

Toronto Police Service

Know Your Neighbourhood (KYN) Application

Implementation Guide: Experience Builder

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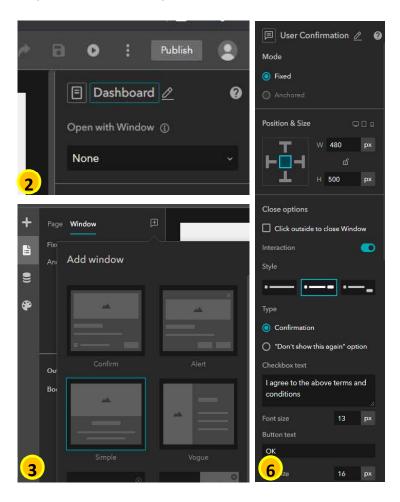


Experience Builder Configuration

The KYN Application consists of a combination of dashboards, web maps and other ESRI products, and to bring them all together, the Experience Builder tool is used. By this point, the dashboard and web maps should already be available to be configured in Experience Builder.

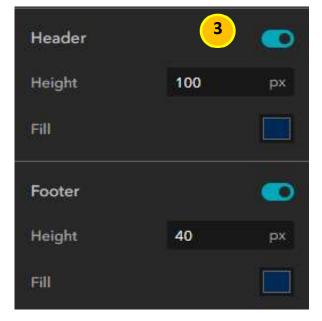
Structure: Page and Window Creation

- 1) Select *Create new* within ArcGIS Experience Builder and choose the *Blank fullscreen* template option.
- 2) With the *Page* option selected on the sidebar, within the Page tab, select *Page 1* and then navigate to the Configuration Menu. Select the *Pencil* icon and rename this page to "Dashboard".
- 3) With the *Page* option still selected on the sidebar, select the Window tab and then select the *Add window* icon. Selection the *Simple* preconfigured option. Rename this window to "User Confirmation".
- 4) Add another window (select the Simple option) and rename to "Dashboard Help".
- 5) Select the User Confirmation Window and navigate to the Configuration Menu.
- 6) Set *Height* to *480* px. Turn off the *Click outside to close Window* option. Turn on the *Interaction* option. Select the *Button in same line* Style.
- 7) Select the Dashboard Help Window and navigate to the Configuration Menu.
- 8) Set Width to 618 px and Width to 800 px. Leave the Click outside to close Window option on.



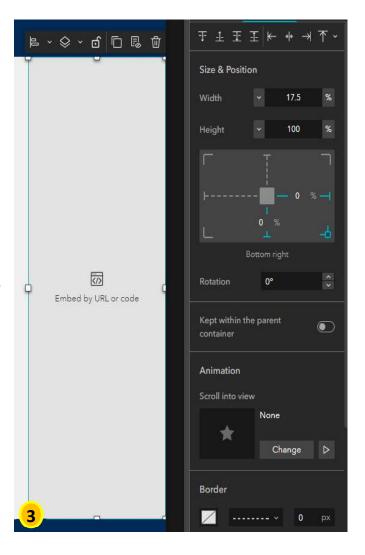
Structure: Header and Footer

- Select the Dashboard page and navigate to the Configuration Menu. Turn on both the *Header* and *Footer* options.
- 2) For both, set Fill to HEX code #022A56.
- 3) Set the *Height* for the Header and Footer to 100 px and 40 px respectively.



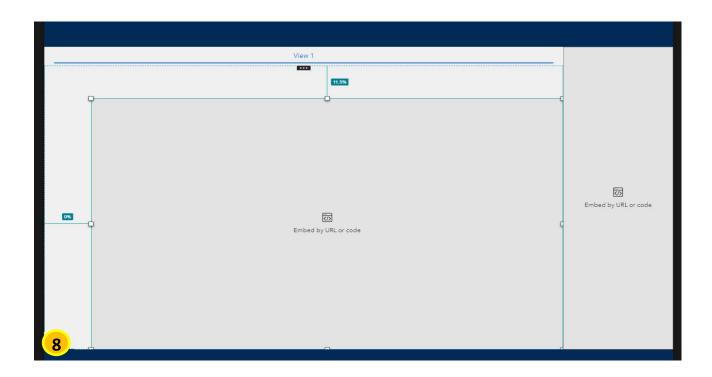
Structure: Twitter Feed

- With the *Insert* option selected on the sidebar, click and drag the *Embed* widget somewhere on to the canvas.
- 2) With the Embed item selected, rename to "TPS Twitter Feed".
- 3) Navigate to the Style tab of the Configuration Menu. In the box showing the visual representation of distance from each side, select the *Right* distance line and enter the value 0 %. Set the *Width* to 17.5 %. Using the top and bottom white boxes on the border of the Embed item, click and drag to adjust the height until it snaps to Header and Footer.

