

ACIS – Arizona Crash Information System

ADOT

Training Video 3

Crash Analysis using ACIS



ADOT Traffic Safety Group

Created on April 2023

ARIZONA DEPARTMENT OF TRANSPORTATION

- ACIS can be used to download crash data for Crash Analysis / Warrant Study / Agency Summaries
- The Standard Detail Report are the most commonly used report for this type of analysis.
- This training will show how to download data and best practices on saving the data / links and using the data for analyzing the data.



The Standard Detailed Report can be used for crash data with the following parameters:

- **CRASH PERIOD**
- **INCIDENT FLAGS**
- **LOCATION**
 - **Spatial region**
 - City
 - County
 - COG/MPO
 - Tribal Area
 - ADOT district
 - **By specific route**
 - Advanced map search (draw a rectangle/polygon/ circle around a location)
 - Milepost segment for a route (both directions can be selected if the route is divided)
 - Local road segment
 - Intersection (150 feet buffer is the default but any buffer can be used based on what is entered by the user)



For a specific route query, certain parameters such as incident flags or spatial region do not need to be selected, the route segment or intersection and the crash period are the most common parameters used

- The first step when running the query is to **enter the crash period**, it is recommended that the user does not leave this blank
- The most common crash period used is the **last 5 years of complete data** available (example: if crash data is complete through June 2020 then the most current 5 year period will be 7/1/2015 to 6/30/2020)
- The ACIS site will show the crash completion date, this is updated every 3 months
- Options are available to select the prior 5 years or 3 years, please note that is for calendar years only and may not reflect the most current 5 year period of complete data

The screenshot shows the 'General' section of the ACIS form. The 'Incident Date' field is highlighted with a red box. Below the input field, there are two calendar pickers. The first calendar is for the start date, showing January 2020 with the 1st selected. The second calendar is for the end date, showing December 2022 with the 31st selected. To the right of the calendars is a dropdown menu for selecting a time period, which is highlighted with an orange box. The dropdown menu options are: Current Year, Prior Year, Prior 3 Years (selected), Prior 5 Years, Current Month, and Prior Month. Below the dropdown menu are 'Apply' and 'Clear' buttons.

- The incident flags can be entered next. This is optional when using the standard detailed report.
- If multiple flags are selected, the query logic will be “and” not “or”.
- The user should not enter any flags if they want all the data for a given location

Standard Detail Report

General

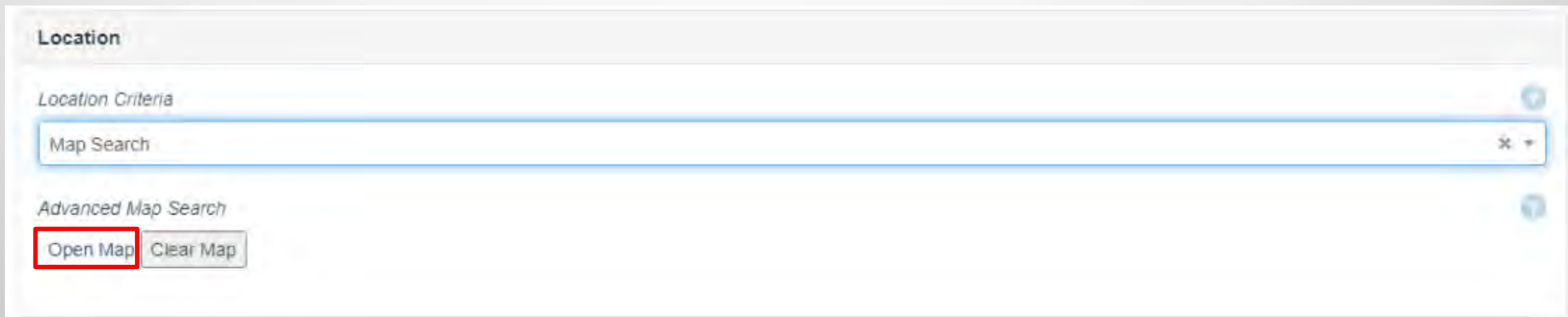
Incident Date 

mm/dd/yyyy - mm/dd/yyyy

Incident Flags 

Select one or more Incident Flags...

- The location should be entered next. The user can enter the route and crossing feature manually or use the advanced map search
- The advanced map search is recommended for intersections or traffic interchanges only and not segments
- Click on the **Open Map** link to use this feature



The screenshot shows a web form titled "Location" with a section for "Location Criteria". It includes a "Map Search" input field and an "Advanced Map Search" section with two buttons: "Open Map" (highlighted with a red box) and "Clear Map".

The example here shows an easy way to query data for an urban freeway interchange

Location

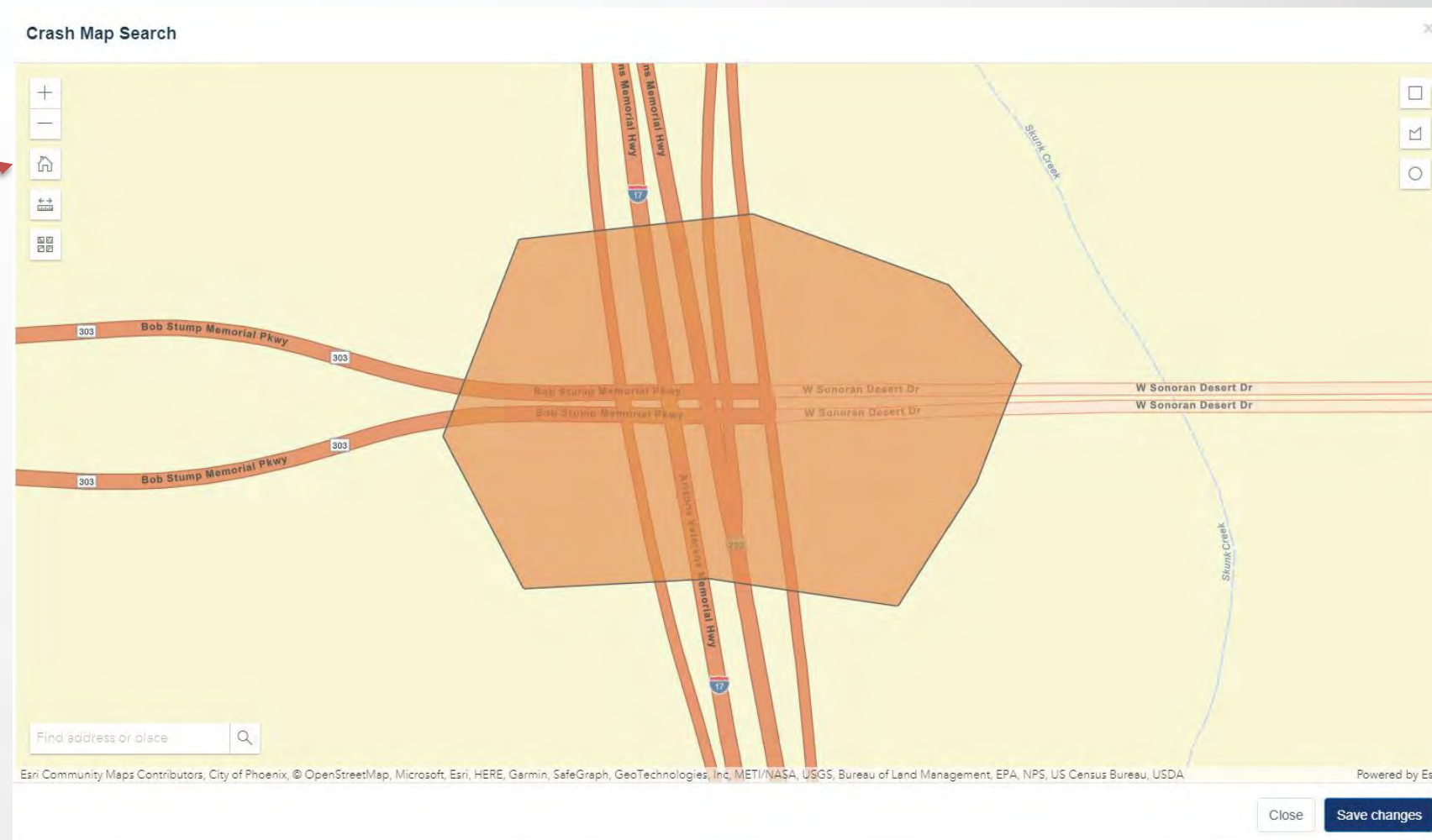
Location Criteria

Map Search

Advanced Map Search

Open Map

Please note that some filtering and review of the data will be necessary after using the map search, in this example some crashes on the mainline may be pulled in the query but these crashes may not be needed in the analysis of the data for the traffic interchange

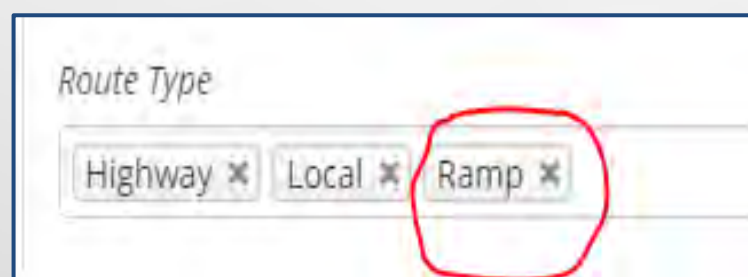


Advanced Map Search

[Open Map](#)

