

***FDOT Automated
Quantities -
Chapter 6
Plan Summary
Boxes and LDM***



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Objectives

- *Define Plan Summary Boxes and Workflow Requirements*
- *Introduce Linked Data Manager (LDM)*
- *Create Plan Summary Boxes using Automated Process*
- *Create Plan Summary Boxes using LDM and Quantity Manager reports.*

Plan Summary Boxes

- *ALL work to be done on a project must be quantified and documented by location*
 - *on Plan Summary Boxes located on the Summary of Quantities Sheets -or-*
 - *on Summary of Drainage Structures -or-*
 - *on Tabulation of Quantities sheets*
- *Summary of Drainage Structures - Drainage Items*
 - *Do NOT add pay item numbers*
 - *Incidental drainage items to a project can be documented on the Summary of Miscellaneous Drainage Items.*
 - *Intended for projects with Miscellaneous Drainage Items or on projects with minimal drainage work, i.e. replacing broken inlet tops or moving structures to accommodate added turn lanes, etc.*
 - *Do NOT include items on this box that are included on the Summary of Drainage Structures sheets.*

Plan Summary Boxes

- *Plan Set Location*
 - *Roadway - keep in same order sequence behind the Typical Section sheets*
 - *Structures - Directly behind the Summary of Pay Items in the General Bridge section (or behind the Key Sheet if no Summary of Pay Items sheet)*
- *File Name*
 - *Roadway - SUMQRD***
 - *Structures - B#SumofQuantities**
- *Sheet Prefix*
 - *Roadway - SQ-*
 - *Structures - BQ#-*

Each Bridge will have a separate Summary of Structural Quantities sheet (or sheets). Number the Summary of Structural Quantities sheets BQ#-#. Example: if there are general bridge pay items (mobilization MOT etc) the sheet will be the first summary of structural quantities sheet and the sheet number will be BQ-1. The summary of quantities for bridge one will follow; sheet number(s) BQ1-1, BQ1-2 etc., followed by bridge 2; sheet number BQ2-1, BQ2-2 etc..

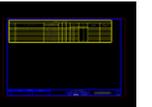


Plan Summary Boxes

- *A listing of standard summary boxes is located in Chapter 8 of the BOE.*

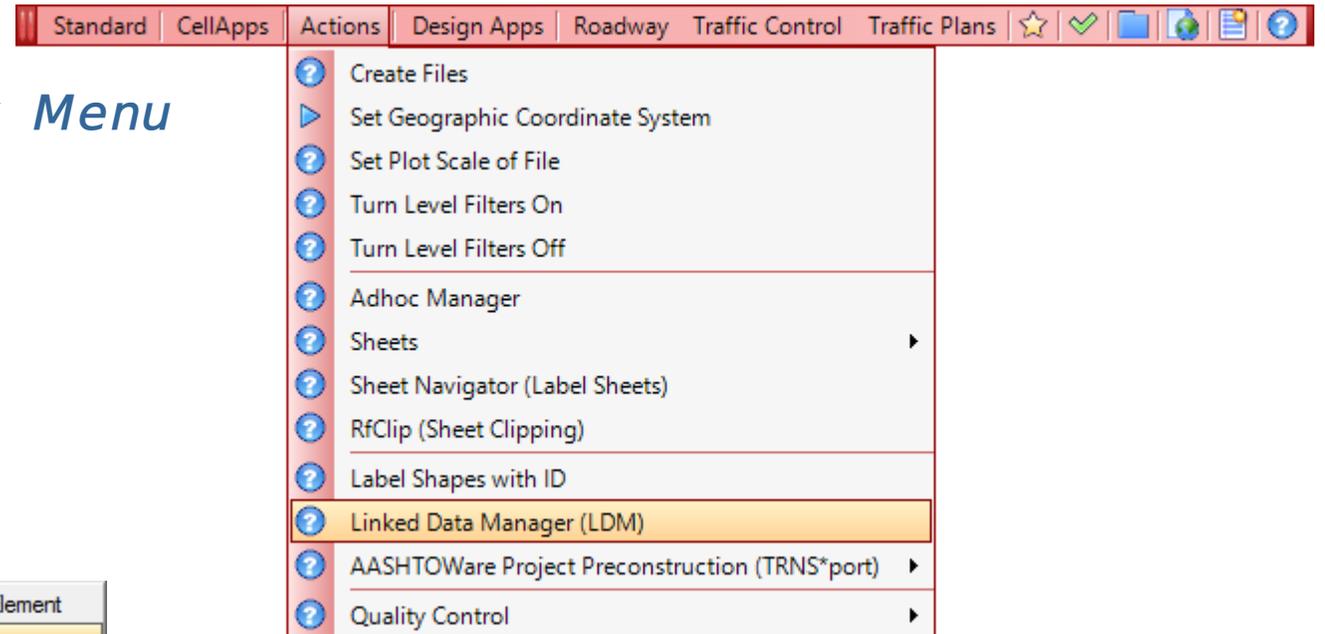
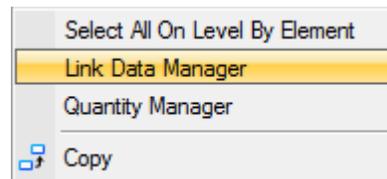
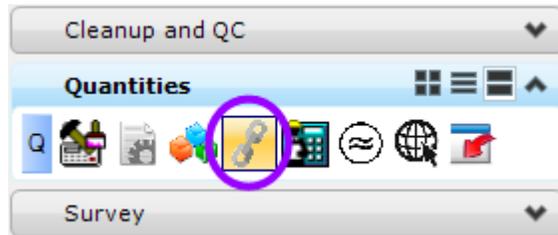
<http://www.dot.state.fl.us/programmanagement/Estimates/BasisofEstimates/BOEManual/Files/Chapter08SummaryBoxes.pdf>

