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PLANE SURFACE DESIGN
TITLE= PSD EXERCISE
TITLE= NEBRASKA WORKSHOPS  MARCH 1976
*
BM= 100.0 * HEAD OF 1/2 IN. BOLT N.W. COR. CONCRETE PUMP BASE
BS = 3.5
*HI= 103.5
*
GRID= 100, 100
*
X+(A,1)=  1.9,1.9,1.7,1.5,1.0,1.2,1.4,1.6,1.6,1.6
X+(A,2)=  2.2,2.1,1.9,1.9,1.4,1.4,1.4,1.9,2.0,2.0
X+(A,3)=  2.6,2.5,2.3,2.1,2.0,2.0,2.0,2.4,2.4,2.3
X+(A,4)=  2.9,2.8,2.6,2.5,2.3,2.5,2.5,2.7,2.7,2.7
X+(A,5)=  3.2,3.1,3.0,2.9,2.5,2.9,2.9,3.1,3.1,3.0
X+(A,6)=  3.6,3.4,3.4,3.2,3.0,3.2,3.2,3.4,3.4,3.3
X+(A,7)=  3.9,3.8,3.7,3.5,3.3,3.4,3.4,3.7,3.8,3.7
X+(A,8)=  4.3,4.2,4.2,4.0,3.7,3.7,3.8,4.2,4.2,4.1
X+(A,9)=  4.5,4.6,4.6,4.5,4.2,4.2,4.0,4.2,4.3,4.4
X+(A,10)= 5.1,5.0,5.0,4.6,4.8,4.6,4.5,4.3,4.3,4.6
X+(A,11)= 5.4,5.4,5.3,5.1,5.0,5.3,4.8,4.8,4.8,4.9
X+(C,12)= 5.7,5.6,5.4,5.6,5.1,5.2,5.1,5.3
X+(D,13)= 5.9,5.8,6.0,6.0,6.0,5.9,5.9
X+(D,14)= 6.4,6.3,6.3,6.5,6.5,6.4,6.3
X+(D,15)= 6.7,6.6,6.6,6.8,6.9,7.0,7.2
*
BM= 100.0 * HEAD OF 1/2 IN. BOLT N.W. COR. CONCRETE PUMP BASE
BS= 3.5
*HI= 103.5
*
F(1)=      (B,11),(C,11),(C,12),(D,12),(D,13)
F(2)=      (E,15),(J,15),(J+50,15,6.8),(J+50,15+50,6.9),(J,15+50,7.3),
           (I,15+50,7.3),(H,15+50,7.1),(G,15+50,7.0),(F,15+50,6.8),
           (E,15+50,6.6)
F(3)=      (J+50,1,1.6),(J+50,2,2.1),(J+50,3,2.3),(J+50,4,2.6),
           (J+50,5,2.5),(J+50,6,3.1),(J+50,7,3.5),(J,7),(J,1)
F(4)=      (J+50,7,3.5),(J+50,8,3.5),(J+50,9,4.4),(J+50,10,4.6),
           (J+50,11,5.0),(J+50,12,5.1),(J+50,13,5.8),(J+50,14,6.1),
           (J+50,15,6.8),(J,15),(J,13),(J,12),(J,7)
*DESIGN REQUIREMENTS
*
TITLE= RUN 1 - PLANE OF BEST FIT - ENTIRE FIELD
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1REVISED 02/15/84
                   PSD EXERCISE
                   RUN 1 - PLANE OF BEST FIT - ENTIRE FIELD
                       80-80 LIST OF INPUT DATA
 ORIGIN= UPPER, LEFT
 C/F RATIO= 1.5
 GO, DETAIL

                  PSD EXERCISE
                  RUN 1 - PLANE OF BEST FIT - ENTIRE FIELD
0               PLANE SURFACE CENTROID ELEV.=   99.54
                X-Y COORDINATES = 606.54, 773.97
                SLOPES(X,Y)=  .0126, -.3755 PERCENT
0                FIELD AREA =  28.87 AC

                AVERAGE EXCAVATION =   156. CY/AC
                 CUT  VOL=     4486.2 CY
                FILL VOL=     3022.4 CY                        C/F RATIO= 1.48


                MAX CUT =  .50 FT       MAX FILL =  .56 FT



         CUT/FILL VOLUMES FOR FRINGE POINTS.
 X,Y COORDINATES         ELEV     GRADE      C/F

   J+50 , 15+00           96.7      96.9     F 0.2
   J+50 , 15+50           96.6      96.7     F 0.1
   J+00 , 15+50           96.2      96.7     F 0.5
   I+00 , 15+50           96.2      96.7     F 0.5
   H+00 , 15+50           96.4      96.6     F 0.2
   G+00 , 15+50           96.5      96.6     F 0.1
   F+00 , 15+50           96.7      96.6     C 0.1
   E+00 , 15+50           96.9      96.6     C 0.3
   J+50 ,  1+00          101.9     102.1     F 0.2
   J+50 ,  2+00          101.4     101.7     F 0.3
   J+50 ,  3+00          101.2     101.4     F 0.2
   J+50 ,  4+00          100.9     101.0     F 0.1
   J+50 ,  5+00          101.0     100.6     C 0.4
   J+50 ,  6+00          100.4     100.2     C 0.2
   J+50 ,  7+00          100.0      99.9     C 0.1
   J+50 ,  8+00          100.0      99.5     C 0.5
   J+50 ,  9+00           99.1      99.1     F 0.0
   J+50 , 10+00           98.9      98.7     C 0.2
   J+50 , 11+00           98.5      98.4     C 0.1
   J+50 , 12+00           98.4      98.0     C 0.4
   J+50 , 13+00           97.7      97.6     C 0.1
   J+50 , 14+00           97.4      97.2     C 0.2
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1REVISED 02/15/84
PANEL 1/ 1