-111.64019775390469 35.287927067983745, -111.5056152343735 35.287927067983745, -111.5056152343735 35.1779983316745, -111.64019775390469 35.1779983316745

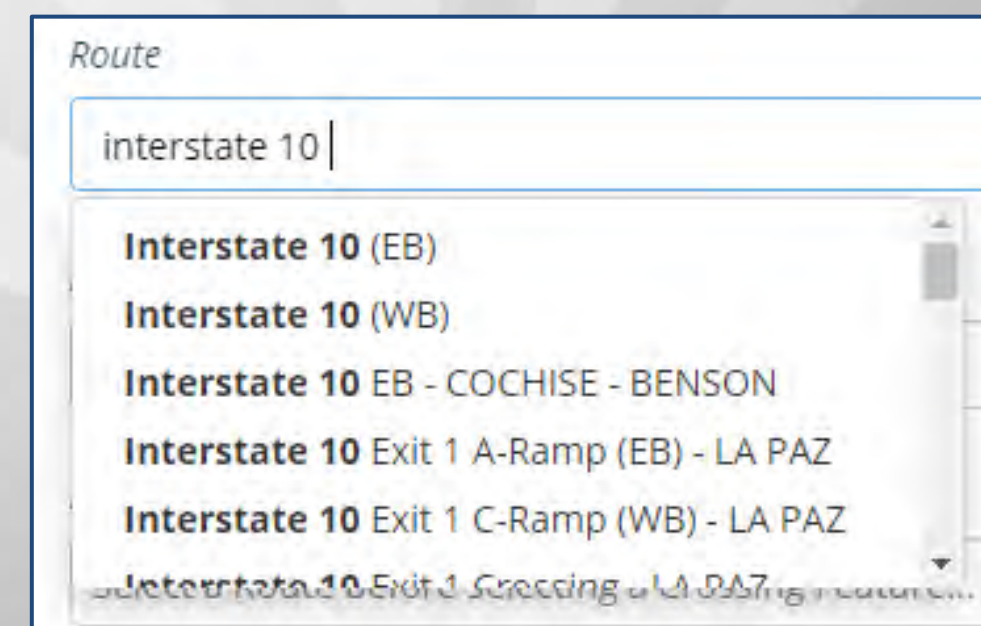
- The **spatial regions** such as County, City, COG/MPO, Tribal Area, ADOT District should be selected only **for querying agency data**.
- Note: when selecting agency data, do not select fields that may cause a conflict that will result in no data (example: selecting Maricopa County for the county filter and Tucson for the city filter – since Tucson is not in Maricopa County, no data will be displayed in the output)
- The **Route Type** field is used for the type of road that is entered: highway or local or ramp
- To search for ramps the user must manually add ramp to the *Route Type* data field.



Route Type

Highway ✕ Local ✕ Ramp ✕

- In the **Route** data field, type the route name and select from the drop down list



Route

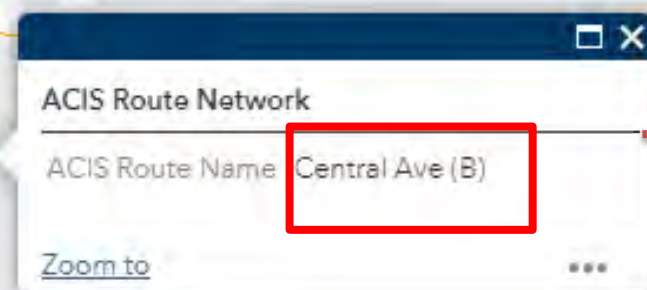
interstate 10 |

- Interstate 10 (EB)
- Interstate 10 (WB)
- Interstate 10 EB - COCHISE - BENSON
- Interstate 10 Exit 1 A-Ramp (EB) - LA PAZ
- Interstate 10 Exit 1 C-Ramp (WB) - LA PAZ
- Interstate 10 Exit 1 Screening at LA PAZ

→ If the user can't identify the route that is needed based on the drop down selections available in the **Route** field, they can use the ACIS route explorer.



→ After clicking on the route explorer link, the user can zoom into the location and click on the route to show the name that is used in ACIS. In the example below Central Ave in Phoenix was identified as Central Ave (B). This is the route name that should be used in the **Route** field in ACIS Query form.



→ After the route is selected, the user can select **Include Both Directions** for routes that are divided

Route

Interstate 40 (WB)

Include Both Directions?

Yes

- To enter a MilePost (MP) segment for a state highway, make sure to enter the offset (if needed) in feet and not miles. In this example, the MP range for the route was entered as 40.5 to 46.8

Route

Interstate 40 (EB)

Include Both Directions?

Yes

From Crossing Feature

M040

Offset for 'From' Crossing Feature (in feet)

2,640

To Crossing Feature (optional)

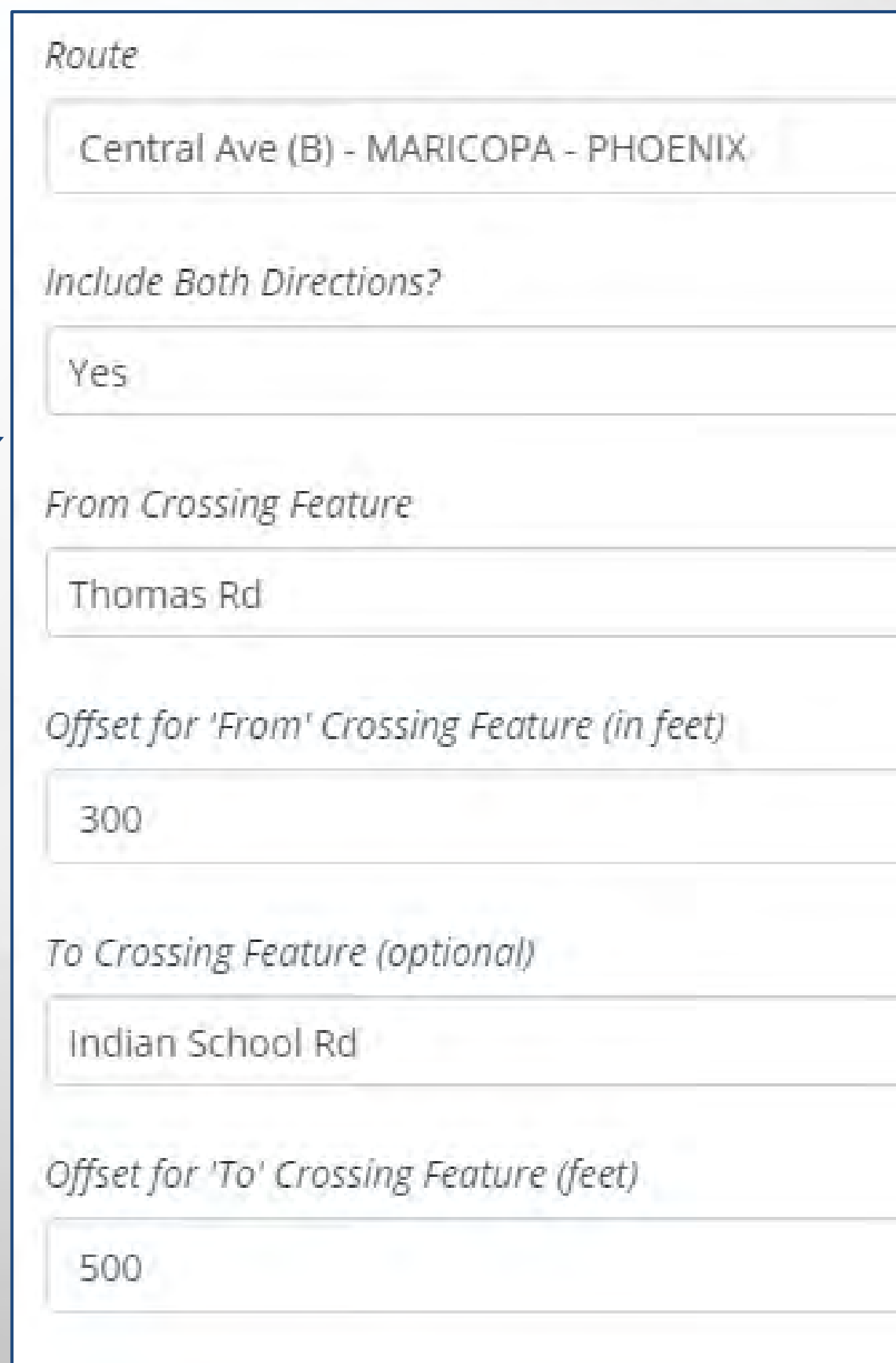
M046

Offset for 'To' Crossing Feature (feet)

4,224

→ To query data for a local road segment, enter the route names and the buffer around the beginning and end of the segment

- In this example, all crashes on Central Ave from Thomas to Indian School will be pulled, for crashes at the Thomas intersection the buffer is 300 feet and the Indian School intersection buffer is 500 feet



The screenshot shows a web-based query interface for ACIS. It contains several input fields and labels:

- Route:** A text input field containing "Central Ave (B) - MARICOPA - PHOENIX".
- Include Both Directions?:** A dropdown menu with "Yes" selected.
- From Crossing Feature:** A text input field containing "Thomas Rd".
- Offset for 'From' Crossing Feature (in feet):** A text input field containing "300".
- To Crossing Feature (optional):** A text input field containing "Indian School Rd".
- Offset for 'To' Crossing Feature (feet):** A text input field containing "500".

