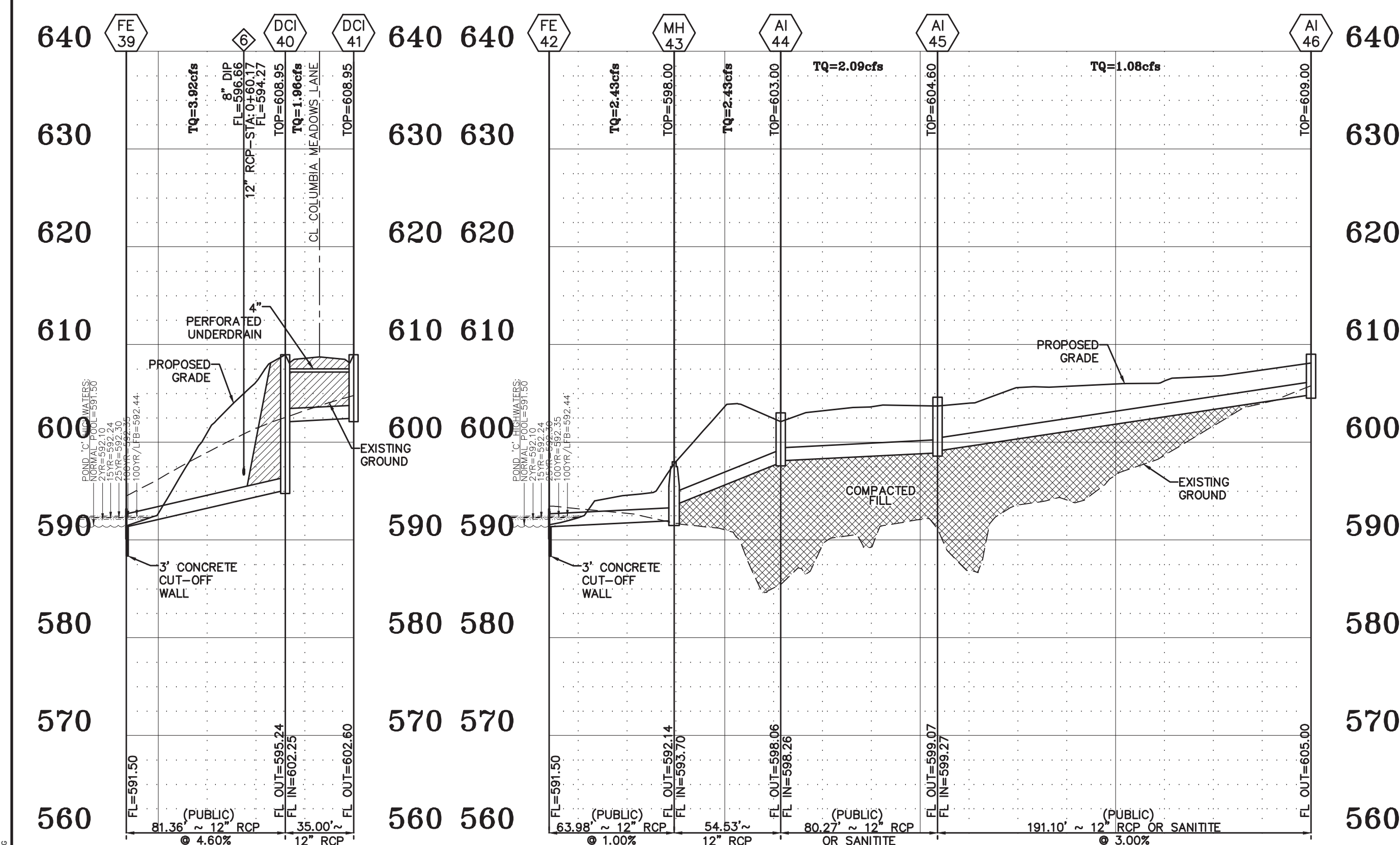


STORM SEWER PROFILE
 SCALES:
 HORIZ. 1"=50'
 VERT. 1"=10'

STORM SEWER PROFILE
 SCALES:
 HORIZ. 1"=50'
 VERT. 1"=10'

STORM SEWER PROFILE
 SCALES:
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STORM SEWER PROFILE
 SCALES:
 HORIZ. 1"=50'
 VERT. 1"=10'

St Charles County Government Hydraulic Review Output Data
 2/10/2021

\\DELLSERVER\Fie\Folders\17000\17484 - Bryan and Magnolia - 44 acres\Engineering\Hydraulics\17484 Calculations Under Full Flow

| Upp Str | Low Str | PL | S | Upp FL LN | Low FL LN | PS | Upp ST EL | Depth HY GR | Upp HY EL | Low HY EL | Hydr Grade | FR Head | VEL | VEL Head | Junc Loss | Turn Loss | Curve Loss | STR Cap | Inl Area | DR Area | P.I. | Q | TQ | Pipe Cap | Remarks | |
|---------|---------|-------|-----|-----------|-----------|--------|-----------|-------------|-----------|-----------|------------|---------|------|----------|-----------|-----------|------------|---------|----------|---------|------|------|-------|----------|---------|------------|
| 1 | A146 | A145 | 191 | 12 | 605.00 | 599.27 | 3.00 | 609.00 | 3.72 | 605.28* | 600.27 | 0.00090 | 0.17 | 1.38 | 0.03 | 0.03 | 0.00 | 0.00 | 4S | 9.35 | 0.42 | 2.58 | 1.08 | 1.08 | 6.17 | |
| 2 | A145 | A144 | 80 | 12 | 599.07 | 598.26 | 1.01 | 604.60 | 4.99 | 599.61* | 599.26 | 0.00340 | 0.27 | 2.66 | 0.11 | 0.00 | 0.01 | 0.00 | 4S | 9.35 | 0.39 | 2.58 | 1.01 | 2.09 | 3.58 | |
| 3 | A144 | MH43 | 55 | 12 | 598.06 | 593.70 | 8.00 | 603.00 | 4.60 | 598.40* | 594.70 | 0.00470 | 0.26 | 3.09 | 0.15 | 0.00 | 0.06 | 0.00 | 4S | 9.35 | 0.13 | 2.58 | 0.34 | 2.43 | 10.08 | |
| 4 | MH43 | FE42 | 64 | 12 | 592.14 | 591.50 | 1.00 | 598.00 | 5.22 | 592.78* | 592.44 | 0.00470 | 0.30 | 3.09 | 0.15 | 0.00 | 0.04 | 0.00 | MH | 9.35 | 0.00 | 0.00 | 0.00 | 2.43 | 3.56 | HW=592.44 |
