IHCP from a Bridge Designer's Perspective

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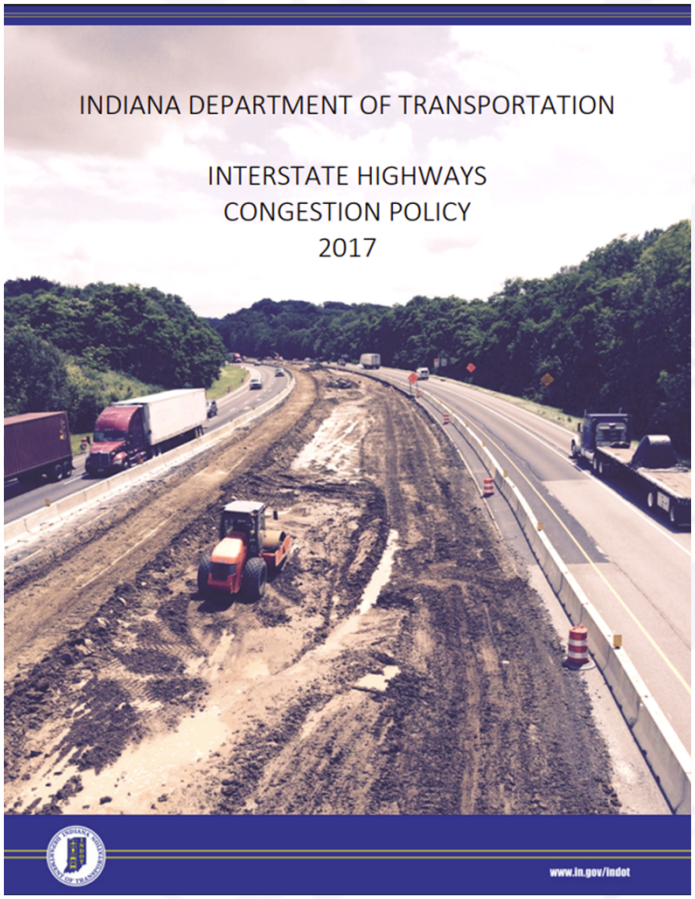
2/17/2026

Road Map

1. IHCP Policy and Exception Overview
2. INDOT Queue Analysis Spreadsheet
3. Two example projects with IHCP Exceptions

Interstate Highways Congestion Policy

- INDOT Policy
  - (Based on Federal Requirements)
  - Reduce congestion on interstates
  - Provide optimum safety to workers and motoring traffic
- Administered and Maintained by INDOT Traffic Management Division
- Quality Assurance Evaluated by Work Zone Safety Section



IHCP Terminology

- Congestion:

  Traffic Volume > Roadway Capacity

- Queue:

  The line of vehicles that is slowed or stopped due to a construction zone.

- PCEs :

  Passenger Car Equivalents

$$PCE = [Volume\ of\ Passenger\ Vehicles] + 2 \times [Volume\ of\ Trucks]$$

Causes of Interstate Congestion

- Lane Closures
- Lane Width Reductions (< 11 ft)
- Ramp Closures (> 10 minues)
- Rolling Slowdowns

Dangers of Interstate Congestion

- Over the past decade, 269 people have been killed in work zones or work zone backups, including motorists and workers.
- 4 out of 5 people that die in highway work zones are either drivers or passengers.
- Rear-end crashes are the most common type of work zone crash.
- Most fatal work zone crashes occur on roads with speed limits greater than 50 mph.
- In 2023, work zone crash data showed that 33 people were killed and more than 1,750 were injured in INDOT work zones.

- Statistics come from the INDOT Work Zone Safety webpage: https://www.in.gov/indot/safety/work-zone-safety/

Mitigating Dangers of Interstate Congestion

- Within the Work Zone
  - Impact Attenuators
    - Short Term Closures
  - Temporary Traffic Barrier
    - Long Term Closures
- Queue Protection
  - Protect the Queue Trucks
  - https://www.in.gov/indot/safety/protect-the-queue-indots-queue-awareness-program/
- Closure Periods (In recommended order):
  1. Nighttime
  2. Weekends
  3. Weekdays

IHCP Exception

- When is an IHCP Exception Required?
  - An interstate lane closure or restriction outside the preapproved times (IHCP Appendix B)
  - Providing Less than 2 Lanes in each direction on High-Volume Interstates (DM 24-08)
- Exceptions are considered on a Project-by-Project Basis

APPENDIX B - PREAPPROVED INTERSTATE CLOSURE AND RESTRICTION TIMES

Table B-1: 2017 IHCP Tables

INDIANA DEPARTMENT OF TRANSPORTATION

Design Memo No. 24-08

June 19, 2024

If the Peak Hour Volume % is... [1]	and Daily Vehicular Volume (total) is at least...	...Or Daily Truck Volume (total) is at least...	Then...
Any	30,000	10,000	**Two lanes are required in each direction.** [2]
7%	26,000	8,000	
8%	23,000	7,000	
9%	20,500	6,500	
≥ 10%	18,500	6,000	

[1] Design Hourly Volume (DHV) percentage from the Traffic Forecast Report can be used.

[2] A determination for the minimum number of lanes is required when the peak hour volume exceeds 1,800 vph for a short duration, e.g., 1 or 2 hours.

Table 1 - Minimum Thresholds Requiring Two Lanes

IHCP Exception Process

- Required Coordination
  - IHCP Approval Authority: Jim Poturalski
  - INDOT District Traffic
  - INDOT Office of Work Zone Safety
- IDM Guidance
  - Chapter 14 Stage Submittals
  - Chapter 503-3.02
- MOT Plans to Include
  - Main Phases of work
  - MOT for setup/takedown of MOT Phases
  - MOT for Pavement Marking Placement
- TMP Report (Significant Work Zone) vs. IHCP
  - Technically independent from each other
  - Work with District Traffic and Work Zone Safety even if formal TMP Meetings are not required

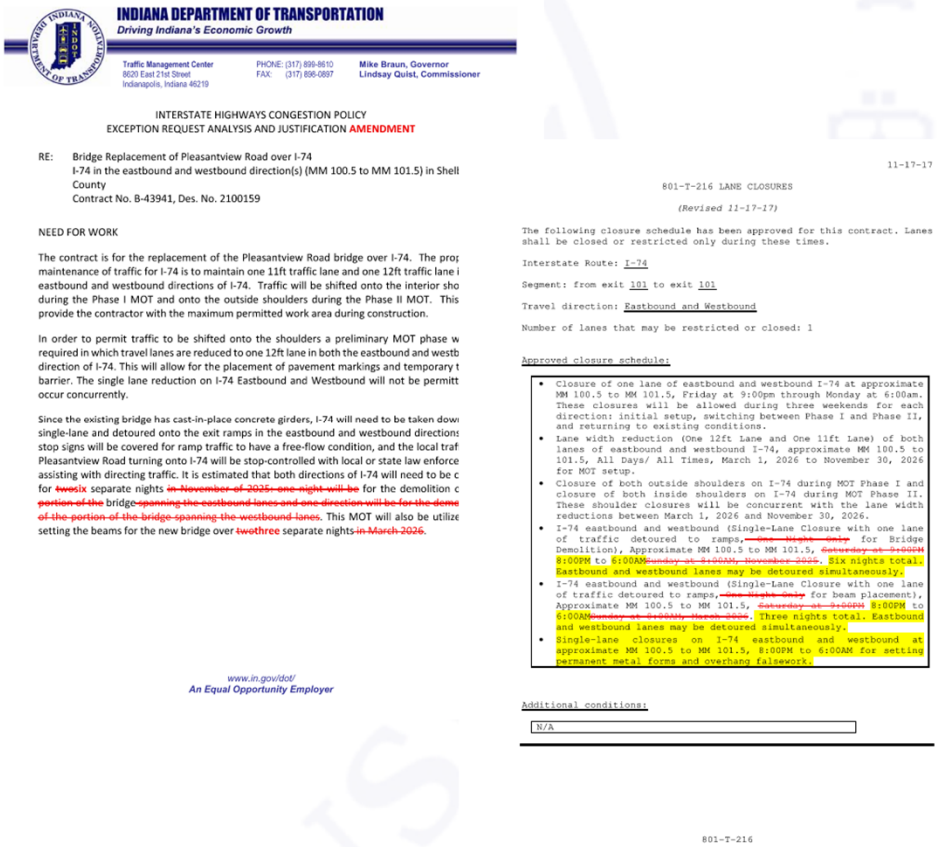
IHCP Contract Documents

1. MOT Plan Sheets
2. RSP 801-T-216 is the only sheet from the IHCP Exception included in the Contract Documents.
   - Make sure the RSP matches the approved IHCP Exception. If something changes an amendment will be required.
   - Bring the full IHCP Exception to the Precon or send it ahead of time. Bring it up during the Precon.

- Full IHCP Exception and TMP Report are available to the Contractor only after letting.

IHCP Exception Amendments

- Typically a shorter process than the initial IHCP Exception
- Either Track Changes (Word) or red, bold text to make the review more efficient and communicate changes clearly to the Contractor.



INDIANA DEPARTMENT OF TRANSPORTATION
Driving Indiana's Economic Growth

Traffic Management Center
8620 East 21st Street
Indianapolis, Indiana 46219

PHONE: (317) 899-8610
FAX: (317) 896-0897

Mike Braun, Governor
Lindsay Quist, Commissioner

INTERSTATE HIGHWAYS CONGESTION POLICY
EXCEPTION REQUEST ANALYSIS AND JUSTIFICATION **AMENDMENT**

RE: Bridge Replacement of Pleasantview Road over I-74
I-74 in the eastbound and westbound direction(s) (MM 100.5 to MM 101.5) in Shell
County
Contract No. B-43941, Des. No. 2100159

NEED FOR WORK

The contract is for the replacement of the Pleasantview Road bridge over I-74. The proj
maintenance of traffic for I-74 is to maintain one 11ft traffic lane and one 12ft traffic lane i
eastbound and westbound directions of I-74. Traffic will be shifted onto the interior sho
during the Phase I MOT and onto the outside shoulders during the Phase II MOT. This
provide the contractor with the maximum permitted work area during construction.

