

JACOBS®



A9 / A96 Connections Study
Appraisal Summary Workshop

07 August 2013

Westlands Hotel, Pitlochry

Agenda

- 1. Welcome & Introductions (10:30)**
- 2. Relevant Background (10:50)**
 - Connections Study Rationale
 - Workshop Objectives
 - Summary of Problems
 - Project Objectives Set
 - Q & A
- 3. Session 1 – Options Assessment (11:00)**
- 4. Lunch (13:00)**



Agenda (continued)

- 5. Session 2 – Option Combinations (13:30)**
- 6. Coffee (14:30)**
- 7. Workshop Summary (14:45)**
- 8. Next Steps (15:00)**
- 9. Close (15:15)**

Housekeeping

- **Fire Alarm/Exits**
- **Toilet Facilities**

Workshop Objectives

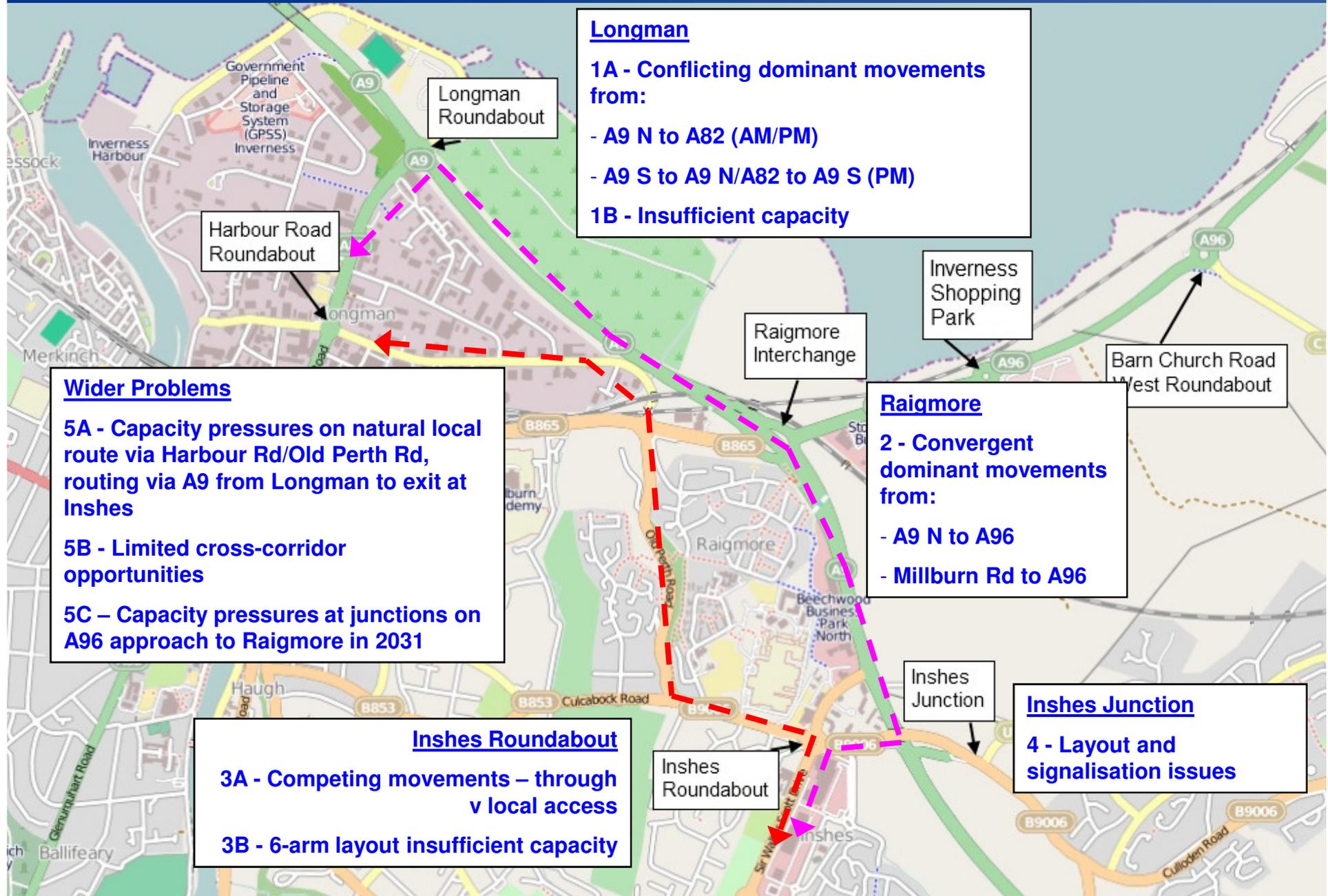
- To review the results of the initial appraisal of options generated a previous meetings
- To agree which options to take forward to detailed appraisal
- To identify and agree combination of options for detailed appraisal

Why are we here?

- STPR Recommendation 18 A96 Inverness to Nairn
- DMRB Stage 2 – East Link as a trunk road
- Public Consultation February 2012
- Re appraising of options

Where next?

- Liaison with UHI Campus
- Further Public Consultation as part of A96 Exhibitions in Autumn
- Need for continued good working on interface between strategic and local road networks
- Need for confidentiality and sensitivity with information



Longman

1A - Conflicting dominant movements from:

- A9 N to A82 (AM/PM)
- A9 S to A9 N/A82 to A9 S (PM)

1B - Insufficient capacity

Wider Problems

5A - Capacity pressures on natural local route via Harbour Rd/Old Perth Rd, routing via A9 from Longman to exit at Inshes

5B - Limited cross-corridor opportunities

5C - Capacity pressures at junctions on A96 approach to Raigmore in 2031

Raigmore

2 - Convergent dominant movements from:

