

Engineer's Estimate of Earthwork Quantities
(Not for Bidding Use – For Permit Estimation Purposes Only)

Description	Cut (Cubic Yards)	Fill (Cubic Yards)	
<p style="text-align: center;">Lot(s) (Raw)</p> <p>Indicate on the grading plan the cut and fill areas and daylight lines.</p> <p>Both raw cut and raw fill shall account for subsidence in decimal of a foot as designated by the Soils Engineer in the soils report (IE Drop existing site grades by designated subsidence before quantifying raw cut and raw fill.</p>	$C_1 = \text{Amount of Raw Cut}$	$F_1 = \text{Amount of Raw Fill}$ (including building pad quantities)	
<p>Over-excavation (Building)</p>	$C_2 = \text{Amount of building overex.}$ (including scarification cut beyond raw cut)	$F_2 = \text{Amount of building overex. fill}$ (including uncompacted scarification volume beyond raw fill)	<p>Note: $C_2 = F_2$</p>
<p>Over-excavation (Parking lot and/or streets)</p>	$C_3 = \text{Amount of parking lot and/or street overex.}$ (including scarification cut beyond raw cut)	$F_3 = \text{Amount of parking lot or street overex. fill}$ (including uncompacted scarification volume beyond raw fill)	<p>Note: $C_3 = F_3$</p>
<p>Basin</p>	$C_4 = \text{Amount of basin cut beyond raw cut}$		
<p>Subtotals</p>		$F_4 = (F_1 + F_2 + F_3)$	
<p>Totals</p> <p>Compaction shrinkage (Maximum of % range, in decimal, given by soils engineer in the soils report = "S")</p>	$C_{\text{Total}} = (C_1 + C_2 + C_3 + C_4)$	$F_{\text{Total}} = \left(\frac{F_4}{1 - S} \right)$	<p>Note: Take the greater quantity of earthwork between C_{Total} and F_{Total} to determine Grading Bond estimate and Grading Fees.</p>
<p>Note: This chart shall be placed on the Cover Sheet of the Grading Plan with this general format (as items apply), except at a smaller scale.</p>	<p>If ($C_{\text{Total}} > F_{\text{Total}}$) then $C_{\text{Total}} - F_{\text{Total}} = \text{Export}$</p>	<p>If ($F_{\text{Total}} > C_{\text{Total}}$) then $F_{\text{Total}} - C_{\text{Total}} = \text{Import}$ (If at same shrinkage rate as site soils)</p>	<p>Note: Import soils may have a different shrinkage rate than site soils.</p>

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THIS CHART IS TO BE USED FOR RESIDENTIAL SINGLE-LOT GRADING PLANS ONLY

Description	Cut (Cubic Yards)	Fill (Cubic Yards)	
Lot(s) (Raw) Indicate on the grading plan the cut and fill areas and daylight lines. Both raw cut and raw fill shall account for subsidence in decimal of a foot as designated by the Soils Engineer in the soils report (IE Drop existing site grades by designated subsidence before quantifying raw cut and raw fill.	$C_1 = \text{Amount of Raw Cut}$	$F_1 = \text{Amount of Raw Fill}$ (including building pad quantities)	
Over-excavation (Building)	$C_2 = \text{Amount of building overex.}$ (including scarification cut beyond raw cut)	$F_2 = \text{Amount of building overex. fill}$ (including uncompacted scarification volume beyond raw fill)	Note: $C_2 = F_2$
Subtotals		$F_4 = (F_1 + F_2)$	
Totals Compaction shrinkage (Maximum of % range, in decimal, given by soils engineer in the soils report = "S")	$C_{\text{Total}} = (C_1 + C_2)$	$F_{\text{Total}} = \left(\frac{F_4}{1 - S} \right)$	Note: Take the greater quantity of earthwork between C_{Total} and F_{Total} to determine Grading Bond estimate and Grading Fees.
Note: This chart shall be placed on the Cover Sheet of the Grading Plan with this general format (as items apply), except at a smaller scale.	If ($C_{\text{Total}} > F_{\text{Total}}$) then $C_{\text{Total}} - F_{\text{Total}} = \text{Export}$	If ($F_{\text{Total}} > C_{\text{Total}}$) then $F_{\text{Total}} - C_{\text{Total}} = \text{Import}$ (If at same shrinkage rate as site soils)	Note: Import soils may have a different shrinkage rate than site soils.