#### 4510.1 APPENDIX 16

#### FORMULAS FOR CALCULATING REPLACEMENT COST WHEN A GROUND LEASE IS INVOLVED

#### A. <u>Proposed Construction Without BSPRA</u> - applicable to 236 NP and cooperative projects.

The symbols used in this formula relate to the following expressions:

$$\begin{split} X &= \text{Replacement Cost} \\ A &= \text{Est. Market Price of Site} \\ B &= \text{Total of all known items except land value} \\ C &= \text{Total of all unknown items expressed as decimal fraction} \\ L &= \text{Value of Leased Fee} \end{split}$$

Using the above symbols, determine replacement cost using the equation;

$$X = \underline{A + B - CL}$$
1.0 - C

This is completed an follows:

1.	Total of all known Items including land value. (A + B)	\$
2.	The value of the leased fee is multiplied by the total of all unknown items expressed as a decimal fraction. (L x C)	\$
3.	Line 2 is subtracted from Line 1.	\$
4.	The total of all unknown items expressed as a decimal fraction is subtracted from 1.0. (1.0 - C)	\$
5.	The dollar amount in Line 3 is divided by Line 4 to Indicate the Replacement Cost.	\$

Mortgage Amount = X - L. The resulting mortgage estimate, rounded <u>down</u> to the even one hundred dollars, will be used in the completion of Section G of the 2264 (Section H of the 2264-B in the case of cooperatives) to calculate all cost estimates that are based upon a percentage of the expected mortgage.

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## B. <u>Proposed Construction with BSPRA</u> - applicable to 236 LD projects.

The symbols used in this formula relate to the following expressions:

$\mathbf{X} =$	Replacement Cost
$\mathbf{A} =$	Est. Market Price of Site
$\mathbf{B} =$	Total of all known items except land value
C =	Total of all unknown items expressed as decimal fraction
L =	Value of Leased Fee
Using the abc	we symbols, determine replacement cost using the equation:

X = A + 1.1B - .99 CL1.0 - .99C

This is completed as follows:

1.	Estimated market price of site (A)	\$
2.	The total of all known items except land value is multiplied by 1.1 (B x 1.1)	\$
3.	Sum of Line 1 and Line 2	\$
4.	The total of all unknown items expressed as a decimal fraction is multiplied by the value of the Leased Fee. The product of this multiplication is then multiplied by .99 (C x L x .99)	\$
5.	Line 4 is subtracted from Line 3	\$
6.	The total of all unknown items expressed as a decimal fraction is multiplied by 0.99. (C x 0.99)	\$
7.	Line 6 is subtracted from 1.0	\$
8.	The dollar amount in Line 5 is divided by the decimal fraction in Line 7 to indicate the Replacement Cost	\$

Mortgage Amount = .90 (X-L). The resulting mortgage estimate, rounded AM to the even one hundred dollars, will be used in the completion of Section G of the 2264 to calculate all cost estimates that are based upon a percentage of the expected mortgage.