A blue arrow points from the text box on the left to the "From Crossing Feature" field in the form.

- **To query Intersection Data**, enter the intersecting road in the “From Crossing Feature” field and do NOT enter any route in the field. When the “To Crossing Feature” is left blank the query automatically becomes an intersection query.
- The default buffer is 150 feet for an intersection if no value is entered in the offset for “From Crossing Feature”
- The user can enter any value here (in feet) for the buffer they want to use, for example, if a roundabout location is queried the buffer may need to be larger

- In this example, all crashes that occurred within 1000 feet of this intersection (in all directions) will be pulled in the query

To Crossing Feature (optional)

Leave this empty to search on an intersection

Route

US Highway 89 (NB)

Include Both Directions?

Yes

From Crossing Feature

E Marketplace Dr

Offset for 'From' Crossing Feature (in feet)

1,000

- **Output Report As** field select the **EXCEL** as output type and then clicking on the **View Report** button
- The most common output type is **Excel**, since this format will allow the user to view, filter, sort, and do additional analysis on the data by creating charts, graphs, etc. if necessary
- Other report outputs such as XML, CSV, and PDF are not recommended for data analysis unless the output is being imported into another software.

The screenshot shows a web form titled "Output". It contains a dropdown menu labeled "Output Report As*" with "Excel" selected. Below the dropdown, there are two buttons: "View Report" and "Add Favorite". The "View Report" button is circled in red.

→ The standard detailed report has all the crash-related variables based on the incident id such as location, light and weather condition, direction of travel for each unit involved, violations, physical condition, safety device usage, and body style.

1	Incident ID	27	Unit Event Sequence Desc2
2	Incident Microfilm	28	Unit Event Sequence Desc3
3	Incident Date & Time	29	Unit Event Sequence Desc4
4	Incident On Road	30	Lane
5	Incident Crossing Feature	31	Person Type Desc
6	Incident Offset	32	Person Safety Device Desc
7	Incident Injury Severity Description	33	Person Violation Desc1
8	Incident First Harmful Description	34	Person Physical Desc0
9	Incident Collision Manner Desc	35	Person Physical Desc1
10	Incident Light Condition Desc	36	Person Physical Desc2
11	Incident Weather Desc	37	Person Physical Desc3
12	Incident Intersection Type Desc	38	Person Physical Desc4
13	Incident Junction Relation Desc	39	Person Physical Desc5
14	Incident Traffic Way Type Desc	40	Person Physical Desc6
15	Incident File Number	41	Person Physical Desc7
16	Investigating Agency	42	Person Physical Desc97
17	City/County Location	43	Person Physical Desc99
18	Unit Body Style Desc	44	Latitude
19	Unit Travel Direction Desc	45	Longitude
20	Unit Action Desc	46	X
21	Unit Road Condition Desc1	47	Y
22	Unit Surface Condition Desc1	48	Geocode On Road
23	Unit Env Condition Desc1	49	Geocode Crossing Feature
24	Unit Defect Desc1	50	Geocode Offset (miles)
25	Unit Number	51	Geocode Owner
26	Unit Event Sequence Desc1	52	Report Type

StandardDetailReport_Data (54).xls [Compatibility Mode] - Microsoft Excel

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Clipboard Font Alignment Number Styles Cells Editing

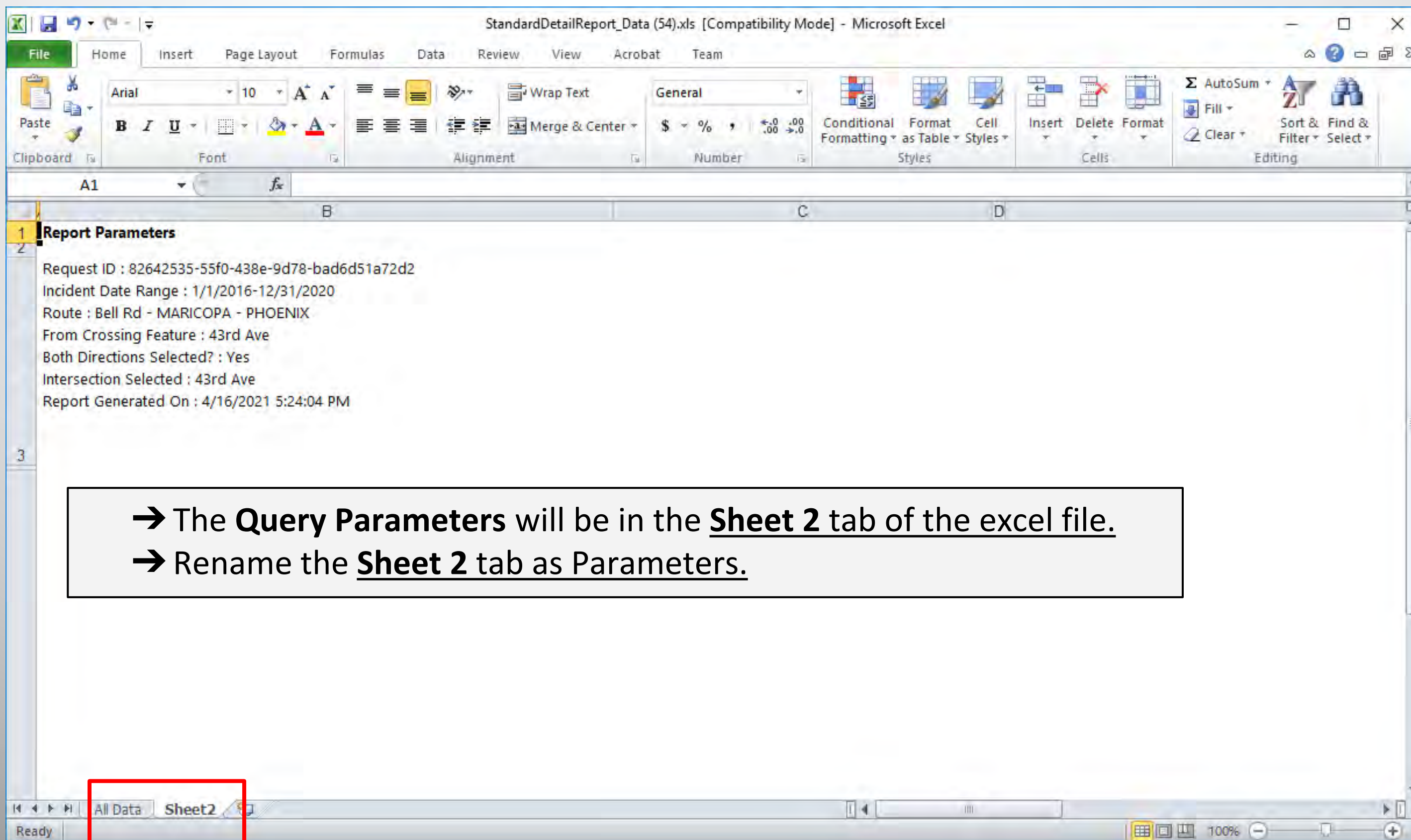
Incident ID

A	B	C	D	E	F	G	H	I
Incident ID	Incident Microfilm	Incident Date & Time	Incident On Road	Incident Crossing Feature	Incident Offset	Incident Injury Severity Description	Incident First Harmful Description	Incident
3042285		1/26/2016 3:14:00 PM	07 BELL RD	43rd Ave	-92	No Injury	Not Reported	Rear
3056802		2/15/2016 12:57:00 PM	07 43RD AVE	Bell Rd	0	No Injury	Not Reported	Left T
3056802		2/15/2016 12:57:00 PM	07 43RD AVE	Bell Rd	0	No Injury	Not Reported	Left T
3070655		4/5/2016 4:26:00 PM	07 43RD AVE	Bell Rd	-143	No Injury	Not Reported	Head
3070655		4/5/2016 4:26:00 PM	07 43RD AVE	Bell Rd	-143	No Injury	Not Reported	Head
3075270		4/20/2016 6:25:00 AM	07 BELL RD	43rd Ave	0	No Injury	Motor Vehicle In Transport	Head
3075270		4/20/2016 6:25:00 AM	07 BELL RD	43rd Ave	0	No Injury	Motor Vehicle In Transport	Head
3075270		4/20/2016 6:25:00 AM	07 BELL RD	43rd Ave	0	No Injury	Motor Vehicle In	Head

Sheet1 Sheet2

Ready

- When the output is opened in Excel, the **Data** will be in the **Sheet 1** tab. The data includes all incident, unit and person table fields.
- Rename the **Sheet 1** tab as **All Data**.



