



BAX PROJECT NAME : KEYSTONE RIDGE  
 BAX PROJECT NO. : 16-16857  
 DESIGN DATE : 07/19/2017

FILENAME: 16857

| UPPER STR | LOWER STR | L   | DIA | UPPER FL LN | LOWER FL LN | PS    | UPPER ST EL | DEPTH HY GR | UPPER HY EL | LOWER HY EL | HYDR GRADE | HEAD | VEL  | VEL HEAD | JUNC LOSS | TURN LOSS | CURVE LOSS | STR GRADE | SZL CAP | DR AREA | PI   | Q    | TQ    | PEPE CAP | REMARKS |    |
|-----------|-----------|-----|-----|-------------|-------------|-------|-------------|-------------|-------------|-------------|------------|------|------|----------|-----------|-----------|------------|-----------|---------|---------|------|------|-------|----------|---------|----|
| C159      | MH49      | 149 | 12  | 593.88      | 590.14      | 2.50  | 598.88      | 4.66        | 594.22*     | 591.14      | .00160     | 0.24 | 1.82 | 0.05     | 0.05      | 0.00      | 0.00       | 2%        | 1.93    | 0.54    | 2.64 | 1.43 | 1.43  | 5.64     | 1       |    |
| A158      | C157      | 108 | 12  | 585.90      | 584.82      | 1.00  | 590.90      | 4.63        | 586.28*     | 585.82      | .00100     | 0.10 | 1.41 | 0.03     | 0.03      | 0.00      | 0.00       | 4%        | 11.00   | 0.42    | 2.64 | 1.11 | 1.11  | 3.56     | 2       |    |
| C157      | C156      | 35  | 12  | 584.62      | 584.27      | 1.00  | 591.32      | 5.82        | 585.50      | 585.27      | .00360     | 0.13 | 2.72 | 0.12     | 0.10      | 0.00      | 0.00       | 2%        | 1.93    | 0.39    | 2.64 | 1.03 | 2.14  | 3.56     | 3       |    |
| C156      | MH48      | 23  | 12  | 584.07      | 583.85      | 0.98  | 591.32      | 6.20        | 585.12      | 584.85      | .00650     | 0.15 | 3.67 | 0.21     | 0.12      | 0.00      | 0.00       | 2%        | 1.93    | 0.28    | 2.64 | 0.74 | 2.88  | 3.52     | 4       |    |
| A155      | C154      | 108 | 12  | 579.91      | 578.83      | 1.00  | 584.90      | 4.55        | 580.35*     | 579.83      | .00170     | 0.18 | 1.85 | 0.05     | 0.05      | 0.00      | 0.00       | 4%        | 11.00   | 0.55    | 2.64 | 1.45 | 1.45  | 3.56     | 5       |    |
| C154      | C153      | 35  | 12  | 578.63      | 578.28      | 1.00  | 585.32      | 5.62        | 579.70      | 579.34      | .00580     | 0.20 | 3.46 | 0.19     | 0.16      | 0.00      | 0.00       | 2%        | 1.93    | 0.48    | 2.64 | 1.27 | 2.72  | 3.56     | 6       |    |
| C153      | MH47      | 26  | 12  | 578.08      | 577.81      | 1.03  | 585.32      | 5.98        | 579.34      | 578.81      | .00960     | 0.25 | 4.44 | 0.31     | 0.21      | 0.07      | 0.00       | 2%        | 1.93    | 0.29    | 2.64 | 0.77 | 3.49  | 3.61     | 7       |    |
| A152      | C151      | 111 | 12  | 590.66      | 589.55      | 1.00  | 595.70      | 4.70        | 591.00*     | 590.55      | .00060     | 0.07 | 1.15 | 0.02     | 0.02      | 0.00      | 0.00       | 4%        | 11.00   | 0.34    | 2.64 | 0.90 | 0.90  | 3.57     | 8       |    |
| C151      | C150      | 36  | 12  | 589.35      | 588.99      | 0.99  | 596.12      | 5.76        | 590.36      | 589.99      | .00560     | 0.20 | 3.40 | 0.18     | 0.17      | 0.00      | 0.00       | 2%        | 1.93    | 0.67    | 2.64 | 1.77 | 2.67  | 3.55     | 9       |    |