In order to permit traffic to be shifted onto the shoulders a preliminary MOT phase w
required in which travel lanes are reduced to one 12ft lane in both the eastbound and westb
direction of I-74. This will allow for the placement of pavement markings and temporary t
barrier. The single lane reduction on I-74 Eastbound and Westbound will not be permitt
occur concurrently.

Since the existing bridge has cast-in-place concrete girders, I-74 will need to be taken dow
single-lane and detoured onto the exit ramps in the eastbound and westbound direction
stop signs will be covered for ramp traffic to have a free-flow condition, and the local traf
Pleasantview Road turning onto I-74 will be stop-controlled with local or state law enforce
assisting with directing traffic. It is estimated that both directions of I-74 will need to be c
for ~~two~~six separate nights ~~in November of 2025, one night will be~~ for the demolition c
~~portion of the~~ bridge ~~spanning the eastbound lanes and one direction will be for the demo~~
~~of the portion of the bridge spanning the westbound lanes~~. This MOT will also be utilize
setting the beams for the new bridge over ~~two~~three separate nights ~~in March 2026~~.

www.in.gov/dot/
An Equal Opportunity Employer

11-17-17

801-T-216 LANE CLOSURES

(Revised 11-17-17)

The following closure schedule has been approved for this contract. Lanes shall be closed or restricted only during these times.

Interstate Route: I-74

Segment: from exit 101 to exit 101

Travel direction: Eastbound and Westbound

Number of lanes that may be restricted or closed: 1

Approved closure schedule:

- Closure of one lane of eastbound and westbound I-74 at approximate MM 100.5 to MM 101.5, Friday at 9:00pm through Monday at 6:00am. These closures will be allowed during three weekends for each direction: initial setup, switching between Phase I and Phase II, and returning to existing conditions.
- Lane width reduction (One 12ft Lane and One 11ft Lane) of both lanes of eastbound and westbound I-74, approximate MM 100.5 to 101.5, All Days/ All Times, March 1, 2026 to November 30, 2026 for MOT setup.
- Closure of both outside shoulders on I-74 during MOT Phase I and closure of both inside shoulders on I-74 during MOT Phase II. These shoulder closures will be concurrent with the lane width reductions between March 1, 2026 and November 30, 2026.
- I-74 eastbound and westbound (Single-Lane Closure with one lane of traffic detoured to ramps, ~~One Night Only~~ for Bridge Demolition), Approximate MM 100.5 to MM 101.5, ~~Saturday at 9:00PM~~ 8:00PM to 6:00AM~~Sunday at 6:00AM, November 2025~~. Six nights total. Eastbound and westbound lanes may be detoured simultaneously.
- I-74 eastbound and westbound (Single-Lane Closure with one lane of traffic detoured to ramps, ~~One Night Only~~ for beam placement), Approximate MM 100.5 to MM 101.5, ~~Saturday at 9:00PM~~ 8:00PM to 6:00AM~~Sunday at 6:00AM, March 2026~~. Three nights total. Eastbound and westbound lanes may be detoured simultaneously.
- Single-lane closures on I-74 eastbound and westbound at approximate MM 100.5 to MM 101.5, 8:00PM to 6:00AM for setting permanent metal forms and overhang falsework.

Additional conditions:

N/A

801-T-216

INDOT Queue Analysis Spreadsheet

Resource Location

- Navigate to the Interstate Highway Congestion Policy site.

It is INDOT's policy to limit operations which reduce the number of lanes, reduce the width of lanes, or may otherwise whenever possible, construction and maintenance activities on interstate facilities are scheduled to maximize safety

This policy has been developed pursuant to federal requirements as outlined in 23 CFR 630 Subpart J and Subpart K for motorists and workers through the thoughtful selection of work hours and strategy. Operations covered under this facilitating special events.

Current Policy

Resource Location

Current Policy

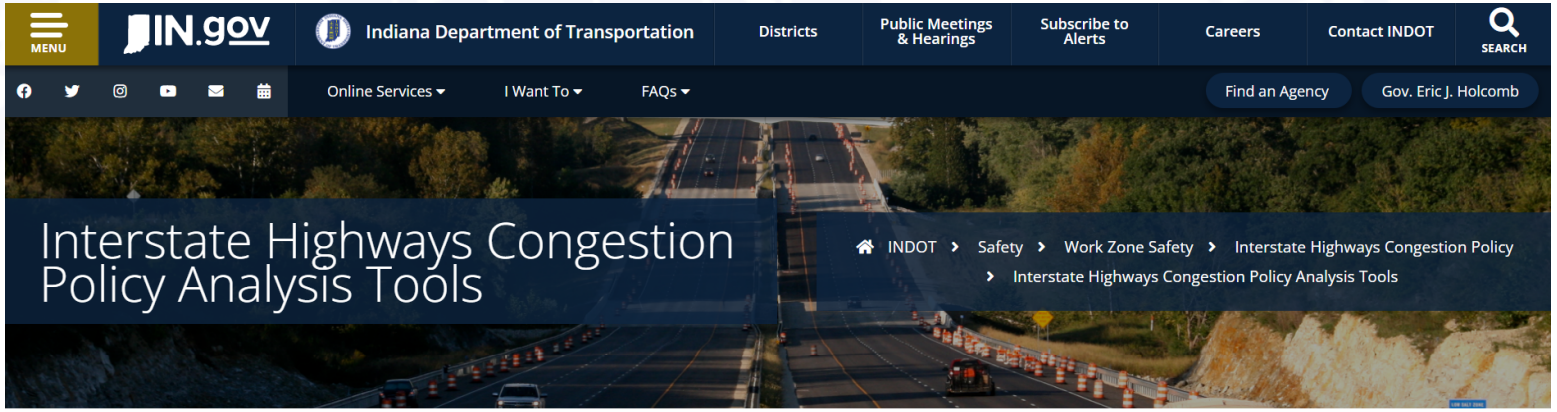
- 2017 Interstate Highways Congestion Policy
  (Signed January 6, 2017. Effective for RFC dates on or after March 7, 2017)
- 2017 Interstate Highways Congestion Policy Tables
- Change Log
- Amendments (Minor updates to the policy)
  - Amendment 1 – Approval of IHCP Policy Exceptions enacted during contract work in progress
- Past Versions
- Sign up to receive email notifications about changes to the policy or website.

Exception Requests

- Exception Request Form (for internal INDOT use)
- Cover Letters and Exception Request Body Templates
- Analysis Tools
- District Contacts for Exception Request Submittals
- Exception Work Flow Chart
- INDOT Traffic Count Database System
- INDOT Interchange Book

Resource Location

- INDOT Queue Analysis Spreadsheet > Save Spreadsheet and Open

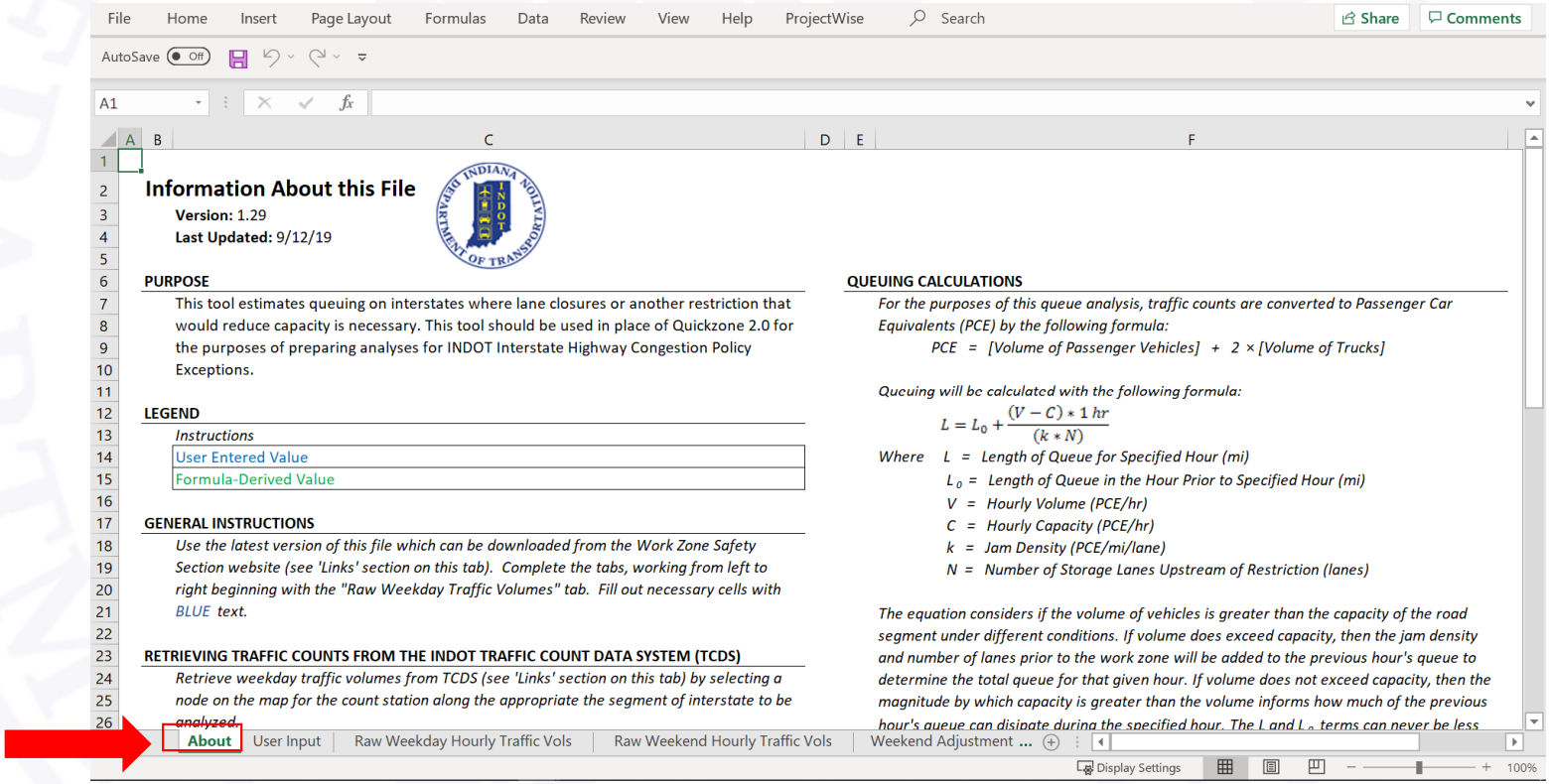


Analysis Tools

- INDOT Queue Analysis Spreadsheet
- INDOT Detour Route Summary Spreadsheet
- QuickZone 2.0 Template
- Hourly Day of the Week Conversion Factors (for use with IHCP Exceptions Only)
- Sources of Information on Capacity

Step by Step

- The first sheet gives information about the rest of the spreadsheet.



