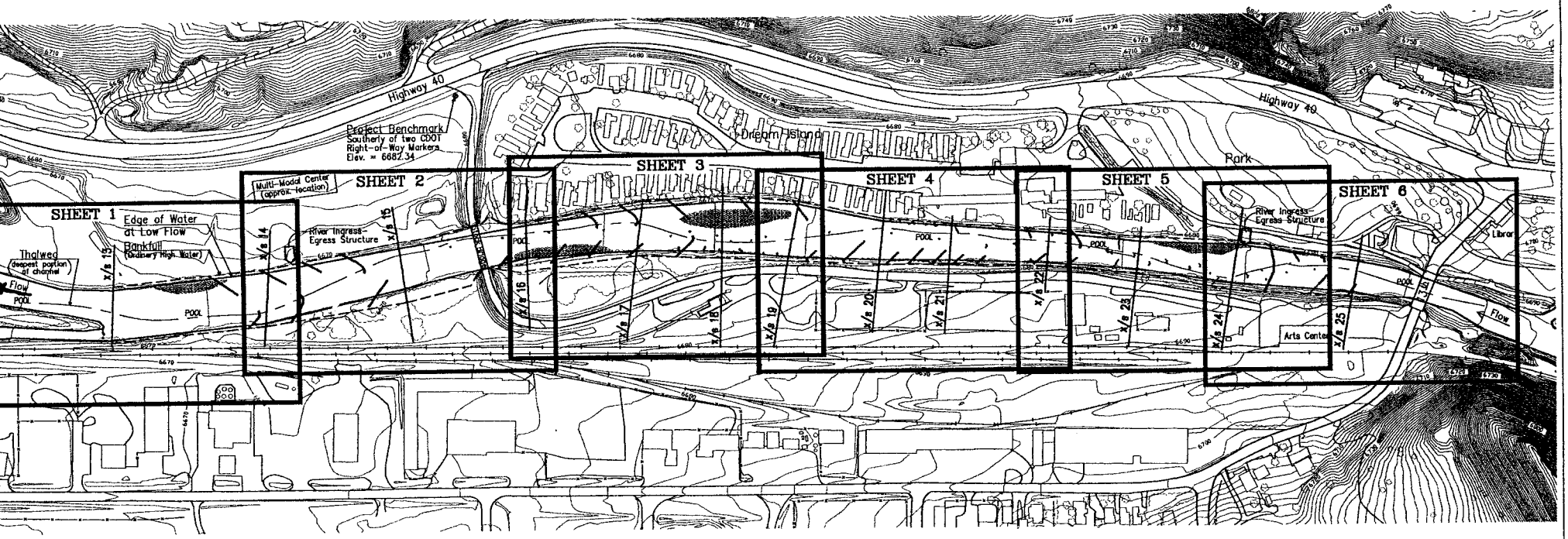
Yampa River
Multi-Modal Center to 13th Street Bridge
Construction Plans for Rock Structure Installation
Project Map

Steamboat Springs



KEY

- Existing Individual Boulder
- Existing Boulder Cluster
- Existing Rock Vein
- Proposed Individual Boulder
- Proposed Boulder Cluster
- Propoosed Rock Vein

GRAPHIC SCALE

0 125 250 500

(IN FEET)
1 inch = 250 ft.

NORTH

prepared for: City of Steamboat Springs Parks and Recreational Services (970) 879-4300	*prepared by:* Basin Hydrology, Inc. Park City, Utah (435) 649-1252	drawing name: index.dwg drawing date: 2/15/01

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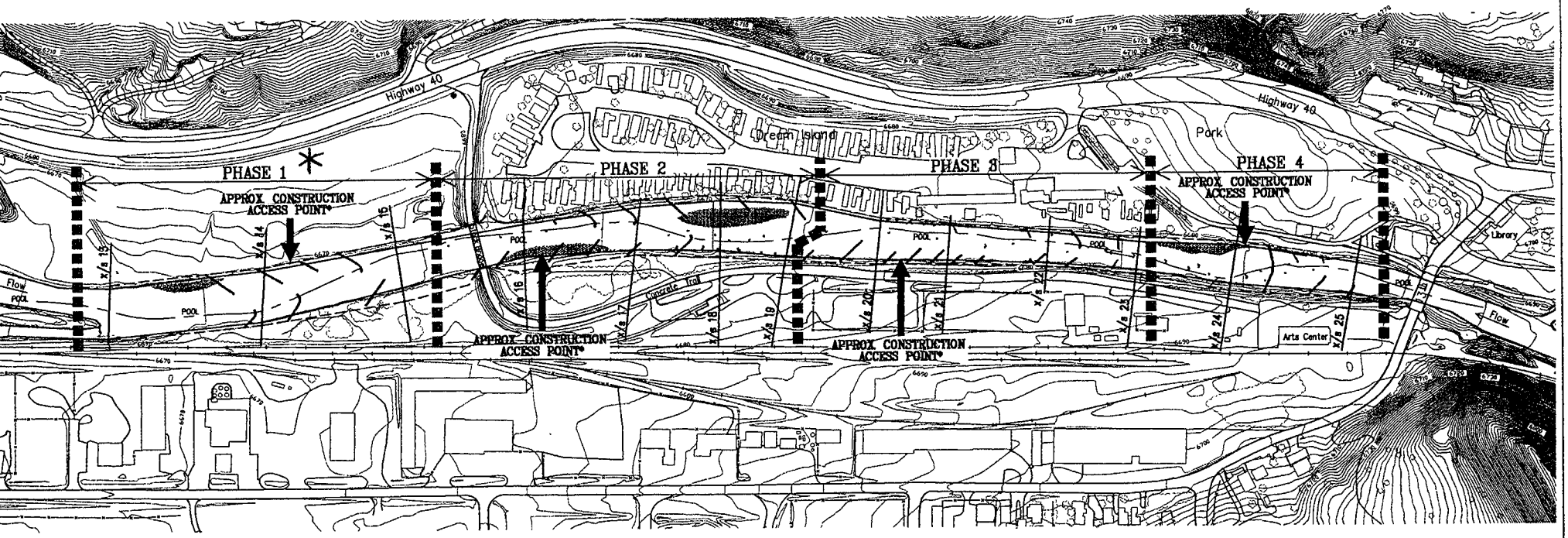
Yampa River
Multi-Modal Center to 13th Street Bridge
Construction Plans for Rock Structure Installation
Phasing and Construction Access Plan



* THE EXACT LOCATION OF CONSTRUCTION ACCESS POINTS SHALL BE FIELD DETERMINED AND COORDINATED WITH THE CITY OF STEAMBOAT SPRINGS AND AFFECTED PROPERTY OWNERS.

* THE CONTRACTOR SHALL PROTECT ALL CONCRETE AND PAVED TRAILS FROM DAMAGE DUE TO MATERIAL AND EQUIPMENT DELIVERY/CROSSING.

GRAPHIC SCALE
0 125 250 500
(IN FEET)
1 inch = 250 ft.

NORTH

prepared for:	prepared by:	drawing name:
City of Steamboat Springs Parks and Recreational Services (970) 879-4300	Basin Hydrology, Inc. Park City, Utah (435) 649-1252	phasing.dwg
		drawing date: 2/15/01

* NOTE: Phase I is not a part of this application. This work has been permitted by the Corps of Engineers under # 200175090.

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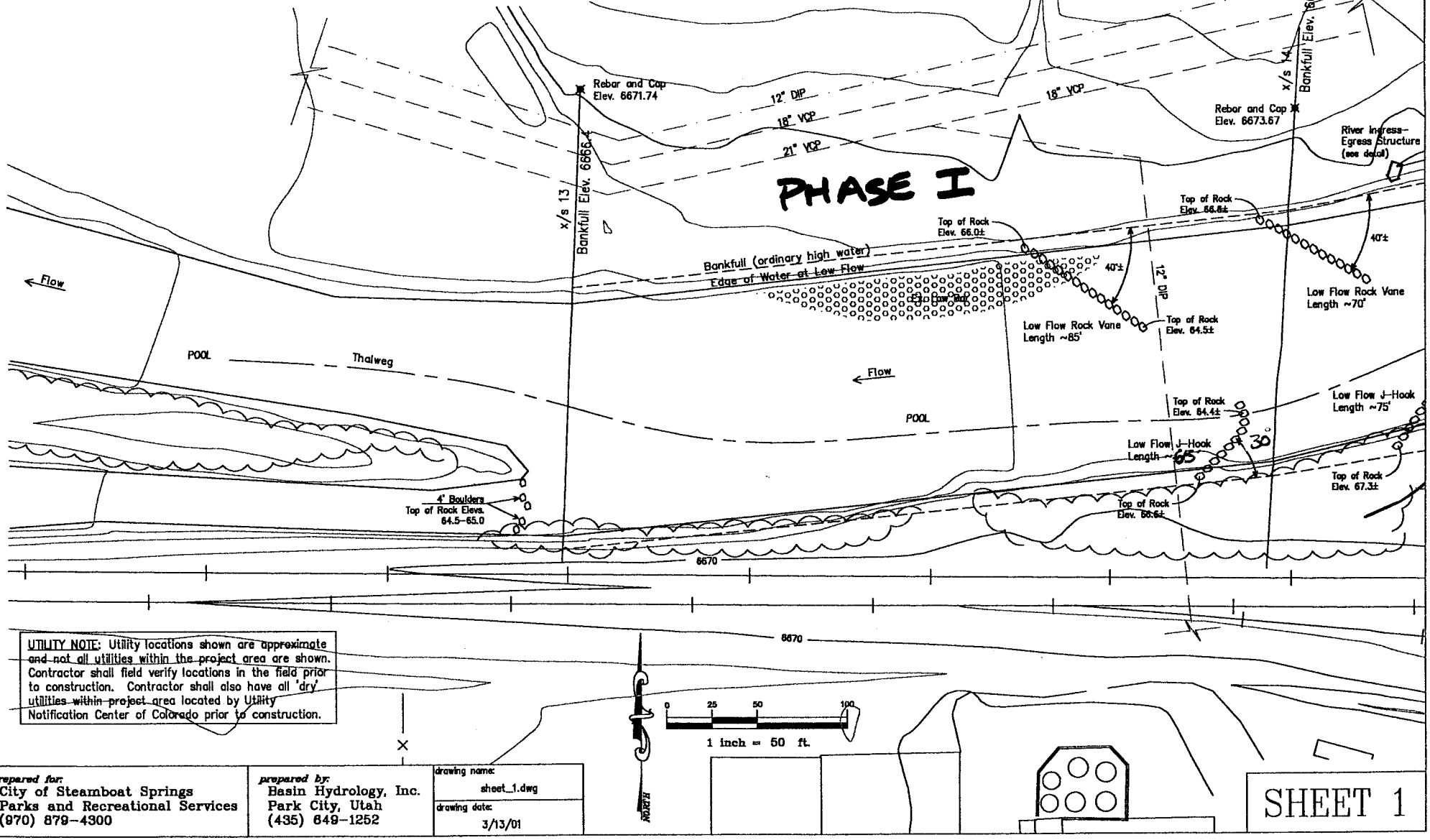
Yampa River
Multi-Modal Center to 13th Street Bridge
Construction Sheet 1: x/s13 to x/s14