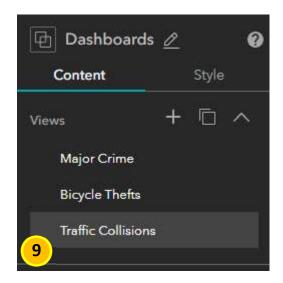


Structure: Views Navigation and Section

- 1) With the *Insert* option selected on the sidebar, click and drag the *Views Navigation* widget somewhere on to the canvas. A Quick style menu will appear; select the third option (this can be configured in the Configuration Menu as well).
- 2) Rename to "Dashboards Views Nav".
- 3) Position the Dashboards Views Nav directly underneath the header and resize to fill the entire width of the remaining empty space of the canvas.
- 4) With the Dashboards Views Nav selected, navigate to the Content tab of the Configuration Menu and set the *Height* to 6.2 %.
- 5) With the *Insert* option selected on the sidebar, click and drag the *Section* widget within the remaining empty space of the canvas. Rename to "Dashboards".
- 6) Position and resize to fill the entirety of the remaining empty space of the canvas.
- 7) If the new section did not automatically register with the Dashboards View Nav item, select the Dashboards View Nav item and navigate to the Content tab of the Configuration Menu. Under Link to, select from the dropdown menu Dashboards Section.
- 8) With the Dashboard Section selected, click and drag another *Embed* widget to occupy the exact same space. Rename this item to "MCI Dashboard Desktop".



9) Select the Dashboards section and navigate to the Content tab of the Configuration Menu. Double click *View 1* and rename to "Major Crime". Select the *New view* icon and create two additional views and rename them to "Bicycle Thefts" and "Traffic Collisions".



10) Click and drag an *Embed* widget into each of these views as was done for the Major Crime view. Rename these to "Bike Dashboard – Desktop" and "FC Dashboard – Desktop" respectively.

Configuration: Header

- 1) Select the Header (hover over it and select *Edit header*). Once selected, click the *Choose a header template* option that appears in the center of the header and choose the first option.
- 2) This template includes all but one of the elements (Help button) used in the application.
- 3) To add the button, click and drag the *Button* widget into the Header (select any of the Quick style options as it will be changed later anyways).
- 4) In the Content tab of the Configuration Menu, change *Text* to "Help".
- 5) Select the Button item and navigate to the Content tab of the Configuration Menu. Select *Set Link* and under the *Link to* and *Select a window* dropdown menus choose *Window* and *Dashboard Help* respectively.
- 6) Refer to the image below for positioning and styling of Header items.

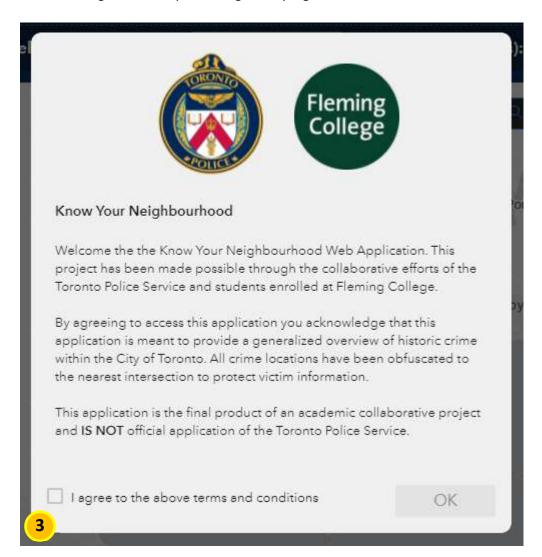
Configuration: Footer

- 1) Select the Footer. Once selected, click the *Choose a header template* option and choose the first option.
- 2) Remove all preconfigured items except the social media icons item.
- 3) Click and drag a *Text* widget into the Footer. Refer to the image below for positioning and styling of Footer items.



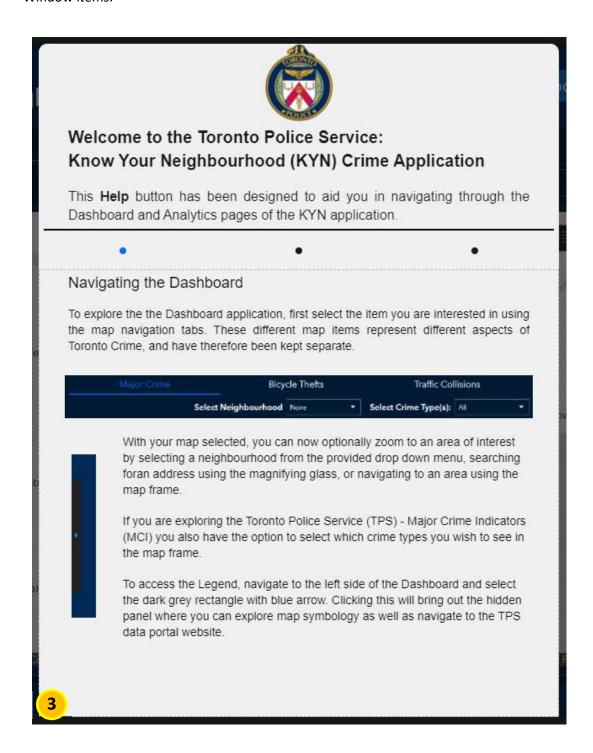
Configuration: User Confirmation Window

- 1) Select the *Page* option in the sidebar and navigate to the *Window* tab.
- 2) Select the User Confirmation Window.
- 3) Click and drag *Text* and *Image* widgets into the window to create the content for this Window. Refer to the image below for positioning and styling of Confirmation Window Items.



