Do's and Don'ts for Summary Boxes

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Objective

- Learn what to do and NOT to do when developing the new Plan Summary Boxes.

- Learn what is to be expected for Lump Sum projects.

General

Do…

- Save all Excel file templates to the Calculations directory.
  - Roadway and Structures sub directories can be used for organizational purposes. This is optional.

Don't…

- Mix & Match the old with the new.
- Place summary boxes anywhere else in the plan set. (Summary of Quantities sheets ONLY.)
- Add pay items to the Summary of Drainage Structures sheets.
- Add the Summary of Drainage Structures to the SQ- sheets.
- Create NEW summary boxes.
  - If a new box is needed, contact Denise Broom or Missy Hollis.

Summary Boxes

Do…

- Use LDM to Create Excel Files for Summary Boxes.
- Use the FDOT templates that have already been formatted for use.
  - (Computation Summary Boxes drop down list)
- Adjust column widths as needed to fit on the plan sheet or alleviate word wrap.
- Delete un-used Design columns.
- When copying from other xlsx or csv files, Paste Special using the Values Only option to preserve the template formatting.

Summary Boxes

Don't…

- Delete the Construction Remarks or "F" columns.
- Modify the Summary Box titles.
- Add NEW columns (especially if using automation).
- Rerun the Create New from Quantities option each time to place the next summary box link in a series of boxes.
  - This only needs to be rerun when there have been changes to the Quantity Manager database.
- Create separate xlsx files for each box needed for a summary.

Summary Boxes – Misc.

Do…

Old…

Summary of Temporary Signalization													
Phase	Duration	102-104 Temp Signals & Maintenance, per intersection- Each Day						102-107-1Temp Detection & Maintenance, per intersection- Each Day					
		Existing			Temporary			Existing			Temporary/New		
	Days	#	P	F	#	P	F	#	P	F	#	P	F
1	30	5	150					5	150				
2	60	5	300		2	120		5	300		2	120	
3	60	5	300		3	180		5	300		3	180	
4	30	5	150					5	150				
5	30	5	150					5	150				
Subtotal	210	ED	1050			300		ED	1050			300	
Total- Preliminary		ED	1350					ED	1350				
Total- Final		ED						ED					

- Temporary Signalization
  - Goes on the Summary of Temporary Traffic Control
  - Make sure to indicate the number of existing/temporary intersections in the Design Notes column.

New…

SUMMARY OF TRAFFIC CONTROL PLAN ITEMS											
PAY ITEM NO.	PAY ITEM DESCRIPTION	UNIT	PHASE I			PHASE II			TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
			DURATION	QUANTITY	TOTAL	DURATION	QUANTITY	TOTAL				
			DAYS	P	P	DAYS	P	P	P	F		
0102104	Temporary Signals & Maintenance	ED	30	5	150	60	7	420	570		P2 inc. 2 temp signals	
0102107 1	Temporary Detection & Maintenance	ED	30	5	150	60	7	420	570		P2 inc. 2 temp signals	

Summary Boxes – Misc.

- In the summary boxes that have the Pay Item No. column, only fill out the pay item no., description, unit and total on the FIRST line that pay item appears. Do NOT repeat this information. It makes it harder to read.

Don't…

PAY ITEM NO.	DESCRIPTION	LOCATION STA. TO ST
0285706	OPTIONAL BASE, BASE GROUP 06 (CONT'D)	31+24.02 to 32+
0285706	OPTIONAL BASE, BASE GROUP 06	33+02.03 to 35+
0285709	OPTIONAL BASE, BASE GROUP 09	28+21.48 to 29+
0285709	OPTIONAL BASE, BASE GROUP 09	28+29.92 to 29+
0285709	OPTIONAL BASE, BASE GROUP 09	28+32.93 to 29+
0285709	OPTIONAL BASE, BASE GROUP 09	28+62.92 to 29+
0285709	OPTIONAL BASE, BASE GROUP 09	30+31.60 to 31+
0285709	OPTIONAL BASE, BASE GROUP 09	30+36.86 to 31+

Do…

PAY ITEM NO.	DESCRIPTION	LOCATION STA. TO STA.	SIDE	AREA ID	UNIT	QUANTITY P	QUANTITY F	TOTAL P	TOTAL F
		SUMMARY OF PAVEMENT							
0160 4	TYPE B STABILIZATION	22+79.93 to 28+63.31	LT/RT	11421	SY	2379.40		142463.4	
		28+21.48 to 29+65.55	LT/RT	11332		458.20			
		28+29.90 to 29+01.50	LT/RT	11492		172.70			
		28+59.96 to 29+72.20	LT/RT	11322		358.30			

Summary Boxes – C&G and/or TS

- When using the automation option to create the Summary of Curb & Gutter and/or Traffic Separators, the Element Id gets populated into the Area ID column. The column is included in the template for the special traffic separator pay item. These are NOT needed for the LF items. The column may be hidden, deleted, or in case of the special traffic separator the values should be cleared for the LF items.

