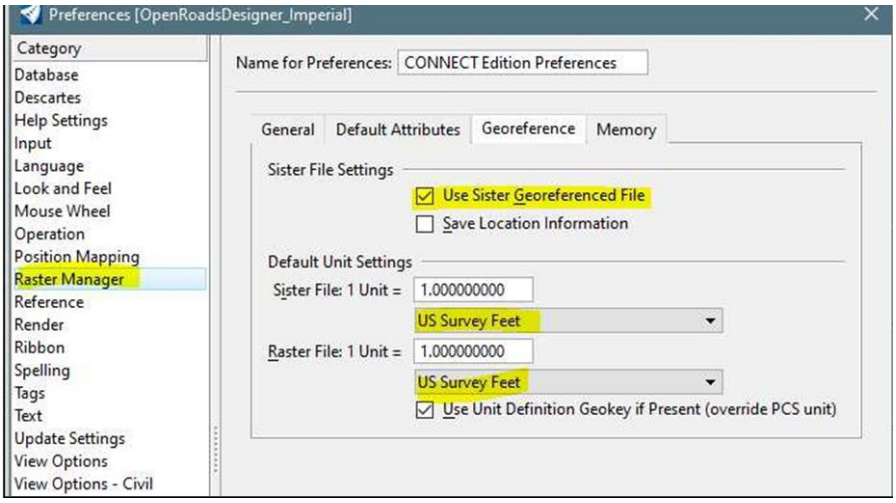
HOW DO I DISPLAY STANDARD DRAWINGS ON THE LAYOUT SHEET?

Contact Information

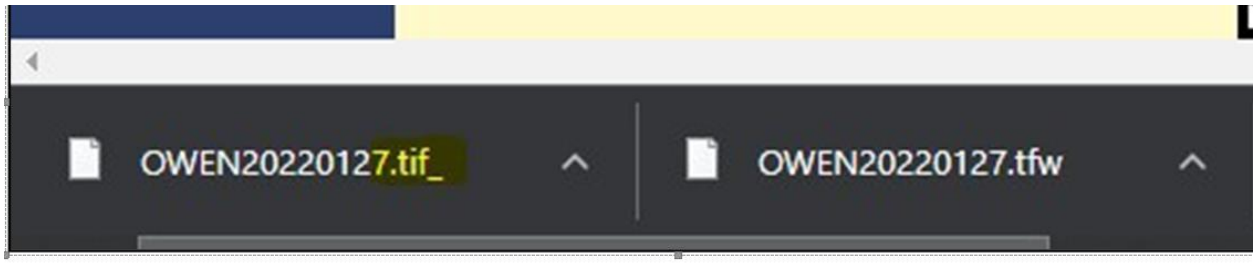
This workflow was produced by Corinne Willmerdinger. Please send all questions, errors, or overall complaints to KYTCCaddSupport@ky.gov or call 502-782-4900.

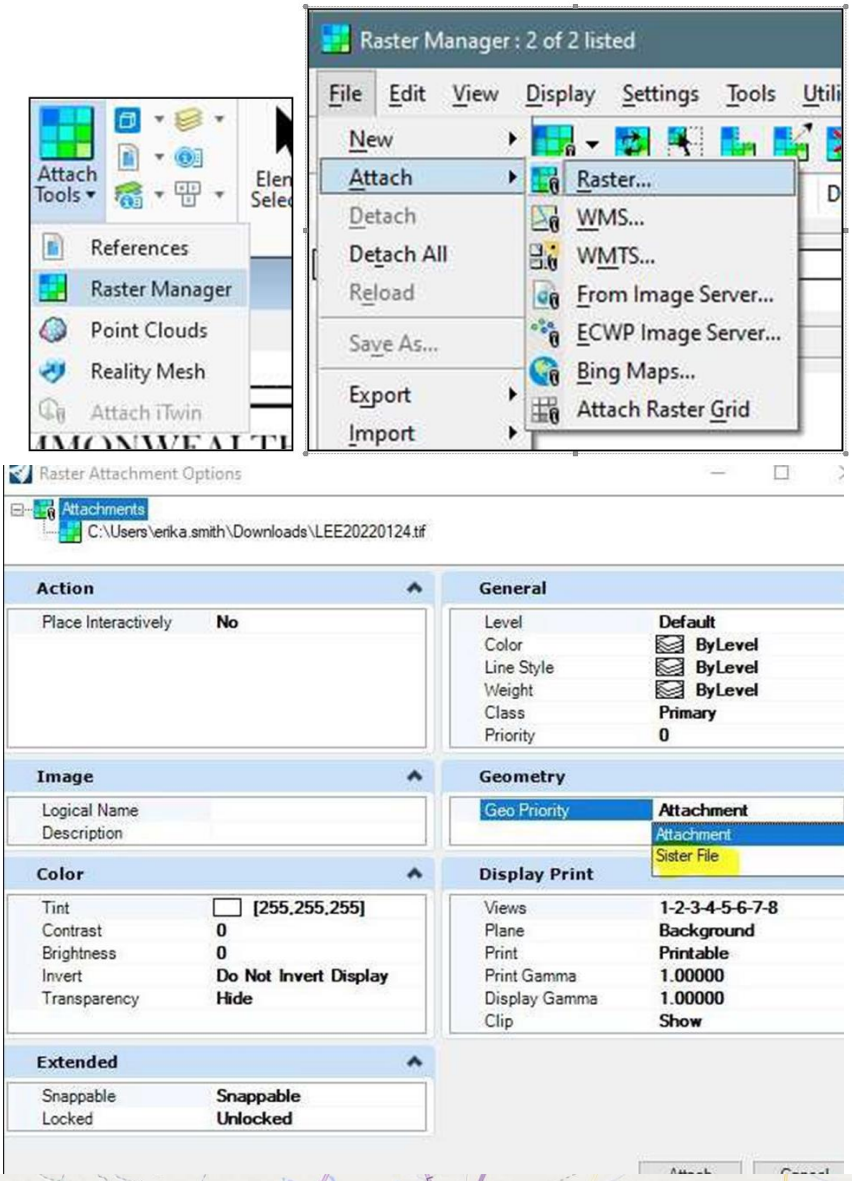
Sub-Topic: HOW DO I CREATE A LAYOUT SHEET WITH A LAYOUT MAP?

Step 1: Attach the .tif file to the Layout Sheet (downloaded from https://maps.kytc.ky.gov/kyview/), starting with a new DGN (2D seed file). A .tfw file will also download from the website. Make sure no pop-up blockers are preventing the files from downloading. Once the DGN is first opened, be sure to change the preferences in the Backstage inside ORD to set the Raster to US Survey Feet. Under "File", select "Settings". Then, select "User" and go to "Preferences". Afterwards, select "Raster Manager". Navigate to the "Georeference" tab. Check "Use Sister Georeferenced File" and change the units to "US Survey Feet". Select "OK". This step may have been previously done and saved with settings.



