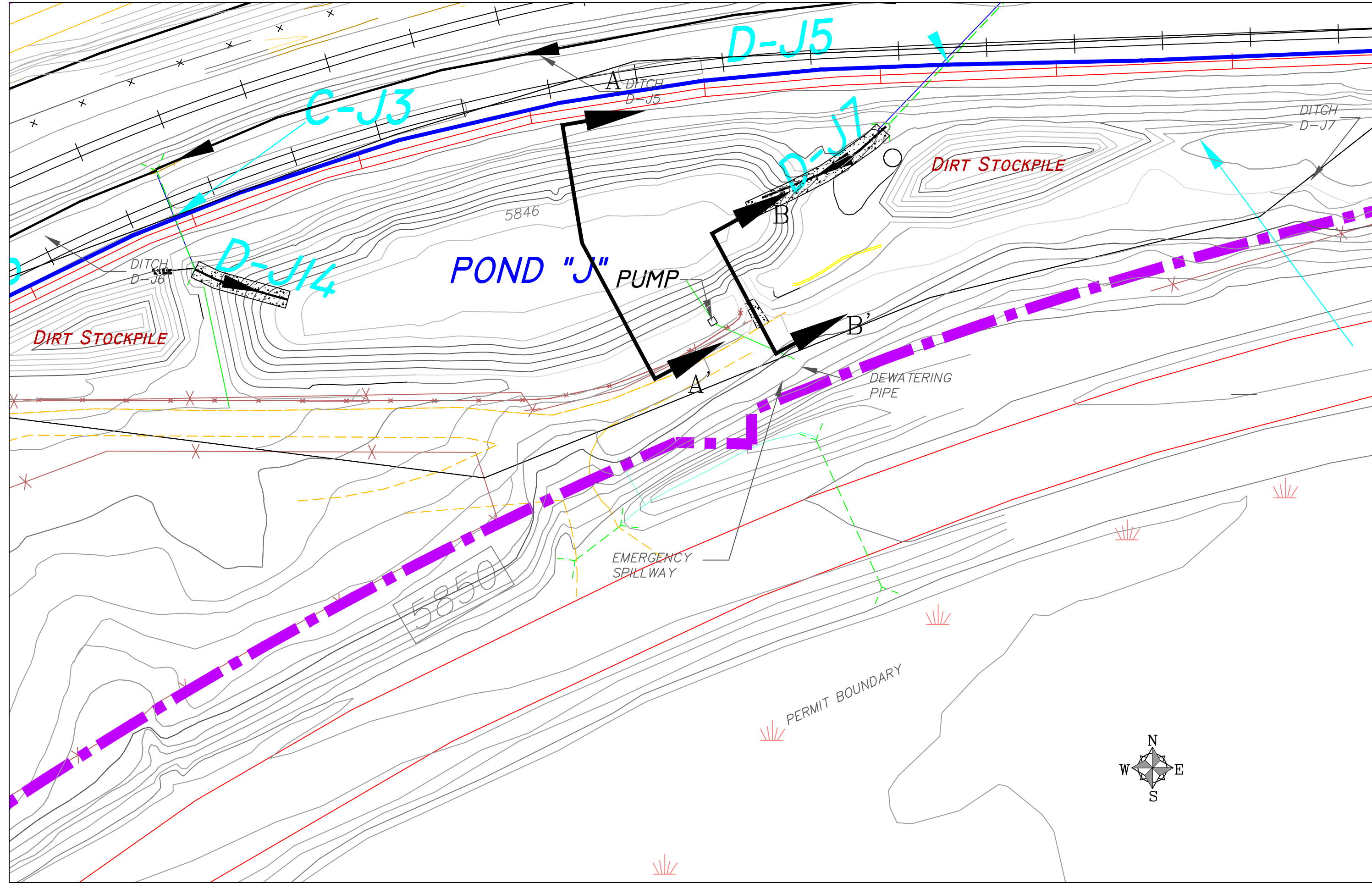
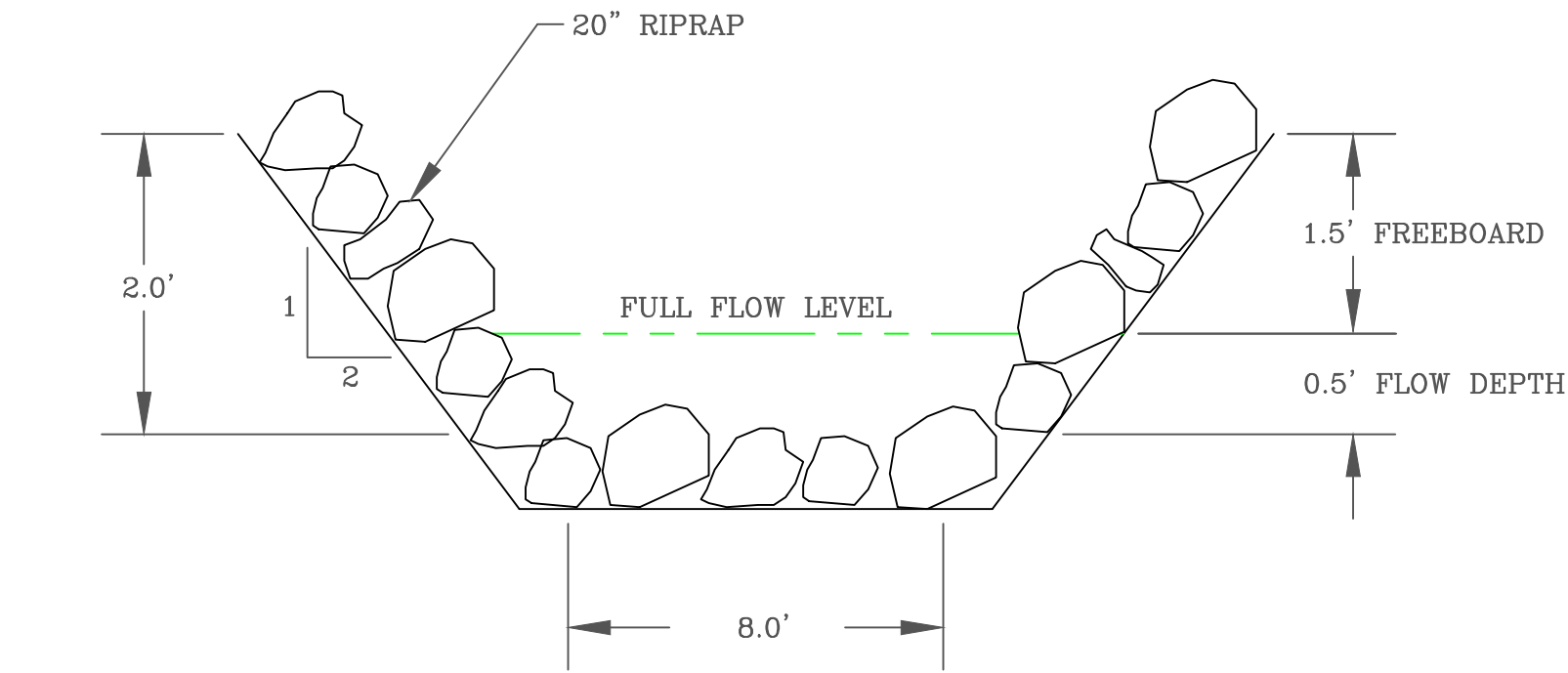