The screenshot displays the Microsoft Excel interface for a file named "StandardDetailReport_Data (54).xls [Compatibility Mode]". The ribbon is set to "Home", and the "Font" group is active. The worksheet content is as follows:

Report Parameters	
Request ID :	82642535-55f0-438e-9d78-bad6d51a72d2
Incident Date Range :	1/1/2016-12/31/2020
Route :	Bell Rd - MARICOPA - PHOENIX
From Crossing Feature :	43rd Ave
Both Directions Selected? :	Yes
Intersection Selected :	43rd Ave
Report Generated On :	4/16/2021 5:24:04 PM

At the bottom of the window, the "Sheet2" tab is highlighted with a red box, indicating it is the active sheet.

→ The **Query Parameters** will be in the **Sheet 2** tab of the excel file.
→ Rename the **Sheet 2** tab as **Parameters**.

StandardDetailReport_Data (1).xls [Compatibility Mode] - Microsoft Excel

	A	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
	Incident ID	Unit Action Desc	Unit Road Condition Desc1	Unit Surface Condition Desc1	Unit Env Condition Desc1	Unit Defect Desc1	Unit Number	Unit Event Sequence Desc1	Unit Event Sequence Desc2	Unit Event Sequence Desc3	Unit Event Sequence Desc4	Lane	Person Type Desc	Person Safety Device Desc
1	3860788	Making Right Turn	Other	Dry	Other	Other	1	Pedestrian				1 - Lane 1	Driver	Shoulder And Lap Belt
2	3860788	Crossing Road	No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	2	Pedestrian				10 - Crosswalk	Pedestrian	None Used
3	3867295	Crossing Road	No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	1	Pedestrian						None Used
4	3867295	Going Straight Ahead	No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	2	Motor Vehicle In Transport						Shoulder And Lap Belt
5	3869029	Going Straight Ahead	No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	1	Pedestrian						Shoulder And Lap Belt
6														
7														
8														
9														
10														
11														
12														
13														
14														
15	3879375	Crossing Road	No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	2	Motor Vehicle In Transport	Pedestrian			10 - Crosswalk	Pedestrian	Not Applicable

In this example Incident ID 3860788 is a 2 unit involved crash

- The Standard Detailed Report output has multiple rows for each crash depending on how many units are involved
- For example, if a crash has 7 units, then there will be seven rows in the excel spreadsheet for this particular crash
- The number of rows in the output report should not be interpreted as the number of crashes for the location. It represents the number of units that are involved in all the crashes that were obtained in the query.

StandardDetailReport_Dat

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From Access From Web From Text From Other Sources Existing Connections Refresh All Connections Sort & Filter Filter Sort Sort & Filter Data Tools

Y1 Unit Number

	A	T	U	V	W	X	Y	Z	AA
	Incident ID	Unit Action Desc	Unit Road Condition Desc1	Unit Surface Condition Desc1	Unit Env Condition Desc1	Unit Defect Desc1	Unit Number	Unit Event Sequence Desc1	Unit Event Sequence Desc2
1	3860788	Making Right Turn	Other	Dry	Other			Pedestrian	
2	3860788	Crossing Road	No Contributing Circumstances	Dry	No Circumstances			Pedestrian	
3	3867295	Crossing Road	No Contributing Circumstances	Dry	No Circumstances			Pedestrian	
4	3867295	Going Straight Ahead	No Contributing Circumstances	Dry	No Circumstances			Motor Vehicle In Transport	
5	3869029	Going Straight Ahead	No Contributing Circumstances	Dry	No Circumstances			Pedestrian	
6	3869029	Crossing Road	No Contributing Circumstances	Dry	No Circumstances			Motor Vehicle In Transport	
7	3873538	Making Right Turn	No Contributing Circumstances	Dry	No Circumstances			Pedestrian	
8	3873538	Crossing Road	No Contributing Circumstances	Dry	No Circumstances			Motor Vehicle In Transport	
9	3876850	Other	No Contributing Circumstances	Dry	No Circumstances			Pedestrian	Motor Vehicle In Transport
10	3876850	Going Straight Ahead	No Contributing Circumstances	Dry	No Circumstances			Motor Vehicle In Transport	Pedestrian
11									

Sort Smallest to Largest
Sort Largest to Smallest
Sort by Color
Clear Filter From "Unit Number"
Filter by Color
Number Filters
Search
 (Select All)
 1
 2
 3
OK Cancel

StandardDetailReport_Data (1).xls [Compatibility Mode] - Microsoft Excel

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Clipboard: Cut, Copy, Paste Options, Paste Special, Insert, Delete, Clear Contents, Filter, Sort, Insert Comment, Format Cells, Pick From Drop-down List, Define Name, Hyperlink

Unit Road Condition Desc1	Unit Surface Condition Desc1	Unit Env Condition Desc1	Unit Defect Desc1	Unit Number	Unit Event Sequence Desc1	Unit Event Sequence Desc2	Unit Event Sequence Desc3	Unit Event Sequence Desc4	Lane	Person Type Desc	Person Safety Device Desc	Person Violation Desc1	Person Physical Desc0	Person Physical Desc1	Person Physical Desc2	Person Physical Desc3	Person Physical Desc4
Other	Dry	Other	Other	1	Pedestrian				1 - Lane 1	Driver	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence				
No Contributing Circumstances	Dry	No Contributing Circumstances		1	Pedestrian				10 - Crosswalk	Pedestrian	None Used	Failed To Yield Right Of Way	0 - No Apparent Influence				
No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	1	Pedestrian				R1 - Right Turn 1	Driver	Shoulder And Lap Belt	Failed To Yield Right Of Way					
No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	1	Pedestrian				1 - Lane 1	Driver	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence				
No Contributing Circumstances	Dry	No Contributing Circumstances		1	Pedestrian	Motor Vehicle In Transport			10 - Crosswalk	Pedestrian	Not Applicable	Failed To Yield Right Of Way	0 - No Apparent Influence				
No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	1	Pedestrian				1 - Lane 1	Driver	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence				
	Dry	Glare Sunlight		1	Pedestrian	Pedestrian			L1 - Left Turn 1	Driver	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence				
3881834 Standing	No Contributing Circumstances	Dry	No Contributing Circumstances	1	Motor Vehicle In Transport				1 - Lane 1	Pedestrian	Not Applicable	Did Not Use Crosswalk					
3882782 Making Left Turn		Dry	Glare Sunlight	1	Pedestrian				1 - Lane 1	Driver	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence				
3894060 Making Left Turn		Dry	Glare Sunlight	1	Motor Vehicle In Transport				1 - Lane 1	Driver	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence				
3896611 Making Right Turn	Unknown	Dry	Unknown	Unknown	1	Pedestrian			2 - Lane 2	Driver	Unknown	Failed To Yield Right Of Way					
3904000 Crossing Road	No Contributing Circumstances	Dry	No Contributing Circumstances	1	Motor Vehicle In Transport				10 - Crosswalk	Pedestrian	Unknown	Failed To Yield Right Of Way	0 - No Apparent Influence				
3907700 Walking With Traffic	No Contributing Circumstances	Dry	No Contributing Circumstances	1	Pedestrian				1 - Lane 1	Pedestrian	Not Applicable	Did Not Use Crosswalk					4 - Alcohol
3909945 Making Left Turn	No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	1	Pedestrian			1 - Lane 1	Driver	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence				
3912922 Crossing Road	No Contributing Circumstances	Dry	No Contributing Circumstances	1	Motor Vehicle In Transport				50 - Other	Pedestrian	Unknown	Other	0 - No Apparent Influence				
3913390 Making Left Turn	No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	1	Pedestrian			1 - Lane 1	Driver	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence				
3922732 Crossing Road	No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	1	Pedestrian			10 - Crosswalk	Pedestrian	Not Applicable	Other	0 - No Apparent Influence				
3926968 Crossing Road	No Contributing Circumstances	Dry	No Contributing Circumstances	No Contributing Circumstances	1	Motor Vehicle In Transport			Invalid	Pedestrian	Not Applicable	Failed To Yield Right Of Way	0 - No Apparent Influence				
3926976 Other	No Contributing Circumstances	Wet	No Contributing Circumstances	1	Motor Vehicle In Transport				Sw - Sidewalk	Pedestrian	Not Applicable	Did Not Use Crosswalk					

Ready 31 of 63 records found | Average: 696846.1332 Count: 1278 Sum: 194420071.2

StandardDetailReport_Data (1).xls [Compatibility Mode] - Microsoft Excel

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From Access From Web From Text From Other Sources Existing Connections Refresh All Edit Links Connections Sort Filter Reapply Advanced Text to Columns Remove Duplicates Data Validation Consolidate What-If Analysis Group Ungroup Subtotal Show Detail Hide Detail