Configuration: Dashboard Help Window

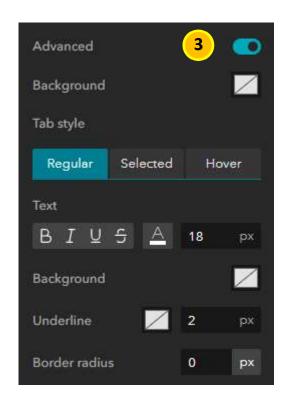
- 1) Select the *Page* option in the sidebar and navigate to the *Window* tab.
- 2) Select the User Help Window.
- 3) Adding content to this window is similar to the steps taken for the Confirmation Window, however it is beneficial to additionally use a *Views Navigation* and *Section* widgets to reduce the amount of information clutter. Refer to the image below for positioning and styling of User Help Window items.



Configuration: Views Navigation

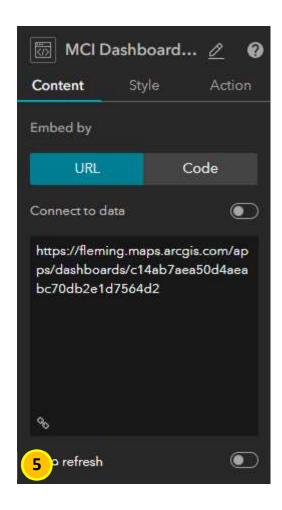
- 1) Select the Dashboard Views Navigation item.
- 2) Within the Content tab of the Configuration Menu, turn the *Advanced* option on.
- 3) In this menu we are able to configure how the View selection buttons appear for when they are in a regular, selected, or hover state. Enter the following settings for each state (Note, the second *Background* options controls the colour for the circular backdrop of the text):

State	Font Size	Font Colour	Underline	Underline Colour
Regular	16	#ffffff	NA	NA
Selected	16	#136FBF	2 px	#136FBF
Hover	16	#FDB827	NA	NA



Configuration: Section/Map

- 1) Select the Dashboards Section and navigate to the Content tab of the Configuration Menu.
- 2) Select the Major Crime View that we created earlier.
- 3) Select the Embed item in this view (MCI Dashboard Desktop).
- 4) Within the Content tab of the Configuration Menu, select the URL option underneath Embed by.
- 5) Enter the URL for the MCI Dashboard AGOL application (Desktop version).
- 6) Repeat steps 1-5 for the Bicycle Thefts and Traffic Collisions views. For these views enter the URL for their respective Dashboard application (Desktop version as well).



Configuration: Twitter Feed

1) Select the TPS Twitter Feed item and navigate to the Content tab of the Configuration Menu. Underneath *Embed by*, select *Code* and enter:

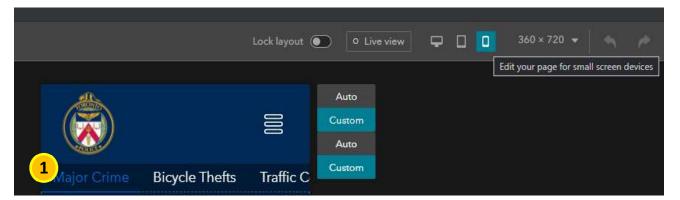
<html>
<style>html,body{margin:0;padding:0;width:100%;height:100%;}</style>
<body>
<a class="twitter-timeline" data-theme="dark"
href="https://twitter.com/TPSOperations?ref_src=twsrc%5Etfw">Tweets by TPSOperations
<script async src="https://platform.twitter.com/widgets.js" charset="utf-8"></script>
</body>
</html>

2) Underneath Interva (Minute), enter the value 1.00.

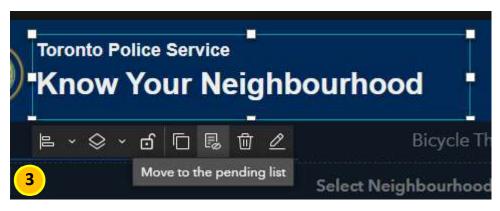


Mobile Configuration

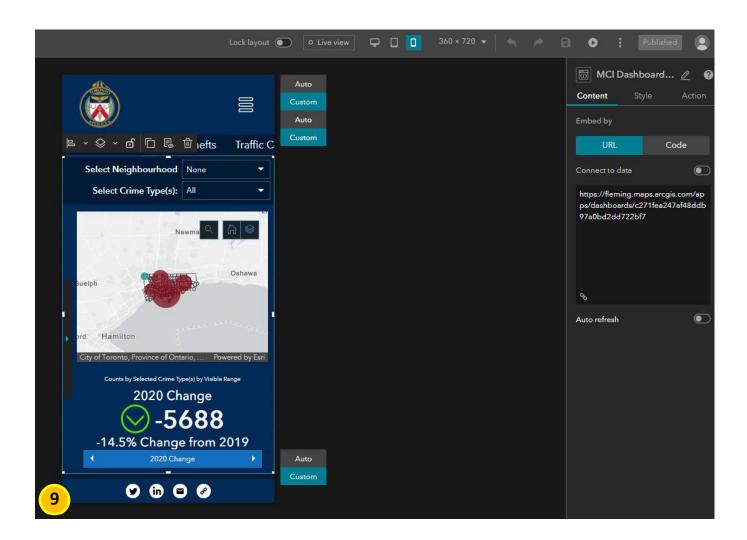
1) On the top toolbar, select the *Mobile Device* icon to being configuring the application for small screen devices. You will notice that the sizing of all components have adjusted automatically to a certain degree, but clearly some require further work to be accessible on small devices.