- A9 N to A96
- Millburn Rd to A96

Inshes Roundabout

3A - Competing movements – through v local access

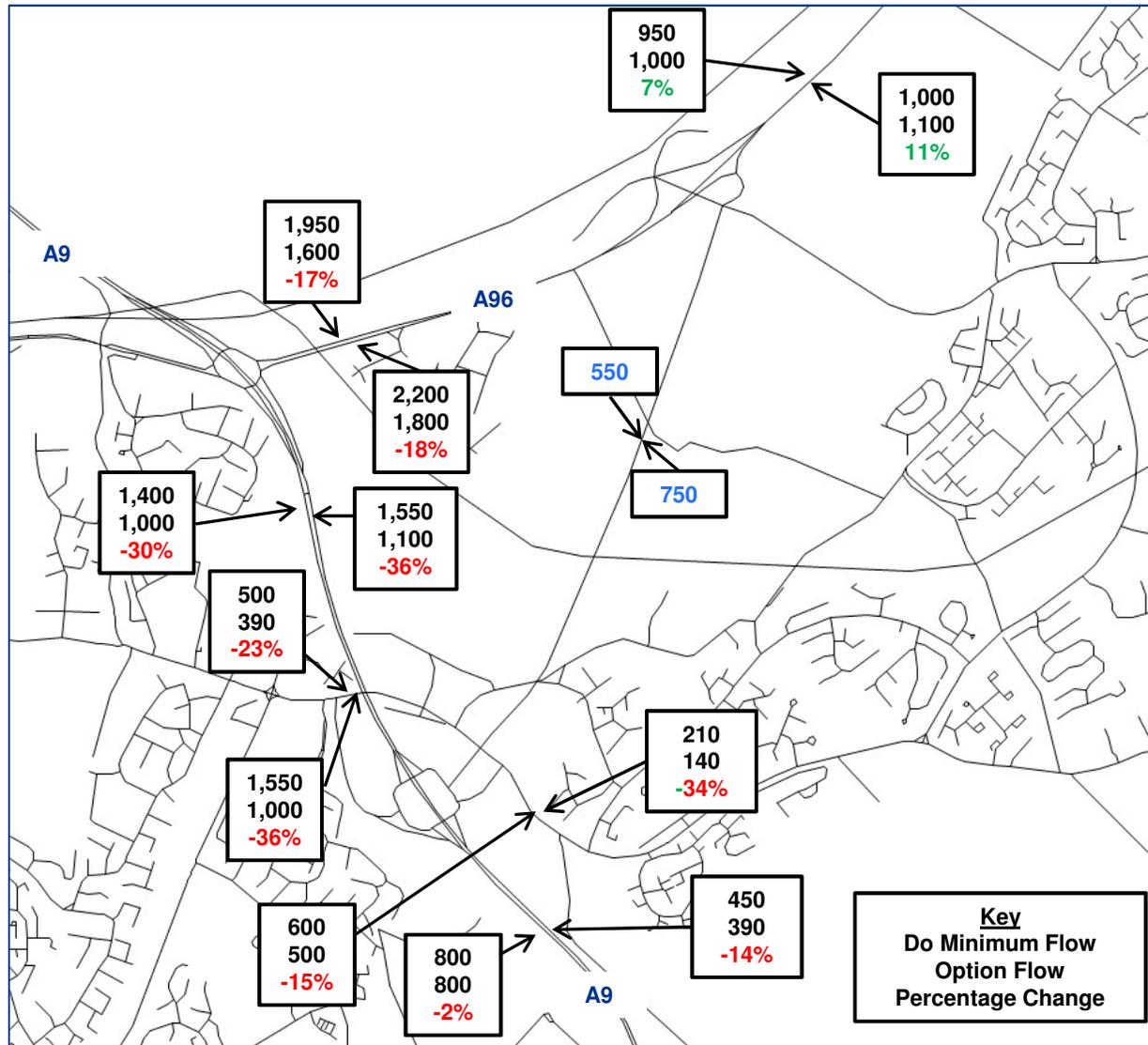
3B - 6-arm layout insufficient capacity

Inshes Junction

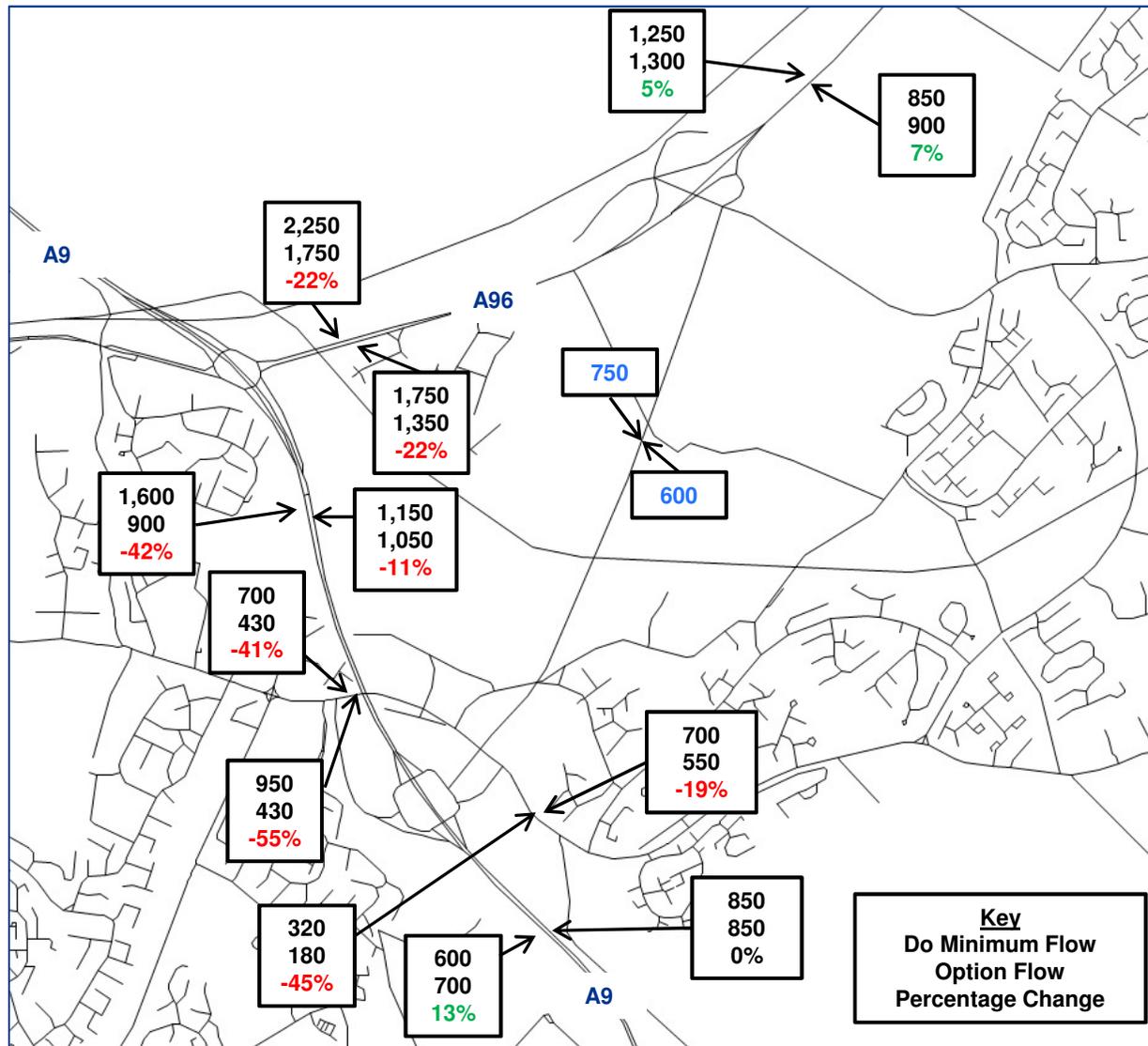
4 - Layout and signalisation issues

Local Objectives	Problems	1A: Dominant movements delayed by conflicting traffic streams at Longman Roundabout	1B: Insufficient capacity at Longman Roundabout	2A: Convergent dominant movements from A9(N) to A96 and Milburn Road to A96 at Raigmore Interchange	2B: Cluster of slight injury accidents at the Trunk Road junctions	3A: Competing movements: through traffic versus local access at Inshes Roundabout	3B: Six-arm layout: insufficient capacity at Inshes Roundabout	4: Layout and signalisation issues at Inshes junction	5A: Capacity pressures on natural local route via Harbour Road / Old Perth Road, routing via A9 from Longman to exit at Inshes	5B: Limited cross-corridor opportunities (effectively limited to B865/A96 or B9006)	5C: Capacity pressures forecast at junctions on A96 approach to Raigmore Interchange in 2031.
L1: Improve journey time and increase opportunities to travel, particularly by public transport, between Aberdeen and Inverness.											
L2.1: Improve the effectiveness of the road network hierarchy in addressing the conflict between longer distance and local traffic through rationalisation of local movements' use of Trunk Road junctions											
L2.2: Reduce conflicts for longer distance and local traffic for planned development areas to the east.											
L3: Improve connectivity, particularly by public transport and active travel, between Inverness city centre and the growth area to the east including Inverness Airport											
L4: Improve safety for motorised and non-motorised users by reducing the accident rate at Trunk Road junctions											
L5.1: Improve the operational performance of the Trunk road network and junctions on the A9, from the Kessock Bridge to south of Inshes and on the A96 from Smithton Roundabout to Raigmore Interchange											
L5.2: Improve the operational performance of the local road network and junctions where this will improve the operation of the Trunk Road network.											