PSD EXERCISE
RUN 1 - PLANE OF BEST FIT - ENTIRE FIELD

	A	B	C	D	E	F	G	H	I	J	
	101.6	101.6	101.8	102.0	102.5	102.3	102.1	101.9	101.9	101.9	
1	102.0	102.0	102.0	102.0	102.1	102.1	102.1	102.1	102.1	102.1	1
	F 0.4	F 0.4	F 0.2	F 0.0	C 0.4	C 0.2	C 0.0	F 0.2	F 0.2	F 0.2	
	101.3	101.4	101.6	101.6	102.1	102.1	102.1	101.6	101.5	101.5	
2	101.6	101.6	101.7	101.7	101.7	101.7	101.7	101.7	101.7	101.7	2
	F 0.3	F 0.2	F 0.1	F 0.1	C 0.4	C 0.4	C 0.4	F 0.1	F 0.2	F 0.2	
	100.9	101.0	101.2	101.4	101.5	101.5	101.5	101.1	101.1	101.2	
3	101.3	101.3	101.3	101.3	101.3	101.3	101.3	101.3	101.4	101.4	3
	F 0.4	F 0.3	F 0.1	C 0.1	C 0.2	C 0.2	C 0.2	F 0.2	F 0.3	F 0.2	
	100.6	100.7	100.9	101.0	101.2	101.0	101.0	100.8	100.8	100.8	
4	100.9	100.9	100.9	100.9	100.9	100.9	101.0	101.0	101.0	101.0	4
	F 0.3	F 0.2	F 0.0	C 0.1	C 0.3	C 0.1	C 0.0	F 0.2	F 0.2	F 0.2	
	100.3	100.4	100.5	100.6	101.0	100.6	100.6	100.4	100.4	100.5	
5	100.5	100.5	100.5	100.5	100.6	100.6	100.6	100.6	100.6	100.6	5
	F 0.2	F 0.1	F 0.0	C 0.1	C 0.4	C 0.0	C 0.0	F 0.2	F 0.2	F 0.1	
	99.9	100.1	100.1	100.3	100.5	100.3	100.3	100.1	100.1	100.2	
6	100.1	100.1	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	6
	F 0.2	F 0.0	F 0.1	C 0.1	C 0.3	C 0.1	C 0.1	F 0.1	F 0.1	F 0.0	
	99.6	99.7	99.8	100.0	100.2	100.1	100.1	99.8	99.7	99.8	
7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.9	99.9	7
	F 0.2	F 0.1	C 0.0	C 0.2	C 0.4	C 0.3	C 0.3	F 0.0	F 0.2	F 0.1	
	99.2	99.3	99.3	99.5	99.8	99.8	99.7	99.3	99.3	99.4	
8	99.4	99.4	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	8
	F 0.2	F 0.1	F 0.1	C 0.1	C 0.4	C 0.4	C 0.2	F 0.2	F 0.2	F 0.1	

	A	B	C	D	E	F	G	H	I	J	
	99.0	98.9	98.9	99.0	99.3	99.3	99.5	99.3	99.2	99.1	
9	99.0	99.0	99.0	99.0	99.1	99.1	99.1	99.1	99.1	99.1	9
	F 0.0	F 0.1	F 0.1	F 0.0	C 0.2	C 0.2	C 0.4	C 0.2	C 0.1	F 0.0	
	98.4	98.5	98.5	98.9	98.7	98.9	99.0	99.2	99.2	98.9	
10	98.6	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	10
	F 0.2	F 0.1	F 0.2	C 0.2	C 0.0	C 0.2	C 0.3	C 0.5	C 0.5	C 0.2	
	98.1	98.1	98.2	98.4	98.5	98.2	98.7	98.7	98.7	98.6	
11	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.4	98.4	11
	F 0.2	F 0.2	F 0.1	C 0.1	C 0.2	F 0.1	C 0.4	C 0.4	C 0.3	C 0.2	
			97.8	97.9	98.1	97.9	98.4	98.3	98.4	98.2	
12			97.9	97.9	97.9	97.9	98.0	98.0	98.0	98.0	12
			F 0.1	F 0.0	C 0.2	F 0.0	C 0.4	C 0.3	C 0.4	C 0.2	
				97.6	97.7	97.5	97.5	97.5	97.6	97.6	
13				97.5	97.5	97.6	97.6	97.6	97.6	97.6	13
				C 0.1	C 0.2	F 0.1	F 0.1	F 0.1	F 0.0	F 0.0	
				97.1	97.2	97.2	97.0	97.0	97.1	97.2	
14				97.2	97.2	97.2	97.2	97.2	97.2	97.2	14
				F 0.1	C 0.0	C 0.0	F 0.2	F 0.2	F 0.1	F 0.0	
				96.8	96.9	96.9	96.7	96.6	96.5	96.3	
15				96.8	96.8	96.8	96.8	96.8	96.8	96.9	15
				C 0.0	C 0.1	C 0.1	F 0.1	F 0.2	F 0.3	F 0.6	