Information About this File

Version: 1.29
Last Updated: 9/12/19

PURPOSE

This tool estimates queuing on interstates where lane closures or another restriction that would reduce capacity is necessary. This tool should be used in place of Quickzone 2.0 for the purposes of preparing analyses for INDOT Interstate Highway Congestion Policy Exceptions.

LEGEND

Instructions
User Entered Value
Formula-Derived Value

GENERAL INSTRUCTIONS

Use the latest version of this file which can be downloaded from the Work Zone Safety Section website (see 'Links' section on this tab). Complete the tabs, working from left to right beginning with the "Raw Weekday Traffic Volumes" tab. Fill out necessary cells with BLUE text.

RETRIEVING TRAFFIC COUNTS FROM THE INDOT TRAFFIC COUNT DATA SYSTEM (TCDS)

Retrieve weekday traffic volumes from TCDS (see 'Links' section on this tab) by selecting a node on the map for the count station along the appropriate the segment of interstate to be analyzed.

QUEUING CALCULATIONS

For the purposes of this queue analysis, traffic counts are converted to Passenger Car Equivalents (PCE) by the following formula:

PCE = [Volume of Passenger Vehicles] + 2 × [Volume of Trucks]

Queuing will be calculated with the following formula:

$$L = L_0 + \frac{(V - C) * 1\ hr}{(k * N)}$$

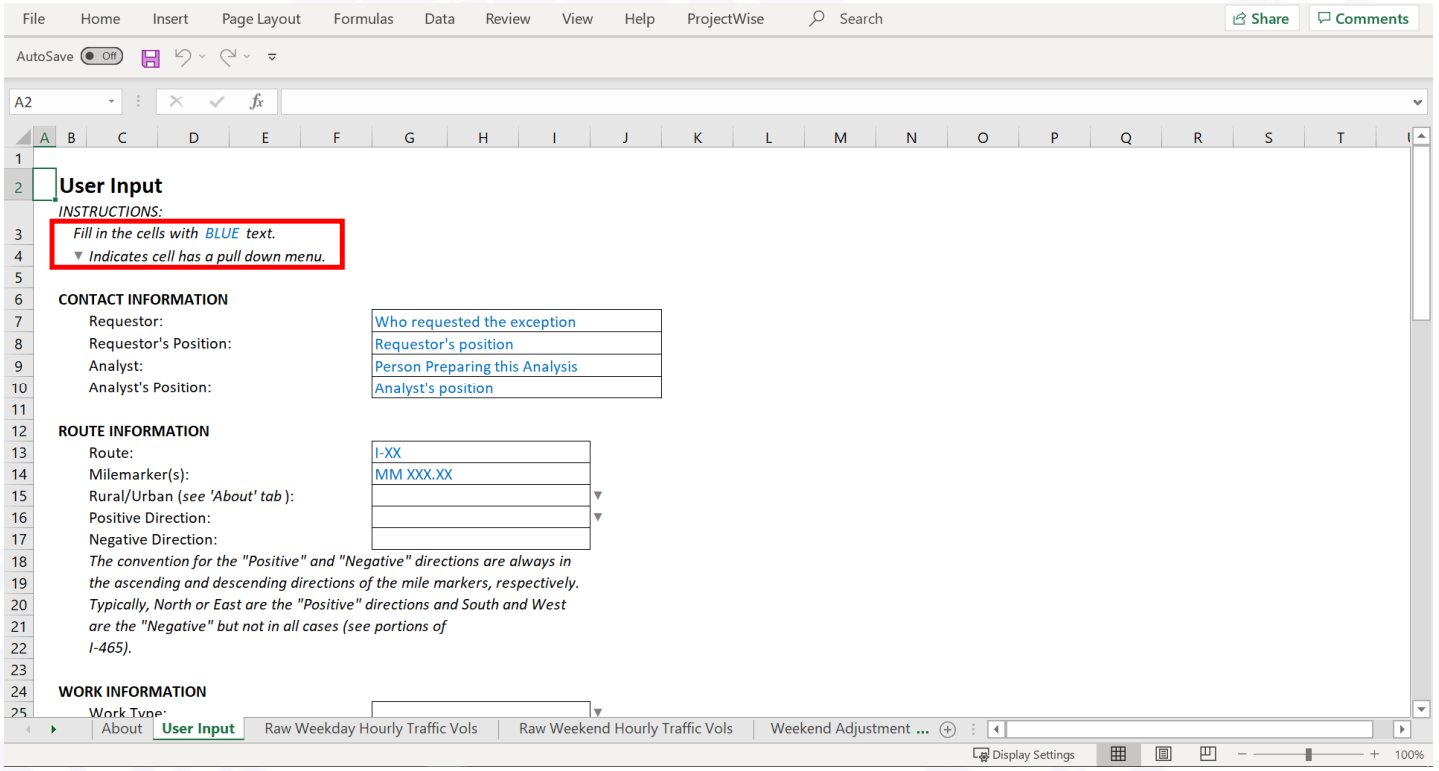
Where L = Length of Queue for Specified Hour (mi)
L_0 = Length of Queue in the Hour Prior to Specified Hour (mi)
V = Hourly Volume (PCE/hr)
C = Hourly Capacity (PCE/hr)
k = Jam Density (PCE/mi/lane)
N = Number of Storage Lanes Upstream of Restriction (lanes)

The equation considers if the volume of vehicles is greater than the capacity of the road segment under different conditions. If volume does exceed capacity, then the jam density and number of lanes prior to the work zone will be added to the previous hour's queue to determine the total queue for that given hour. If volume does not exceed capacity, then the magnitude by which capacity is greater than the volume informs how much of the previous hour's queue can dissipate during the specified hour. The L and L₀ terms can never be less

About | User Input | Raw Weekday Hourly Traffic Vols | Raw Weekend Hourly Traffic Vols | Weekend Adjustment ...