East Link - AM Peak Flow Differences



PM Peak Flow Differences



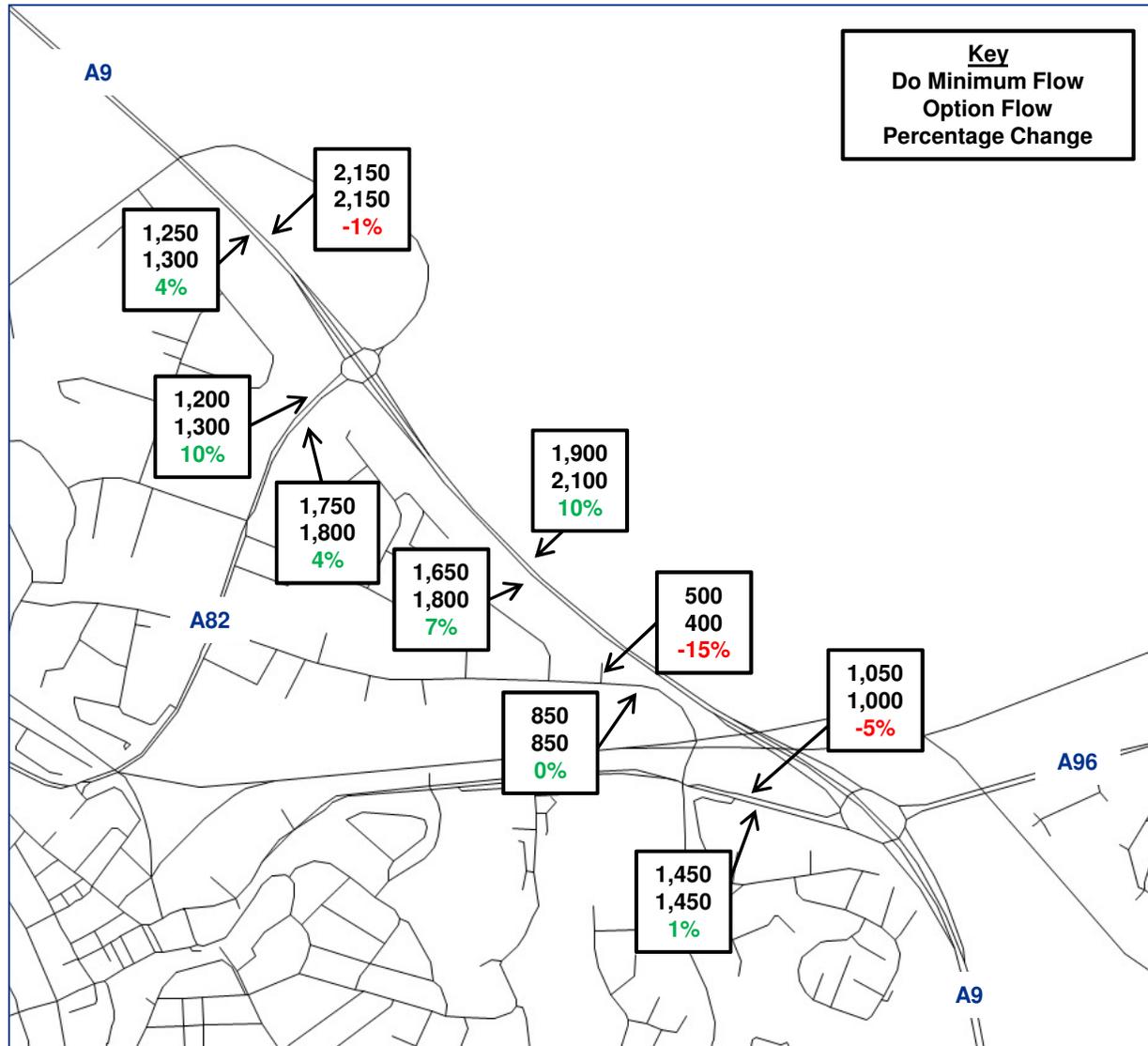
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		East Link		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
A96 East of Smithton	Culloden Road east of B9177	591	327	206	190	-385	-137	-65%	-42%
A96 East of Smithton	A9 South of Milton of Leys	604	343	327	316	-277	-28	-46%	-8%
A96 East of Smithton	Sir Walter Scott Drive South of Stevenson Road	982	667	442	436	-541	-231	-55%	-35%
Barn Church Road	Culloden Road east of B9177	641	365	266	217	-375	-148	-58%	-40%
Barn Church Road	A9 South of Milton of Leys	653	381	387	344	-267	-38	-41%	-10%
Barn Church Road	Sir Walter Scott Drive South of Stevenson Road	1032	705	502	464	-530	-241	-51%	-34%
Culloden Road east of B9177	A96 East of Smithton	516	526	238	238	-277	-288	-54%	-55%
Culloden Road east of B9177	Barn Church Road	551	574	405	414	-147	-160	-27%	-28%
A9 South of Milton of Leys	A96 East of Smithton	190	190	189	190	0	0	0%	0%
A9 South of Milton of Leys	Barn Church Road	322	316	319	319	-4	3	-1%	1%
Sir Walter Scott Drive South of Stevenson Road	A96 East of Smithton	454	522	401	461	-53	-62	-12%	-12%
Sir Walter Scott Drive South of Stevenson Road	Barn Church Road	490	570	419	492	-71	-78	-14%	-14%
Sir Walter Scott Drive South of Stevenson Road	Culloden Road east of B9177	298	310	285	312	-13	2	-4%	1%
Sir Walter Scott Drive South of Stevenson Road	A9 South of Milton of Leys	412	444	449	490	37	47	9%	10%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	214	149	-282	-25	-57%	-15%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	162	187	-19	-6	-10%	-3%

