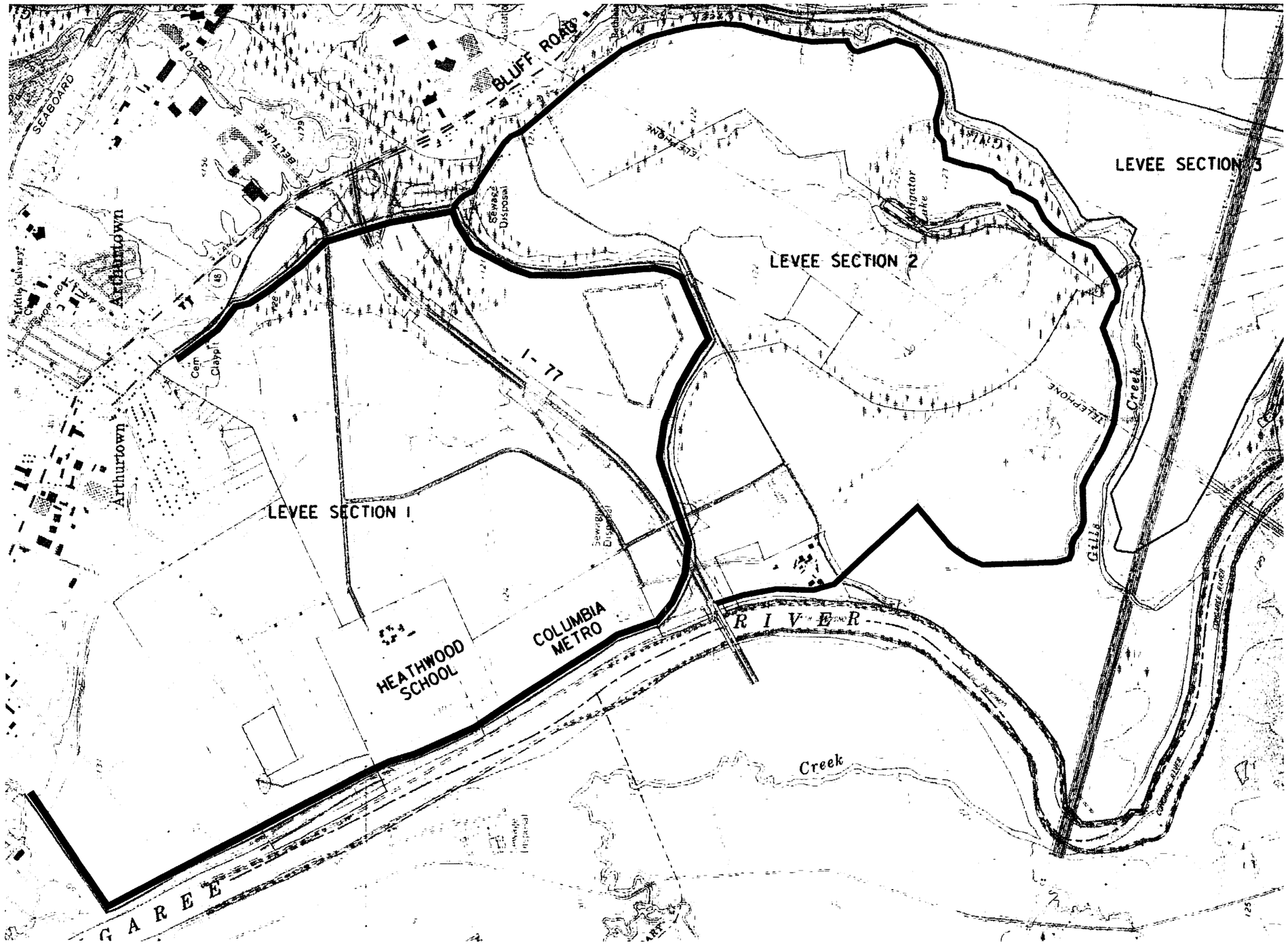