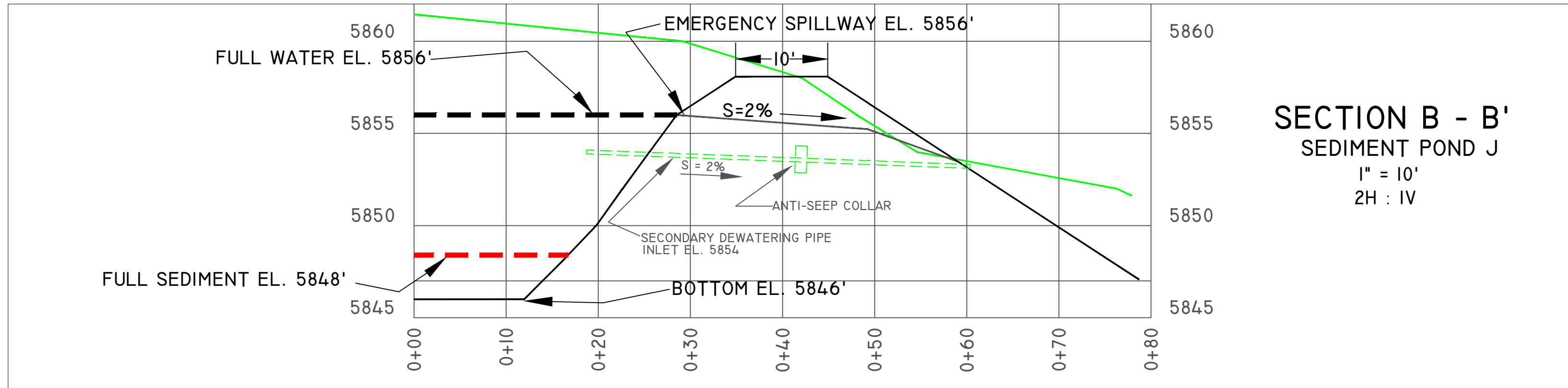