| 5 | DCI41 | DCI40 | 35 | 12 | 602.60 | 602.25 | 1.00 | 608.95 | 5.50 | 603.45* | 603.25 | 0.00300 | 0.10 | 2.50 | 0.10 | 0.10 | 0.00 | 0.00 | 2.7% | 4.71 | 0.76 | 2.58 | 1.96 | 1.96 | 3.56 | |
| 6 | DCI40 | FE39 | 81 | 12 | 595.24 | 591.50 | 4.60 | 608.95 | 13.20 | 595.76* | 592.44 | 0.01210 | 0.98 | 4.99 | 0.39 | 0.00 | 0.01 | 0.00 | 2.7% | 4.71 | 0.76 | 2.58 | 1.96 | 3.92 | 7.64 | HW=592.44 |
| 7 | OS38 | FE37C | 67 | 21 | 581.97 | 581.30 | 1.00 | 592.00 | 8.51 | 583.49* | 583.05 | 0.00330 | 0.22 | 3.78 | 0.22 | 0.22 | 0.00 | 0.00 | OS | 0.00 | 0.91 | 3.06 | 9.09 | 9.09 | 15.85 | ITP=583.05 |
| 8 | A136 | A135 | 220 | 12 | 600.44 | 594.94 | 2.50 | 605.60 | 4.77 | 600.83* | 595.94 | 0.00260 | 0.57 | 2.33 | 0.08 | 0.08 | 0.00 | 0.00 | 4S | 9.35 | 0.71 | 2.58 | 1.83 | 1.83 | 5.63 | |
| 9 | A135 | C134 | 119 | 15 | 594.74 | 593.55 | 1.00 | 600.00 | 4.24 | 595.76* | 594.80 | 0.00750 | 0.89 | 4.56 | 0.32 | 0.00 | 0.07 | 0.00 | 4S | 9.35 | 1.46 | 2.58 | 3.77 | 5.60 | 6.46 | |
| 10 | C134 | C133 | 35 | 18 | 593.35 | 591.81 | 4.40 | 600.74 | 6.83 | 593.91* | 593.31 | 0.00410 | 0.14 | 3.83 | 0.23 | 0.00 | 0.01 | 0.00 | LOW | 3.40 | 0.45 | 2.58 | 1.16 | 6.76 | 22.03 | |
| 11 | C133 | FE32 | 66 | 18 | 591.61 | 585.90 | 8.71 | 600.74 | 8.62 | 592.12* | 588.73 | 0.00540 | 0.35 | 4.36 | 0.30 | 0.00 | 0.03 | 0.00 | LOW | 3.40 | 0.37 | 2.58 | 0.95 | 7.71 | 31.00 | HW=588.73 |
| 12 | DAI31 | MH30A | 101 | 18 | 592.40 | 591.39 | 1.00 | 596.40 | 3.21 | 593.19* | 592.89 | 0.00190 | 0.19 | 2.61 | 0.11 | 0.11 | 0.00 | 0.00 | 6S | 14.02 | 1.79 | 2.58 | 4.62 | 4.62 | 10.50 | |
| 13 | MH30A | C130 | 20 | 18 | 591.19 | 590.98 | 1.03 | 598.00 | 5.44 | 592.56* | 592.48 | 0.00190 | 0.04 | 2.61 | 0.11 | 0.00 | 0.04 | 0.00 | MH | 0.00 | 0.00 | 0.00 | 0.00 | 4.62 | 10.66 | |
