## Installment Notes Payable and Accounting for Long-Term Notes Payable

The use of notes payable in long-term debt financing is common. Accounting for long-term notes payable is similar to accounting for a short-term interest bearing notes payable except the term is longer than one year. They both are based on installment payments. The terms require the borrower to make equal installment payments over the term of the loan. Each payment consists of (1) interest on the unpaid balance of the loan, and (2) a reduction of loan principle. While the total amount paid remains constant, the interest decreases each period and the portion applied to the loan principle increases. Companies initially record mortgage at face-value, and subsequently make entries for each installment payment. If there is a down cash payment you must reduce the face amount by the down payment before you record the notes payable, therefore you only record the unpaid principle balance as a payable. The initial down payment is recorded in the cash account. See the following example.
On December 31, 2011, ELM Corporation signed a 20 year, $8 \% \$ 400,000$ mortgage note to obtain financing to build a new building. The terms of the note requires semiannual installment payments of $\$ 22,250$ (not including estate taxes and insurance). The installment payment schedule shown below is only for the first 2 years of the 20 year term.

| Date | Semiannual <br> interest <br> period | $(A)=$ Cash <br> payment <br> stays the <br> same) | $(B)=$ Interest <br> Expense <br> $=(D) * 4 \%$ | $(C)=$ Reduction <br> of Principle $=$ <br> $(A)-(B)$ | $(D)=$ Unpaid <br> principle <br> Balance $=$ <br> $(D)-(C)$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 400,000 |
| $12 / 31 / 11$ | 1 | 22,250 | 16,000 | 6250 | 393,750 |
| $06 / 30 / 12$ | 2 | 22,250 | 15,750 | 6500 | 387,250 |
| $12 / 31 / 12$ | 3 | 22,250 | 15,490 | 6760 | 380,490 |
| $06 / 30 / 13$ | 4 | 22,250 | 14,220 | 7030 | 373,460 |

## Column Calculations:

(A) The cash payment of $\$ 22,250$ is constant every 6 months or semiannual.
(B) The annual interest rate is $8 \%$, however because interest payments are made semiannual are twice a year we can use of $4 \%$. The interest for the first installment is $\$ 400,000 \times 4 \%=\$ 16,000$. Each interest payment is calculated by multiplying the unpaid principle balance times the $4 \%$ rate.
(C) The reduction of principle is calculated by subtracting the interest payment of $\$ 16,000$ from the cash payment of $\$ 22,500$. The results being \$6250.
(D) The unpaid principle balance is calculated by subtracting the principle reduction amount of $\$ 6250$ from the original unpaid principle balance of $\$ 400,000$. The resulting amount is $\$ 393,750$, which is the new unpaid principle amount. The new of $\$ 393,750$ is used to compute the next interest payment amount. (\$393,750 x 4\%=15,750).

The journal entries related to the above transaction will be as follows.
(1) Dec 31, 2011 when the note was first signed for $\$ 400,000$ to bring it on the books.

Dec 31

$$
\text { Cash- } \quad 400,000
$$

Mortgage Note Payable- $\quad 400,000$
(2) The following entry must be recorded with each payment mode. We use the first payment made on 6/30/12.

June 30

| Interest Expense- $\quad 16,000$ |  |
| :---: | :--- | :--- |
| Mortgage Note payable- | 6250 |
| Cash- | 22,250 |