| C150      | MH49      | 23  | 12  | 588.79      | 588.34      | 2.00  | 595.93      | 6.22        | 589.71      | 589.34      | .00860     | 0.19 | 4.20 | 0.27     | 0.15      | 0.03      | 0.00       | 2%        | 1.93    | 0.24    | 2.64 | 0.63 | 3.30  | 5.04     | 10      |    |
| MH49      | MH48      | 231 | 15  | 588.14      | 582.38      | 2.50  | 596.70      | 7.95        | 588.75*     | 583.66      | .00540     | 1.24 | 3.85 | 0.23     | 0.16      | 0.19      | 0.00       | MH        | 0.00    | 0.00    | 0.00 | 0.00 | 4.73  | 10.21    | 11      |    |
| MH48      | MH47      | 313 | 15  | 582.18      | 577.48      | 1.50  | 588.01      | 4.25        | 583.66      | 578.73      | .01390     | 4.35 | 6.20 | 0.60     | 0.43      | 0.15      | 0.00       | MH        | 0.00    | 0.00    | 0.00 | 0.00 | 7.61  | 7.31     | 12      |    |
| MH47      | MH46      | 93  | 15  | 577.28      | 570.34      | 7.50  | 585.70      | 7.71        | 577.99*     | 571.59      | .02950     | 2.73 | 9.05 | 1.27     | 1.08      | 0.53      | 0.00       | MH        | 0.00    | 0.00    | 0.00 | 0.00 | 11.10 | 17.69    | 13      |    |
| MH46      | MH45      | 61  | 15  | 565.09      | 553.00      | 19.84 | 578.30      | 12.68       | 565.62*     | 554.25      | .02950     | 1.80 | 9.05 | 1.27     | 1.00      | 0.00      | 0.00       | MH        | 0.00    | 0.00    | 0.00 | 0.00 | 11.10 | 28.77    | 14      |    |
| MH45      | MH44      | 61  | 15  | 549.00      | 537.89      | 18.29 | 558.70      | 9.15        | 549.55*     | 539.82      | .02950     | 1.79 | 9.05 | 1.27     | 1.00      | 0.00      | 0.00       | MH        | 0.00    | 0.00    | 0.00 | 0.00 | 11.10 | 27.63    | 15      |    |
| MH44      | FE4       | 44  | 15  | 537.69      | 536.75      | 2.15  | 547.01      | 7.19        | 539.82      | 538.11      | .02950     | 1.29 | 9.05 | 1.27     | 0.21      | 0.21      | 0.00       | MH        | 0.00    | 0.00    | 0.00 | 0.00 | 11.10 | 9.48     | 16      |    |
| DC142     | MH41      | 57  | 15  | 565.00      | 564.43      | 1.01  | 570.03      | 4.00        | 566.03      | 565.68      | .00350     | 0.20 | 3.12 | 0.15     | 0.15      | 0.00      | 0.00       | LOW       | 6.80    | 1.45    | 2.64 | 3.83 | 3.83  | 6.49     | 17      |    |
| MH41      | MH40      | 62  | 15  | 562.94      | 560.55      | 19.31 | 571.00      | 7.76        | 563.24*     | 551.80      | .00350     | 0.22 | 3.12 | 0.15     | 0.08      | 0.08      | 0.00       | MH        | 0.00    | 0.00    | 0.00 | 0.00 | 3.83  | 28.82    | 18      |    |
| MH40      | FE39      | 59  | 15  | 547.00      | 536.75      | 17.38 | 555.60      | 8.27        | 547.33*     | 538.11      | .00350     | 0.21 | 3.12 | 0.15     | 0.00      | 0.00      | 0.00       | MH        | 0.00    | 0.00    | 0.00 | 0.00 | 3.83  | 26.93    | 19      |    |
| 0638      | FE37      | 116 | 24  | 530.00      | 512.00      | 15.51 | 538.83      | 8.11        | 530.72*     | 514.25      | .01190     | 1.39 | 7.87 | 0.96     | 0.96      | 0.00      | 0.00       | OS        | 0.00    | 3.71    | 2.64 | 9.79 | 24.72 | 89.08    | 20      |    |