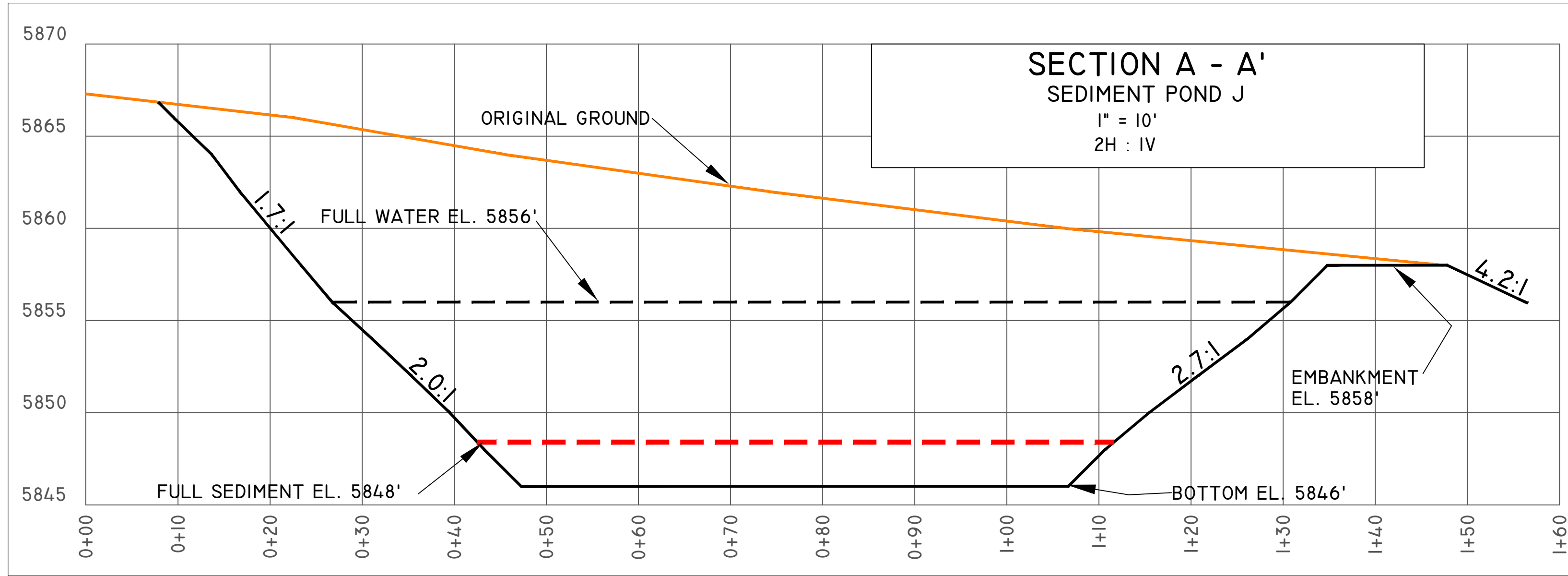
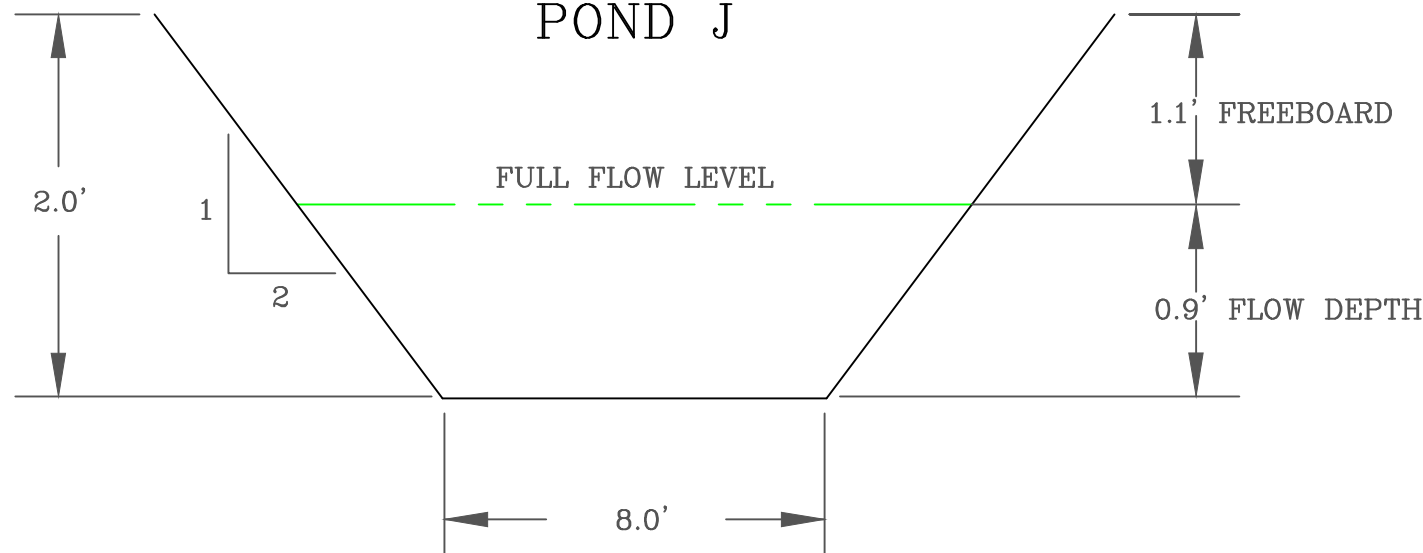