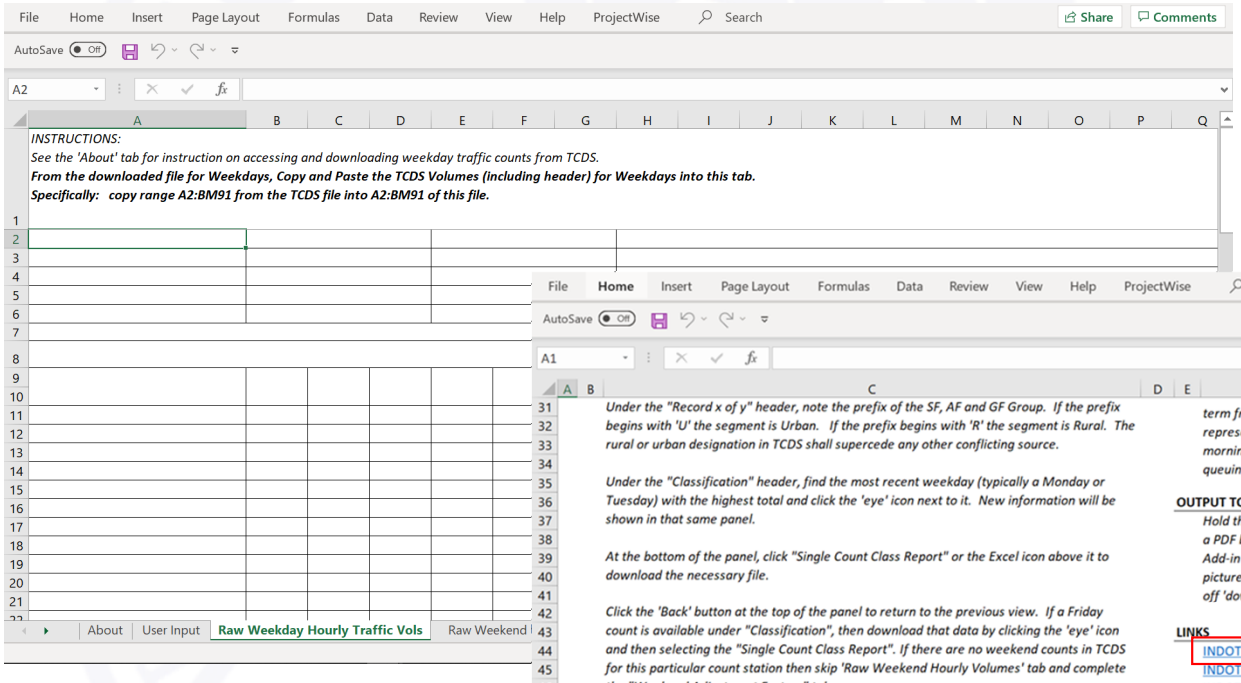
Step by Step

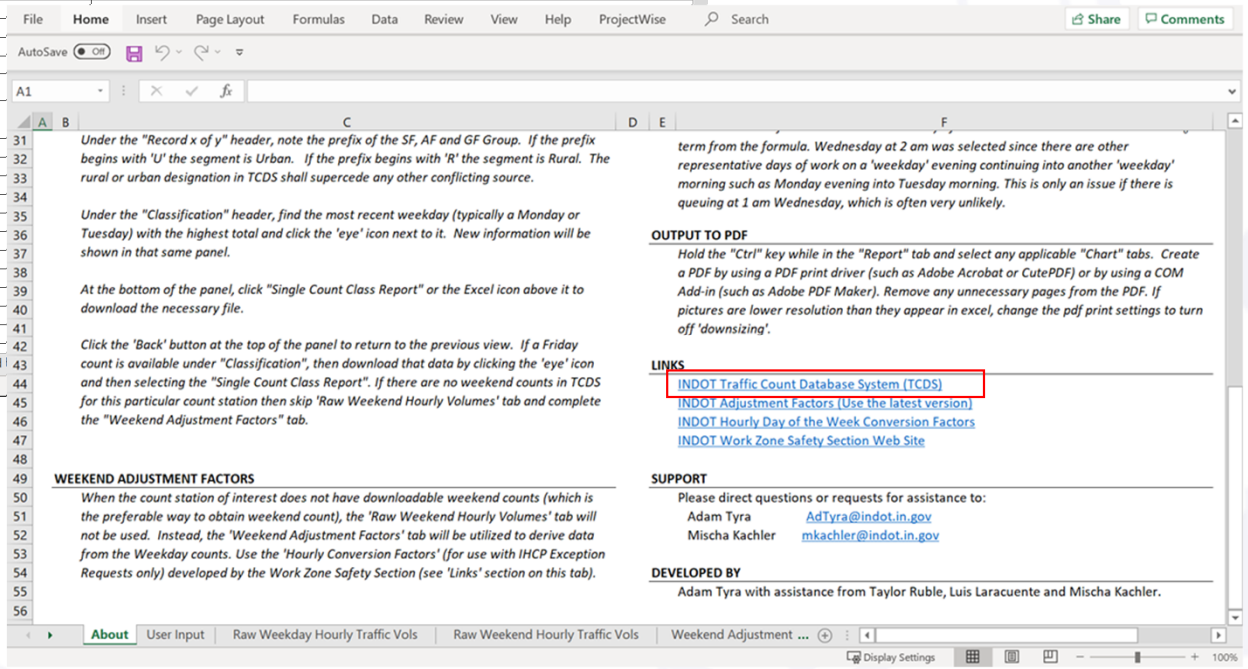
- The User Input sheet is where you type important information about the project.
- Blue text cells and empty cells are where the user can input information.



Step by Step

- For the next sheet, click on “INDOT Traffic Count Database System (TCDS)” under the Links section on the About sheet.



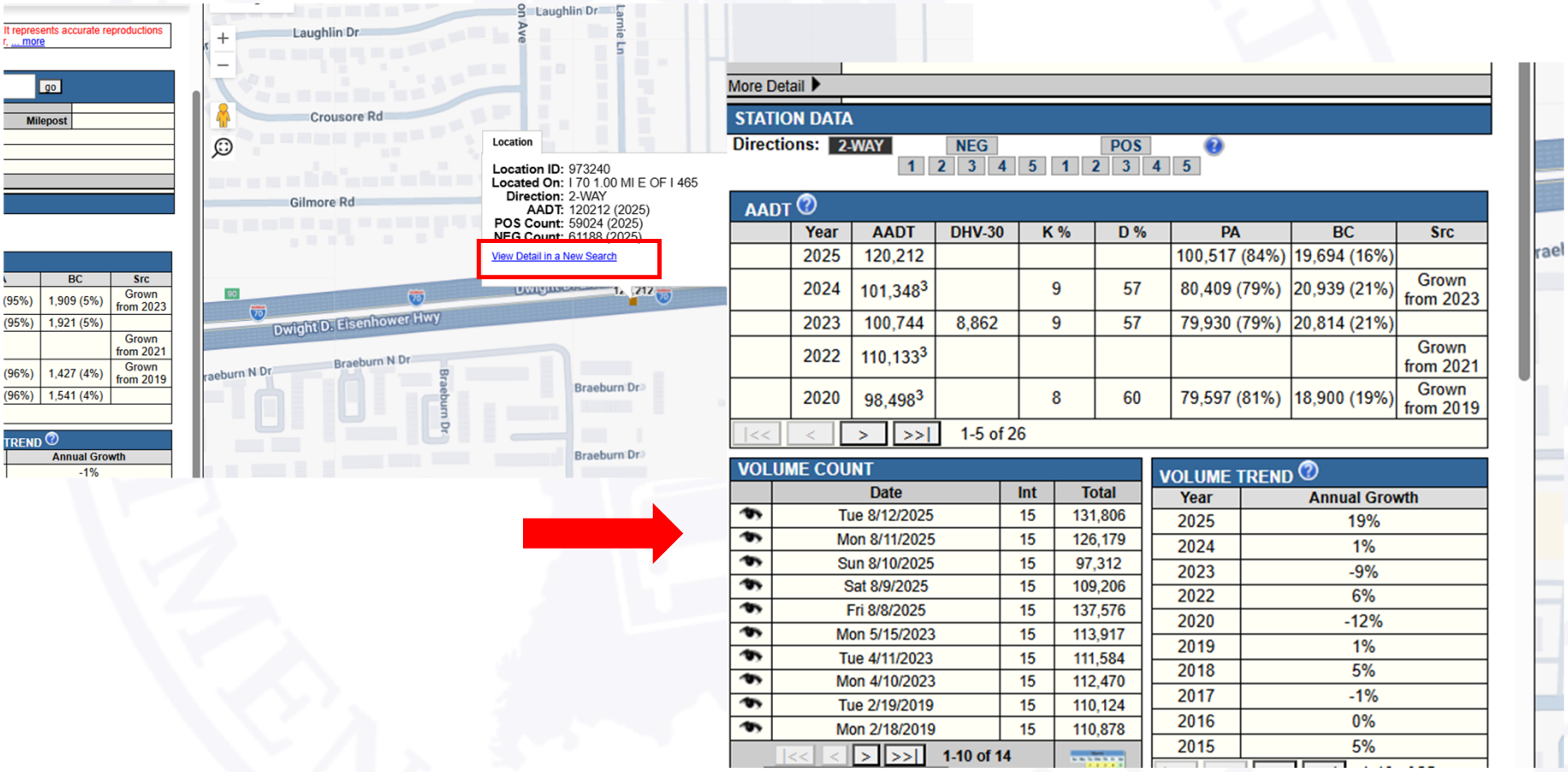


Step by Step – Traffic Count (TCDS)

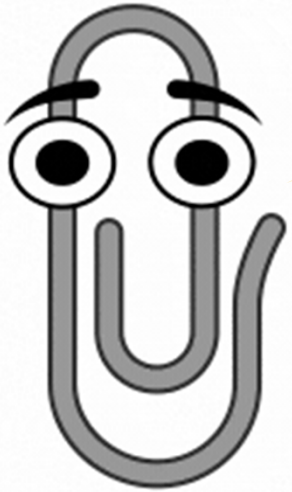
- Find the traffic count number nearest to the project site.
- Be careful with traffic counts during the COVID shutdown timeframe.
- https://indot.public.ms2soft.com/tcds/tsearch.asp?loc=Indot&mod

Step by Step

- Click on the rectangle and then select “View detail in a New Search”



Step by Step



Tip: Which Direction is Traffic???

Positive = NB or EB

Negative = SB or WB

More Detail

STATION DATA

Directions: 2-WAY NEG POS

1 2 3 4 5 1 2 3 4 5

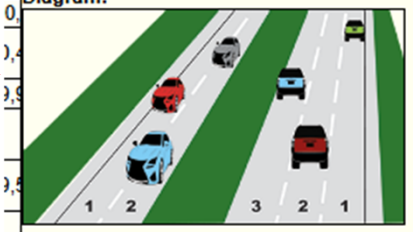
AADT

	Year	AADT	DHV-30	K %	D %	PA	BC	Src
	2025	120,212				100,517 (84%)	19,694 (16%)	
	2024	101,248[3]		9	57	80,409 (79%)	20,939 (21%)	Grown

Lane Order

Lane 1 in each direction is always the curb lane. Lane numbers increase toward the center of the road.

Diagram:



POS indicates NB or EB, NEG indicates [illegible] or WB

Step by Step

- Select the volume count for the most recent <u>weekday</u> with the highest total.
- Be careful with traffic data from the COVID years.