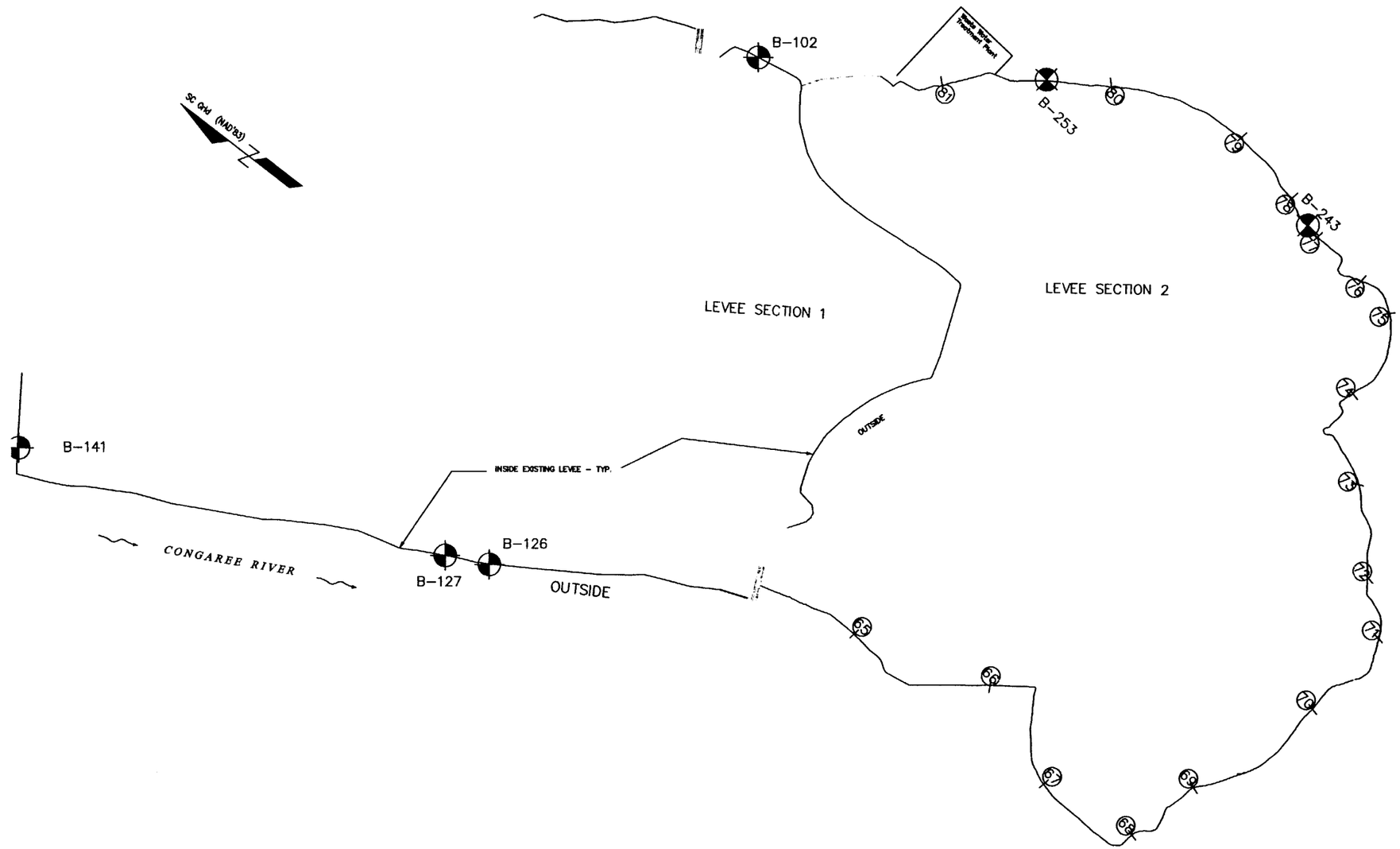
APPENDIX A