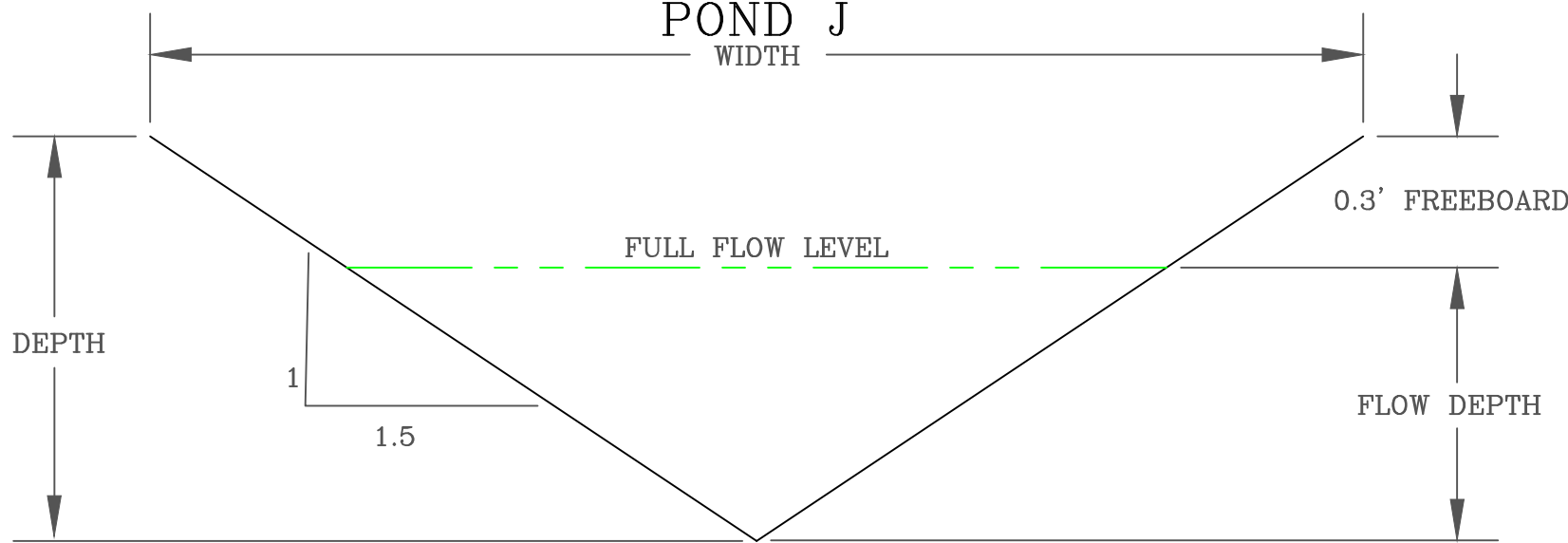
POND J
PLAN VIEW
SCALE 1" = 50'