| A136      | MH35      | 37  | 15  | 484.73      | 483.99      | 2.00  | 489.00      | 2.67        | 486.33      | 485.34      | .01240     | 0.46 | 5.87 | 0.53     | 0.53      | 0.00      | 0.00       | 4%        | 11.00   | 3.50    | 2.71 | 7.20 | 7.20  | 9.13     | 21      |    |
| MH35      | C134      | 47  | 18  | 483.79      | 483.03      | 0.99  | 493.00      | 7.66        | 485.34      | 484.83      | .00470     | 0.22 | 4.07 | 0.26     | 0.26      | 0.00      | 0.00       | 4%        | 11.00   | 0.00    | 0.00 | 0.00 | 7.20  | 10.45    | 22      |    |
| C134      | FE33      | 112 | 18  | 483.13      | 482.01      | 1.00  | 492.48      | 8.23        | 484.25      | 483.51      | .00490     | 0.55 | 4.15 | 0.27     | 0.10      | 0.09      | 0.00       | 4%        | 1.21    | 0.04    | 3.54 | 0.14 | 7.34  | 10.51    | 23      |    |
| C132      | C117      | 35  | 12  | 565.91      | 565.56      | 1.00  | 570.91      | 4.28        | 566.63      | 566.56      | .00100     | 0.04 | 1.45 | 0.03     | 0.03      | 0.00      | 0.00       | 2%        | 1.93    | 0.42    | 2.64 | 1.14 | 1.14  | 3.56     | 24      |    |
| C131      | C116      | 35  | 12  | 558.89      | 558.54      | 1.00  | 563.89      | 4.23        | 559.66      | 559.54      | .00180     | 0.06 | 1.91 | 0.06     | 0.06      | 0.00      | 0.00       | 2%        | 1.93    | 0.54    | 2.64 | 1.50 | 1.50  | 3.56     | 25      |    |
| A130      | C129      | 123 | 12  | 554.00      | 552.77      | 1.00  | 558.90      | 4.56        | 554.34*     | 553.77      | .00060     | 0.08 | 1.15 | 0.02     | 0.02      | 0.00      | 0.00       | 4%        | 11.00   | 0.34    | 2.64 | 0.90 | 0.90  | 3.57     | 26      |    |
| C129      | C114      | 36  | 12  | 552.57      | 552.21      | 1.00  | 559.88      | 6.35        | 553.33      | 553.21      | .00200     | 0.07 | 2.02 | 0.06     | 0.05      | 0.00      | 0.00       | 3.7%      | 1.32    | 0.26    | 2.64 | 0.69 | 1.59  | 3.56     | 27      |    |
| C128      | C113      | 36  | 12  | 549.46      | 548.74      | 2.00  | 554.50      | 4.76        | 549.74      | 549.74      | .00100     | 0.00 | 0.47 | 0.00     | 0.00      | 0.00      | 0.00       | 0.00      | 7.7%    | 0.50    | 0.14 | 2.64 | 0.37  | 0.37     | 5.03    | 28 |
| A127      | C126      | 25  | 12  | 538.04      | 537.79      | 1.00  | 543.90      | 4.99        | 538.91      | 538.79      | .00200     | 0.05 | 2.05 | 0.07     | 0.07      | 0.00      | 0.00       | 4%        | 11.00   | 0.61    | 2.64 | 1.61 | 1.61  | 3.56     | 29      |    |
| C126      | C112      | 35  | 12  | 537.59      | 537.24      | 1.00  | 542.83      | 4.41        | 538.42      | 538.24      | .00350     | 0.12 | 2.69 | 0.11     | 0.06      | 0.00      | 0.00       | 10%       | 0.50    | 0.19    | 2.64 | 0.50 | 2.11  | 3.56     | 30      |    |
| C125      | C110      | 36  | 12  | 523.86      | 523.50      | 1.00  | 528.86      | 4.30        | 524.56      | 524.50      | .00100     | 0.03 | 1.40 | 0.03     | 0.03      | 0.00      | 0.00       | 10%       | 0.50    | 0.56    | 2.62 | 1.10 | 1.10  | 3.56     | 31      |    |
| A124      | A19       | 94  | 12  | 535.00      | 511.21      | 25.27 | 541.90      | 6.76        | 535.14*     | 512.21      | .00060     | 0.06 | 1.11 | 0.02     | 0.02      | 0.00      | 0.00       | 4%        | 11.00   | 0.33    | 2.64 | 0.87 | 0.87  | 17.91    | 32      |    |
