

Appendix F: Future Volume Calculations

USER INPUT

OPTIONAL INPUT

FINAL REFINED FORECAST

Table with columns for COL 1-20, ROADLINK, and various traffic count and forecast data for Leffel Lane, Limestone Street, and Leffel Lane.

Total 62895 74610

There are hidden rows if you want more roads in your intersection/screenline

Model Base 2012, Model Opening (opt) 2040, Model Forecast 2040, Project Opening 2040, Project Design 2040

General Notes

- General rule: if MR<1 then if RATIO <= 1.0 then use RAT...
OR if RATIO >= 2 then use DIFF else use Raf...
if MR>1 then if RATIO <=0.5 then use MRATIO, OR...
if RATIO >=2 then use DIFF, else use Raf(based on MRATIO)
Which you can change if it makes sense...
Make sure model opening year (if used) is greater existing and less than forecast EXCEPT...

If you have a new link it will get a growth rate of 1.1. To get forecast turn movements for new links you must enter the model turns in section 2 of the turn movement sheets...
A value of zero in a field usually means zero, leave fields blank if you want them ignored...
There is no guarantee a forecast volume of zero will be respected as zero by the 255 adjustments...
If you have an existing intersection link that wasn't in the mode enter its counts in the appropriate places here and on the TM sheets...
If you have a new intersection on an existing road you can enter the main line counts/model volumes (Ab and AI-ON here and on the TM sheets (as Thru movements) and then the full set of volumes/turns for AI-OB and AI-C You may want to disable screenlines in this case

Four Interpolation Cases

- 1. Have base count and open yr model run and interp. year= model open yr THUS interpolate btwn base count and adj open yr model run except for open yr= model open yr which uses case 2.
2. Have open yr model run and interp yr= open model yr (or interpolating any opening year) THUS interpolate btwn adj open yr and adj design yr model run
3. (standard) Have base count and NO open yr model run THUS interpolate btwn count and adj design yr model run
4. Have no base count THUS interpolate calculate growth from Unadj base and design yr model runs and apply growth rate to number of years different from model design

Screenline Options (see field 3.5 description)

- Enable
Disable
Force

There are hidden columns for opening year model results if you have them

Interpolate opening & design year & adjust for more recent count

Optional Capacity Adjuster

Table with columns for Capacity, opening yr, design yr, and growth factors, showing values for -15770, -19526, -10900, -24869.

INTERSECTION: Limestone and Leffel

P.M. peak hour 4:30 PM *enter start time of peak hour*

If AM is the design hour you can rename this sheet AM, other to PM and change the above 2 cells to reflect th

Road		ADT	B&C	"K"	D	T24	P.M. TD	CHOSEN PM K*	dhv factor*	link growth	
				existing	existing	existing	existing			open	design
Leffel Lane	E LEG	15637	0	0.080	0.598	0.000	0.000	0.100	1.25	1.009	1.009
Limestone Stre	N LEG	16856	0	0.077	0.508	0.000	0.000	0.096	1.25	1.158	1.158
Leffel Lane	W LEG	9833	0	0.073	0.505	0.000	0.000	0.092	1.25	1.109	1.109
Limestone Stre	S LEG	20569	0	0.085	0.579	0.000	0.000	0.106	1.25	1.209	1.209

DESIGN YEAR 2040

			e	n	w	s	u	d	
initial			635	922	495	1528	0	0	Djf
			504	637	357	1011	0	0	Djb
e	947	751	0	162	167	422	0	0	
n	953	658	112	0	86	460	0	0	
w	504	364	125	110	0	129	0	0	
s	1112	736	267	365	104	0	0	0	
u	0	0	0	0	0	0	0	0	
d	0	0	0	0	0	0	0	0	

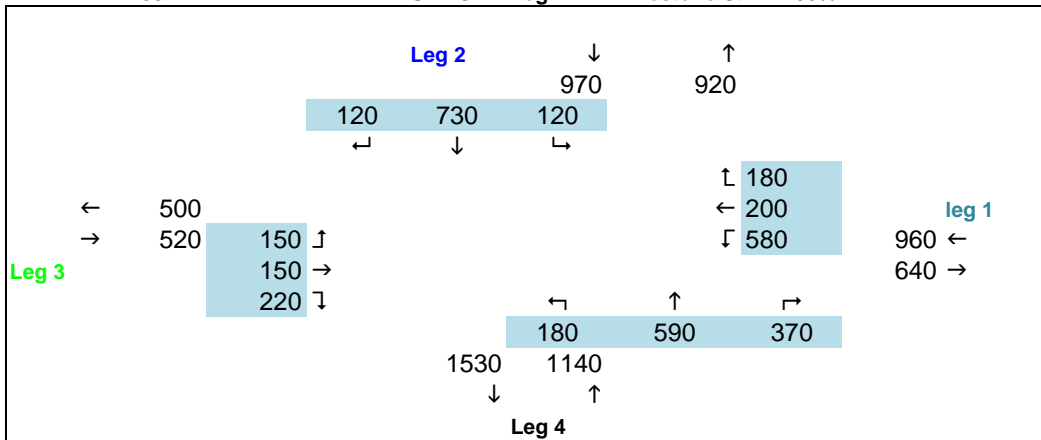
outflows

Oif Oib

fifth column iteration			635	922	495	1528	0	0	
e		967	0	184	201	582	0	0	
n		972	123	0	118	731	0	0	
w		513	147	150	0	216	0	0	
s		1130	365	589	176	0	0	0	
u		0	0	0	0	0	0	0	
d	ok	0	0	0	0	0	0	0	