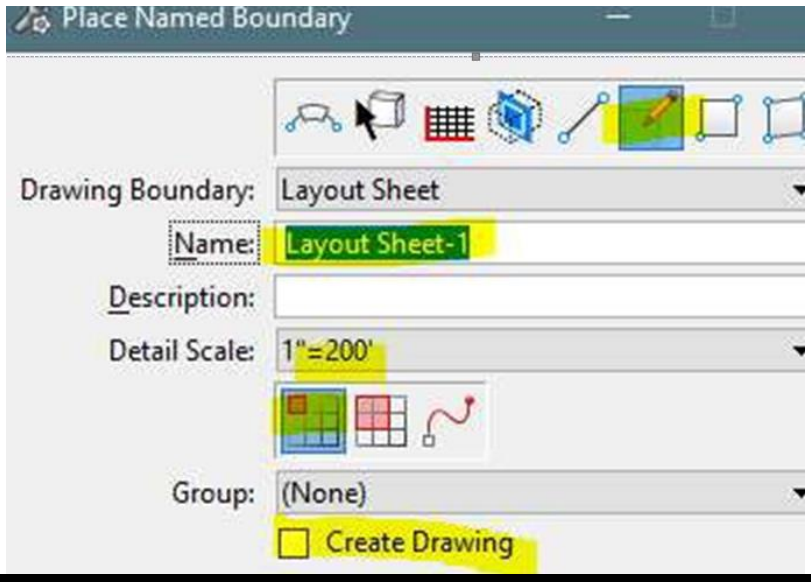
Next, go to "Attach Tools" and click on "Raster Manager". Click on "File", then "Attach", followed by "Raster". Select the desired file (.tif) and click "OK". Before attaching, another dialogue box appears. In this box, change the "Geo Priority" to "Sister File". Click "Attach". "Fit View" to see the image. **Note:** The .tif file from the Map Sheet Generator website (https://maps.kytc.ky.gov/kyview/) downloads withan "_" after it. Go into the properties and remove it. Also, be sure to place the .tfw file in the same location as the .tif file as they are the sister files referred to. Fit the view to see the placed raster.

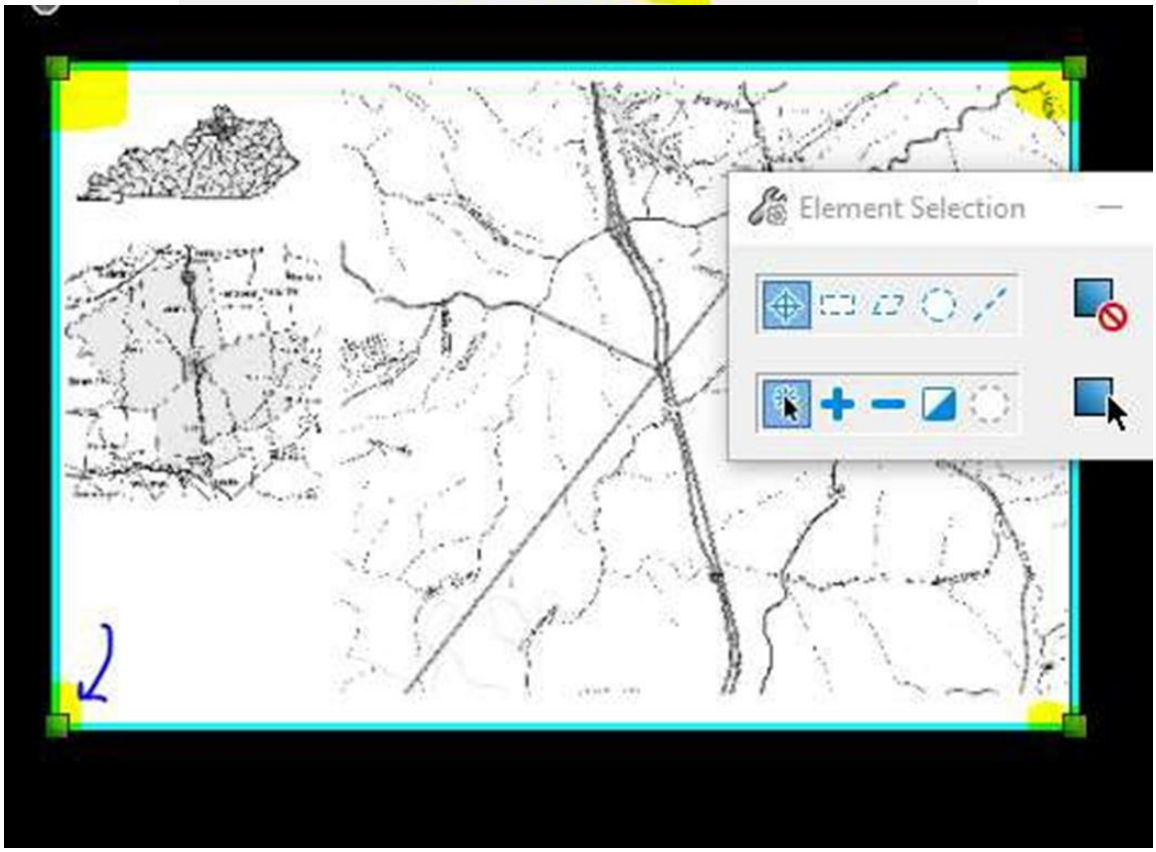



Attach Tools
References
Raster Manager
Point Clouds
Reality Mesh
Attach iTwin
Raster Manager : 2 of 2 listed
File
Edit
View
Display
Settings
Tools
New
Attach
Detach
Detach All
Reload
Save As...
Export
Import
Raster...
WMS...
WMTS...
From Image Server...
ECWP Image Server...
Bing Maps...
Attach Raster Grid
Raster Attachment Options
Attachments
C:\Users\erika.smith\Downloads\LEE20220124.tif
Action
Place Interactively No
General
Level Default
Color ByLevel
Line Style ByLevel
Weight ByLevel
Class Primary
Priority 0
Image
Logical Name
Description
Geometry
Geo Priority Attachment
Attachment
Sister File
Color
Tint [255,255,255]
Contrast 0
Brightness 0
Invert Do Not Invert Display
Transparency Hide
Display Print
Views 1-2-3-4-5-6-7-8
Plane Background
Print Printable
Print Gamma 1.00000
Display Gamma 1.00000
Clip Show
Extended
Snappable Snappable
Locked Unlocked