- 2) Beside the Header, Body, and Footer are options for *Auto* and *Custom* positioning/sizing. Select *Custom* for each of these.
- 3) Edit the Header and select the *Text* item and hover over the item in the canvas. Several icons for various functions will appear above the item. From these functions, select *Move to the pending list*. The item will 'disappear' from the canvas but will not affect how we have configured it for large screen devices.



- 4) Select the TPS Twitter Feed item and similarly move to the pending list.
- 5) Edit the Footer and select the *Text* item and move to the pending list.
- 6) Select the *Edit your page for medium screen devices* icon and repeat steps 2-5. Afterwards, return to the *Mobile* configuration option.
- 7) Additionally, send the *Help* button to the pending list within the Header.
- 8) Navigate to the Major Crime View of the Dashboard Section. Select the *Embed* widget in this view and send to the pending list. Click and drag another *Embed* widget to occupy the same space and rename to "MCI Dashboad Mobile". Repeat this step for the Bicycle Thefts and Traffic Collisions Views as well, naming each new Embed item "Bike Dashboard Mobile" and "FC Dashboard Mobile" respectively.
- 9) For each new Embed item, enter the URL for their respective mobile configured Dashboard.

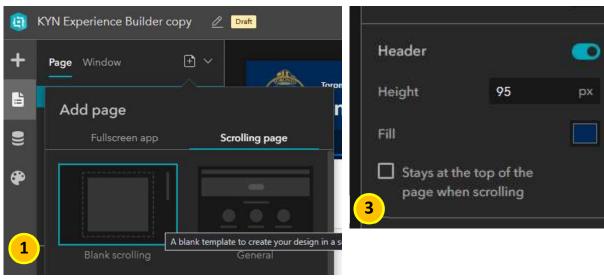


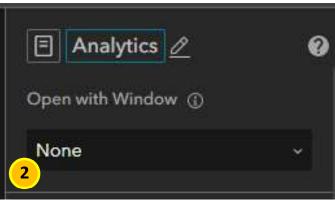
Analytics Page

In addition to the main dashboard page for the Know Your Neighbourhood Application, we wanted to include a second page with increased functionality. This would be for users looking for more control on filtering by dates, crime type and area.

Structure: Page Creation

- 1) With the *Page* option selected on the sidebar, select the *Add Page* icon, *Scrolling page*, and then choose the *Blank scrolling* option.
- 2) In the Configuration Menu (with the new page highlighted) select the *pencil icon* and rename the page to "Analytics".
- 3) In the same Configuration Menu, turn on the *Header* option. This header will retain the same properties as the header created in the first page.





Structure: Block 1

- 1) Select the *Insert Block* icon shown on the canvas and then select the first preset layout option listed. The items contained in this preset will not be used and will be deleted in a later step (if all the items are deleted from a block, the block will auto-delete).
- 2) Select Block 1 either by clicking on it in the canvas or by highlighting it in the Body section of the *Page* option on the sidebar. On the Content tab, enter the *Gap* value 0 px. Select the *Style* tab in the Configuration Menu and locate the Height option in the Size section. Set Height to *Custom* and enter the value 420 px. Locate the Fill option in the Background section and select the box to open the colour selection menu. Select *More* and enter the HEX code #011B37.
- 3) With the *Insert* option selected on the sidebar, click and drag the *Map Widget* somewhere inside Block 1. Now that this widget occupies Block 1, delete the other preset items.
- 4) Select the map item and adjust the width by clicking on and dragging the white boxes on the left and right sides to fill the entire extent of the block (the width of the map will snap to predefined columns that are a property of the Block element).
- 5) With the Map item selected, navigate the the Content tab in the Configuration Menu and and select the *Pencil* icon to rename it to "Analytics Map".

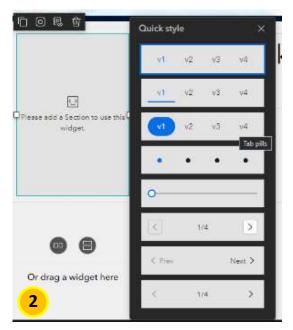






Structure: Block 2

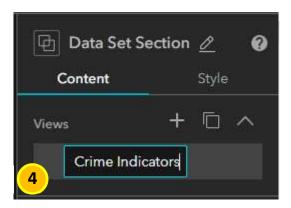
- 1) Repeat the creation of the next block by selecting the *Insert Block* icon on the canvas and selecting the first preset layout. Similarly, set the background *Fill* to HEX code #011B37.
- 2) From the Insert sidebar, click and drag the *Views Navigation* widget in to Block 2. A Quick style menu will appear; select the third option (this can be configured in the Configuration Menu as well). Afterwards, delete the other preset items.
- 3) Select Block 2 and in the Content tab set *Height* to custom and enter the value 72 px.
- 4) Resize the width of the Views Navigation item by click the white box on the sides and dragging. Leave one column empty on both sides of the item.
- 5) With the Views Navigation item selected, rename it in the Configuration Menu to "Data Set View Navigation".