= = = = = = = = = =
 result from iteration #10 Rounded to nearest 10 vehicles

DESIGN YEAR	E LEG	leg 1	Leffel Lane	2.00%
Limestone and Leffel	N LEG	Leg 2	Limestone St	2.00%
P.M. peak hour	W LEG	Leg 3	Leffel Lane	2.00%
4:30 PM	S LEG	Leg 4	Limestone St	2.00%



INTERSECTION: Limestone and Leffel

A.M. peak hour 7:15 AM *enter start time of peak hour*

If AM is the design hour you can rename this sheet AM, other to PM and change the above 2 cells to reflect th

Road		ADT	B&C	existing "K"	existing D	existing T24	existing P.M. TD	CHOSEN PM K*	dhv factor*	link growth open	link growth design
Leffel Lane	E LEG	15637	0	0.074	0.714	0.000	0.000	0.10	1.250	1.009	1.009
Limestone Stre	N LEG	16856	0	0.059	0.519	0.000	0.000	0.10	1.250	1.158	1.158
Leffel Lane	W LEG	9833	0	0.062	0.511	0.000	0.000	0.09	1.250	1.109	1.109
Limestone Stre	S LEG	20569	0	0.074	0.670	0.000	0.000	0.11	1.250	1.209	1.209

DESIGN YEAR 2040

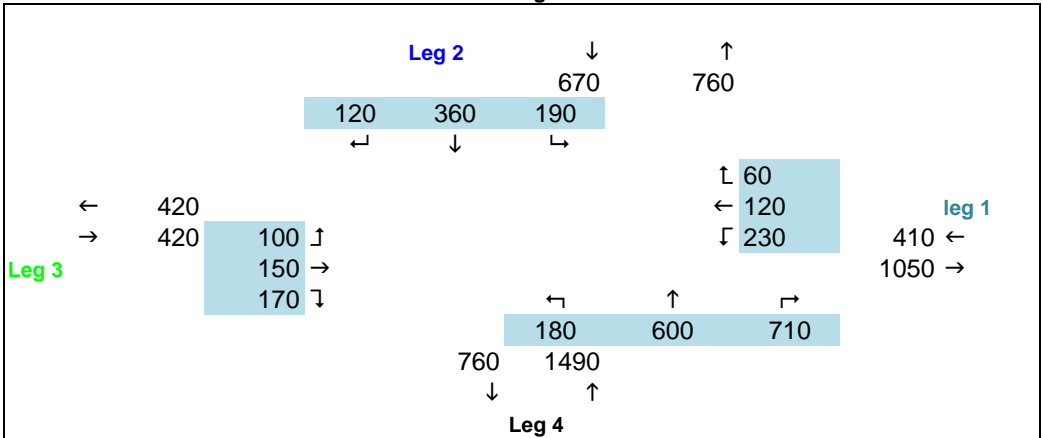
			e	n	w	s	u	d	
initial			1046	750	416	762	0	0	Djf outflows
			830	518	300	504	0	0	Djb
e	420	333	0	54	103	176	0	0	
n	696	481	170	0	85	226	0	0	
w	434	313	135	76	0	102	0	0	
s	1549	1025	525	388	112	0	0	0	
u	0	0	0	0	0	0	0	0	
d	0	0	0	0	0	0	0	0	

Oif Oib

fifth column iteration			1046	750	416	762	0	0
e	404		0	57	115	232	0	0
n	670		189	0	117	364	0	0
w	417		153	98	0	166	0	0
s	1485		705	596	184	0	0	0
u	0		0	0	0	0	0	0
d	ok	0	0	0	0	0	0	0

= = = = = = = = = =
 result from iteration #10 Rounded to nearest 10 vehicles

DESIGN YEAR	E LEG	leg 1	Leffel Lane	-4.00%
Limestone and Leffel	N LEG	Leg 2	Limestone St	-4.00%
A.M. peak hour	W LEG	Leg 3	Leffel Lane	-4.00%
7:15 AM	S LEG	Leg 4	Limestone St	-4.00%



INTERSECTION: **Limestone and John**

P.M. peak hour **4:30 PM** *enter start time of peak hour*

If AM is the design hour you can rename this sheet AM, other to PM and change the above 2 cells to reflect th

Road		ADT	B&C	existing "K"	existing D	existing T24	existing P.M. TD	CHOSEN PM K*	dhv factor*	link growth	
										open	design
John Street	E LEG	8583	0	0.083	0.563	0.000	0.000	0.104	1.25	1.035	1.035
Limestone Stre	N LEG	16102	0	0.084	0.501	0.000	0.000	0.105	1.25	1.093	1.093
John Street	W LEG	8143	0	0.079	0.522	0.000	0.000	0.099	1.25	1.068	1.068
Limestone Stre	S LEG	16852	0	0.085	0.520	0.000	0.000	0.106	1.25	1.162	1.162