H1 Incident First Harmful Description

UNIQUE INCIDENT ID'S

Incident ID	Incident Microfilm	Incident Date Time	Road Location	Unit Surface Condition	Unit Env Condition	Unit Defect	Unit Number	Unit Event Sequence	Unit Event Sequence	Unit Event Sequence	Unit Event Sequence	Lane	Person Type Desc	Person Safety Device Desc	Person Violation Desc1	Person Physical Desc0	Person Physical Desc1	Person Physical Desc2	Person Physical Desc3	Person Physical Desc4	Person Physical Desc5	Person Physical Desc6	Person Physical Desc7
3860788	*****	03S LONE TREE RD	E Pine Knoll Dr	10	Suspected Minor Injury	Making Right Turn	Other	Dry	Other	Other	1	Pedestrian	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence								
3867295	*****	03N FOURTH ST	E Third Ave	20	Suspected Serious Injury	Crossing Road	No Contributing Circumstances	Dry	No Contributing Circumstances		1	Pedestrian	None Used	Failed To Yield Right Of Way	0 - No Apparent Influence								
3869029	*****	03E ARROWHEAD AVE	E Route 66	25	Suspected Minor Injury	Going Straight Ahead	No Contributing Circumstances	Dry	No Contributing Circumstances		1	Pedestrian	Shoulder And Lap Belt	Failed To Yield Right Of Way									
3873538	*****	03W UNIVERSITY AVE	S Milton Rd	-10	Fatal	Making Right Turn	No Contributing Circumstances	Dry	No Contributing Circumstances		1	Pedestrian	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence								
3876850	*****	03 MOUNTAIN VIEW (0) DR	S San Francisco St	5	Suspected Minor Injury	Other	No Contributing Circumstances	Dry	No Contributing Circumstances		1	Pedestrian	Not Applicable	Failed To Yield Right Of Way	0 - No Apparent Influence								
3877767	*****	03E UNIVERSITY DR	S Beaver St	0	Suspected Minor Injury	Making Left Turn	No Contributing Circumstances	Dry	No Contributing Circumstances		1	Pedestrian	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence								
3879375	*****	03S WOODLANDS VILLAGE BLVD	W University Ave	0	Suspected Serious Injury	Making Left Turn		Dry	Glare Sunlight		1	Pedestrian	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence								
3881834	*****	03E ROUTE 66	N Park Dr	285	Fatal	Standing	No Contributing Circumstances	Dry	No Contributing Circumstances		1	Motor Vehicle In Transport	Not Applicable	Did Not Use Crosswalk									
3882782	*****	03E	S Agassiz	0	Suspected	Making		Dry	Glare		1	Pedestrian	Shoulder	Failed To	0 - No								

Unit 1

Count: 384 100%

The screenshot shows an Excel spreadsheet with a filter menu open over column AE. The spreadsheet columns are labeled as follows:

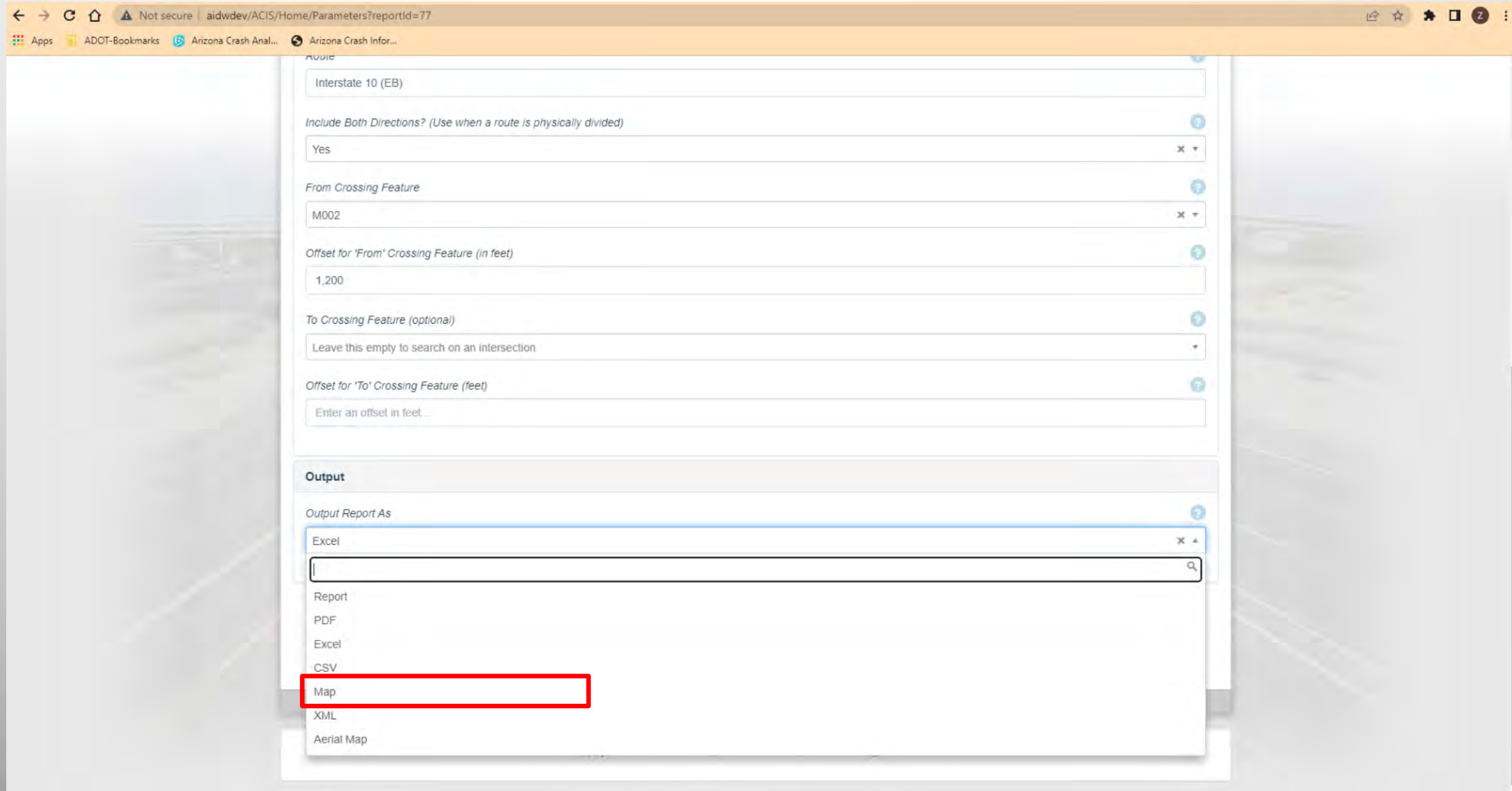
AE1	Person Type Desc	Person Safety Device Desc	Person Violation Desc1	Person Physical Desc0	Person Physical Desc1	Person Physical Desc2	Person Physical Desc3	Person Physical Desc4	Person Physical Desc5	Person Physical Desc6	Person Physical Desc7
1	3860788	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence							
2	3867295	None Used	Failed To Yield Right Of Way	0 - No Apparent Influence							
3	3869029	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence							
4	3873538	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence							
5	3876850	Not Applicable	Failed To Yield Right Of Way	0 - No Apparent Influence							
6	3877767	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence							
7	3879375										
8	3881834										
9	3882782	Shoulder And Lap Belt	Failed To Yield Right Of Way	0 - No Apparent Influence							

The filter menu for column AE is open, showing options for sorting and filtering. The 'Text Filters' section is expanded, showing a search box and three checked items: (Select All), Driver, and Pedestrian.

- A **UNIT** is defined as any driver, pedestrian, or bicyclist, this is shown in Column AE (person type desc)
- **Passenger** information is not shown in the Standard Detailed Report output

Generate Crash Map

→ **Output Report As** field - select the **MAP** or **Aerial Map** as output type and then clicking on the **View Report** button (aerial map is available in standard detailed report and incident level report)



The screenshot shows the ACIS web application interface. The browser address bar displays "aidwdev/ACIS/Home/Parameters?reportId=77". The page contains several input fields for search parameters:

- Route: Interstate 10 (EB)
- Include Both Directions? (Use when a route is physically divided): Yes
- From Crossing Feature: M002
- Offset for 'From' Crossing Feature (in feet): 1,200
- To Crossing Feature (optional): Leave this empty to search on an intersection
- Offset for 'To' Crossing Feature (feet): Enter an offset in feet...

The **Output** section is expanded, showing the **Output Report As** dropdown menu. The menu is open, displaying the following options:

- Excel
- Report
- PDF
- Excel
- CSV
- Map** (highlighted with a red box)
- XML
- Aerial Map

ARIZONA DEPARTMENT OF TRANSPORTATION

Standard Detail

January 1, 2016 - December 31, 2020

Report Filter(s) Selected:

- Incidents: 106
- Units: 229
- Persons: 303
- County:
- City:
- Engineering District:
- Route: Bell Rd + MARICOPA + PHOENIX
- Crossing Feature: 43rd Ave
- Spatial Region:
- Flags:
- COG/MPO:
- Tribal Area:

Incident Injury Severity Desc

- No Injury
- Possible Injury
- Suspected Minor Injury
- Suspected Serious Injury

Report Generated On 4/15/2021 8:44:11 AM

Incident Injury Severity Count

	66	24	13	3
--	----	----	----	---

Zoom in/out in the map / Select crashes / Move around in the map

The screenshot displays the ADOT ACIS interface. At the top, the ADOT logo and 'ARIZONA DEPARTMENT OF TRANSPORTATION' are visible. Below this is a 'Standard Detail' header. The main area is a map with a legend on the right. A red box highlights a zoom control on the left side of the map. Another red box highlights a legend entry for 'Keep Only'. A third red box highlights a popup window for 'Incident ID 3424240' with details: 'Saturday, October 13, 2018 15:08 PMA', 'Severity: No Injury', 'Collision Manner: Rear End', 'Light Condition: Daylight', and 'Location Details: Maricopa County, On Road: Bell Rd, Crossing Feature: 43rd Ave, Offset: 0.003409091'. A fourth red box highlights a bar chart titled 'Injury Severity Count' with categories: 'No Injury' (66), 'Possible Injury' (24), 'Suspected Minor Injury' (13), and 'Suspected Serious Injury' (3). A fifth red box highlights a 'Query Parameters' panel on the right with the following data: 'Report Filter(s) Selected: January 1, 2016 - December 31, 2020', 'Incidents: 106', 'Units: 229', 'Persons: 303', 'County: Phoenix', 'City: Phoenix', 'Engineering District: Phoenix', 'Route: Bell Rd - MARICOPA - PHOENIX', 'Crossing Feature: 43rd Ave', 'Spatial Region: Phoenix', 'Flags: None', 'COG/MPO: Phoenix', 'Tribal Area: None'. A sixth red box highlights a bottom toolbar with 'Home', 'Refresh', and 'Print' buttons. A seventh red box highlights a bottom right toolbar with 'View Original', 'Alerts', 'Download', 'Full Screen', and 'Share' buttons.