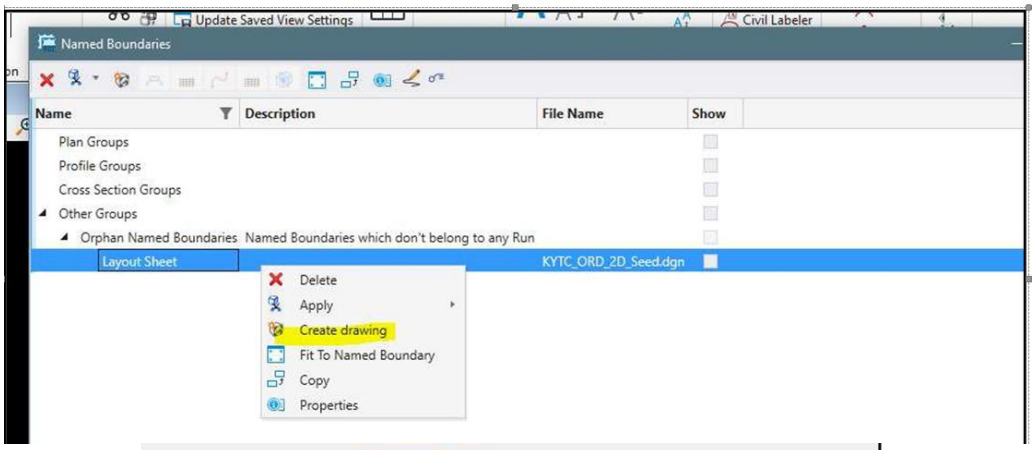
Elmendorf
Montrose
Brighton
Indian Hills
Zandale

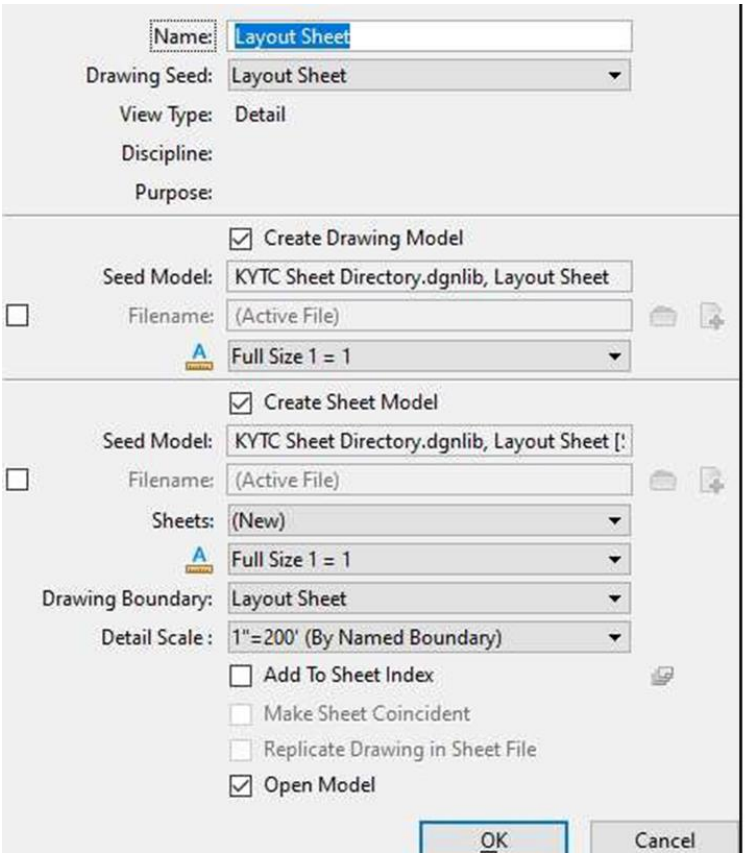
Step 2: Place a named boundary. While in the default model, under the “Drawing Production” tab, click the “Named Boundary” button and select “Place Named Boundary”. A dialogue box appears. At the top of the box, be sure to be on the “From Drawing Boundary” button (see below). Under “Drawing Boundary”, make sure it’s set to “Layout Sheet”. Change the name of the sheet. Also, set the detail scale to 1” = 200’ so that it can be easily seen. Lastly, make sure to have “Place a Single Named Boundary” chosen. DO NOT have the “Create Drawing” box checked. Click to place the boundary next to the map. Next, move the handles of the placed drawing boundary around to the corners of the layout map to encompass it, matching up the corners.



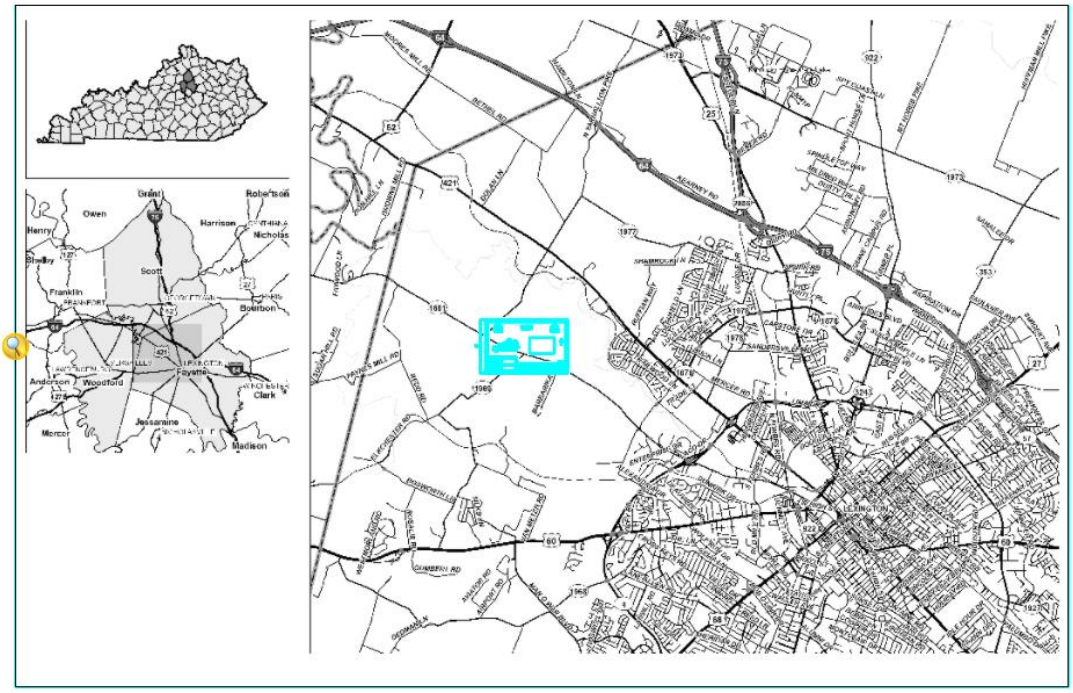


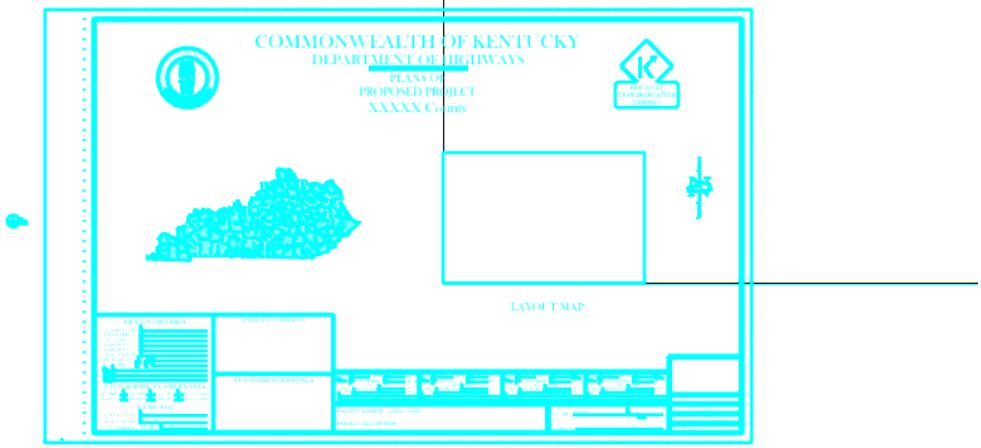
Step 3: Create the drawing. This menu, seen below to do so, is found by clicking on the arrow underneath the “Named Boundaries” button. Navigate to the boundary just placed, right-click on it, and select “Create Drawing”. A dialogue box appears. First, change the name of the sheet as needed. Review all other properties. Lastly, click “OK” and the Layout Sheet will be created, with the layout map.