UTILITY NOTE: Utility locations shown are approximate and not all utilities within the project area are shown. Contractor shall field verify locations in the field prior to construction. Contractor shall also have all 'dry' utilities within project area located by Utility Notification Center of Colorado prior to construction.

prepared for:	prepared by:	drawing name:
City of Steamboat Springs Parks and Recreational Services (970) 879-4300	Basin Hydrology, Inc. Park City, Utah (435) 649-1252	sheet_1.dwg drawing date: 3/13/01

SHEET 1

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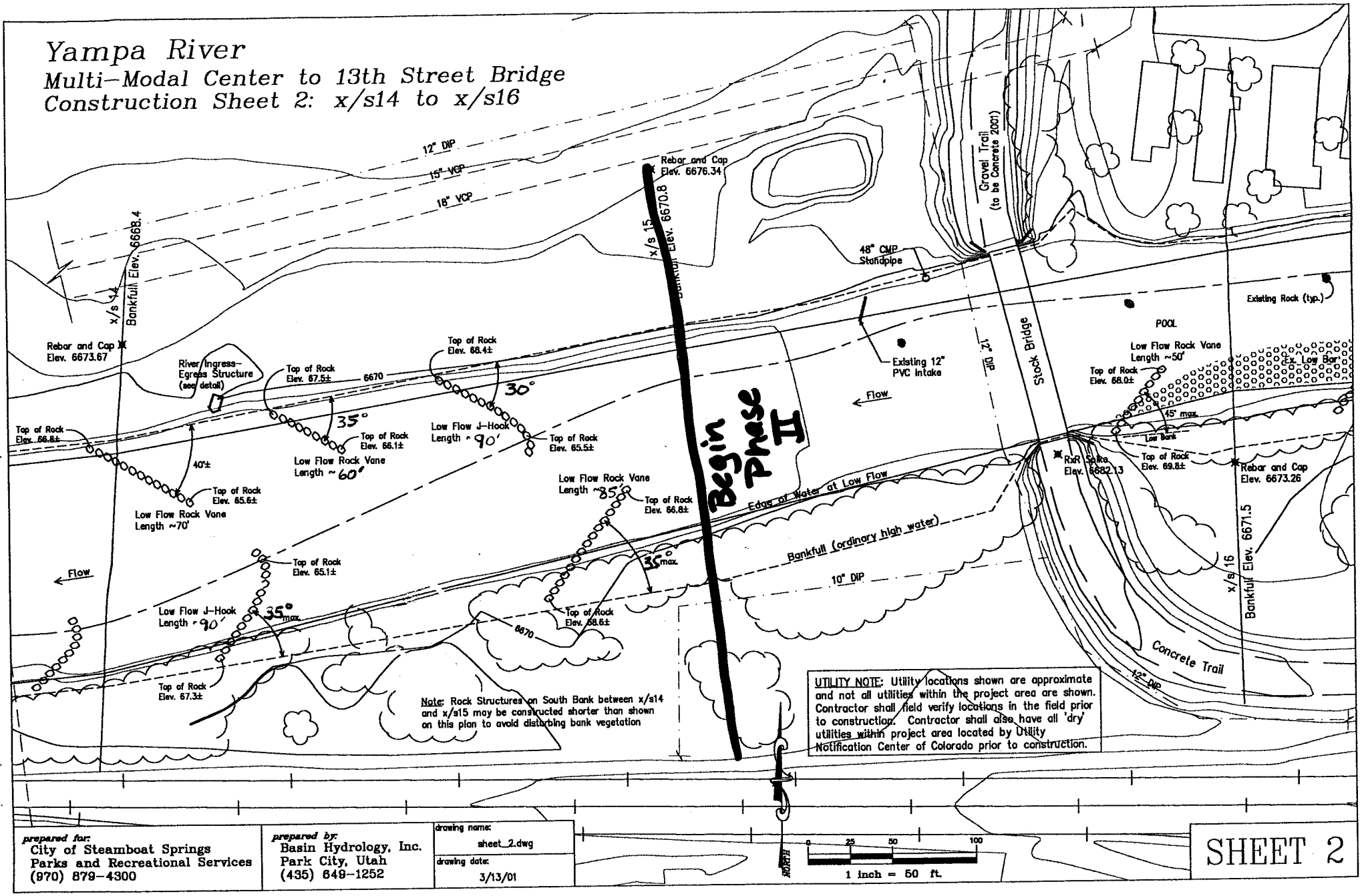
Yampa River
Multi-Modal Center to 13th Street Bridge
Construction Sheet 2: x/s14 to x/s16

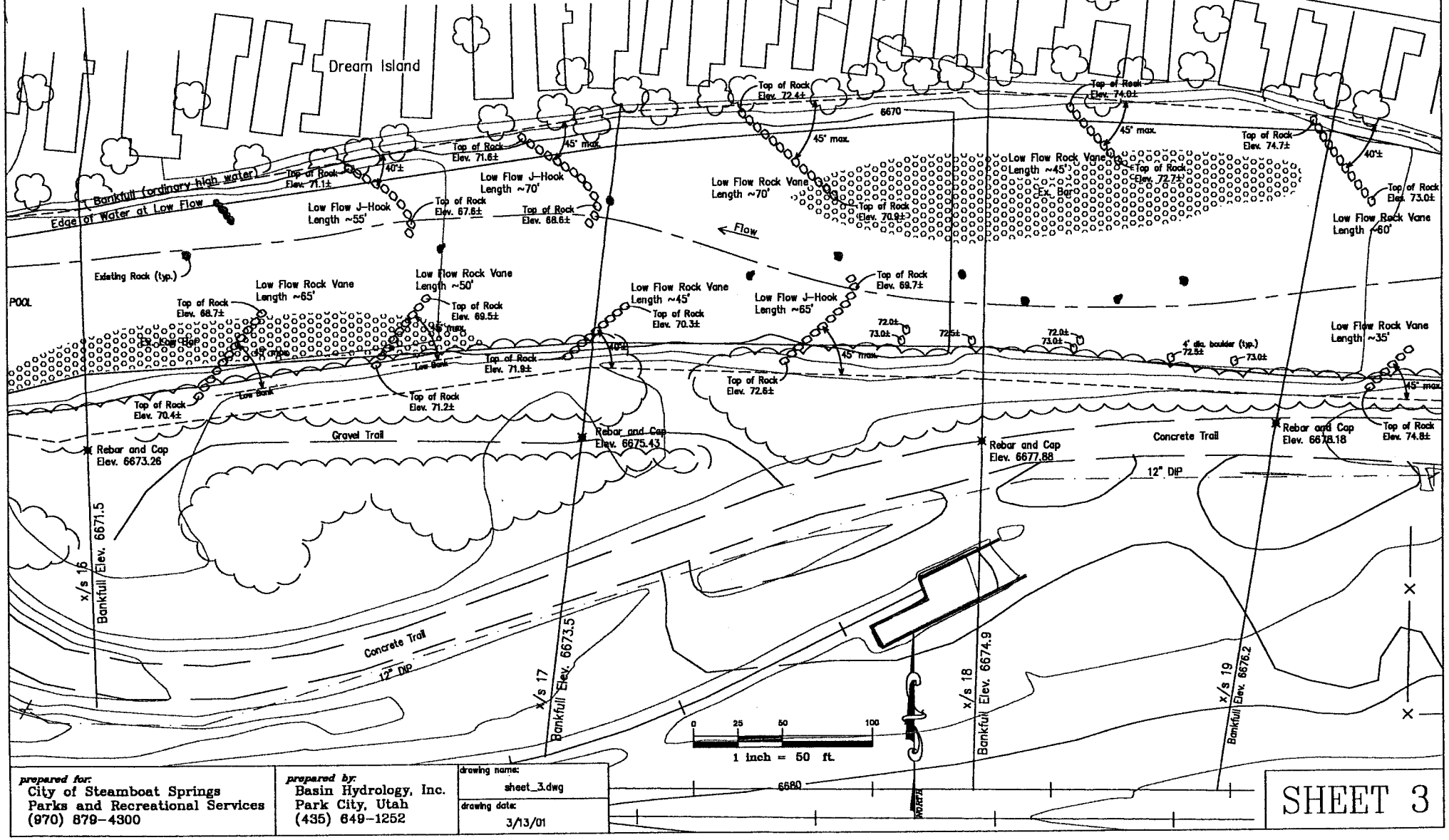


prepared for:	prepared by:	drawing name:	
City of Steamboat Springs Parks and Recreational Services (970) 879-4300	Basin Hydrology, Inc. Park City, Utah (435) 649-1252	sheet_2.dwg drawing date: 3/13/01	SHEET 2

4/6

Yampa River
Multi-Modal Center to 13th Street Bridge
Construction Sheet 3: x/s16 to x/s19

UTILITY NOTE: Utility locations shown are approximate and not all utilities within the project area are shown. Contractor shall field verify locations in the field prior to construction. Contractor shall also have all 'dry' utilities within project area located by Utility Notification Center of Colorado prior to construction.



prepared for:	prepared by:	drawing name:
City of Steamboat Springs Parks and Recreational Services (970) 879-4300	Basin Hydrology, Inc. Park City, Utah (435) 649-1252	sheet_3.dwg
		drawing date: 3/13/01

