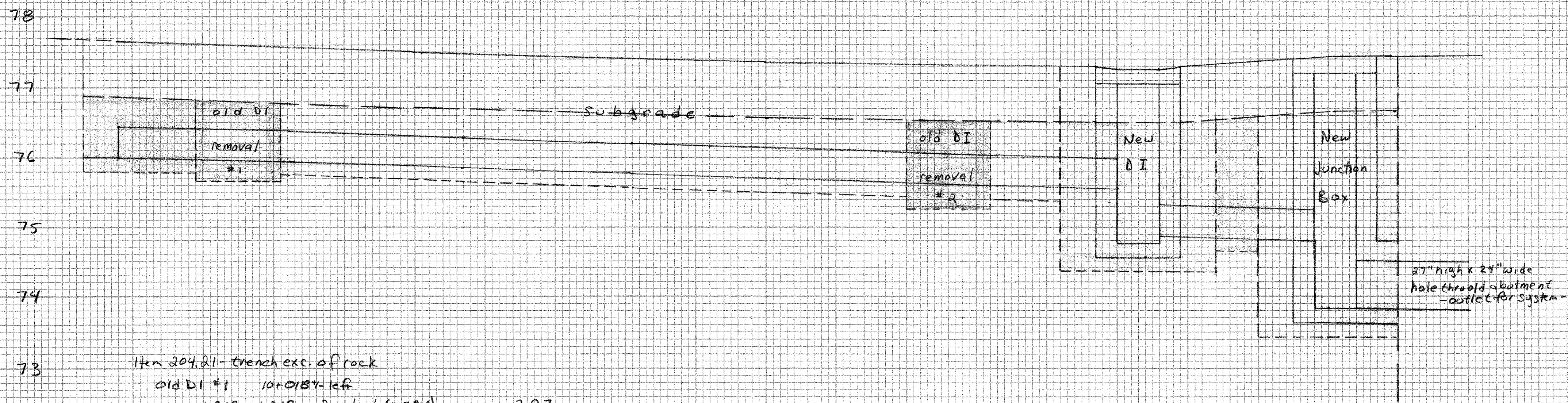




Item 204.21 - Trench exc. of rock
Old DI #1 10+0187 left
 $1.219 \times 1.219 \times 2 \text{ m high (MIF/PM)} = 2.97$
Old DI #2 10+0367 left
 $1.219 \times 1.219 \times 2.2 \text{ m high (MIF/PM)} = 3.27$

Item 204.20 - Trench exc. of earth
New 18" RCP, approx 10+020 ~ 10+038 left
 $12.7 \text{ sm} \times 1.6 = 20.32$
New DI, approx 10+039 left
 $4.8 \text{ sm} \times 2.2 = 10.56$
New Junction Box, approx 10+043 left
 $6.5 \text{ sm} \times 2.2 = 14.30$
New 18" RCP, approx 10+040 ~ 10+049 left
 $1.2 \text{ sm} \times 1.6 = 1.92$

Item 204.30 - Granular Backfill for Structures
New 18" RCP, approx 10+020 ~ 10+038 left
trench earth minus volume current plus old DI volume
 $\pi r^2 \times \text{length} = \pi .225^2 \times 13.4 = 2.13 \text{ cm}$
 $20.32 - 2.13 + 1.71(*1) + 1.93(*2) = 21.83$
New DI, approx 10+039 left
trench earth minus volume DI
 $10.56 - 3.20 = 7.36$
New Junction Box, approx 10+043 left
trench earth minus volume jct Box
 $14.30 - 4.76 = 9.54$
New 18" RCP, approx 10+040 ~ 10+049 left
trench earth minus volume pipe
 $\pi r^2 \times \text{length} = \pi .225^2 \times 0.6 = 0.10 \text{ cm}$
 $1.92 - 0.10 = 1.82$
Abutment #1 Extension (See page 30135-10 for sketch/dimensions and also page 30134-4)
 $(3.40 \times 0.50 \times 0.84) + (0.82 \times 0.50 \times 0.91) = 1.80$