MATERIAL DESCRIPTIONS		EFFECTIVE STRESS PARAMETERS	TOTAL STRESS PARAMETERS	γ_m (pcf)	γ_{SAT} (pcf)
ALLUVIUM	DENSE TO VERY DENSE, SILTY SANDY GRAVELS, COBBLES AND BOULDERS	ø' = 36.5°, C'= 0	ø = 36.5°, C = 0	115	120
CORE	COMPACTED SANDY, CLAYEY SILT	ø' = 34°, C'= 0	ø = 11°, C = 360	100	105
FILTER	WELL-GRADED 3-INCH MINUS CRUSHED ROCK	ø' = 40°, C'= 0	ø = 40°, C = 0	120	125
ZONE I	COMPACTED SILTY GRAVEL; OCCASIONAL BOULDERS	ø' = 36.5°, C'= 0	ø = 36.5°, C = 0	120	120
ZONE II	COMPACTED SILTY ROCK FRAGMENTS	ø' = 36.5°, C'= 0	ø = 36.5°, C = 0	120	120
DRAINAGE BERM	ASSUMED 3-INCH MINUS CRUSHED ROCK	ø' = 40°, C'= 0	ø = 40°, C = 0	120	125

SUMMARY OF STABILITY ANALYSES				
FAILURE SURFACE	STATIC FS	PSEUDO-STATIC FS	Ky	RAPID DRAWDOWN
1	2.14	1.70	.39	N/A
2	2.26	1.74	.39	N/A
3	2.46	1.29	.19	1.41
4	2.10	1.40	.27	2.21
5	2.34	1.43	.26	2.19

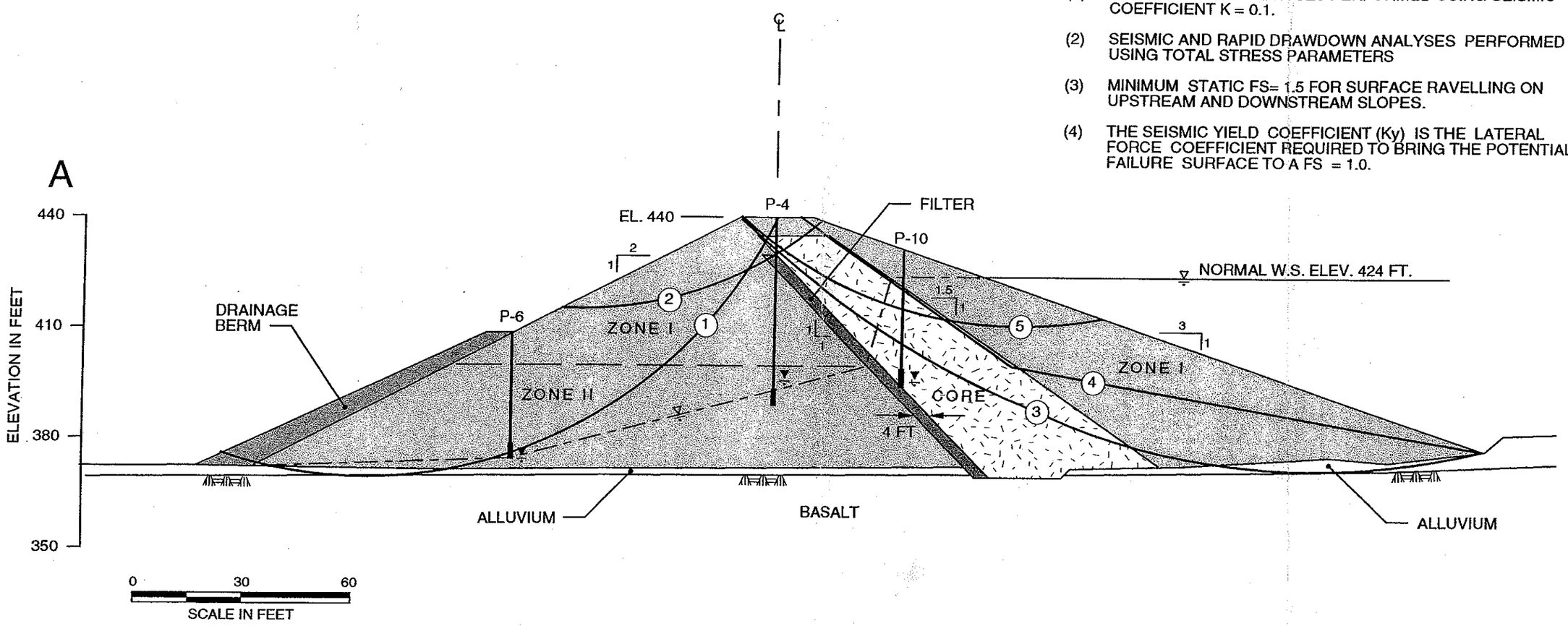
NOTES:

(1) PSEUDO-STATIC ANALYSES PERFORMED USING SEISMIC COEFFICIENT K = 0.1.

(2) SEISMIC AND RAPID DRAWDOWN ANALYSES PERFORMED USING TOTAL STRESS PARAMETERS

(3) MINIMUM STATIC FS= 1.5 FOR SURFACE RAVELLING ON UPSTREAM AND DOWNSTREAM SLOPES.

(4) THE SEISMIC YIELD COEFFICIENT (Ky) IS THE LATERAL FORCE COEFFICIENT REQUIRED TO BRING THE POTENTIAL FAILURE SURFACE TO A FS = 1.0.



M1181\FIGURE05 LJW

Cornforth Consultants, Inc.
10250 S.W. Greenburg Rd.
Portland, OR 97223

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JOB STATIC & SEISMIC STABILITY ANALYSIS SILVER CREEK DAM

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FIG. 5