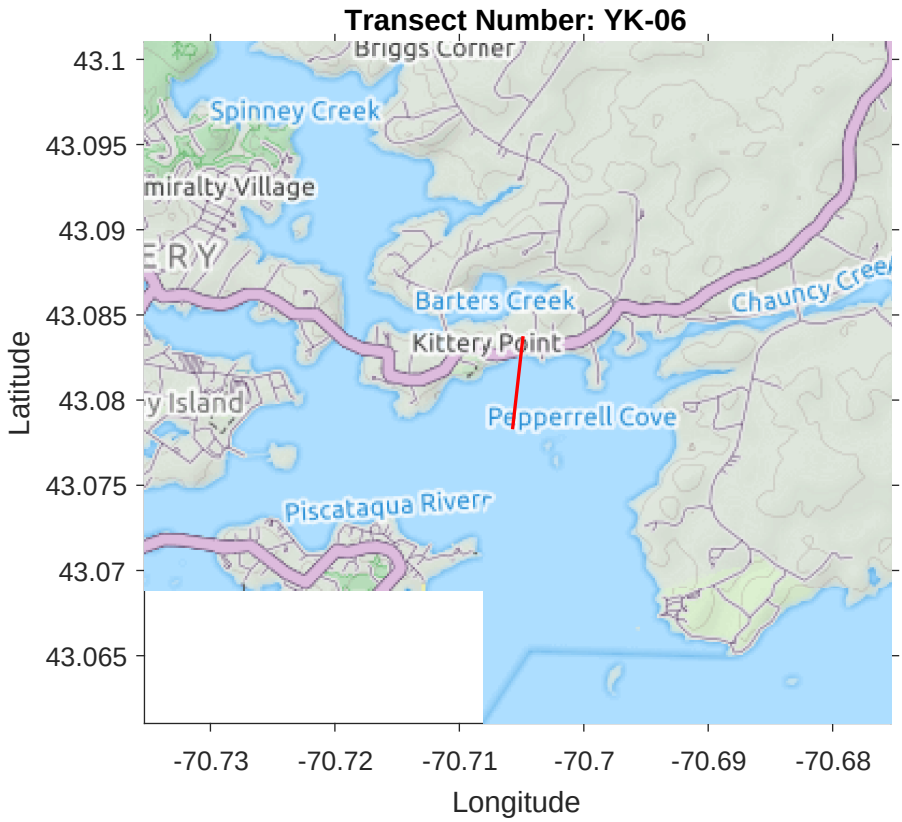
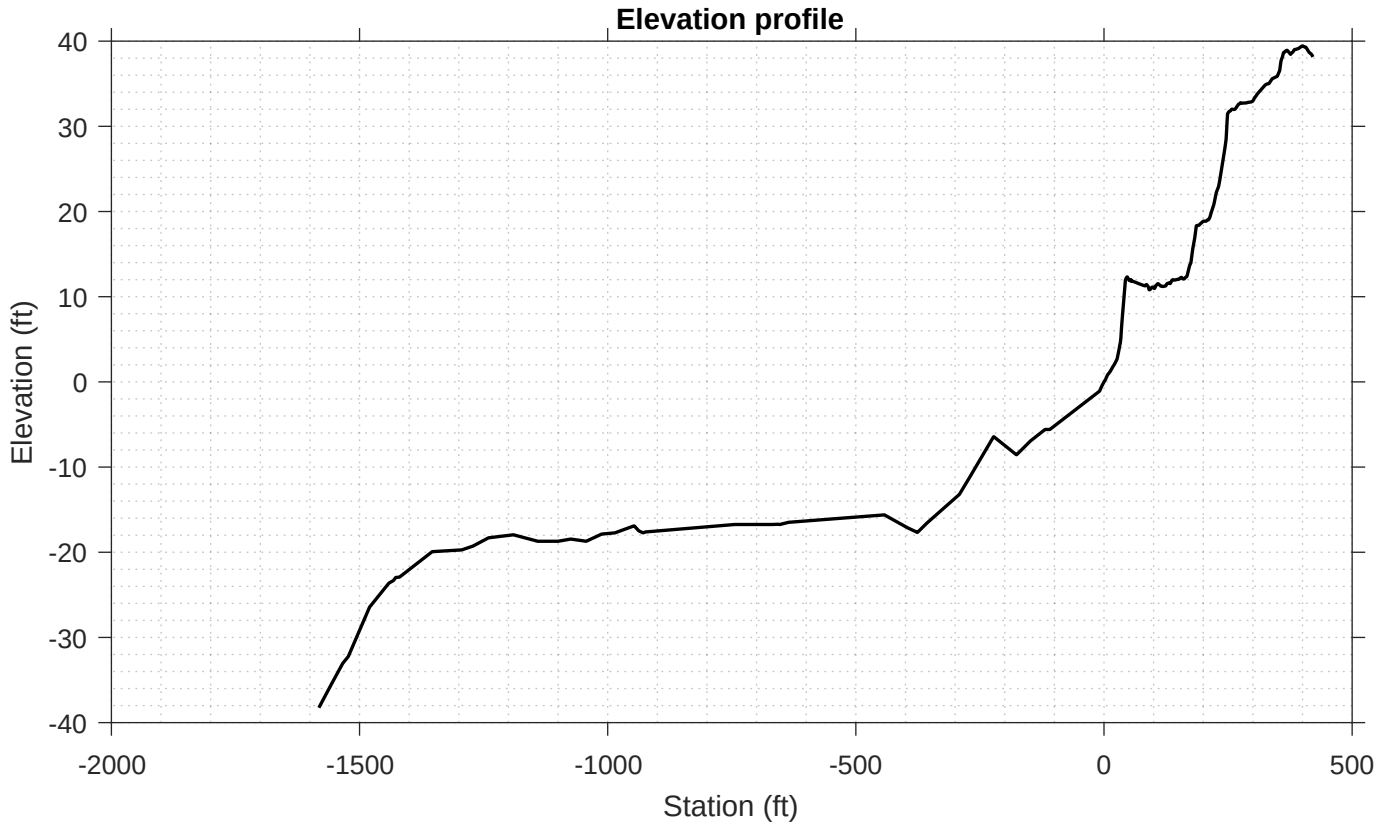

Transect Number: YK-06
Briggs Corner
Spinney Creek
miralty Village
Barters Creek
Chauncy Creek
Kittery Point
y Island
Pepperrell Cove
Piscataqua River
43.1
43.095
43.09
43.085
43.08
43.075
43.07
43.065
Latitude
-70.73
-70.72
-70.71
-70.7
-70.69
-70.68
Longitude


Elevation profile
40
30
20
10
0
-10
-20
-30
-40
Elevation (ft)
-2000
-1500
-1000
-500
0
500
Station (ft)

DATA LOG FOR TRANSECT ID: YK-06

PART 1: USER INPUT

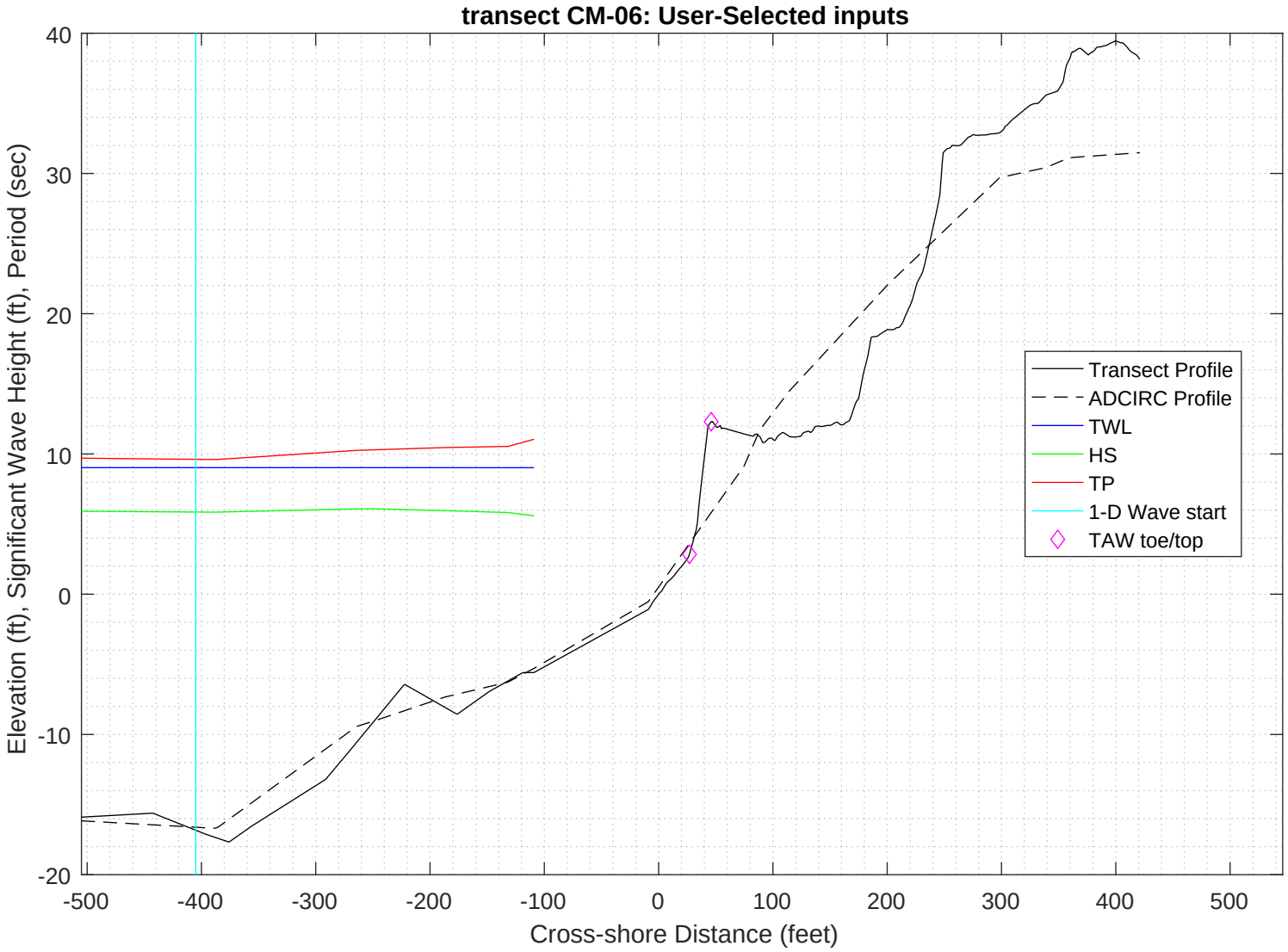
SWAN 1-D / WHAFIS input

station: -405 ft
LON: -70.7052 deg E
LAT: 43.0815 deg N
Bottom ELEV: -16.8296 ft-NAVD88
TWL: 9.0235 ft-NAVD88
HS: 5.8592 ft
TP: 9.6175 sec
Wave Direction bin: 90 deg CCW from East (90 deg sector)
Transect Direction: 81.199 deg CCW from East

TAW/RUNUP input

toe sta: 27 ft
toe elev: 2.8452 ft-NAVD88
top sta: 46 ft
top elev: 12.3021 ft-NAVD88
*Wave and water level conditions at toe to be calculated in SWAN 1-D*

PART 1 COMPLETE


transect CM-06: User-Selected inputs
Elevation (ft), Significant Wave Height (ft), Period (sec)
Cross-shore Distance (feet)
40
30
20
10
0
-10
-20
-500
-400
-300
-200
-100
0
100
200
300
400
500
Transect Profile
ADCIRC Profile
TWL
HS
TP
1-D Wave start
TAW toe/top

_____
PART 2: SWAN 1-D

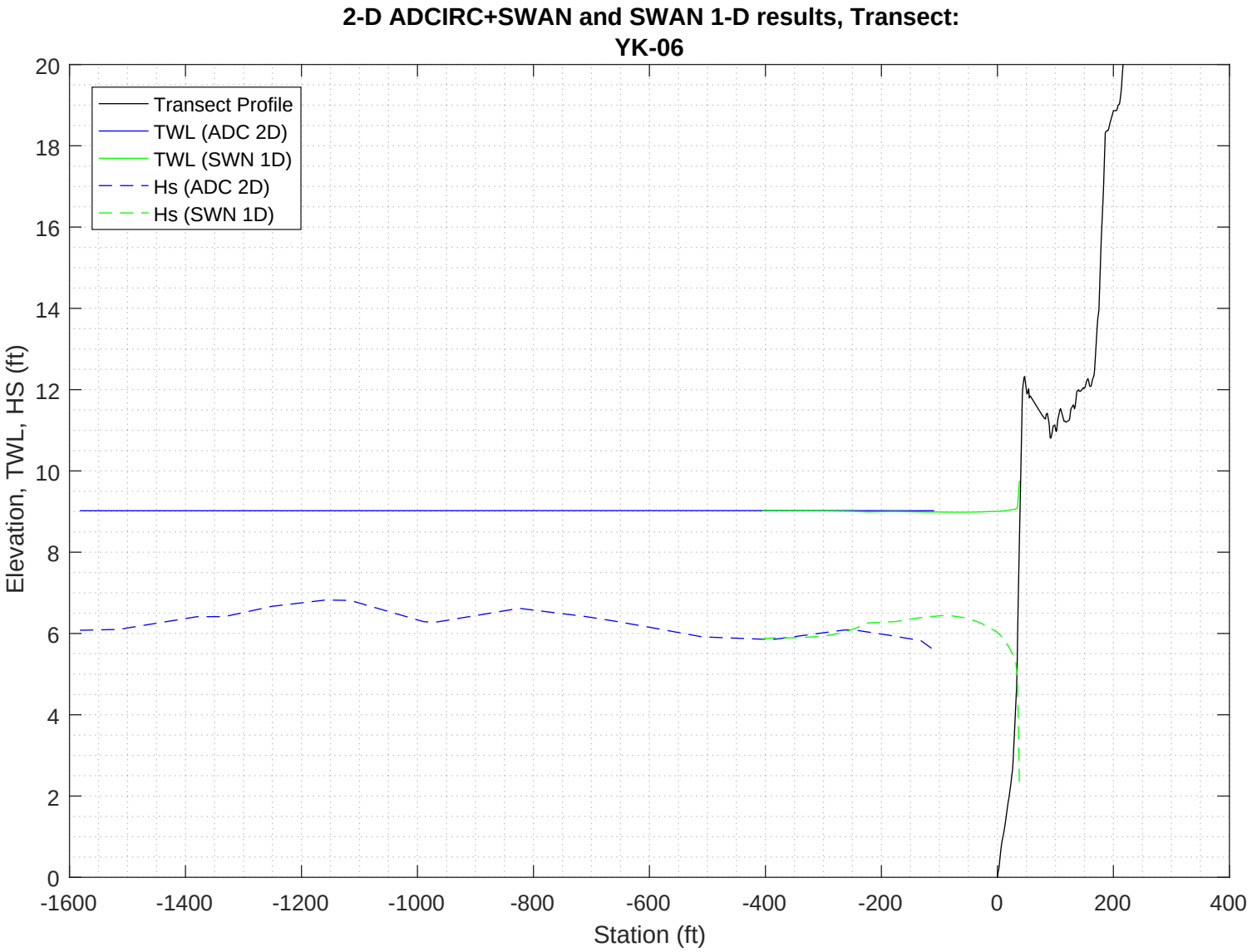
swan input grid name: 2_swan/gridfiles/YK-06zmeters_xmeters.grd
swan file name:       2_swan/swanfiles/YK-06.swn
swan output name:     2_swan/swanfiles/YK-06.dat

Boundary Conditions:
    TWL- 2.7504 meters
    HS-  1.7859 meters
    PER- 9.6175 seconds

Batch File: 2_swan/swanfiles/runswan.dat

SWAN maximum additional wave setup: 0.73082 feet
SWAN output at toe:
    SETUP- 0.028035 feet
    HS-    5.4588 feet
    PER-   9.7161 seconds

PART 2 COMPLETE_____


2-D ADCIRC+SWAN and SWAN 1-D results, Transect:
YK-06
Transect Profile
TWL (ADC 2D)
TWL (SWN 1D)
Hs (ADC 2D)
Hs (SWN 1D)
Elevation, TWL, HS (ft)
Station (ft)
20
18
16
14
12
10
8
6
4
2
0
-1600
-1400
-1200
-1000
-800
-600
-400
-200
0
200
400