	2024	101,348[3]		9	57	80,409 (79%)	20,939 (21%)	Grown from 2023
	2023	100,744	8,862	9	57	79,930 (79%)	20,814 (21%)	
	2022	110,133[3]						Grown from 2021
	2020	98,498[3]		8	60	79,597 (81%)	18,900 (19%)	Grown from 2019

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VOLUME COUNT

	Date	Int	Total
	Tue 8/12/2025	15	131,806
	Mon 8/11/2025	15	126,179
	Sun 8/10/2025	15	97,312
	Sat 8/9/2025	15	109,206
	Fri 8/8/2025	15	137,576
	Mon 5/15/2023	15	113,917
	Tue 4/11/2023	15	111,584
	Mon 4/10/2023	15	112,470
	Tue 2/19/2019	15	110,124
	Mon 2/18/2019	15	110,878

|<< < > >>| 1-10 of 14

mm/dd/yyyy To Date

VOLUME TREND

Year	Annual Growth
2024	1%
2023	-9%
2022	6%
2020	-12%
2019	1%
2018	5%
2017	-1%
2016	0%
2015	5%

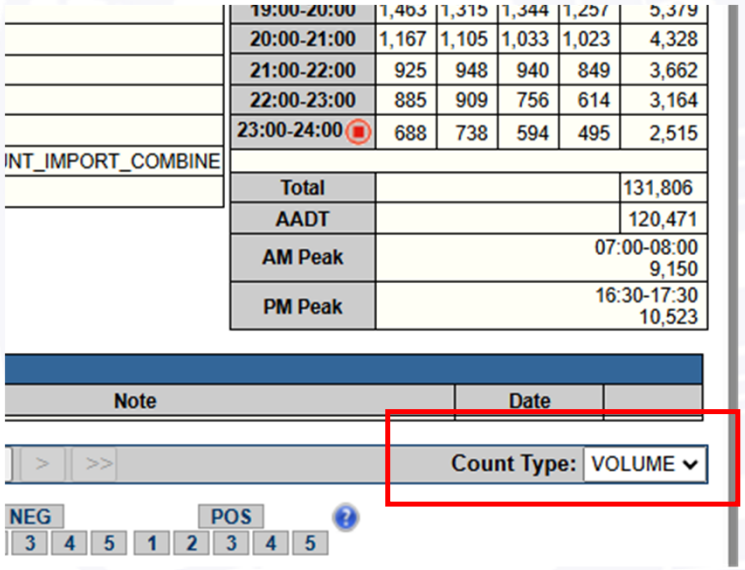
|<< < > >>| 1-10 of 25

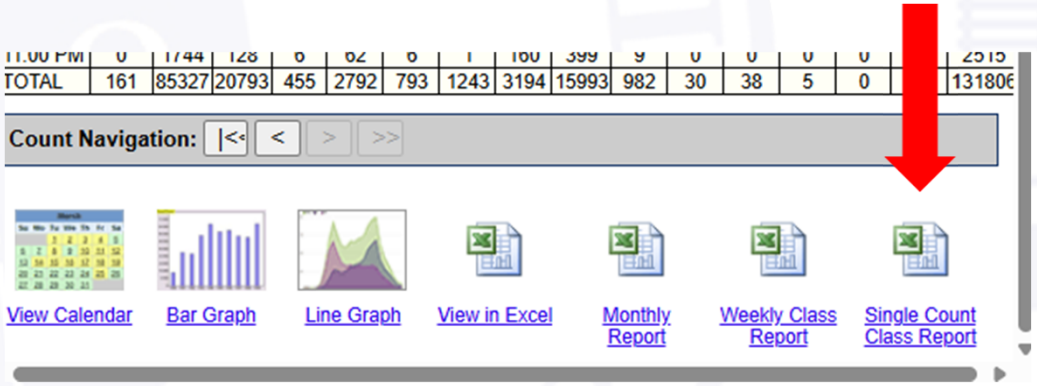
COUNT DATA INFO

Count Status	Accepted
Holiday	No
Start Date	Tue 8/12/2025
End Date	Wed 8/13/2025
Start Time	12:00:00 AM
End Time	12:00:00 AM
Direction	
Station	
Study	
Speed Limit	
Description	
Sensor Type	NA
Source	TCDS_COUNT_IMPORT_COMBINE
Latitude,Longitude	

Step by Step

- Change the count type to from “VOLUME” to “CLASS”.
- Select “Single Count Class Report.” Select the Excel file link in the top right corner.





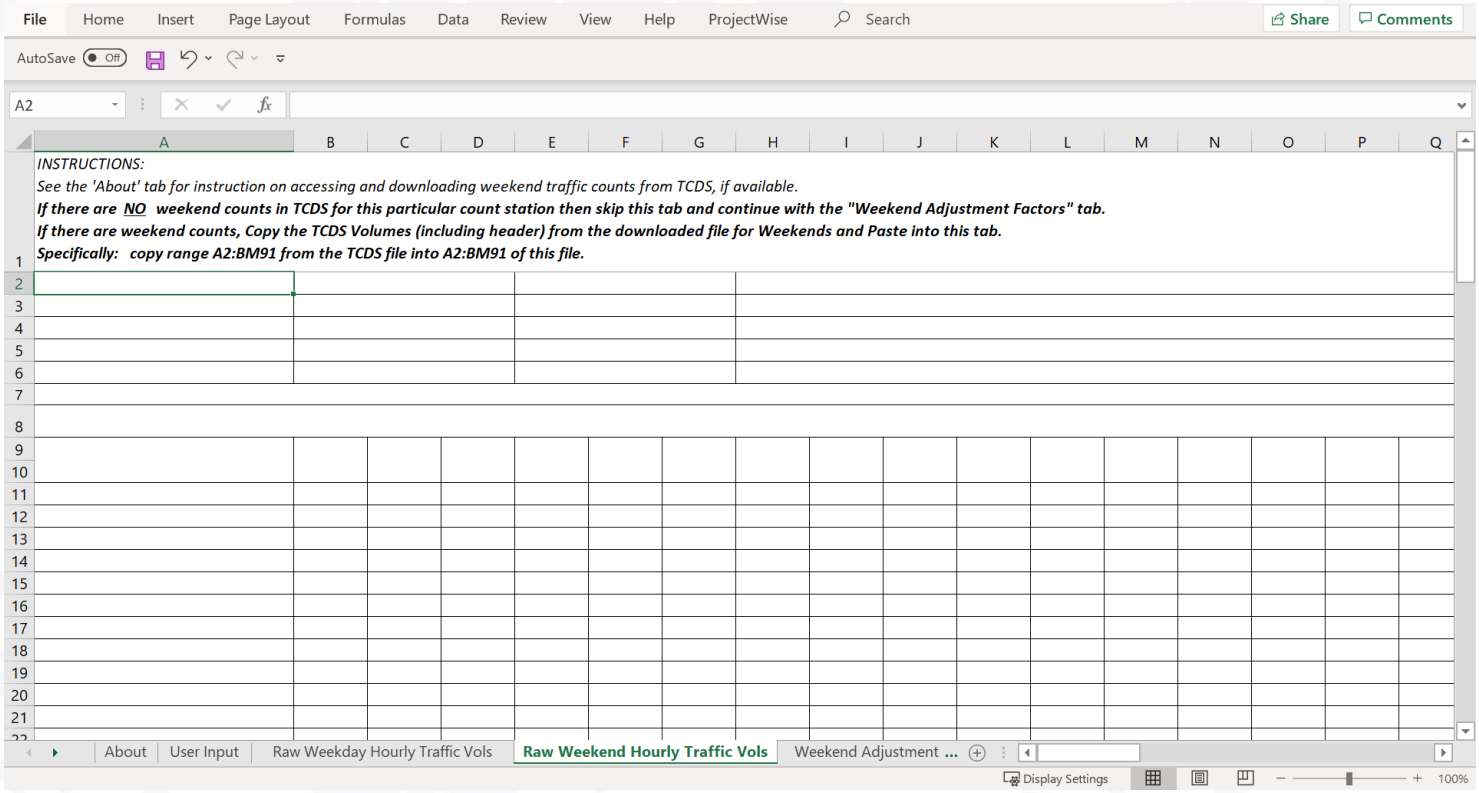
Step by Step

- Select cell A2 to cell BM63 or cell BM91 depending on how much data is available. Copy the data and paste it to cell A2 in the “Raw Weekday Hourly Traffic Vols” sheet in the Queueing Analysis spreadsheet.

2	Location ID	**973240**		Located On	I 70 1.00 MI E OF I 465												Community	-		
3	Counted By	TCDS_Combined															County	MARION		
4	Start Date	8/10/2025															Module			
5	Start Time	12:00:00 AM		Direction	**2-WAY**												Agency	Indiana DOT		
6	AADT	120212		Source	TCDS_BIN_IMPORT_COMBINE												Owner ID	zach		
7																				
8	**FHWA-Scheme F Classification**																			
9			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)				
10	Date	Begin Interval Time	Motor Cycle	Car	Pick up	Bus	2A SU	3A SU	>3A SU	<5A 2U	5A 2U	>5A 2U	<6A >2U	6A >2U	>6A >2U			Passenger Vehicle Total	Single Unit Truck Total	Combination Truck Total	Hourly Total
11	8/10/2025	12:00 AM	0	1847	92	19	20	1	0	74	205	4	0	0	0	0	0	1939	40	283	2262
12	8/10/2025	1:00 AM	0	1257	69	2	21	0	1	59	192	2	1	1	0	0	0	1326	24	255	1605
13	8/10/2025	2:00 AM	0	879	39	1	14	1	0	52	148	2	0	0	0	0	0	918	16	202	1136
14	8/10/2025	3:00 AM	0	729	32	3	13	0	0	58	138	2	0	0	0	0	0	761	16	198	975
15	8/10/2025	4:00 AM	0	810	39	1	13	4	0	47	141	5	0	0	0	0	0	849	18	193	1060
16	8/10/2025	5:00 AM	0	1249	45	3	16	1	0	58	141	7	0	0	0	0	0	1294	20	206	1520
17	8/10/2025	6:00 AM	0	1532	163	7	20	5	1	75	153	2	0	2	0	0	0	1695	33	232	1960

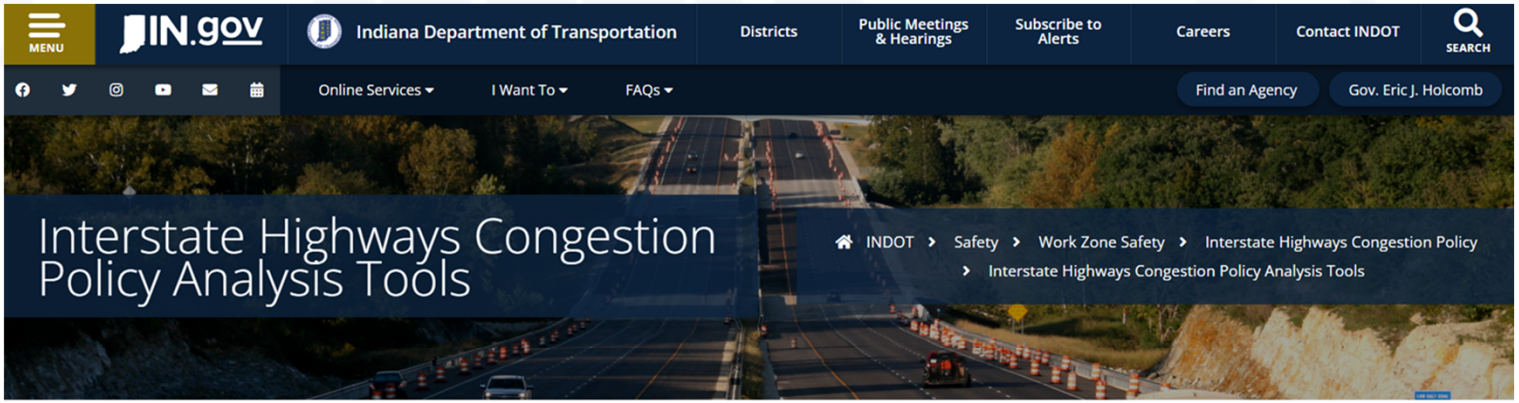
Step by Step

- If there are no weekend traffic counts, skips the “Raw Weekend Hourly Traffic Vols” sheet. If there are, repeat the same process for the “Raw Weekday Hourly Traffic Vols.”