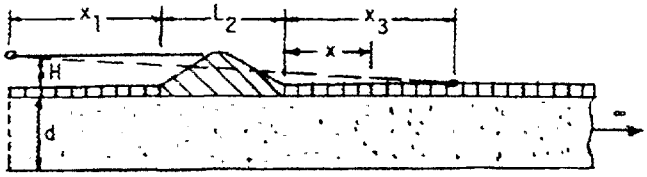


SCALE: 1"=2000'	S&ME ENVIRONMENTAL SERVICES ENGINEERING • TESTING	SITE LOCATION MAP CONGAREE LEVEES COLUMBIA, SC	FIGURE NO: 1
CHECKED BY:			
DRAWN BY: JWB			
DATE: 10-24-00		JOB NO: 1611-00-937	



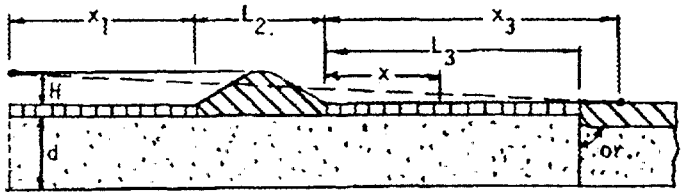
SCALE: NTS	S&ME ENVIRONMENTAL SERVICES ENGINEERING • TESTING	BORING LOCATION PLAN CONGAREE LEVEE RICHLAND COUNTY	FIGURE NO: 2
CHECKED BY:			
DRAWN BY: JWB			
DATE: 10-24-00		JOB NO: 1611-00-937	