- *FDOT templates have already been formatted for use.*
 - *Do NOT create non-standard boxes or modify current summary boxes with Non-Standard columns or rows.*
 - *Columns and rows may be adjusted or hidden in Excel and change is reflected in MicroStation when link is updated.*
 - *Columns may be deleted when not used. However do NOT delete the Construction Remarks or "F" columns.*
 - *When copying data into the template files, make sure to use the "Values Only" option to paste.*
 - *Save the summary box Excel files and any other back up documentation in the Calculations folder of the project directory.*



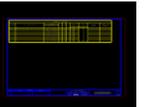
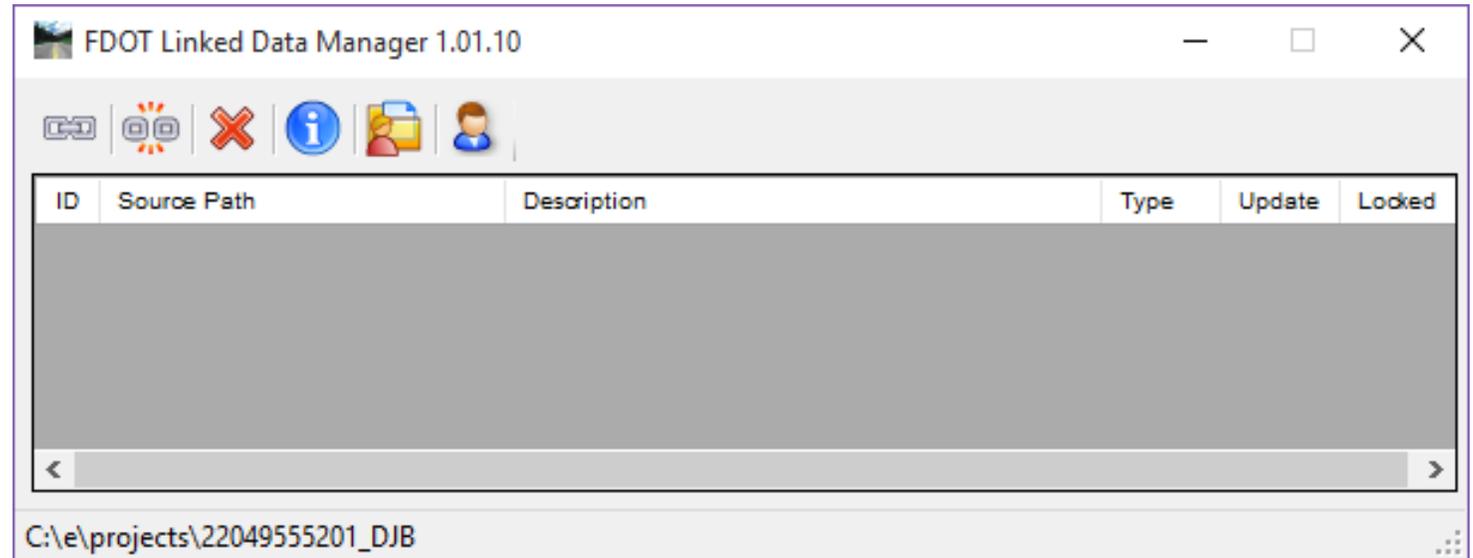
Linked Data Manager (LDM)