1

Execution started at 20200206.151503

---
SWAN
SIMULATION OF WAVES IN NEAR SHORE AREAS
VERSION NUMBER 41.20A
---

```
PROJECT '2018FemaAppeal' '1'
   '100-year Wind and Wave conditions'
! -- SET commands ------------------------------------------------------
 SET DEPMIN=0.01 MAXMES=999 MAXERR=3 PWTAIL=4
 SET LEVEL 0
 SET CARTESIAN
! -- MODE commands -----------------------------------------------------
 MODE STATIONARY ONED
!-- COORDINATES commands-----------------------------------------------
COORDINATES CART
!
!  --  computational (CGRID) grid commands --------------------------------------
!                                  xlenc=length of grid in meters
!  mxc = number of mesh cells (one less than number of grid points)
!CGRID REGular [xpc]  [ypc]  [alpc]  [xlenc]   [ylenc]  [mxc]  [myc] &
!      [ CIRcle|SECtor[dir1] [dir2] ] [mdc] [flow] [fhigh] [msc]
 CGRID REGULAR   0      0       0      135       0.   135     0    &
       CIRCLE                          36    0.03    0.8     30
Resolution in sigma-space: df/f =  0.1157
! -- READgrid ---- not used in 1-D mode ----------------------------------
! -- INPgrid commands  -------------------------------------------------------
!INPgrid BOTtom REGular [xpinp] [ypinp] [alpinp] [mxinp] [myinp] [dxinp] [dyinp]
!
 INPGRID BOTTOM REGULAR    0       0        0      135   0      1       1
!READinp BOTtom [fac]  'fname1'  [idla]  [nhedf]  [FREe|FORmat[form]|UNFormatted]
 READ    BOTTOM   -1. '../gridfiles/YK-06zmeters_xmeters.grd'    1      0       FREE
!-------------------------------------------------------------------------
! -- WIND [vel] [dir]
WIND      25.1  0
! -- BOUnd SHAPespec
BOUND SHAPE JONSWAP 3.3  PEAK DSPR POWER
! -- BOUndspec
! BOU SIDE W CCW CON FILE 'swanspec.txt' 1
BOUN SIDE W CCW CONSTANT PAR   1.7859     9.6175     0  2
!-- BOUndnest1  - optional for boundary from parent run
!-- BOUndnest2
!-- BOUndnest3
!-- INITial -- usest to specify initial values
!
!---------------- P H Y S I C S ------------------------
!-- GEN1 [cf10] [cf20] [cf30] [cf40] [edm1pm] [cdrag] [umin] [cfpm]
!-- GEN2 [cf10] [cf20] [cf30] [cf40] [cf50] [cf60] [edm1pm] [cdrag] [umin] [cfpm]
```

```
    GEN3 KOMEN
!   whitecapping ( on by default)
!-- WCAPping KOMen [cds2] [stpm] [powst] [delta] [powk]
    WCAP KOM
!   quadruplet wave interactions
!-- QUADrupl [iquad] [lambda] [Cn14] [Csh1] [Csh2]
! -- BREaking CONstant [alpha] [gamma]
     BREAK    CON       1.      0.73
!-- FRICtion JONswap CONstant [cfjon]
    FRIC     JONSWAP CON       0.038
!-- TRIad [itriad] [trfac] [cutfr]   [a]  [b]  [urcrit] [urslim]
! TRIAD        1      0.65    2.5    0.95 -0.75  0.2       0.01
  TRIAD
!-- VEGEtation [height] [diamtr] [nstems] [drag]
!-- MUD [layer] [rhom] [viscm]
!- LIMiter [ursell] [qb] deactivates quadruplets with Ursell number exceeds ursell
!-- OBSTacle -- not in 1-D
!-- SETUP [supcor]
   SETUP    0
!
! ----------------- N U M E R I C S ------------------------------
!
!-- PROP  can use BBST or GSE instead of default
! -- NUMeric -- lots of options
!     NUM ACCUR npnts=100. stat 30
     NUMeric STOPC
!
! -------------------O U T P U T ------------------------------
!
!OUTPut OPTIons "comment' (TABLE [field]) (BLOck [ndec] [len]) (SPEC [ndec])
 OUTPUT OPTIONS '%' TABLE 16
 $BLOCK 9 1000 SPEC 8
!CURve 'sname' [xp1] [yp1] <[int]   [xp]   [yp] >
 CURVE 'curve' 0     0      135  135    0
!TABLe 'sname' < HEADer|NOHEADer|INDexed > 'fname' <output parameters> (output time)
 Table 'curve'   HEADER 'YK-06.dat' XP YP HSIGN TPS RTP TMM10 DIR &
 DSPR DEPTH SETUP
!QUANTITY XP hexp=99999
!
!-----------------------------------------------
 COMPUTE STATIONARY
------------------------------------------------------------------
                  COMPUTATIONAL PART OF SWAN
------------------------------------------------------------------
 One-dimensional mode of SWAN is activated
 Gridresolution       : MXC             136 MYC              1
                      : MCGRD           137
                      : MSC              31 MDC             36
                      : MTC               1
                      : NSTATC            0 ITERMX          50
 Propagation flags    : ITFRE             1 IREFR            1
 Source term flags    : IBOT              1 ISURF            1
                      : IWCAP             1 IWIND            3
                      : ITRIAD            1 IQUAD            2
                      : IVEG              0 ITURBV           0
```

```
                     : IMUD              0
Spatial step         : DX       0.1000E+01 DY      0.1000E+01
Spectral bin         : df/f     0.1157E+00 DDIR    0.1000E+02
Physical constants   : GRAV     0.9810E+01 RHO     0.1025E+04
Wind input           : WSPEED   0.2510E+02 DIR     0.0000E+00
Tail parameters      : E(f)     0.4000E+01 E(k)    0.2500E+01
                     : A(f)     0.5000E+01 A(k)    0.3000E+01
Accuracy parameters  : DREL     0.1000E-01 NPNTS   0.9950E+02
                     : DHABS    0.0000E+00 CURVAT  0.5000E-02
                     : GRWMX    0.1000E+00
Drying/flooding      : LEVEL    0.0000E+00 DEPMIN  0.1000E-01
The Cartesian convention for wind and wave directions is used
Scheme for geographic propagation is SORDUP
Scheme geogr. space  : PROPSC            2 ICMAX           7
Scheme spectral space: CSS      0.5000E+00 CDD     0.5000E+00
Current is off
Quadruplets          : IQUAD             2
                     : LAMBDA   0.2500E+00 CNL4    0.3000E+08
                     : CSH1     0.5500E+01 CSH2    0.8330E+00
                     : CSH3    -0.1250E+01
Maximum Ursell nr for Snl4 :    0.1000E+02
Triads               : ITRIAD            1 TRFAC   0.8000E+00
                     : CUTFR    0.2500E+01 URCRI   0.2000E+00
Minimum Ursell nr for Snl3 :    0.1000E-01
JONSWAP (‘73)        : GAMMA    0.3800E-01
Vegetation is off
Turbulence is off
Fluid mud is off
W-cap Komen (‘84)    : EMPCOF (CDS2):   0.2360E-04
W-cap Komen (‘84)    : APM (STPM)   :   0.3020E-02
W-cap Komen (‘84)    : POWST        :   0.2000E+01
W-cap Komen (‘84)    : DELTA        :   0.1000E+01
W-cap Komen (‘84)    : POWK         :   0.1000E+01
Wind drag is fit
Snyder/Komen wind input
Battjes&Janssen (‘78): ALPHA    0.1000E+01 GAMMA   0.7300E+00
Set-up               : SUPCOR   0.0000E+00
Diffraction is off
Janssen (‘89,‘90)    : ALPHA    0.1000E-01 KAPPA   0.4100E+00
Janssen (‘89,‘90)    : RHOA     0.1280E+01 RHOW    0.1025E+04

1st and 2nd gen. wind: CF10     0.1880E+03 CF20    0.5900E+00
                     : CF30     0.1200E+00 CF40    0.2500E+03
                     : CF50     0.2300E-02 CF60   -0.2230E+00
                     : CF70     0.0000E+00 CF80   -0.5600E+00
                     : RHOAW    0.1249E-02 EDMLPM  0.3600E-02
                     : CDRAG    0.1230E-02 UMIN    0.1000E+01
                     : LIM_PM   0.1300E+00

 ---------------------------------------------------------------
 First guess by 2nd generation model flags for first iteration:
 ITER       1 GRWMX      0.1000E+23 ALFA       0.0000E+00
 IWIND      2 IWCAP      0 IQUAD      0
 ITRIAD     1 IBOT       1 ISURF      1
 IVEG       0 ITURBV     0 IMUD       0
 ---------------------------------------------------------------
iteration    1; sweep 1
iteration    1; sweep 2
iteration    1; sweep 3
iteration    1; sweep 4
not possible to compute, first iteration

 ---------------------------------------------------------------
 Options given by user are activated for proceeding calculation:
 ITER       2 GRWMX      0.1000E+00 ALFA       0.0000E+00
 IWIND      3 IWCAP      1 IQUAD      2
 ITRIAD     1 IBOT       1 ISURF      1
 IVEG       0 ITURBV     0 IMUD       0
 ---------------------------------------------------------------
iteration    2; sweep 1
iteration    2; sweep 2
iteration    2; sweep 3
iteration    2; sweep 4
accuracy OK in  38.24 % of wet grid points ( 99.50 % required)

iteration    3; sweep 1
iteration    3; sweep 2
iteration    3; sweep 3
iteration    3; sweep 4
accuracy OK in   0.74 % of wet grid points ( 99.50 % required)

iteration    4; sweep 1
iteration    4; sweep 2
iteration    4; sweep 3
iteration    4; sweep 4
accuracy OK in  37.50 % of wet grid points ( 99.50 % required)

iteration    5; sweep 1
iteration    5; sweep 2
iteration    5; sweep 3
iteration    5; sweep 4
accuracy OK in  71.33 % of wet grid points ( 99.50 % required)

iteration    6; sweep 1
iteration    6; sweep 2
iteration    6; sweep 3
```

```
iteration    6; sweep 4
accuracy OK in  99.27 % of wet grid points ( 99.50 % required)

iteration    7; sweep 1
iteration    7; sweep 2
iteration    7; sweep 3
iteration    7; sweep 4
accuracy OK in 100.00 % of wet grid points ( 99.50 % required)


STOP
```

```
%
%
% Run:1     Table:curve             SWAN version:41.20A
%
%       Xp            Yp            Hsig          TPsmoo        RTpeak        Tm_10         Dir           Dspr          Depth         Setup
%      [m]           [m]            [m]           [sec]         [sec]         [sec]        [degr]        [degr]         [m]           [m]
%
          0.            0.       1.78908       9.6469       10.0005       8.6896         0.000       31.7897       7.8797     -0.000347
          1.            0.       1.79043       9.6470       10.0005       8.6816         0.000       31.9430       7.9097     -0.000308
          2.            0.       1.79179       9.6471       10.0005       8.6738         0.000       32.0929       7.9397     -0.000269
          3.            0.       1.79264       9.6472       10.0005       8.6657         0.000       32.2211       7.9798     -0.000213
          4.            0.       1.79378       9.6473       10.0005       8.6584         0.000       32.3245       7.9998     -0.000186
          5.            0.       1.79469       9.6474       10.0005       8.6509         0.000       32.4325       8.0299     -0.000145
          6.            0.       1.79552       9.6474       10.0005       8.6436         0.000       32.5332       8.0599     -0.000103
          7.            0.       1.79615       9.6474       10.0005       8.6364         0.000       32.6160       8.0899     -0.000060
          8.            0.       1.79689       9.6475       10.0005       8.6296         0.000       32.6839       8.1100     -0.000032
          9.            0.       1.79644       9.6475       10.0005       8.6225         0.000       32.6402       8.1300      0.000000
         10.            0.       1.79679       9.6478       10.0005       8.6176         0.000       32.4729       8.0699     -0.000081
         11.            0.       1.79683       9.6481       10.0005       8.6125         0.000       32.2718       8.0098     -0.000162
         12.            0.       1.79642       9.6482       10.0005       8.6064       359.988       32.0494       7.9598     -0.000228
         13.            0.       1.79637       9.6485       10.0005       8.6010       359.993       31.8291       7.8997     -0.000312
         14.            0.       1.79625       9.6481       10.0005       8.5951         0.014       31.6006       7.8396     -0.000396
         15.            0.       1.79617       9.6483       10.0005       8.5890       359.995       31.3967       7.7895     -0.000469
         16.            0.       1.79654       9.6486       10.0005       8.5831       359.994       31.2196       7.7294     -0.000557
         17.            0.       1.79685       9.6490       10.0005       8.5767       359.994       31.0569       7.6794     -0.000632
         18.            0.       1.79730       9.6493       10.0005       8.5702       359.993       30.9165       7.6293     -0.000706
         19.            0.       1.79783       9.6497       10.0005       8.5634       359.993       30.7836       7.5792     -0.000781
         20.            0.       1.79843       9.6501       10.0005       8.5564       359.993       30.6531       7.5291     -0.000858
         21.            0.       1.79911       9.6505       10.0005       8.5491       359.993       30.5228       7.4791     -0.000937
         22.            0.       1.79975       9.6509       10.0005       8.5416       359.994       30.3836       7.4290     -0.001018
         23.            0.       1.80073       9.6514       10.0005       8.5342       359.994       30.2414       7.3689     -0.001119
         24.            0.       1.80157       9.6518       10.0005       8.5261       359.994       30.1083       7.3188     -0.001205
         25.            0.       1.80251       9.6523       10.0005       8.5178       359.994       29.9780       7.2687     -0.001294
         26.            0.       1.80352       9.6527       10.0005       8.5092       359.994       29.8487       7.2186     -0.001384
         27.            0.       1.80461       9.6532       10.0005       8.5004       359.994       29.7197       7.1685     -0.001477
         28.            0.       1.80576       9.6537       10.0005       8.4913       359.994       29.5912       7.1184     -0.001573
         29.            0.       1.80688       9.6542       10.0005       8.4819       359.994       29.4552       7.0683     -0.001671
         30.            0.       1.80838       9.6548       10.0005       8.4725       359.994       29.3162       7.0082     -0.001791
         31.            0.       1.80973       9.6553       10.0005       8.4623       359.994       29.1847       6.9581     -0.001895
         32.            0.       1.81119       9.6559       10.0005       8.4516       359.994       29.0555       6.9080     -0.002001
         33.            0.       1.81273       9.6565       10.0005       8.4405       359.994       28.9273       6.8579     -0.002109
         34.            0.       1.81418       9.6570       10.0005       8.4291       359.994       28.7828       6.8078     -0.002221
         35.            0.       1.81598       9.6577       10.0005       8.4179       359.994       28.5902       6.7376     -0.002381
         36.            0.       1.81870       9.6586       10.0005       8.4073       359.994       28.3713       6.6374     -0.002616
         37.            0.       1.82115       9.6594       10.0005       8.3954       359.995       28.1582       6.5472     -0.002832
         38.            0.       1.82404       9.6603       10.0005       8.3829       359.995       27.9365       6.4469     -0.003081
         39.            0.       1.82719       9.6612       10.0005       8.3692       359.995       27.7197       6.3467     -0.003340
         40.            0.       1.83019       9.6621       10.0005       8.3539       359.995       27.5039       6.2564     -0.003584
         41.            0.       1.83372       9.6631       10.0005       8.3378       359.995       27.2799       6.1561     -0.003866
         42.            0.       1.83744       9.6642       10.0005       8.3207       359.995       27.0517       6.0558     -0.004162
         43.            0.       1.84138       9.6654       10.0005       8.3023       359.995       26.8225       5.9555     -0.004471
         44.            0.       1.84553       9.6666       10.0005       8.2828       359.995       26.5924       5.8552     -0.004795
         45.            0.       1.84991       9.6678       10.0005       8.2620       359.996       26.3611       5.7549     -0.005134
         46.            0.       1.85459       9.6692       10.0005       8.2399       359.996       26.1386       5.6545     -0.005490
         47.            0.       1.85904       9.6705       10.0005       8.2162       359.997       25.9186       5.5642     -0.005825
         48.            0.       1.86413       9.6720       10.0005       8.1916       359.997       25.6908       5.4638     -0.006214
         49.            0.       1.86945       9.6735       10.0005       8.1657       359.998       25.4601       5.3634     -0.006622
         50.            0.       1.87500       9.6751       10.0005       8.1385       359.998       25.2288       5.2629     -0.007051
         51.            0.       1.88077       9.6767       10.0005       8.1098       359.999       24.9989       5.1625     -0.007499
         52.            0.       1.88676       9.6785       10.0005       8.0798       359.999       24.7810       5.0620     -0.007965
         53.            0.       1.89266       9.6803       10.0005       8.0495       359.998       24.5742       4.9616     -0.008435
         54.            0.       1.89868       9.6822       10.0005       8.0181       359.997       24.3697       4.8611     -0.008924
         55.            0.       1.90506       9.6841       10.0005       7.9857       359.993       24.2020       4.7606     -0.009428
         56.            0.       1.90953       9.6859       10.0005       7.9497       359.989       24.1529       4.7103     -0.009666
         57.            0.       1.90943       9.6872       10.0005       7.9079       359.987       24.2432       4.7606     -0.009359
```

