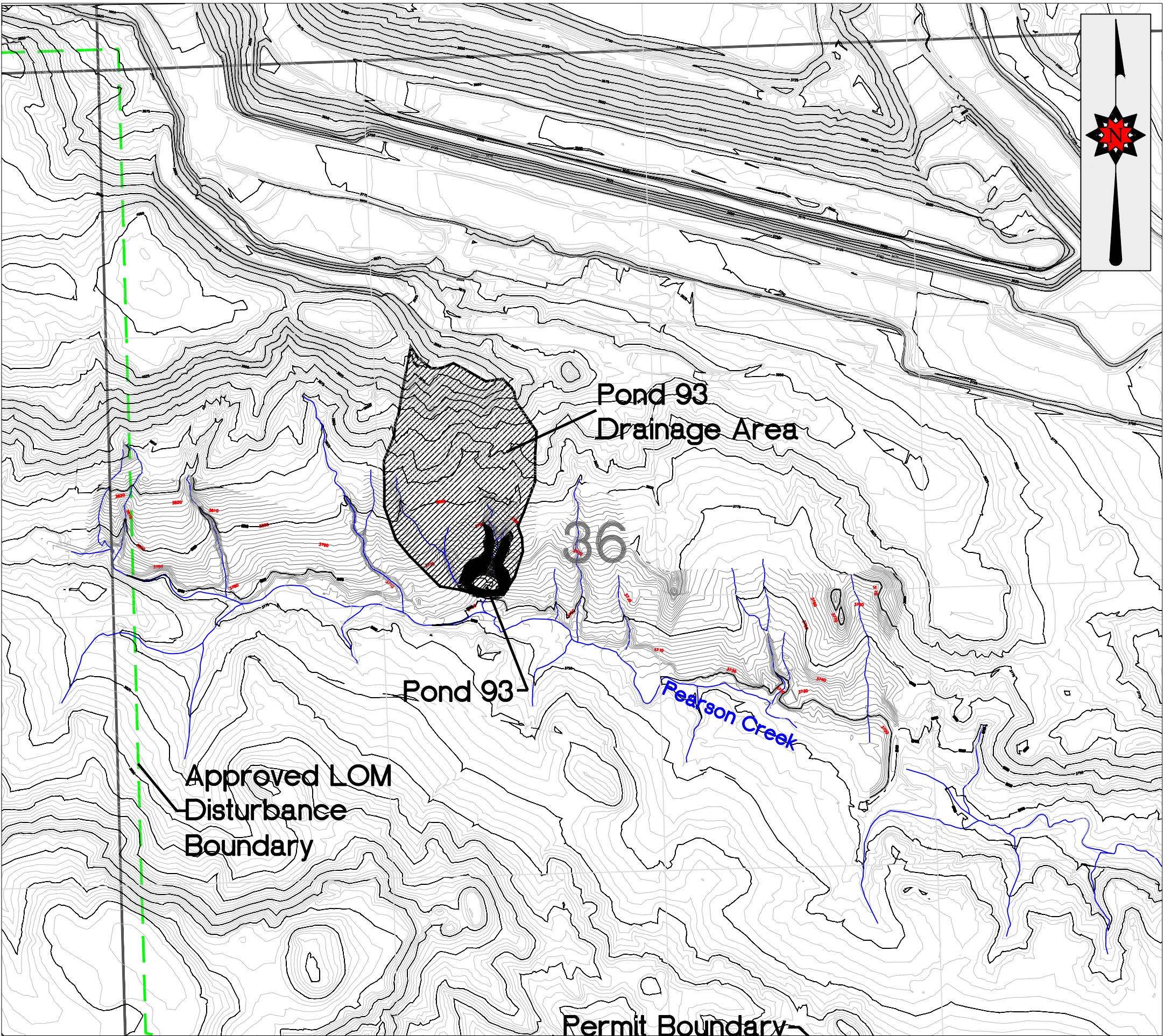
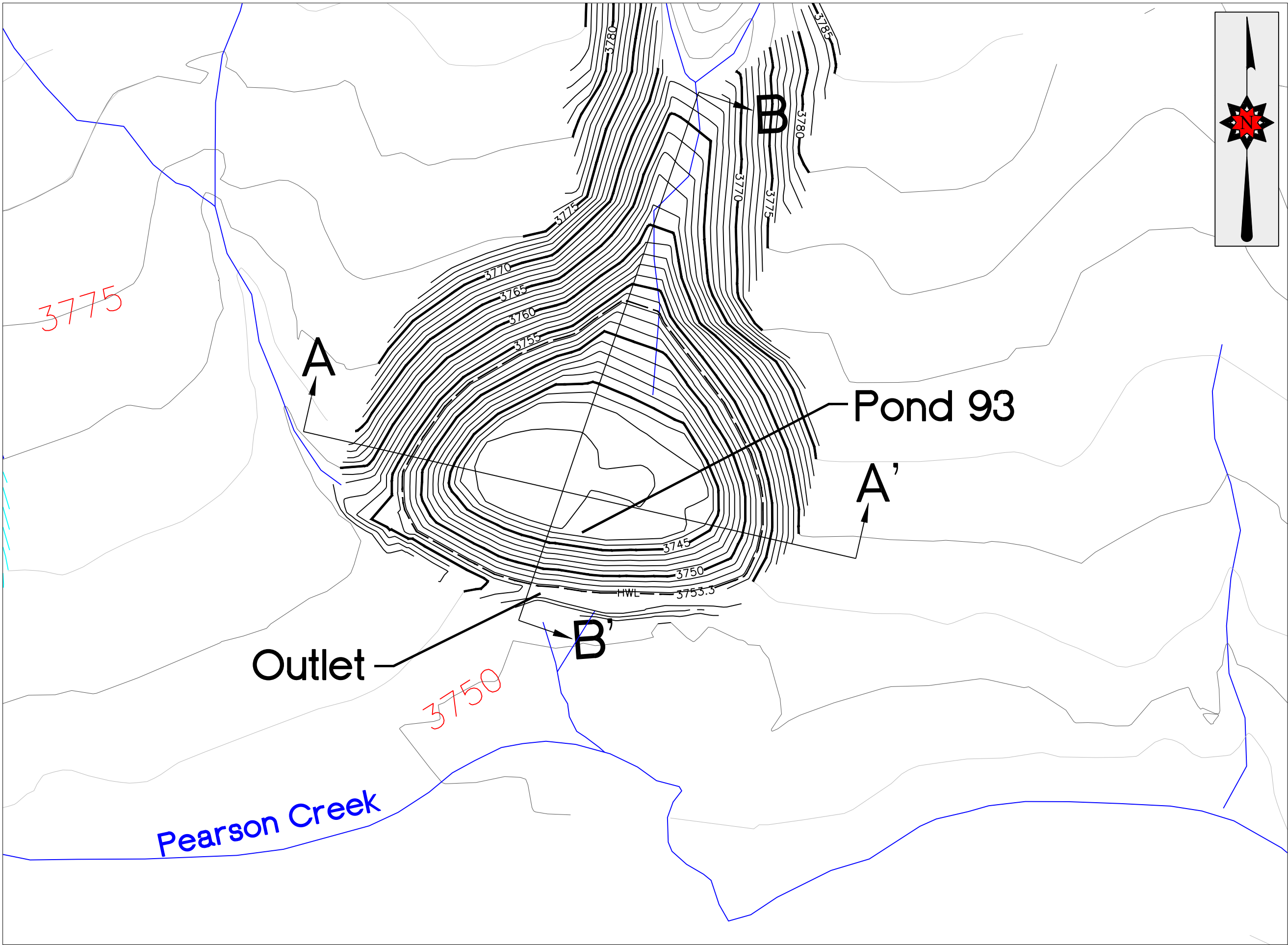