DESIGN YEAR 2040

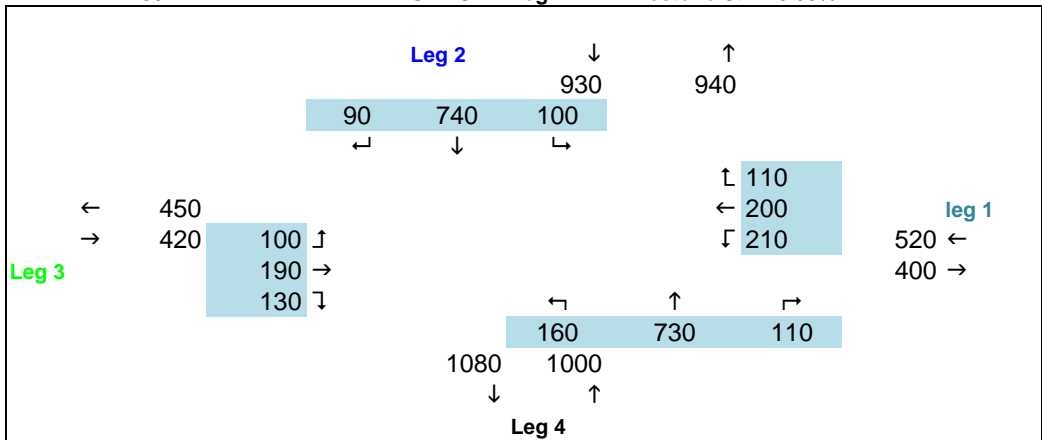
			e	n	w	s	u	d	
initial			403	929	449	1081	0	0	Djf
			311	680	336	744	0	0	Djb
e	518	400	0	92	161	147	0	0	
n	924	676	88	0	75	513	0	0	
w	411	308	145	79	0	84	0	0	
s	998	687	78	509	100	0	0	0	
u	0	0	0	0	0	0	0	0	
d	0	0	0	0	0	0	0	0	

outflows

Oif Oib

fifth column iteration			403	929	449	1081	0	0
e	519		0	106	200	213	0	0
n	931		102	0	92	737	0	0
w	413		186	96	0	131	0	0
s	997		114	727	156	0	0	0
u	0		0	0	0	0	0	0
d ok	0		0	0	0	0	0	0

=	=	=	=	=	=	=	=	=
result from iteration #10			Rounded to nearest 10 vehicles					
DESIGN YEAR	E LEG	leg 1	John Street	0.00%				
Limestone and John	N LEG	leg 2	Limestone St	1.00%				
P.M. peak hour	W LEG	leg 3	John Street	0.00%				
4:30 PM	S LEG	leg 4	Limestone St	0.00%				



INTERSECTION: Limestone and John

A.M. peak hour 7:30 AM *enter start time of peak hour*

If AM is the design hour you can rename this sheet AM, other to PM and change the above 2 cells to reflect th

Road		ADT	B&C	existing "K"	existing D	existing T24	existing P.M. TD	CHOSEN PM K*	dhv factor*	link growth open	link growth design
John Street	E LEG	8583	0	0.066	0.500	0.000	0.000	0.10	1.250	1.035	1.035
Limestone Stre	N LEG	16102	0	0.063	0.516	0.000	0.000	0.11	1.250	1.093	1.093
John Street	W LEG	8143	0	0.056	0.537	0.000	0.000	0.10	1.250	1.068	1.068
Limestone Stre	S LEG	16852	0	0.063	0.500	0.000	0.000	0.11	1.250	1.162	1.162

DESIGN YEAR 2040

			e	n	w	s	u	d	
initial			365	713	283	770	0	0	Djf
			282	522	212	530	0	0	Djb
e	365	282	0	54	119	109	0	0	
n	668	489	71	0	53	365	0	0	
w	328	246	125	65	0	56	0	0	
s	768	529	86	403	40	0	0	0	
u	0	0	0	0	0	0	0	0	
d	0	0	0	0	0	0	0	0	

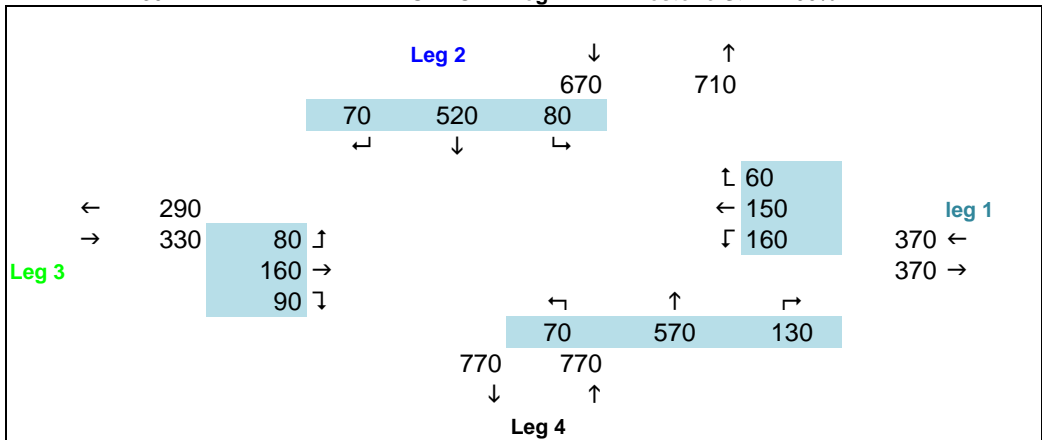
outflows

Oif Oib

fifth column iteration			365	713	283	770	0	0	
e	367		0	60	151	156	0	0	
n	672		82	0	66	524	0	0	
w	328		159	79	0	90	0	0	
s	764		125	574	65	0	0	0	
u	0		0	0	0	0	0	0	
d	ok		0	0	0	0	0	0	

= = = = = = = = = =
 result from iteration #10 Rounded to nearest 10 vehicles

DESIGN YEAR	E LEG	leg 1	John Street	1.00%
Limestone and John	N LEG	Leg 2	Limestone St	1.00%
A.M. peak hour	W LEG	Leg 3	John Street	0.00%
7:30 AM	S LEG	Leg 4	Limestone St	-1.00%



USER INPUT

OPTIONAL INPUT

FINAL REFINED FORECAST

Table with columns for Road/Link, in, Dia, Rise, S, count year, count data, Ab, Ab^interpolate, A-I-D, SLRATIO, RATIO, DIFF, MRATIO, RAF, Adjustment, Volume, count year, count data, delta, opening year, design yr, opening yr, design year. Rows include Grand Ave and Limestone Street for east, north, west, and south legs.