SHEET 3

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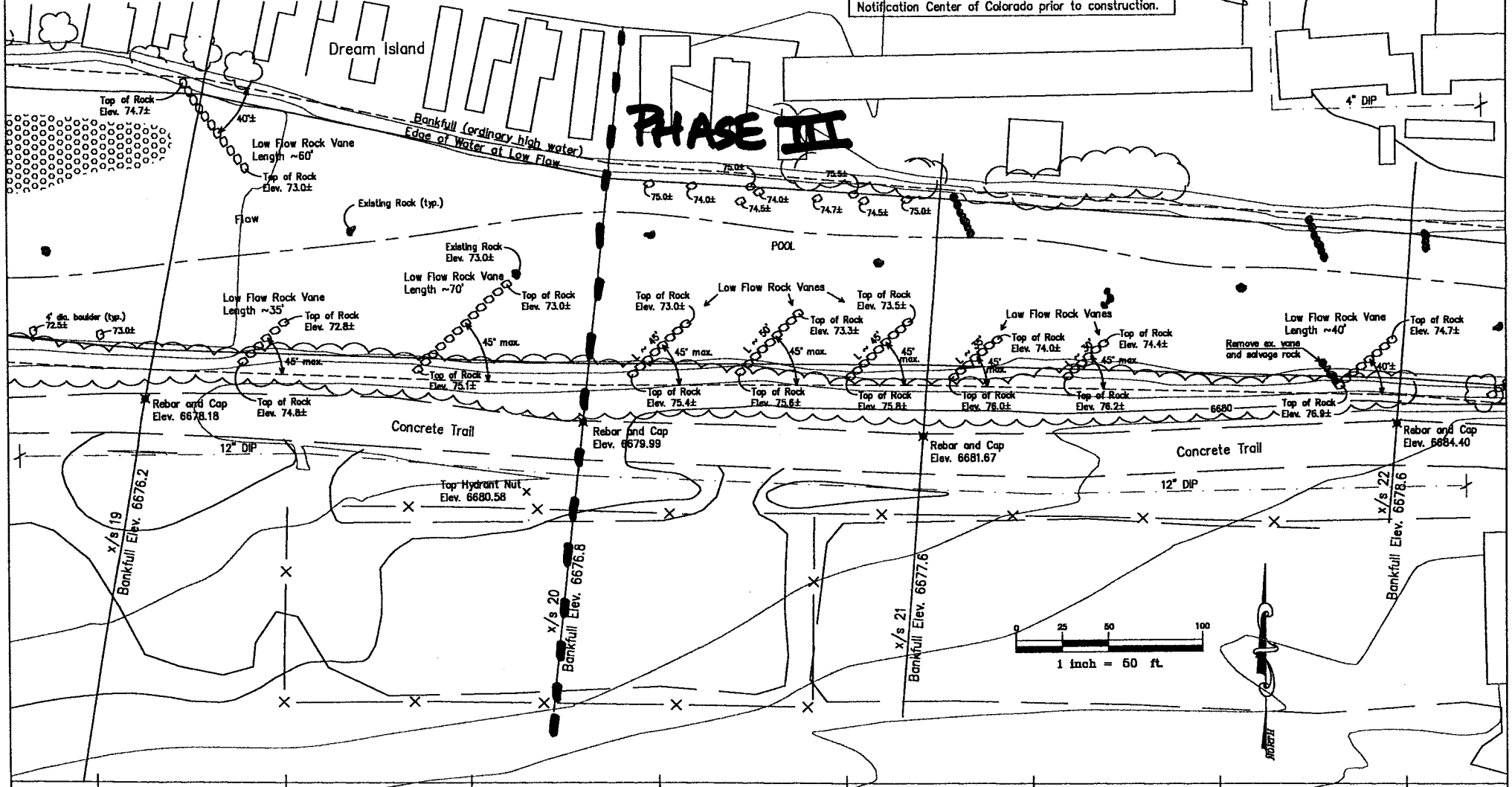
Yampa River
Multi-Modal Center to 13th Street Bridge
Construction Sheet 4: x/s19 to x/s22

UTILITY NOTE: Utility locations shown are approximate and not all utilities within the project area are shown. Contractor shall field verify locations in the field prior to construction. Contractor shall also have all 'dry' utilities within project area located by Utility Notification Center of Colorado prior to construction.

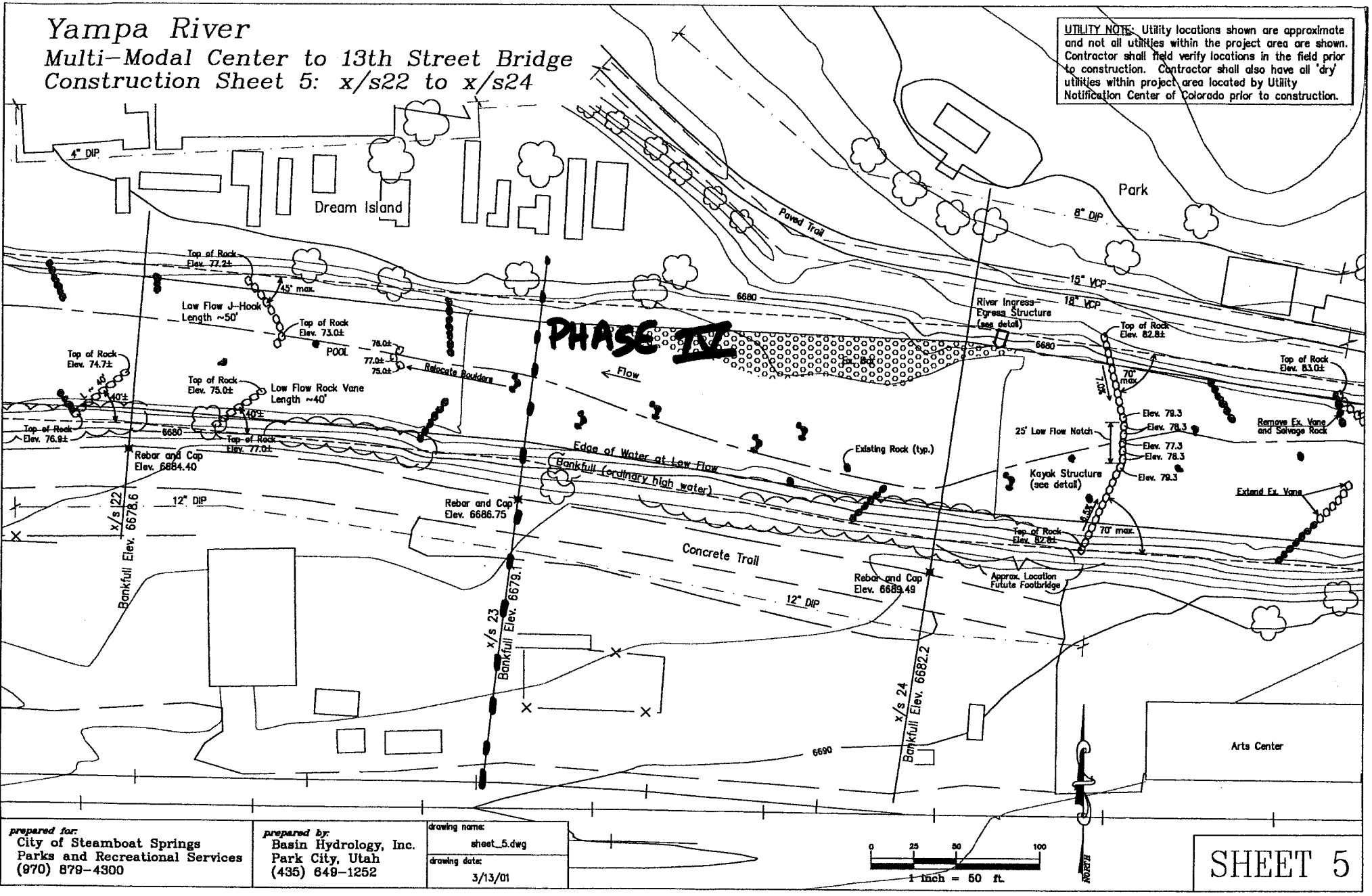


prepared for:	prepared by:	drawing name:	
City of Steamboat Springs Parks and Recreational Services (970) 879-4300	Basin Hydrology, Inc. Park City, Utah (435) 649-1252	sheet_4.dwg drawing date: 3/13/01	SHEET 4

6/6

Yampa River
Multi-Modal Center to 13th Street Bridge
Construction Sheet 5: x/s22 to x/s24

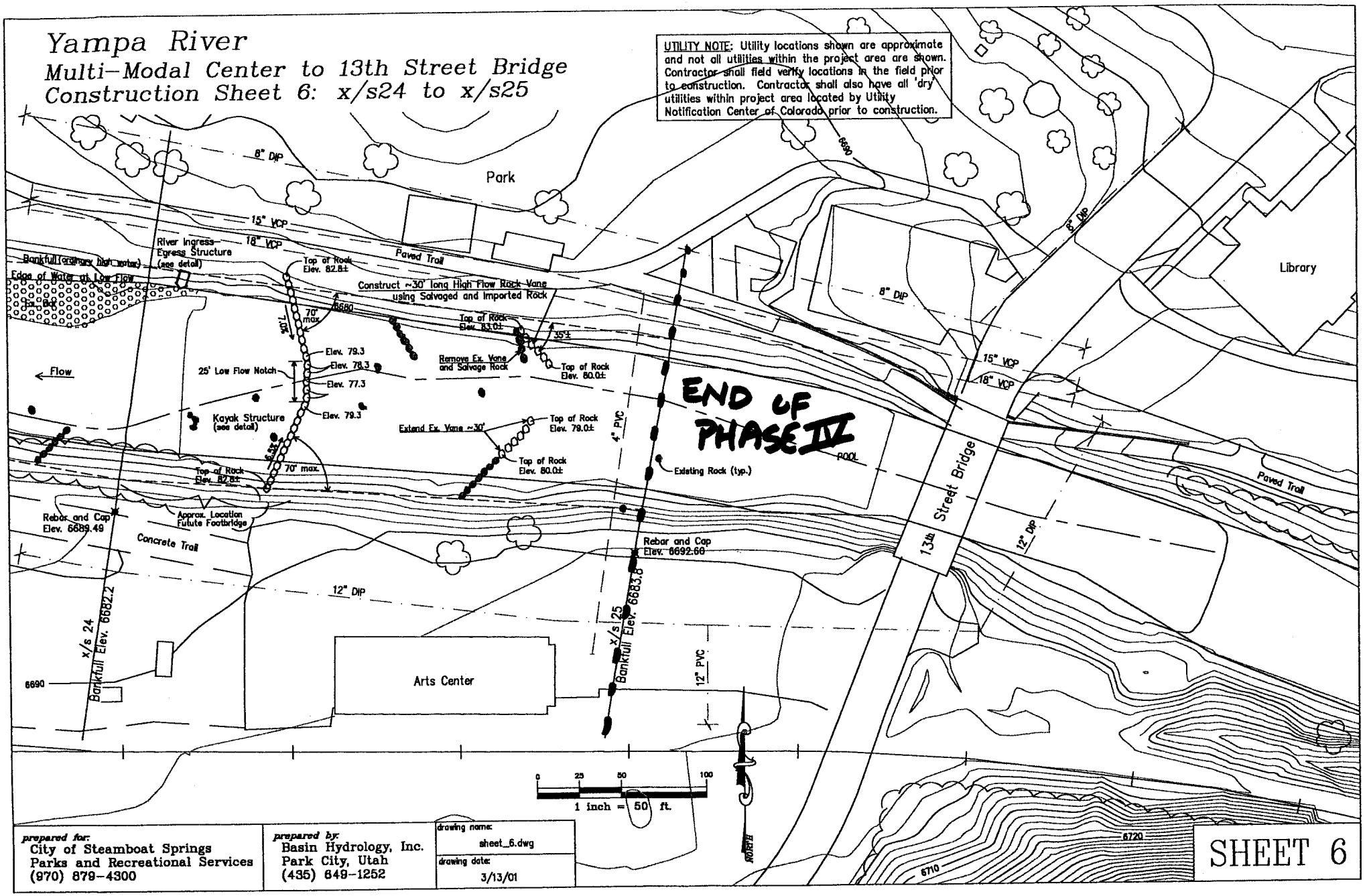
UTILITY NOTE: Utility locations shown are approximate and not all utilities within the project area are shown. Contractor shall field verify locations in the field prior to construction. Contractor shall also have all 'dry' utilities within project area located by Utility Notification Center of Colorado prior to construction.



