A00000 86

A0000086

# COMPARISON

| REACHES | PROPOSED SECTION M+M | TIP I-WALL | GDM SECT | TIP I-WALL |
|---|---|---|---|---|
| 1<br>STA 554<br>STA 568 | Levee Crown 5.5 (13.1'C.S.)(9'L.S.)<br>Floodside Bench 2.0 → 12'<br>F.S. = 1.289 @ EL -20.5 (NG)<br>Landside *1 | -12.8 | Levee Crown 5.5 (11.5'C.S.) (11.5' L.S.)<br>Floodside Bench 2.0 → 8.5' | -12.74 |
| 2<br>STA 568<br>STA 589 | Levee Crown 5.5 (12.4'C.S.)(9.2'L.S.)<br>Floodside Bench 2.0 → 9'<br>F.S. = 1.293 @ EL -20.5 (N.G)<br>Landside *2 | -12.8 | Levee Crown 5.5 (13'C.S.) (13'L.S.)<br>Floodside Bench 2.5 → 8.5' | -12.74 |
| 3<br>STA 589<br>STA 614 | Levee Crown 5.5 (15.6'C.S.)(10.9'L.S.)<br>Floodside Bench 2.0 → 9'<br>F.S. = 1.293 EL -10.5 L.S. *3<br>F.S. = 1.252 EL -20.5<br>F.S. = 1.267 EL -32.0 | -12.8 | Levee Crown 6.5 (12'C.S.) (12'L.S.)<br>Floodside Bench EL 2.1 to EL 3.0 (19.8') | -7.8 |
| 4<br>STA 614<br>STA 625 | Levee Crown EL 7.0 (8.9'C.S.)(8.5'L.S.)<br>Floodside Bench 3.6 - 9'<br>F.S. = 1.238 @ EL -23.5<br>CANALSIDE *4 | *5 -6.6 | Levee Crown EL 7.0 (8'C.S.)(6.5'L.S.)<br>Floodside Bench 3.6 → 15' | *5 -6.8 |
| 5<br>STA 625<br>STA 635 | Levee Crown EL 7.5 (9.2'C.S.) (7.5'L.S.)<br>Floodside Bench EL 5.5 - 8.5<br>F.S. = 1.236 @ EL -14.4<br>CANALSIDE *4 | *2 -6.3 | Levee Crown EL 7.5 (8'C.S.)(8'L.S.)<br>Floodside Bench 5.0 → 13' | (A) -4.9 |
| 6<br>STA 635<br>STA 643 | Levee Crown 9.5 (9.7' C.S. + L.S.)<br>(OK) | 0.0 | Levee Crown 9.5 (10' C.S. + L.S.) | 0.0 |
| 7<br>STA 643<br>STA 663 | Levee Crown 12.0 (16.1'C.S.) (15.8'C.S.)<br>(OK) | 0.0 | Levee Crown 12.1 (10' C.S. + L.S.) *1 | 0.0 |
| 8<br>STA 663<br>STA 670 | Levee Crown 12.0 (12.4'C.S.) (10'C.S.)<br>F.S. = 1.222 @ EL -19.0<br>CANALSIDE | 0.0 | Levee Crown 12.5 (10' C.S. + L.S.) | 0.0 |

*1 Since c = 600 PSF at top of levee a wider levee crown increases the F.S.

*2 Should be EL -5.45 (M+M used $\gamma_{TOT}$ below water surface on Floodside)

*1 Sheetpile shifted 2.6' to Landside at critical station 560+00. Two other stations 554+00 and 556+00 are next critical but is vacant lot which has been filled so no problem now.

*2 Sheetpile shifted 1.2' to Landside at critical sta 576+00

*3 Sheetpile shifted 1.7' to Landside at critical sta 604+00. Checked GDM section at 604+00 "NEED FILL at Levee TOE" STA 600+00 is OK for GDM section. GDM Landside Stability Plate will have following Note "At STA 60 +00 to Sta 6 (VACANT LOTS) A 30' berm 6 inches high from the landside levee toe will be needed.