Total 33990 30290

There are hidden rows if you want more roads in your intersection/screenline

There are hidden columns for opening year model results if you have them

Form fields for Model Base (2012), Model Opening (opt), Model Forecast (2040), Project Opening (2040), Project Design (2040).

General Notes

- General rule: if MR<1 then if RATIO <= 1.0 then use RAT...
OR if RATIO >= 2 then use DIFF else use Raf...
if MR>1 then if RATIO <=0.5 then use MRATIO, OR...
if RATIO >=2 then use DIFF, else use Raf(based on MRATIO)
Which you can change if it makes sense...
Make sure model opening year (if used) is greater existing and less than forecast EXCEPT...

If you have a new link it will get a growth rate of 1.1. To get forecast turn movements for new links you must enter the model turns in section 2 of the turn movement sheets

A value of zero in a field usually means zero, leave fields blank if you want them ignored. If link doesn't exist in base, counts=Ab=blank. If link doesn't exist in build make zero, not blank in this case (AI-OB actually controls this)

There is no guarantee a forecast volume of zero will be respected as zero by the 255 adjustments

If you have an existing intersection link that wasn't in the mode enter its counts in the appropriate places here and on the TM sheets. You will need to over-ride columns 9-20 of this sheet with an exogenously supplied growth rate

If you have a new intersection on an existing road you can enter the main line counts/model volumes (Ab and AI-ON here and on the TM sheets (as Thru movements) and then the full set of volumes/turns for AI-OB and AI-C. You may want to disable screenlines in this case

Four Interpolation Cases

- 1. Have base count and open yr model run and interp. year= model open yr THUS interpolate btwn base count and adj open yr model run except for open yr= model open yr which uses case 2.
2. Have open yr model run and interp yr= open model yr (or interpolating any opening year) THUS interpolate btwn adj open yr and adj design yr model run
3. (standard) Have base count and NO open yr model run THUS interpolate btwn count and adj design yr model run
4. Have no base count THUS interpolate calculate growth from Unadj base and design yr model runs and apply growth rate to number of years different from model design

Screenline Options (see field 3.5 description)

- Enable
Disable
Force

Optional Capacity Adjuster
Use this for screenlines, not intersection approaches

Table with columns for Capacity, opening yr, design yr, opening yr, design yr, opening yr, design yr, growth factors. Rows show values for -1394, -15920, -1285, -16830 and growth factors 1.051, 1.030, 1.050, 1.053.

INTERSECTION: Limestone and Grand

P.M. peak hour 4:45 PM *enter start time of peak hour*

If AM is the design hour you can rename this sheet AM, other to PM and change the above 2 cells to reflect th

Road		ADT	B&C	"K"	D	T24	P.M. TD	CHOSEN PM K*	dhv factor*	link growth	
				existing	existing	existing	existing			open	design
Grand Ave	E LEG	1327	0	0.062	0.561	0.000	0.000	0.077	1.25	1.051	1.051
Limestone Stre	N LEG	15456	0	0.085	0.502	0.000	0.000	0.106	1.25	1.030	1.030
Grand Ave	W LEG	1224	0	0.074	0.549	0.000	0.000	0.093	1.25	1.050	1.050
Limestone Stre	S LEG	15983	0	0.084	0.501	0.000	0.000	0.105	1.25	1.053	1.053

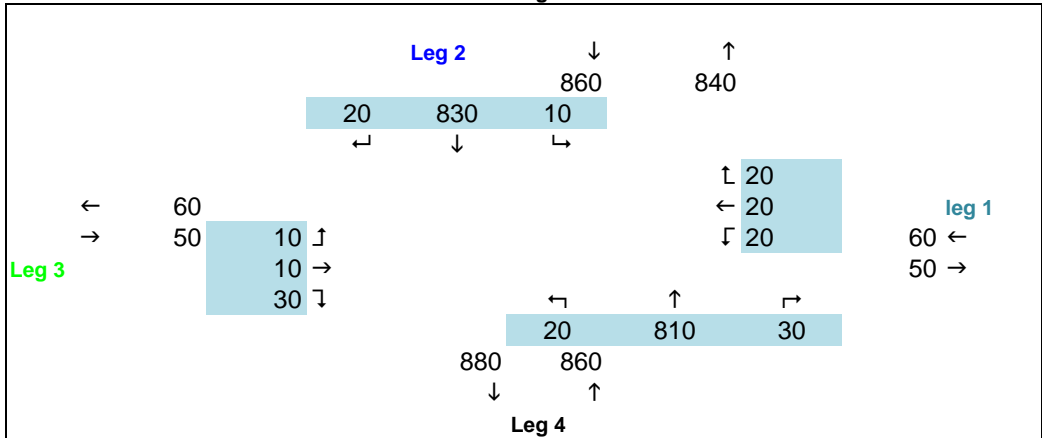
DESIGN YEAR 2040

			e	n	w	s	u	d	
initial			47	845	66	879	0	0	Djf
			36	656	50	668	0	0	Djb
e	60	46	0	16	16	14	0	0	
n	838	651	4	0	16	631	0	0	
w	54	41	10	8	0	23	0	0	
s	885	672	22	632	18	0	0	0	
u	0	0	0	0	0	0	0	0	
d	0	0	0	0	0	0	0	0	

outflows

		Oif	Oib						
fifth column iteration				47	845	66	879	0	0
e	60			0	21	21	18	0	0
n	855			5	0	21	829	0	0
w	55			13	10	0	32	0	0
s	868			30	814	24	0	0	0
u	0			0	0	0	0	0	0
d	ok			0	0	0	0	0	0

