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# Calculating Taxes

## HOW TO CALCULATE PROPERTY TAXES FOR MARICOPA COUNTY PARCELS:

Note: While this example is specific to "Maricopa" County, this procedure works for the rest of the Arizona counties too, although we usually do not have access to "Special Districts" for non-Maricopa parcels.

### Files you will need in order to calculate property taxes:

Maricopa County Parcel File, Type100 Records (eg. az.mar.2006.ps.sr.type100.access2000.mdb)

OR Maricopa County AZview Parcel File (eg. azview.mar.2006.ps.parcel.access2000.mdb)

Maricopa County SpecialDistricts File (Type110 Records, eg. az.mar.2006.ps.sr.type110.access2000.mdb)

Arizona Tax Rates File (eg. az.2006.tr.access2000.mdb)

### STEP 1: Get the following fields from either of the Parcel files:

Parcel ID:	40031002
Tax Area Code:	330008
Land Value:	21,000
Land Assessment Ratio:	0.1600
Improvement Value:	0
Impr Assessment Ratio:	0.0000
Limited (Primary) Value:	12,358
Limited Assessment Ratio:	0.1600

The results of following the procedure below will yield the following calculated tax amounts:

Limited (Primary) Tax:	\$201.60
+ Fullcash (Secondary) Tax:	\$185.10
+ SpecDist/AcreBased Tax:	\$10.34
<b>= Total Tax for Parcel:</b>	<b>\$397.04</b>

The Actual Tax for parcel 40031002, as listed on the Maricopa County Treasurers website, is indeed \$397.04, although they arrive at the figure via a "more sophisticated" method, as they have "more information" available than we do when calculating the tax. Most of the time, depending on the value of the property, your calculations using the method as described below will yield a number that is slightly different than the actual tax, but always very close. This is due to differences in "rounding" the intermediate results, and is unavoidable.

Occasionally, a parcel listed on the treasurers website will include "Personal Property" tax, which is included on the "Real" property tax bill for those parcels that include "Secured" personal property (most Personal Property is "Unsecured"). We cannot calculate this tax, and we have no way of knowing that there is Secured Personal Property that will be taxed.

### STEP 2: Discard the last 2 digits of the TaxAreaCode (no matter what the digits are):

Parcel ID:	40031002
Tax Area Code:	3300

### STEP 3: Lookup the TaxAreaCode in the Tax Rates File:

You'll want to use the Tax Rates File corresponding to the year you are working with (2006 in our case). You can also "estimate" the 2007 taxes based on the 2006 Tax Rates in the event the 2007 Tax Rates File is not available yet. The Tax Rates File is usually finalized around September of each year for that calendar

not available yet. The Tax Rates File is usually finalized around September of each year for that calendar year.

If the 4-digit TaxAreaCode you are working with does not end in zero, and you are unable to locate the TaxAreaCode in the Tax Rates File, then change the last digit of the TaxAreaCode to a zero and try the lookup again.

If you don't find the TaxAreaCode in the Tax Rates File using either of the above methods, then something is wrong and you can't continue with the calculation.

In the case of our sample parcel, "3300" is indeed in the Tax Rates File for tax year 2006.

**STEP 4: Save the PrimaryTaxRate and the SecondaryTaxRate from the TaxRatesFile:**

Primary Tax Rate:	10.1959
Secondary Tax Rate:	3.5207

If you are calculating taxes for an owner occupied residence, you will need to perform STEP 8 below.

