

Figure 2-7 Sheet 16 of 17

2-50

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.
		58.95		
TP9	4.14	60.01	3.08	55.87
58+00			+9.5	50.5
60+00			+9.2	50.8
61+82			+9.0	51.0
BM3			6.97	53.04
	42.27		38.33	
	38.33			
	3.94			
	Correct elev. BM3 = 53.00			
	Diff. in elev. BM1 & BM3 = 3.90			
	Check OK			

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(5-70)

GPO : 1970 O-385-053

Rabbit Cr. Dr. Assoc.
Main Ditch #1
Const Check

3

Left	Right
(Berm)	
6.5 1.9	6.7 0.8
9.6 2	9.5 2
	9.3
	8.9

FIGURE 2-8

Engineering Notes for Subsurface Drain (Main Line)

Construction Layout and Construction Check

These notes illustrate the general format for subsurface drains. The design was prepared from a survey and soils investigations made during development of an overall plan for the district.

The construction check notes illustrate a simple method of checking from the reference hubs. It is simpler and faster than carrying elevations from bench marks and it is satisfactory for most jobs if reference hubs are offset a safe distance where they will not be disturbed during construction. In using this method, the person who is to do the checking must be given the following information:

1. Planned cut from top of reference hub to bottom of trench at each station.
2. Outside diameter of each size tile used in the line.

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SCD <i>West Salt Lake</i>	Date <i>2/26/74</i>
Field Office <i>Murray</i>	
Name <i>East Riverton Dr. Dist.</i>	
Individual Group <u>Unit of Govt.</u> (circle one)	
Job <i>Subsurface Dr. #6</i>	
Design Sur. <input type="checkbox"/>	Const. Layout <input checked="" type="checkbox"/>
Const. Check <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
Ident. No. <i>ut-2-13</i>	Field No.
Location	

The diagram shows a plan view of a subsurface drain system. A horizontal 'Main' line runs across the center. Four vertical 'Lateral' lines (A, B, C, D) branch off from the main line. Lateral A is 6" from the main line, Lateral B is 7+00 6", Lateral C is 6", and Lateral D is 11+02 6". Horizontal dimensions from the main line to the laterals are 8" and 10". A vertical line labeled 'Redwood Rd.' is 100+00 from the main line. A 'Jordan River' is shown to the right. A 'PBM #453' is marked with an 'x' near Riverton Rd. at the top. 'Riverton Rd.' is labeled at the top of the diagram.

Legal Description Sec. 7 & 8, T12N, R2W

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Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.	Reference Hubs
BM	6.43	62.60		435617	
TP-1	3.32	58.81	7.11	55.49	
0+00					
0+10			+10.8	48.0	
					C-6.7
0+20			+10.8	48.0	4.1
					C-6.6
1+00			+10.7	48.1	4.0
					C-7.1
2+00			+10.6	48.2	3.5
2+54					
					C-7.4
3+04			+10.5	48.3	3.1
					C-7.2
4+00			+10.4	48.4	3.2

SCS-ENG-29
(5-70)

GPO : 1970 O-385-053

E. Riverton Dr. Dist. T. Scope
Main Drain #6 Pl. Road
Const. Layout Ch. H. Roy (farmer)

Left & Right 2/26/74

U.S.G.S. BM #453 SE. Corner Sec 6

& Jordan River 46.0 elev.
12.8

Begin 10" CMP 11.3
C=6.7 Drive piling at 0+12
4.5

Begin 10" conc. file
C=6.4
4.3

R.O.W. fence
C=6.6
4.0

& Redwood Rd. 55.5 elev.
3.3
C=6.8
3.7
C=6.7
3.7

Note: Cut to be measured from top of reference hubs.

Figure 2-8 Sheet 2 of 4

Sta.	B.S.	H.I.	F.S. or Grade Rod to bottom of trench	Elev. or Planned Elev.	Planned cut from Ref. Hub to bottom of trench
	On Ref. Hub				
0+20	4.7		11.4		6.7
3+04	4.6		12.0		7.4
7+00	4.9		12.2		7.3
7+03	4.9		11.9		7.0
9+00	4.8		11.7		6.9
11+02	4.8		11.4		6.6

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E. Riverton Dr. Dist. T J. Brown
Main Drain #6 R. Rush 3
Const. Check 3/12/74

Tile O.D. Ft.	Rod Reading Top of Tile
1.0	10.4
1.0	11.0
1.0	11.2
0.8	11.1
0.8	11.0 OK. within 0.1'
0.8	10.6

Construction dimensions, elevations,
and locations of manholes, outlet prop and
filter noted on "As-built" plans. All
construction meets plans and specs.