- FDOT tool that links other files (Excel, CSV, Word, or TXT) to MicroStation DGN files.
- Access through
 - FDOT Menu
 - FDOT Plans Development Task Menu
 - Right-click Menu



Linked Data Manager (LDM)

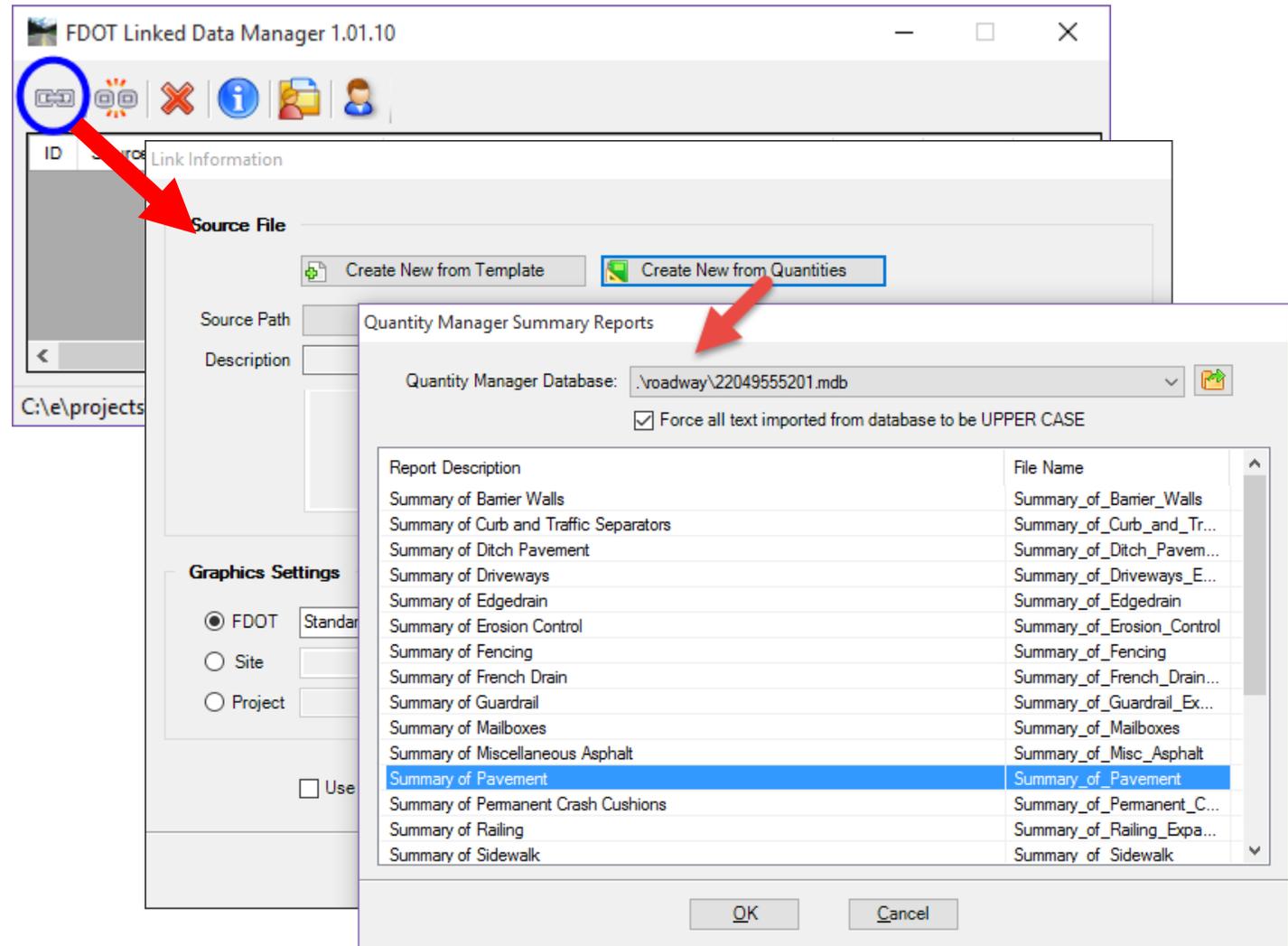
- *Tool Icons*
 - *Create New Link*
 - *Delete Link*
 - *Delete Link & Graphics*
 - *Link Information*
 - *Project Settings*
 - *User Settings*