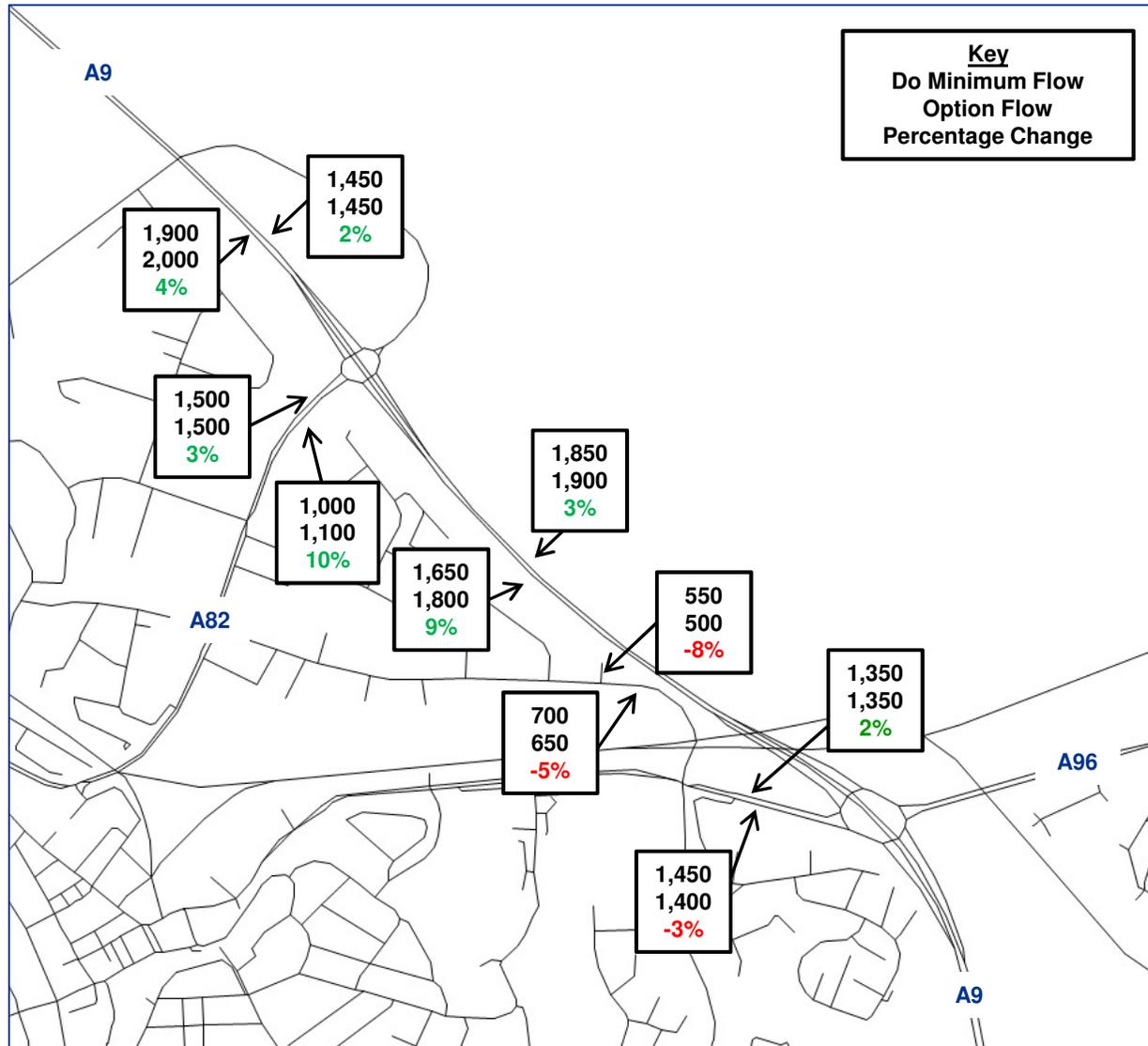
Longman Option 1



AM Peak Flow Differences



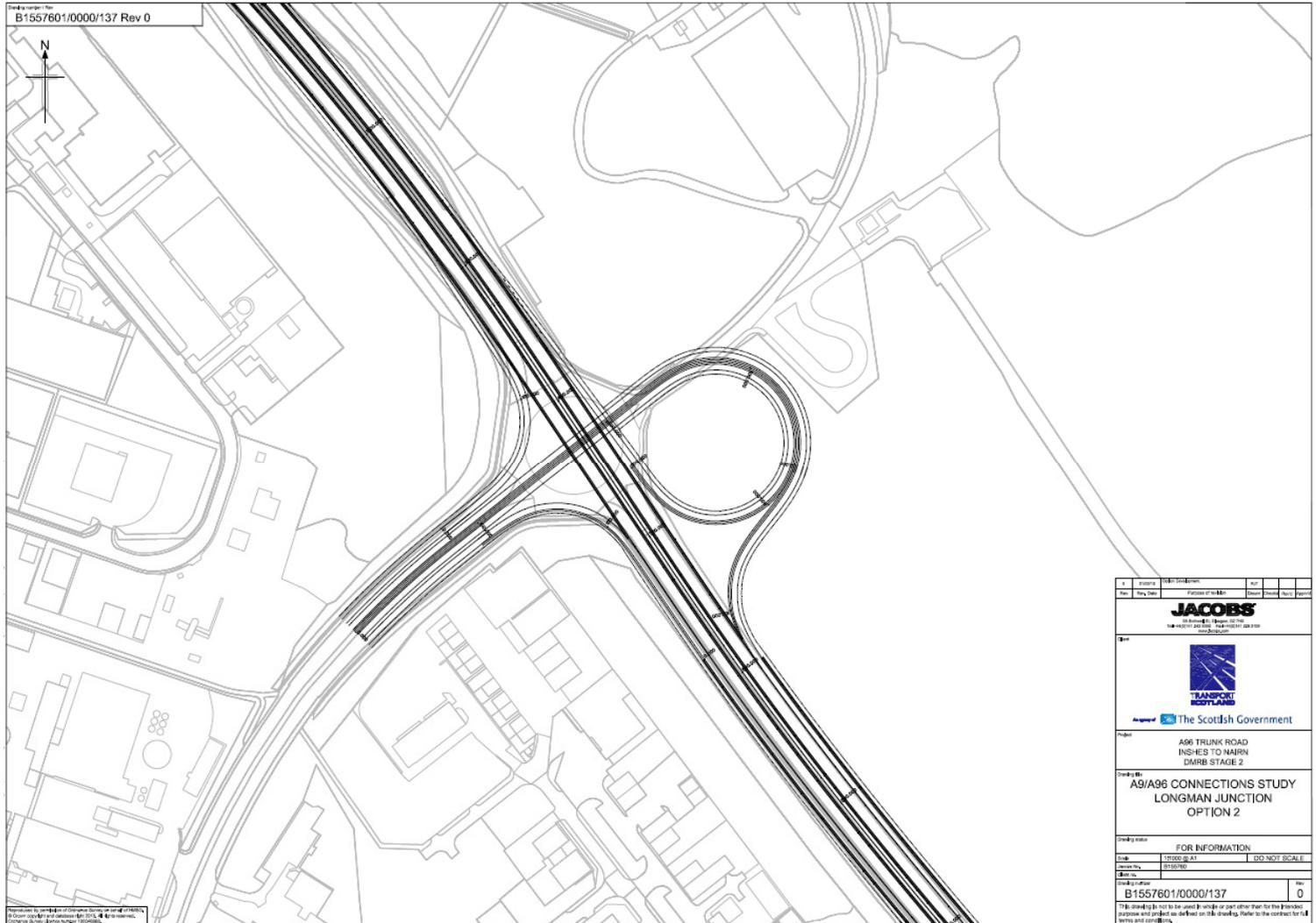
PM Peak Flow Differences



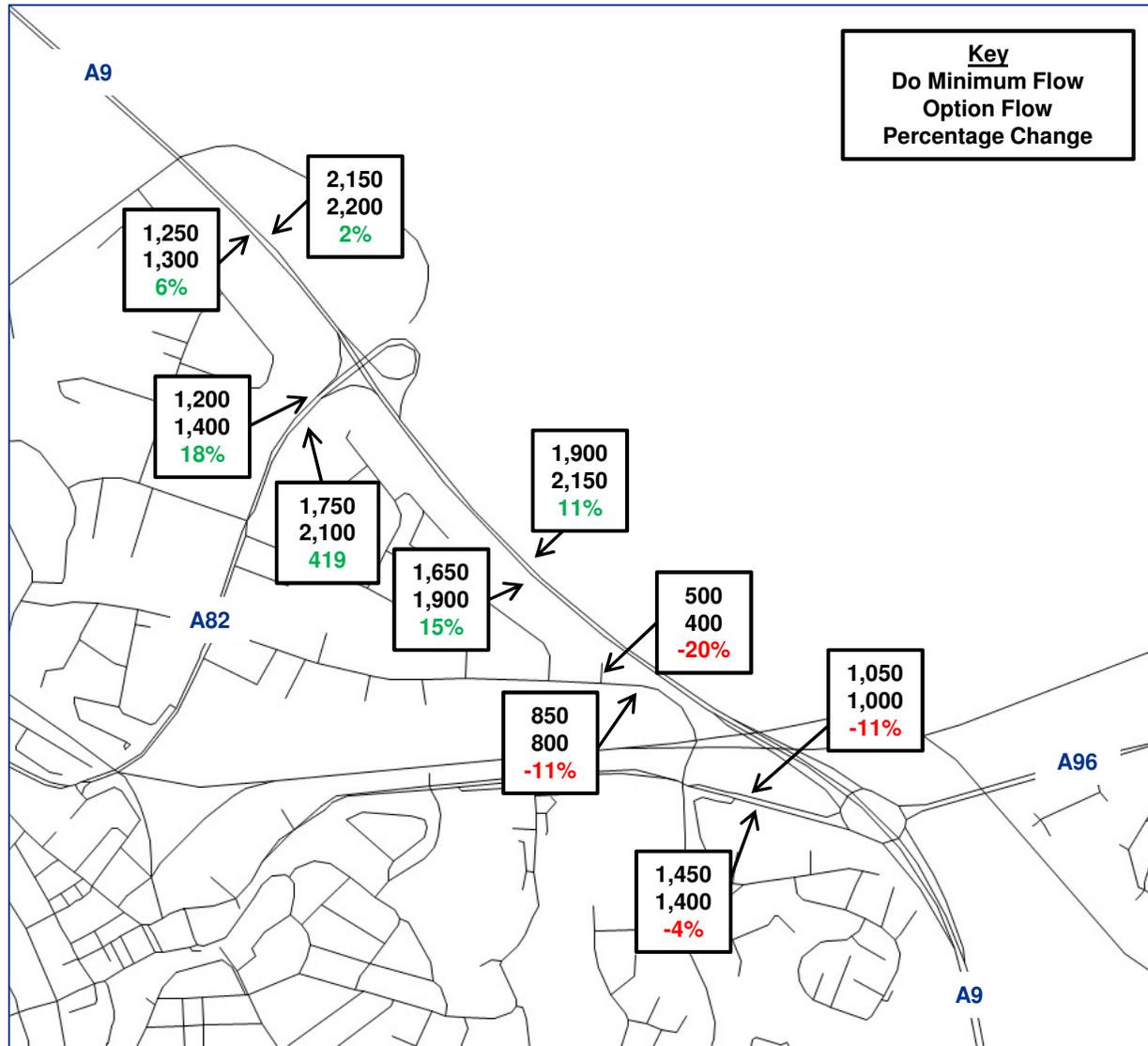
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Longman Option 1		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
Kessock Bridge	Stadium Road	203	182	357	177	154	-5	76%	-3%
Kessock Bridge	A9 South of Milton of Leys	425	399	376	368	-49	-32	-12%	-8%
Kessock Bridge	Harbour Road Roundabout (A82)	230	193	359	171	129	-22	56%	-11%
Stadium Road	Kessock Bridge	314	376	198	199	-116	-176	-37%	-47%
Stadium Road	A9 South of Milton of Leys	393	398	408	403	15	6	4%	1%
Stadium Road	Harbour Road Roundabout (A82)	224	268	197	185	-27	-83	-12%	-31%
A9 South of Milton of Leys	Kessock Bridge	628	493	361	367	-266	-125	-42%	-25%
A9 South of Milton of Leys	Stadium Road	694	535	444	415	-250	-119	-36%	-22%
A9 South of Milton of Leys	Harbour Road Roundabout (A82)	519	459	403	374	-116	-85	-22%	-18%
Harbour Road Roundabout (A82)	Kessock Bridge	155	172	163	175	8	3	5%	1%
Harbour Road Roundabout (A82)	Stadium Road	230	214	204	202	-26	-12	-11%	-6%
Harbour Road Roundabout (A82)	A9 South of Milton of Leys	444	431	417	414	-27	-18	-6%	-4%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	503	173	7	-1	2%	0%
A96 East of Smithton	Harbour Road Roundabout (A82)	891	462	706	385	-186	-77	-21%	-17%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	174	195	-7	2	-4%	1%
Harbour Road Roundabout (A82)	A96 East of Smithton	369	381	346	374	-23	-6	-6%	-2%