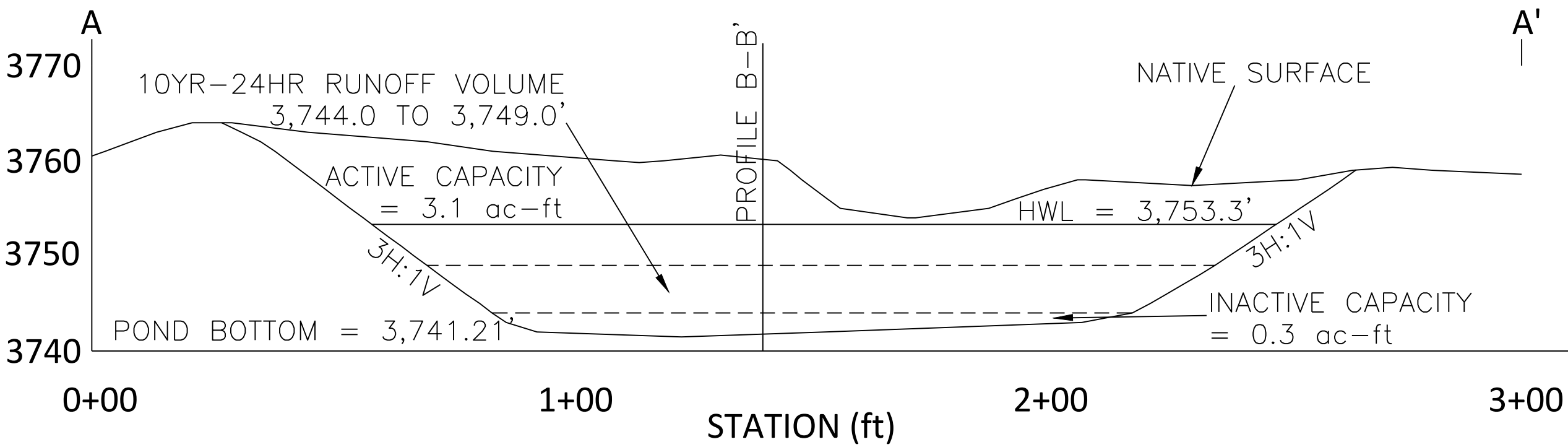
LOCATION MAP

SCALE: 1" = 1,000', C.I. = 5'
POND IS LOCATED PRIMARILY IN SENW OF SECTION 36, T8S, R39E.