Structure: Block 3

- 1) Repeat the creation of the next block by selecting the *Insert Block* icon on the canvas and selecting the first preset layout. Similarly, set the background *Fill* to HEX code #011B37.
- 2) From the Insert sidebar, click and drag the *Section* widget in to Block 3 (Note that by adding in this section, Experience Builder will automatically make the connection between this item and the Views Navigation item created in the previous section). In the Configuration Menu, rename this section to "Data Set Section".
- 3) Select Block 3 and set *Height* to custom and enter the value *832* px. Resize the width of the Section item by clicking the white box on the sides and dragging. Leave one column empty on both sides of the item.
- 4) Select the Section and navigate to the Content tab of the Configuration Menu. You will notice a section called Views with the current view called View 1. Double click View 1 to rename it to "Major Crime Indicators".



- 5) Hover over the new view name in the Configuration Menu and select the *Paintbrush* icon. Locate the *Fill* option and set the background colour to HEX code #011B37. Afterwards, click back to return to the main content tab.
- 6) Click and drag another Views Navigation widget into the Data Set Section. In the Quick style menu that appears, select the second option.
- 7) Position the Views Navigation item to the top-center of the Section and manually adjust the width (click and drag white boxes) to fill the entire width of the Section.

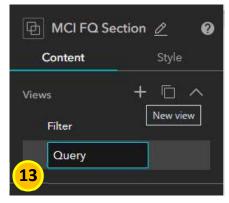


- 8) Rename this Views Navigation item to "MCI FQ View Navigation".
- 9) Set the *Height* of the MCI FQ View Navigation to 6.1 %.
- 10) Click and drag another Section widget into the Data Set Section and position it directly underneath the MCI FQ View Navigation item for the full width of the Section (Note, red dashed lines will appear indicating where the boundary is of the Views Navigation item which can be snapped to).

- 11) Rename this Section to "MCI FQ Section" and set the *Height* to 38.9 %. As was done in step 5, set the background colour to HEX code #011B37.
- 12) If the new section did not automatica
 Ily register with the MCI FQ View Navigation item, select the
 MCI FQ View Navigation item and navigate to the Content tab
 of the Configuration Menu. Under Link to, select from the
 dropdown menu MCI FQ Section.



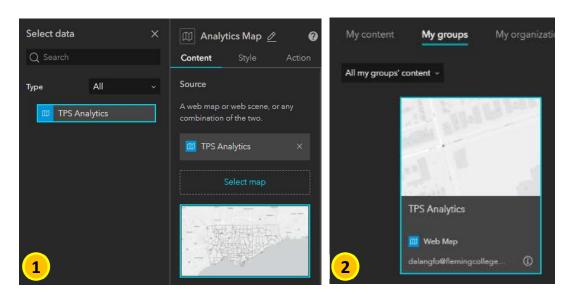
13) Select the MCI FQ View Navigation item and navigate to the Content tab of the Configuration Menu. In Views section, double click View 1 and rename to "Filter". In the same section, select the *New View* icon and name it "Query".



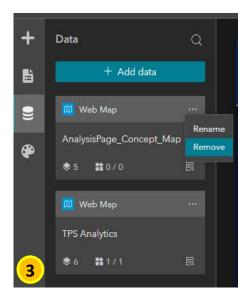
- 14) As in step 5, select the *Paintbrush* icon and set the background colour to HEX code #011B37for the Query view.
- 15) Click and drag another Views Navigation widget into the Data Set Section (select the second option for the Quick style) and place is directly beneath MCI FQ Section to fill the entire width of the Section containing it.
- 16) Rename it to "MCI Graph View Navigation" and set the *Height* to 6.1 %.
- 17) Click and drag another Section widget into the Data Set Section and position it directly underneath the MCI Graph View Navigation item for the full width of the Section. Rename this Section to "MCI Graph Section". Since this is the final item, simply click and drag to fill the entirety of the remaining section.
- 18) Rename this section to "MCI Graph Section". Select the MCI Graph View Navigation item and link it to the MCI Graph Section.
- 19) In the Content tab of the Configuration Menu, change the name of View 1 to "By MCI". Create 4 more views and name them "By Year", "By Neighbourhood", "By Division", "By Ward".
- 20) For all views, set the background colour to HEX code #011B37.
- 21) Select the Data Set View Navigation Item (in Block 2) and create two more views: "Bicycle Thefts" and "Traffic Collisions" (set the background colour to the same as the Major Crime Indicators view). Repeat steps 6-20 for these views. Replace each instance of "MCI" in the naming conventions with "Bike" or "FTC" for their respective view. The only difference with these additional Data Set Views is that the "By MCI" view in the Graphs Sections does NOT need to be created (i.e. 4 views in total).