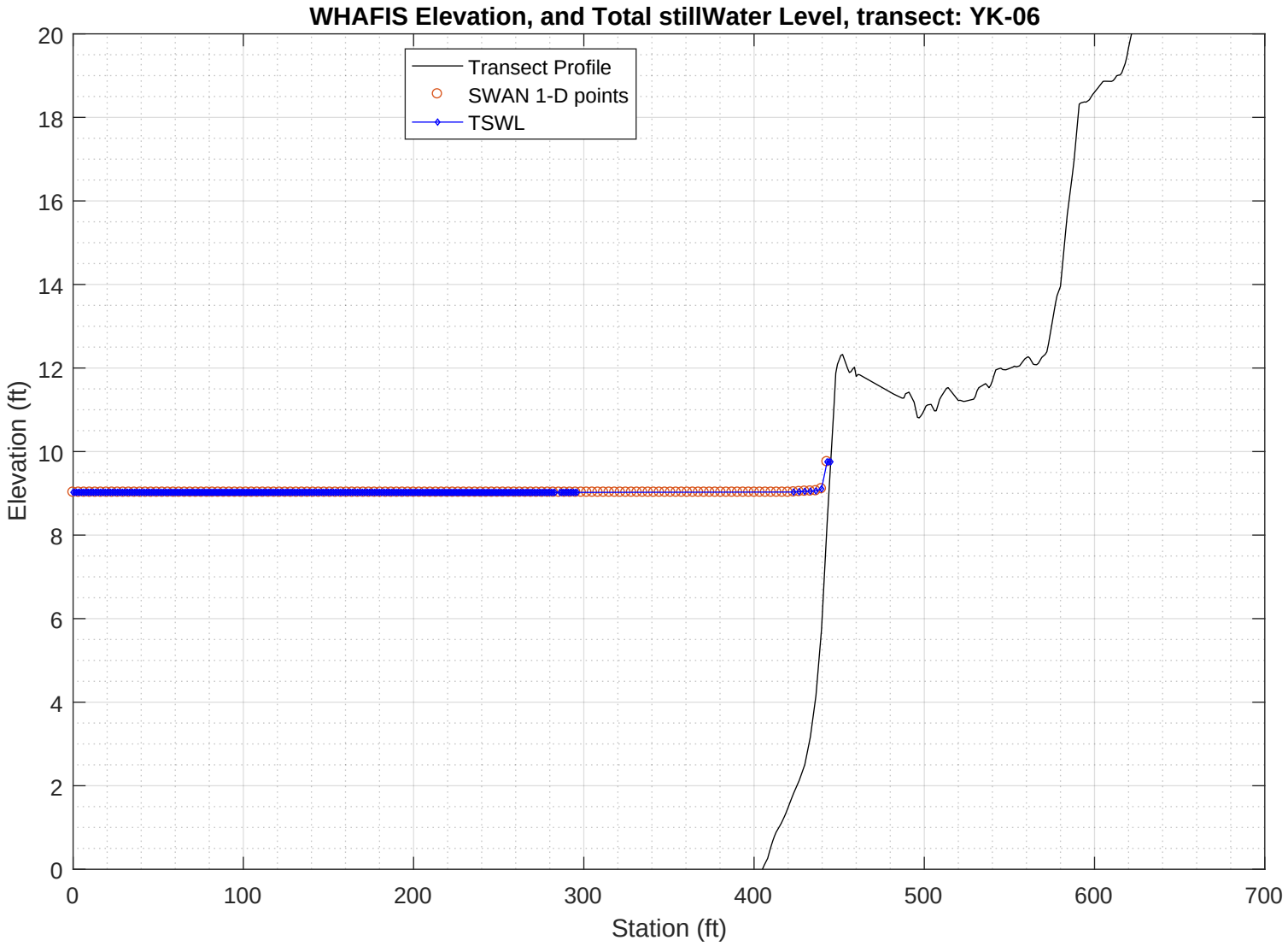
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 58. | 0. | 1.90967 | 9.6883 | 10.0005 | 7.8688 | 359.988 | 24.3702 | 4.8109 | -0.009063 |
| 59. | 0. | 1.91061 | 9.6893 | 10.0005 | 7.8331 | 359.987 | 24.5128 | 4.8512 | -0.008830 |
| 60. | 0. | 1.91116 | 9.6901 | 10.0005 | 7.7991 | 359.988 | 24.6741 | 4.9014 | -0.008555 |
| 61. | 0. | 1.91169 | 9.6908 | 10.0005 | 7.7676 | 359.988 | 24.8318 | 4.9517 | -0.008291 |
| 62. | 0. | 1.91270 | 9.6915 | 10.0005 | 7.7390 | 359.989 | 24.9891 | 4.9919 | -0.008083 |
| 63. | 0. | 1.91330 | 9.6920 | 10.0005 | 7.7115 | 359.990 | 25.1592 | 5.0422 | -0.007836 |
| 64. | 0. | 1.91385 | 9.6924 | 10.0005 | 7.6857 | 359.990 | 25.3216 | 5.0924 | -0.007597 |
| 65. | 0. | 1.91485 | 9.6928 | 10.0005 | 7.6623 | 359.991 | 25.4811 | 5.1326 | -0.007410 |
| 66. | 0. | 1.91537 | 9.6931 | 10.0005 | 7.6393 | 359.992 | 25.6394 | 5.1828 | -0.007184 |
| 67. | 0. | 1.91634 | 9.6934 | 10.0005 | 7.6184 | 359.994 | 25.7955 | 5.2230 | -0.007007 |
| 68. | 0. | 1.91694 | 9.6935 | 10.0005 | 7.5978 | 359.995 | 25.9634 | 5.2732 | -0.006792 |
| 69. | 0. | 1.91713 | 9.6937 | 10.0005 | 7.5784 | 359.998 | 26.0852 | 5.3234 | -0.006583 |
| 70. | 0. | 1.91795 | 9.6939 | 10.0005 | 7.5629 | 0.001 | 26.0846 | 5.3335 | -0.006543 |
| 71. | 0. | 1.92037 | 9.6944 | 10.0005 | 7.5526 | 0.004 | 25.9815 | 5.2833 | -0.006750 |
| 72. | 0. | 1.92282 | 9.6949 | 10.0005 | 7.5429 | 0.007 | 25.8328 | 5.2230 | -0.007001 |
| 73. | 0. | 1.92516 | 9.6954 | 10.0005 | 7.5331 | 0.009 | 25.6719 | 5.1627 | -0.007257 |
| 74. | 0. | 1.92752 | 9.6960 | 10.0005 | 7.5228 | 0.011 | 25.5094 | 5.1025 | -0.007518 |
| 75. | 0. | 1.93002 | 9.6965 | 10.0005 | 7.5122 | 0.013 | 25.3580 | 5.0422 | -0.007785 |
| 76. | 0. | 1.93214 | 9.6971 | 10.0005 | 7.5004 | 0.015 | 25.2129 | 4.9920 | -0.008011 |
| 77. | 0. | 1.93466 | 9.6977 | 10.0005 | 7.4892 | 0.016 | 25.0671 | 4.9317 | -0.008286 |
| 78. | 0. | 1.93729 | 9.6983 | 10.0005 | 7.4777 | 0.017 | 24.9278 | 4.8714 | -0.008567 |
| 79. | 0. | 1.93962 | 9.6989 | 10.0005 | 7.4649 | 0.018 | 24.8086 | 4.8212 | -0.008802 |
| 80. | 0. | 1.94142 | 9.6994 | 10.0005 | 7.4514 | 0.017 | 24.6968 | 4.7810 | -0.008983 |
| 81. | 0. | 1.94368 | 9.7000 | 10.0005 | 7.4385 | 0.017 | 24.5765 | 4.7308 | -0.009221 |
| 82. | 0. | 1.94598 | 9.7007 | 10.0005 | 7.4254 | 0.016 | 24.4609 | 4.6805 | -0.009462 |
| 83. | 0. | 1.94775 | 9.7012 | 10.0005 | 7.4112 | 0.015 | 24.3460 | 4.6404 | -0.009648 |
| 84. | 0. | 1.95008 | 9.7019 | 10.0005 | 7.3971 | 0.011 | 24.2296 | 4.5901 | -0.009891 |
| 85. | 0. | 1.95202 | 9.7025 | 10.0005 | 7.3808 | 0.009 | 24.1125 | 4.5499 | -0.010078 |
| 86. | 0. | 1.95436 | 9.7031 | 10.0005 | 7.3650 | 0.007 | 23.9846 | 4.4997 | -0.010322 |
| 87. | 0. | 1.95681 | 9.7037 | 10.0005 | 7.3493 | 0.005 | 23.8869 | 4.4494 | -0.010561 |
| 88. | 0. | 1.95737 | 9.7042 | 10.0005 | 7.3300 | 0.003 | 23.8440 | 4.4395 | -0.010543 |
| 89. | 0. | 1.95743 | 9.7046 | 10.0005 | 7.3106 | 0.001 | 23.8281 | 4.4395 | -0.010456 |
| 90. | 0. | 1.95735 | 9.7049 | 10.0005 | 7.2916 | 359.999 | 23.7947 | 4.4396 | -0.010371 |
| 91. | 0. | 1.95829 | 9.7054 | 10.0005 | 7.2768 | 359.993 | 23.7118 | 4.4095 | -0.010471 |
| 92. | 0. | 1.96017 | 9.7059 | 10.0005 | 7.2632 | 359.988 | 23.6014 | 4.3593 | -0.010699 |
| 93. | 0. | 1.96110 | 9.7064 | 10.0005 | 7.2494 | 359.989 | 23.4838 | 4.3191 | -0.010851 |
| 94. | 0. | 1.96232 | 9.7070 | 10.0005 | 7.2368 | 359.993 | 23.3611 | 4.2689 | -0.011059 |
| 95. | 0. | 1.96238 | 9.7074 | 10.0005 | 7.2250 | 359.993 | 23.2386 | 4.2288 | -0.011179 |
| 96. | 0. | 1.96303 | 9.7080 | 10.0005 | 7.2130 | 359.984 | 23.1125 | 4.1786 | -0.011364 |
| 97. | 0. | 1.96265 | 9.7085 | 10.0005 | 7.2008 | 359.976 | 22.9883 | 4.1385 | -0.011458 |
| 98. | 0. | 1.96231 | 9.7090 | 10.0005 | 7.1911 | 359.973 | 22.8621 | 4.0884 | -0.011603 |
| 99. | 0. | 1.96105 | 9.7095 | 10.0005 | 7.1805 | 359.970 | 22.7359 | 4.0483 | -0.011655 |
| 100. | 0. | 1.95994 | 9.7100 | 10.0005 | 7.1714 | 359.964 | 22.6021 | 3.9982 | -0.011760 |
| 101. | 0. | 1.95792 | 9.7105 | 10.0005 | 7.1614 | 359.957 | 22.4787 | 3.9582 | -0.011766 |
| 102. | 0. | 1.95611 | 9.7110 | 10.0005 | 7.1528 | 359.953 | 22.3528 | 3.9082 | -0.011827 |
| 103. | 0. | 1.95387 | 9.7114 | 10.0005 | 7.1403 | 359.962 | 22.2271 | 3.8682 | -0.011799 |
| 104. | 0. | 1.95208 | 9.7119 | 10.0005 | 7.1278 | 359.950 | 22.1021 | 3.8182 | -0.011832 |
| 105. | 0. | 1.94940 | 9.7124 | 10.0005 | 7.1134 | 359.931 | 21.9763 | 3.7782 | -0.011756 |
| 106. | 0. | 1.94703 | 9.7129 | 10.0005 | 7.0997 | 359.907 | 21.8471 | 3.7283 | -0.011740 |
| 107. | 0. | 1.94363 | 9.7134 | 10.0005 | 7.0843 | 359.882 | 21.7183 | 3.6884 | -0.011604 |
| 108. | 0. | 1.94032 | 9.7139 | 10.0005 | 7.0706 | 359.856 | 21.5908 | 3.6385 | -0.011519 |
| 109. | 0. | 1.93579 | 9.7143 | 10.0005 | 7.0559 | 359.833 | 21.4638 | 3.5987 | -0.011300 |
| 110. | 0. | 1.93153 | 9.7148 | 10.0005 | 7.0419 | 359.810 | 21.3341 | 3.5489 | -0.011140 |
| 111. | 0. | 1.92624 | 9.7153 | 10.0005 | 7.0256 | 359.785 | 21.2056 | 3.5092 | -0.010845 |
| 112. | 0. | 1.92178 | 9.7158 | 10.0005 | 7.0073 | 359.770 | 21.0767 | 3.4594 | -0.010627 |
| 113. | 0. | 1.91633 | 9.7163 | 10.0005 | 6.9861 | 359.761 | 20.9487 | 3.4197 | -0.010271 |
| 114. | 0. | 1.91117 | 9.7168 | 10.0005 | 6.9653 | 359.754 | 20.8196 | 3.3700 | -0.009972 |
| 115. | 0. | 1.90473 | 9.7172 | 10.0005 | 6.9427 | 359.752 | 20.6911 | 3.3305 | -0.009518 |
| 116. | 0. | 1.89832 | 9.7178 | 10.0005 | 6.9219 | 359.758 | 20.5601 | 3.2809 | -0.009115 |
| 117. | 0. | 1.89021 | 9.7182 | 10.0005 | 6.9011 | 359.764 | 20.4324 | 3.2415 | -0.008532 |
| 118. | 0. | 1.88235 | 9.7187 | 10.0005 | 6.8810 | 359.774 | 20.2988 | 3.1920 | -0.008012 |
| 119. | 0. | 1.87333 | 9.7191 | 10.0005 | 6.8584 | 359.788 | 20.1628 | 3.1527 | -0.007329 |
| 120. | 0. | 1.86546 | 9.7195 | 10.0005 | 6.8306 | 359.818 | 19.9975 | 3.1033 | -0.006741 |
| 121. | 0. | 1.85716 | 9.7199 | 10.0005 | 6.8089 | 359.861 | 19.7548 | 3.0337 | -0.006303 |
| 122. | 0. | 1.85153 | 9.7204 | 10.0005 | 6.7956 | 359.914 | 19.4396 | 2.9035 | -0.006475 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 123. | 0. | 1.84153 | 9.7206 | 10.0005 | 6.7776 | 359.969 | 19.1222 | 2.7939 | -0.006126 |
| 124. | 0. | 1.82808 | 9.7207 | 10.0005 | 6.7558 | 0.024 | 18.7906 | 2.6946 | -0.005366 |
| 125. | 0. | 1.81573 | 9.7205 | 10.0005 | 6.7259 | 0.066 | 18.4242 | 2.5752 | -0.004753 |
| 126. | 0. | 1.80032 | 9.7199 | 10.0005 | 6.6899 | 0.135 | 18.0929 | 2.4663 | -0.003698 |
| 127. | 0. | 1.77916 | 9.7190 | 10.0005 | 6.6430 | 0.212 | 17.7766 | 2.3983 | -0.001662 |
| 128. | 0. | 1.76102 | 9.7164 | 10.0005 | 6.5887 | 0.347 | 17.4364 | 2.3000 | -0.000013 |
| 129. | 0. | 1.73827 | 9.7148 | 10.0005 | 6.5419 | 0.485 | 17.0927 | 2.2021 | 0.002124 |
| 130. | 0. | 1.71347 | 9.7149 | 10.0005 | 6.4866 | 0.664 | 16.7218 | 2.1046 | 0.004642 |
| 131. | 0. | 1.68625 | 9.7155 | 10.0005 | 6.4302 | 0.881 | 16.2321 | 1.9974 | 0.007387 |
| 132. | 0. | 1.66384 | 9.7161 | 10.0005 | 6.3917 | 1.147 | 15.4725 | 1.7985 | 0.008545 |
| 133. | 0. | 1.62453 | 9.7198 | 10.0005 | 6.3902 | 1.125 | 14.2885 | 1.4907 | 0.010662 |
| 134. | 0. | 1.50876 | 9.7350 | 10.0005 | 6.5137 | 0.565 | 12.6585 | 1.0255 | 0.025526 |
| 135. | 0. | 0.68625 | 9.9861 | 10.0005 | 7.9534 | 356.696 | 15.3298 | 0.4528 | 0.222755 |

PART 3: WHAFIS

WHAFIS input:  YK-06.dat
WHAFIS output: YK-06.out

PART 3 COMPLETE


WHAFIS Elevation, and Total stillWater Level, transect: YK-06
Transect Profile
SWAN 1-D points
TSWL
Elevation (ft)
Station (ft)
0
2
4
6
8
10
12
14
16
18
20
0
100
200
300
400
500
600
700

WAVE HEIGHT COMPUTATIONS FOR FLOOD INSURANCE STUDIES (WHAFIS VERSION 4.0G, 08_2007)
Executed on: Thu Feb  6 16:14:34 2020
Input file:  C:\Users\shayward\Desktop\Kittery\T2\3_whafis\whafis4\YK-06.dat
Output file: C:\Users\shayward\Desktop\Kittery\T2\3_whafis\whafis4\YK-06.out