Step by Step

- If there are no traffic counts for the weekend, navigate back to the Analysis Tools section on the INDOT IHCP site and select the “Hourly Day of the Week Conversion Factors (for use with the IHCP Exceptions Only).”

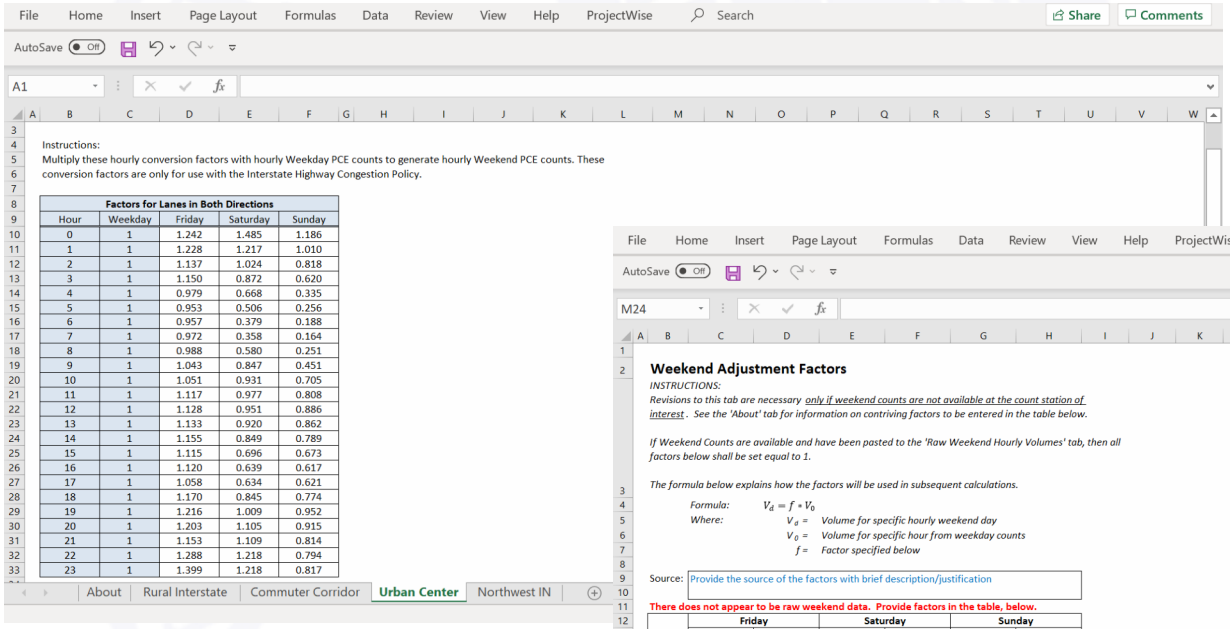


Analysis Tools

- INDOT Queue Analysis Spreadsheet
- INDOT Detour Route Summary Spreadsheet
- QuickZone 2.0 Template
- Hourly Day of the Week Conversion Factors (for use with IHCP Exceptions Only)
- Sources of Information on Capacity

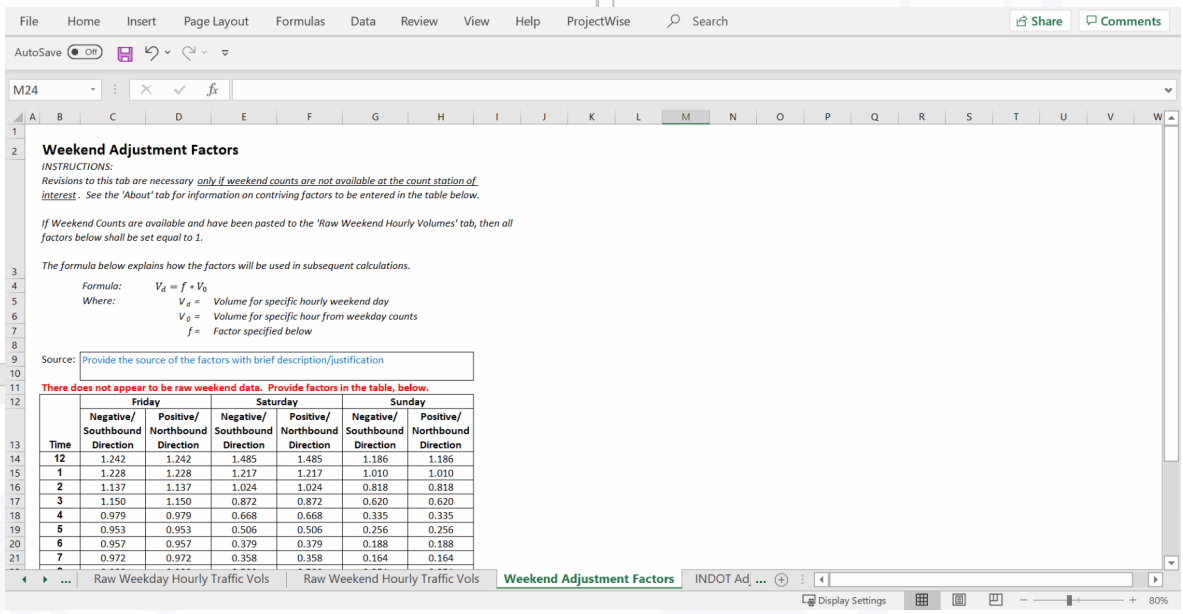
Step by Step

- Take the adjustment factors and past them into the appropriate cells in the queuing spreadsheet “Weekend Adjustment Factors” sheet.



Instructions:
Multiply these hourly conversion factors with hourly Weekday PCE counts to generate hourly Weekend PCE counts. These conversion factors are only for use with the Interstate Highway Congestion Policy.

Factors for Lanes in Both Directions				
Hour	Weekday	Friday	Saturday	Sunday
0	1	1.242	1.485	1.186
1	1	1.228	1.217	1.010
2	1	1.137	1.024	0.818
3	1	1.150	0.872	0.620
4	1	0.979	0.668	0.335
5	1	0.953	0.506	0.256
6	1	0.957	0.379	0.188
7	1	0.972	0.358	0.164
8	1	0.988	0.580	0.251
9	1	1.043	0.847	0.451
10	1	1.051	0.931	0.705
11	1	1.117	0.977	0.808
12	1	1.128	0.951	0.886
13	1	1.133	0.920	0.862
14	1	1.155	0.849	0.789
15	1	1.115	0.696	0.673
16	1	1.120	0.639	0.617
17	1	1.058	0.634	0.621
18	1	1.170	0.845	0.774
19	1	1.216	1.009	0.952
20	1	1.203	1.105	0.915
21	1	1.153	1.109	0.814
22	1	1.288	1.218	0.794
23	1	1.399	1.218	0.817



Weekend Adjustment Factors

INSTRUCTIONS:
Revisions to this tab are necessary only if weekend counts are not available at the count station of interest. See the 'About' tab for information on contriving factors to be entered in the table below.

If Weekend Counts are available and have been pasted to the 'Raw Weekend Hourly Volumes' tab, then all factors below shall be set equal to 1.

The formula below explains how the factors will be used in subsequent calculations.

Formula: $V_d = f * V_0$
Where:
V_d = Volume for specific hourly weekend day
V_0 = Volume for specific hour from weekday counts
f = Factor specified below

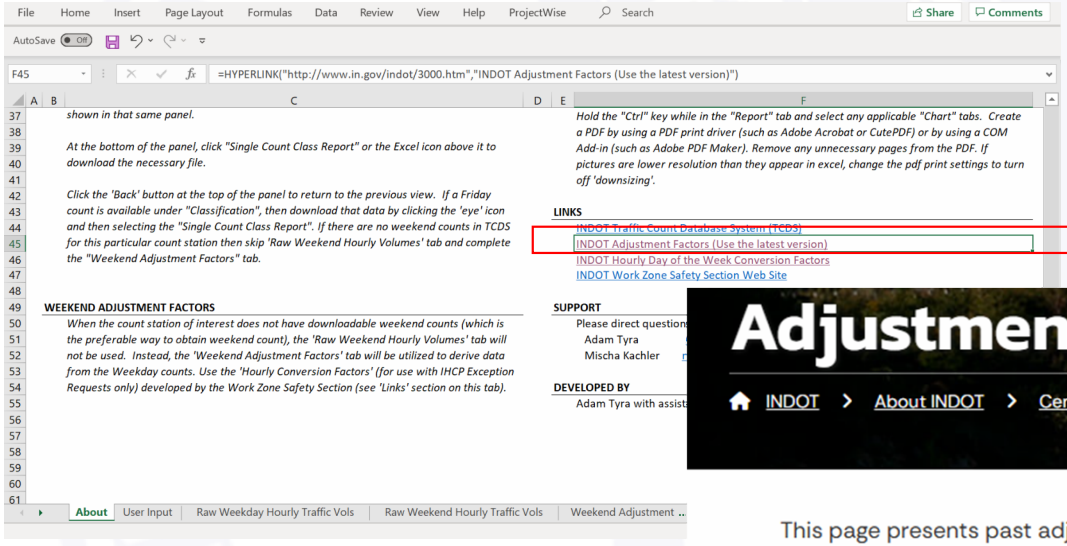
Source: Provide the source of the factors with brief description/justification

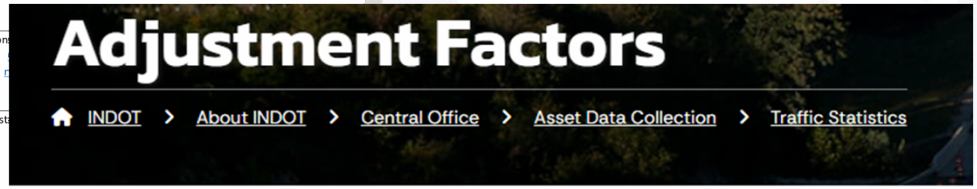
There does not appear to be raw weekend data. Provide factors in the table, below.