3H:1V EMBANKMENT SPILLWAY DETAIL
POND J



EMERGENCY SPILLWAY DETAIL
POND J



"V" DITCH DETAILS
DRAINAGE AREAS H AND J
SEE MAP Nos. 21-1, 21-2, 21-3 AND 21-4 FOR LOCATION
DITCHES: E.CWDiv. (0.6, 7.5* & 1.0%)
* Rip rap plated channels

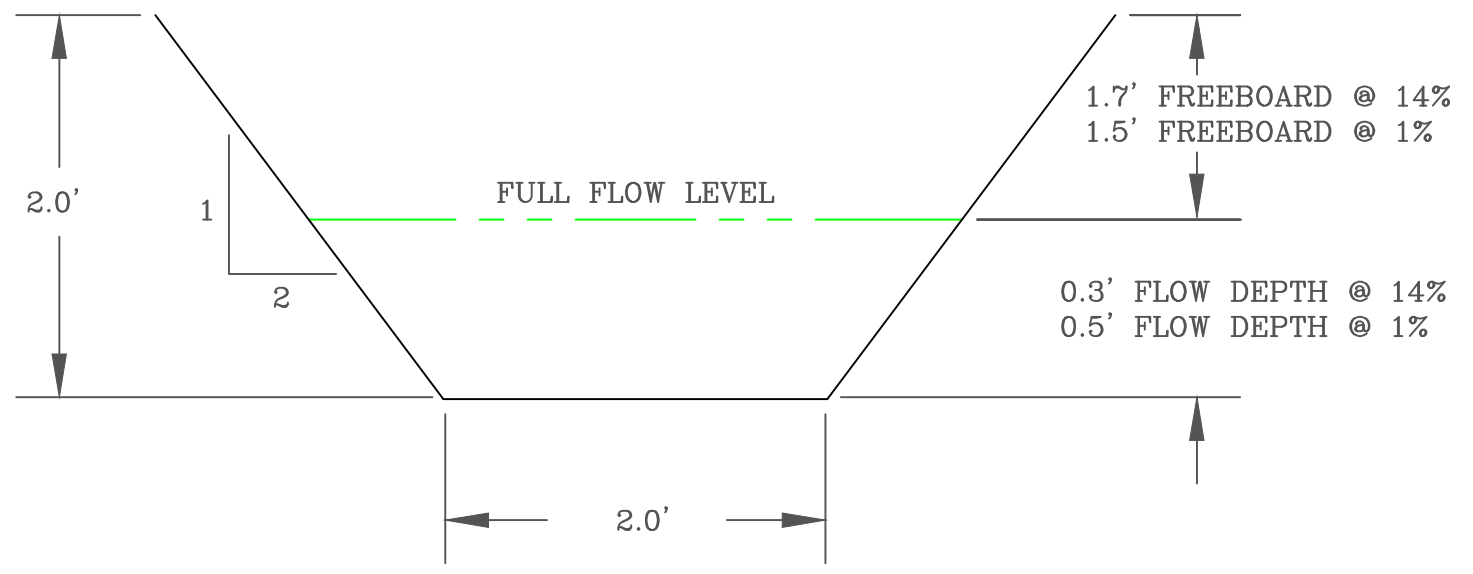
MINIMUM CULVERT SIZE
DRAINAGE AREAS H AND J
SEE MAP Nos. 21-1, 21-2, 21-3 AND 21-4 FOR LOCATION