header

THIS IS A 100-YEAR CASE
THE FOLLOWING NON-DEFAULT WIND SPEEDS ARE BEING USED
WINDIF  56.14  WINDOF  56.14  WINDVH  60.00

PART1 INPUT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| IE | 0.000 | -16.829 | 1.000 | 1.000 | 9.024 | 9.375 | 9.618 | 56.140 | -0.033 | 0.000 |
| OF | 1.000 | -16.862 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| OF | 2.000 | -16.894 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| OF | 3.000 | -16.927 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| OF | 4.000 | -16.959 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| OF | 5.000 | -16.992 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| OF | 6.000 | -17.024 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| OF | 7.000 | -17.056 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| OF | 8.000 | -17.089 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| OF | 9.000 | -17.120 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.030 | 0.000 |
| OF | 10.000 | -17.148 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 11.000 | -17.175 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 12.000 | -17.203 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 13.000 | -17.230 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 14.000 | -17.258 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 15.000 | -17.285 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 16.000 | -17.313 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 17.000 | -17.340 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 18.000 | -17.368 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 19.000 | -17.395 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 20.000 | -17.423 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 21.000 | -17.450 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 22.000 | -17.478 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 23.000 | -17.505 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 24.000 | -17.533 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 25.000 | -17.560 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 26.000 | -17.588 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 27.000 | -17.615 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 28.000 | -17.643 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| OF | 29.000 | -17.670 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.011 | 0.000 |
| OF | 30.000 | -17.621 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.053 | 0.000 |
| OF | 31.000 | -17.564 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 32.000 | -17.506 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 33.000 | -17.449 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.057 | 0.000 |
| OF | 34.000 | -17.392 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 35.000 | -17.334 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 36.000 | -17.277 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 37.000 | -17.219 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 38.000 | -17.162 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.057 | 0.000 |
| OF | 39.000 | -17.105 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 40.000 | -17.047 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 41.000 | -16.990 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 42.000 | -16.932 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 43.000 | -16.875 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.057 | 0.000 |
| OF | 44.000 | -16.818 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 45.000 | -16.760 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 46.000 | -16.703 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 47.000 | -16.645 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 48.000 | -16.588 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.056 | 0.000 |
| OF | 49.000 | -16.533 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.054 | 0.000 |
| OF | 50.000 | -16.481 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 51.000 | -16.430 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 52.000 | -16.378 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 53.000 | -16.327 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 54.000 | -16.275 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 55.000 | -16.224 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 56.000 | -16.172 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 57.000 | -16.121 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 58.000 | -16.069 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 59.000 | -16.018 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 60.000 | -15.966 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 61.000 | -15.915 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 62.000 | -15.863 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 63.000 | -15.812 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 | 0.000 |
| OF | 64.000 | -15.761 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 65.000 | -15.709 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 66.000 | -15.658 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 67.000 | -15.606 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 68.000 | -15.555 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 69.000 | -15.503 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 70.000 | -15.452 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 71.000 | -15.400 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 72.000 | -15.349 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 73.000 | -15.297 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 74.000 | -15.246 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 75.000 | -15.194 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 76.000 | -15.143 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 77.000 | -15.091 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 78.000 | -15.040 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 | 0.000 |
| OF | 79.000 | -14.989 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 80.000 | -14.937 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 81.000 | -14.886 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 82.000 | -14.834 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 83.000 | -14.783 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 84.000 | -14.731 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 85.000 | -14.680 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 86.000 | -14.628 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 87.000 | -14.577 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 88.000 | -14.525 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 89.000 | -14.474 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 90.000 | -14.422 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 91.000 | -14.371 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 92.000 | -14.319 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 93.000 | -14.268 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 | 0.000 |
| OF | 94.000 | -14.217 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 95.000 | -14.165 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 96.000 | -14.114 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 97.000 | -14.062 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 98.000 | -14.011 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 99.000 | -13.959 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 100.000 | -13.908 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 101.000 | -13.856 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 102.000 | -13.805 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 103.000 | -13.753 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 104.000 | -13.702 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 105.000 | -13.650 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 106.000 | -13.599 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 107.000 | -13.547 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 108.000 | -13.496 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 | 0.000 |
| OF | 109.000 | -13.445 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 110.000 | -13.393 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 111.000 | -13.342 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 112.000 | -13.290 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| OF | 113.000 | -13.239 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.062 | 0.000 |
| OF | 114.000 | -13.167 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.084 | 0.000 |
| OF | 115.000 | -13.071 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 116.000 | -12.974 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 117.000 | -12.877 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 118.000 | -12.780 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 119.000 | -12.684 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 120.000 | -12.587 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 121.000 | -12.490 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 122.000 | -12.393 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 123.000 | -12.297 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 124.000 | -12.200 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 125.000 | -12.103 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 126.000 | -12.007 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 127.000 | -11.910 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 128.000 | -11.813 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 129.000 | -11.716 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 130.000 | -11.620 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 131.000 | -11.523 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 132.000 | -11.426 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 133.000 | -11.329 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 134.000 | -11.232 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| OF | 135.000 | -11.134 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.098 | 0.000 |
| OF | 136.000 | -11.035 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 137.000 | -10.936 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 138.000 | -10.837 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 139.000 | -10.738 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 140.000 | -10.639 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 141.000 | -10.540 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 142.000 | -10.441 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 143.000 | -10.342 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 144.000 | -10.243 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 145.000 | -10.144 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 146.000 | -10.045 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.098 | 0.000 |
| OF | 147.000 | -9.947 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.098 | 0.000 |
| OF | 148.000 | -9.848 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 149.000 | -9.749 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 150.000 | -9.650 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 151.000 | -9.551 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 152.000 | -9.452 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 153.000 | -9.353 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 154.000 | -9.254 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 155.000 | -9.156 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 156.000 | -9.057 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 157.000 | -8.958 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 158.000 | -8.859 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 159.000 | -8.760 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 160.000 | -8.661 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 161.000 | -8.562 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 162.000 | -8.463 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 163.000 | -8.364 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 164.000 | -8.265 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 165.000 | -8.166 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 166.000 | -8.067 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 167.000 | -7.968 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 168.000 | -7.870 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 169.000 | -7.771 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 170.000 | -7.672 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 171.000 | -7.573 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 172.000 | -7.474 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 173.000 | -7.375 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 174.000 | -7.276 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 175.000 | -7.177 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 176.000 | -7.078 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 177.000 | -6.979 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 178.000 | -6.880 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 179.000 | -6.781 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 180.000 | -6.682 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 181.000 | -6.583 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| OF | 182.000 | -6.485 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.073 | 0.000 |
| OF | 183.000 | -6.437 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| OF | 184.000 | -6.483 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 185.000 | -6.530 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 186.000 | -6.576 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 187.000 | -6.623 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 188.000 | -6.669 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 189.000 | -6.716 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 190.000 | -6.763 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 191.000 | -6.809 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 192.000 | -6.856 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 193.000 | -6.902 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 194.000 | -6.949 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 195.000 | -6.995 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 196.000 | -7.042 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 197.000 | -7.089 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 198.000 | -7.135 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 199.000 | -7.182 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 200.000 | -7.228 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 201.000 | -7.275 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 202.000 | -7.321 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 203.000 | -7.368 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 204.000 | -7.414 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 205.000 | -7.461 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 206.000 | -7.508 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 207.000 | -7.554 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 208.000 | -7.601 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 209.000 | -7.647 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 210.000 | -7.694 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 211.000 | -7.740 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 212.000 | -7.787 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 213.000 | -7.833 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 214.000 | -7.880 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 215.000 | -7.926 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 216.000 | -7.973 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 217.000 | -8.020 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 218.000 | -8.066 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 219.000 | -8.113 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 220.000 | -8.159 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 221.000 | -8.206 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 222.000 | -8.252 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 223.000 | -8.299 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 224.000 | -8.345 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 225.000 | -8.392 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 226.000 | -8.439 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 227.000 | -8.485 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| OF | 228.000 | -8.532 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.030 | 0.000 |
| OF | 229.000 | -8.545 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.022 | 0.000 |
| OF | 230.000 | -8.488 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 231.000 | -8.430 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 232.000 | -8.372 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 233.000 | -8.314 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 234.000 | -8.257 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 235.000 | -8.199 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 236.000 | -8.141 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 237.000 | -8.083 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 238.000 | -8.025 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 239.000 | -7.968 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 240.000 | -7.910 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 241.000 | -7.852 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 242.000 | -7.794 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 243.000 | -7.736 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 244.000 | -7.678 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 245.000 | -7.621 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 246.000 | -7.563 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 247.000 | -7.505 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 248.000 | -7.447 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 249.000 | -7.389 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 250.000 | -7.332 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 251.000 | -7.274 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 252.000 | -7.216 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 253.000 | -7.158 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 254.000 | -7.100 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 255.000 | -7.043 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| OF | 256.000 | -6.985 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.057 | 0.000 |
| OF | 257.000 | -6.928 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 | 0.000 |
| OF | 258.000 | -6.882 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 259.000 | -6.836 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 260.000 | -6.790 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 261.000 | -6.745 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 262.000 | -6.699 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 263.000 | -6.653 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 264.000 | -6.607 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 265.000 | -6.561 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 266.000 | -6.515 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 267.000 | -6.470 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 268.000 | -6.424 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 269.000 | -6.378 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 270.000 | -6.332 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 271.000 | -6.286 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 272.000 | -6.240 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 273.000 | -6.194 | 0.000 | 9.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 274.000 | -6.149 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 275.000 | -6.103 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 276.000 | -6.057 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 277.000 | -6.011 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 278.000 | -5.965 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 279.000 | -5.920 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 280.000 | -5.874 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 281.000 | -5.828 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 282.000 | -5.782 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 283.000 | -5.736 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| OF | 286.000 | -5.599 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.037 | 0.000 |
| OF | 287.000 | -5.588 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.005 | 0.000 |
| OF | 288.000 | -5.588 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| OF | 289.000 | -5.587 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| OF | 290.000 | -5.587 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| OF | 291.000 | -5.586 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| OF | 292.000 | -5.586 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| OF | 293.000 | -5.585 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| OF | 294.000 | -5.584 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| OF | 295.000 | -5.584 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| OF | 296.000 | -5.583 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| IF | 423.200 | 1.818 | 0.000 | 9.031 | 0.000 | 0.000 | 0.000 | 0.000 | 0.059 | 0.000 |
| IF | 426.500 | 2.124 | 0.000 | 9.039 | 0.000 | 0.000 | 0.000 | 0.000 | 0.103 | 0.000 |
| IF | 429.800 | 2.501 | 0.000 | 9.048 | 0.000 | 0.000 | 0.000 | 0.000 | 0.158 | 0.000 |
| IF | 433.100 | 3.166 | 0.000 | 9.052 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.000 |
| IF | 436.400 | 4.152 | 0.000 | 9.059 | 0.000 | 0.000 | 0.000 | 0.000 | 0.396 | 0.000 |
| IF | 439.600 | 5.739 | 0.000 | 9.107 | 0.000 | 0.000 | 0.000 | 0.000 | 0.634 | 0.000 |
| IF | 442.900 | 8.273 | 0.000 | 9.754 | 0.000 | 0.000 | 0.000 | 0.000 | 0.748 | 0.000 |
| IF | 444.000 | 9.031 | 0.000 | 9.754 | 0.000 | 0.000 | 0.000 | 0.000 | 0.705 | 0.000 |
| IF | 445.000 | 9.754 | 0.000 | 9.754 | 0.000 | 0.000 | 0.000 | 0.000 | 0.723 | 0.000 |
| ET | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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| | END STATION | END ELEVATION | FETCH LENGTH | SURGE ELEV 10-YEAR | SURGE ELEV 100-YEAR | INITIAL WAVE HEIGHT | INITIAL W. PERIOD | | BOTTOM SLOPE | AVERAGE A-ZONES |
|---|---|---|---|---|---|---|---|---|---|---|
| IE | 0.000 | -16.829 | 1.000 | 1.000 | 9.024 | 9.375 | 9.618 | 56.140 | -0.033 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 1.000 | -16.862 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 2.000 | -16.894 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 3.000 | -16.927 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 4.000 | -16.959 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |

| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 5.000 | -16.992 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 6.000 | -17.024 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 7.000 | -17.056 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 8.000 | -17.089 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.032 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 9.000 | -17.120 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.030 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 10.000 | -17.148 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 11.000 | -17.175 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 12.000 | -17.203 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 13.000 | -17.230 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 14.000 | -17.258 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 15.000 | -17.285 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 16.000 | -17.313 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 17.000 | -17.340 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 18.000 | -17.368 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 19.000 | -17.395 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 20.000 | -17.423 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 21.000 | -17.450 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 22.000 | -17.478 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 23.000 | -17.505 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 24.000 | -17.533 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 25.000 | -17.560 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 26.000 | -17.588 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 27.000 | -17.615 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 28.000 | -17.643 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | -0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 29.000 | -17.670 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.011 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 30.000 | -17.621 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.053 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 31.000 | -17.564 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 32.000 | -17.506 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 33.000 | -17.449 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.057 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 34.000 | -17.392 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 35.000 | -17.334 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 36.000 | -17.277 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 37.000 | -17.219 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 38.000 | -17.162 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.057 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 39.000 | -17.105 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 40.000 | -17.047 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 41.000 | -16.990 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 42.000 | -16.932 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 43.000 | -16.875 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.057 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 44.000 | -16.818 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 45.000 | -16.760 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 46.000 | -16.703 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 47.000 | -16.645 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 48.000 | -16.588 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.056 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 49.000 | -16.533 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.054 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 50.000 | -16.481 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 51.000 | -16.430 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 52.000 | -16.378 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 53.000 | -16.327 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 54.000 | -16.275 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 55.000 | -16.224 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 56.000 | -16.172 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 57.000 | -16.121 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 58.000 | -16.069 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 59.000 | -16.018 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 60.000 | -15.966 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 61.000 | -15.915 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 62.000 | -15.863 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 63.000 | -15.812 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 64.000 | -15.761 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 65.000 | -15.709 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 66.000 | -15.658 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 67.000 | -15.606 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 68.000 | -15.555 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 69.000 | -15.503 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 70.000 | -15.452 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 71.000 | -15.400 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 72.000 | -15.349 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 73.000 | -15.297 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 74.000 | -15.246 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 75.000 | -15.194 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 76.000 | -15.143 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 77.000 | -15.091 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 78.000 | -15.040 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.051 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 79.000 | -14.989 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 80.000 | -14.937 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 81.000 | -14.886 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 82.000 | -14.834 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 83.000 | -14.783 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 84.000 | -14.731 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 85.000 | -14.680 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 86.000 | -14.628 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 87.000 | -14.577 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 88.000 | -14.525 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 89.000 | -14.474 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 90.000 | -14.422 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 91.000 | -14.371 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 92.000 | -14.319 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 93.000 | -14.268 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.051 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 94.000 | -14.217 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 95.000 | -14.165 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 96.000 | -14.114 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 97.000 | -14.062 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 98.000 | -14.011 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 99.000 | -13.959 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 100.000 | -13.908 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 101.000 | -13.856 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 102.000 | -13.805 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 103.000 | -13.753 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 104.000 | -13.702 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 105.000 | -13.650 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 106.000 | -13.599 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 107.000 | -13.547 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 108.000 | -13.496 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.051 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 109.000 | -13.445 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 110.000 | -13.393 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 111.000 | -13.342 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 112.000 | -13.290 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 113.000 | -13.239 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.062 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 114.000 | -13.167 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.084 | 0.000 |

| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 115.000 | -13.071 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 116.000 | -12.974 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 117.000 | -12.877 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 118.000 | -12.780 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 119.000 | -12.684 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 120.000 | -12.587 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 121.000 | -12.490 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 122.000 | -12.393 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 123.000 | -12.297 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 124.000 | -12.200 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 125.000 | -12.103 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 126.000 | -12.007 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 127.000 | -11.910 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 128.000 | -11.813 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 129.000 | -11.716 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 130.000 | -11.620 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 131.000 | -11.523 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 132.000 | -11.426 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 133.000 | -11.329 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 134.000 | -11.232 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.097 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 135.000 | -11.134 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.098 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 136.000 | -11.035 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 137.000 | -10.936 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 138.000 | -10.837 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 139.000 | -10.738 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 140.000 | -10.639 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 141.000 | -10.540 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 142.000 | -10.441 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 143.000 | -10.342 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 144.000 | -10.243 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 145.000 | -10.144 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 146.000 | -10.045 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.098 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 147.000 | -9.947 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.098 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 148.000 | -9.848 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 149.000 | -9.749 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 150.000 | -9.650 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 151.000 | -9.551 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 152.000 | -9.452 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 153.000 | -9.353 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 154.000 | -9.254 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 155.000 | -9.156 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 156.000 | -9.057 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 157.000 | -8.958 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 158.000 | -8.859 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 159.000 | -8.760 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 160.000 | -8.661 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 161.000 | -8.562 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 162.000 | -8.463 | 0.000 | 9.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 163.000 | -8.364 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 164.000 | -8.265 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 165.000 | -8.166 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 166.000 | -8.067 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 167.000 | -7.968 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 168.000 | -7.870 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 169.000 | -7.771 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 170.000 | -7.672 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 171.000 | -7.573 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 172.000 | -7.474 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 173.000 | -7.375 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 174.000 | -7.276 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 175.000 | -7.177 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 176.000 | -7.078 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 177.000 | -6.979 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 178.000 | -6.880 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 179.000 | -6.781 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 180.000 | -6.682 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 181.000 | -6.583 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.099 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 182.000 | -6.485 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.073 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 183.000 | -6.437 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 184.000 | -6.483 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 185.000 | -6.530 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 186.000 | -6.576 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 187.000 | -6.623 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 188.000 | -6.669 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 189.000 | -6.716 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 190.000 | -6.763 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 191.000 | -6.809 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 192.000 | -6.856 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 193.000 | -6.902 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 194.000 | -6.949 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 195.000 | -6.995 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 196.000 | -7.042 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 197.000 | -7.089 | 0.000 | 9.023 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 198.000 | -7.135 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 199.000 | -7.182 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 200.000 | -7.228 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 201.000 | -7.275 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 202.000 | -7.321 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 203.000 | -7.368 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 204.000 | -7.414 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 205.000 | -7.461 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 206.000 | -7.508 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 207.000 | -7.554 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 208.000 | -7.601 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 209.000 | -7.647 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 210.000 | -7.694 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 211.000 | -7.740 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 212.000 | -7.787 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 213.000 | -7.833 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 214.000 | -7.880 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 215.000 | -7.926 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 216.000 | -7.973 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 217.000 | -8.020 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 218.000 | -8.066 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 219.000 | -8.113 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 220.000 | -8.159 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 221.000 | -8.206 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 222.000 | -8.252 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 223.000 | -8.299 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | | SLOPE | A-ZONES |
| OF | 224.000 | -8.345 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | | -0.047 | 0.000 |

| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 225.000 | -8.392 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 226.000 | -8.439 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 227.000 | -8.485 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.047 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 228.000 | -8.532 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | -0.030 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 229.000 | -8.545 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.022 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 230.000 | -8.488 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 231.000 | -8.430 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 232.000 | -8.372 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 233.000 | -8.314 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 234.000 | -8.257 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 235.000 | -8.199 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 236.000 | -8.141 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 237.000 | -8.083 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 238.000 | -8.025 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 239.000 | -7.968 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 240.000 | -7.910 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 241.000 | -7.852 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 242.000 | -7.794 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 243.000 | -7.736 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 244.000 | -7.678 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 245.000 | -7.621 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 246.000 | -7.563 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 247.000 | -7.505 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 248.000 | -7.447 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 249.000 | -7.389 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 250.000 | -7.332 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 251.000 | -7.274 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 252.000 | -7.216 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 253.000 | -7.158 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 254.000 | -7.100 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 255.000 | -7.043 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 256.000 | -6.985 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.057 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 257.000 | -6.928 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 258.000 | -6.882 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 259.000 | -6.836 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 260.000 | -6.790 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 261.000 | -6.745 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 262.000 | -6.699 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 263.000 | -6.653 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 264.000 | -6.607 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 265.000 | -6.561 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 266.000 | -6.515 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 267.000 | -6.470 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 268.000 | -6.424 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 269.000 | -6.378 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 270.000 | -6.332 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 271.000 | -6.286 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 272.000 | -6.240 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 273.000 | -6.194 | 0.000 | 9.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 274.000 | -6.149 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 275.000 | -6.103 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 276.000 | -6.057 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 277.000 | -6.011 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 278.000 | -5.965 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 279.000 | -5.920 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 280.000 | -5.874 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 281.000 | -5.828 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 282.000 | -5.782 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 283.000 | -5.736 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 286.000 | -5.599 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.037 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 287.000 | -5.588 | 0.000 | 9.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.005 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 288.000 | -5.588 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 289.000 | -5.587 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 290.000 | -5.587 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 291.000 | -5.586 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 292.000 | -5.586 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 293.000 | -5.585 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 294.000 | -5.584 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 295.000 | -5.584 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 296.000 | -5.583 | 0.000 | 9.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.058 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 423.200 | 1.818 | 0.000 | 9.031 | 0.000 | 0.000 | 0.000 | 0.000 | 0.059 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 426.500 | 2.124 | 0.000 | 9.039 | 0.000 | 0.000 | 0.000 | 0.000 | 0.103 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 429.800 | 2.501 | 0.000 | 9.048 | 0.000 | 0.000 | 0.000 | 0.000 | 0.158 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |

| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
|---|---|---|---|---|---|---|---|---|---|---|
| IF | 433.100 | 3.166 | 0.000 | 9.052 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 436.400 | 4.152 | 0.000 | 9.059 | 0.000 | 0.000 | 0.000 | 0.000 | 0.396 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 439.600 | 5.739 | 0.000 | 9.107 | 0.000 | 0.000 | 0.000 | 0.000 | 0.634 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 442.900 | 8.273 | 0.000 | 9.754 | 0.000 | 0.000 | 0.000 | 0.000 | 0.748 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 444.000 | 9.031 | 0.000 | 9.754 | 0.000 | 0.000 | 0.000 | 0.000 | 0.705 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 445.000 | 9.754 | 0.000 | 9.754 | 0.000 | 0.000 | 0.000 | 0.000 | 0.723 | 0.000 |

----------END OF TRANSECT----------

NOTE:
SURGE ELEVATION INCLUDES CONTRIBUTIONS FROM ASTRONOMICAL AND STORM TIDES.