prepared for:	prepared by:	drawing name:	
City of Steamboat Springs Parks and Recreational Services (970) 879-4300	Basin Hydrology, Inc. Park City, Utah (435) 649-1252	sheet_5.dwg drawing date: 3/13/01	SHEET 5

Yampa River
Multi-Modal Center to 13th Street Bridge
Construction Sheet 6: x/s24 to x/s25

UTILITY NOTE: Utility locations shown are approximate and not all utilities within the project area are shown. Contractor shall field verify locations in the field prior to construction. Contractor shall also have all 'dry' utilities within project area located by Utility Notification Center of Colorado prior to construction.



prepared for:	prepared by:	drawing name:
City of Steamboat Springs Parks and Recreational Services (970) 879-4300	Basin Hydrology, Inc. Park City, Utah (435) 649-1252	sheet_6.dwg drawing date: 3/13/01

SHEET 6

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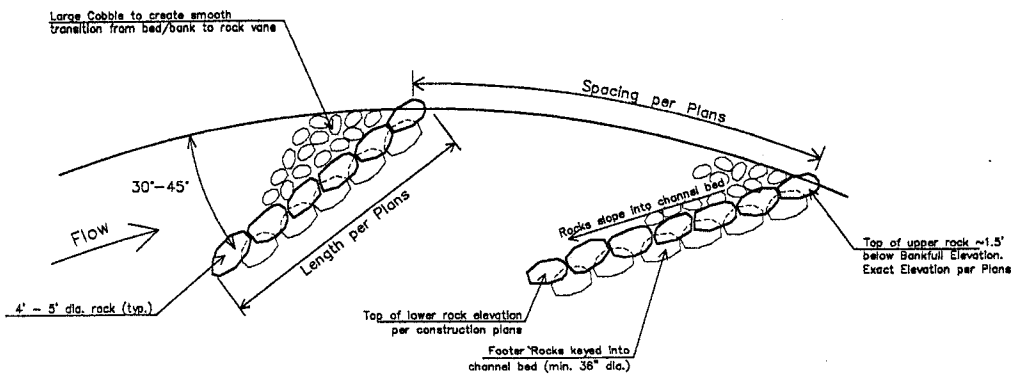
Low Flow Rock Vane Detail

For Rock Vanes Downstream of x/s 23

NOT TO SCALE

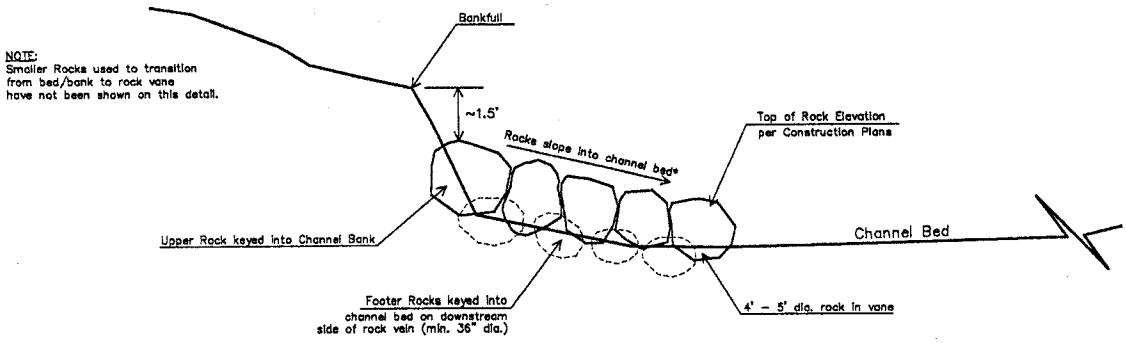
Plan View



Cross-Section

(Left to Right looking downstream)

* Slope of Rock Vane varies depending on length of Rock Vane and Elevation of Upper and Lower Rocks.

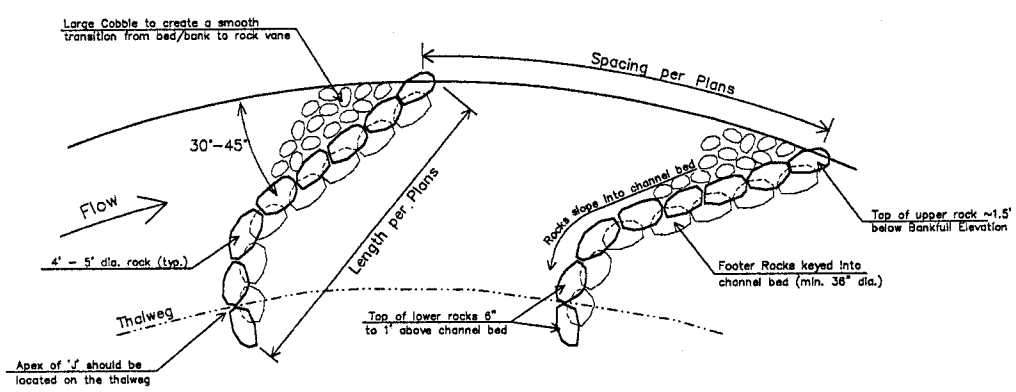


Low Flow J-Hook Vane Detail

For Specified Locations Downstream of x/s 23

NOT TO SCALE

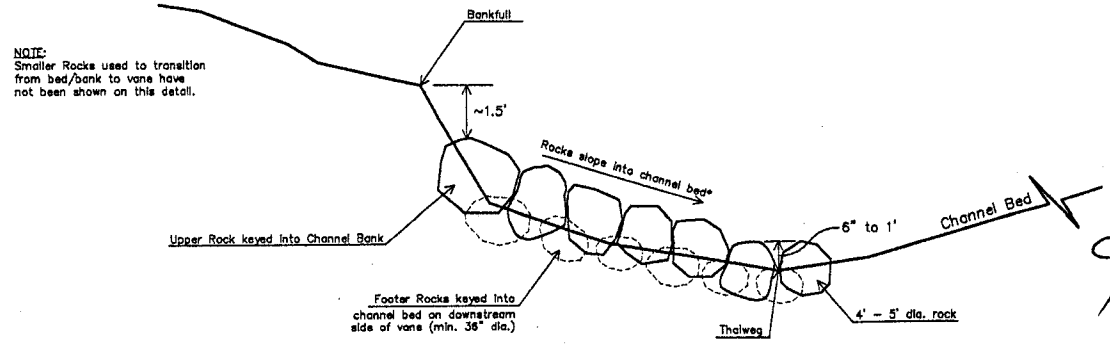
Plan View



Cross-Section

(Left to Right looking downstream)

* Slope varies depending on length of J-Hook Vane and depth to Thalweg



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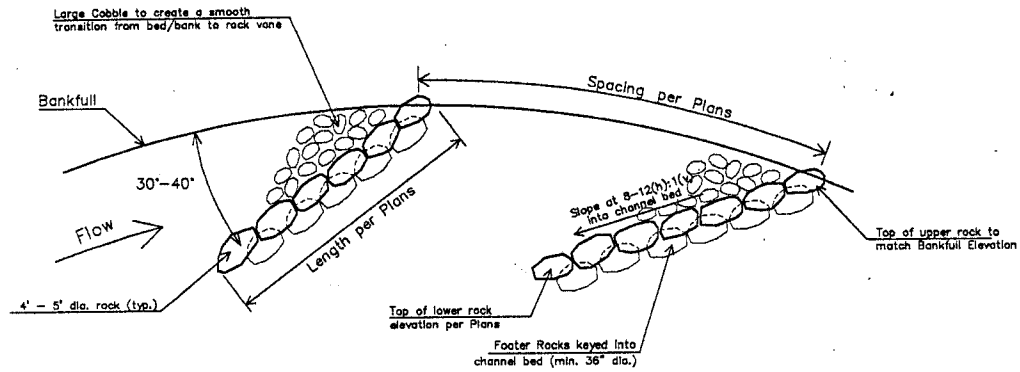
vane_dtl.dwg
2/15/01

High Flow Rock Vane Detail

For Rock Vanes Upstream of x/s 23

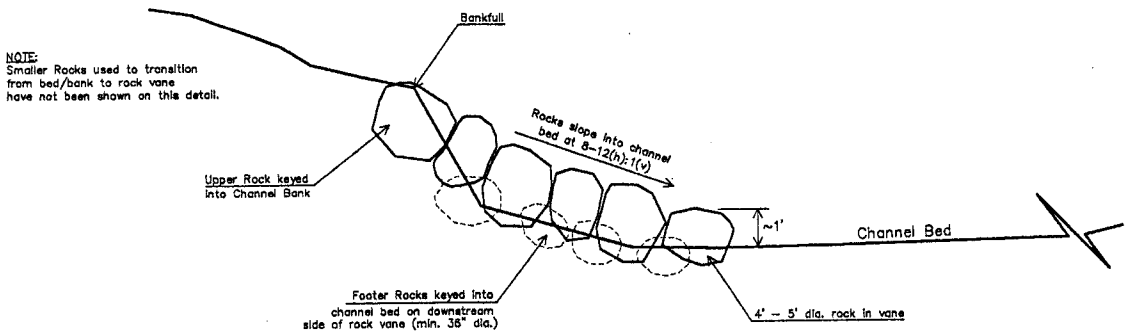
NOT TO SCALE

Plan View



Cross–Section

(Left to Right looking downstream)

