.

Present ditch will be retained to utilize any run-off by surface irrigation.



0 1Km 0 1.5Mi

Image courtesy of the US Geological Survey.

SE R37E

MALAD SUMMIT OR
IDAHO





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www.delorme.com

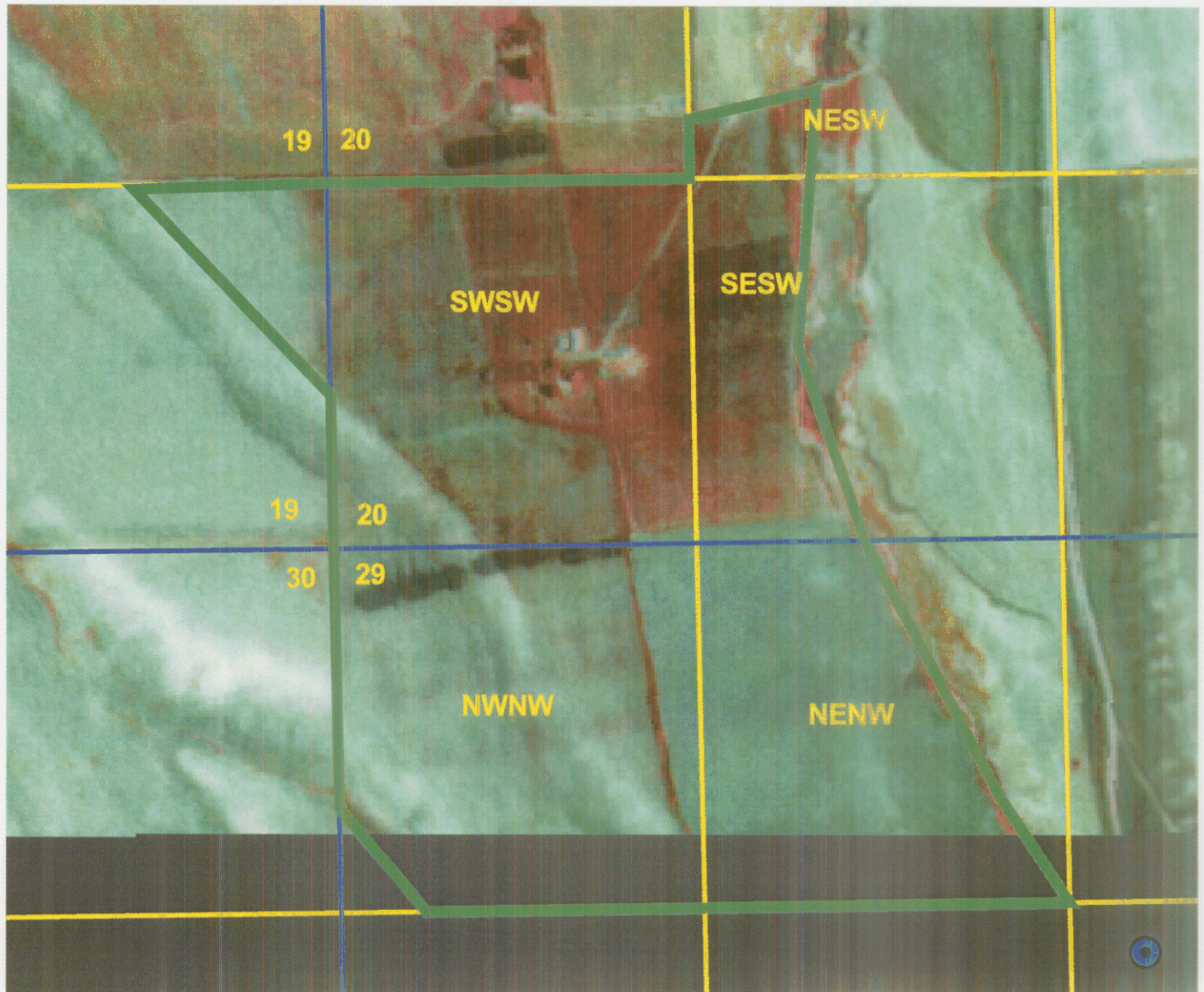
Scale 1 : 19,200
1" = 1600 ft



IDAHO DEPARTMENT OF WATER RESOURCES

29-00348E

T12S, R37E SEC. 20,29



ACRES IRRIGATED- 110



POINT OF DIVERSION

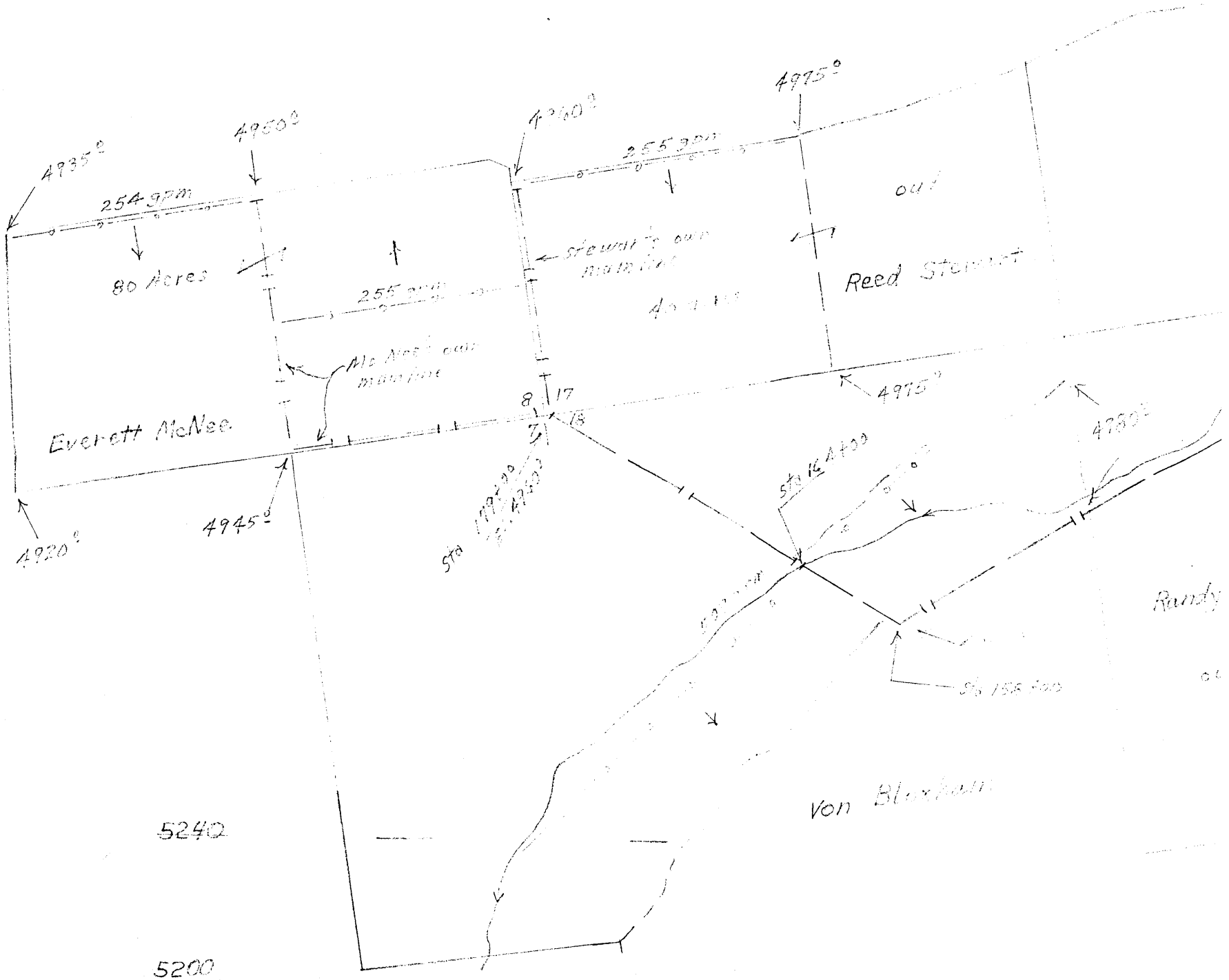


PLACE OF USE

GIS: PLACE OF USE
POINT OF DIVERSION
1987/1988 NAPP PHOTOS
DAVE CARLSON



R 37 E



5100

2+00 E.O. Line
Thrust Block Station