1

PART2: CONTROLLING WAVE HEIGHTS, SPECTRAL PEAK WAVE PERIOD, AND WAVE CREST ELEVATIONS

| | LOCATION | CONTROLLING WAVE HEIGHT | SPECTRAL PEAK WAVE PERIOD | WAVE CREST ELEVATION |
|---|---|---|---|---|
| IE | 0.00 | 9.38 | 9.62 | 15.59 |
| OF | 1.00 | 9.37 | 9.62 | 15.58 |
| OF | 2.00 | 9.37 | 9.62 | 15.58 |
| OF | 3.00 | 9.37 | 9.62 | 15.58 |
| OF | 4.00 | 9.36 | 9.62 | 15.58 |
| OF | 5.00 | 9.36 | 9.62 | 15.58 |
| OF | 6.00 | 9.36 | 9.62 | 15.57 |
| OF | 7.00 | 9.35 | 9.62 | 15.57 |
| OF | 8.00 | 9.35 | 9.62 | 15.57 |
| OF | 9.00 | 9.35 | 9.62 | 15.57 |
| OF | 10.00 | 9.35 | 9.62 | 15.57 |
| OF | 11.00 | 9.34 | 9.62 | 15.57 |
| OF | 12.00 | 9.34 | 9.62 | 15.56 |
| OF | 13.00 | 9.34 | 9.62 | 15.56 |
| OF | 14.00 | 9.34 | 9.62 | 15.56 |
| OF | 15.00 | 9.34 | 9.62 | 15.56 |
| OF | 16.00 | 9.33 | 9.62 | 15.56 |
| OF | 17.00 | 9.33 | 9.62 | 15.56 |
| OF | 18.00 | 9.33 | 9.62 | 15.55 |
| OF | 19.00 | 9.33 | 9.62 | 15.55 |
| OF | 20.00 | 9.32 | 9.62 | 15.55 |
| OF | 21.00 | 9.32 | 9.62 | 15.55 |
| OF | 22.00 | 9.32 | 9.62 | 15.55 |
| OF | 23.00 | 9.32 | 9.62 | 15.55 |
| OF | 24.00 | 9.31 | 9.62 | 15.54 |
| OF | 25.00 | 9.31 | 9.62 | 15.54 |
| OF | 26.00 | 9.31 | 9.62 | 15.54 |
| OF | 27.00 | 9.31 | 9.62 | 15.54 |
| OF | 28.00 | 9.30 | 9.62 | 15.54 |
| OF | 29.00 | 9.30 | 9.62 | 15.54 |
| OF | 30.00 | 9.31 | 9.62 | 15.54 |
| OF | 31.00 | 9.31 | 9.62 | 15.54 |
| OF | 32.00 | 9.32 | 9.62 | 15.55 |
| OF | 33.00 | 9.32 | 9.62 | 15.55 |
| OF | 34.00 | 9.33 | 9.62 | 15.55 |
| OF | 35.00 | 9.33 | 9.62 | 15.56 |
| OF | 36.00 | 9.34 | 9.62 | 15.56 |
| OF | 37.00 | 9.34 | 9.62 | 15.56 |
| OF | 38.00 | 9.35 | 9.62 | 15.57 |
| OF | 39.00 | 9.35 | 9.62 | 15.57 |
| OF | 40.00 | 9.36 | 9.62 | 15.58 |
| OF | 41.00 | 9.36 | 9.62 | 15.58 |
| OF | 42.00 | 9.37 | 9.62 | 15.58 |
| OF | 43.00 | 9.38 | 9.62 | 15.59 |
| OF | 44.00 | 9.38 | 9.62 | 15.59 |
| OF | 45.00 | 9.39 | 9.62 | 15.59 |
| OF | 46.00 | 9.39 | 9.62 | 15.60 |
| OF | 47.00 | 9.40 | 9.62 | 15.60 |
| OF | 48.00 | 9.40 | 9.62 | 15.61 |
| OF | 49.00 | 9.41 | 9.62 | 15.61 |
| OF | 50.00 | 9.41 | 9.62 | 15.61 |
| OF | 51.00 | 9.42 | 9.62 | 15.62 |
| OF | 52.00 | 9.42 | 9.62 | 15.62 |
| OF | 53.00 | 9.43 | 9.62 | 15.62 |
| OF | 54.00 | 9.43 | 9.62 | 15.63 |
| OF | 55.00 | 9.44 | 9.62 | 15.63 |
| OF | 56.00 | 9.44 | 9.62 | 15.63 |
| OF | 57.00 | 9.45 | 9.62 | 15.64 |
| OF | 58.00 | 9.45 | 9.62 | 15.64 |
| OF | 59.00 | 9.46 | 9.62 | 15.65 |
| OF | 60.00 | 9.46 | 9.62 | 15.65 |
| OF | 61.00 | 9.47 | 9.62 | 15.65 |
| OF | 62.00 | 9.47 | 9.62 | 15.66 |
| OF | 63.00 | 9.48 | 9.62 | 15.66 |
| OF | 64.00 | 9.48 | 9.62 | 15.66 |
| OF | 65.00 | 9.49 | 9.62 | 15.67 |
| OF | 66.00 | 9.50 | 9.62 | 15.67 |
| OF | 67.00 | 9.50 | 9.62 | 15.67 |
| OF | 68.00 | 9.51 | 9.62 | 15.68 |
| OF | 69.00 | 9.51 | 9.62 | 15.68 |
| OF | 70.00 | 9.52 | 9.62 | 15.69 |
| OF | 71.00 | 9.52 | 9.62 | 15.69 |
| OF | 72.00 | 9.53 | 9.62 | 15.69 |
| OF | 73.00 | 9.53 | 9.62 | 15.70 |
| OF | 74.00 | 9.54 | 9.62 | 15.70 |
| OF | 75.00 | 9.54 | 9.62 | 15.70 |
| OF | 76.00 | 9.55 | 9.62 | 15.71 |
| OF | 77.00 | 9.56 | 9.62 | 15.71 |
| OF | 78.00 | 9.56 | 9.62 | 15.72 |
| OF | 79.00 | 9.57 | 9.62 | 15.72 |
| OF | 80.00 | 9.57 | 9.62 | 15.72 |
| OF | 81.00 | 9.58 | 9.62 | 15.73 |
| OF | 82.00 | 9.58 | 9.62 | 15.73 |
| OF | 83.00 | 9.59 | 9.62 | 15.74 |
| OF | 84.00 | 9.59 | 9.62 | 15.74 |

| | | | | |
|---|---|---|---|---|
| OF | 85.00 | 9.60 | 9.62 | 15.74 |
| OF | 86.00 | 9.61 | 9.62 | 15.75 |
| OF | 87.00 | 9.61 | 9.62 | 15.75 |
| OF | 88.00 | 9.62 | 9.62 | 15.76 |
| OF | 89.00 | 9.62 | 9.62 | 15.76 |
| OF | 90.00 | 9.63 | 9.62 | 15.76 |
| OF | 91.00 | 9.63 | 9.62 | 15.77 |
| OF | 92.00 | 9.64 | 9.62 | 15.77 |
| OF | 93.00 | 9.65 | 9.62 | 15.78 |
| OF | 94.00 | 9.65 | 9.62 | 15.78 |
| OF | 95.00 | 9.66 | 9.62 | 15.78 |
| OF | 96.00 | 9.66 | 9.62 | 15.79 |
| OF | 97.00 | 9.67 | 9.62 | 15.79 |
| OF | 98.00 | 9.68 | 9.62 | 15.80 |
| OF | 99.00 | 9.68 | 9.62 | 15.80 |
| OF | 100.00 | 9.69 | 9.62 | 15.81 |
| OF | 101.00 | 9.69 | 9.62 | 15.81 |
| OF | 102.00 | 9.70 | 9.62 | 15.81 |
| OF | 103.00 | 9.71 | 9.62 | 15.82 |
| OF | 104.00 | 9.71 | 9.62 | 15.82 |
| OF | 105.00 | 9.72 | 9.62 | 15.83 |
| OF | 106.00 | 9.72 | 9.62 | 15.83 |
| OF | 107.00 | 9.73 | 9.62 | 15.84 |
| OF | 108.00 | 9.74 | 9.62 | 15.84 |
| OF | 109.00 | 9.74 | 9.62 | 15.84 |
| OF | 110.00 | 9.75 | 9.62 | 15.85 |
| OF | 111.00 | 9.75 | 9.62 | 15.85 |
| OF | 112.00 | 9.76 | 9.62 | 15.86 |
| OF | 113.00 | 9.77 | 9.62 | 15.86 |
| OF | 114.00 | 9.78 | 9.62 | 15.87 |
| OF | 115.00 | 9.79 | 9.62 | 15.88 |
| OF | 116.00 | 9.80 | 9.62 | 15.88 |
| OF | 117.00 | 9.81 | 9.62 | 15.89 |
| OF | 118.00 | 9.82 | 9.62 | 15.90 |
| OF | 119.00 | 9.84 | 9.62 | 15.91 |
| OF | 120.00 | 9.85 | 9.62 | 15.92 |
| OF | 121.00 | 9.86 | 9.62 | 15.93 |
| OF | 122.00 | 9.87 | 9.62 | 15.94 |
| OF | 123.00 | 9.89 | 9.62 | 15.94 |
| OF | 124.00 | 9.90 | 9.62 | 15.95 |
| OF | 125.00 | 9.91 | 9.62 | 15.96 |
| OF | 126.00 | 9.93 | 9.62 | 15.97 |
| OF | 127.00 | 9.94 | 9.62 | 15.98 |
| OF | 128.00 | 9.95 | 9.62 | 15.99 |
| OF | 129.00 | 9.97 | 9.62 | 16.00 |
| OF | 130.00 | 9.98 | 9.62 | 16.01 |
| OF | 131.00 | 9.99 | 9.62 | 16.02 |
| OF | 132.00 | 10.01 | 9.62 | 16.03 |
| OF | 133.00 | 10.02 | 9.62 | 16.04 |
| OF | 134.00 | 10.03 | 9.62 | 16.05 |
| OF | 135.00 | 10.05 | 9.62 | 16.06 |
| OF | 136.00 | 10.06 | 9.62 | 16.07 |
| OF | 137.00 | 10.08 | 9.62 | 16.08 |
| OF | 138.00 | 10.09 | 9.62 | 16.09 |
| OF | 139.00 | 10.11 | 9.62 | 16.10 |
| OF | 140.00 | 10.12 | 9.62 | 16.11 |
| OF | 141.00 | 10.14 | 9.62 | 16.12 |
| OF | 142.00 | 10.15 | 9.62 | 16.13 |
| OF | 143.00 | 10.17 | 9.62 | 16.14 |
| OF | 144.00 | 10.18 | 9.62 | 16.15 |
| OF | 145.00 | 10.20 | 9.62 | 16.16 |
| OF | 146.00 | 10.21 | 9.62 | 16.17 |
| OF | 147.00 | 10.23 | 9.62 | 16.18 |
| OF | 148.00 | 10.25 | 9.62 | 16.20 |
| OF | 149.00 | 10.26 | 9.62 | 16.21 |
| OF | 150.00 | 10.28 | 9.62 | 16.22 |
| OF | 151.00 | 10.29 | 9.62 | 16.23 |
| OF | 152.00 | 10.31 | 9.62 | 16.24 |
| OF | 153.00 | 10.33 | 9.62 | 16.25 |
| OF | 154.00 | 10.34 | 9.62 | 16.27 |
| OF | 155.00 | 10.36 | 9.62 | 16.28 |
| OF | 156.00 | 10.38 | 9.62 | 16.29 |
| OF | 157.00 | 10.40 | 9.62 | 16.30 |
| OF | 158.00 | 10.41 | 9.62 | 16.31 |
| OF | 159.00 | 10.43 | 9.62 | 16.33 |
| OF | 160.00 | 10.45 | 9.62 | 16.34 |
| OF | 161.00 | 10.47 | 9.62 | 16.35 |
| OF | 162.00 | 10.46 | 9.62 | 16.34 |
| OF | 163.00 | 10.45 | 9.62 | 16.34 |
| OF | 164.00 | 10.43 | 9.62 | 16.33 |
| OF | 165.00 | 10.42 | 9.62 | 16.32 |
| OF | 166.00 | 10.41 | 9.62 | 16.31 |
| OF | 167.00 | 10.40 | 9.62 | 16.30 |
| OF | 168.00 | 10.39 | 9.62 | 16.29 |
| OF | 169.00 | 10.38 | 9.62 | 16.29 |
| OF | 170.00 | 10.36 | 9.62 | 16.28 |
| OF | 171.00 | 10.35 | 9.62 | 16.27 |
| OF | 172.00 | 10.34 | 9.62 | 16.26 |
| OF | 173.00 | 10.33 | 9.62 | 16.25 |
| OF | 174.00 | 10.31 | 9.62 | 16.24 |
| OF | 175.00 | 10.30 | 9.62 | 16.23 |
| OF | 176.00 | 10.29 | 9.62 | 16.22 |
| OF | 177.00 | 10.27 | 9.62 | 16.21 |
| OF | 178.00 | 10.26 | 9.62 | 16.21 |
| OF | 179.00 | 10.25 | 9.62 | 16.20 |
| OF | 180.00 | 10.23 | 9.62 | 16.19 |
| OF | 181.00 | 10.22 | 9.62 | 16.18 |
| OF | 182.00 | 10.20 | 9.62 | 16.17 |
| OF | 183.00 | 10.20 | 9.62 | 16.16 |
| OF | 184.00 | 10.21 | 9.62 | 16.17 |
| OF | 185.00 | 10.22 | 9.62 | 16.18 |
| OF | 186.00 | 10.23 | 9.62 | 16.18 |
| OF | 187.00 | 10.24 | 9.62 | 16.19 |
| OF | 188.00 | 10.25 | 9.62 | 16.20 |
| OF | 189.00 | 10.26 | 9.62 | 16.20 |
| OF | 190.00 | 10.27 | 9.62 | 16.21 |
| OF | 191.00 | 10.28 | 9.62 | 16.22 |
| OF | 192.00 | 10.29 | 9.62 | 16.22 |
| OF | 193.00 | 10.30 | 9.62 | 16.23 |
| OF | 194.00 | 10.30 | 9.62 | 16.24 |