| C123      | C122      | 35  | 12  | 511.94      | 511.59      | 1.00  | 517.02      | 4.41        | 512.61      | 512.59      | .00030     | 0.01 | 0.76 | 0.01     | 0.01      | 0.00      | 0.00       | 10%       | 0.50    | 0.25    | 2.71 | 0.60 | 0.60  | 3.56     | 33      |    |
| C122      | A19       | 13  | 12  | 511.39      | 511.21      | 1.41  | 517.26      | 5.03        | 512.23      | 512.21      | .00050     | 0.01 | 1.03 | 0.02     | 0.01      | 0.00      | 0.00       | 10%       | 0.50    | 0.06    | 3.54 | 0.21 | 0.81  | 4.23     | 34      |    |
| C121      | C18       | 35  | 12  | 503.00      | 502.65      | 1.00  | 508.00      | 4.35        | 503.65      | 503.65      | .00000     | 0.00 | 0.29 | 0.00     | 0.00      | 0.00      | 0.00       | 10%       | 0.50    | 0.07    | 2.71 | 0.23 | 0.23  | 3.56     | 35      |    |
| A160      | C17       | 13  | 12  | 496.80      | 495.28      | 11.99 | 500.90      | 3.87        | 497.03      | 496.97      | .00130     | 0.02 | 1.62 | 0.04     | 0.04      | 0.00      | 0.00       | 4%        | 11.00   | 0.48    | 2.64 | 1.27 | 1.27  | 12.34    | 36      |    |
| C120      | C16       | 35  | 12  | 490.18      | 489.33      | 2.43  | 495.10      | 2.75        | 492.35      | 492.33      | .00020     | 0.01 | 0.57 | 0.01     | 0.01      | 0.00      | 0.00       | 6%        | 0.50    | 0.17    | 2.71 | 0.45 | 0.45  | 5.55     | 37      |    |
| C119      | C18       | 35  | 12  | 571.19      | 570.84      | 1.00  | 576.19      | 4.16        | 572.03      | 571.84      | .00290     | 0.10 | 2.46 | 0.09     | 0.09      | 0.00      | 0.00       | 2%        | 1.93    | 0.73    | 2.64 | 1.93 | 1.93  | 3.56     | 38      |    |
| C118      | C17       | 262 | 12  | 570.64      | 565.56      | 1.94  | 576.19      | 4.89        | 571.30*     | 566.56      | .01170     | 3.07 | 4.91 | 0.38     | 0.38      | 0.09      | 0.09       | 2%        | 1.93    | 0.73    | 2.64 | 1.93 | 3.96  | 39       |         |    |
| C117      | C116      | 349 | 15  | 565.36      | 558.54      | 1.95  | 570.91      | 4.81        | 566.10*     | 559.79      | .00890     | 3.12 | 4.98 | 0.38     | 0.38      | 0.14      | 0.03       | 0.00      | 2%      | 1.93    | 0.42 | 2.64 | 1.11  | 6.11     | 12.03   | 40 |
| C116      | C115      | 117 | 18  | 558.34      | 556.59      | 1.50  | 563.89      | 4.64        | 559.26*     | 558.09      | .00750     | 0.87 | 5.14 | 0.41     | 0.17      | 0.07      | 0.00       | 2%        | 1.93    | 0.56    | 2.64 | 1.48 | 9.09  | 9.03     | 41      |    |
| C115      | C114      | 87  | 18  | 556.39      | 552.21      | 4.81  | 561.62      | 4.55        | 557.07*     | 553.71      | .00840     | 0.73 | 5.44 | 0.46     | 0.17      | 0.10      | 0.00       | 2%        | 1.93    | 0.20    | 2.64 | 0.53 | 9.62  | 23.04    | 42      |    |
| C114      | C113      | 106 | 18  | 552.01      | 547.77      | 4.00  | 559.57      | 6.77        | 552.80*     | 549.27      | .01220     | 1.30 | 6.57 | 0.67     | 0.38      | 0.15      |            |           |         |         |      |      |       |          |         |    |