Air 200 x 200
Pressure Relief

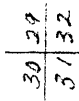
Sta 1792+00
255 gpm

Sta 158+00
Thrust Block Area

1500' - 8" Class 125 psi PVC

4600' - 15" Class 125 psi PVC

Sta 158+00

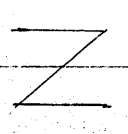
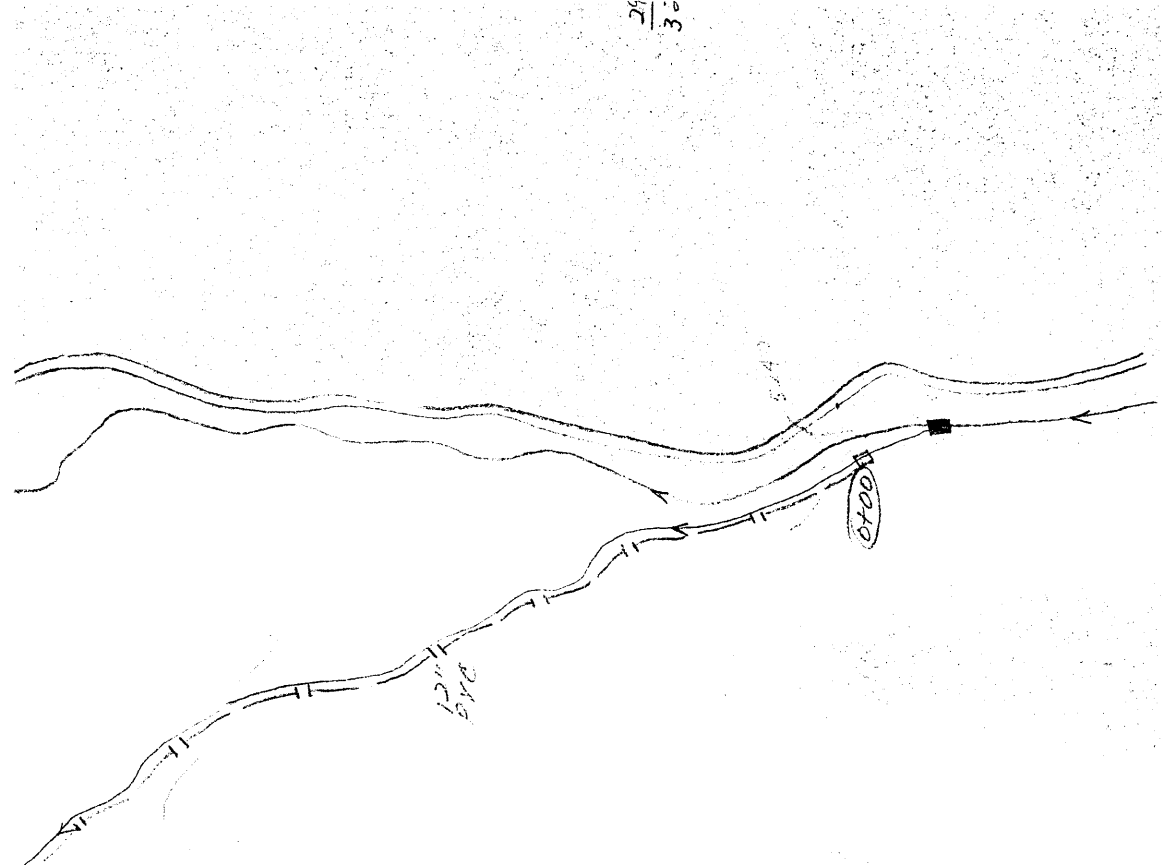
$$\begin{array}{r} 29 \\ 32 \\ \hline 28 \\ 33 \end{array}$$


I have reviewed the plans and specifications and agree to construct this project to the best of my ability in accordance with them.

Date:-

GRAVITY SEPARATOR SYSTEM LA

CHERRY PISTON 11005



Scale: 1" = 660'
 Traced from A505 Plans:
 211-230
 341-26

30 29
 31 32

copy of plan pp. 3, 6a, 7 &
 const. specs 587 & 430 DD
 provided.

I have reviewed the plans and specifications
 and agree to construct this project to the
 best of my ability in accordance with them.

Date: _____

[Signature] 5/6/80
 for R. Evans
 Andy H. Jones
[Signature]

Engineering Job Class IV

GRAVITY SPRINKLER SYSTEM LAYOUT SKETCH

CHERRY CREEK UPPER GROUP

PORTNEUF SWCD POCAHELLO FIELD OFFICE

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed <u>Eric Olson</u>		Date <u>5/80</u>		Approved by <u>[Signature]</u>	
Drawn _____		Title <u>Civil Engineer</u>		Title _____	
Traced _____		Sheet No. /		Drawing No.	
Checked _____		of /			