| | | | | |
|---|---|---|---|---|
| OF | 195.00 | 10.31 | 9.62 | 16.24 |
| OF | 196.00 | 10.32 | 9.62 | 16.25 |
| OF | 197.00 | 10.33 | 9.62 | 16.26 |
| OF | 198.00 | 10.34 | 9.62 | 16.26 |
| OF | 199.00 | 10.35 | 9.62 | 16.27 |
| OF | 200.00 | 10.36 | 9.62 | 16.27 |
| OF | 201.00 | 10.37 | 9.62 | 16.28 |
| OF | 202.00 | 10.38 | 9.62 | 16.29 |
| OF | 203.00 | 10.39 | 9.62 | 16.29 |
| OF | 204.00 | 10.40 | 9.62 | 16.30 |
| OF | 205.00 | 10.41 | 9.62 | 16.31 |
| OF | 206.00 | 10.42 | 9.62 | 16.31 |
| OF | 207.00 | 10.42 | 9.62 | 16.32 |
| OF | 208.00 | 10.43 | 9.62 | 16.33 |
| OF | 209.00 | 10.44 | 9.62 | 16.33 |
| OF | 210.00 | 10.45 | 9.62 | 16.34 |
| OF | 211.00 | 10.46 | 9.62 | 16.34 |
| OF | 212.00 | 10.47 | 9.62 | 16.35 |
| OF | 213.00 | 10.48 | 9.62 | 16.36 |
| OF | 214.00 | 10.49 | 9.62 | 16.36 |
| OF | 215.00 | 10.50 | 9.62 | 16.37 |
| OF | 216.00 | 10.51 | 9.62 | 16.38 |
| OF | 217.00 | 10.51 | 9.62 | 16.38 |
| OF | 218.00 | 10.52 | 9.62 | 16.39 |
| OF | 219.00 | 10.53 | 9.62 | 16.39 |
| OF | 220.00 | 10.54 | 9.62 | 16.40 |
| OF | 221.00 | 10.55 | 9.62 | 16.41 |
| OF | 222.00 | 10.56 | 9.62 | 16.41 |
| OF | 223.00 | 10.57 | 9.62 | 16.42 |
| OF | 224.00 | 10.58 | 9.62 | 16.42 |
| OF | 225.00 | 10.58 | 9.62 | 16.43 |
| OF | 226.00 | 10.59 | 9.62 | 16.44 |
| OF | 227.00 | 10.60 | 9.62 | 16.44 |
| OF | 228.00 | 10.61 | 9.62 | 16.45 |
| OF | 229.00 | 10.61 | 9.62 | 16.45 |
| OF | 230.00 | 10.61 | 9.62 | 16.45 |
| OF | 231.00 | 10.60 | 9.62 | 16.44 |
| OF | 232.00 | 10.60 | 9.62 | 16.44 |
| OF | 233.00 | 10.59 | 9.62 | 16.43 |
| OF | 234.00 | 10.58 | 9.62 | 16.43 |
| OF | 235.00 | 10.58 | 9.62 | 16.43 |
| OF | 236.00 | 10.57 | 9.62 | 16.42 |
| OF | 237.00 | 10.57 | 9.62 | 16.42 |
| OF | 238.00 | 10.56 | 9.62 | 16.41 |
| OF | 239.00 | 10.55 | 9.62 | 16.41 |
| OF | 240.00 | 10.55 | 9.62 | 16.40 |
| OF | 241.00 | 10.54 | 9.62 | 16.40 |
| OF | 242.00 | 10.53 | 9.62 | 16.39 |
| OF | 243.00 | 10.53 | 9.62 | 16.39 |
| OF | 244.00 | 10.52 | 9.62 | 16.39 |
| OF | 245.00 | 10.51 | 9.62 | 16.38 |
| OF | 246.00 | 10.51 | 9.62 | 16.38 |
| OF | 247.00 | 10.50 | 9.62 | 16.37 |
| OF | 248.00 | 10.49 | 9.62 | 16.37 |
| OF | 249.00 | 10.49 | 9.62 | 16.36 |
| OF | 250.00 | 10.48 | 9.62 | 16.36 |
| OF | 251.00 | 10.47 | 9.62 | 16.35 |
| OF | 252.00 | 10.47 | 9.62 | 16.35 |
| OF | 253.00 | 10.46 | 9.62 | 16.34 |
| OF | 254.00 | 10.45 | 9.62 | 16.34 |
| OF | 255.00 | 10.45 | 9.62 | 16.33 |
| OF | 256.00 | 10.44 | 9.62 | 16.33 |
| OF | 257.00 | 10.43 | 9.62 | 16.32 |
| OF | 258.00 | 10.43 | 9.62 | 16.32 |
| OF | 259.00 | 10.42 | 9.62 | 16.32 |
| OF | 260.00 | 10.41 | 9.62 | 16.31 |
| OF | 261.00 | 10.41 | 9.62 | 16.31 |
| OF | 262.00 | 10.40 | 9.62 | 16.30 |
| OF | 263.00 | 10.40 | 9.62 | 16.30 |
| OF | 264.00 | 10.39 | 9.62 | 16.30 |
| OF | 265.00 | 10.39 | 9.62 | 16.29 |
| OF | 266.00 | 10.38 | 9.62 | 16.29 |
| OF | 267.00 | 10.38 | 9.62 | 16.28 |
| OF | 268.00 | 10.37 | 9.62 | 16.28 |
| OF | 269.00 | 10.36 | 9.62 | 16.28 |
| OF | 270.00 | 10.36 | 9.62 | 16.27 |
| OF | 271.00 | 10.35 | 9.62 | 16.27 |
| OF | 272.00 | 10.35 | 9.62 | 16.26 |
| OF | 273.00 | 10.34 | 9.62 | 16.26 |
| OF | 274.00 | 10.34 | 9.62 | 16.26 |
| OF | 275.00 | 10.33 | 9.62 | 16.25 |
| OF | 276.00 | 10.32 | 9.62 | 16.25 |
| OF | 277.00 | 10.32 | 9.62 | 16.24 |
| OF | 278.00 | 10.31 | 9.62 | 16.24 |
| OF | 279.00 | 10.30 | 9.62 | 16.23 |
| OF | 280.00 | 10.30 | 9.62 | 16.23 |
| OF | 281.00 | 10.29 | 9.62 | 16.23 |
| OF | 282.00 | 10.29 | 9.62 | 16.22 |
| OF | 283.00 | 10.28 | 9.62 | 16.22 |
| OF | 286.00 | 10.26 | 9.62 | 16.20 |
| OF | 287.00 | 10.26 | 9.62 | 16.20 |
| OF | 288.00 | 10.26 | 9.62 | 16.20 |
| OF | 289.00 | 10.26 | 9.62 | 16.20 |
| OF | 290.00 | 10.26 | 9.62 | 16.21 |
| OF | 291.00 | 10.26 | 9.62 | 16.21 |
| OF | 292.00 | 10.27 | 9.62 | 16.21 |
| OF | 293.00 | 10.27 | 9.62 | 16.21 |
| OF | 294.00 | 10.27 | 9.62 | 16.21 |
| OF | 295.00 | 10.27 | 9.62 | 16.21 |
| OF | 296.00 | 10.28 | 9.62 | 16.21 |
| | 397.76 | 6.59 | 9.62 | 13.64 |
| IF | 423.20 | 5.49 | 9.62 | 12.88 |
| IF | 426.50 | 5.27 | 9.62 | 12.73 |
| IF | 429.80 | 5.00 | 9.62 | 12.55 |
| IF | 433.10 | 4.50 | 9.62 | 12.20 |
| IF | 436.40 | 3.77 | 9.62 | 11.70 |
| IF | 439.60 | 2.60 | 9.62 | 10.93 |
| IF | 442.90 | 1.15 | 9.62 | 10.56 |
| IF | 444.00 | 0.56 | 9.62 | 10.15 |
| IF | 445.00 | 0.01 | 9.62 | 9.76 |

PART3 LOCATION OF AREAS ABOVE 100-YEAR SURGE
NO AREAS ABOVE 100-YEAR SURGE IN THIS TRANSECT

PART4 LOCATION OF SURGE CHANGES

| STATION | 10-YEAR SURGE | 100-YEAR SURGE |
|---|---|---|
| 163.00 | 1.00 | 9.02 |
| 198.00 | 1.00 | 9.02 |
| 230.00 | 1.00 | 9.02 |
| 273.00 | 1.00 | 9.02 |
| 274.00 | 1.00 | 9.02 |
| 288.00 | 1.00 | 9.02 |
| 423.20 | 1.00 | 9.03 |
| 426.50 | 1.00 | 9.04 |
| 429.80 | 1.00 | 9.05 |
| 433.10 | 1.00 | 9.05 |
| 436.40 | 1.00 | 9.06 |
| 439.60 | 1.00 | 9.11 |
| 442.90 | 1.00 | 9.75 |

PART5 LOCATION OF V ZONES

| STATION OF GUTTER | LOCATION OF ZONE |
|---|---|
| 438.50 | WINDWARD |

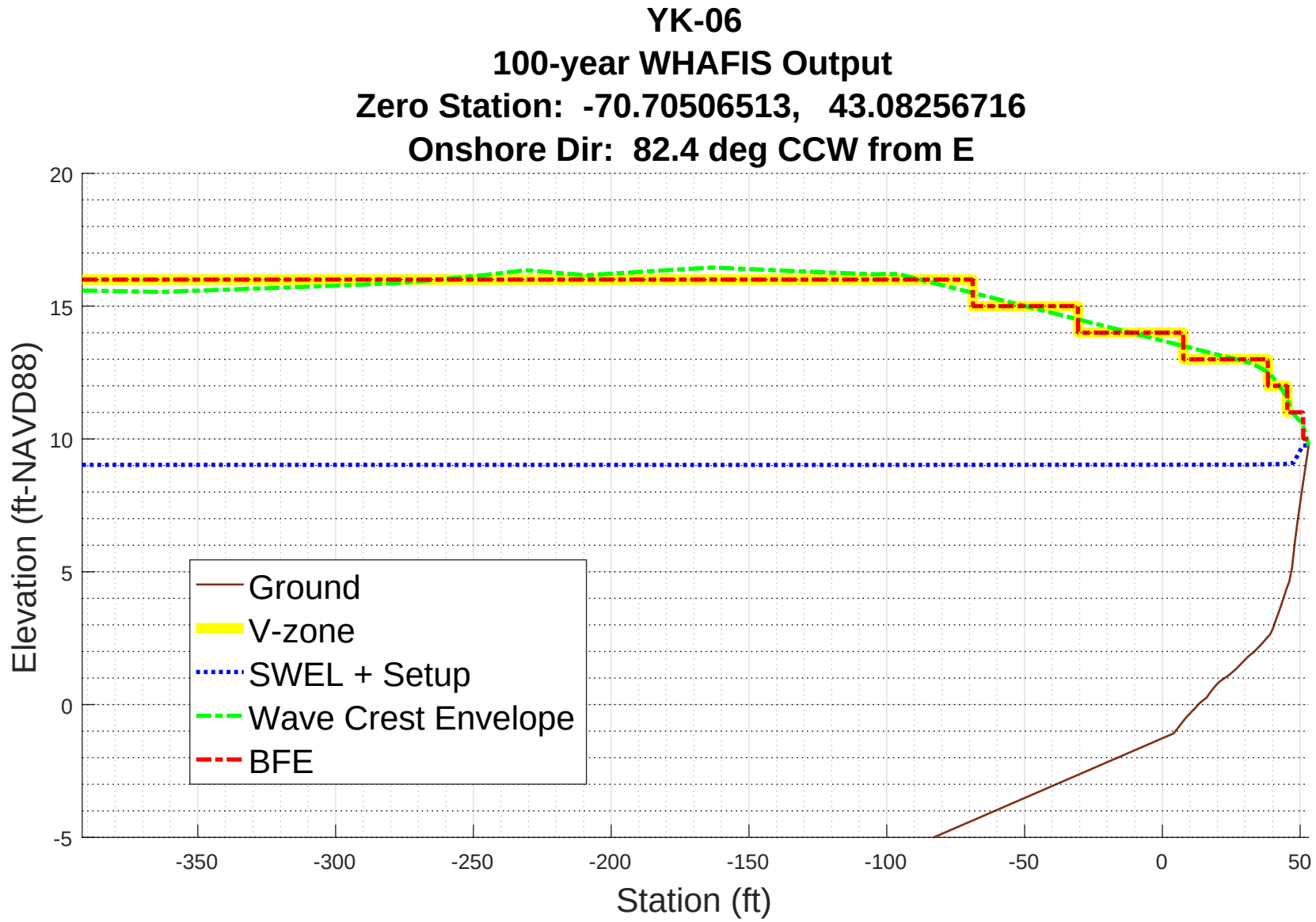
PART6 NUMBERED A ZONES AND V ZONES

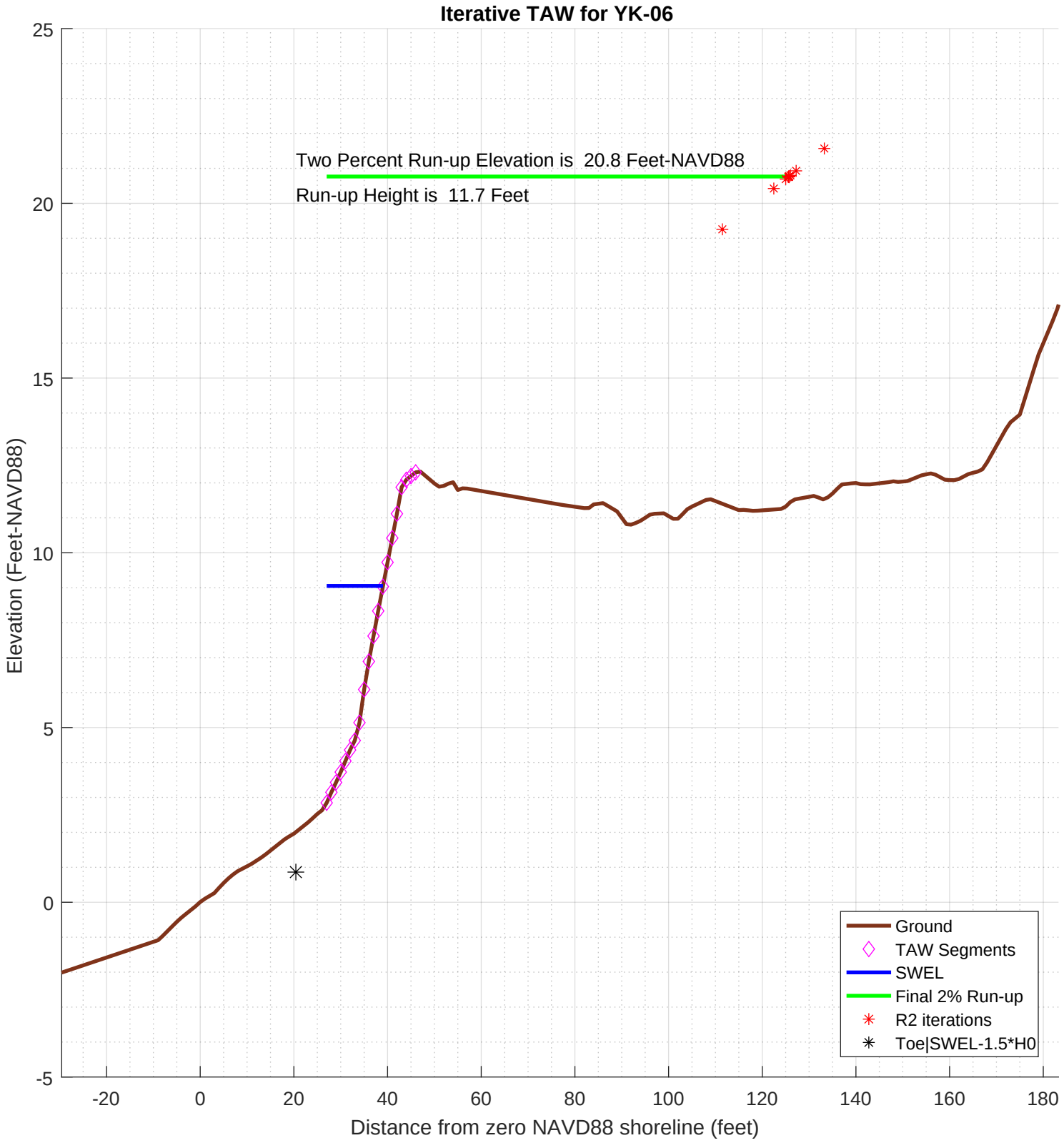
| STATION OF GUTTER | ELEVATION | ZONE DESIGNATION | | FHF |
|---|---|---|---|---|
| 0.00 | 15.59 | | | |
| | | V22 | EL=16 | 120 |
| 162.00 | 16.34 | | | |
| | | V22 | EL=16 | 120 |
| 163.00 | 16.34 | | | |
| | | V22 | EL=16 | 120 |
| 197.00 | 16.26 | | | |
| | | V22 | EL=16 | 120 |
| 198.00 | 16.26 | | | |
| | | V22 | EL=16 | 120 |
| 229.00 | 16.45 | | | |
| | | V22 | EL=16 | 120 |
| 230.00 | 16.45 | | | |
| | | V22 | EL=16 | 120 |
| 272.00 | 16.26 | | | |
| | | V22 | EL=16 | 120 |
| 273.00 | 16.26 | | | |
| | | V22 | EL=16 | 120 |
| 274.00 | 16.26 | | | |
| | | V22 | EL=16 | 120 |
| 287.00 | 16.20 | | | |
| | | V22 | EL=16 | 120 |
| 288.00 | 16.20 | | | |
| | | V22 | EL=16 | 120 |
| 296.00 | 16.21 | | | |
| | | V22 | EL=16 | 120 |
| 324.26 | 15.50 | | | |
| | | V22 | EL=15 | 120 |
| 363.80 | 14.50 | | | |
| | | V22 | EL=14 | 120 |
| 402.46 | 13.50 | | | |
| | | V22 | EL=13 | 120 |
| 423.20 | 12.88 | | | |
| | | V22 | EL=13 | 120 |
| 426.50 | 12.73 | | | |
| | | V22 | EL=13 | 120 |
| 429.80 | 12.55 | | | |
| | | V22 | EL=13 | 120 |
| 430.25 | 12.50 | | | |
| | | V22 | EL=12 | 120 |
| 433.10 | 12.20 | | | |
| | | V23 | EL=12 | 130 |
| 436.40 | 11.70 | | | |
| | | V23 | EL=12 | 130 |
| 437.21 | 11.50 | | | |
| | | V23 | EL=11 | 130 |
| 438.50 | 11.18 | | | |
| | | A19 | EL=11 | 95 |
| 439.60 | 10.93 | | | |
| | | A19 | EL=11 | 95 |
| 442.90 | 10.56 | | | |
| | | A19 | EL=11 | 95 |
| 443.06 | 10.50 | | | |
| | | A19 | EL=10 | 95 |
| 445.00 | 9.76 | | | |

ZONE TERMINATED AT END OF TRANSECT

PART 7 POSTSCRIPT NOTES

PS# 1 START(361191.8955,4771276.21)
PS# 2 END(361217.8661,4771469.8232)
-1.000000e+00


YK-06
100-year WHAFIS Output
Zero Station: -70.70506513, 43.08256716
Onshore Dir: 82.4 deg CCW from E
Elevation (ft-NAVD88)
Station (ft)
20
15
10
5
0
-5
-350
-300
-250
-200
-150
-100
-50
0
50
Ground
V-zone
SWEL + Setup
Wave Crest Envelope
BFE