*4 USED EL -5 NGVD HEADLINE IN SAND (LOW WATER CASE EL -5.0 INSTEAD OF EL -2.4) RB is lower

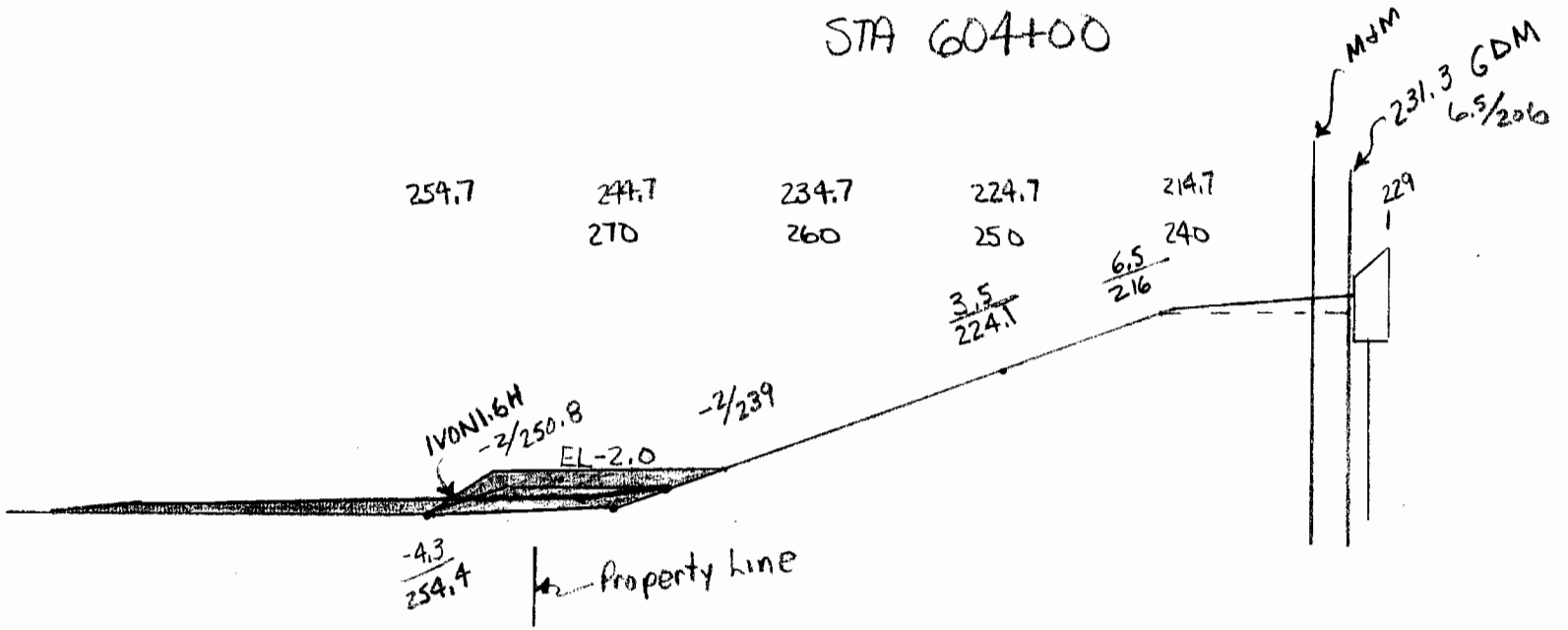
(A) GENERAL NOTES: M+M used surveys taken from 1987 for proposed sections GDM uses surveys from 1984. Mo Desai Des Br received new surveys Jul 88. There are small differences in ground elevations (tenths of a foot) but sections are very sensitive to variation in ground surface.

*5 A 3 to 1 penetration to head ratio results in a tip EL of -6.6
A F.S. = 1.5 S-CASE gives a tip EL -6.8 so EL -6.6 is OK