Query Parameters

Check the Incident/Unit/Person #'s match the excel data

Left Click on crash dot or legend - Keep Only / Exclude option appears. You can exclude crashes or severity based on your needs and Map will be refreshed.

Hover over the crash to see crash details

Crashes displayed by Injury Severity

Share Map Report link, Download the Map Report / Full Screen

Undo, Redo, Refresh, Revert changes (KEEP ONLY/ EXCLUDE) made in Tableau Report

Injury Severity Count



Home Refresh Print

View Original Alerts Download Full Screen Share

→ Click on Share button on the bottom right corner. Copy the link and paste in the excel data sheet for future reference. The link will open the same map report. The link works only in ADOT network.

The screenshot displays the ADOT ACIS web interface. At the top, the ADOT logo and 'ARIZONA DEPARTMENT OF TRANSPORTATION' are visible. The main content area shows a map with a 'Standard Detail' view. A 'Share View' dialog box is open in the center, containing the following text:

Share View

Standard Detail

Only people with permission can see this view.

Share with people

Enter a username:

Share using a link

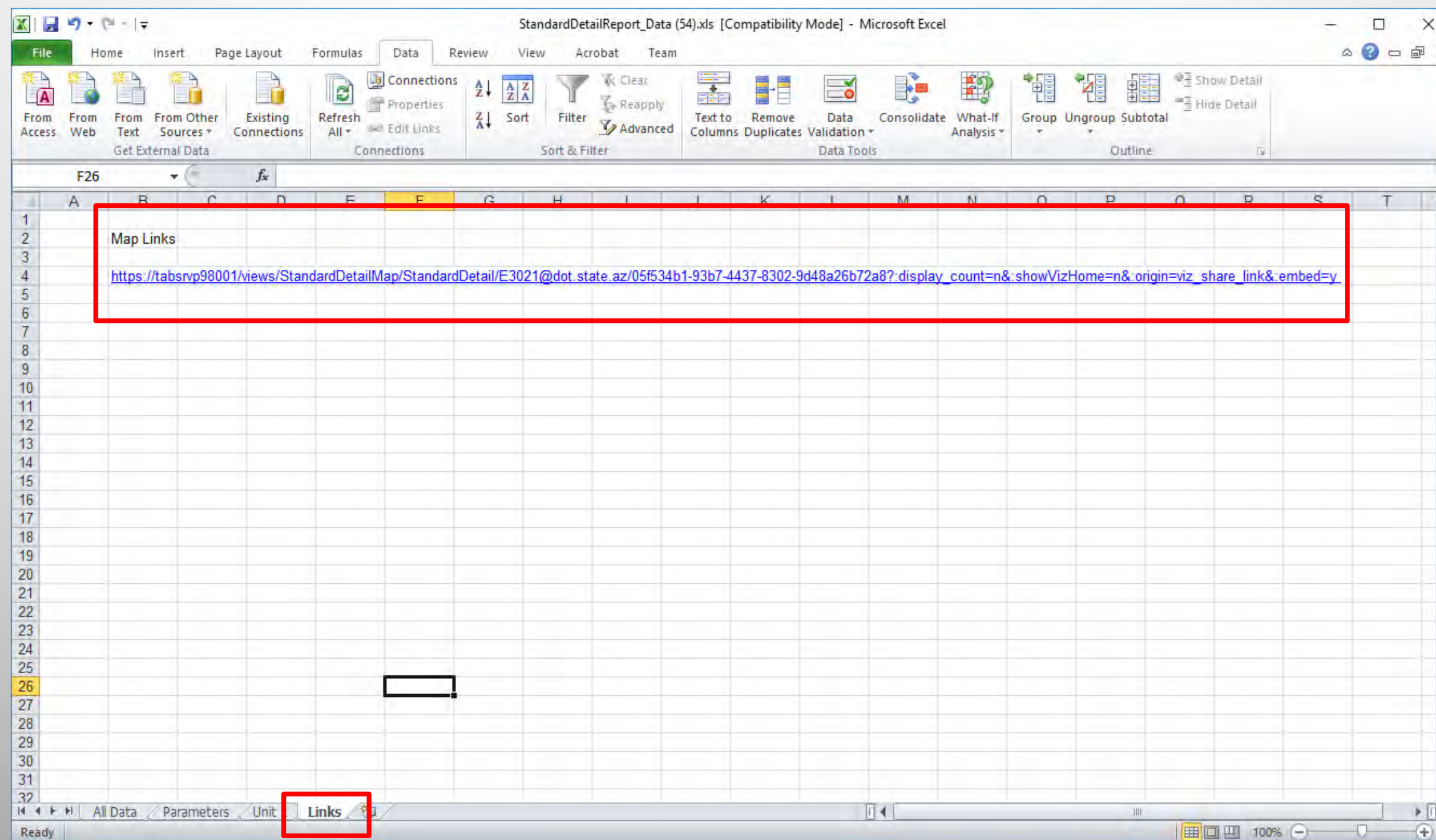
`count=n&showVizHome=n&origin=viz_share_link&embed=y` [Copy Link](#)

[Copy Embed Code](#)

At the bottom right of the page, there is a navigation bar with buttons for 'View Original', 'Alerts', 'Subscribe', 'Share', and 'Download'. The 'Share' button is highlighted with a red box.

Additional details visible on the page include a date range of 'January 1, 2016 - December 31, 2020', a 'Report Filter(s) Selected' section with statistics (Incidents: 106, Units: 229, Persons: 303), and an 'Injury Severity Count' bar at the bottom showing counts for No Injury (66), Possible Injury (24), Suspected Minor Injury (13), and Suspected Serious Injury (3). The report was generated on 4/15/2021 9:43:08 AM.

- Create a tab and name it Links
- Paste the copied map link path in the excel as shown below
- Save the excel file



→ Click on **DOWNLOAD** button on the bottom right corner. **Create** a the map report as PDF or image per your needs. **Save** this file in the same folder where you saved your excel crash data.

The screenshot displays the ACIS web application interface. At the top, there is a navigation bar with the ADOT logo and the text "ARIZONA DEPARTMENT OF TRANSPORTATION". Below this, the page is titled "Standard Detail" and shows a map of a road intersection. A "Download" dialog box is open in the center, allowing the user to select a file format. The dialog box contains the following options: Image, Data, Crosstab, PDF, PowerPoint, and Tableau Workbook. The "PDF" option is currently selected. On the right side of the interface, there is a "Report Filter(s) Selected:" section with the following details: Incidents: 106, Units: 229, Persons: 303, County: , City: , Engineering District: , Route: Bell Rd - MARICOPA - PHOENIX, Crossing Feature: 43rd Ave, Spatial Region: , Flags: , COG/MPO: , Tribal Area: . Below the map, there is an "Injury Severity Count" bar chart showing the following counts: 66 (No Injury), 24 (Possible Injury), 13 (Suspected Minor Injury), and 3 (Suspected Serious Injury). At the bottom right, there is a "Report Generated On: 4/15/2021 9:43:08 AM" timestamp. In the bottom right corner of the browser window, there is a "Download" button highlighted in a red box.

Generate Crash Charts / Tables

→ Select Site Summary Graphs ACIS Report



- Enter the query parameters. The parameters should be same as the Standard Detail Report you ran for the same project site.
- Output Report As field select the **Visualization** as output type and then clicking on the **View Report** button

The screenshot displays the ACIS query interface with the following fields and values:

- route type:** Highway x Local x
- Route*:** Bell Rd - MARICOPA - PHOENIX
- Include Both Directions?:** Yes
- From Crossing Feature*:** 43rd Ave
- Offset for 'From' Crossing Feature (in feet):** Enter an offset in feet...
- To Crossing Feature (optional):** Leave this empty to search on an intersection
- Offset for 'To' Crossing Feature (feet):** Enter an offset in feet...
- Output Report As:** Visualization (highlighted with a red box)

At the bottom of the form, there are two buttons: **View Report** and **Add Favorite**.