Configuration: Map

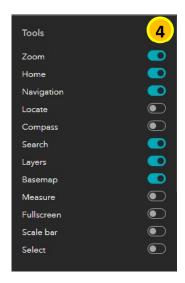
- 1) Select the Analytics Map item and navigate to the Content tab of the Configuration Menu. In the Source section, select *Select map*. The Select data pane will open containing a list of data sources to choose from. To add the map we need, select *Add new data* in this pane.
- 2) Browse within your content, groups, organization, etc., to locate the pertinent map. In this case we want to add the map we previously created called TPS Analytics. When selected, press the *Done* button in the bottom right of the page to proceed.



3) The TPS Analytics map will now appear in the Select data pane. Click on this map for its contents to be used in our map item. Note, if you need to remove an unneeded map from the data list, navigate to *Data* option on the sidebar to see a full list of all data sources and select the *3 dots* icon and click *Remove*.



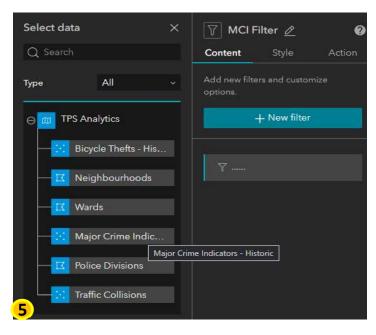
4) Navigate to Content tab of the Configuration Menu and scroll down to the Tools section. Here we can customize what features are included in the map. In addition to the default selection, turn on *Layers* and *Basemap*.



Configuration: Filter

- 1) Select the Page option in the sidebar and navigate to the MCI FQ Section and select the Filter view
- 2) Select the *Insert* option in the sideview, click and drag the *Filter* widget into the Section and resize so that it fills the full area.
- 3) Select the filter and rename to "MCI Filter".
- 4) In the Configuration Menu, select + New filter to open the Create new filter pane.

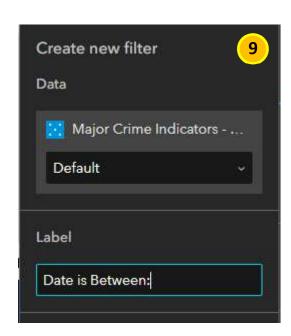
5) In this pane, click *Select data*. The map data (TPS Analytics) we previously added will be listed. Expand the map data by clicking the + symbol and select the *Major Crime Indicators* layer.



- 6) In the Create new filter pane, select SQL Expression Builder.
- 7) Within the SQL Expression Builder pane that appears, select + Add clause.
- 8) Choose to filter by the field *Date* and filter type of *is between*. Select the *More input settings* icon and select *Ask for values*. Delete the default text in the *Label* area. Press *OK*.

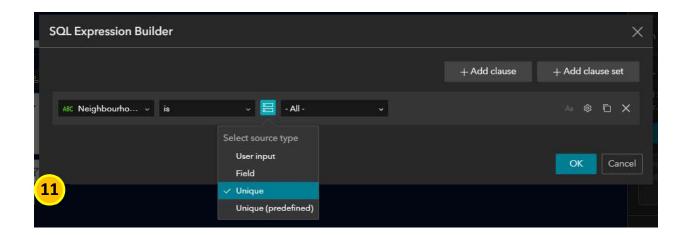


9) In the Label section of the Create new filter pane, rename to "Date is Between:".

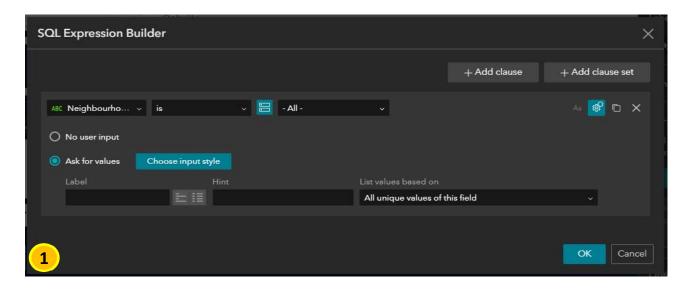


10) Select + New filter again, select the same layer, and then select SQL Expression Builder.

11) Select + Add clause and choose to filter by the field Neighbourhood and filter type of is. Click the Select source type icon and choose Unique.

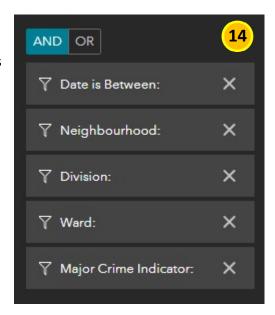


12) Select the *More input settings icon* and select *Ask for values*. Delete the default text in the Label area. Leave the *List values based on* field set to *All unique values of this field*. Press OK.



13) Change the Label to "Neighbourhood:"

14) Repeat steps 10-13 to create filters for Division, Ward, and Major Crime Indicator. When configuring the clause, select the appropriate field. Rename labels to "Division:", "Ward:", and "Major Crime Indicator:" respectively. Ensure that the filters are set to *And* in the content tab of the Configuration Menu.



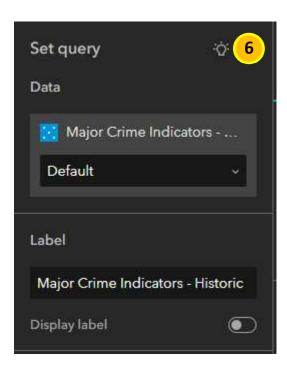
- 15) Repeat steps 1-14 for the Bicycle Theft and Traffic Collision Filter views.
 - a. When selecting data, select the *Bicycle Thefts* and *Traffic Collisions* layers respectively.
 - b. The MCI field filter is not required for these views.