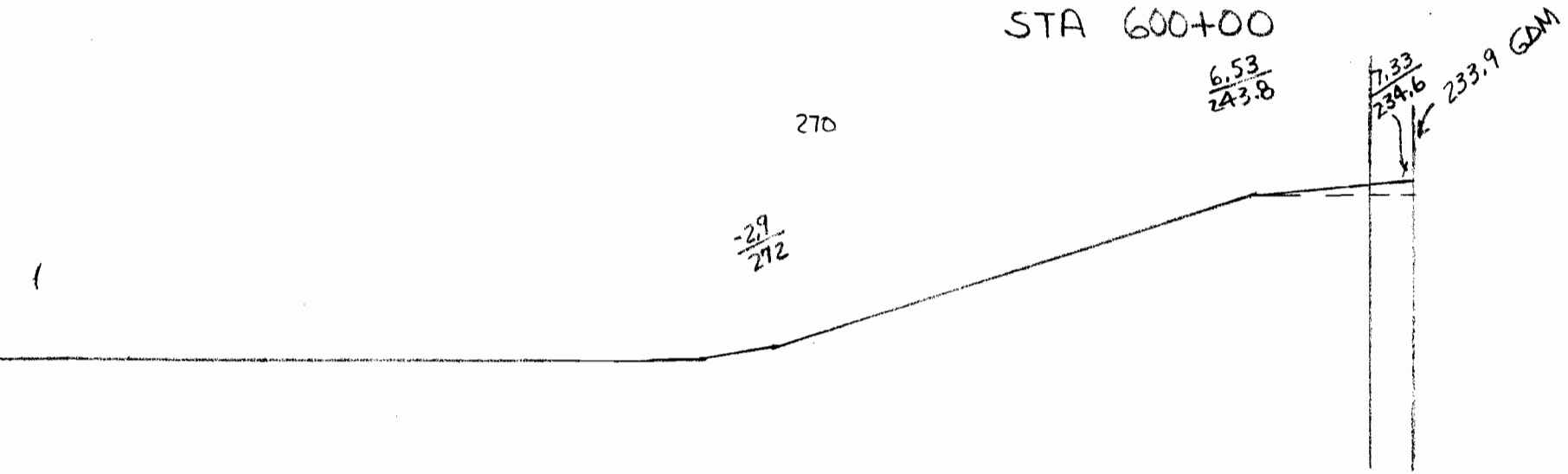
| REACH | FILE NAMES | | |
|---|---|---|---|
| | LANDSIDE STABILITY ANALYSIS | CANALSIDE ANALYSIS | |
| 1 | M28M | M29M | |
| 2 | M30M | M31M | |
| 3 | M32MC | M33M | M32MA → STA 604+00 GDM<br>M32MB → STA 600+00 GDM<br>LANDSIDE STAB. |
| 4 | M34M | M35M | |
| 5 | M36M<br>M38 | M37M<br>M39 | |
| 6 | SAME AS GDM<br>GROUND EL. HIGH (M40) | SAME AS GDM | |
| 7 | NONE SUBMITTED<br>GROUND EL HIGH (M43) | M42M | |
| 8 | NONE SUBMITTED | M44M | |

Previous submission of Oct 88 Eustis incorrectly converted soil stratification @ EL. 0.0 to EL -2.0 NGVD (Sta 554+00 to Sta 635+00) from C.D. (Jan 88 submission) to NGVD. Modj+Masters used Eustis submittal. Talked to Martha S. of M+M about it. I noticed tip EL for reach 5 not correct. I talked to Martha S. and told her to check floodside soil properties. She said she used total wts instead of submerged wts below the water surface.

## STA 604+00




## STA 600+00



# COMPARISON - "I-WALLS"

| REACHES | PROPOSED SECTION M+M | | | GDM SECTION | | | |
|---|---|---|---|---|---|---|---|
| | P.S. Crown. | F.S. Bench | TIP | P.S. Crown | F.S. Bench | TIP | |
| 1 | 8.4' | 12' | -12.8 | 9' | 8.5' | -12.74 | |
| 2 | 9.0' | 9' | -12.8 | 8' | 8.5' | -12.74 | |
| 3 | 9.0' | 9' | -12.8 | 8' | 19.8' | -7.8 | |
| * 4 | 8.9' | 9' | -6.6 | 8' | 15' | -6.8 | |
| 5 | 6.2' | 8.5' | -6.3 | 8' | 13' | -4.9 | M70M STA 634+00 -5.45<br>M70MA -5.17 STA 632+00 |
| 6 | — | — | 0.0 | — | — | 0.0 | |
| 7 | — | — | 0.0 | — | — | 0.0 | |
| 8 | — | — | 0.0 | — | — | 0.0 | |

* Canalside failure