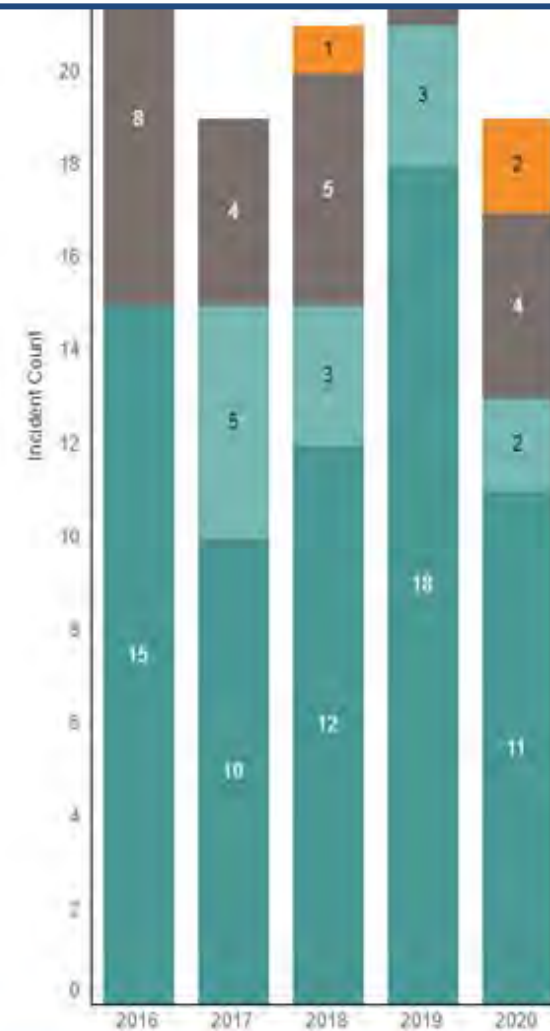
11 Tabs of Graphs/ Charts summarizing the crashes (incident/unit/person) data are generated. Click on the tabs to navigate through all the charts

Left Click on Chart or Table - Keep Only / Exclude option appears. You can exclude any field you don't need. The table and charts will be refreshed.

Injury Severity	Incident Count	Percent of Total By Injury Severity
Fatalities	46	31.2%
Probable Injury	11	22.5%
Suspected Minor Injury	11	12.2%
Uninjured Driver/Passenger	1	1.0%
Grand Total	146	100.0%

Hover over the Charts/ Table to see crash details

IncidentYear	No Injury	Possible Injury	Suspected Minor Injury	Suspected Serious Injury
2016	15	8		
2017	10	4	5	
2018	12	5	3	1
2019	18	3	3	
2020	11	4	2	2
Grand Total	66	24	13	3



Report Filter(s) Selected:
January 1, 2016 - December 31, 2020

Start Date: January 1, 2016
End Date: December 31, 2020
County: Null
City: Null
Route: Bell Rd - MARICOPA - PHOENIX
Crossing Feature: 43rd Ave - Null
Flags: Null
Engineering District: Null
COG/MPO: Null
Tribal Area: Null

Query Parameters

Report Summary

Total Incidents: 106
Total Units: 229
Total Persons: 303

Check the Incident/Unit/Person #'s match the excel data

Share Map Report link, Download the Map Report / Full Screen

Undo, Redo, Refresh, Revert changes (KEEP ONLY/ EXCLUDE) made in Tableau Report

← Revert ↻ Refresh ⏸ Pause

View Original Alerts Subscribe Share Download

→ Click on Share button on the bottom right corner. Copy the link and paste in the excel data sheet for future reference. The link will open the same Site Summary Graphs report. The link works only in ADOT network.

The screenshot displays the ACIS crash analysis interface. On the left, a table shows incident data from 2016 to 2020, categorized by injury type. On the right, a stacked bar chart visualizes the incident counts for each year. A 'Share View' dialog box is open in the center, showing a URL to share the view and options to copy the link or embed code. At the bottom, a 'Report Filter(s) Selected' section lists the search criteria, and a 'Report Summary' section provides totals for incidents, units, and persons. A navigation bar at the very bottom includes buttons for 'View Original', 'Alerts', 'Subscribe', 'Share', and 'Download'.

IncidentYear	No Injury	Possible Injury	Suspected Minor Injury	Suspected Serious Injury
2016	15	8		
2017	10	4	5	
2018	12	5	8	1
2019	18	3	3	
2020	11	4	2	2
Grand Total	66	24	13	

Report Filter(s) Selected:
January 1, 2016 - December 31, 2020

Report Summary:
Total Incidents: 106
Total Units: 229
Total Persons: 303

Share View Dialog:
Graph 1
Only people with permission can see this view.
Share with people: Enter a username.
Share using a link: <https://tabsrvp98001/views/ACISMetrics/Graph1/E3021@do> Copy Link
Copy Embed Code

Bottom Navigation Bar:
View Original Alerts Subscribe Share Download

→ Click on **DOWNLOAD** button on the bottom right corner. **Create** a the map report as PDF or image per your needs. **Save** this file in the same folder where you saved your excel crash data.

IncidentYear	No Injury	Possible Injury	Suspected Minor Injury	Suspected Serious Injury
2016	15	8		
2017	10	4	5	
2018	12	5	0	1
2019	18	3	3	
2020	11	4	2	2
Grand Total	66	24	13	3

Download

Select your file format:

Report Filter(s) Selected:
January 1, 2016 - December 31, 2020

Start Date: January 1, 2016
End Date: December 31, 2020
County: Null
City: Null
Route: Bell Rd - MARICOPA - PHOENIX
Crossing Feature: 43rd Ave - Null
Flags: Null
Engineering District: Null
COG/MPO: Null
Tribal Area: Null

Report Summary
Total Incidents: 106
Total Units: 229
Total Persons: 303

View Original Alerts Subscribe Share Download

- Select “Specific Sheets from this workbook” option in Include field.
- Click on SELECT ALL. This will select all the 11 tabs.
- Create a the map report as PDF or Image per your needs. Save this file in the same folder where you saved your excel crash data.

The screenshot displays the ACIS report interface. On the left, a table shows crash data from 2016 to 2020, categorized by injury type. On the right, a stacked bar chart visualizes the data for 2019 and 2020. A 'Download PDF' dialog box is open in the center, showing the 'Include' section with 'Specific sheets from this workbook' selected and all four graphs checked. The dialog also shows 'Scaling: Automatic', 'Paper Size: Letter', and 'Orientation: Portrait'. A 'Download' button is at the bottom of the dialog.

IncidentYear	No Injury	Possible Injury	Suspected Minor Injury	Suspected Serious Injury
2016	15	8		
2017	10	4	5	
2018	12	5	9	1
2019	18	3	3	
2020	11	4	2	2
Grand Total	66	24	13	3

Report Filter(s) Selected:
January 1, 2016 - December 31, 2020

Start Date: January 1, 2016
End Date: December 31, 2020
County: Null
City: Null
Route: Bell Rd - MARICOPA - PHOENIX
Crossing Feature: 43rd Ave - Null
Flags: Null
Engineering District: Null
COG/MPO: Null
Tribal Area: Null

Report Summary
Total Incidents: 106
Total Units: 229
Total Persons: 303

Generate Collision Diagram

→ Select Collision Diagram ACIS Report



Generate Collision Diagram

→ Select query parameters

General

*Incident Date** ?

Incident Flags ?

Location

*Route Type (add ramp to this box to search for ramps)** ?

*Route** ?

*Include Both Directions? (Use when a route is physically divided)** ?

*From Crossing Feature** ?

To Crossing Feature (optional) ?

[View Diagram](#) [Add Favorite](#)

Generate Collision Diagram

→ Generate and adjust the collision diagram

Collision Diagram
 Location: Grand Ave - MARICOPA - SURPRISE @ 87th Ave
 Number of crashes: 7; Date range: 01/01/2022 - 12/31/2022; Created on: Tue Apr 11 2023.
 Both Dir: Yes.

LEGEND

- FATAL
- SERIOUS INJURY
- MINOR/POSSIBLE INJURY
- PROPERTY DAMAGE ONLY
- ANIMAL
- PEDESTRIAN
- BICYCLE
- REAR END
- SIDESWIPE SAME DIR.
- SIDESWIPE OPP. DIR.
- LEFT-TURN
- U-TURN
- HEAD-ON
- OVERTURN/ROLLOVER
- FIXED OBJECT
- OTHER NON FIXED OBJ.
- PARKED VEHICLE
- NON COLLISION
- OTHER/UNKNOWN

ID	Incident ID
1	3882159
2	3901979
3	3904901
4	3927512
5	3930023
6	3937407
7	3976315

City of Glendale, Maxar, Microsoft
 Powered by Esri

Generate Collision Diagram

→ Save the PNG file, copy the URL

Collision Diagram
Location: Grand Ave - MARICOPA - SURPRISE @ 87th Ave
Number of crashes: 7; Date range: 01/01/2022 - 12/31/2022; Created on: Tue Apr 11 2023
Both Dir: Yes.