Configuration: Query

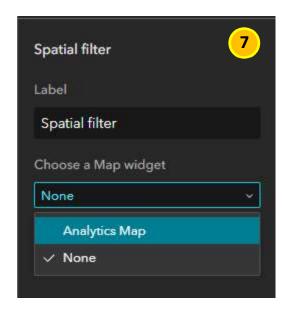
- 1) Select the Page option in the sidebar and navigate to the MCI FQ Section and select the Query view.
- 2) Select the *Insert* option in the sideview, click and drag the *Query* widget into the Section and resize so that it fills the full area.



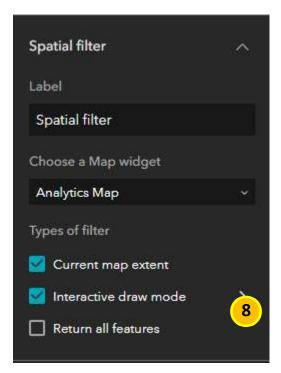
- 3) Select the query and rename to "MCI Query".
- 4) In the Configuration Menu, select + New query to open the Set query pane.
- 5) In this pane, click *Select data*. The map data (TPS Analytics) we previously added will be listed. Expand the map data by clicking the + symbol and select the *Major Crime Indicators* layer.
- 6) In the Set query pane, turn off the Display label option.



7) Expand the *Spatial filter* option in the *Choose Map widget* drop down menu select *Analytics Map*.



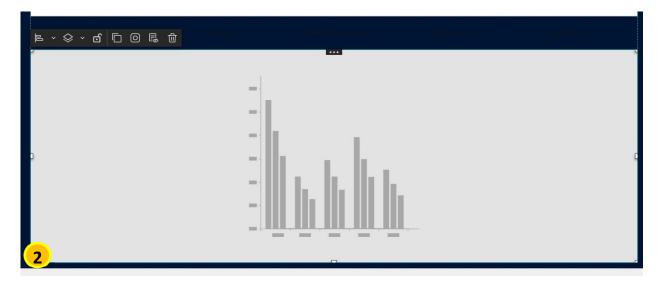
8) Below in the *Types of filter* section, select *Current map extent* and *Interactive draw mode*. When Interactive drop mode is selected, an arrow will appear to its right. Click the arrow turn off the *Line* option.



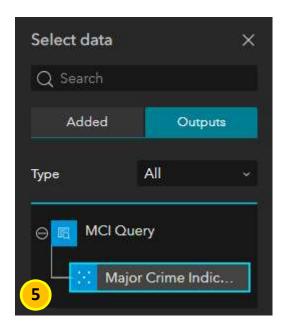
9) Repeat steps 1-8 for the Bicycle Theft and Traffic Collision Filter views. When selecting data, select the *Bicycle Thefts* and *Traffic Collisions* layers respectively.

Configuration: Chart

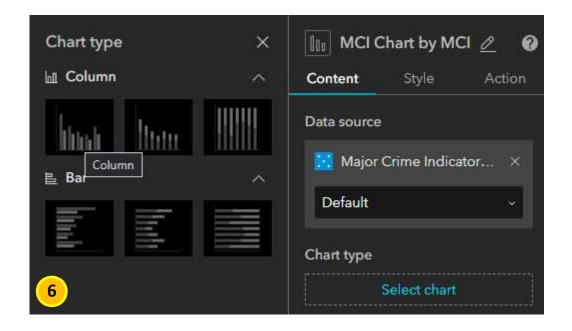
- 1) Select the Page option in the sidebar and navigate to the MCI Graph Section and select the By MCI view.
- 2) Select the *Insert* option in the sideview, click and drag the *Chart* widget into the Section and resize so that it fills the full area.



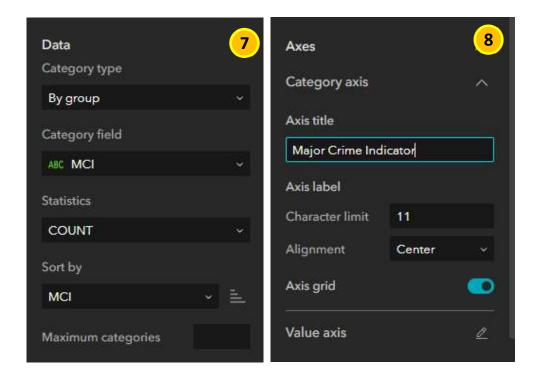
- 3) Select the chart and rename to "MCI Chart by MCI".
- 4) Within the Content tab of the Configuration Menu, click Select data.
- 5) In the Select data pane that opens, select the *Outputs* tab. This will list all the output options for which the graph will display information of. For this chart, select the + icon to expand MCI Query and then select the *Major Crime Indicators* layer.