	Friday		Saturday		Sunday	
Time	Negative/ Southbound Direction	Positive/ Northbound Direction	Negative/ Southbound Direction	Positive/ Northbound Direction	Negative/ Southbound Direction	Positive/ Northbound Direction
12	1.242	1.242	1.485	1.485	1.186	1.186
1	1.228	1.228	1.217	1.217	1.010	1.010
2	1.137	1.137	1.024	1.024	0.818	0.818
3	1.150	1.150	0.872	0.872	0.620	0.620
4	0.979	0.979	0.668	0.668	0.335	0.335
5	0.953	0.953	0.506	0.506	0.256	0.256
6	0.957	0.957	0.379	0.379	0.188	0.188
7	0.972	0.972	0.358	0.358	0.164	0.164

Step by Step

- Next, the INDOT Adjustment Factors need to be added to the spreadsheet. These can be found by clicking on the “INDOT Adjustment Factors (Use the latest version)” link under the links tab on the “About” sheet. Use the most current year.





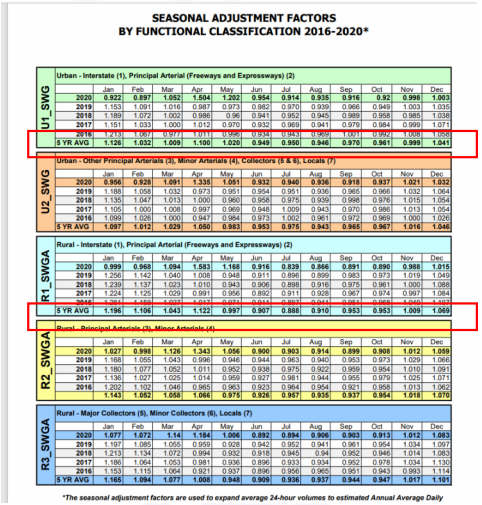
This page presents past adjustment factor documents.

Adjustment Factors

- 2024 Adjustment Factors
- 2023 Adjustment Factors
- 2022 Adjustment Factors
- 2021 Adjustment Factors
- 2020 Adjustment Factors
- 2019 Adjustment Factors

Step by Step

- Find the box that aligns with road being looked at. Type the 5 YR AVG values into the Seasonal Adjustment Factors (5 yr Average) on the “INDOT Adjustment Factors” sheet. Input Urban and Rural values.
- Enter the most recent annual growth factors for Urban and Rural into the spreadsheet.



SEASONAL ADJUSTMENT FACTORS
BY FUNCTIONAL CLASSIFICATION 2016-2020*

U1_SWG — Urban - Interstate (1), Principal Arterial (Freeways and Expressways) (2)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	0.922	0.897	1.052	1.004	1.202	0.954	0.914	0.935	0.916	0.92	0.998	1.003
2019	1.153	1.091	1.016	0.987	0.973	0.982	0.970	0.939	0.966	0.949	1.003	1.035
2018	1.189	1.072	1.002	0.986	0.96	0.941	0.952	0.945	0.989	0.958	0.985	1.038
2017	1.191	1.033	1.000	1.012	0.970	0.932	0.969	0.941	0.979	0.984	0.999	1.071
2016	1.213	1.067	0.977	1.011	0.996	0.924	0.943	0.969	1.031	0.992	1.008	1.058
5 YR AVG	1.126	1.032	1.009	1.100	1.020	0.949	0.950	0.946	0.970	0.961	0.999	1.041

U2_SWG — Urban - Other Principal Arterials (3), Minor Arterials (4), Collectors (5 & 6), Locals (7)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	0.956	0.928	1.091	1.335	1.051	0.932	0.940	0.936	0.918	0.937	1.021	1.032
2019	1.188	1.058	1.032	0.973	0.951	0.954	0.951	0.936	0.965	0.966	1.032	1.064
2018	1.135	1.047	1.013	1.000	0.960	0.958	0.975	0.939	0.998	0.976	1.015	1.054
2017	1.105	1.000	1.008	0.997	0.969	0.948	1.009	0.943	0.970	0.986	1.013	1.054
2016	1.099	1.026	1.000	0.947	0.984	0.973	1.002	0.961	0.972	0.969	1.000	1.026
5 YR AVG	1.097	1.012	1.029	1.050	0.983	0.953	0.975	0.943	0.965	0.967	1.016	1.046

R1_SWGA — Rural - Interstate (1), Principal Arterial (Freeways and Expressways) (2)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	0.999	0.968	1.094	1.583	1.168	0.916	0.839	0.866	0.891	0.898	0.988	1.015
2019	1.256	1.142	1.040	1.008	0.948	0.911	0.896	0.899	0.983	0.973	1.019	1.049
2018	1.239	1.137	1.023	1.010	0.943	0.906	0.898	0.916	0.975	0.961	1.000	1.088
2017	1.224	1.125	1.029	0.991	0.956	0.892	0.911	0.928	0.967	0.974	0.997	1.084
2016	1.251	1.159	1.037	1.017	0.973	0.911	0.897	0.911	0.951	0.968	1.049	1.107
5 YR AVG	1.196	1.106	1.043	1.122	0.997	0.907	0.888	0.910	0.953	0.953	1.009	1.069

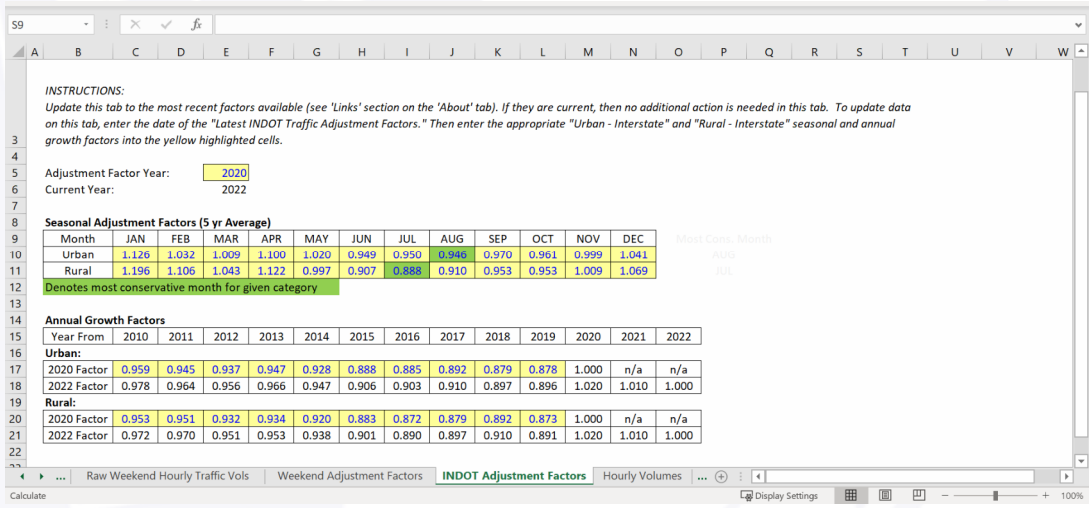
R2_SWGA — Rural - Principal Arterials (3), Minor Arterials (4)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	1.027	0.998	1.126	1.343	1.096	0.900	0.903	0.914	0.899	0.908	1.012	1.059
2019	1.168	1.055	1.043	0.996	0.946	0.944	0.963	0.940	0.953	0.973	1.029	1.066
2018	1.180	1.077	1.052	1.011	0.952	0.938	0.975	0.922	0.959	0.954	1.010	1.091
2017	1.136	1.027	1.025	1.014	0.959	0.927	0.981	0.944	0.955	0.979	1.025	1.071
2016	1.202	1.102	1.046	0.965	0.963	0.923	0.964	0.954	0.921	0.958	1.013	1.062
	1.143	1.052	1.058	1.066	0.975	0.926	0.967	0.935	0.937	0.954	1.018	1.070

R3_SWGA — Rural - Major Collectors (5), Minor Collectors (6), Locals (7)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	1.077	1.072	1.14	1.184	1.006	0.892	0.894	0.906	0.903	0.913	1.012	1.083
2019	1.197	1.085	1.055	0.959	0.928	0.942	0.952	0.941	0.961	0.954	1.034	1.097
2018	1.213	1.134	1.072	0.994	0.932	0.918	0.945	0.94	0.952	0.946	1.014	1.083
2017	1.186	1.064	1.053	0.981	0.936	0.896	0.933	0.934	0.952	0.978	1.034	1.130
2016	1.153	1.115	1.064	0.921	0.937	0.896	0.956	0.965	0.951	0.943	0.993	1.114
5 YR AVG	1.165	1.094	1.077	1.008	0.948	0.909	0.936	0.937	0.944	0.947	1.017	1.101

*The seasonal adjustment factors are used to expand average 24-hour volumes to estimated Annual Average Daily



INSTRUCTIONS:
Update this tab to the most recent factors available (see 'Links' section on the 'About' tab). If they are current, then no additional action is needed in this tab. To update data on this tab, enter the date of the "Latest INDOT Traffic Adjustment Factors." Then enter the appropriate "Urban - Interstate" and "Rural - Interstate" seasonal and annual growth factors into the yellow highlighted cells.

