6_5 CALCULATING PAVEMENT STRUCTURE VOLUME UTILIZING CORRIDOR MODELING

Question:

Has anyone developed a revised method of calculating pavement structure volume utilizing Corridor Modeler?

Answer:

It's actually easier to do PSV computation with corridor modeling. No need to do two separate earthwork runs and take the difference between the two as described with Criteria cross section because the pavement layers have already been generated in Corridor Modeling DTMs and cross sections. Simply total up the "Unadjusted Volumes" of all of the three pavement layers from the pavement quantity log files. For some exercises in calculating pavement quantities with CM see Chapter 2 in our WebHelp.

http://www.ncdot.org/doh/preconstruct/highway/roadway/corridor_modeling/x-section/Quantities/Pavement/

Note that pavement quantites and other roadway quantities can be obtained with Roadway Designer quantity reports, without the need for cross sections.
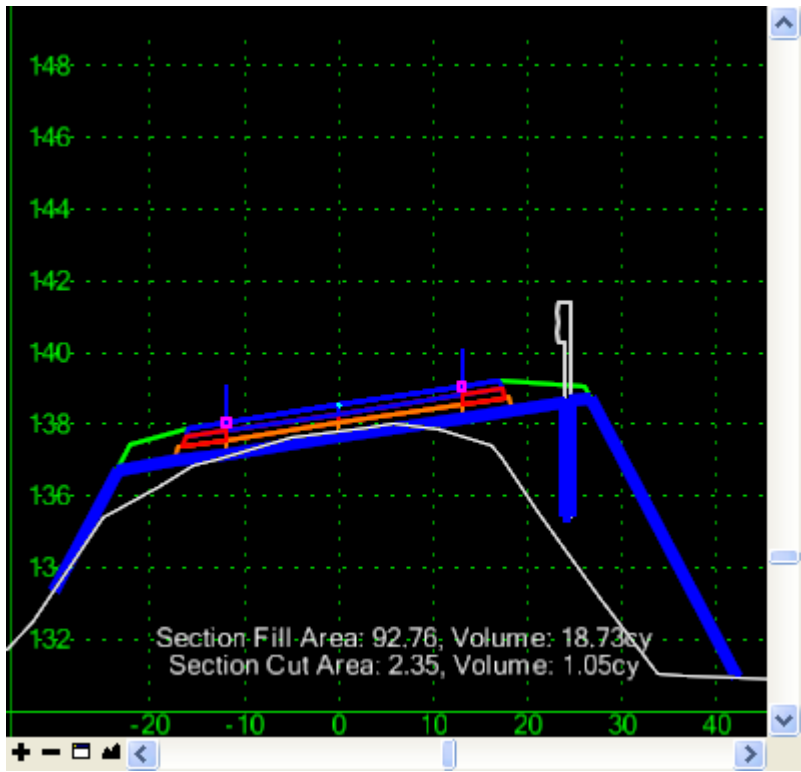
Roadway Designer Component Quantities Summary Report

Report Created: 6/14/2011
Time: 12:18pm

Corridor Name: L

Alignment Name: L

Input Grid Factor: 1.000000

Note: All units in this report are in feet, square feet and cubic yards unless specified otherwise.

Material	Component Volume Totals	Component Surface Area Totals	Unit Cost	Material Cost
Surface Pvmt Overlay		8972.67	0.00	0.00
Pvmt EOT Tick Mark		716.47	0.00	0.00
G/R Widen Shoulder	30.16		0.00	0.00
DNC		135.00	0.00	0.00
Surface Pvmt		8972.67	0.00	0.00
Shear Line		850.00	0.00	0.00
Shld C1	23.94		0.00	0.00
Shld C2	25.40		0.00	0.00
Pvmt C1	83.02		0.00	0.00
Shld C3	45.20		0.00	0.00
Pvmt C2	83.02		0.00	0.00
Subgrade		16454.08	0.00	0.00
Pvmt C3	124.53		0.00	0.00
Surface Grass		12467.77	0.00	0.00
Surface Pvmt Shld		2507.64	0.00	0.00
		Total Estimated Cost:		0.00

Section Fill Area: 92.76; Volume: 18.73cy
Section Cut Area: 2.35, Volume: 1.05cy

As we move into the next phase of computing quantities, out of cross sections and inside Roadway Designer, we hope to refine the XML style sheets and reformat the reports to Roadway standards.