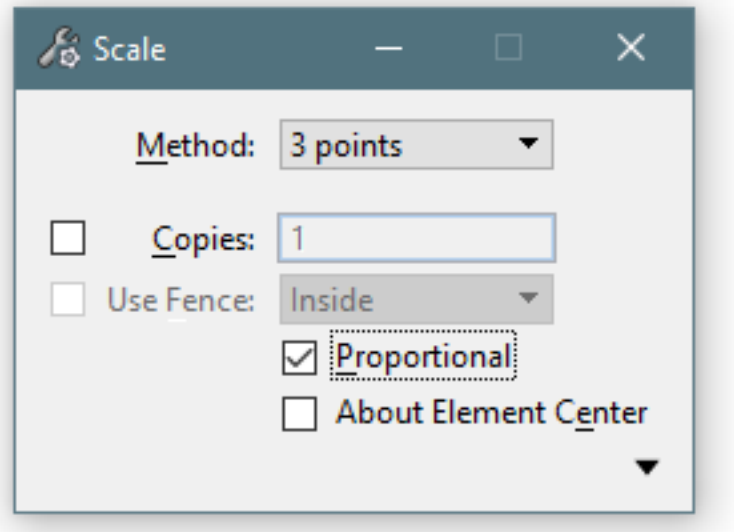




Step 4: Scale the layout sheet to fit the map/raster inside the layout sheet map box. The raster may come in larger than what is desired. To fix this, we must scale up the sheet border of the layout sheet. First, be in the sheet model. Then, select everything except the raster. Using the “Move” command, move the bottom-left corner of the sheet border to the bottom-left corner of the layout map box. Next, using a “Scale” command, make sure the by 3 points method is used and proportional is checked. Click the button-left corner of the layout map box, then the upper-right hand corner of the layout map box, followed by the upper-right hand corner of the sheet itself. This will put the layout map inside the box fully and allow for alignments to be referenced and in the correct location. Your layout map with the layout sheet is now complete. See next section for placing standard drawings on the layout sheet.



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1
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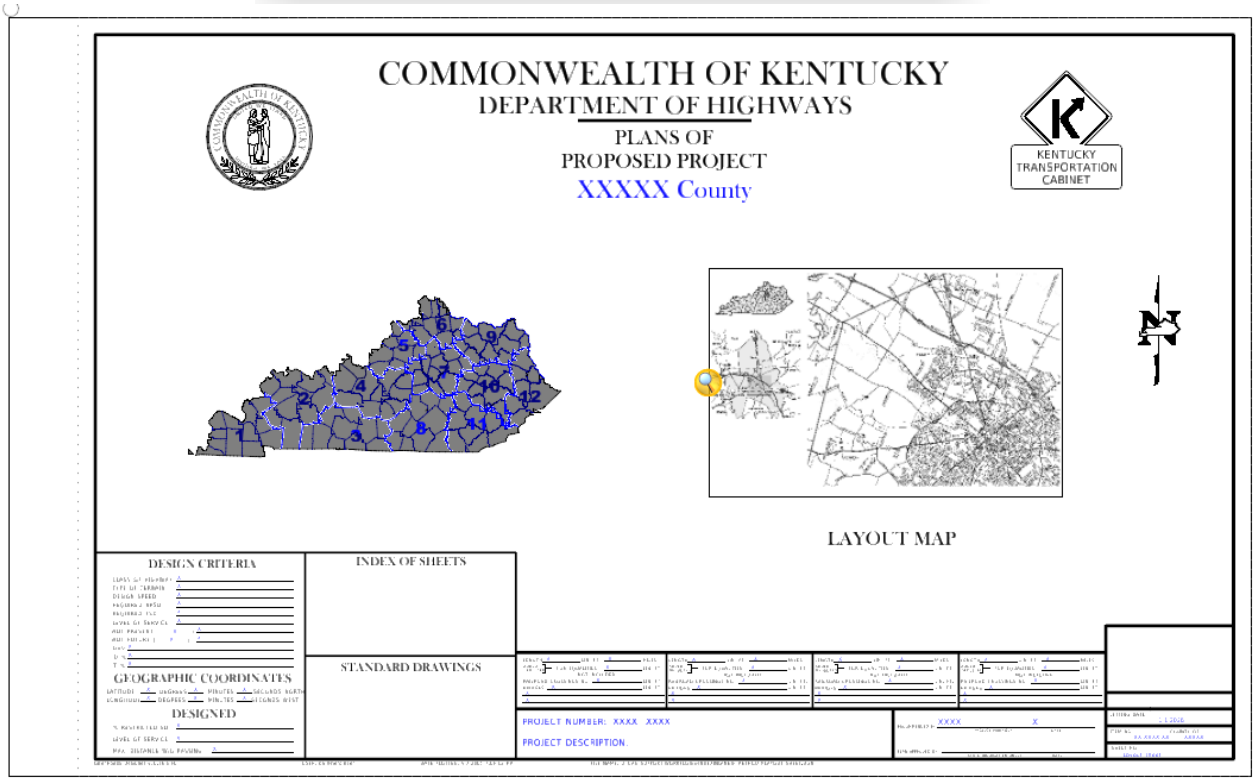
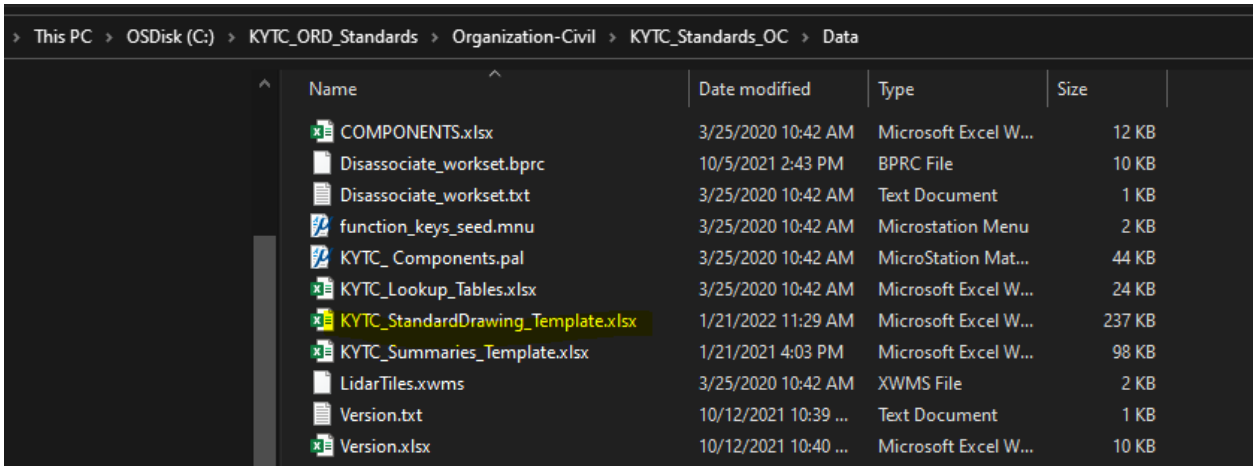
Proportional
About Element Center