| 14 | C130 | C129 | 45 | 18 | 590.78 | 590.33 | 1.00 | 597.27 | 5.28 | 591.99* | 591.83 | 0.00260 | 0.12 | 3.05 | 0.14 | 0.00 | 0.04 | 0.00 | 2.0% | 1.64 | 0.30 | 2.58 | 0.77 | 5.39 | 10.50 | |
| 15 | C129 | A128 | 175 | 18 | 590.13 | 589.90 | 0.70 | 597.27 | 6.27 | 591.00* | 590.40 | 0.00290 | 0.51 | 3.23 | 0.16 | 0.00 | 0.01 | 0.00 | 2.0% | 1.64 | 0.12 | 2.58 | 0.31 | 5.70 | 8.79 | |
| 16 | A128 | MH27 | 107 | 21 | 588.70 | 587.38 | 1.23 | 592.90 | 3.08 | 589.82* | 589.42 | 0.00200 | 0.21 | 2.92 | 0.13 | 0.00 | 0.19 | 0.00 | 4S | 9.35 | 0.51 | 2.58 | 1.32 | 7.02 | 17.57 | |
| 17 | MH27 | MH26B | 43 | 21 | 587.18 | 587.05 | 0.30 | 600.80 | 11.38 | 589.42* | 589.26 | 0.00200 | 0.09 | 2.92 | 0.13 | 0.00 | 0.07 | 0.00 | MH | 0.00 | 0.00 | 0.00 | 0.00 | 7.02 | 8.88 | |
| 18 | MH26B | MH26A | 42 | 21 | 586.85 | 586.72 | 0.31 | 600.20 | 10.94 | 589.26* | 589.14 | 0.00200 | 0.08 | 2.92 | 0.13 | 0.00 | 0.04 | 0.00 | MH | 0.00 | 0.00 | 0.00 | 0.00 | 7.02 | 8.82 | |
| 19 | MH26A | C126 | 44 | 21 | 586.52 | 586.39 | 0.29 | 599.60 | 10.46 | 589.14* | 588.98 | 0.00200 | 0.09 | 2.92 | 0.13 | 0.00 | 0.07 | 0.00 | MH | 0.00 | 0.00 | 0.00 | 0.00 | 7.02 | 8.53 | |
| 20 | C126 | FE25 | 76 | 21 | 586.19 | 585.90 | 0.38 | 598.37 | 9.39 | 588.98* | 588.73 | 0.00270 | 0.21 | 3.44 | 0.18 | 0.00 | 0.04 | 0.00 | LOW | 3.40 | 0.49 | 2.58 | 1.26 | 8.28 | 9.77 | HW=588.73 |
| 21 | OS24 | FE23C | 80 | 18 | 582.79 | 578.00 | 6.00 | 588.00 | 2.77 | 585.23* | 579.50 | 0.04260 | 3.40 | 12.26 | 2.33 | 2.33 | 0.00 | 0.00 | OS | 0.00 | 1.87 | 3.20 | 21.67 | 21.67 | 25.73 | TP=579.5 |
| 22 | C122 | MH21 | 125 | 12 | 597.42 | 592.58 | 3.87 | 605.81 | 7.98 | 597.83* | 594.93 | 0.00440 | 0.55 | 3.02 | 0.14 | 0.14 | 0.00 | 0.00 | LOW | 3.40 | 0.92 | 2.58 | 2.37 | 2.37 | 7.01 | |