Adjustment Factor Year: 2020
Current Year: 2022

Seasonal Adjustment Factors (5 yr Average)

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Urban	1.126	1.032	1.009	1.100	1.020	0.949	0.950	0.946	0.970	0.961	0.999	1.041
Rural	1.196	1.106	1.043	1.122	0.997	0.907	0.888	0.910	0.953	0.953	1.009	1.069

Denotes most conservative month for given category

Annual Growth Factors

Year From	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Urban:													
2020 Factor	0.959	0.945	0.937	0.947	0.928	0.888	0.885	0.892	0.879	0.878	1.000	n/a	n/a
2022 Factor	0.978	0.964	0.956	0.966	0.947	0.906	0.903	0.910	0.897	0.896	1.020	1.010	1.000
Rural:													
2020 Factor	0.953	0.951	0.932	0.934	0.920	0.883	0.872	0.879	0.892	0.873	1.000	n/a	n/a
2022 Factor	0.972	0.970	0.951	0.953	0.938	0.901	0.890	0.897	0.910	0.891	1.020	1.010	1.000

Raw Weekend Hourly Traffic Vols | Weekend Adjustment Factors | INDOT Adjustment Factors | Hourly Volumes

Step by Step

- Check the “Hourly Volumes” sheet to make sure that the volumes filled in correctly. If they didn’t, go back to the “User Input” sheet and make sure everything was filled in correctly.

Hourly Volumes

INSTRUCTIONS:

Inspect this tab for reasonable hourly volume results.

Count Information:

Count Station Number:	974190
Rural/Urban:	Urban
Year of Count:	2022
Month of Count:	AUG
Annual Adj. Factor:	1.041
Monthly Adj. Factor:	0.942

Planned Work Information:

Planned Year:	2026
Planned Month:	AUG
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	0.942

% Reduction due to Detouring Traffic:

Westbound Monday-Thursday:	0%
Westbound Friday:	0%
Westbound Saturday-Sunday:	0%
Eastbound Monday-Thursday:	0%
Eastbound Friday:	0%
Eastbound Saturday-Sunday:	0%

Westbound Volumes

Time	Weekday			Friday			Saturday			Sunday		
	Raw PCE/hr	PCE/hr Annualized to Current Year	PCE/hr Converted to Planned Month and Year	Raw PCE/hr	PCE/hr Annualized to Current Year	PCE/hr Converted to Planned Month and Year	Raw PCE/hr	PCE/hr Annualized to Current Year	PCE/hr Converted to Planned Month and Year	Raw PCE/hr	PCE/hr Annualized to Current Year	PCE/hr Converted to Planned Month and Year
Midnight to 1 am	405	397	421	0	515	547	0	473	502	0	306	325
1 am to 2 am	394	386	410	0	515	546	0	447	474	0	366	389
2 am to 3 am	342	335	356	0	399	424	0	361	383	0	283	300
3 am to 4 am	336	329	349	0	377	401	0	286	303	0	168	178
4 am to 5 am	471	462	490	0	518	550	0	350	371	0	190	202
5 am to 6 am	923	905	961	0	976	1,036	0	516	548	0	273	290
6 am to 7 am	1,502	1,472	1,563	0	1,453	1,542	0	638	678	0	310	329
7 am to 8 am	1,756	1,721	1,827	0	1,671	1,774	0	681	723	0	307	326
8 am to 9 am	1,456	1,427	1,515	0	1,398	1,484	0	778	826	0	418	444
9 am to 10 am	1,281	1,255	1,332	0	1,332	1,414	0	980	1,040	0	692	734

Look at the Data

- Look at the data to see what is permitted.
- Remember that if the queue is out of permissible parameters, you may still be able to get the IHCP exception approved but you must ensure that all options have been considered.

ii. **Policy Limits.** The following criteria shall be used to evaluate the viability of continuous or multiple day closures:

- No queues of any length should be permitted to exceed 6 continuous hours duration or 12 total hours in any calendar day.
- Queues greater than 0.5 miles in length should not be permitted to exceed 4 continuous hours.
- Queues greater than 1.0 mile in length should not be permitted to exceed two continuous hours.
- Queues greater than 1.5 miles in length should not be permitted.

If these criteria are not met, the work shall be considered "Outside of Policy Limits" and the cover letter of the request should indicate that "Queues outside of policy limits are expected as a result of this work" in bold-emphasized text. Queues outside of policy limits should be avoided whenever possible. **If it is not possible to complete the work within policy limits, additional measures should be taken to mitigate the effect on traffic.**

Example Projects with IHCP Exceptions

Example Project #1

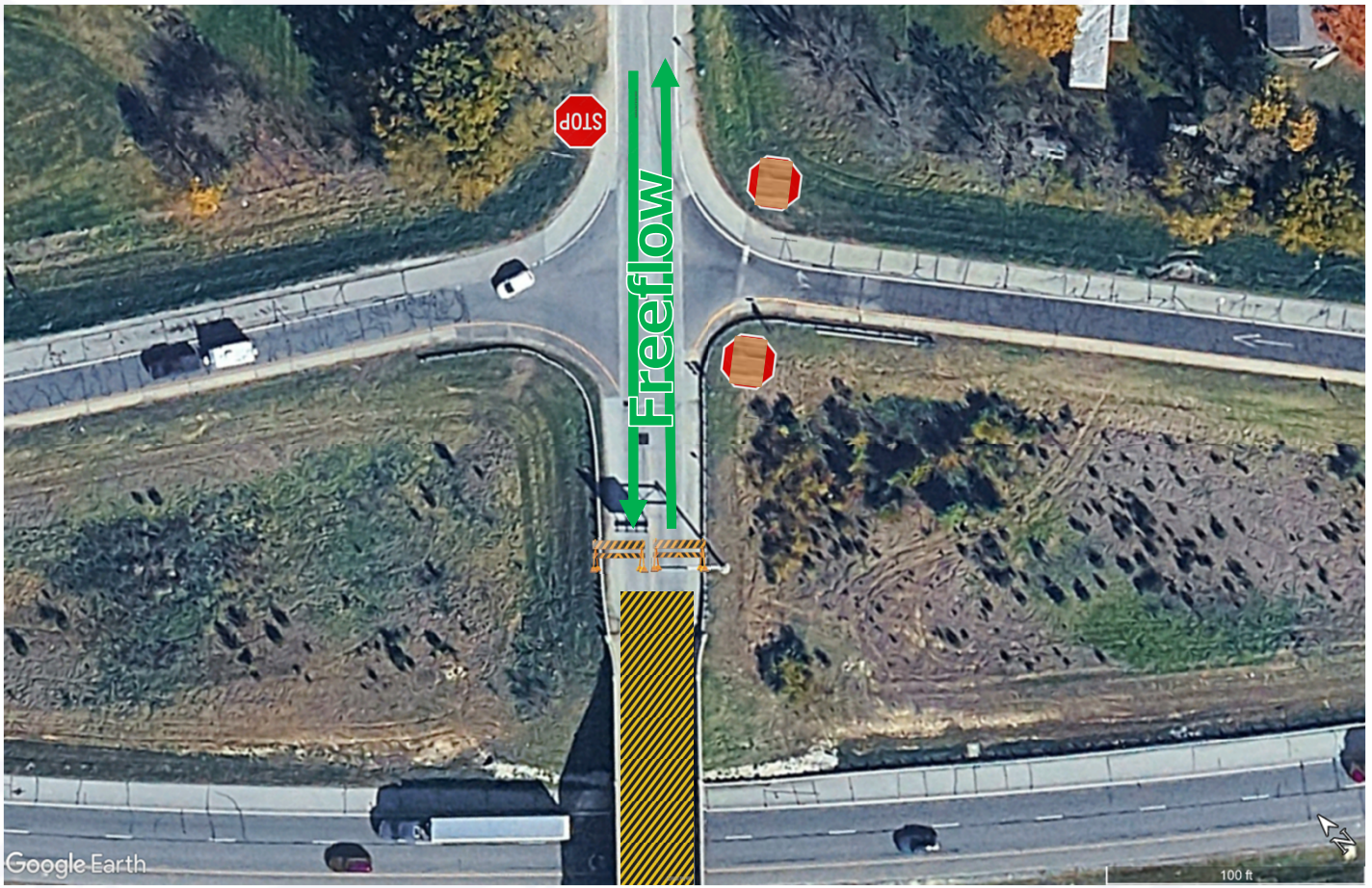
- Bridge Replacement
- Local Road over the Interstate
- Diamond Interchange
  - Ramps remain open at all times

Example Project #1 IHCP Exception Process

- Significant Project
  - TMP Team meetings naturally started the IHCP discussions.
- Bridge Demolition: TMP meetings resulted in 20-minute rolling slowdowns or closures.
  - After further discussions, the demo plan was changed to a ramp detour.
- Back and Forth on MOT Plans and Exception wording.
  - District Traffic Review
  - Jim Poturalski Review
- CQA: Placing Deck Pans over the interstate.

Ramp Detour

Ramp Intersection Detail



Example Project #2

- Temporary Median Runaround by Temporary Bridge on the Interstate

- Two amendments were required because the letting date changed twice due to funding issues.
- Lane closures were required to set up TTB and pavement markings between each phase of MOT.
- Recommend showing MOT setup in MOT plans.

Questions?

- Contact Jim Poturalski or Mischa Kachler for project-specific questions.