DISTRICT 10
PLANNING & ENGINEERING

CALC. BY: _____ CHKD. BY: _____

CNTY. HOC RT. 180 SECT. 233 SHEET 1 OF 3

ITEM 202 - WEARING COURSE REMOVED

(22')(33')/9 = 80.67 SQ YD

ITEM 511 - CLASS QC2 CONCRETE, SUPERSTRUCTURE

(31.73')(38')(1.79')/27 = 79.94 CY

(3.36')(1.73')(2.25')/27 = 0.48 CY

(1.50')(44.13')(2.25')/27 = 5.52 CY

(3.36')(1.75')(2.25')/27 = 0.49 CY

(3.36')(1.73')(2.25')/27 = 0.48 CY

(1.50')(43.64')(2.25')/27 = 5.46 CY

(3.36')(1.72')(2.25')/27 = 0.48 CY

92.85 CU YD

ITEM 511 - CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING

REAR:

(3')(3')(67')/27 = 22.33 CY

½(5.43' + 6.84')(7.50')(2.25')/27 = 3.83 CY

(6.84')(2.15')(2.25')/27 = 1.23 CY

½(3.48' + 3.79')(8.19')(2.25')/27 = 2.48 CY

½(3.79' + 3.54')(15.65')(2.25')/27 = 4.78 CY

½(3.54' + 2.67')(23.94')(2.25')/27 = 6.19 CY

(6.03')(2.56')(2.25')/27 = 1.29 CY

½(6.03' + 5.03')(7')(2.25')/27 = 3.23 CY

45.36 CY

FWD:

(3')(3')(67')/27 = 22.33 CY

½(5.52' + 6.02')(7.5')(2.25')/27 = 3.61 CY

(6.02')(1.65')(2.25')/27 = 0.83 CY

½(2.66' + 3.50')(23.69')(2.25')/27 = 6.08 CY

½(3.50' + 3.74')(15.49')(2.25')/27 = 4.67 CY

½(3.74' + 3.42')(8.11')(2.25')/27 = 2.42 CY

(6.78')(3.05')(2.25')/27 = 1.72 CY

½(6.78' + 5.38')(7.56')(2.25')/27 = 3.80 CY

45.46 CY

TOTAL = 45.36 + 45.46 = 90.82 CU YD

DISTRICT 10
PLANNING & ENGINEERING

CALC. BY: _____ CHKD. BY: _____

CNTY. HOC RT. 180 SECT. 233 SHEET 2 OF 3

ITEM 512 - SEALING OF CONCRETE SURFACES

SUPER: (1.79' + 0.50')(27.80')/9 = 7.07 SY

(1.79' + 0.50')(27.59')/9 = 7.02 SY

(3.36')(1.83')/9 = 0.68 SY

(1.83')(2.25')/9 = 0.46 SY

(1.50')(44.11')/9 = 7.35 SY

(3.36')(1.85')/9 = 0.69 SY

(1.85')(2.25')/9 = 0.46 SY

(3.36')(1.83')/9 = 0.68 SY

(1.83')(2.25')/9 = 0.46 SY

(1.50')(43.66')/9 = 7.28 SY

(3.36')(1.81')/9 = 0.68 SY

(1.81')(2.25')/9 = 0.45 SY

33.28 SQ YD

REAR ABUT: (4.20')(2.25')/9 = 1.05 SY

½(4.20' + 5.61')(7.50')/9 = 4.09 SY

(5.61')(1.50')/9 = 0.94 SY

(7.63')(2.25')/9 = 1.91 SY

(2.15')(2.25')/9 = 0.54 SY

(10.31')(1.0')/9 = 1.15 SY

½(2.25' + 2.56')(8.19')/9 = 2.19 SY

½(2.56' + 2.31')(15.65')/9 = 4.23 SY

½(2.31' + 1.44')(23.91')/9 = 4.99 SY

(4.80')(3.24')/9 = 1.73 SY

½(4.80' + 3.80')(7')/9 = 3.34 SY

(3.80')(2.25')/9 = 0.95 SY

(7.07')(2.25')/9 = 1.77 SY

(2.56')(2.25')/9 = 0.64 SY

(8.89')(1.0')/9 = 0.99 SY

30.51 SY

FWD: (4.28')(2.25')/9 = 1.07 SY

½(4.28' + 4.78')(7.50')/9 = 3.78 SY

(4.78')(1.01')/9 = 0.54 SY

(7.52')(2.25')/9 = 1.88 SY

(1.65')(2.25')/9 = 0.41 SY

(9.80')(1.0')/9 = 1.09 SY

½(1.40' + 2.26')(23.69')/9 = 4.84 SY

½(2.26' + 2.50')(15.49')/9 = 4.10 SY

½(2.50' + 2.18')(8.11')/9 = 2.11 SY

(5.54')(3.68')/9 = 2.27 SY

½(5.54' + 4.14')(7.50')/9 = 4.03 SY

(4.14')(2.25')/9 = 1.04 SY

(7.63')(2.25')/9 = 1.91 SY

(3.05')(2.25')/9 = 0.76 SY

(9.93')(1.0')/9 = 1.10 SY

30.93 SY

TOTAL = 61.44 SQ YD

DISTRICT 10
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CALC. BY: _____ CHKD. BY: _____

CNTY. HOC RT. 180 SECT. 2.33 SHEET 3 OF 3

ITEM 516 - 1/2" PESF

REAR ABUT : (47.61')(0.75') = 35.71 SF

FWD ABUT : (47.08')(0.75') = 35.31 SF

71.02 SQ FT

ITEM 516 - 1" PESF

REAR ABUT : (3.36')(2.60') = 8.74 SF

(47.58')(0.67') = 31.88 SF

(3.36')(2.62') = 8.80 SF

49.42 SF

FWD ABUT : (3.36')(2.59') = 8.70 SF

(47.12')(0.67') = 31.57 SF

(3.36')(2.58') = 8.67 SF

48.94 SF

TOTAL = 49.42 + 48.94 = 98.36 SQ FT

ITEM 516 - NYLON REINFORCED NEOPRENE SHEETING

REAR ABUT: (67')(3') = 201 SF

(4.86')(3') = 14.58 SF

(4.86')(3') = 14.58 SF

230.16 SF

FWD ABUT : (67')(3') = 201 SF

(4.86')(3') = 14.58 SF

(4.86')(3') = 14.58 SF

230.16 SF

TOTAL = 230.16 + 230.16 = 460.32 SQ FT

ITEM 518 - POROUS BACKFILL WITH GEOTEXTILE FABRIC

REAR ABUT:

1/2(3.92' + 5.33')(7.5')(2')/27 = 2.57 CY

(5.33')(4.64')(2')/27 = 1.83 CY

1/2(5.33' + 5.57')(6.37')(2')/27 = 2.57 CY

1/2(5.57' + 5.32')(15.66')(2')/27 = 6.32 CY

1/2(5.32' + 4.52')(22.11')(2')/27 = 8.06 CY

(4.52')(3.73')(2')/27 = 1.25 CY

1/2(4.52' + 3.52')(7')(2')/27 = 2.08 CY

24.68 CY

FWD ABUT:

1/2(3.85' + 4.35')(7.5')(2')/27 = 2.28 CY

(4.35')(4.13')(2')/27 = 1.33 CY

1/2(4.35' + 5.12')(21.86')(2')/27 = 7.67 CY

1/2(5.12' + 5.36')(15.48')(2')/27 = 6.01 CY

1/2(5.36' + 5.11')(6.30')(2')/27 = 2.44 CY

(5.11')(4.24')(2')/27 = 1.60 CY

1/2(5.11' + 3.71')(7.50')(2')/27 = 2.45 CY

23.78 CY

TOTAL = 24.68 + 23.78 = 48.46 CU YD

ITEM 526 - REINFORCED CONCRETE APPROACH SLAB

(15')(38')/9 = 63.33 SY × 2 = 126.67 SQ YD