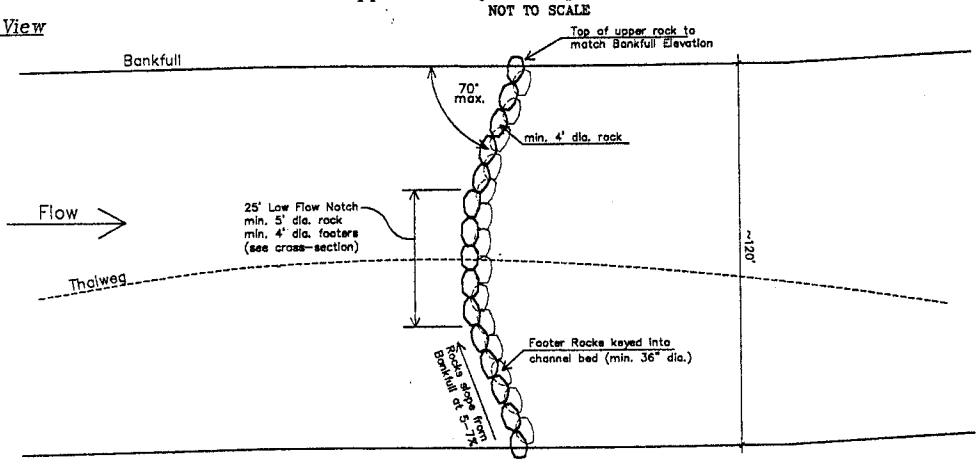


Kayak Structure Detail

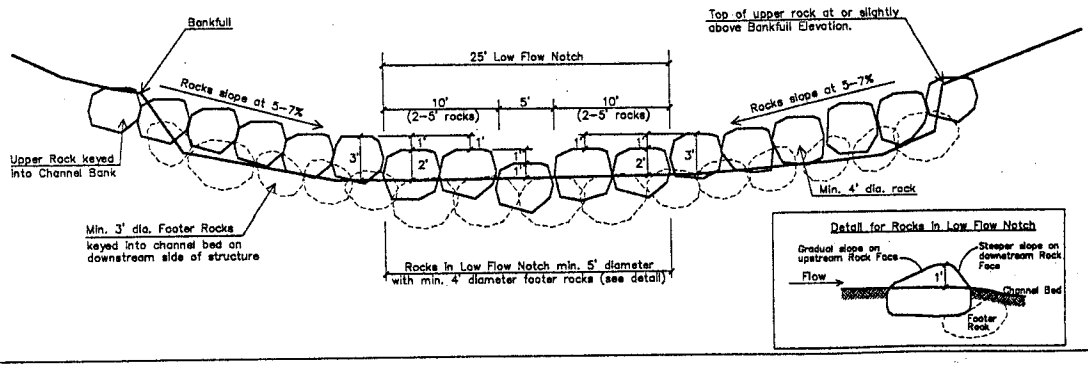
Approximately 100' upstream of x/s 24

NOT TO SCALE

Plan View



Cross–Section



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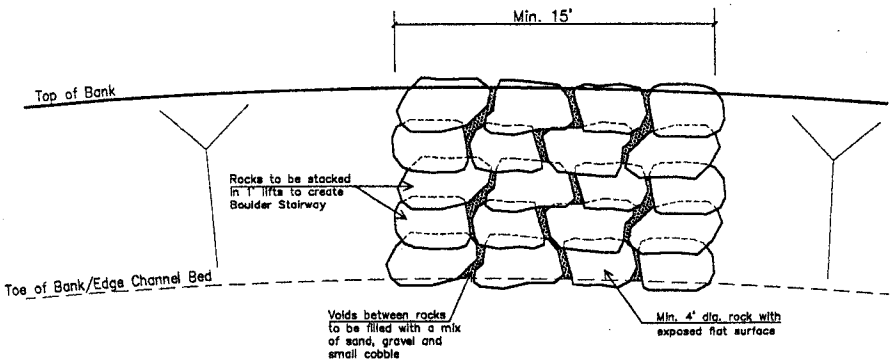
vane_dtl.dwg
2/15/01