Linked Data Manager (LDM)

- *Create Summary Boxes from Quantity Manager (Automated Process)*

- *When creating a link use the Create New from Quantities option.*
- *Select the QM database (*.mdb)*
- *Select the Summary to be created*
- *Save the file to the Calculations directory of the project*



Linked Data Manager (LDM)

- Create Summary Boxes from Quantity Manager (Automated Process)

Link Information

Source File

Create New from Template Create New from Quantities

Source Path .\calculations\Summary_of_Pavement.xlsx

Description

Quantity Report

Place Title Block

Header Rows 2 Cell Library roadway.cel Cell Offset X 0.2

Table Array X 18 Cell Name shplan Cell Offset Y 9

Graphics Settings

FDOT Standard

Site

Project

Use Drawing Scale Update Graphics on File Open Lock Graphics Use Print Area

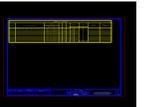
OK Cancel

SUMMARY OF PAVEMENT									
ITEM NO.	DESCRIPTION	LOCATION	UNIT	QTY	UNIT PRICE	TOTAL	DESIGN NOTES	CONSTRUCTION NOTES	
1	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
2	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
3	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
4	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
5	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
6	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
7	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
8	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
9	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
10	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
11	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
12	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
13	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
14	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
15	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
16	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
17	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
18	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
19	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			
20	ASPH/CON	STP TO STA	CS	1000	10.00	10000.00			

- Set up the link settings and select OK to place.

Linked Data Manager (LDM)

- *Create Summary Boxes from Quantity Manager (Automated Process)*
 - *There will be a separate link for each summary box placed.*
 - *The plan sheet borders are not linked and can be moved/deleted as needed.*
 - *If a quantity changes and the boxes need to be updated, the same process can be used. Overwrite the existing file in the Calculations folder and then cancel the placement of the links. Update the existing links for the summary boxes.*
 - *Note: If there are any customizations in the Excel file (i.e. columns hidden or widened) they will need to be redone in the newly created Excel file.*