CULVERT No.	MINIMUM DIA.	CULVERT No.	MINIMUM DIA.
C-H1	42	C-J15	30 Half Culvert
C-J1	24	C-J16	18
C-J2	24 - Use 30"	C-J18	24
C-J3	12	C-J19	18
C-J4	24	C-J20	24
C-J5	12	C-D1	18
C-J6	12 - Use 18"	C-D2	24
C-J7	12 - Use 18"		
C-J8	24		
C-J9	24" (Double Barrel)		
C-J10	12		
C-J11	12 - Use 18"		
C-J12	12 - Use 18"		
C-J13	24		
C-J14	12" (Double Barrel)		

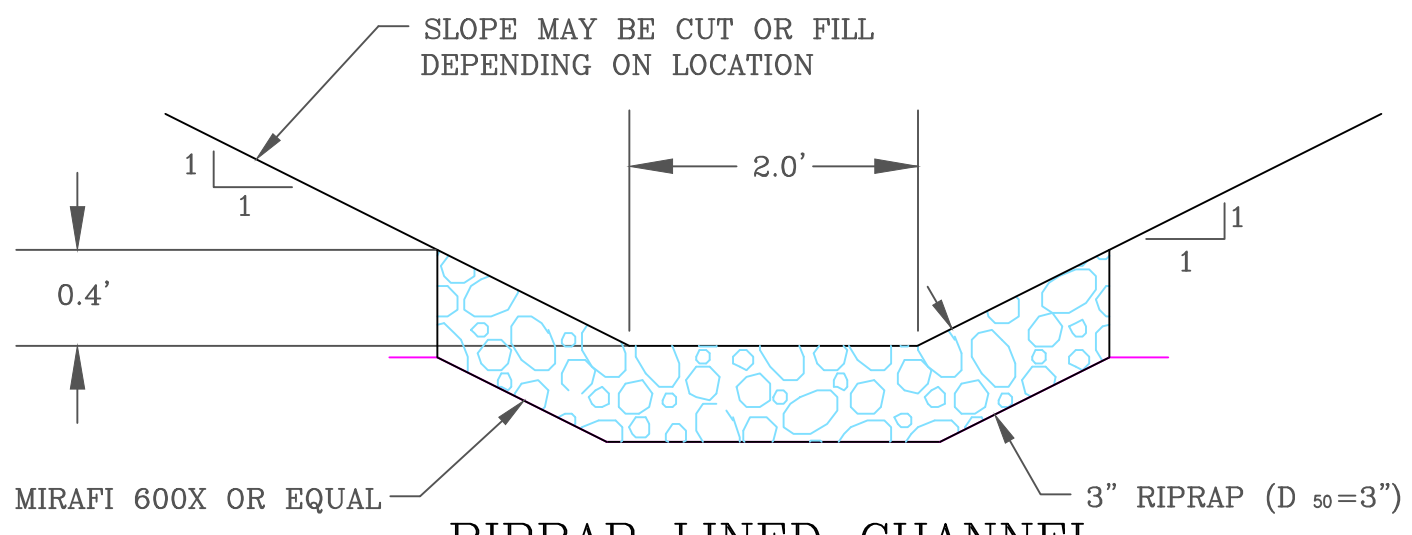
MINIMUM DITCH
DEPTH REQUIREMENTS
DRAINAGE AREAS H, I AND J
SEE MAP Nos. 21-1, 21-2, 21-3 AND 21-4 FOR LOCATION