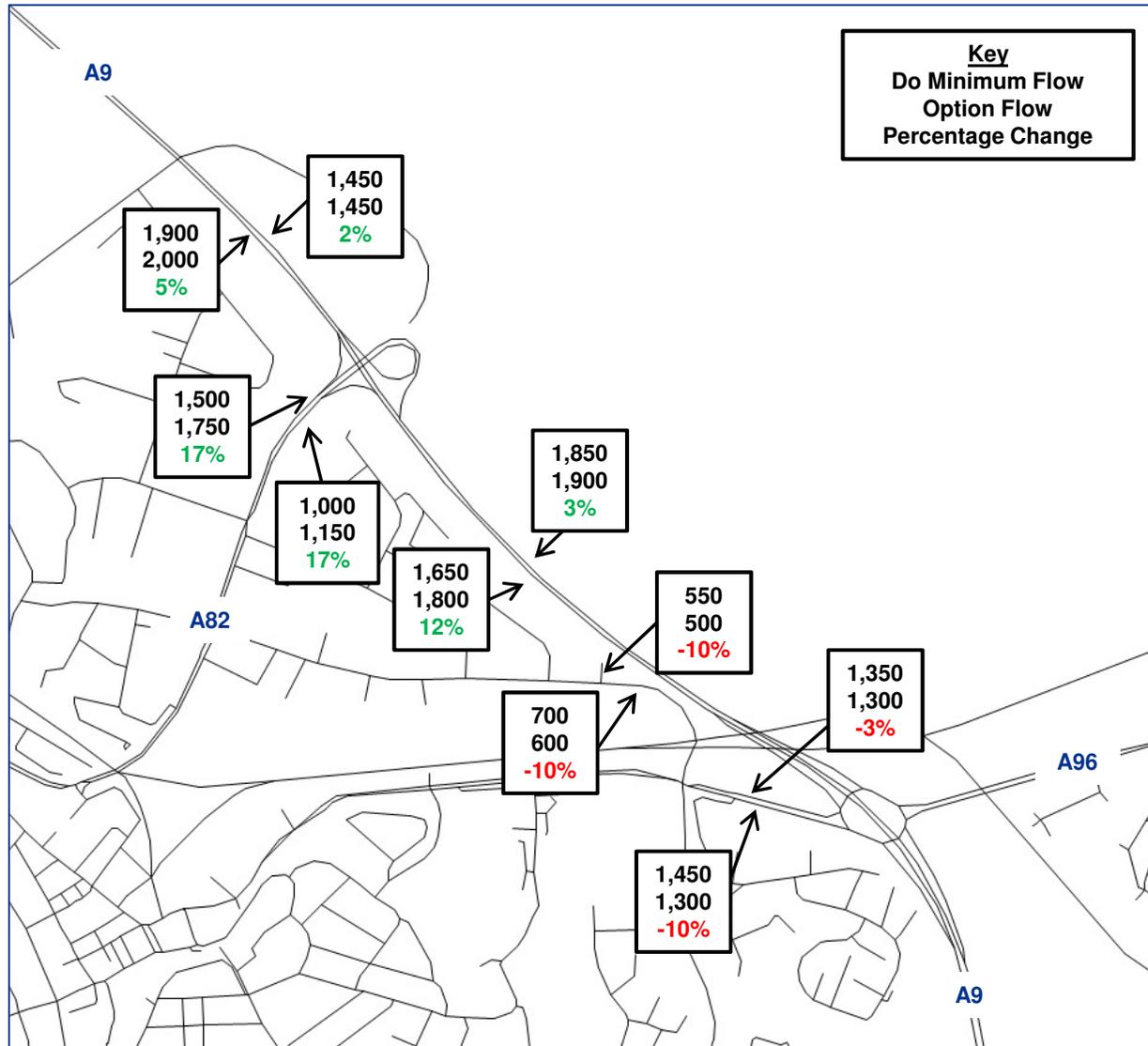
Longman Option 2



AM Peak Flow Differences



PM Peak Flow Differences



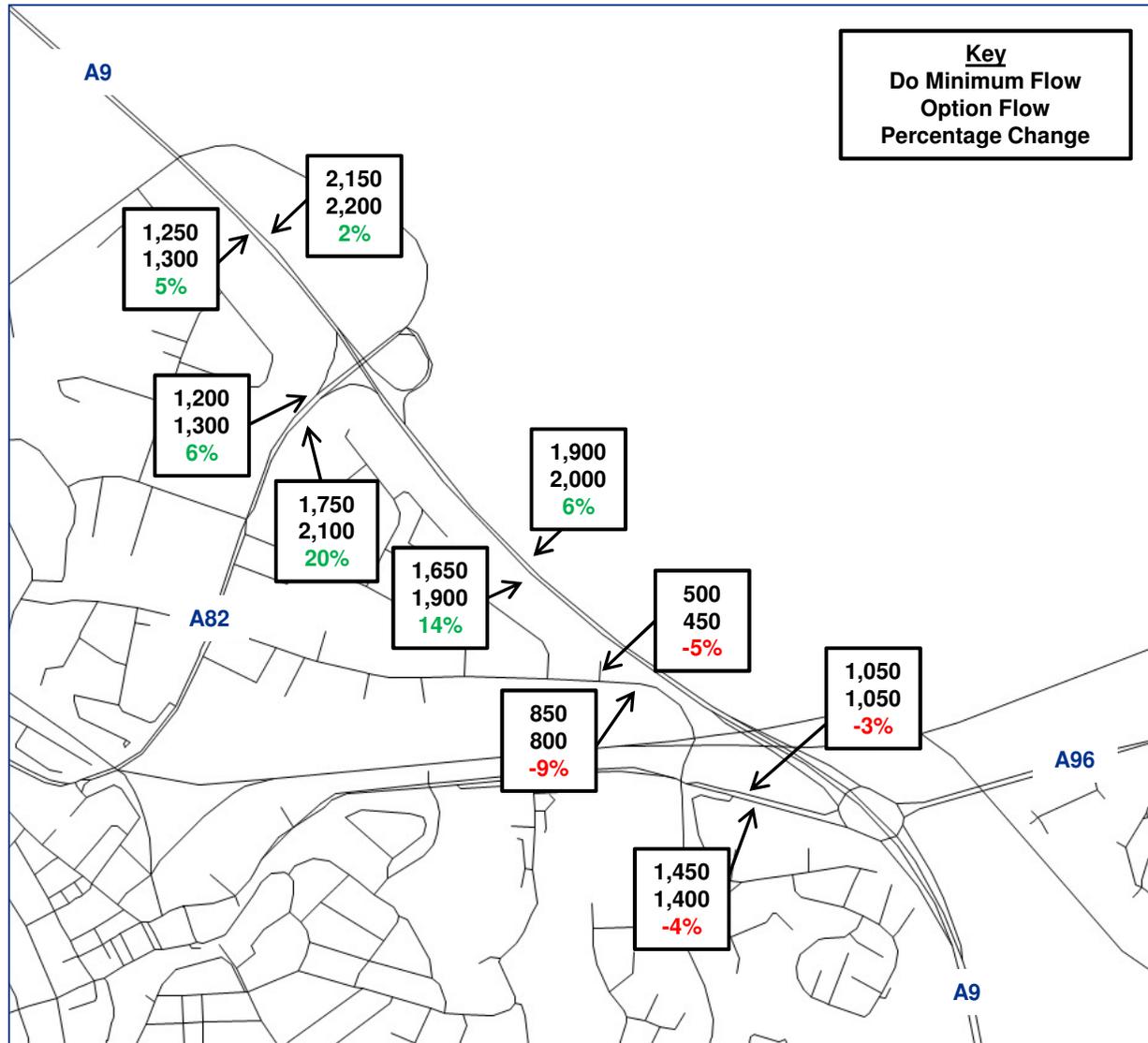
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Longman Option 2		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
Kessock Bridge	Stadium Road	203	182	392	341	189	159	93%	88%
Kessock Bridge	A9 South of Milton of Leys	425	399	371	361	-54	-39	-13%	-10%
Kessock Bridge	Harbour Road Roundabout (A82)	230	193	194	161	-36	-32	-16%	-17%
Stadium Road	Kessock Bridge	314	376	378	476	64	100	21%	27%
Stadium Road	A9 South of Milton of Leys	393	398	623	711	30	313	59%	79%
Stadium Road	Harbour Road Roundabout (A82)	224	268	304	389	80	121	36%	45%
A9 South of Milton of Leys	Kessock Bridge	628	493	356	361	-272	-132	-43%	-27%
A9 South of Milton of Leys	Stadium Road	694	535	569	537	-125	-3	-18%	0.55%
A9 South of Milton of Leys	Harbour Road Roundabout (A82)	519	459	371	357	-148	-102	-28%	-22%
Harbour Road Roundabout (A82)	Kessock Bridge	155	172	148	156	-7	-16	-4%	-10%
Harbour Road Roundabout (A82)	Stadium Road	230	214	198	173	-31	-41	-14%	-19%
Harbour Road Roundabout (A82)	A9 South of Milton of Leys	444	431	394	391	-50	-41	-11%	-9%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	511	173	15	1	3%	0%
A96 East of Smithton	Harbour Road Roundabout (A82)	891	462	690	448	-202	-14	-23%	-3%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	171	189	-9	-5	-5%	-2%
Harbour Road Roundabout (A82)	A96 East of Smithton	369	381	341	357	-27	-24	-7%	-6%