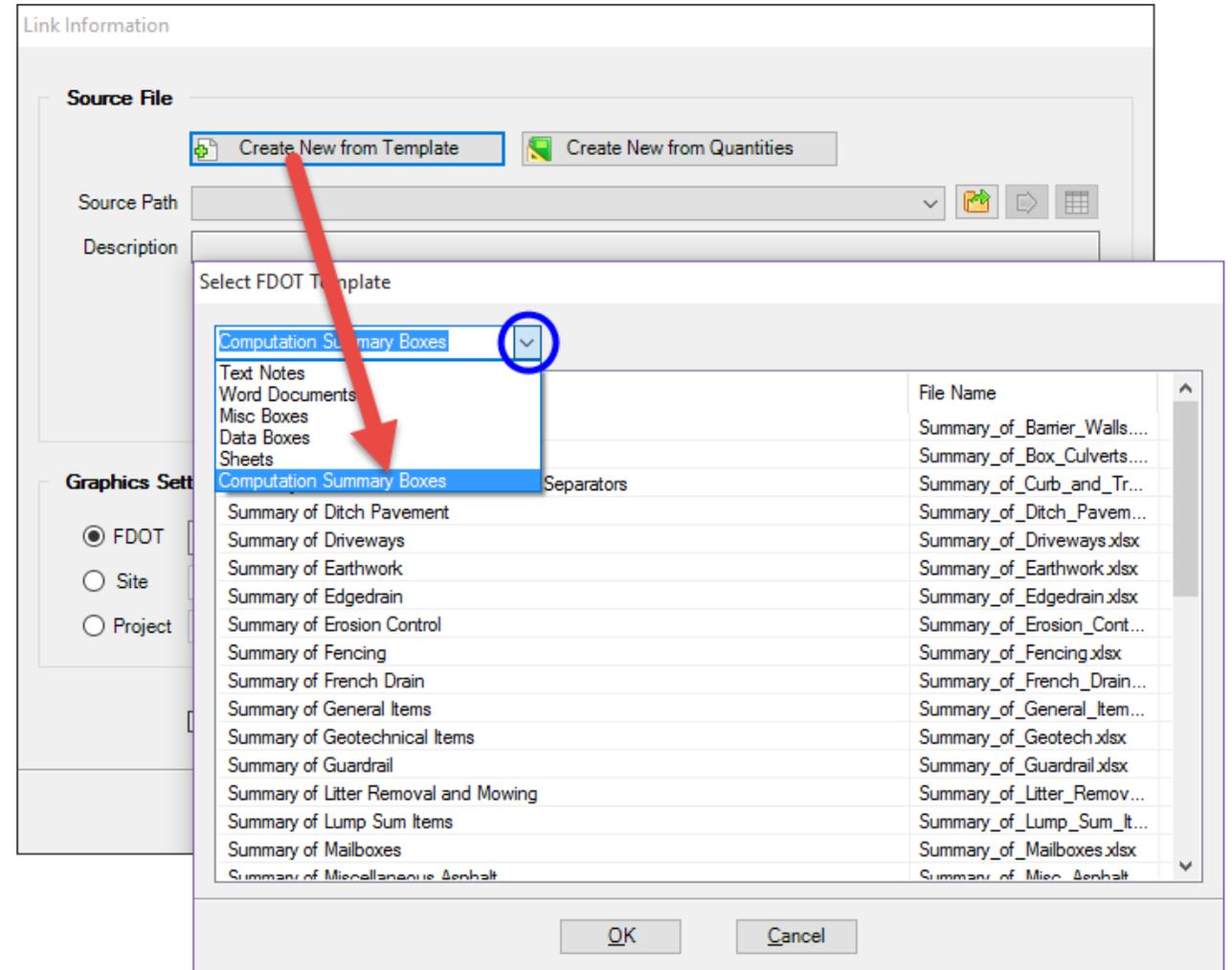
Linked Data Manager (LDM)

- *Create Summary Boxes from Template*

- *When creating a link, select Create New from Template for summary boxes that are not included in the automated list.*

- *Select Computation Summary Boxes from the drop down list.*

- *Note: Templates are available for ALL summary boxes in the drop down for designers who do not use D&C Manager and/or Quantity Manager.*



Linked Data Manager (LDM)

- *Create Summary Boxes from Template*
- *Save the Excel file to the Calculations folder in the project directory.*
- *Once saved, the Link Information dialog will come back up, select the Box1 worksheet from the dropdown.*
- *Select the Graphic Settings.*
- *Select desired link settings.*
- *Click OK and click in the MicroStation file to place the link and graphics.*