K:\CLIENT\901-950\937\FIG2 BLP.DWG



$$h_x = h_o e^{-cx}$$

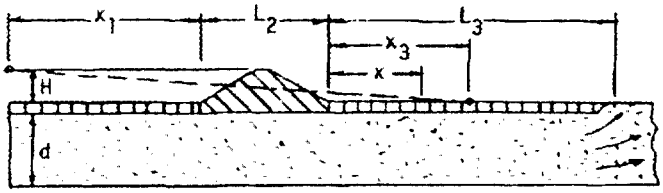
a. $L_3 = \infty$



$$h_x = h_o \frac{\cosh c(L_3 - x)}{\cosh cL_3}$$

$$h_x = L_3 = \frac{h_o}{\cosh cL_3}$$

b. L_3 is finite to a seepage block



$$h_x = h_o \frac{\sinh c(L_3 - x)}{\sinh cL_3}$$

$$h_x = L_3 = 0$$

c. L_3 is finite to an open seepage exit

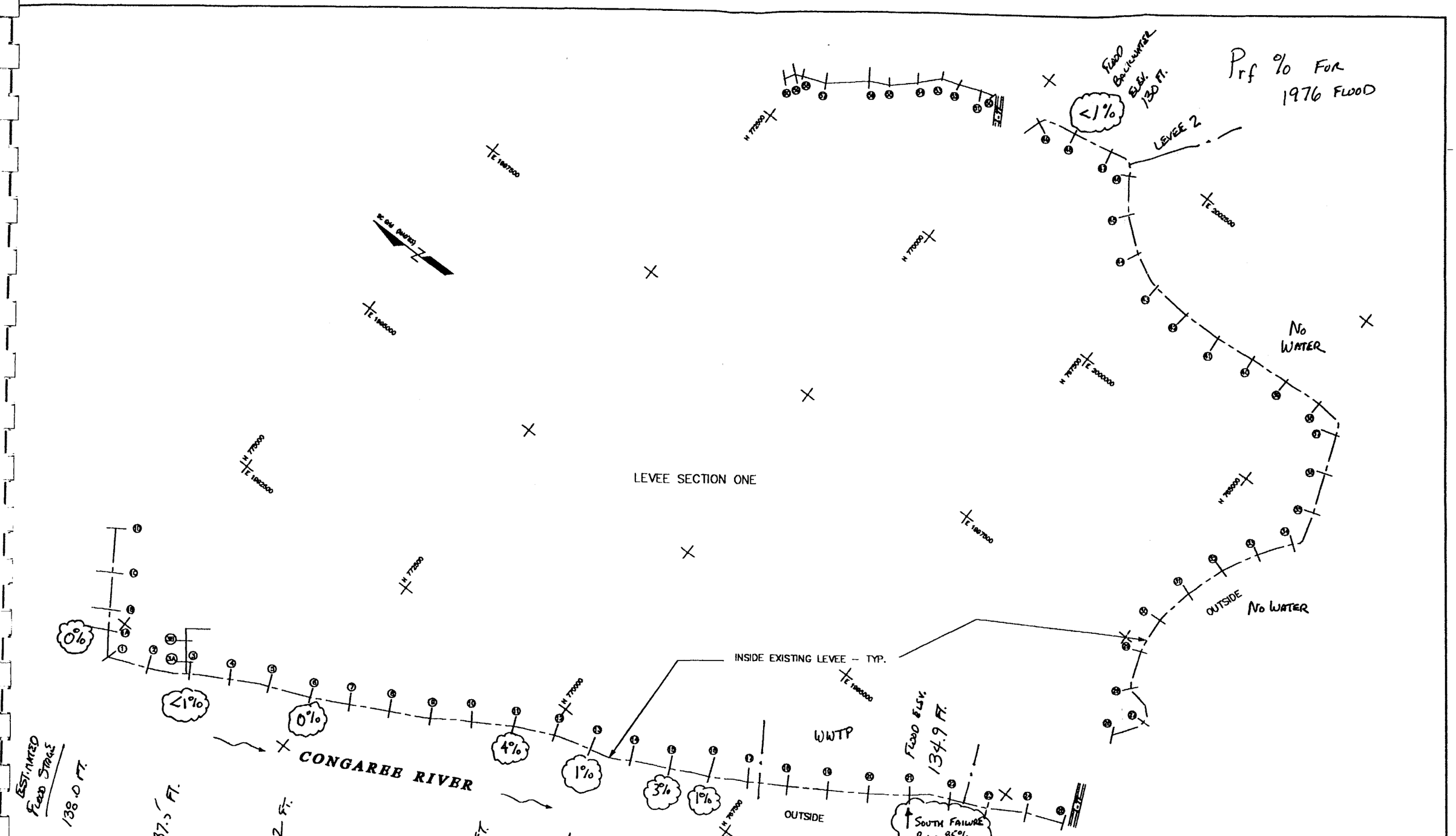
BASIC DEFINITIONS AND EQUATIONS

SEEPAGE PER UNIT LENGTH OF LEVEE . . . . . $Q_s = \oint k_f H = \dfrac{dk_f H}{x_1 + L_2 + x_3}$

HEAD BENEATH TOP STRATUM AT LANDSIDE LEVEE TOE . . . . $h_o = \dfrac{Hx_3}{x_1 + L_2 + x_3}$

THE FACTOR . . . . . $c = \sqrt{\dfrac{k_{bL}}{k_f z_{bL} d}}$

Lockwood Greene Engineers Spartanburg, South Carolina	S&ME ENVIRONMENTAL SERVICES ENGINEERING ● TESTING	Equations for Computation of Underseepage and Substratum Pressures for Case 7			
SCALE NTS	DATE 10/25/00	DRAWN BY JCL	CHECKED BY JCL	JOB NO. 1611-00-937	FIGURE NO 3