Iterative TAW for YK-06
Two Percent Run-up Elevation is 20.8 Feet-NAVD88
Run-up Height is 11.7 Feet
Elevation (Feet-NAVD88)
Distance from zero NAVD88 shoreline (feet)
25
20
15
10
5
0
-5
-20
0
20
40
60
80
100
120
140
160
180
Ground
TAW Segments
SWEL
Final 2% Run-up
R2 iterations
Toe|SWEL-1.5*H0

```
diary on         % begin recording

% FEMA appeal for The Town of Harpswell, Cumberland county, Maine
% TRANSECT ID: YK-06
% calculation by SJH, Ransom Consulting, Inc. 06-Feb-2020
% 100-year wave runup using TAW methodology
% including berm and weighted average with foreshore if necessary
%
% chk nld 20181015
%
% This script assumes that the incident wave conditions provided
% as input in the configuration section below are the
% appropriate values located at the end of the foreshore
% or toe of the slope on which the run-up is being calculated
% the script does not attempt to apply a depth limit or any other
% transformation to the incident wave conditions other than
% conversion of the peak wave period to the spectral mean wave
% as recommended in the references below
%
%
% references:
%
% Van der Meer, J.W., 2002. Technical Report Wave Run-up and
% Wave Overtopping at Dikes. TAW Technical Advisory Committee on
% Flood Defence, The Netherlands.
%
% FEMA. 2007,  Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update
%
%
%

%-------------------------------------------------------------------------
% CONFIG
%-------------------------------------------------------------------------
fname='inpfiles/YK-06sta_ele_include.csv';   % file with station, elevation, include
                                     % third colunm is 0 for excluded points
imgname='logfiles/YK-06-runup';
SWEL=9.0235;  % 100-yr still water level including wave setup.
H0=5.4588;    % significant wave height at toe of structure
Tp=9.7161;    % peak period, 1/fma,
T0=Tp/1.1;

gamma_berm=1;   % this may get changed automatically below
gamma_rough=0.75;
gamma_beta=1;
gamma_perm=1;

setupAtToe=0.028035;
maxSetup=0.73082;   % only used in case of berm/shallow foreshore weighted average

plotTitle='Iterative TAW for YK-06'

plotTitle =

Iterative TAW for YK-06



% END CONFIG
%------------------------------

SWEL=SWEL+setupAtToe

SWEL =

                  9.051535

SWEL_fore=SWEL+maxSetup

SWEL_fore =

                  9.782355



% FIND WAVELENGTH USING DEEPWATER DISPERSION RELATION
% using English units
L0=32.15/(2*pi)*T0^2

L0 =

          399.208418021136


% Find Hb (Munk, 1949)
%Hb=H0/(3.3*(H0/L0)^(1/3))
%Db=-Hb/.78+SWEL;  % depth at breaking

% The toe elevation here is only used to determine the average
% structure slope, it is not used to depth limit the wave height.
% Any depth limiting or other modification of the wave height
% to make it consitent with TAW guidance should be performed
% prior to the input of the significant wave height given above.
Ztoe=SWEL-1.5*H0

Ztoe =
```

```
         0.863334999999999


% read the transect
[sta,dep,inc] = textread(fname,'%n%n%n%*[^\n]','delimiter',',','headerlines',0);

% remove unselected points
k=find(inc==0);
sta(k)=[];
dep(k)=[];

sta_org=sta;  % used for plotting purposes
dep_org=dep;


% initial guess at maximum run-up elevation to estimate slope
Z2=SWEL+1.5*H0

Z2 =

                17.239735


% determine station at the max runup and -1.5*H0 (i.e. the toe)
top_sta=-999;
toe_sta=-999;
for kk=1:length(sta)-1
    if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
       top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
    end
    if  ((Ztoe > dep(kk)) & (Ztoe <= dep(kk+1)))    % here is the intersection of Ztoe with profile
       toe_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Ztoe)
    end
end
% check to make sure we got them, if not extend the end slopes outward
S=diff(dep)./diff(sta);
if toe_sta==-999
   dy=dep(1)-Ztoe;
   toe_sta=sta(1)-dy/S(1)
end

toe_sta =

          20.4222867573847

if top_sta==-999
   dy=Z2-dep(end);
   top_sta=sta(end)+dy/S(end)
end

top_sta =

          92.4937382297555


% just so the reader can tell the values aren't -999 anymore
top_sta

top_sta =

          92.4937382297555

toe_sta

toe_sta =

          20.4222867573847



% check for case where the toe of slope is below SWL-1.5*H0
% in this case interpolate setup from the setupAtToe(really setup as first station), and the max setup
% also un-include points seaward of SWL-1.5*H0
if Ztoe > dep(1)
   dd=SWEL_fore-dep;
   k=find(dd<0,1); % k is index of first land point
   staAtSWL=interp1(dep(k-1:k),sta(k-1:k),SWEL_fore);
   dsta=staAtSWL-sta(1);
   dsetup=maxSetup-setupAtToe;
   dsetdsta=dsetup/dsta;
   setup=setupAtToe+dsetdsta*(toe_sta-sta(1));
   sprintf('-!!- Location of SWEL-1.5*H0 is %4.1f ft landward of toe of slope',dsta)
   sprintf('-!!- Setup is interpolated between setup at toe of slope and max setup')
   sprintf('-!!-       setup is adjusted to %4.2f feet',setup)
   SWEL=SWEL-setupAtToe+setup;
   sprintf('-!!-       SWEL is adjusted to %4.2f feet',SWEL)
   k=find(dep < SWEL-1.5*H0)
   sta(k)=[];
   dep(k)=[];
else
   sprintf('-!!- The User has selected a starting point that is %4.2f feet above the elevation of SWEL-1.5H0\n',de
   sprintf('-!!- This may be reasonable for some cases.  However the user may want to consider:\n')
   sprintf('-!!-   1) Selecting a starting point that is at or below %4.2f feet elevation, or\n', Ztoe)
   sprintf('-!!-   2) Reducing the incident wave height to a depth limited condition.\n')
```

```
end

ans =

-!!- The User has selected a starting point that is 1.98 feet above the elevation of SWEL-1.5H0


ans =

-!!- This may be reasonable for some cases.  However the user may want to consider:


ans =

-!!-   1) Selecting a starting point that is at or below 0.86 feet elevation, or


ans =

-!!-   2) Reducing the incident wave height to a depth limited condition.




% now iterate converge on a runup elevation
tol=0.001;  % convergence criteria
R2del=999;
R2_new=3*H0; %initial guess
R2=R2_new;
iter=0;
R2_all=[];
topStaAll=[];
Berm_Segs=[];
TAW_ALWAYS_VALID=1;
while(abs(R2del) > tol && iter <= 25)
    iter=iter+1;
    sprintf ('!----------------- STARTING ITERATION %d -----------------!',iter)
    % elevation of toe of slope
    Ztoe
    % station of toe slope (relative to 0-NAVD88 shoreline
    toe_sta
    % station of top of slope/extent of 2% run-up
    top_sta
    % elevation of top of slope/extent of 2% run-up
    Z2
    % incident significant wave height
    H0
    % incident spectral peak wave period
    Tp
    % incident spectral mean wave period
    T0

    R2=R2_new
    Z2=R2+SWEL
    % determine slope for this iteration
    top_sta=-999;
    for kk=1:length(sta)-1
       if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
          top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
          break;
       end
    end
    if top_sta==-999
       dy=Z2-dep(end);
       top_sta=sta(end)+dy/S(end)
    end

    % get the length of the slope (not accounting for berm)
    Lslope=top_sta-toe_sta

    % loop over profile segments to determine berm factor
    % re-calculate influence of depth of berm based on this run-up elevation
    % check for berm, berm width, berm height
    berm_width=0;
    rdh_sum=0;
    Berm_Segs=[];
    Berm_Heights=[];
    for kk=1:length(sta)-1
       ddep=dep(kk+1)-dep(kk);
       dsta=sta(kk+1)-sta(kk);
       s=ddep/dsta;
       if  (s < 1/15)     % count it as a berm if slope is flatter than 1:15 (see TAW manual)
          sprintf ('Berm Factor Calculation: Iteration %d, Profile Segment: %d',iter,kk)
          berm_width=berm_width+dsta;   % tally the width of all berm segments
          % compute the rdh for this segment and weight it by the segment length
          dh=SWEL-(dep(kk)+dep(kk+1))/2
          if  dh < 0
              chi=R2;
          else
              chi=2* H0;
          end
          if (dh <= R2 & dh >=-2*H0)
```

```
         rdh=(0.5-0.5*cos(3.14159*dh/chi)) ;
      else
         rdh=1;
      end
      rdh_sum=rdh_sum + rdh * dsta
      Berm_Segs=[Berm_Segs, kk];
      Berm_Heights=[Berm_Heights, (dep(kk)+dep(kk+1))/2];
   end
   if dep(kk) >= Z2  % jump out of loop if we reached limit of run-up for this iteration
      break
   end
end
sprintf ('!------- End Berm Factor Calculation, Iter: %d ---------!',iter)
berm_width
rB=berm_width/Lslope
if (berm_width > 0)
   rdh_mean=rdh_sum/berm_width
else
   rdh_mean=1
end
gamma_berm=1- rB * (1-rdh_mean)
if gamma_berm > 1
   gamma_berm=1
end
if gamma_berm < 0.6
   gamma_berm =0.6
end
% Iribarren number
slope=(Z2-Ztoe)/(Lslope-berm_width)
Irb=(slope/(sqrt(H0/L0)))
% runup height
gamma_berm
gamma_perm
gamma_beta
gamma_rough
gamma=gamma_berm*gamma_perm*gamma_beta*gamma_rough

% check validity
TAW_VALID=1;
if (Irb*gamma_berm < 0.5 | Irb*gamma_berm > 10 )
   sprintf('!!! - - Iribaren number: %6.2f is outside the valid range (0.5-10), TAW NOT VALID - - !!!\n', Irb*
   TAW_VALID=0;
else
   sprintf('!!! - - Iribaren number: %6.2f is in the valid range (0.5-10), TAW RECOMMENDED - - !!!\n', Irb*gam
end
islope=1/slope;
if (slope < 1/8 | slope > 1)
   sprintf('!!! - - slope: 1:%3.1f V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!\n', islop
   TAW_VALID=0;
else
   sprintf('!!! - - slope: 1:%3.1f V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!\n', islope)
end
if TAW_VALID == 0
   TAW_ALWAYS_VALID=0;
end

if (Irb*gamma_berm < 1.8)
   R2_new=gamma*H0*1.77*Irb
else
   R2_new=gamma*H0*(4.3-(1.6/sqrt(Irb)))
end


% check to see if we need to evaluate a shallow foreshore
if berm_width > 0.25 * L0;
   disp ('!   Berm_width is greater than 1/4 wave length')
   disp ('!   Runup will be weighted average with foreshore calculation assuming depth limited wave height on
   % do the foreshore calculation
   fore_H0=0.78*(SWEL_fore-min(Berm_Heights))
   % get upper slope
   fore_toe_sta=-999;
   fore_toe_dep=-999;
   for kk=length(dep)-1:-1:1
      ddep=dep(kk+1)-dep(kk);
      dsta=sta(kk+1)-sta(kk);
      s=ddep/dsta;
      if s < 1/15
         break
      end
      fore_toe_sta=sta(kk);
      fore_toe_dep=dep(kk);
      upper_slope=(Z2-fore_toe_dep)/(top_sta-fore_toe_sta)
   end
   fore_Irb=upper_slope/(sqrt(fore_H0/L0));
   fore_gamma=gamma_perm*gamma_beta*gamma_rough;
   if (fore_Irb < 1.8)
      fore_R2=fore_gamma*fore_H0*1.77*fore_Irb;
   else
      fore_R2=fore_gamma*fore_H0*(4.3-(1.6/sqrt(fore_Irb)));
   end
   if berm_width >= L0
      R2_new=fore_R2
      disp ('berm is wider than one wavelength, use full shallow foreshore solution');
   else
      w2=(berm_width-0.25*L0)/(0.75*L0)
      w1=1-w2
```

```
            R2_new=w2*fore_R2 + w1*R2_new
        end
    end % end berm width check

    % convergence criterion
    R2del=abs(R2-R2_new)
    R2_all(iter)=R2_new;

    % get the new top station (for plot purposes)
    Z2=R2_new+SWEL
    top_sta=-999;
    for kk=1:length(sta)-1
        if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
            top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
            break;
        end
    end
    if top_sta==-999
        dy=Z2-dep(end);
        top_sta=sta(end)+dy/S(end);
    end
    topStaAll(iter)=top_sta;

end

ans =

!----------------- STARTING ITERATION 1 -----------------!


Ztoe =

         0.863334999999999


toe_sta =

          20.4222867573847


top_sta =

          92.4937382297555


Z2 =

                17.239735


H0 =

                   5.4588


Tp =

                   9.7161


T0 =

          8.83281818181818


R2 =

                  16.3764


Z2 =

                25.427935


top_sta =

           169.59543314501


Lslope =

          149.173146387625


ans =

!------- End Berm Factor Calculation, Iter: 1 ---------!


berm_width =

     0


rB =
```

```
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
         0.164671729428895

Irb =
          1.40821932699039

gamma_berm =
     1

gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                     0.75

gamma =
                     0.75

ans =
!!! - - Iribaren number:   1.41 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:6.1 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
          10.2047416215375

R2del =
          6.17165837846249

Z2 =
          19.2562766215375

ans =
!----------------- STARTING ITERATION 2 -----------------!

Ztoe =
         0.863334999999999

toe_sta =
          20.4222867573847

top_sta =
          111.481889091691
```

```
Z2 =
          19.2562766215375

H0 =
                    5.4588

Tp =
                    9.7161

T0 =
          8.83281818181818

R2 =
          10.2047416215375

Z2 =
          19.2562766215375

top_sta =
          111.481889091691

Lslope =
           91.059602334306

ans =
!------- End Berm Factor Calculation, Iter: 2 ---------!

berm_width =
     0

rB =
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
         0.201987941414588

Irb =
          1.72733549289557

gamma_berm =
     1

gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                      0.75

gamma =
```

```
                    0.75

ans =

!!! - - Iribaren number:   1.73 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =

!!! - - slope: 1:5.0 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =

          12.5172351073908

R2del =

          2.31249348585333

Z2 =

          21.5687701073908

ans =

!----------------- STARTING ITERATION 3 -----------------!

Ztoe =

         0.863334999999999

toe_sta =

          20.4222867573847

top_sta =

          133.256780672231

Z2 =

          21.5687701073908

H0 =

                    5.4588

Tp =

                    9.7161

T0 =

          8.83281818181818

R2 =

          12.5172351073908

Z2 =

          21.5687701073908

top_sta =

          133.256780672231

Lslope =

          112.834493914846

ans =

!------- End Berm Factor Calculation, Iter: 3 ---------!
```

```
berm_width =
     0

rB =
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
         0.183502707275107

Irb =
          1.56925575407555

gamma_berm =
     1

gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                     0.75

gamma =
                     0.75

ans =
!!! - - Iribaren number:   1.57 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:5.4 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
          11.3717012694865

R2del =
          1.14553383790435

Z2 =
          20.4232362694865

ans =
!----------------- STARTING ITERATION 4 -----------------!

Ztoe =
         0.863334999999999

toe_sta =
          20.4222867573847
```

```
top_sta =
          122.470209693847

Z2 =
          20.4232362694865

H0 =
                    5.4588

Tp =
                    9.7161

T0 =
          8.83281818181818

R2 =
          11.3717012694865

Z2 =
          20.4232362694865

top_sta =
          122.470209693847

Lslope =
          102.047922936462

ans =
!------- End Berm Factor Calculation, Iter: 4 ---------!

berm_width =
     0

rB =
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
         0.191673683369969

Irb =
          1.63913129675108

gamma_berm =
     1

gamma_perm =
     1

gamma_beta =
     1
```

```
gamma_rough =
                      0.75

gamma =
                      0.75

ans =
!!! - - Iribaren number:   1.64 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:5.2 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
          11.8780583723906

R2del =
         0.506357102904133

Z2 =
          20.9295933723906

ans =
!----------------- STARTING ITERATION 5 -----------------!

Ztoe =
         0.863334999999999

toe_sta =
          20.4222867573847

top_sta =
          127.238167348311

Z2 =
          20.9295933723906

H0 =
                    5.4588

Tp =
                    9.7161

T0 =
          8.83281818181818

R2 =
          11.8780583723906

Z2 =
          20.9295933723906

top_sta =
          127.238167348311

Lslope =
          106.815880590927
```

```
ans =
!------- End Berm Factor Calculation, Iter: 5 ---------!

berm_width =
     0

rB =
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
         0.187858380807986

Irb =
          1.60650406422771

gamma_berm =
     1

gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                      0.75

gamma =
                      0.75

ans =
!!! - - Iribaren number:   1.61 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:5.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
          11.6416232721578

R2del =
         0.236435100232841

Z2 =
          20.6931582721578

ans =
!----------------- STARTING ITERATION 6 -----------------!

Ztoe =
         0.863334999999999
```

```
toe_sta =
          20.4222867573847

top_sta =
          125.011848137079

Z2 =
          20.6931582721578

H0 =
                    5.4588

Tp =
                    9.7161

T0 =
          8.83281818181818

R2 =
          11.6416232721578

Z2 =
          20.6931582721578

top_sta =
          125.011848137079

Lslope =
          104.589561379695

ans =
!------- End Berm Factor Calculation, Iter: 6 ---------!

berm_width =
     0

rB =
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
         0.189596581251249

Irb =
          1.62136859177519

gamma_berm =
     1

gamma_perm =
     1
```

```
gamma_beta =
     1

gamma_rough =
                      0.75

gamma =
                      0.75

ans =
!!! - - Iribaren number:   1.62 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:5.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
          11.7493399183087

R2del =
          0.10771664615088

Z2 =
          20.8008749183087

ans =
!----------------- STARTING ITERATION 7 -----------------!

Ztoe =
         0.863334999999999

toe_sta =
          20.4222867573847

top_sta =
          126.026129174282

Z2 =
          20.8008749183087

H0 =
                    5.4588

Tp =
                    9.7161

T0 =
          8.83281818181818

R2 =
          11.7493399183087

Z2 =
          20.8008749183087

top_sta =
          126.026129174282
```

```
Lslope =
          105.603842416897

ans =
!------- End Berm Factor Calculation, Iter: 7 ---------!

berm_width =
     0

rB =
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
         0.188795591732357

Irb =
          1.61451878868433

gamma_berm =
     1

gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                      0.75

gamma =
                      0.75

ans =
!!! - - Iribaren number:   1.61 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:5.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
          11.6997024297719

R2del =
        0.0496374885367334

Z2 =
          20.7512374297719

ans =
```

```
!----------------- STARTING ITERATION 8 -----------------!

Ztoe =
         0.863334999999999

toe_sta =
          20.4222867573847

top_sta =
          125.558732860376

Z2 =
          20.7512374297719

H0 =
                    5.4588

Tp =
                    9.7161

T0 =
          8.83281818181818

R2 =
          11.6997024297719

Z2 =
          20.7512374297719

top_sta =
          125.558732860376

Lslope =
          105.136446102992

ans =
!------- End Berm Factor Calculation, Iter: 8 ---------!

berm_width =
     0

rB =
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
         0.189162780053358

Irb =
          1.61765886434924

gamma_berm =
     1
```

```
gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                     0.75

gamma =
                     0.75

ans =
!!! - - Iribaren number:   1.62 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:5.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
           11.722457167062

R2del =
        0.0227547372900769

Z2 =
           20.773992167062

ans =
!----------------- STARTING ITERATION 9 -----------------!

Ztoe =
         0.863334999999999

toe_sta =
          20.4222867573847

top_sta =
          125.772995923372

Z2 =
           20.773992167062

H0 =
                    5.4588

Tp =
                    9.7161

T0 =
          8.83281818181818

R2 =
           11.722457167062

Z2 =
```

```
           20.773992167062

top_sta =

          125.772995923372

Lslope =

          105.350709165987

ans =

!------- End Berm Factor Calculation, Iter: 9 ---------!

berm_width =

     0

rB =

     0

rdh_mean =

     1

gamma_berm =

     1

slope =

         0.188994049728621

Irb =

          1.61621593722891

gamma_berm =

     1

gamma_perm =

     1

gamma_beta =

     1

gamma_rough =

                      0.75

gamma =

                      0.75

ans =

!!! - - Iribaren number:   1.62 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =

!!! - - slope: 1:5.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =

          11.7120009134377

R2del =

        0.0104562536242749

Z2 =
```

```
          20.7635359134377

ans =
!----------------- STARTING ITERATION 10 -----------------!

Ztoe =
         0.863334999999999

toe_sta =
          20.4222867573847

top_sta =
          125.674537791316

Z2 =
          20.7635359134377

H0 =
                    5.4588

Tp =
                    9.7161

T0 =
          8.83281818181818

R2 =
          11.7120009134377

Z2 =
          20.7635359134377

top_sta =
          125.674537791316

Lslope =
          105.252251033931

ans =
!------- End Berm Factor Calculation, Iter: 10 ---------!

berm_width =
     0

rB =
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
         0.189071499354653

Irb =
```

```
          1.61687826136083

gamma_berm =
     1

gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                     0.75

gamma =
                     0.75

ans =
!!! - - Iribaren number:   1.62 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:5.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
          11.7168004830122

R2del =
       0.00479956957445182

Z2 =
          20.7683354830122

ans =
!----------------- STARTING ITERATION 11 -----------------!

Ztoe =
         0.863334999999999

toe_sta =
          20.4222867573847

top_sta =
          125.719731478458

Z2 =
          20.7683354830122

H0 =
                   5.4588

Tp =
                   9.7161

T0 =
          8.83281818181818

R2 =
```

```
          11.7168004830122

Z2 =

          20.7683354830122

top_sta =

          125.719731478458

Lslope =

          105.297444721073

ans =

!------- End Berm Factor Calculation, Iter: 11 ---------!

berm_width =

     0

rB =

     0

rdh_mean =

     1

gamma_berm =

     1

slope =

         0.189035930888346

Irb =

          1.61657409135024

gamma_berm =

     1

gamma_perm =

     1

gamma_beta =

     1

gamma_rough =

                     0.75

gamma =

                     0.75

ans =

!!! - - Iribaren number:   1.62 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =

!!! - - slope: 1:5.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =

          11.7145962976927
```

```
R2del =
       0.00220418531947786

Z2 =
          20.7661312976927

ans =
!----------------- STARTING ITERATION 12 -----------------!

Ztoe =
         0.863334999999999

toe_sta =
          20.4222867573847

top_sta =
          125.698976437785

Z2 =
          20.7661312976927

H0 =
                    5.4588

Tp =
                    9.7161

T0 =
          8.83281818181818

R2 =
          11.7145962976927

Z2 =
          20.7661312976927

top_sta =
          125.698976437785

Lslope =
            105.2766896804

ans =
!------- End Berm Factor Calculation, Iter: 12 ---------!

berm_width =
     0

rB =
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
```

```
         0.189052261788567

Irb =

          1.61671374792273

gamma_berm =

     1

gamma_perm =

     1

gamma_beta =

     1

gamma_rough =

                      0.75

gamma =

                      0.75

ans =

!!! - - Iribaren number:   1.62 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =

!!! - - slope: 1:5.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =

          11.7156083270057

R2del =

       0.00101202931299405

Z2 =

          20.7671433270057

ans =

!----------------- STARTING ITERATION 13 -----------------!

Ztoe =

         0.863334999999999

toe_sta =

          20.4222867573847

top_sta =

          125.708505904009

Z2 =

          20.7671433270057

H0 =

                    5.4588

Tp =

                    9.7161
```

```
T0 =
          8.83281818181818

R2 =
          11.7156083270057

Z2 =
          20.7671433270057

top_sta =
          125.708505904009

Lslope =
          105.286219146624

ans =
!------- End Berm Factor Calculation, Iter: 13 ---------!

berm_width =
     0

rB =
     0

rdh_mean =
     1

gamma_berm =
     1

slope =
         0.189044762822067

Irb =
          1.61664961918858

gamma_berm =
     1

gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                     0.75

gamma =
                     0.75

ans =
!!! - - Iribaren number:   1.62 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:5.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!
```

```
R2_new =

          11.7151436144784


R2del =

      0.000464712527325162


Z2 =

          20.7666786144784


% final 2% runup elevation
Z2=R2_new+SWEL

Z2 =

          20.7666786144784


diary off
```