DITCH No.	DITCH DEPTH	FLOW DEPTH
D-H1	SEE DITCH DETAIL D-H1	
D-H2	0.8	0.5
D-H1	SEE CONCRETE DITCH DETAIL	
D-J1	1.0	0.7
D-J2	DELETED FROM DESIGN	
D-J3	2.3	2.0*
D-J4	3.4	3.1
D-J5	1.0	0.7
D-J6	1.0	0.7
D-J7	1.7	1.4
D-J8	0.5	0.2*
D-J9	1.3	1.0*
D-J10	2.2	0.9*
D-J11	1.6	1.3*
D-J12	0.7	0.4
D-J13	0.7	0.4
D-J14	0.8	0.5
D-J15	0.6	0.3
D-J16	0.5	0.2
D-J17	1.3	0.9
D-J18	1.1	0.9
D-J19	1.1	1.1
D-J20	DELETED FROM DESIGN	
D-J21	2.2	1.9
WDIV #1	1.5	1.2
D-D1	0.5	0.2
D-D2	1.3	1.0
D-E1	0.5	0.2

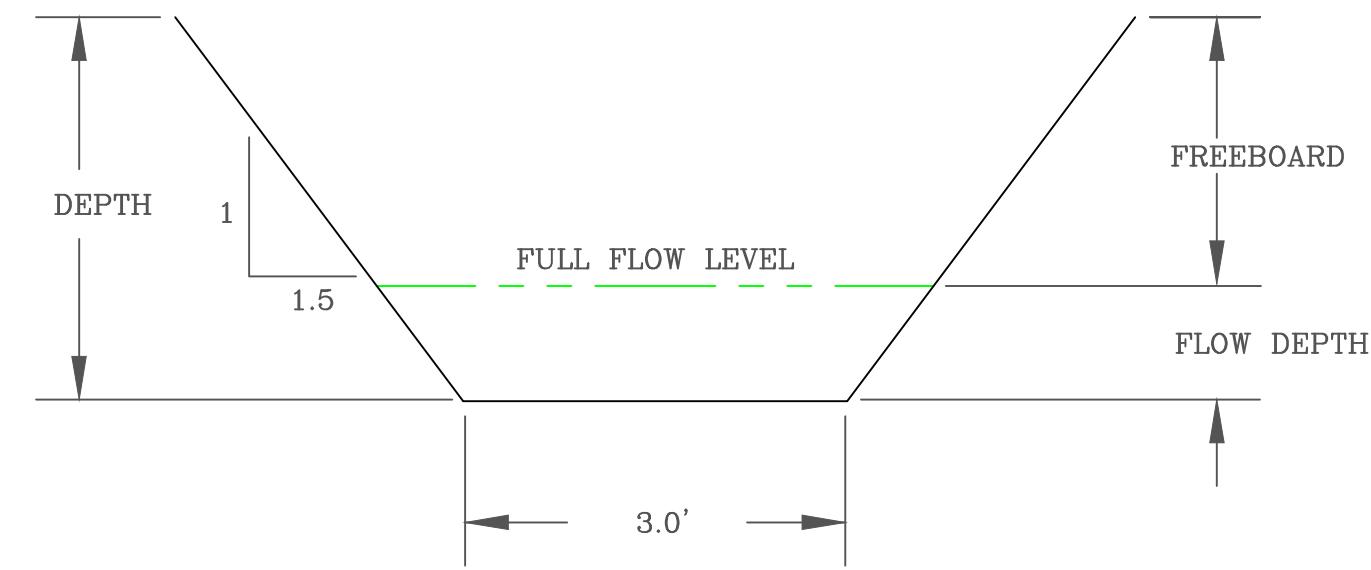
* SEE TRAPEZOIDAL DITCH DETAIL



DITCH DETAIL
D-H1



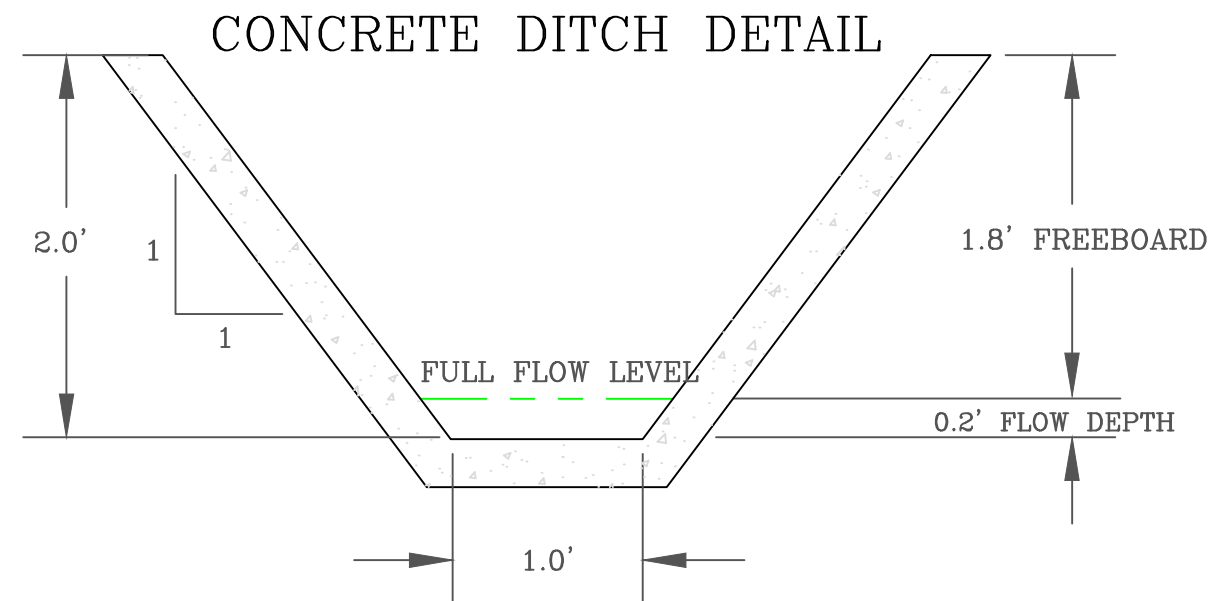
RIPRAP LINED CHANNEL
DITCH DETAIL D-H1



TRAPEZOIDAL DITCH
DITCH J3, J8, J9, J10 & J11

POND J CAPACITIES
ACRE - FEET

	WATER	SEDIMENT	TOTAL
DESIGNED CAPACITY	3.93	.58	4.51
REQUIRED CAPACITY	3.03	0.37	3.41



- NOTES:
- For pond, culvert and ditch sizing calculations see Volume XI Appendix B.
 - Riprap shall consist of hard, dense, rough fractured stone as nearly cubical as practical. Stone shall be well graded in order that the voids can be filled, and at least 50 percent of the mass shall be stones equal to or larger than the specified riprap size.