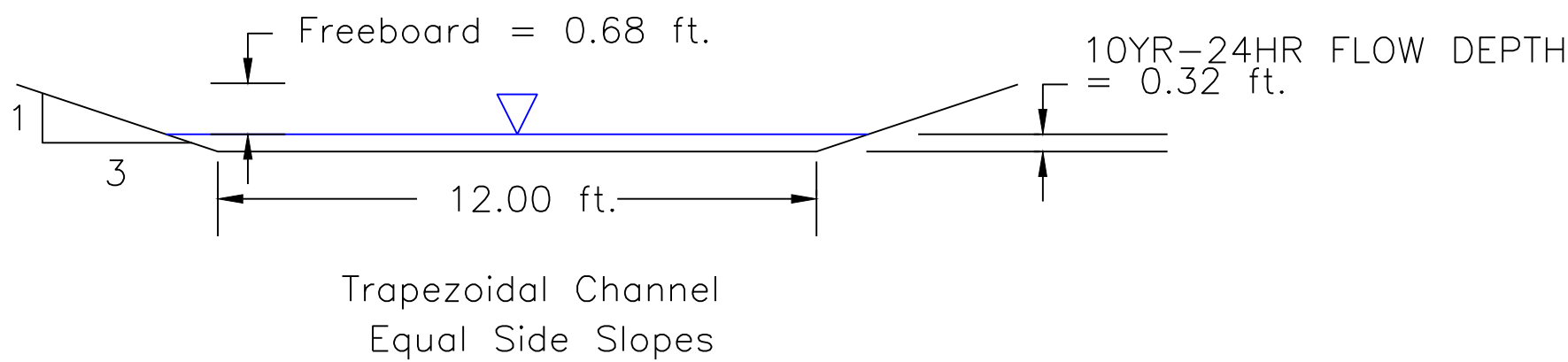
PLAN MAP

SCALE: 1" = 100', POND C.I. = 1', OUTER C.I. = 5'



POND PROFILE A-A'

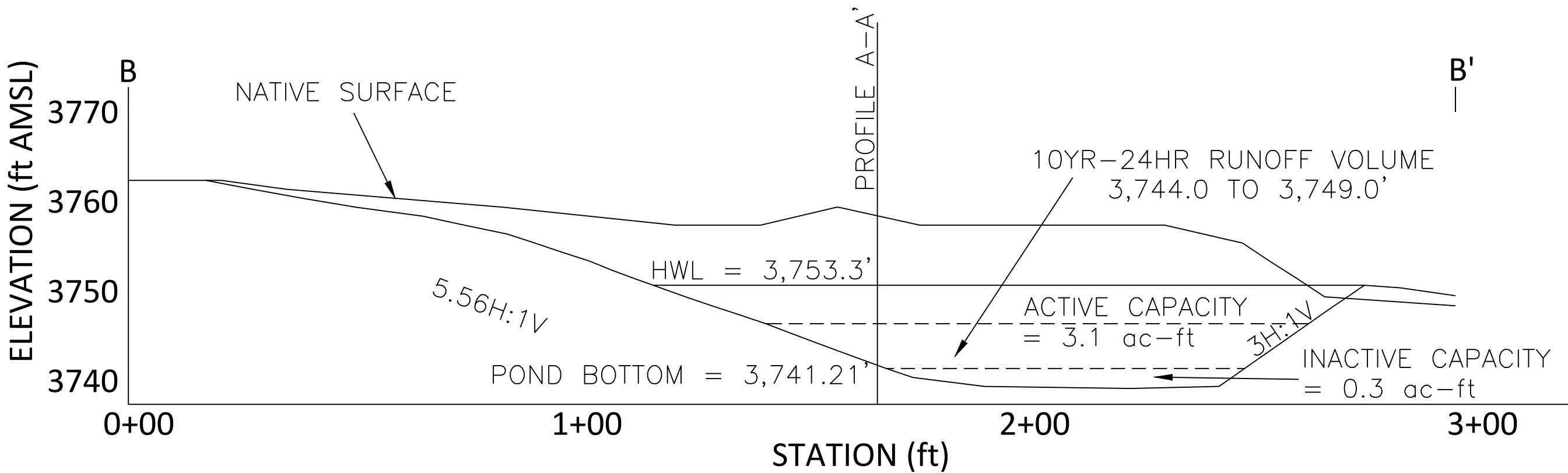
SCALE: H: 1" = 50', V: 1" = 25'