SCALE:	1"=1000'
CHECKED BY:	
DRAWN BY:	CMM
DATE:	5-19-99

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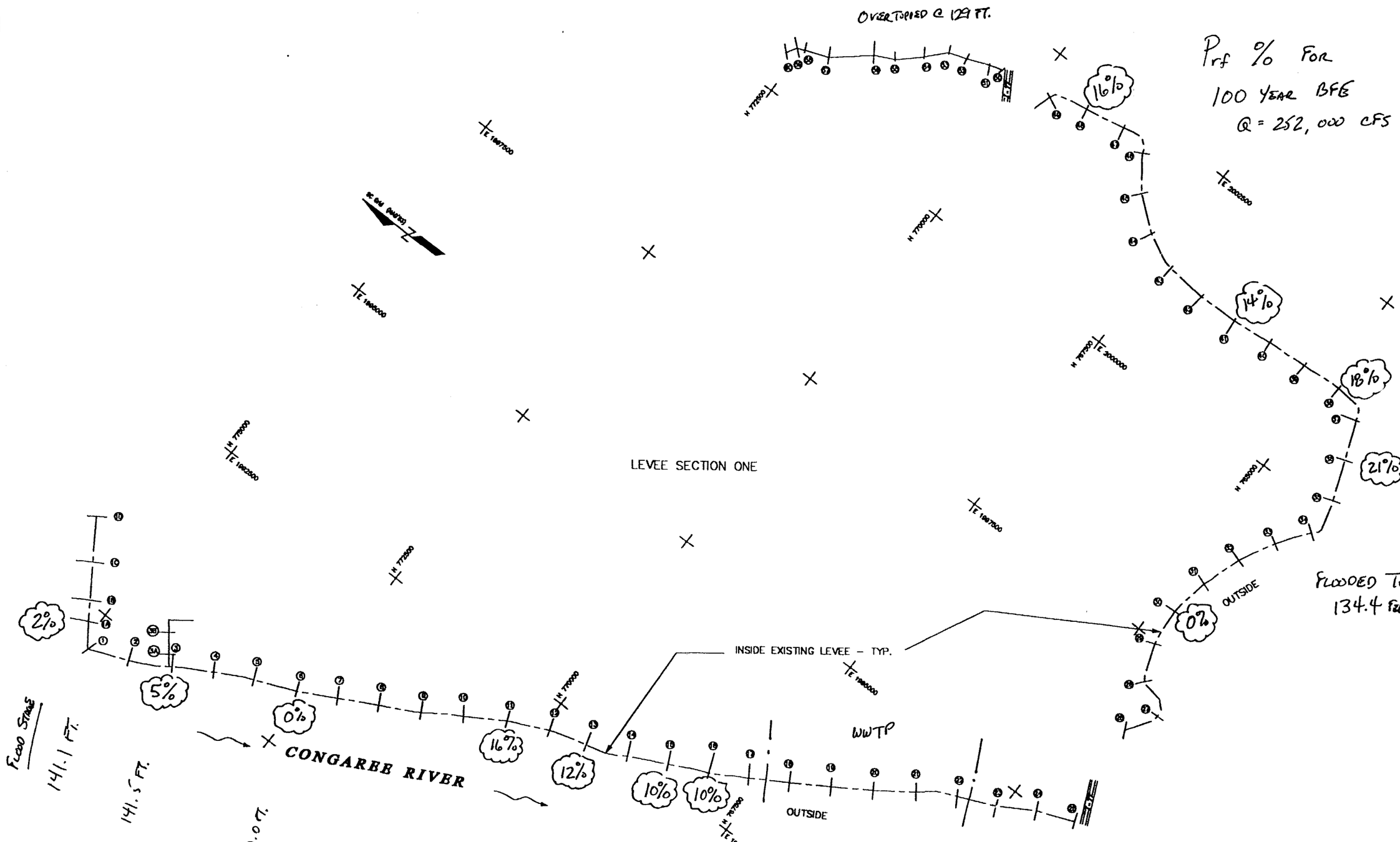
SECTION LOCATION MAP
CONGAREE LEVEES

COLUMBIA, SC

JOB NO: 1611-99-438

FIGURE NO:



SCALE:	1"=1000'
CHECKED BY:	
DRAWN BY:	CMM
DATE:	5-19-99

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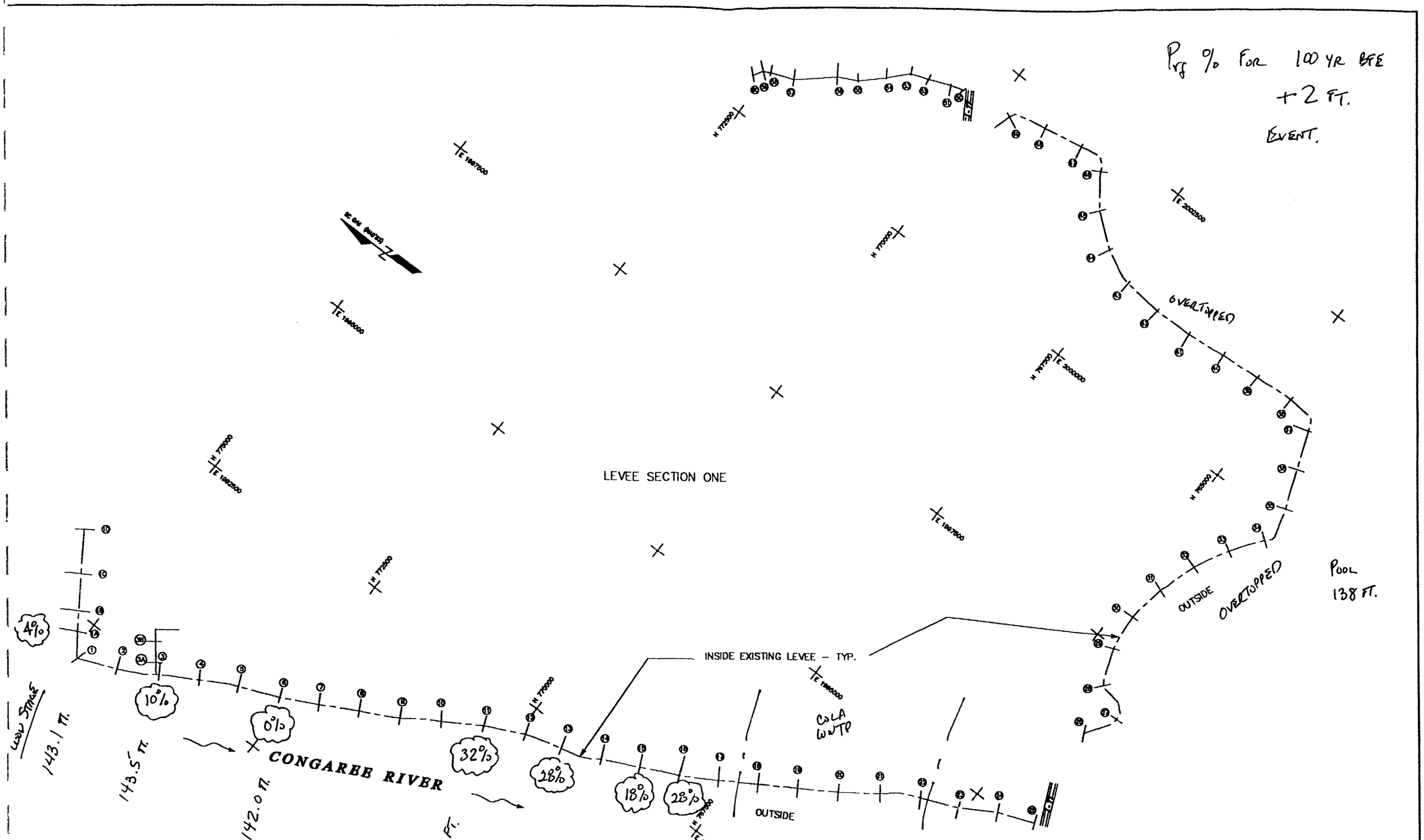
SECTION LOCATION MAP
CONGAREE LEVEES

COLUMBIA, SC

JOB NO: 1611-99-438

FIGURE NO:



SCALE: 1"=1000'	S&ME ENVIRONMENTAL SERVICES ENGINEERING • TESTING	SECTION LOCATION MAP CONGAREE LEVEES COLUMBIA, SC	FIGURE NO:
CHECKED BY:			
DRAWN BY: CMM			
DATE: 5-19-99		JOB NO: 1611-99-438	