=	=	=	=	=	=	=	=	=	=
result from iteration #10		Rounded to nearest 10 vehicles							
DESIGN YEAR	E LEG	leg 1	Grand Ave	-1.00%					
Limestone and Grand	N LEG	leg 2	Limestone St	2.00%					
P.M. peak hour	W LEG	leg 3	Grand Ave	2.00%					
4:45 PM	S LEG	leg 4	Limestone St	-2.00%					



INTERSECTION: Limestone and Grand

A.M. peak hour 7:30 AM *enter start time of peak hour*

If AM is the design hour you can rename this sheet AM, other to PM and change the above 2 cells to reflect th

Road		ADT	B&C	existing "K"	existing D	existing T24	existing P.M. TD	CHOSEN PM K*	dhv factor*	link growth open	link growth design
Grand Ave	E LEG	1327	0	0.060	0.513	0.000	0.000	0.08	1.250	1.051	1.051
Limestone Stre	N LEG	15456	0	0.067	0.518	0.000	0.000	0.11	1.250	1.030	1.030
Grand Ave	W LEG	1224	0	0.050	0.574	0.000	0.000	0.09	1.250	1.050	1.050
Limestone Stre	S LEG	15983	0	0.067	0.512	0.000	0.000	0.10	1.250	1.053	1.053

DESIGN YEAR 2040

			e	n	w	s	u	d	
initial			51	691	34	692	0	0	Djf
			39	537	26	526	0	0	Djb
e	54	41	0	16	6	19	0	0	
n	644	500	3	0	6	491	0	0	
w	46	35	14	5	0	16	0	0	
s	727	552	22	516	14	0	0	0	
u	0	0	0	0	0	0	0	0	
d	0	0	0	0	0	0	0	0	

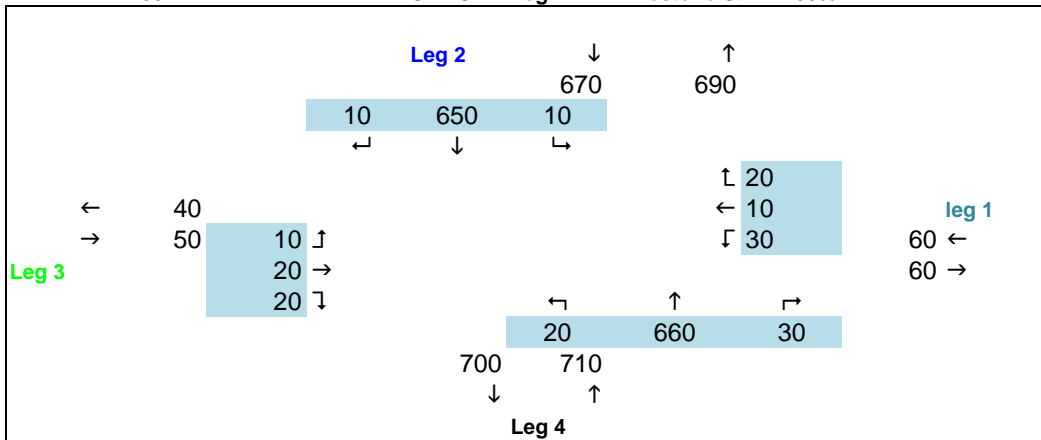
outflows

Oif Oib

fifth column iteration			51	691	34	692	0	0	
e	55		0	21	8	26	0	0	
n	657		4	0	8	645	0	0	
w	44		16	7	0	21	0	0	
s	713		31	664	18	0	0	0	
u	0		0	0	0	0	0	0	
d	ok		0	0	0	0	0	0	

= = = = = = = = = =
 result from iteration #10 Rounded to nearest 10 vehicles

DESIGN YEAR	E LEG	leg 1	Grand Ave	2.00%
Limestone and Grand	N LEG	Leg 2	Limestone St	2.00%
A.M. peak hour	W LEG	Leg 3	Grand Ave	-4.00%
7:30 AM	S LEG	Leg 4	Limestone St	-2.00%



USER INPUT

OPTIONAL INPUT

FINAL REFINED FORECAST

										NCHRP255 adjustment process										Interpolate opening & design year & adjust for more recent count									
COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL	COL
1	2	3	4	5	6	7	8	8.5	9	10	10.5	11	12	13	14	15	16	17	18	19	20	2012	2040	2040	2040	2040	2040	2040	2040
										near base model										Selected									
										near base model										Selected									
Road/Link	in	Dix	Rse	S	count year	count data	Ab	Ab ^{interpolate}	Af-D	SLRATIO	RATIO	DIFF	MRATIO	RAF	Adjustment	Volume	count year	count data	delta	opening year	design yr	opening yr	design year	opening yr	design year	opening yr	design year	opening yr	design year
(east leg)																				0	11238	11238	1.000	1.000					
																				0	17559	17559	1.000	1.000					
(north leg)																				0	17559	17559	1.000	1.000					
(west leg)																				0	11015	11015	1.149	1.149					
(south leg)																				0	14630	14630	1.024	1.024					
Total							52670		46968																				