| 23 | MH21 | FE20 | 38 | 12 | 592.38 | 592.00 | 1.01 | 598.20 | 3.27 | 594.93* | 594.71 | 0.00440 | 0.17 | 3.02 | 0.14 | 0.00 | 0.05 | 0.00 | MH | 0.00 | 0.00 | 0.00 | 0.00 | 2.37 | 3.58 | HW=594.71 |
| 24 | A119 | C115 | 123 | 12 | 605.00 | 602.98 | 1.64 | 610.40 | 4.85 | 605.55* | 604.03 | 0.00610 | 0.75 | 3.55 | 0.20 | 0.20 | 0.00 | 0.00 | 4S | 9.35 | 1.08 | 2.58 | 2.79 | 2.79 | 4.56 | |
| 25 | C118 | C117 | 35 | 12 | 607.82 | 605.02 | 8.00 | 615.01 | 7.05 | 607.96* | 606.02 | 0.00200 | 0.01 | 0.66 | 0.01 | 0.01 | 0.00 | 0.00 | 2.0% | 1.64 | 0.20 | 2.58 | 0.52 | 0.52 | 10.08 | |
| 26 | C117 | MH16 | 75 | 12 | 604.82 | 604.07 | 1.00 | 615.01 | 9.81 | 605.20* | 605.07 | 0.00090 | 0.07 | 1.35 | 0.03 | 0.00 | 0.01 | 0.00 | 2.0% | 1.64 | 0.21 | 2.58 | 0.54 | 1.06 | 3.56 | |
| 27 | MH16 | C115 | 89 | 12 | 603.87 | 602.96 | 1.00 | 612.70 | 8.46 | 604.24* | 604.03 | 0.00090 | 0.08 | 1.35 | 0.03 | 0.00 | 0.02 | 0.00 | MH | 0.00 | 0.00 | 0.00 | 0.00 | 1.06 | 3.56 | |
| 28 | C115 | C114 | 35 | 15 | 602.78 | 602.43 | 1.00 | 611.00 | 6.97 | 604.03* | 603.68 | 0.00090 | 0.21 | 4.04 | 0.25 | 0.14 | 0.00 | 0.00 | LOW | 3.40 | 0.43 | 2.58 | 1.11 | 4.96 | 6.46 | |
| 29 | C114 | A113 | 134 | 15 | 602.23 | 598.86 | 2.51 | 611.00 | 8.11 | 602.89* | 600.11 | 0.00770 | 1.03 | 4.63 | 0.33 | 0.00 | 0.11 | 0.00 | LOW | 3.40 | 0.28 | 2.58 | 0.72 | 5.68 | 10.23 | |
| 30 | A113 | A112 | 90 | 15 | 598.66 | 594.19 | 4.95 | 606.00 | 6.73 | 599.27* | 595.80 | 0.01150 | 1.04 | 5.66 | 0.50 | 0.00 | 0.08 | 0.00 | 4S | 9.35 | 0.49 | 2.58 | 1.26 | 6.94 | 14.37 | |
| 31 | A112 | A16 | 130 | 21 | 593.99 | 592.69 | 1.00 | 595.00 | 3.20 | 595.80* | 595.14 | 0.00240 | 0.31 | 3.20 | 0.16 | 0.00 | 0.35 | 0.00 | 4S | 9.35 | 0.29 | 2.58 | 0.75 | 7.69 | 15.85 | |
| 32 | A111 | A110 | 135 | 12 | 610.81 | 605.41 | 4.00 | 614.90 | 3.83 | 611.07* | 606.41 | 0.00090 | 0.12 | 1.35 | 0.03 | 0.03 | 0.00 | 0.00 | 4S | 9.35 | 0.41 | 2.58 | 1.06 | 1.06 | 7.13 | |