 - A geotextile fabric shall be placed under all riprap. Use Mirafi 600X or equal.
 - Pond dewatering pipe shall be plastic irrigation pipe, PIP, 80 psi rated, with bell and spigot joints or glued joints, valved on the outlet end.
 - For sediment control plan see Map No. 20.
 - For drainage plans see Map No. 21-1, 21-2 21-3 and 21-4.

REVISIONS	21	TR-122 ADD #1	T.K.B.	12/28/20
	20	TR-122, Remove CW ditch, re-align East U/D	T.K.B.	10/28/20
	19	TR-118 Reduce size of gab pile #3	T.K.B.	02/05/19
	18	TR-109 Expand Pond J to the West	T.K.B.	09/09/16
	17	TR-105 East gab pile #3 expansion	T.K.B.	09/29/15
	16	TR-91, Adequacy Response #3	T.K.B.	12/22/14
	15	TR-84, Adequacy Response #2	T.K.B.	06/12/14
	No. DESCRIPTION:		BY	DATE
REFERENCES				
1 VOLUME III, EXHIBIT B				
2 VOLUME I, SECTION 2.05.3(4)				
PREPARED FOR:		BOWIE RESOURCES, LLC		PROJECT:
BRL		BOWIE NO. 2 MINE		TITLE:
BOWIE RESOURCES, LLC		P.O. BOX 483		POND J DETAIL
		PAONIA, COLORADO 81428		
PREPARED BY: J. E. STOVER & ASSOCIATES		ONE INCH		
P.O. Box 69340		DESIGNED BY: T.K.B. 10/06		DMG I.D. No. C - 1996 - 083
Grand Jct., CO 81506		DRAWN BY:		DWG. NAME:
		CHECKED BY:		MAP NO. 22-J
				SCALE: AS NOTED