**STEP 5: Get the Special Districts for this parcel from the Type110 record**

ParcelID	SpecDist	AcreValue
40031002	11516	3360.0000
40031002	14714	0.6890
40031002	30002	3360.0000

**STEP 6: For each Special District Code that you find, do the following:**

Lookup the SpecDist Code in the Tax Rates File, if you don't find an entry for this Code, you can safely ignore it...really (like "30002" above). Here are the entries that you'll find in the Tax Rates File for the above SpecDist Codes:

County	TaxAreaCode	Description	Primary Tax Rate	Primary Homeowners Rate	Secondary Tax Rate	AcreValue
07	11516	BUCKEYE VALLEY	0.0000	0.0000	1.9883	0.0000
07	14714	ROOSEVELT IRRIGATION	0.0000	0.0000	0.0000	15.0000

**STEP 6A:** If the SpecialDistrictCode/TaxAreaCode for the Special District you are working with has a non-zero SecondaryTaxRate (like Code 11516 above):

Add this SecondaryTaxRate to your original SecondaryRate from STEP 4:

Original SecondaryRate:	3.5207
+ "11516" SecondaryRate	1.9883
= New SecondaryRate:	5.5090

**STEP 6B:** If the SpecialDistrictCode/TaxAreaCode for the Special District you are working with has a zero in the SecondaryTaxRate, then you are working with what is called an "Acre-Based" or "Value-Based" Special District (like 14714 above):

Multiply the "AcreValue" from the Tax Rates File by the "AcreValue" from the Type110 Record (in STEP 5) for this Parcel/SpecialDistrictCode:

AcreValue in Rates File:	15.0000
* AcreValue in "110" Rec:	0.6890
= SpecDist/AcreBased Tax:	\$10.34

You will need to do this for each "Acre-Based" SpecDist and keep track of the total.

**STEP 7:** Perform the following calculations to yield the Primary (based on Limited Value) tax amount, and the Secondary (based on Fullcash Value) tax amount:

Parcel ID:	40031002
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Land Value	21,000
* Land Assessment Ratio	0.1600
= Land Assessed Value	3,360
* SecondaryRate / 100	0.055090
<b>= Land Tax Amount:</b>	<b>\$185.10</b>

Improvement Value	0
* Impr Assessment Ratio	0.0000
= Impr Assessed Value	0
* SecondaryRate / 100	0.055090
<b>= Improvement Tax Amount:</b>	<b>\$0.00</b>

Land Tax Amount	\$185.10
+ Improvement Tax Amount	\$0.00
<b>= Secondary/Fullcash Tax:</b>	<b>\$185.10</b>

Limited (Primary) Value	12,358
* Limited Assm Ratio	0.1600
= Limited Assessed Value	1,977
* Primary Rate / 100	0.101959
<b>= Primary/Limited Tax:</b>	<b>\$201.60</b>

**STEP 8:** Only perform this step if you are calculating taxes for an owner occupied residence.

In the TaxRatesFile, you'll find a field called "PrimaryHomeownersRate". The Homeowers rate is slightly lower than the Primary rate because each owner occupied residence receives a credit on their tax bill called "State Aid To Education" (the maximum amount of this credit is listed in the table below). The lower PrimaryHomeownersRate results in a lower Primary Tax, thereby accounting for the State Aid amount that appears on the actual tax bill. For our sample above, we find the following information in the Tax Rate File:

PrimaryTaxRate:	10.1959
<b>PrimaryHomeownersRate:</b>	<b>8.3687</b>
SecondaryTaxRate:	3.5207

Maximum "State Aid To Education":

Tax Year	Maximum
Prior to 2006	\$500
2006	\$520
2007	\$540
2008	\$560
2009	\$580
2010	\$600

<--- This table is available at [www.govrecords.com/codetables.aspx](http://www.govrecords.com/codetables.aspx)

So why not just always use the PrimaryHomeownersRate when calculating tax for an owner-occupied residence? Because you'll need to take into account the "maximum" State Aid amount from the table above. Essentially you'll need to calculate the Primary Tax using both the PrimaryTaxRate and the PrimaryHomeownersRate, then calculate the difference between those 2 tax amounts. If the amount of the difference is less than the max State Aid amount allowed for that tax year, then just use the tax amount that was calculated using the PrimaryHomeownersRate. If the difference between the 2 tax amounts is greater than the max State Aid amount, then just subtract the max State Aid amount from the Primary Tax calculated using the PrimaryTaxRate to arrive at the proper Primary Tax.