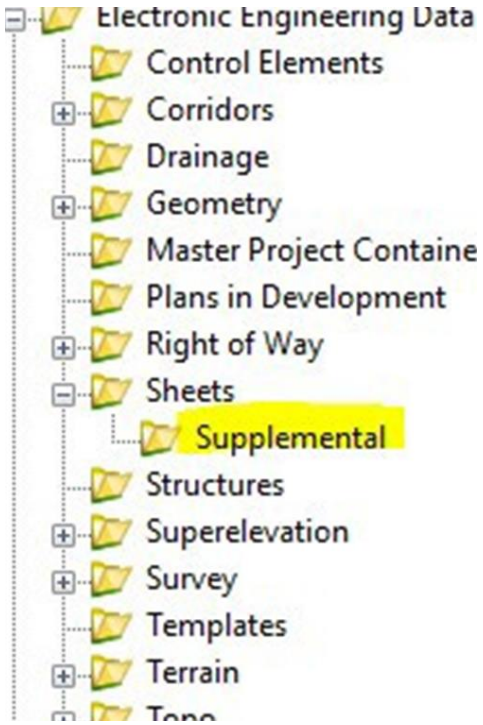

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
PLANS OF
PROPOSED PROJECT
XXXXX County
KENTUCKY TRANSPORTATION CABINET
LAYOUT MAP
DESIGN CRITERIA
GEOGRAPHIC COORDINATES
DESIGNED
INDEX OF SHEETS
STANDARD DRAWINGS
PROJECT NUMBER: XXXX XXXX
PROJECT DESCRIPTION

Sub-Topic: HOW DO I ADD STANDARD DRAWINGS TO THE LAYOUT SHEET?

Step 5: Find the Excel file, KYTC_StandardDrawing_Template.xlsx, that is delivered with the standards located in C:\KYTC_ORD_Standards\Organization-Civil\KYTC_Standards_OC\Data. This file will contain all the lists of the Standard Drawings currently in use for projects with the most current letting date. This file will be used to link the drawings similarly to the charts used by the plan sheets in the KYTC_Summaries_Template.xlsx file.



Step 6: Place the Excel file inside of PW. A good place to store this file is in a “Supplemental” folder, under the “Sheets” folder. Create this folder inside the folder structure, seen below. *For KYTC Personnel*, placing the file in ProjectWise will maintain linkage within ProjectWise. *For Consultants*, use either your local hard drive, server, or your company’s ProjectWise server. Place this in a locationeasily accessible for future use and that will be transferred for submittals. Open the file.



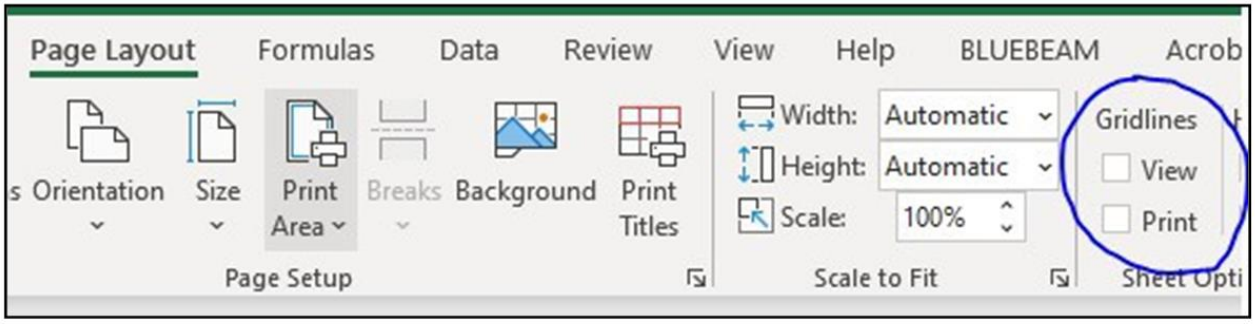
Step 7: Scroll through the Traffic, Bridges, and Roadway tabs, using the check boxes to indicate thedrawings used on the project (check mark = used). *Sepias do not contain check boxes, as sepias willstill be placed as their own sheet in the plan set and not listed in the standard drawing box on the layout sheet. They are in this file for informational purpose only.* Do not alter any column, row, or text. Do not make any modifications to the tabs where the drawings are listed. Only use the check boxes.

USED	DESCRIPTION	DRAWING NUMBER	EFFECTIVE DATE
TRAFFIC-TEMPORARY			
☑	LANE CLOSURE TWO-LANE HIGHWAY	TTC-100-005	2/26/2020
☑	LANE CLOSURE USING TRAFFIC SIGNALS	TTC-110-004	2/26/2020