LEGEND

- FATAL
- SERIOUS INJURY
- MINOR/POSSIBLE INJURY
- PROPERTY DAMAGE ONLY
- ANIMAL
- PEDESTRIAN
- BICYCLE
- REAR END
- SIDESWIPE SAME DIR.
- SIDESWIPE OPP. DIR.
- LEFT-TURN
- U-TURN
- HEAD-ON
- OVERTURN/ROLLOVER
- FIXED OBJECT
- OTHER NON FIXED OBJ.
- PARKED VEHICLE
- NON COLLISION
- OTHER/UNKNOWN

ID	Incident ID
1	3882159
2	3901979
3	3904901
4	3927812
5	3930023
6	3937407
7	3976315

Download image Back to webmap

Generate Collision Diagram

➔ Paste the URL to the standard detail report excel file for future reference

The screenshot shows an Excel spreadsheet with the following content:

- Row 4:** Collision Diagram
- Row 6:** <http://aidwdev/ACIS/Home/CollisionDiagram?GUID=11751e0d-e0e0-40c0-91dc-7ba5dc456293&rs:Format=HTML4.0>
- Row 9:** An embedded image titled "Collision Diagram" showing an aerial view of a road intersection with several colored markers (red, blue, green) indicating crash locations. A legend is visible in the bottom-left corner of the image.

The legend in the image includes the following items:

- CRASH
- ROADWAY
- ROADWAY CENTER LINE
- ROADWAY SHOULDER
- ROADWAY MEDIAN
- ROADWAY DRAINAGE
- ROADWAY LIGHTING
- ROADWAY SIGNAGE
- ROADWAY FENCE
- ROADWAY CURB
- ROADWAY SIDEWALK
- ROADWAY BIKEWAY
- ROADWAY TRAIL
- ROADWAY CANAL
- ROADWAY DITCH
- ROADWAY TRENCH
- ROADWAY ELEVATION
- ROADWAY SURFACE
- ROADWAY MATERIAL
- ROADWAY WIDTH
- ROADWAY LENGTH
- ROADWAY AREA
- ROADWAY PERIMETER
- ROADWAY CENTERLINE
- ROADWAY SHOULDER
- ROADWAY MEDIAN
- ROADWAY DRAINAGE
- ROADWAY LIGHTING
- ROADWAY SIGNAGE
- ROADWAY FENCE
- ROADWAY CURB
- ROADWAY SIDEWALK
- ROADWAY BIKEWAY
- ROADWAY TRAIL
- ROADWAY CANAL
- ROADWAY DITCH
- ROADWAY TRENCH
- ROADWAY ELEVATION
- ROADWAY SURFACE
- ROADWAY MATERIAL
- ROADWAY WIDTH
- ROADWAY LENGTH
- ROADWAY AREA
- ROADWAY PERIMETER

Best Practices in Downloading, Saving Crash Data from ACIS

- Following the above described steps will help the user to download crash data, crash location maps, summary charts / tables needed to understand the crash location, patterns and understand the safety concerns.
- Saving the files with Project Location name and Query date will help locate the files in future easily.
- Renaming the excel data Tabs. Creating new tabs, naming them and adding UNIT 1 data and links to Map, Collision diagram and Site Summary Graphs will help retrieve the same reports without re-running the queries.
- **CHECK** the Query Parameters, Incident #, Unit # and Person # are same between Excel / Map , Collision diagram and Site Summary Graph OUTPUTS.

Best Practices in Downloading, Saving Crash Data from ACIS

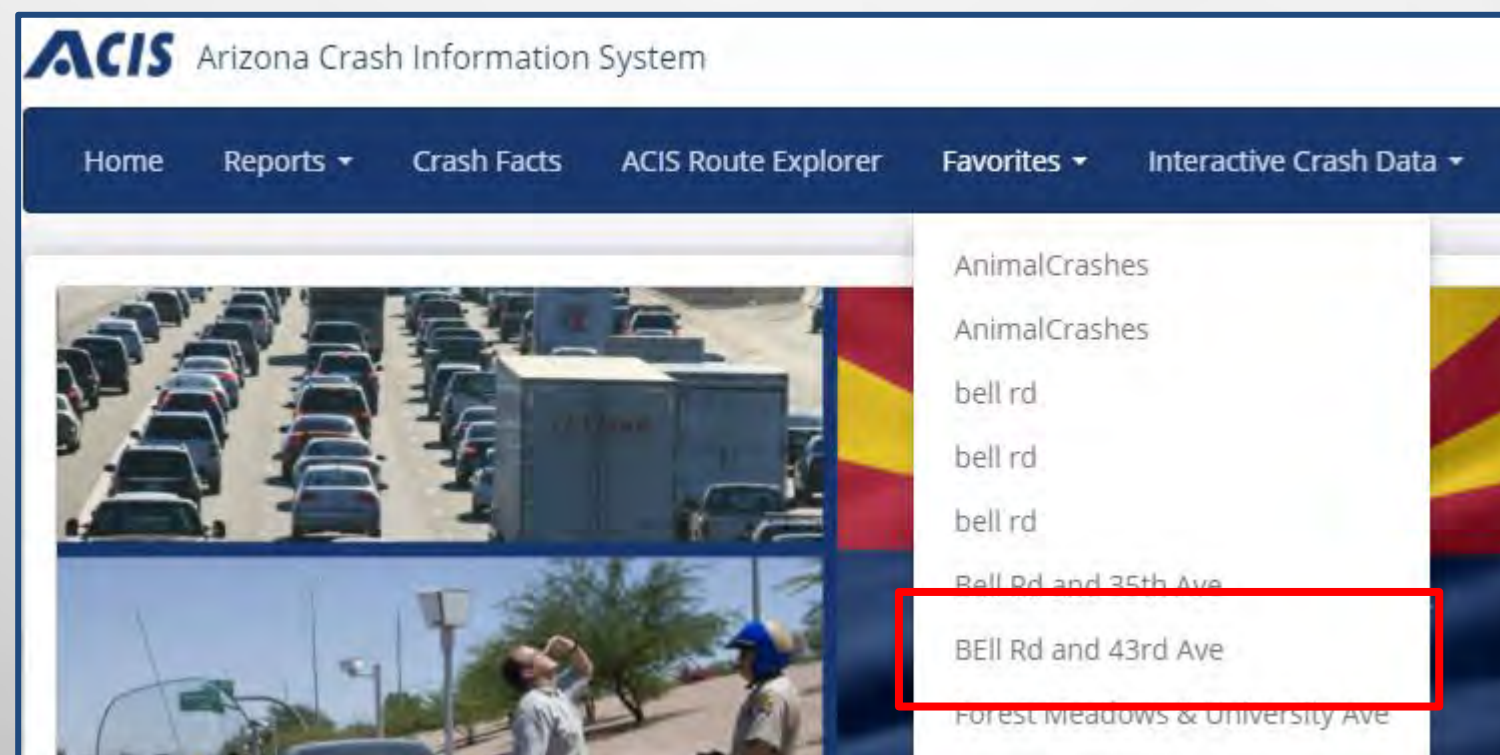
→ If you are querying Crash Data for a BEFORE & AFTER study. Run the BEFORE query for the project site. Create FAVORITE by clicking the Favorite button at the bottom next to View Report button.

The screenshot displays the ACIS interface. On the left, the 'Output Report As*' dropdown menu is set to 'Report'. At the bottom, the 'Add Favorite' button is highlighted with a red box. A modal dialog titled 'Enter a new favorite' is open, showing a 'Description' field with the text 'BELL Rd and 43rd Ave' and 'Cancel' and 'Save' buttons.

Best Practices in Downloading, Saving Crash Data from ACIS

BEFORE AND AFTER ANALYSIS

- When you are running AFTER query, go to Favorites and select on the project site.
- The query form will open with BEFORE saved query with all the parameters
- Change the CRASH PERIOD field to after period dates. Rerun the Standard Detail Report and Site Summary Queries.



Best Practices in Downloading, Saving Crash Data from ACIS

- Copy the web browser link for the BEFORE query Favorite saved.
- Paste in the Parameter Tab of the excel data for future use. This will help reduce Query Form errors if another user is querying the after data.
- Save the excel file

The image shows a composite screenshot illustrating the process of saving a query link from the ACIS web interface into an Excel spreadsheet.

ACIS Web Interface (Left): The browser window shows the ACIS 'Standard Detail Report' page. A red box highlights the 'Parameters' tab in the top navigation bar, which is the source of the query link.

Microsoft Excel (Right): The Excel spreadsheet, titled 'StandardDetailReport_Data (54).xls', has the 'Parameters' tab selected. The spreadsheet content is as follows:

Report Parameters	
Request ID :	82642535-55f0-438e-9d78-bad6d51a72d2
Incident Date Range :	1/1/2016-12/31/2020
Route :	Bell Rd - MARICOPA - PHOENIX
From Crossing Feature :	43rd Ave
Both Directions Selected? :	Yes
Intersection Selected :	43rd Ave
Report Generated On :	4/16/2021 5:24:04 PM
ACIS Query - Link from Favorite	
https://adotdw/ACIS/Home/Parameters?queryGuid=BDF4F71D-2ACB-4258-85A9-C864FBB4C2A8&reportId=70	

A red box in the Excel spreadsheet highlights the URL in the 'ACIS Query - Link from Favorite' section. Another red box highlights the 'Parameters' tab in the Excel window's bottom navigation bar.