INLET CHANNEL AND EROSION PROTECTION

SCALE: AS SHOWN

INLET CHANNEL HYDRAULICS			
CHANNEL TYPE	=	TRAPEZOIDAL, EQUAL SIDE SLOPES	
BOTTOM WIDTH	=	12 ft	
SIDE SLOPES	=	3H:1V	
MAXIMUM SLOPE	=	18.00%	
10YR-24HR PEAK FLOW	=	14.9 cfs	
CHANNEL LINING	=	N.A.G. P300 EROSION CONTROL BLANKET (PERMANENT) WITH VEGETATION	
RETARDANCE CLASS	=	C	
VEGETATION TYPE	=	BUNCH TYPE	
VEGETATION DENSITY	=	FAIR (50-75%)	
SOIL TYPE	=	SILT LOAM	
VELOCITY	=	3.53 ft/s	
NORMAL DEPTH	=	0.32 ft	
MANNING'S N	=	0.08	
PERMISSIBLE SHEAR STRESS	=	10 lbs/ft ²	
CALCULATED SHEAR STRESS	=	3.65 lbs/ft ²	



POND PROFILE B-B'

SCALE: H: 1" = 50', V: 1" = 25'

AREA-ELEVATION-CAPACITY TABLE				
ELEVATION (FT AMSL)	AREA (ACRES)	INCREMENTAL CAPACITY (ACRE-FEET)	CUMULATIVE CAPACITY (ACRE-FEET)	USE
3,741.20	0.00	0.0	0.0	INACTIVE CAPACITY VOLUME = 0.3 AC-FT.
3,742.00	0.07	0.1	0.0	sediment storage
3,743.00	0.16	0.2	0.1	
3,744.00	0.19	0.2	0.3	
3,745.00	0.22	0.2	0.5	
3,746.00	0.25	0.3	0.8	ACTIVE CAPACITY VOLUME = 1.3 AC-FT.
3,747.00	0.28	0.3	1.0	10-YEAR / 24-HOUR RUNOFF VOLUME = 1.3 AC-FT.
3,748.00	0.31	0.3	1.3	
3,749.00	0.34	0.4	1.6	
3750.00	0.37	0.4	2.0	
3751.00	0.41	0.4	2.4	
3752.00	0.44	0.5	2.8	
3753.00	0.48	0.1	3.2	
3753.30	0.49		3.4	
HIGH WATER LINE = 3,753.30 FT. - TOTAL CAPACITY = 3.4 AC-FT.				

POND 93 DRAINAGE AREA DATA

TOTAL DRAINAGE AREA	=	14.8 acres
LONGEST WATERCOURSE	=	1,125 ft
AVERAGE LAND SLOPE	=	28.69%
CURVE NUMBER	=	87 (Disturbed Mine Land)
SOILS	=	Hydrologic Soils Group C
TIME OF CONCENTRATION	=	0.086 Hours

RUNOFF ESTIMATE TO POND 93

RAINFALL DISTRIBUTION	=	SCS TYPE II
PRECIPITATION (10YR-24HR)	=	2.19 in
PEAK Q (10YR-24HR)	=	24.2 cfs
VOLUME (10YR-24HR)	=	1.3 ac-ft
DESIGN METHOD	=	SCS RUNOFF CURVE NUMBER METHOD AND SCS GRAPHICAL PEAK DISCHARGE METHOD (NRCS TR-55 METHOD)

POND 93 DESIGN CAPACITY

SEDIMENT CAPACITY (0.02 ac-ft per acre)	=	0.3 ac-ft
10YR-24HR RUNOFF VOLUME	=	1.3 ac-ft
TOTAL DESIGN (MINIMUM) CAPACITY	=	1.6 ac-ft

CERTIFICATE OF ENGINEER

I, Owen Lindblom, hereby certify that this map and drawings were prepared by myself or under my direct supervision and that they correctly represent the facilities and conditions described in the accompanying application.



OWEN D. LINDBLOM, P.E. No. 36748PE



SPRING CREEK MINE
P.O. BOX 67, DECKER, MT 59025
PHONE: (406) 757-2581

DATE	REVISION
2/10/21	As-Built Conditions
ODL	

Sediment Control
Pond 93 Design

As-Built

DESIGN	EMD	DRAWN	EMD	DATE	11/17	SHEET	1	OF	1
SCALE	As Shown	CONTOUR INTERVAL	As Shown	FILE NUMBER	MR236\Pond_93.dwg				