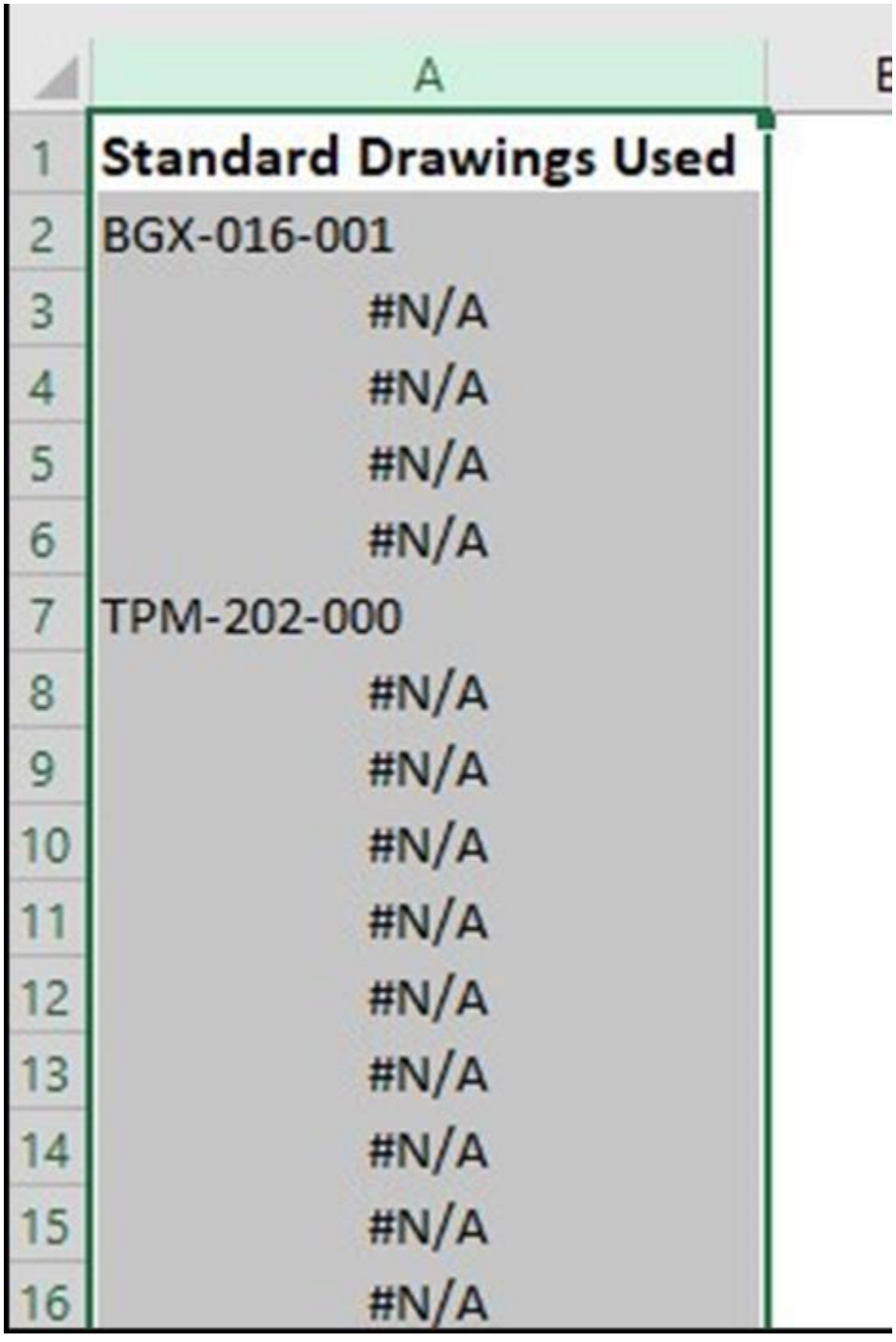
BRIDGES-DECK UNITS			
☐	BOX BEAM GENERAL NOTES & REFERENCES	BDP-001-006	2/26/2020
☑	BOX BEAM BEARING DETAILS	BDP-002-003	12/1/2015
☑	BOX BEAM MISCELLANEOUS DETAILS	BDP-003-003	2/26/2020

USED	DESCRIPTION	DRAWING NUMBER	EFFECTIVE DATE
ROADWAY-FENCES AND GRATES			
☐	CHAIN LINK RIGHT OF WAY FENCE 4' TO 6' HIGH	RFC-001-008	12/1/2015
☐	CHAIN LINK RIGHT OF WAY FENCE 8' TO 12" HIGH	RFC-002-005	12/1/2015
☐	WOVEN WIRE GATES	RFG-001-007	12/1/2015
☐	1220 MM TO 3660 MM HIGH CHAIN LINK GATE	RFG-005-006	12/1/2015
☐	WATER GATE TYPE 1 AND TYPE 2	RFG-010-005	12/1/2015
☐	WATER GATE TYPE 3	RFG-011-006	12/1/2015
☐	RIGHT OF WAY FENCING DETAILS	RFW-001-006	12/1/2015
☐	WOVEN WIRE RIGHT OF WAY FENCE TYPE 1	RFW-005-008	12/1/2015
☑	WOVEN WIRE RIGHT OF WAY FENCE TYPE 2	RFW-006-007	12/1/2015

Step 8: Once all drawings utilized are checked, click on the “For Layout Sheet” tab. All drawings that were checked in the check box from the previous tabs will appear here. However, all the drawings that were not checked will say #N/A, as this is the placeholder for the unchecked drawing. The next step will demonstrate how to sort out only the drawings used, allowing for an easy copying of used drawings. Note: gridlines are turned off for this tab, so the gridlines do not copy over into the DGN. If the gridlines need to be turned off again, they can be done so here, making sure the box in un-checked:



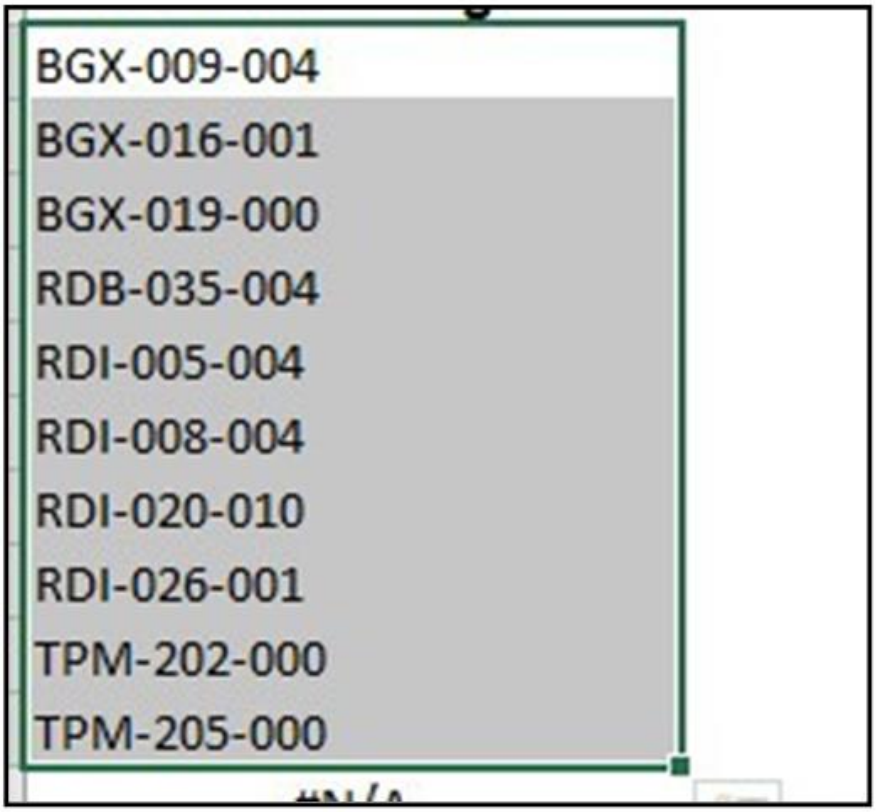
Step 9: Using the Sort button in Excel, sort the column of drawings (called Standard Drawings Used) by “A to Z” by clicking on Column A to highlight the whole column. This will bring all the drawings used/checked to the top of the list, in alphabetical order, making every used drawing easy to copy at once.