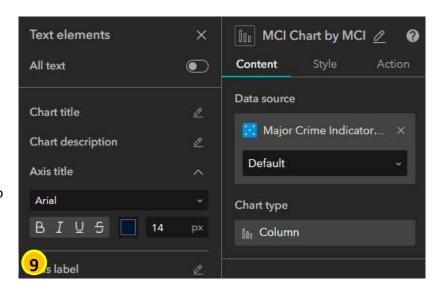
6) Under Chart type section in the Configuration Menu, click *Select chart* and choose *Column*.



- 7) Under the Data section, select the field *MCI* from the *Category field* drop down menu and select *Count* from the *Statistics* drop down menu.
- 8) Expand the *Axes* option and select the *Pencil icons* for *Category axis* and *Value axis*. Enter title for these axes as "Major Crime Indicator" and "Count" respectively. For Category axis *Character limit*, enter the value 5.



9) Expand the Appearance option and select the Text elements Gear icon to open the Text elements pane. Within this pane, select the Pencil icon for Axis title and select the Bold option and change the colour to HEX code #00153.



- 10) Repeat steps 1-9 to create charts for By Year, By Neighbourhood, By Division, and By Ward. For each chart, select the appropriate field from the *Category field* drop down menu and name the *Category axis* title accordingly.
- 11) Repeat steps 1-10 replicate chart creation for the graph views within the Bicycle Thefts and Traffic Collisions sections.
 - a. When selecting data, select the *Bicycle Thefts* and *Traffic Collisions* query outputs respectively.

Additional Styling

- 1) Select the Data Set View Navigation item (in Block 2).
- 2) Within the Content tab of the Configuration Menu, turn the *Advanced* option on.
- 3) In this menu we are able to configure how the View selection buttons appear for when they are in a regular, selected, or hover state. Enter the following settings for each state (Note, the second *Background* options controls the colour for the circular backdrop of the text):

State	Font Size	Font Colour	Background Colour
Regular	18	#ffffff	Transparent
Selected	18	#ffffff	#136FBF
Hover	18	#FDB827	Transparent

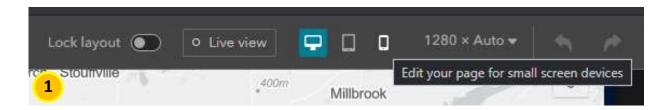
The following steps apply to both the FQ View Navigation and Graph View Navigation items for all Data Set Sections.

- 4) Select the View Navigation item (in Block 3).
- 5) Within the Content tab of the Configuration Menu, turn the *Advanced* option on.
- 6) Enter the following settings for each state:

State	Font Size	Font Colour	Underline	Underline Colour
Regular	16	#ffffff	NA	NA
Selected	16	#136FBF	2 px	#136FBF
Hover	16	#FDB827	NA	NA

Mobile Configuration

1) On the top toolbar, select the *Mobile Device* icon to being configuring the application for small screen devices. You will notice that the sizing of all components have adjusted automatically to a certain degree, but clearly some require further work to be accessible on small devices.

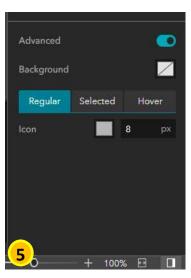


2) Select the Data Set View Navigation item (in Block 2) and hover over the item in the canvas. Several icons for various functions will appear above the item. From these functions, select *Move to the pending list*. The item will 'disappear' from the canvas but will not affect how we have configured it for large screen devices.



- 3) Click and drag another Views Navigation widget into the Data Set Section and rename it to "Mobile Data Set View Navigation".
- 4) From the Quick style menu, select the fourth option. Resize the width of the item so that is occupies the full width of the Data Set Section.
- 5) With the Mobile Data Set View Navigation item selected, navigate to the Content tab of the Configuration Menu and turn on the *Advanced* option near the bottom. Set the *Background* colour to HEX code #011B37 and enter the following for each state:

State	Colour	Size
Regular	#ffffff	8 px
Selected	#136FBF	12 px
Hover	#FDB827	8 px



- 6) Select the MCI Graph View Navigation item (in Block 3) and Move to the pending list.
- 7) Click and drag another Views Navigation in to the Major Crime Indicators Section to replace the removed item and select the fourth option from the Quick style menu. Rename to "Mobile MCI Graph Navigation" Set the *Background colour* to HEX code #011B37 and enter the following for each state:

State	Colour	Size
Regular	#ffffff	6 px
Selected	#136FBF	10 px
Hover	#FDB827	6 px

8) The *Height* of all items in Block 3 must be readjusted to create room for one additional text widget. This step does require a fair amount of continual readjustment to get all items in the correct position. Adjust heights to the following (Note, adjust the size of the filter, query, and graphs to fill the entirety of their respective Section):

Item	Height
MCI View Navigation	9 %
MCI FQ Section	31.9 %
MCI Graph View Navigation	8.6 %
MCI Graph Section	44.8 %

- 9) Stack each item on top of one another from the bottom so that the empty space left is at the top of Block 3. Rename to "Text MCI".
- 10) Navigate to the Content tab of the Configuration Menu and format the text to *Arial*, *20 px*, *Bold*, *Center*, and colour HEX code #CE1141.



11) Repeat steps 6-10 for the Bicycle Thefts and Traffic Collisions views following the same naming conventions but substituting the identifying word/acronym appropriately (i.e. MCI → FTC).