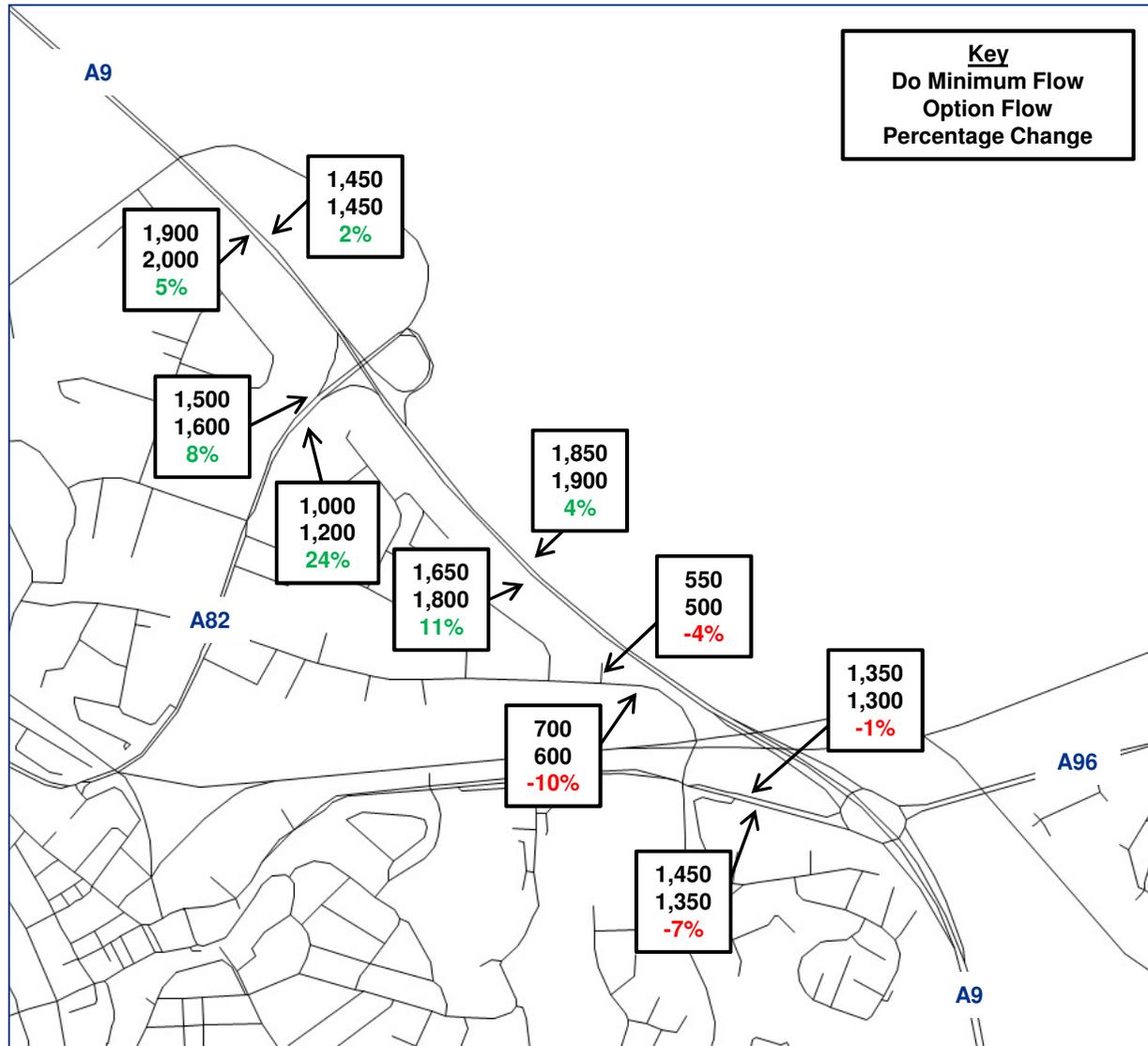
Longman Option 3



AM Peak Flow Differences



PM Peak Flow Differences



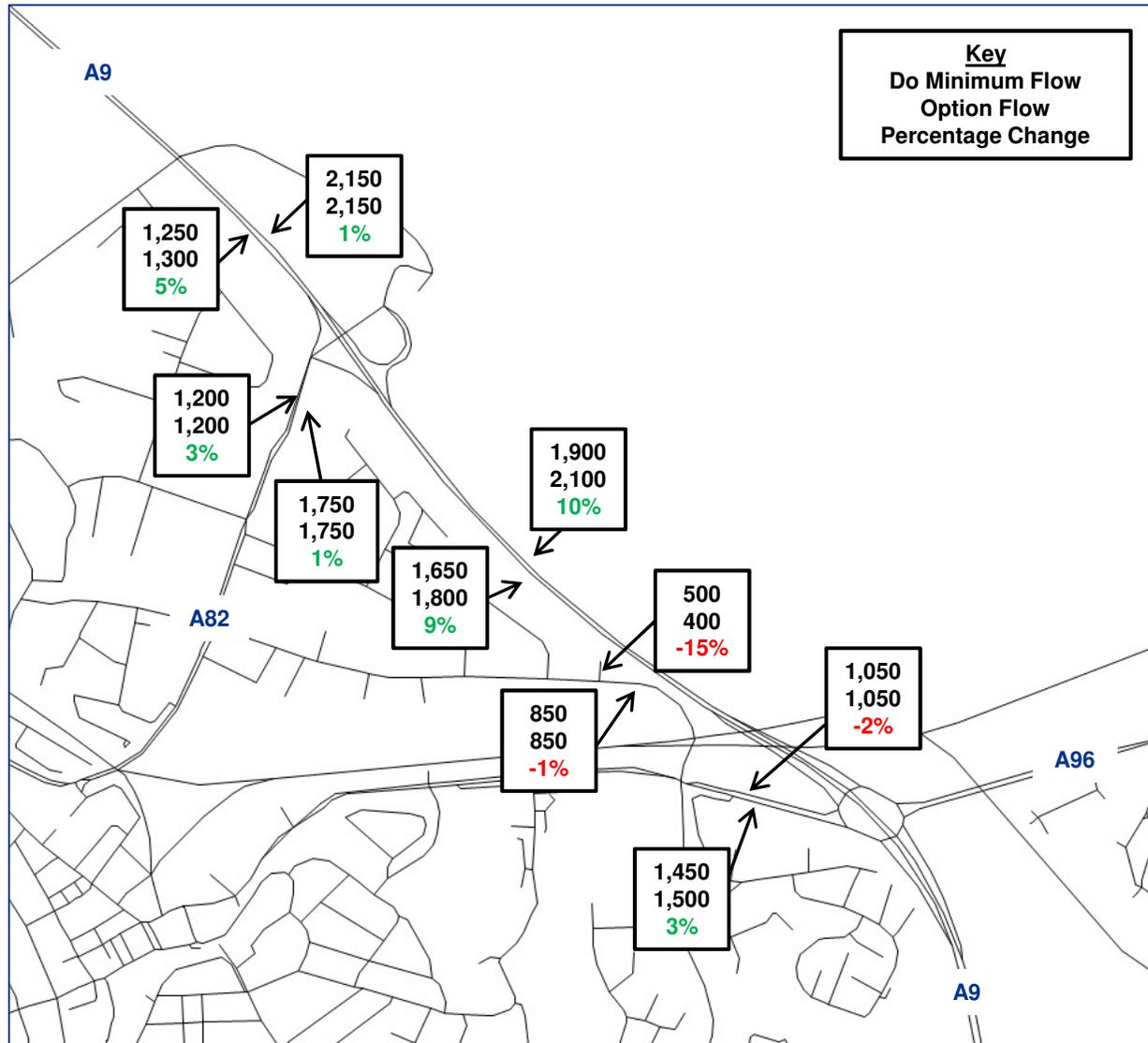
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Longman Option 3		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
Kessock Bridge	Stadium Road	203	182	199	182	-4	0	-2%	0%
Kessock Bridge	A9 South of Milton of Leys	425	399	370	361	-55	-38	-13%	-10%
Kessock Bridge	Harbour Road Roundabout (A82)	230	193	193	163	-37	-30	-16%	-16%
Stadium Road	Kessock Bridge	314	376	290	346	-23	-30	-7%	-8%
Stadium Road	A9 South of Milton of Leys	393	398	372	374	-21	-24	-5%	-6%
Stadium Road	Harbour Road Roundabout (A82)	224	268	221	264	-4	-4	-2%	-2%
A9 South of Milton of Leys	Kessock Bridge	628	493	364	369	-264	-123	-42%	-25%
A9 South of Milton of Leys	Stadium Road	694	535	568	516	-127	-18	-18%	-3%
A9 South of Milton of Leys	Harbour Road Roundabout (A82)	519	459	371	358	-148	-100	-28%	-22%
Harbour Road Roundabout (A82)	Kessock Bridge	155	172	142	149	-13	-23	-9%	-13%
Harbour Road Roundabout (A82)	Stadium Road	230	214	194	188	-36	-26	-15%	-12%
Harbour Road Roundabout (A82)	A9 South of Milton of Leys	444	431	429	409	-15	-23	-3%	-5%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	511	173	15	-1	3%	-1%
A96 East of Smithton	Harbour Road Roundabout (A82)	891	462	690	457	-201	-5	-23%	-1%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	176	192	-4	-1	-2%	-1%
Harbour Road Roundabout (A82)	A96 East of Smithton	369	381	348	369	-21	-12	-6%	-3%