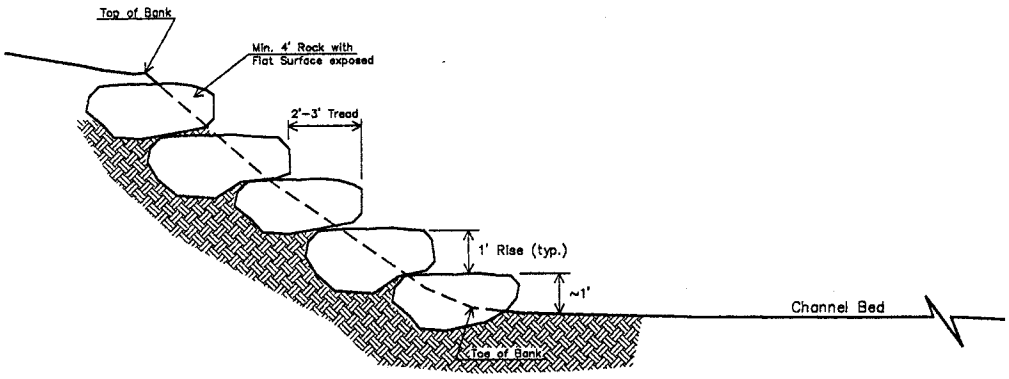
Ingress–Egress Structure Detail

NOT TO SCALE

Plan View

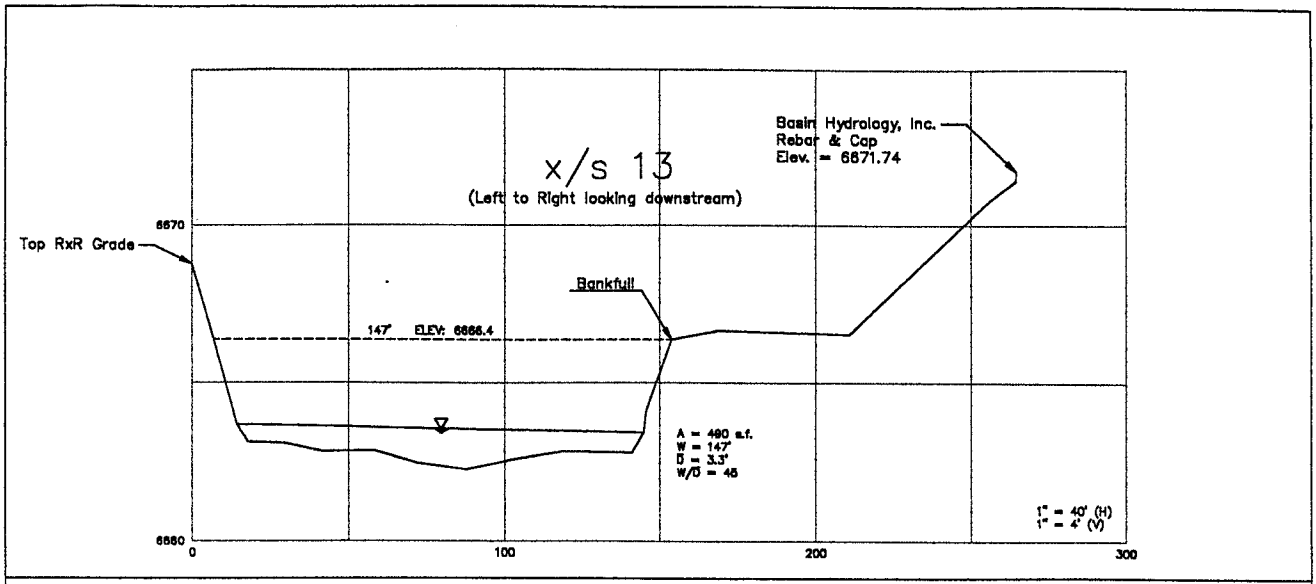


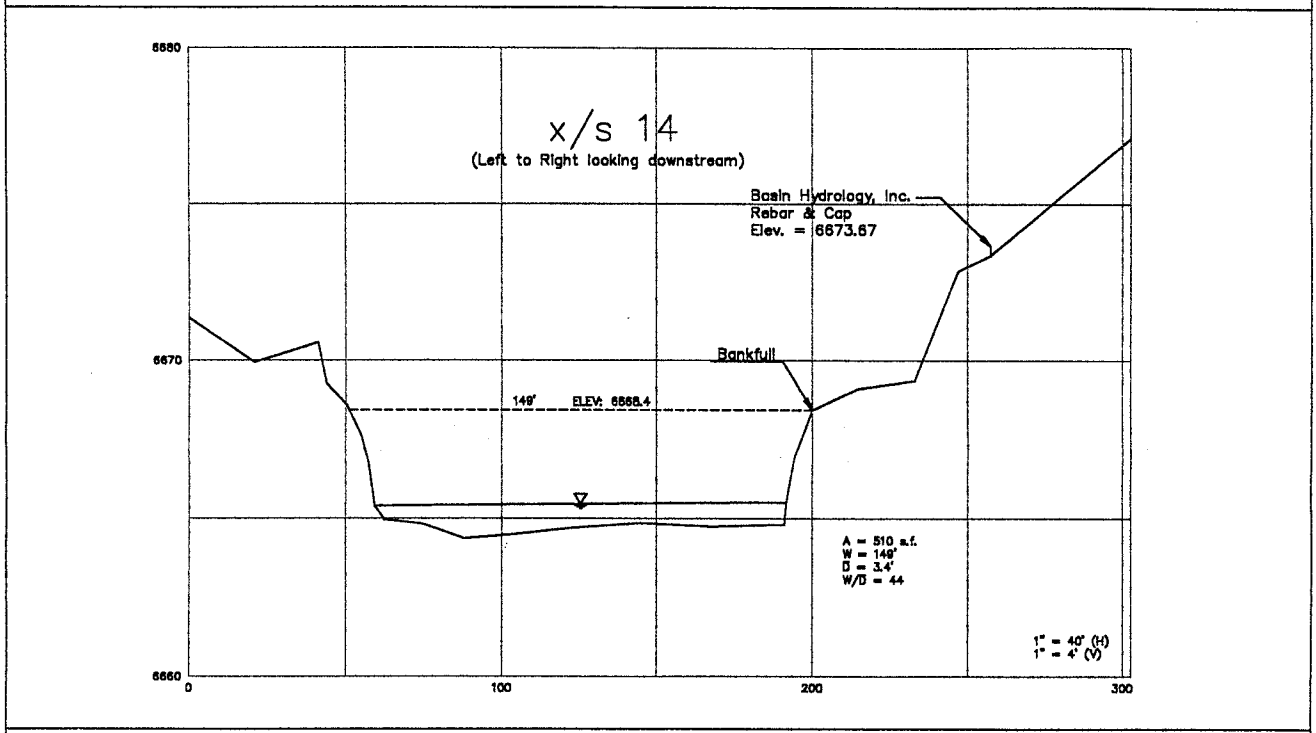
Cross–Section

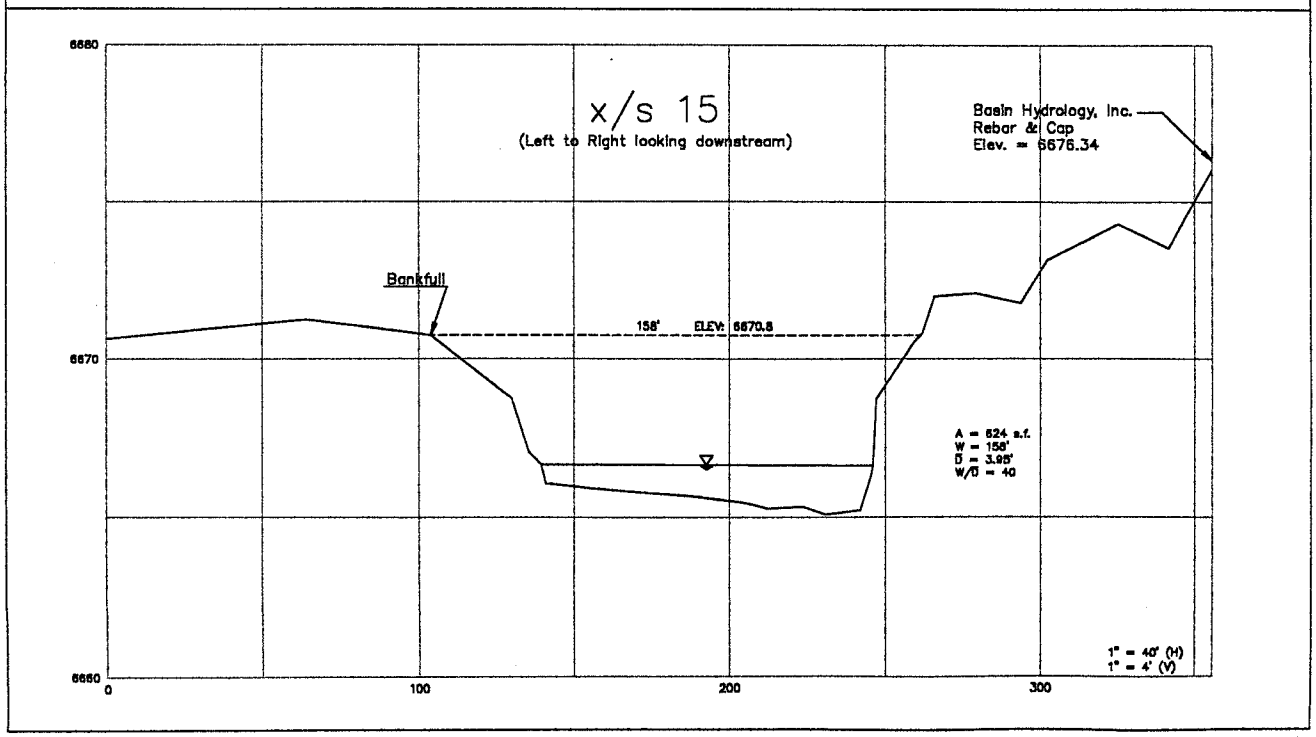


11/16

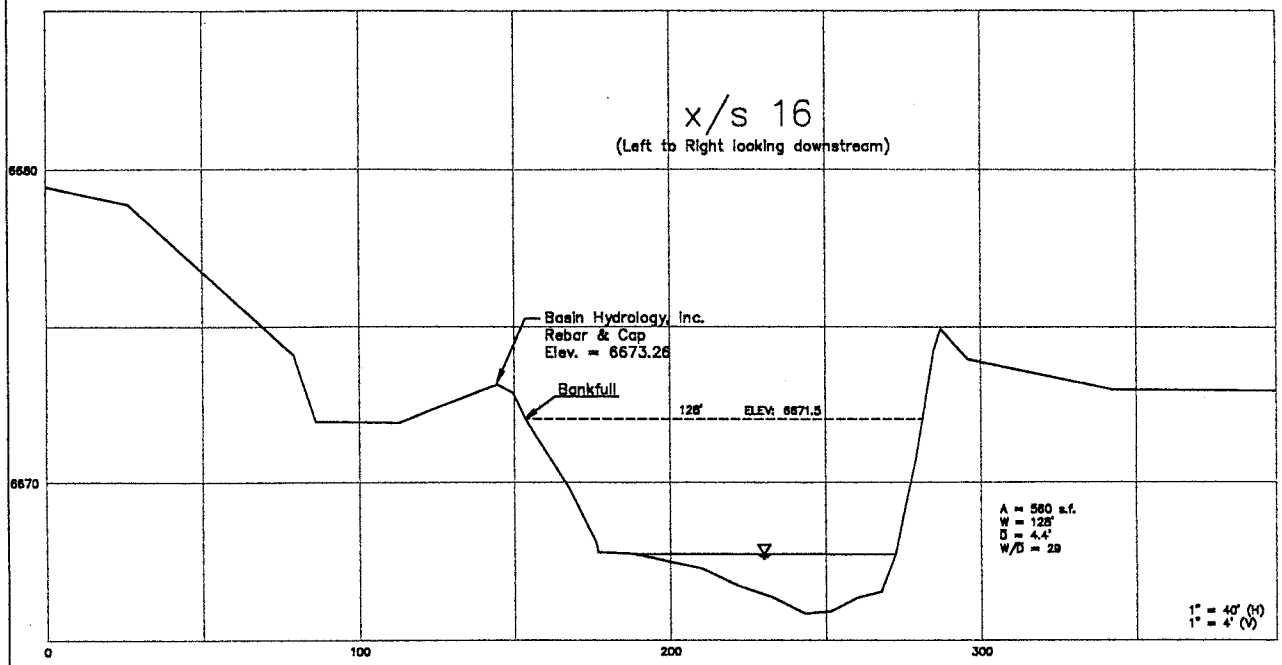
vane_dtl.dwg
2/15/01

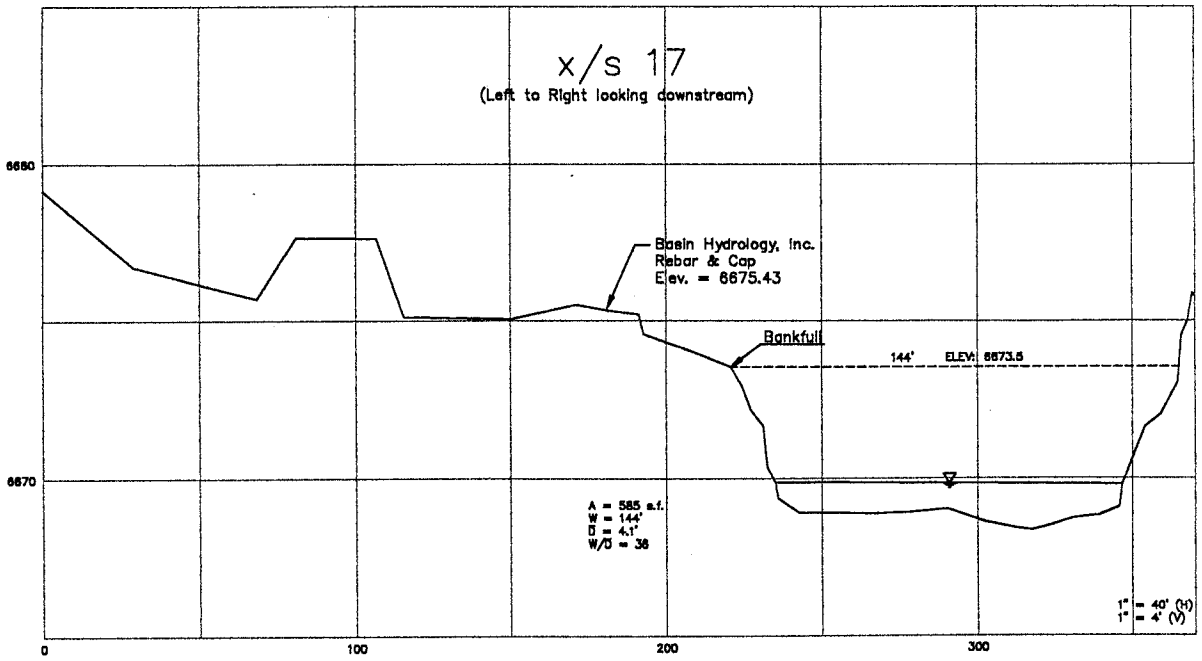

x/s 13
(Left to Right looking downstream)
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6671.74
Top RxR Grade
Bankfull
147' ELEV: 6666.4
A = 490 s.f.
W = 147'
D = 3.3'
W/D = 45
1" = 40' (H)
1" = 4' (V)
6670
6660
0
100
200
300

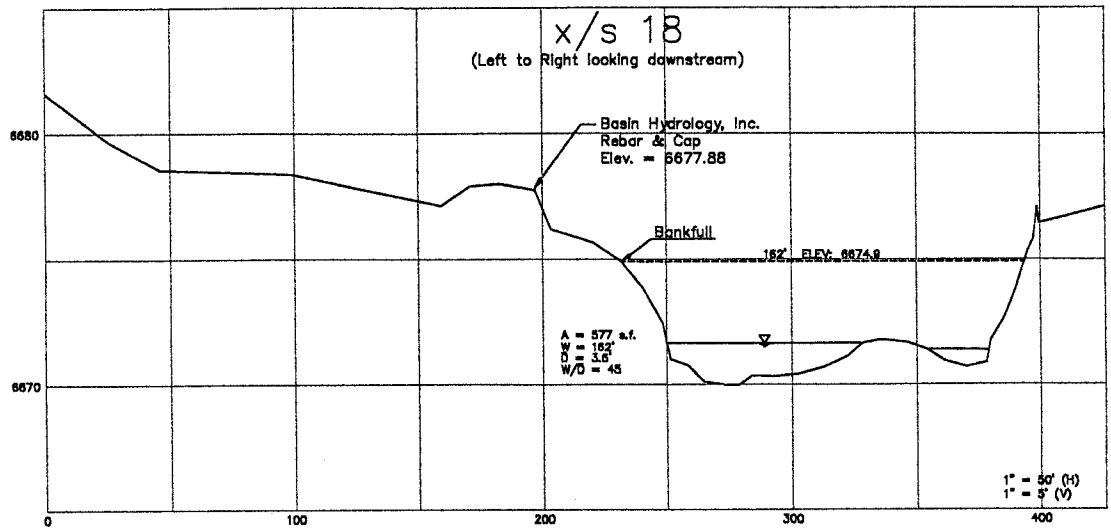

x/s 14
(Left to Right looking downstream)
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6673.67
Bankfull
149' ELEV: 6668.4
A = 510 s.f.
W = 149'
D = 3.4'
W/D = 44
1" = 40' (H)
1" = 4' (V)
6680
6670
6660
0
100
200
300