There are hidden rows if you want more roads in your intersection/screenline

There are hidden columns for opening year model results if you have them

Year	2012
Model Base	2012
Model Opening (opt)	
Model Forecast	2040
Project Opening	2040
Project Design	2040

General Notes

Field Definitions

General rule: if MR<1 then if RATIO <= 1.0 then use RAT. OR if RATIO >= 2 then use DIFF else use Raf, if MR>1 then if RATIO <=0.5 then use MRATIO, OR if RATIO >=2 then use DIFF, else use Raf/based on MRATIO

Which you can change if it makes sense, make both of columns 2-3 very large to force ratios, make them 0 to force differences

Make sure model opening year (if used) is greater existing and less than forecast EXCEPT...

If you want to use a base year build run to establish trends, set AI-ON=Ab set model open year=base year=count year Place build run in AI-OB Do not use cols 14-15 in this case

If you have a non-model forecast you want to enter to interpolate and calculate growth rate, put it in column 8 (Af) then copy column 5 to column 6 and set model base to count year (Type toggle does this for you on TM sheet)

Design year no build is a separate alternative create a new sheet for i

You can omit open year model, have just an open year no build or both no build and build, but don't have a build without a no build unless it's a new link.

If you have a new link it will get a growth rate of 1.1 To get forecast turn movements for new links you must enter the model turns in section 2 of the turn movement sheets

A value of zero in a field usually means zero, leave fields blank if you want them ignored. If link doesn't exist in base, counts=Ab=blank. If link doesn't exist in build make zero, not blank in this case (AI-OB actually controls this)

There is no guarantee a forecast volume of zero will be respected as zero by the 255 adjustments

If you have an existing intersection link that wasn't in the mode enter its counts in the appropriate places here and on the TM sheets. You will need to over-ride columns 9-20 of this sheet with an exogenously supplied growth rate

If you have a new intersection on an existing road you can enter the main line counts/model volumes (Ab and AI-ON here and on the TM sheets (as Thru movements) and then the full set of volumes/turns for AI-OB and AI-C You may want to disable screenlines in this case

Four Interpolation Cases

1. Have base count and open yr model run and interp year= model open yr THUS interpolate btwn base count and adj open yr model run except for open yr= model open yr which uses case 2.
2. Have open yr model run and interp yr= open model yr (or interpolating any opening year) THUS interpolate btwn adj open yr and adj design yr model run
3. (standard) Have base count and NO open yr model run THUS interpolate btwn count and adj design yr model run
4. Have no base count THUS interpolate calculate growth from Unadj base and design yr model runs and apply growth rate to number of years different from model design

Screenline Options (see field 3.5 description)

Enable
Disable
Force

Optional Capacity Adjuster

Use this for screenlines, not intersection approaches

Capacity	delta		revised volume		growth factors	
	opening yr	design yr	opening yr	design yr	opening yr	design yr
	-11238	-11238	11238	11238	1.000	1.000
	-17559	-17559	17559	17559	1.000	1.000
	-11015	-11015	11015	11015	1.149	1.149
	-14630	-14630	14630	14630	1.024	1.024
0	0	0	0	0	-54442	-54442

INTERSECTION: Limestone and Selma/Spring

P.M. peak hour 4:30 PM *enter start time of peak hour*

If AM is the design hour you can rename this sheet AM, other to PM and change the above 2 cells to reflect th

Road		ADT	B&C	existing "K"	existing D	existing T24	existing P.M. TD	CHOSEN PM K*	dhv factor*	link growth open	link growth design
Selma Road	E LEG	11238	0	0.078	0.515	0.000	0.000	0.098	1.25	1.000	1.000
Spring Street	N LEG	17559	0	0.088	0.514	0.000	0.000	0.110	1.25	1.000	1.000
Limestone Stre	W LEG	9589	0	0.085	0.508	0.000	0.000	0.106	1.25	1.149	1.149
Limestone Stre	S LEG	14284	0	0.090	0.511	0.000	0.000	0.112	1.25	1.024	1.024

DESIGN YEAR 2040

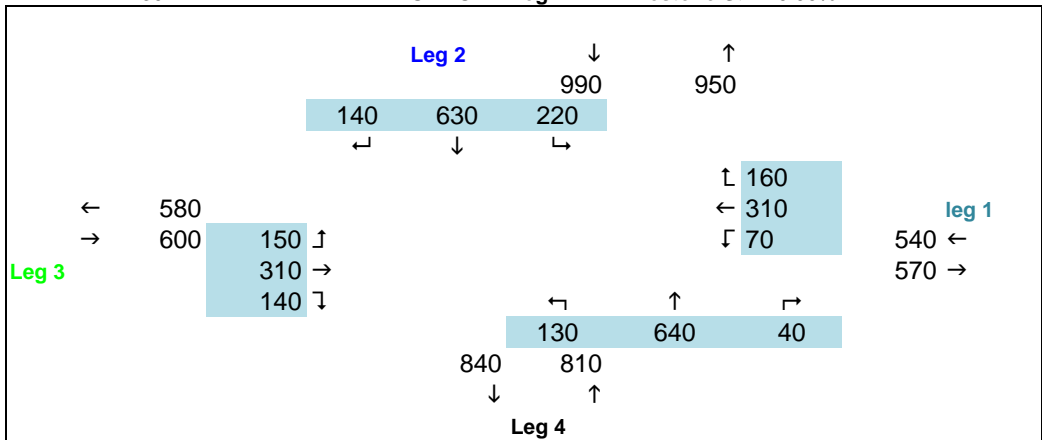
			e	n	w	s	u	d	
initial			566	943	576	841	0	0	Djf
			453	754	401	657	0	0	Djb
	e	534	427	0	142	222	63	0	0
	n	995	796	193	0	97	506	0	0
	w	594	414	225	101	0	88	0	0
	s	804	628	35	511	82	0	0	0
	u	0	0	0	0	0	0	0	0
	d	0	0	0	0	0	0	0	0