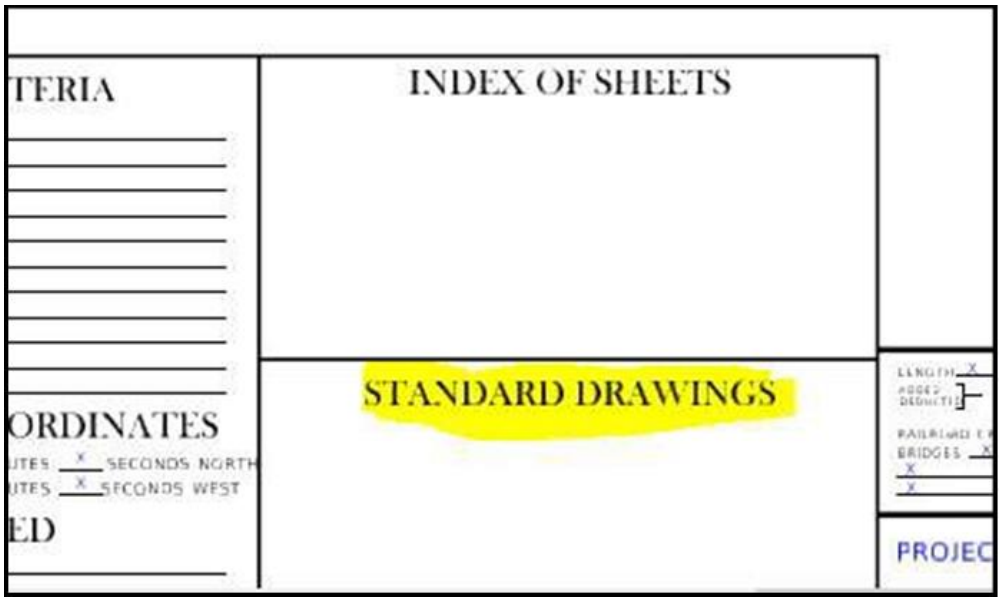
	A
1	**Standard Drawings Used**
2	BGX-016-001
3	#N/A
4	#N/A
5	#N/A
6	#N/A
7	TPM-202-000
8	#N/A
9	#N/A
10	#N/A
11	#N/A
12	#N/A
13	#N/A
14	#N/A
15	#N/A
16	#N/A

	A
1	**Standard Drawings Used**
2	BGX-009-004
3	BGX-016-001
4	BGX-019-000
5	RDB-035-004
6	RDI-005-004
7	RDI-008-004
8	RDI-020-010

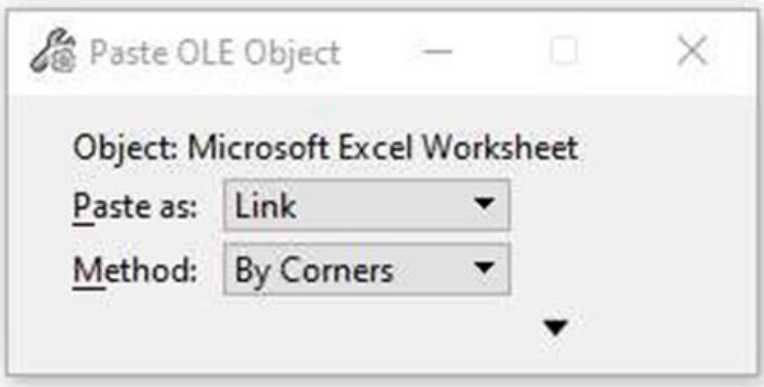
Step 10: Select all the cells with the drawings and do Copy command, with the keyboard, (CTRL+C) in Excel to copy every drawing title used, being sure to not include any #N/A's or the title "Standard Drawings Used".