PART 5: RUNUP2

for transect: YK-06

Station locations shifted by: -0.06 feet from their
original location to set the shoreline to
elevation 0 for RUNUP2 input

RUNUP2 INPUT CONVERSIONS
for transect: YK-06

Incident significant wave height: 5.86 feet

Peak wave period: 9.62 seconds

Mean wave height: 3.67 feet

Local Depth below SWEL: 25.85 feet

Mean wave height deshoaled using Hunt approximation for
celerity assuming constant wave energy flux.
References: R.G. Dean and R.A. Dalrymple. 2000. Water

Wave Mechanics for Engineers and Scientists. World
Scientific Publishing Company, River Edge New Jersy

USACE (1985), Direct Methods for Calculating Wavelength, CETN-1-17
US Army Engineer Waterways Experiment Station Coastel Engineering
Research Center, Vicksburg, MS

also see Coastal Engineering Manual Part II-3
for discussion of shoaling coefficient

Deep water wavelength, L0 (m)
L0 = g*T*T/twopi
L0 = 32.17*8.17*8.17/6.28 = 342.20
Deep water wave celerity, C0 (ft/s)
C0 = L0/T
C0 = 342.20/8.17 = 41.86
Angular frequency, sigma (rad/s)
sigma = twopi/T
sigma = 6.28/8.17 = 0.77
Hunts (1979) approximation for Celerity C1H (ft/s) at Depth D (ft)
y = sigma.*sigma.*D./g
y = 0.77*0.77*25.85/32.17 = 0.47
C1H = sqrt( g.*D./(y+1./(1 + 0.6522.*y + 0.4622.*y.^2 + 0.0864.*y.^4 +0.0675.*y.^5)) )
C1H = 26.56
Shoaling Coefficient KsH
KsH = sqrt(C0/C1H)
KsH = sqrt(41.86/26.56) = 1.26
Deepwater Wave Height H0_H (ft)
H0_H = H/KsH
H0_H = 3.67/1.26 = 2.92

Deepwater mean wave height: 2.92 feet

END RUNUP2 CONVERSIONS

RUNUP2 RESULTS
for transect: YK-06

RUNUP2 SWEL:
9.00
9.00
9.00
9.00
9.00
9.00
9.00
9.00
9.00

RUNUP2 deepwater mean wave heights:
2.78

2.78
2.78
2.92
2.92
2.92
3.07
3.07
3.07

RUNUP2 mean wave periods:
7.77
8.17
8.58
7.77
8.17
8.58
7.77
8.17
8.58

RUNUP2 runup above SWEL:
8.03
8.25
8.34
8.21
8.31
8.41
8.30
8.46
8.64

RUNUP2 Mean runup height above SWEL: 8.33 feet

RUNUP2 2-percent runup height above SWEL: 18.32 feet

RUNUP2 2-percent runup elevation: 27.32 feet-NAVD88

RUNUP2 Messages:
No Messages

_____END RUNUP2 RESULTS_____

_____ACES BEACH RUNUP_____

Incident significant wave height: 5.86 feet

Significant wave height deshoaled using Hunt equation

Deepwater significant wave height: 4.09 feet

Peak wave period: 9.62 seconds

Average beach Slope: 1:15.48 (H:V)

ACES RUNUP CALCULATED USING 'Aces_Beach_Runup.m'

ACES Beach 2-percent runup height above SWEL: 5.88 feet

ACES Beach 2-percent runup elevation: 14.88 feet-NAVD88

ACES BEACH RUNUP is valid

_____END ACES BEACH RESULTS_____

PART 5 COMPLETE_____

```
  FEMA                                                  sjh            job 2
  RUNUP2 transect: YK-06                                                   1
9.00
  -16.83 -404.9 1.0
  -16.83 -361.9 1.0
  -16.53 -355.9 1.0
  -13.24 -291.9 1.0
  -11.23 -270.9 1.0
  -6.48 -222.9 1.0
  -6.44 -221.9 1.0
  -6.44 -137.9 1.0
  -5.60 -118.9 1.0
  -5.58 -108.9 1.0
  -1.09 -8.9   1.0
  -0.44 -3.9   1.0
  0.26  3.1    1.0
  0.89  8.1    1.0
  1.37  14.1   1.0
  2.63  26.1   1.0
  4.63  33.1   1.0
  6.89  36.1   1.0
  11.88 43.1   1.0
1 12.30 46.1   1.0
 9.0   2.78  7.77
 9.0   2.78  8.17
 9.0   2.78  8.58
 9.0   2.92  7.77
 9.0   2.92  8.17
 9.0   2.92  8.58
 9.0   3.07  7.77
 9.0   3.07  8.17
 9.0   3.07  8.58
```

**********

CROSS SECTION PROFILE

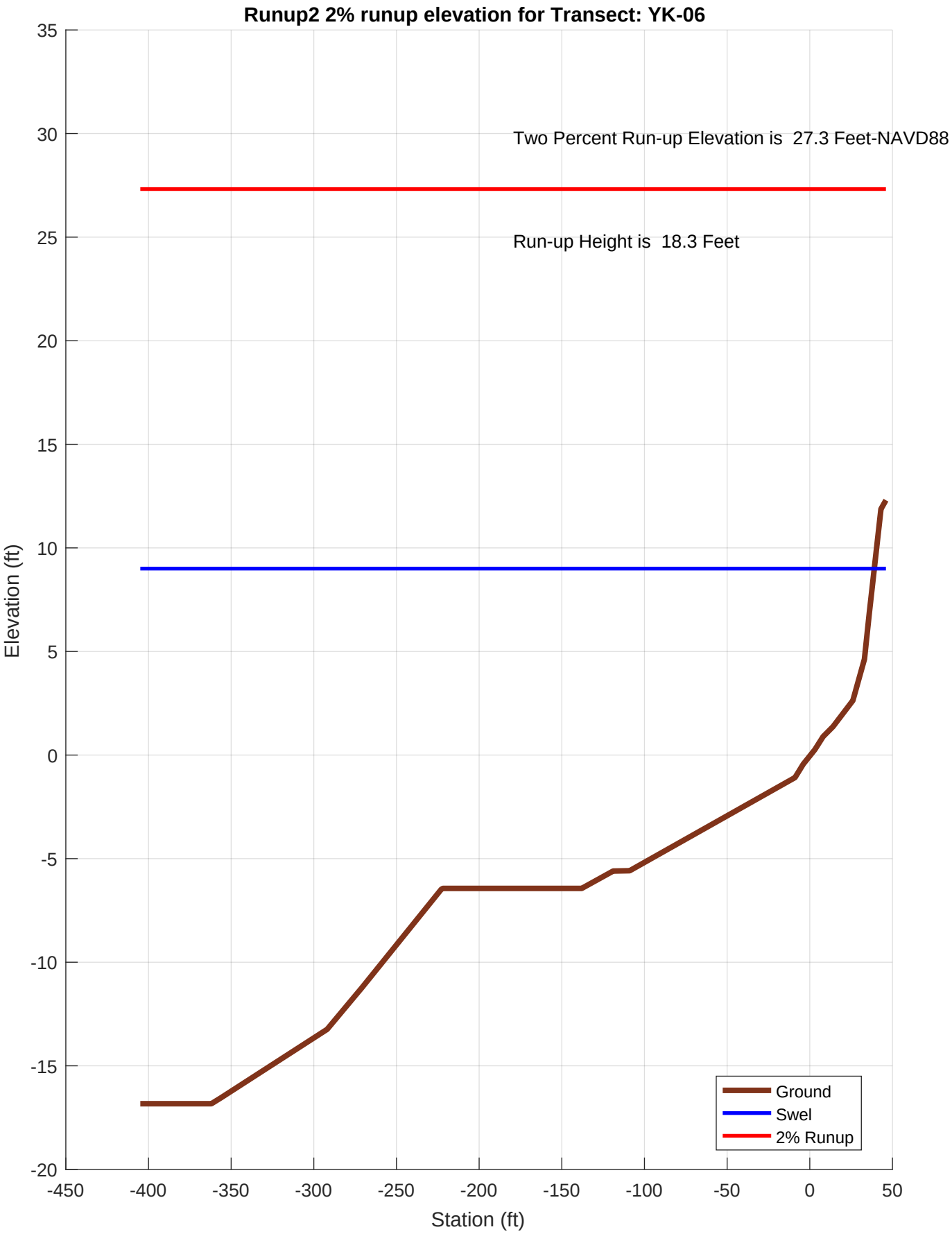
| | LENGTH | ELEV. | SLOPE | ROUGHNESS |
|---|---|---|---|---|
| 1 | -404.0 | -16.8 | | |
| | | | .00 | 1.00 |
| 2 | -361.0 | -16.8 | | |
| | | | 20.00 | 1.00 |
| 3 | -355.0 | -16.5 | | |
| | | | 19.39 | 1.00 |
| 4 | -291.0 | -13.2 | | |
| | | | 10.50 | 1.00 |
| 5 | -270.0 | -11.2 | | |
| | | | 9.98 | 1.00 |
| 6 | -222.9 | -6.5 | | |
| | | | 25.00 | 1.00 |
| 7 | -221.9 | -6.4 | | |
| | | | FLAT | 1.00 |
| 8 | -137.9 | -6.4 | | |
| | | | 22.62 | 1.00 |
| 9 | -118.9 | -5.6 | | |
| | | | 500.00 | 1.00 |
| 10 | -108.9 | -5.6 | | |
| | | | 22.27 | 1.00 |
| 11 | -8.9 | -1.1 | | |
| | | | 7.69 | 1.00 |
| 12 | -3.9 | -.4 | | |
| | | | 10.00 | 1.00 |
| 13 | 3.1 | .3 | | |
| | | | 7.94 | 1.00 |
| 14 | 8.1 | .9 | | |
| | | | 12.50 | 1.00 |
| 15 | 14.1 | 1.4 | | |
| | | | 9.52 | 1.00 |
| 16 | 26.1 | 2.6 | | |
| | | | 3.50 | 1.00 |
| 17 | 33.1 | 4.6 | | |
| | | | 1.33 | 1.00 |
| 18 | 36.1 | 6.9 | | |
| | | | 1.40 | 1.00 |
| 19 | 43.1 | 11.9 | | |
| | | | 7.14 | 1.00 |
| 20 | 46.1 | 12.3 | | |

LAST SLOPE 9.00 LAST ROUGHNESS 1.00

**********

## OUTPUT TABLE

| INPUT PARAMETERS | | | RUNUP RESULTS | | | |
|---|---|---|---|---|---|---|
| WATER LEVEL ABOVE DATUM (FT.) | DEEP WATER WAVE HEIGHT (FT.) | WAVE PERIOD (SEC.) | BREAKING SLOPE NUMBER | RUNUP SLOPE NUMBER | RUNUP ABOVE WATER LEVEL (FT.) | BREAKER DEPTH (FT.) |
| 9.00 | 2.78 | 7.77 | 11 | 20 | 8.03 | 5.03 |
| 9.00 | 2.78 | 8.17 | 11 | 20 | 8.25 | 5.13 |
| 9.00 | 2.78 | 8.58 | 11 | 20 | 8.34 | 5.23 |
| 9.00 | 2.92 | 7.77 | 11 | 20 | 8.21 | 5.24 |
| 9.00 | 2.92 | 8.17 | 11 | 20 | 8.31 | 5.34 |
| 9.00 | 2.92 | 8.58 | 11 | 20 | 8.41 | 5.44 |
| 9.00 | 3.07 | 7.77 | 11 | 20 | 8.30 | 5.46 |
| 9.00 | 3.07 | 8.17 | 11 | 20 | 8.46 | 5.56 |
| 9.00 | 3.07 | 8.58 | 11 | 20 | 8.64 | 5.66 |


Runup2 2% runup elevation for Transect: YK-06
Two Percent Run-up Elevation is 27.3 Feet-NAVD88
Run-up Height is 18.3 Feet
Ground
Swel
2% Runup
Elevation (ft)
Station (ft)
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-450
-400
-350
-300
-250
-200
-150
-100
-50
0
50