Step 1 - Open the “LA3 Macros.xlsm” spreadsheet. 
**NOTE:** The macros will usually appear at the top left hand side of the spreadsheet but may appear above the normal toolbar - as "shortcut icons". If you have other macros on your toolbar, the new macros may appear after the existing ones.

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Step 2 - Copy the LA3 data from your Excel spreadsheet (columns “A” through “R”). Include NAL explanations located in column “Q”. Paste into the “LA3 Macros.xlsm” spreadsheet. Do not include your original header. Use the supplied header as seen below that is located in the “LA3 Macros.xlsm” spreadsheet.

Step 3 - !!! Go into the File tab and pick “Save As” to save the “LA3 Macros.xlsm” file with a new name. For example: City/Town FY20XX LA3.

Step 4 - Prior to using the macros - check to make sure that each column contains the data related to the column heading, and that each cell that requires data is actually filled.

Select the first cell in a column (A through E, H & I, K through M). Then press Ctrl and the down arrow. The last cell before a blank cell will be highlighted. This will result, for any column that should be completely filled, in ending up on the last row. If not, then you will see an empty cell that needs information.

Step 5 - Activate the following macros and review where appropriate:

Macros will operate like other items on the “Tool Bar”. When the cursor is placed over the appropriate icon, and you click on the icon, the macro is started. **NOTE:** Once you activate (Run) a macro it will perform its functions and you cannot reverse the action. If necessary, you may delete the macro created sheet(s) and re-run the macro.

**1st Clean** - Replaces unacceptable characters in the LA3 sheet and re-formats the sheet for uploading into the Gateway system.

**2nd A/S Ratio** – Creates a new sheet and shows, using an XXX, any assessment /sales outliers with ratios above 1.3 or below 0.7 – These outliers will appear at the top of the spreadsheet.

**What to look for:** There are no specific requirements for individual A/S ratios, as there are for medians and COD’s for the various use classes. It is necessary though to look at aberrations in order to detect possible errors in coding. Additionally, there should always be a review of outliers.
**3rd** ✗ NAL Codes – Creates a new sheet. A box will appear at the top right of the screen containing: the total count of the sales, the number and % of NAL sales and the number and % of the sales that have the same previous and current value. The top part of the sheet will list all NAL sales in the order of the NAL code. Proposed assessments that are the same as their prior assessment will appear in red.

**What to look for:** The NAL codes should be reviewed as a whole to gain a perspective on how they were used in the context of all sales and to check on the proper individual application of coding. Assessments that appear in red should be reviewed – (e.g. Was the lack of a value change intentional?).

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**4th** ❌ Green Check – Creates a new sheet and identifies re-sales of property, using an XXX, and facilitating the review of the coding on these parcels.

“(R) Sale of property which has been sold more than once in the same analysis period. Only the most recent valid sale closest to the assessment date is used for analysis purposes.” – From Property Sales Report Instructions

**What to look for:**
*At least one sale should be coded out.*
*If both sales are valid, then the older sale will be coded out.*
*If the most recent sale is not valid, then the older sales should not be coded “R” if it otherwise would be valid.*

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**5th** ☐ Yellow Check – Creates a new sheet and identifies, using an XXX, sales with same last name for sales that have not been coded.

**What to look for:** If after inspection, the last names are actually different then ignore the XXX.

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**6th** 🌊 Base – Creates a separate sheet for each class subject to review. This is done regardless of the presence of data for each class.

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**7th** 📊 Stats By Class – The macro adds the: number of sales, median, COD, mean, COV and the % change from old to new assessment below the data set on each sheet.

**NOTE:** If the median or COD are not in compliance they will appear in RED. Additionally, the macro checks to see that the overall median for each of the reviewed classes is within guidelines (within 5 points from the major class and between .90 and 1.10) - defaults to using the 101 class as the main class. The macro shades the box Q1 (containing the overall median for the class) in purple if it does not comply (e.g., i.e. .89).
8th Quartile - Use if 40 sales or over – Breaks the class into sale price quartiles and will mark the medians and/or COD’s in RED if they are not in compliance with the overall median or the required COD for the class.

9th Half - Use if 20 sales or more but under 40 sales - Breaks the class into sale price half’s and will mark the medians and/or COD’s in RED if they are not in compliance with the overall median or the required COD for the class.

**What to look for on the Quartiles & Halves (Beyond the Overall & Quartile/Half stats):**

Note that any A/S ratios, which are more than 10 points away from the overall median of the class, will appear with a light red fill if above the median or an Aqua fill if below the median. Additionally, the numerals will be in BOLD RED. The PRD (Price Related Differential) will appear at the bottom of the overall stats.

There will be times when your review of particular macro results will indicate a need to make changes to the LA3. You should make the changes to the original LA3, delete the macro created sheets and begin this process from Step 2.

**LA 3** The sales report that is uploaded into Gateway

**A/S Ratio** Assessment/Sales ratio

**NAL Code** Non-Arm’s Length Code

**COD** Coefficient of Dispersion

**COV** Coefficient of Variation