outflows

Oif Oib

fifth column iteration			566	943	576	841	0	0	
	e	535		0	157	305	73	0	0
	n	993		216	0	143	634	0	0
	w	594		309	150	0	135	0	0
	s	804		42	635	127	0	0	0
	u	0		0	0	0	0	0	0
	d	0		0	0	0	0	0	0

=	=	=	=	=	=	=	=	=	=
result from iteration #10			Rounded to nearest 10 vehicles						
DESIGN YEAR	E LEG	leg 1	Selma Road	0.00%					
Limestone and Selma/Spring	N LEG	leg 2	Spring Street	0.00%					
P.M. peak hour	W LEG	leg 3	Limestone St	0.00%					
4:30 PM	S LEG	leg 4	Limestone St	0.00%					



INTERSECTION: Limestone and Selma/Spring

A.M. peak hour 7:30 AM *enter start time of peak hour*

If AM is the design hour you can rename this sheet AM, other to PM and change the above 2 cells to reflect th

Road		ADT	B&C	existing "K"	existing D	existing T24	existing P.M. TD	CHOSEN PM K*	dhv factor*	link growth open	link growth design
Selma Road	E LEG	11238	0	0.070	0.520	0.000	0.000	0.10	1.250	1.000	1.000
Spring Street	N LEG	17559	0	0.076	0.509	0.000	0.000	0.11	1.250	1.000	1.000
Limestone Stre	W LEG	9589	0	0.067	0.541	0.000	0.000	0.11	1.250	1.149	1.149
Limestone Stre	S LEG	14284	0	0.075	0.501	0.000	0.000	0.11	1.250	1.024	1.024

DESIGN YEAR 2040

			e	n	w	s	u	d	
initial			473	824	498	685	0	0	Djf
			378	659	347	535	0	0	Djb
e	513	410	0	166	197	47	0	0	
n	854	683	162	0	76	445	0	0	
w	422	294	177	74	0	43	0	0	
s	681	532	39	419	74	0	0	0	
u	0	0	0	0	0	0	0	0	
d	0	0	0	0	0	0	0	0	

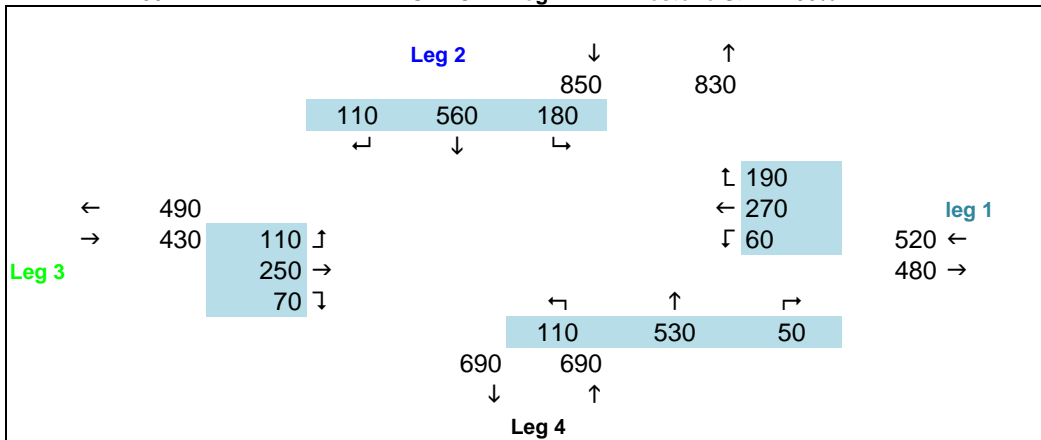
outflows

Oif Oib

fifth column iteration			473	824	498	685	0	0	
e	515		0	188	271	56	0	0	
n	857		181	0	114	562	0	0	
w	423		245	111	0	67	0	0	
s	685		46	525	114	0	0	0	
u	0		0	0	0	0	0	0	
d	0	ok	0	0	0	0	0	0	

= = = = = = = = = =
 result from iteration #10 Rounded to nearest 10 vehicles

DESIGN YEAR	E LEG	leg 1	Selma Road	0.00%
Limestone and Selma/Spring	N LEG	Leg 2	Spring Street	0.00%
A.M. peak hour	W LEG	Leg 3	Limestone St	0.00%
7:30 AM	S LEG	Leg 4	Limestone St	1.00%



INTERSECTION: Limestone and Pleasant

P.M. peak hour 4:45 PM *enter start time of peak hour*

If AM is the design hour you can rename this sheet AM, other to PM and change the above 2 cells to reflect th