J. Brown
Dr. Dist. Insp.
3/12/74

Figure 2-8 Sheet 4 of 4

FIGURE 2-9

Engineering Notes for Bench Level Survey

These notes illustrate the general format for setting bench marks as vertical control points for subsequent surveys and construction work.

It will be noted that turning points have been numbered in these sample notes. This practice is optional.

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	
SCD <u>Sabine</u>	Date <u>2/26/74</u>
Field Office <u>Mary</u>	
Name <u>Sabine Drainage Group</u>	
Individual <input checked="" type="radio"/> (Group) Unit of Govt. (circle one)	
Job <u>Bench Level Survey</u>	
Design Sur.	Const. Layout
Const. Check	Other
Ident. No. <u>Dr. Gr. - A2</u>	Field No.
Scale	<u>9</u>
1" =	<u>10</u>
Legal Description	<u>BM6</u>
	<u>Sec 3 & 10 T 12N R 4W</u>
	or
Location:	

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Sta.	B.S.	H.I.	F.S. or Grade-Rod	Elev. or Planned -Elev.
BM	6.82	151.44		144.62
TP1	4.92	151.19	5.17	146.27
TP2	5.69	148.63	8.25	142.94
BM1	1.90	148.58	1.95	146.68
TP3	3.02	148.36	3.24	145.34
TP4	5.57	148.48	5.45	142.91
BM2	5.16	148.13	5.51	142.97
TP5	4.93	149.28	3.78	144.35
TP6	4.42	149.58	4.12	145.16
BM3	4.65	149.22	5.01	144.57
TP7	3.72	148.56	4.38	144.84

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Sabine Dr. Group
Bench Levels

π S. Jones
♠ R. Brown
Hot & Clear 2/26/74

USGS. BM #62 - Conc. Mon. 10'S. &
15'E. N.W. Corn. Sec. 3; T12N; R4W

60^d nail in S. side 18" cottonwood in
N.E. Corn; NW¹/₄; NW¹/₄; Sec. 3

1" Steel axle in S.E. Corn; NW¹/₄; NW¹/₄;
Sec. 3

60^d nail in N. side 15" hickory tree in
S.E. Corn; SE¹/₄; NW¹/₄ Sec. 3

Figure 2-9 Sheet 2 of 5

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.
		141.01		
TP17	4.12	140.33	4.80	136.21
TP18	4.23	139.65	4.91	135.42
TP19	3.93	138.94	4.64	135.01
BM6	4.12	138.38	4.68	134.26
TP20	4.73	139.25	3.86	134.52
TP21	4.68	140.12	3.81	135.44
TP22	4.87	140.98	4.01	136.11
TP23	4.79	141.79	3.98	137.00
TP24	4.83	142.55	4.07	137.72
TP25	4.43	142.86	4.12	138.43
TP26	4.63	143.36	4.13	138.73

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Sabine Dr. Group
Bench Levels

3

60^d nail in W. side 20" elm 350' W. of
S.E. corn. Sec. 10

Figure 2-9 Sheet 4 of 5

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.
		143.36		
TP 27	4.54	144.01	3.89	139.47
TP 28	4.64	144.87	3.78	140.23
TP 29	4.51	145.63	3.75	141.12
TP 30	4.44	146.54	3.53	142.10
TP 31	4.40	147.66	3.28	143.26
BM 62			3.09	144.57
ΣBS	171.75	ΣFS	171.80	
	171.80	Correct elev. BM 62 =		144.62
	-000.05	Diff. =		-0.05 OK.
Allowable error =				$.1\sqrt{M}$
				= $.1\sqrt{4.11}$
				= .203

Sabine Dr. Group
Bench Levels 4

Total circuit distance as scaled from
aerial photo = 4.11 miles.



FIGURE 2-10

Engineering Notes for Route Survey

These notes illustrate the format of a location or route survey by deflection angles.

The columns headed "Deflection Angle" and "Double Deflection Angle" are for the recording of observed values. One-half of the Double Deflection Angle is recorded in the column headed "Calculated Deflection Angle."

It will be noted that curves were calculated and staked as the survey progressed. This requires experienced personnel, but if it is not done, it is necessary to restation the line after the curves are staked.

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	
SCD Green River	Date 2/26/79
Field Office Brownsville	
Name Martin Dr Dist	
Individual (Group) Unit of Govt. (circle one)	
Job Route Survey - Main Ditch	
Design Sur.	Const. Layout
Const. Check	Other
Ident. No. Dr. G. 32	Field No.
Scale 1" =	
Legal Description	
	Sec 8 T12N R4W
Location:	

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