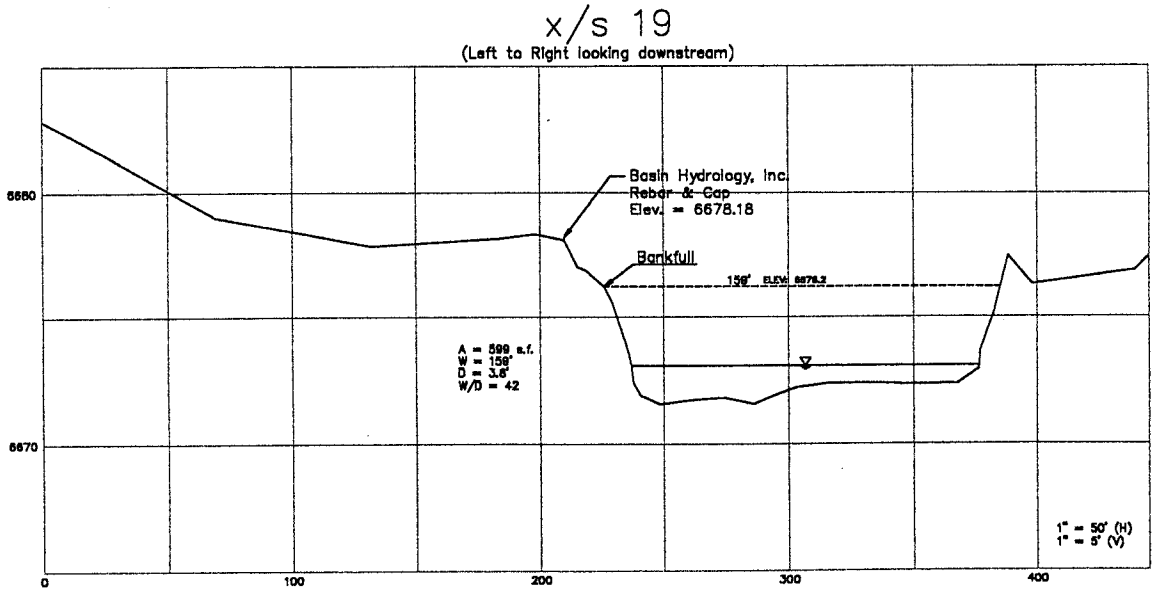

x/s 15
(Left to Right looking downstream)
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6676.34
Bankfull
158' ELEV: 6670.8
A = 624 s.f.
W = 158'
D = 3.95'
W/D = 40
1" = 40' (H)
1" = 4' (V)
6680
6670
6660
0
100
200
300

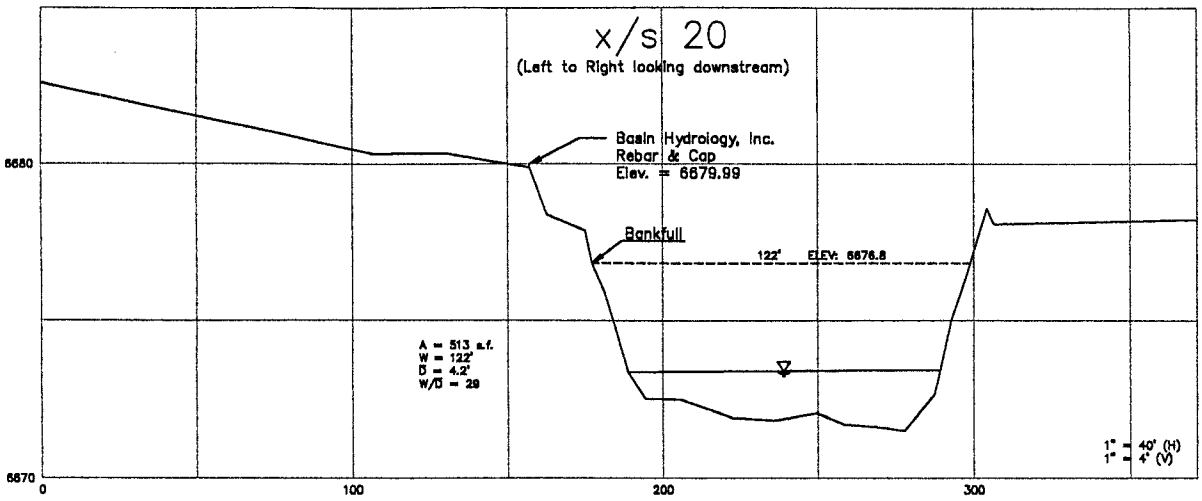
12/16

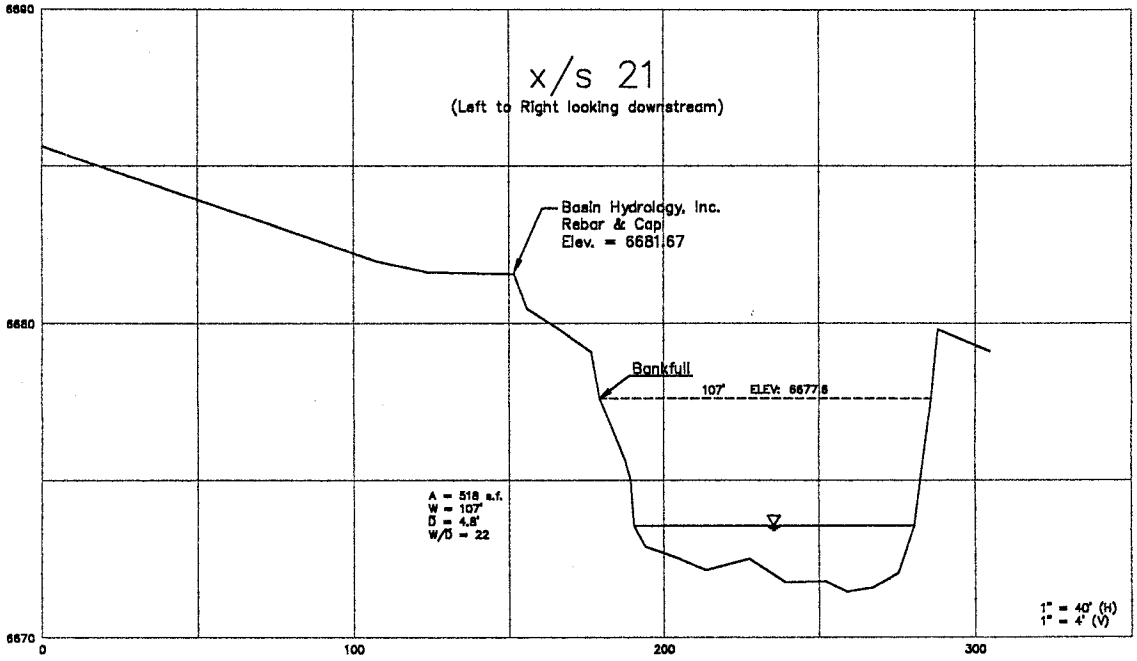

x/s 16
(Left to Right looking downstream)
6680
6670
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6673.26
Bankfull
128'
ELEV: 6671.5
A = 560 s.f.
W = 128'
D = 4.4'
W/D = 29
1" = 40' (H)
1" = 4' (V)
0
100
200
300

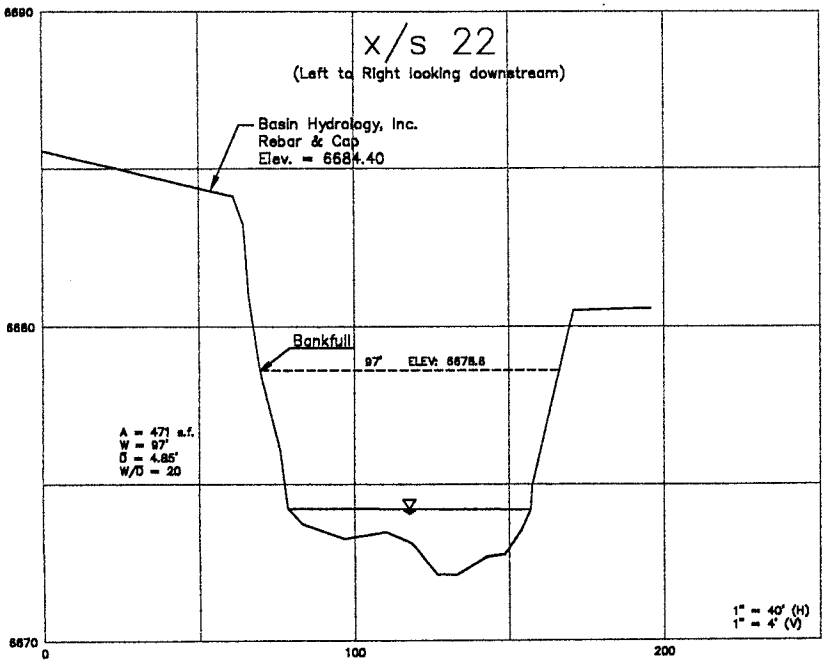

x/s 17
(Left to Right looking downstream)
6680
6670
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6675.43
Bankfull
144'
ELEV: 6673.5
A = 585 s.f.
W = 144'
D = 4.1'
W/D = 36
1" = 40' (H)
1" = 4' (V)
0
100
200
300