Don't…

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION STA. TO STA.	SIDE	AREA ID	UNIT	QUANTITY P	F	TOTAL P	F	DESIGN NOTES	CONSTRUCTION REMARKS
0520 1 7	CONCRETE CURB & GUTTER, TYPE E	705+16.83 to 705+67.00	LT/RT	21879	LF	51.3		25594			
		705+16.83 to 705+83.27	RT	8689		66.5					
		705+67.00 to 705+83.26	LT	21875		16.3					
		705+83.26 to 709+89.99	LT	21877		406.8					
		705+83.26 to 712+46.15	LT	70151		663.0					
		705+83.27 to 709+39.83	RT	8686		356.6					
		709+39.83 to 709+89.83	LT/RT	70147		51.2					
		709+89.83 to 712+25.06	LT	70147		235.3					

SUMMARY OF CURB & GUTTER AND/OR TRAFFIC SEPARATORS

Summary Boxes – Utilities

- FDOT has included a template for the Summary of Utility Adjustments. The intention is for it to be used with the pay items for adjusting manholes and valve boxes set in the pavement during milling operations. In order for FDOT to do anything with utilities, there MUST be an agreement in place. Most of the time, the utility company does the work. It is notated in the plans that the work is to be performed "by others". If the contractor does the work, different pay items (1000+) are used and a Utility component set of plans should be included in the plan set.

Summary Boxes – Word Wrap in MS

- A commonly reported issue/question is in regards to the word wrap encountered when placing the links to Excel files.
  - What you see is NOT what you get…

Summary Boxes – Word Wrap in MS

- Cause?
  - Excel cells do not have "margins" that are set. LDM compensates for this lack with a variable, Cell Padding.

```
<Excel>
   <Units>
      <ExcelUnitFactor>0.01</ExcelUnitFactor>
      <TextSizeFactor>0.875</TextSizeFactor>
      <ColumnWidthFactor>1.0</ColumnWidthFactor>
      <RowHeightFactor>1.0</RowHeightFactor>
      <CellPadding>2.00</CellPadding>
   </Units>
```

  - Without this variable the text would be drawn touching the borders drawn in MS. It creates a margin around the outside of the "cell" area. This is why the area for the text to be drawn does not match up to what we find in Excel, hence the word wrap issue in MS. This variable can be set to a lower value, however it is not recommended to set this value to 0. This can be accomplished through Site or Project settings.

LDM & Microsoft Office

- The Plan Summary Box templates were originally created in Excel 2007. This has caused issues with designers trying to use LDM with newer versions of Office.
  - Fix – Open the template files in the current (2010 or 2013) version of Excel, save the file, and close. The next time LDM accesses these files, the program will not have any problems.
  - Update – Once the files have been updated, other members of the office may still use these files even if they are using an older version of Office. An update will be posted soon to the FDOT CADD Community Site with the templates saved to Excel 2013.

Summary Boxes – Order of Placement
RECOMMENDED

- Lump Sum
- General Items
- Temporary Traffic Control
- Temporary Driveways
- Special Detours
  - (for informational purposes, paid for under MOT)
- Temporary Crash Cushions
  - (this one is for information but the quantity goes on the TTC)
- Erosion Control
- Litter Removal & Mowing
- Removal Items
- Mailboxes
- Earthwork
- Geotechnical Items

- Turnouts
- Pavement
- Misc. Pavement
- Walls
  - (if not included with a structures component)
- Box Culverts
- Utility Adjustments
- Side Drain & MES
- Misc. Drainage
- Trench Drain
- Underdrain
- French Drain
- Edge Drain
- Railing

- Permanent Barrier Walls
- Curb & Gutter and/or Traffic Separators
- Sidewalk
- Permanent Driveways
- Ditch Pavement
- Guardrail
- Permanent Crash Cushions
- Fencing
- Performance Turf

BOE Update Coming Soon!

Lump Sum Projects

- Revisions have been underway for many of the manuals. Chapter 22 – Lump Sum Project Guidelines of the Plans Preparation Manual is currently under review for approval of changes. (… This means that there may be some changes to the wording, but intent is the same.)

- Changes to expect:

  - A pay item note for the lump sum pay item 999-2 will be placed on the Summary of Pay Items sheet stating, "All other Pay item numbers shown in the Contract Plans are provided only for the purpose of describing the work to be performed. Pay item descriptions are found in the Department's *Basis of Estimates Manual*."

    - This note is NOT to be included on any of the other plan sheets or components.

  - Quantities for all work to be performed on the project shall be documented in the summary boxes for Roadway and Structures disciplines or on a tabulation of quantities sheet for all other disciplines. Note - Summary boxes and tabulation sheets should not have totals or pay items shown. The standard summary boxes contained in the FDOT CADD software should be used.

  - When cross sections are provided, earthwork columns should not be used.

    - Note that all the rest of the verbiage regarding not including the earthwork has been removed. It is to be calculated when cross sections are required and included in a summary box.

PPM Update Coming Soon!

Lump Sum Projects

- Pay Item column on the summary boxes and tabulation sheets may remain, however they should be left blank.
  - There ARE exceptions to this.
- Pay Item TOTALS shall not be included. Again, these columns can remain in the summary boxes or tabulation sheets, however they need to remain blank.

Questions???

Thank-you for joining today's webinar.
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