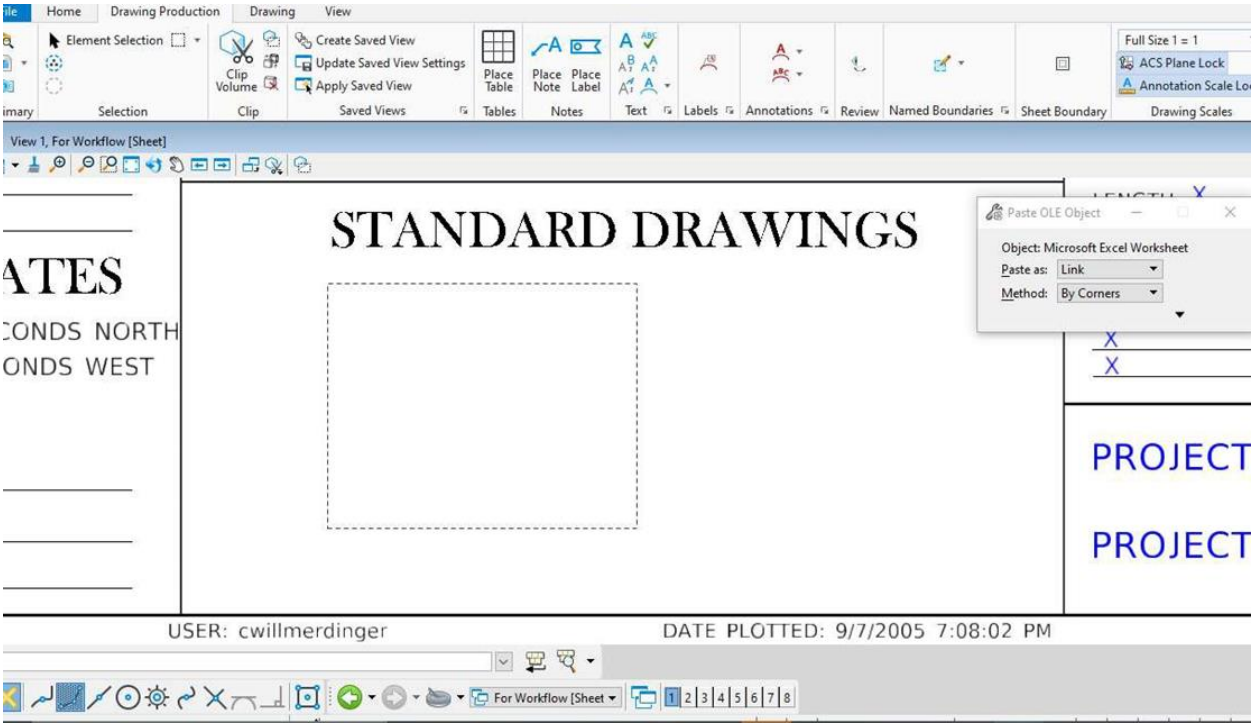


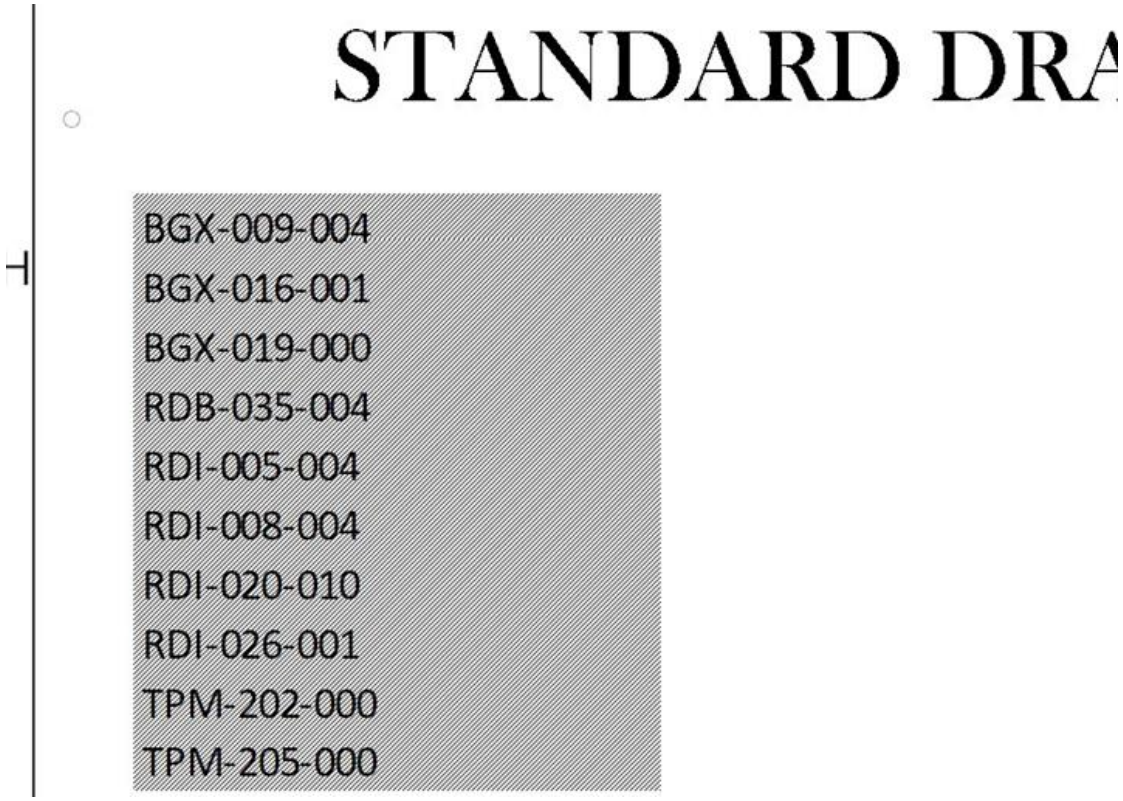
Step 11: Next, open the layout sheet DGN, in the sheet model, for the project and locate the standard drawing box (under the index of sheets).



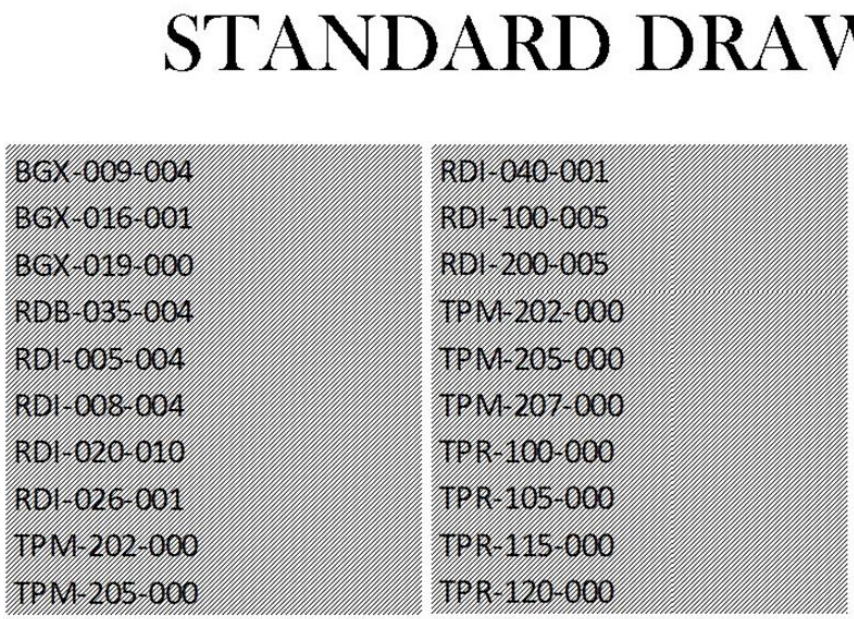
Step 12: Preform an “Insert Object” command in ORD (simply hit CTRL+V, on the keyboard, after CTRL+C in the previous step) to display the list of drawings copied from Excel. In the dialogue box that pops up, shown below, set it to “Link “and “By Corners”. By corners will allow the designer to draw a box for where the list will be placed/adjust its size. This will pull the list of all used drawings from Excel into ORD. The greyed background on your list indicates the table is linked and the Excel file is opened. When the file is closed, the grey background goes away. Double clicking on the pasted list will openthe Excel file back up. To update the list, update the link. This will update the information, however only within the copied cells. If more drawings are added, then the drawings will need to be re-sortedand re-pasted.







Step 13 (Optional): Utilizing ORD commands, fit the list of drawings used into the box by creating columns or re-sizing if necessary. About 8-10 drawings fit in one column in this box, so create columns by copying no more than ten drawings at a time. NOTE: If the standard drawing box on the layout sheet is insufficient space for the quantity of drawings needed, re-configure the layout sheet to extendthe box bigger (see below).



DESIGN CRITERIA

CLASS OF HIGHWAY	X
TYPE OF TERRAIN	X
DESIGN SPEED	X
REQUIRED NPSD	X
REQUIRED PSD	X
LEVEL OF SERVICE	X
ADT PRESENT (X)	X
ADT FUTURE (X)	X
DHV	X
D %	X
T %	X

GEOGRAPHIC COORDINATES

LATITUDE X DEGREES X MINUTES X SECONDS NORTH
LONGITUDE X DEGREES X MINUTES X SECONDS WEST

DESIGNED

% RESTRICTED SD	X
LEVEL OF SERVICE	X
MAX. DISTANCE W/O PASSING	X

INDEX OF SHEETS

STANDARD DRAWINGS

BGX-009-004	RDI-012-003
BGX-016-001	RDI-016-003
BGX-019-000	RDI-020-010
BSA-019-000	RDI-021-001
BSA-022-000	RDI-025-006
BSA-024-000	RDI-026-001
BSA-027-000	RDI-040-001
BSA-029-000	RDI-100-005
RDB-035-004	RDI-200-005
RDI-005-004	TPM-202-000
RDI-008-004	TPM-205-000
RDI-011-003	TPM-207-000
RDI-012-003	TPR-100-000
RDI-016-003	TPR-105-000
RDI-020-010	TPR-115-000
RDI-021-001	TPR-120-000