| 33 | A110 | A19 | 114 | 12 | 605.21 | 601.78 | 3.00 | 610.80 | 5.20 | 605.60* | 602.78 | 0.00330 | 0.38 | 2.60 | 0.10 | 0.00 | 0.02 | 0.00 | 4S | 9.35 | 0.38 | 2.58 | 0.98 | 2.04 | 6.17 | |
| 34 | A19 | A18 | 153 | 12 | 601.58 | 598.52 | 2.00 | 608.70 | 6.62 | 602.08* | 599.52 | 0.00520 | 0.80 | 3.26 | 0.17 | 0.00 | 0.01 | 0.00 | 4S | 9.35 | 0.20 | 2.58 | 0.52 | 2.56 | 5.04 | |
| 35 | A18 | A17A | 81 | 12 | 598.32 | 597.51 | 1.00 | 605.10 | 5.88 | 599.22* | 598.51 | 0.00870 | 0.71 | 4.24 | 0.28 | 0.00 | 0.00 | 0.00 | 4S | 9.35 | 0.30 | 2.58 | 0.77 | 3.33 | 3.56 | |
| 36 | A17A | A17 | 121 | 15 | 597.31 | 595.24 | 1.71 | 603.50 | 5.41 | 598.09* | 596.32 | 0.00890 | 1.07 | 4.96 | 0.38 | 0.00 | 0.00 | 0.00 | 4S | 9.35 | 1.07 | 2.58 | 2.76 | 6.09 | 8.45 | |
| 37 | A17 | A16 | 148 | 15 | 595.04 | 592.69 | 1.59 | 600.30 | 3.38 | 596.92* | 595.14 | 0.01090 | 1.62 | 5.49 | 0.47 | 0.00 | 0.16 | 0.00 | 4S | 9.35 | 0.25 | 2.58 | 0.65 | 6.74 | 8.15 | |
| 38 | A16 | FE5 | 49 | 24 | 592.49 | 592.00 | 1.01 | 604.30 | 9.16 | 595.14* | 594.71 | 0.00420 | 0.20 | 4.68 | 0.34 | 0.23 | 0.00 | 0.00 | 4S | 9.35 | 0.10 | 2.58 | 0.26 | 14.69 | 22.74 | HW=594.71 |
| 39 | OS4 | MH3 | 53 | 21 | 597.00 | 584.74 | 4.28 | 594.00 | 5.10 | 588.90* | 586.49 | 0.02000 | 1.06 | 9.31 | 1.35 | 1.35 | 0.00 | 0.00 | OS | 0.00 | 1.78 | 3.00 | 22.40 | 22.40 | 32.78 | |
| 40 | MH3 | MH2 | 48 | 21 | 584.54 | 583.00 | 3.21 | 591.88 | 5.78 | 586.10* | 584.75 | 0.02000 | 0.96 | 9.31 | 1.35 | 0.00 | 0.39 | 0.00 | MH | 0.00 | 0.00 | 0.00 | 0.00 | 22.40 | 26.39 | |
| 41 | MH2 | FE1 | 197 | 24 | 582.90 | 578.00 | 2.49 | 590.75 | 6.71 | 584.04* | 580.00 | 0.00980 | 1.93 | 7.13 | 0.79 | 0.00 | 0.02 | 0.00 | LOW | 3.40 | 0.00 | 0.00 | 0.00 | 22.40 | 35.70 | ITP=580.00 |