Link Information

Source File

Create New from Template Create New from Quantities

Source Path .\calculations\Summary_of_Litter_Removal_and_Mowing.xlsx

Description

Excel Settings

Worksheet Box1 Header Rows 2

Width / Height Offset X / Y Use Title Cell

Graphics Settings

FDOT Standard

Site

Project

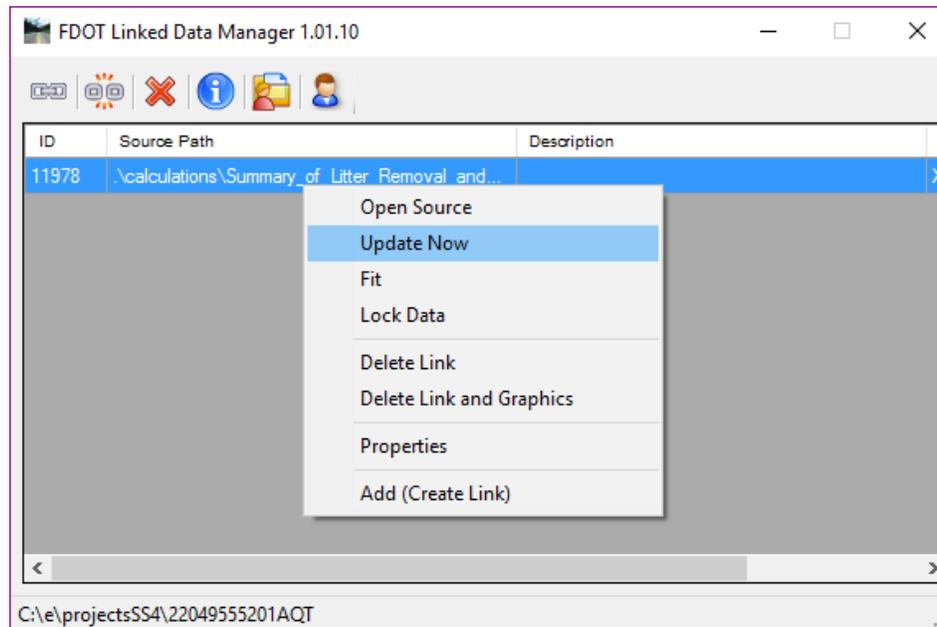
Use Drawing Scale Update Graphics on File Open Lock Graphics Use Print Area

OK Cancel

Linked Data Manager (LDM)

- *Create Summary Boxes from Template*

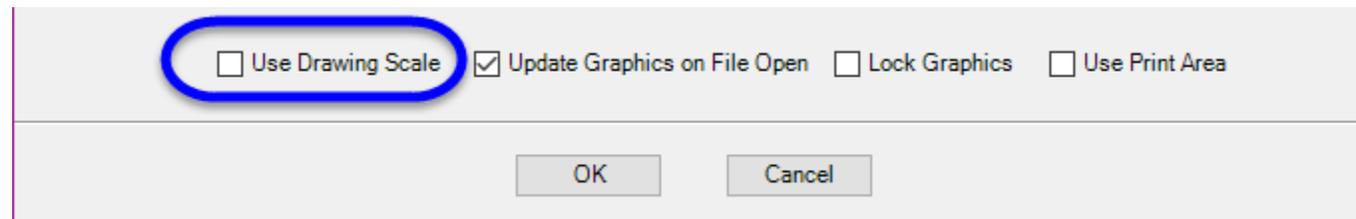
- *Right click on the link in the LDM tool box to get the option Open Source.*
- *Once open, make the necessary changes to the file and save.*
- *In MicroStation, right click on the link in LDM again and select Update Now.*



Note: Reports generated from QM will help to speed up this process.

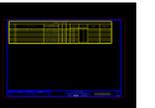
Linked Data Manager (LDM)

- *Create Summary Boxes from Template*
- *Summary of Structures Quantities*
 - *Place the Plan Sheet at a scale of 12*
 - *Do not turn on the option to use the Drawing Scale*



Use Drawing Scale Update Graphics on File Open Lock Graphics Use Print Area

OK Cancel



Questions???

Thank-you for joining today's session.

Need some HELP? Contact me...

(850) 414-4751

E-mail: Denise.Broom@dot.state.fl.us

OR: ecso.support@dot.state.fl.us

<http://www.dot.state.fl.us/ecso>

FDOT CADD Support Forum On-line

http://communities.bentley.com/communities/user_communities/fdot_cadd_support/default.aspx