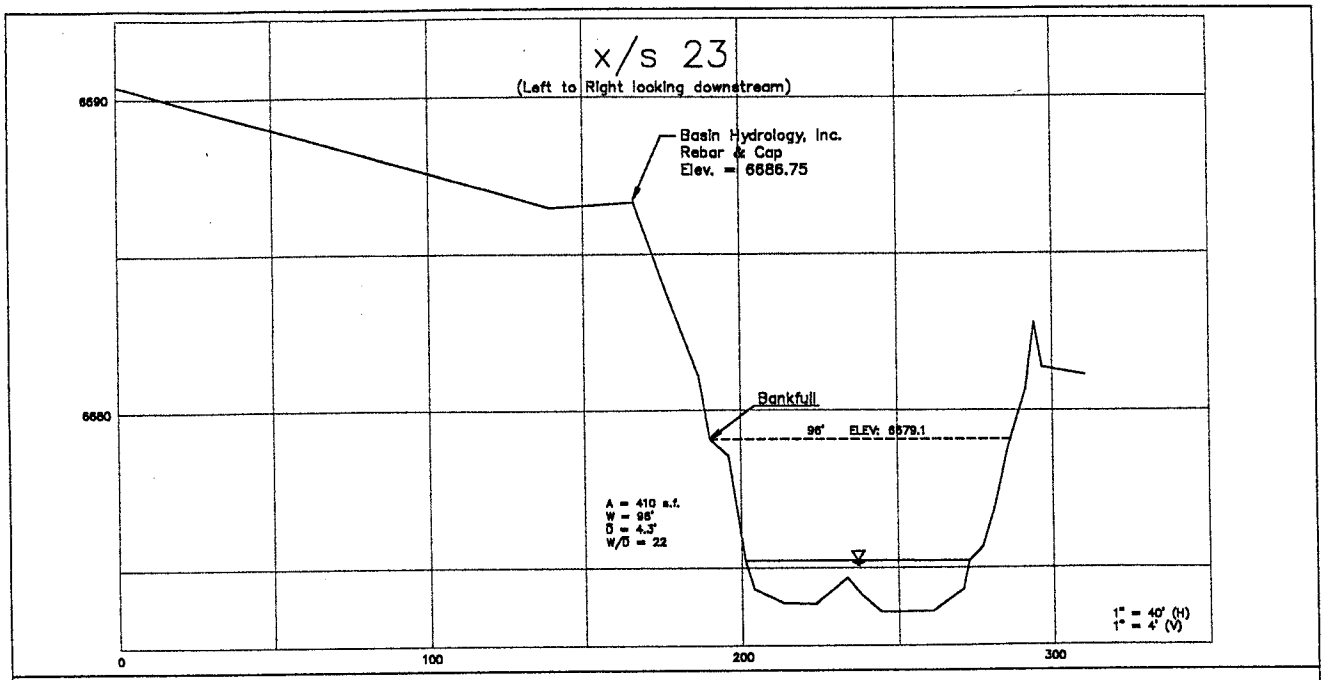

x/s 18
(Left to Right looking downstream)
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6677.88
Bankfull
152' ELEV: 6674.9
A = 577 s.f.
W = 162'
D = 3.6'
W/D = 45
6680
6670
0
100
200
300
400
1" = 50' (H)
1" = 5' (V)

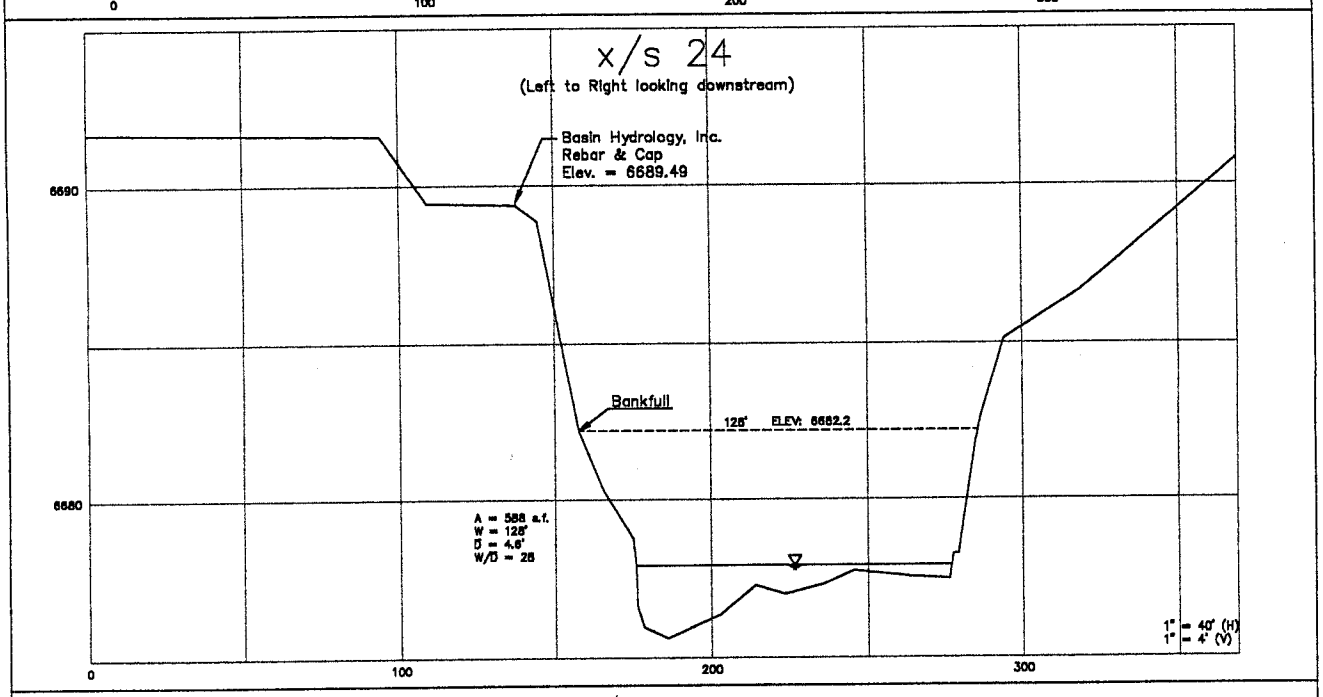

x/s 19
(Left to Right looking downstream)
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6678.18
Bankfull
158' ELEV: 6676.2
A = 599 s.f.
W = 159'
D = 3.6'
W/D = 42
6680
6670
0
100
200
300
400
1" = 50' (H)
1" = 5' (V)

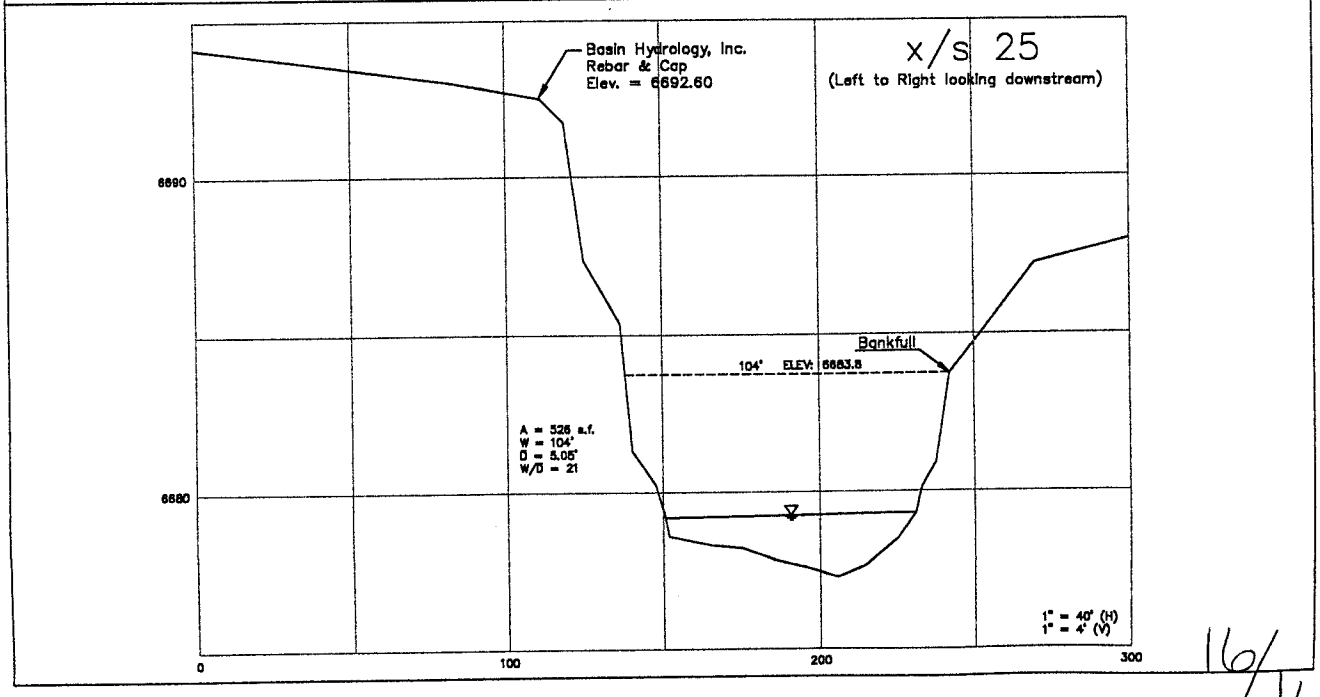

x/s 20
(Left to Right looking downstream)
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6679.99
Bankfull
122' ELEV: 6676.8
A = 513 s.f.
W = 122'
D = 4.2'
W/D = 29
1" = 40' (H)
1" = 4' (V)
6680
6670
0
100
200
300


x/s 21
(Left to Right looking downstream)
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6681.67
Bankfull
107' ELEV: 6677.6
A = 518 s.f.
W = 107'
D = 4.8'
W/D = 22
1" = 40' (H)
1" = 4' (V)
6690
6680
6670
0
100
200
300


x/s 22
(Left to Right looking downstream)
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6684.40
Bankfull
97' ELEV: 6678.6
A = 471 s.f.
W = 97'
D = 4.85'
W/D = 20
1" = 40' (H)
1" = 4' (V)
6690
6680
6670
0
100
200


x/s 23
(Left to Right looking downstream)
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6686.75
Bankfull
96' ELEV: 6679.1
A = 410 s.f.
W = 96'
D = 4.3'
W/D = 22
6690
6680
0
100
200
300
1" = 40' (H)
1" = 4' (V)


x/s 24
(Left to Right looking downstream)
Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6689.49
Bankfull
125' ELEV: 6682.2
A = 588 s.f.
W = 125'
D = 4.6'
W/D = 25
6690
6680
0
100
200
300
1" = 40' (H)
1" = 4' (V)


Basin Hydrology, Inc.
Rebar & Cap
Elev. = 6692.60
x/s 25
(Left to Right looking downstream)
Bankfull
104' ELEV: 6683.8
A = 526 s.f.
W = 104'
D = 5.05'
W/D = 21
6690
6680
0
100
200
300
1" = 40' (H)
1" = 4' (V)