Road	ADT	B&C	"K"	D	T24	P.M. TD	CHOSEN PM K*	dhv factor*	link growth open	design
0.000 E LEG	0	0	1.000	#DIV/0!	#DIV/0!	#DIV/0!	1.250	1.25	1.000	1.000
Limestone Stre N LEG	2751	0	0.082	0.553	0.000	0.000	0.103	1.25	1.662	1.662
Pleasant Street W LEG	9803	0	0.065	0.529	0.000	0.000	0.081	1.25	1.000	1.000
Limestone Stre S LEG	7484	0	0.109	0.508	0.000	0.000	0.136	1.25	1.169	1.169

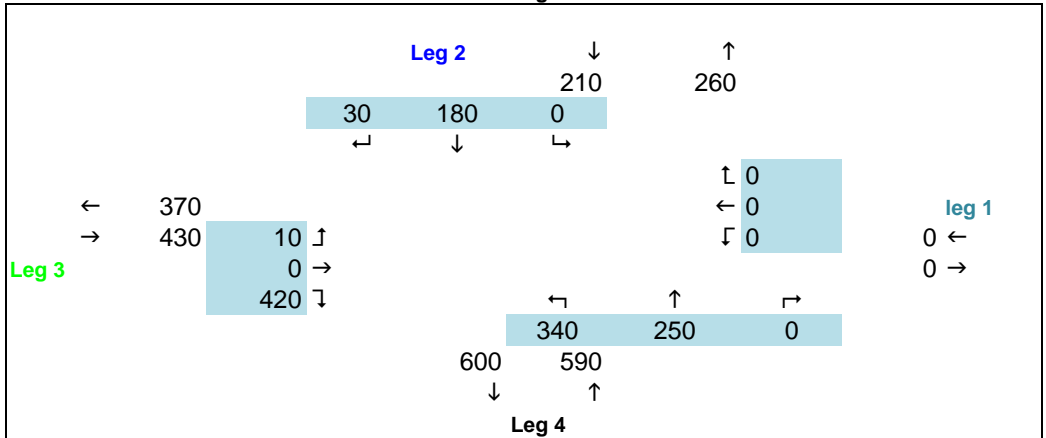
DESIGN YEAR 2040

			e	n	w	s	u	d	
initial			0	260	375	605	0	0	Djf outflows
			0	125	300	414	0	0	Djb
e	0	0	0	0	0	0	0	0	
n	210	101	0	0	19	82	0	0	
w	421	337	0	5	0	332	0	0	
s	586	401	0	120	281	0	0	0	
u	0	0	0	0	0	0	0	0	
d	0	0	0	0	0	0	0	0	

Oif Oib

fifth column iteration			0	260	375	605	0	0	
e	0		0	0	0	0	0	0	
n	214		0	0	32	182	0	0	
w	431		0	9	0	422	0	0	
s	594		0	251	343	0	0	0	
u	0		0	0	0	0	0	0	
d ok	0		0	0	0	0	0	0	

=	=	=	=	=	=	=	=	=	=
result from iteration #10		Rounded to nearest 10 vehicles							
DESIGN YEAR	E LEG	leg 1	0	0.00%					
Limestone and Pleasant	N LEG	Leg 2	Limestone St	2.00%					
P.M. peak hour	W LEG	Leg 3	Pleasant Stre	2.00%					
4:45 PM	S LEG	Leg 4	Limestone St	1.00%					



INTERSECTION: **Limestone and Pleasant**

A.M. peak hour **7:30 AM** *enter start time of peak hour*

If AM is the design hour you can rename this sheet AM, other to PM and change the above 2 cells to reflect th

Road	ADT	B&C	existing "K"	existing D	existing T24	existing P.M. TD	CHOSEN PM K*	dhv factor*	link growth open	link growth design
0.000 E LEG	0	0	1.000	#DIV/0!	#DIV/0!	#DIV/0!	1.25	1.250	1.000	1.000
Limestone Stre N LEG	2751	0	0.068	0.677	0.000	0.000	0.10	1.250	1.662	1.662
Pleasant Street W LEG	9803	0	0.048	0.514	0.000	0.000	0.08	1.250	1.000	1.000
Limestone Stre S LEG	7484	0	0.086	0.541	0.000	0.000	0.14	1.250	1.169	1.169

DESIGN YEAR 2040

			e	n	w	s	u	d	
initial			0	260	290	430	0	0	Djf outflows
			0	126	229	294	0	0	Djb
e	0	0	0	0	0	0	0	0	
n	130	60	0	0	3	57	0	0	
w	300	242	0	5	0	237	0	0	
s	490	347	0	121	226	0	0	0	
u	0	0	0	0	0	0	0	0	
d	0	0	0	0	0	0	0	0	

Oif Oib

fifth column iteration			0	260	290	430	0	0	
e	0	0	0	0	0	0	0	0	
n	137	0	0	0	10	127	0	0	
w	315	0	12	0	0	303	0	0	
s	528	0	248	280	0	0	0	0	
u	0	0	0	0	0	0	0	0	
d	ok	0	0	0	0	0	0	0	

= = = = = = = = = =
 result from iteration #10 Rounded to nearest 10 vehicles

DESIGN YEAR	E LEG	leg 1	0	0.00%
Limestone and Pleasant	N LEG	Leg 2	Limestone St	5.00%
A.M. peak hour	W LEG	Leg 3	Pleasant Stre	5.00%
7:30 AM	S LEG	Leg 4	Limestone St	8.00%