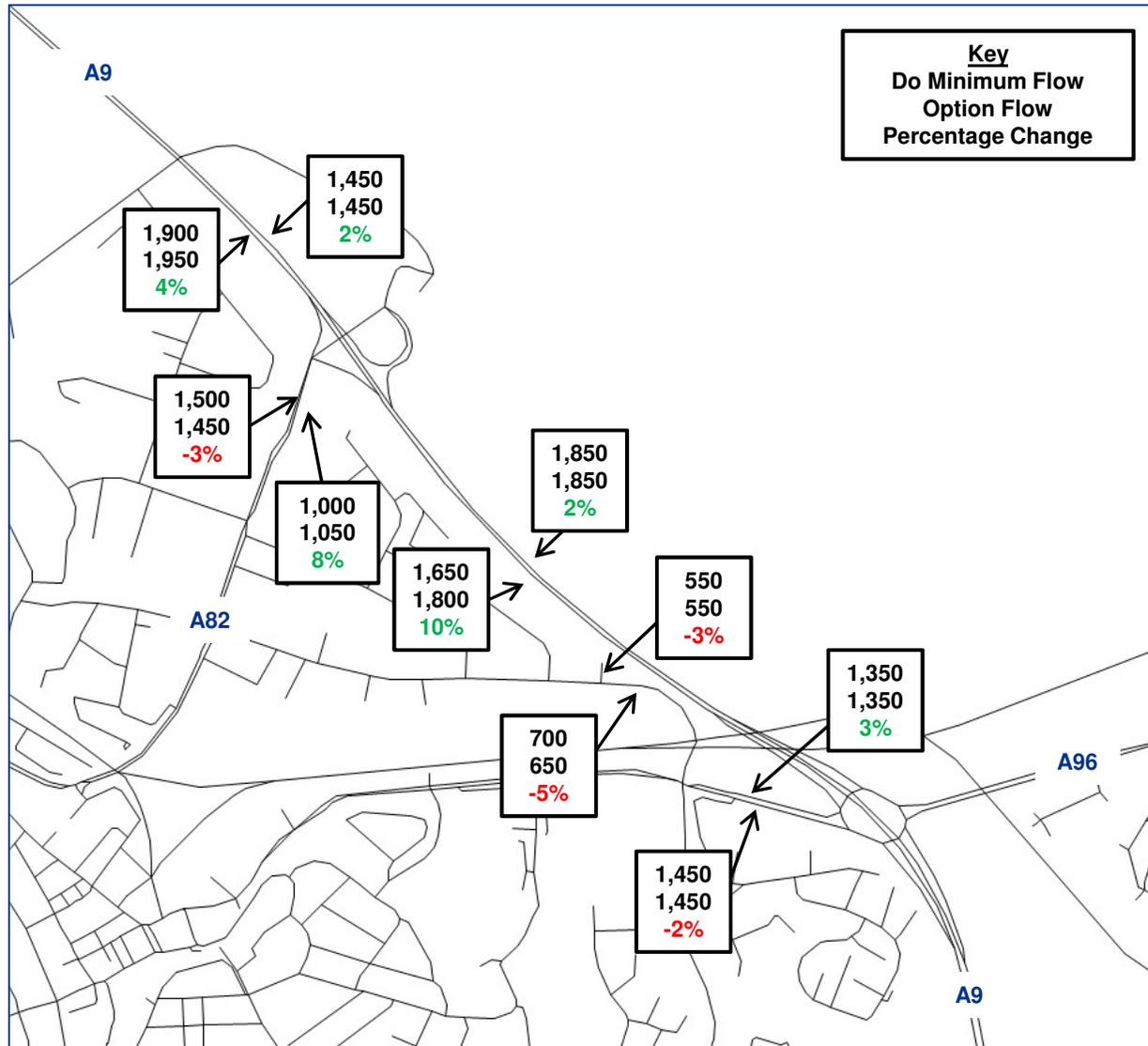
Longman Option 4



AM Peak Flow Differences



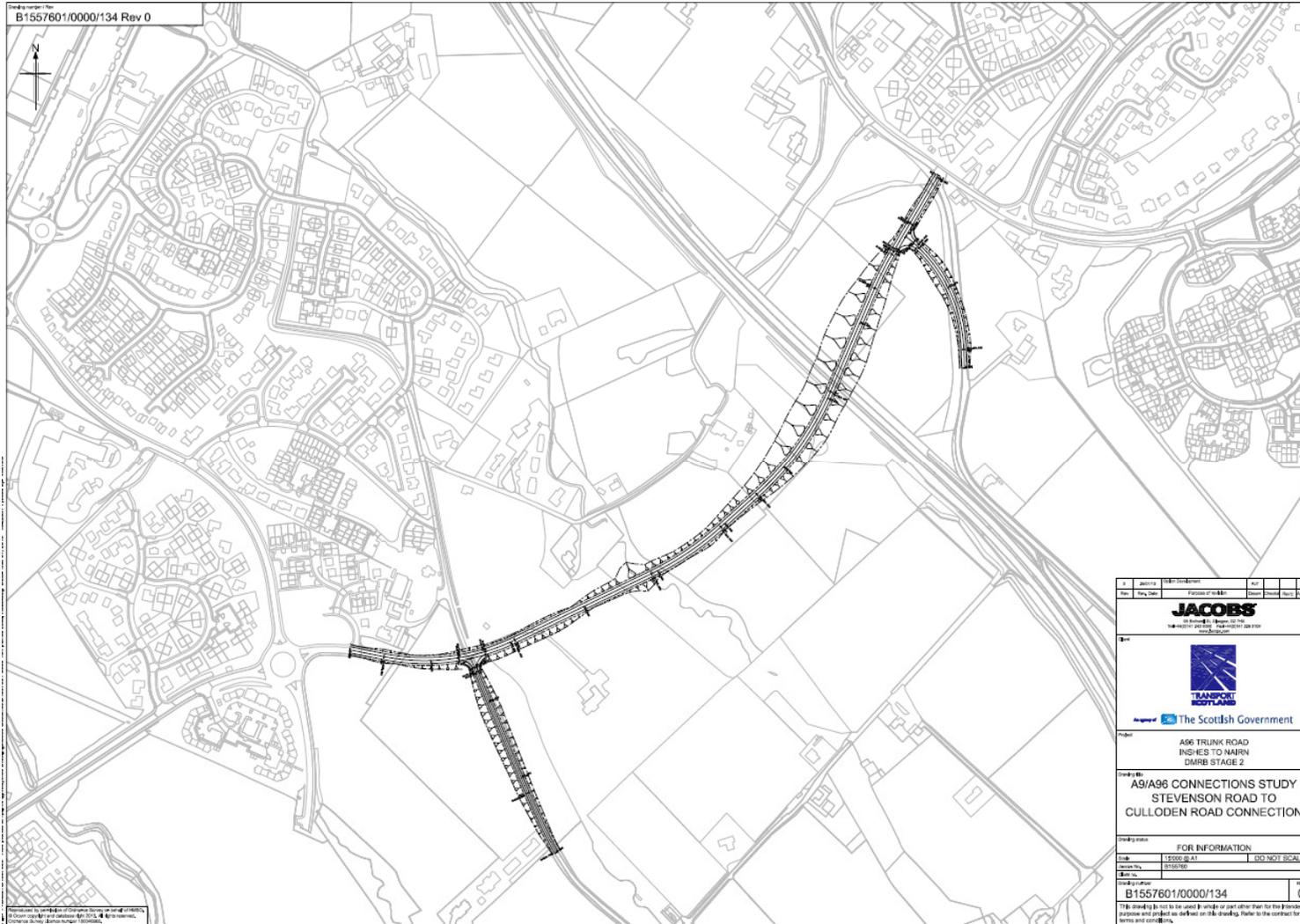
PM Peak Flow Differences



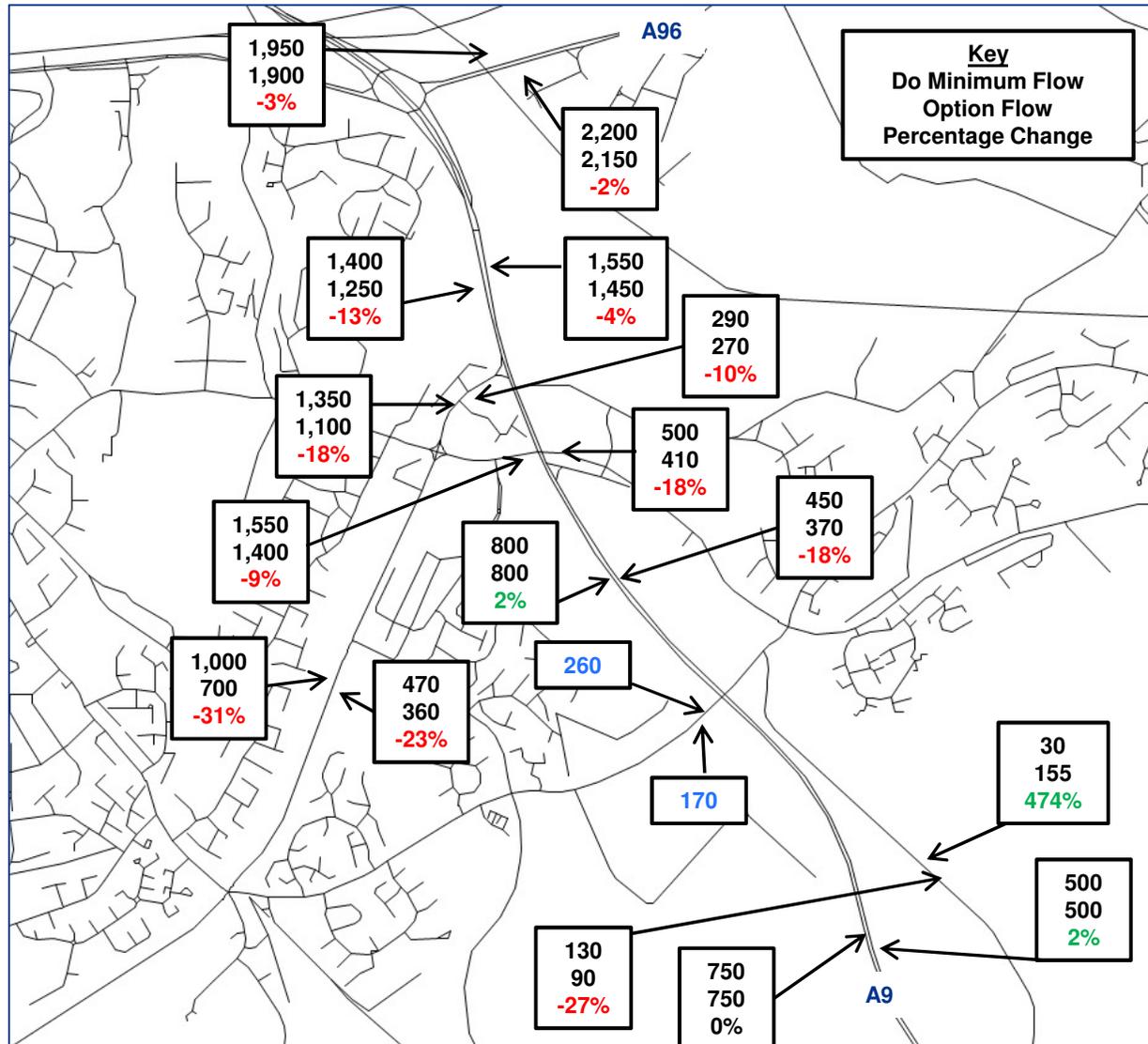
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Longman Option 4		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
Kessock Bridge	Stadium Road	203	182	253	193	50	11	24%	6%
Kessock Bridge	A9 South of Milton of Leys	425	399	369	360	-56	-40	-13%	-10%
Kessock Bridge	Harbour Road Roundabout (A82)	230	193	265	186	35	-7	15%	-4%
Stadium Road	Kessock Bridge	314	376	181	183	-133	-192	-42%	-51%
Stadium Road	A9 South of Milton of Leys	393	398	395	393	2	-5	0%	-1%
Stadium Road	Harbour Road Roundabout (A82)	224	268	195	253	-29	-15	-13%	-5%
A9 South of Milton of Leys	Kessock Bridge	628	493	360	367	-268	-126	-43%	-26%
A9 South of Milton of Leys	Stadium Road	694	535	423	411	-271	-123	-39%	-23%
A9 South of Milton of Leys	Harbour Road Roundabout (A82)	519	459	397	371	-122	-87	-23%	-19%
Harbour Road Roundabout (A82)	Kessock Bridge	155	172	161	189	6	17	4%	10%
Harbour Road Roundabout (A82)	Stadium Road	230	214	202	220	-28	6	-12%	3%
Harbour Road Roundabout (A82)	A9 South of Milton of Leys	444	431	413	431	-30	0	-7%	0%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	511	175	15	0	3%	0%
A96 East of Smithton	Harbour Road Roundabout (A82)	891	462	708	385	-183	-76	-21%	-16%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	178	198	-2	5	-1%	3%
Harbour Road Roundabout (A82)	A96 East of Smithton	369	381	361	398	-8	17	-2%	4%

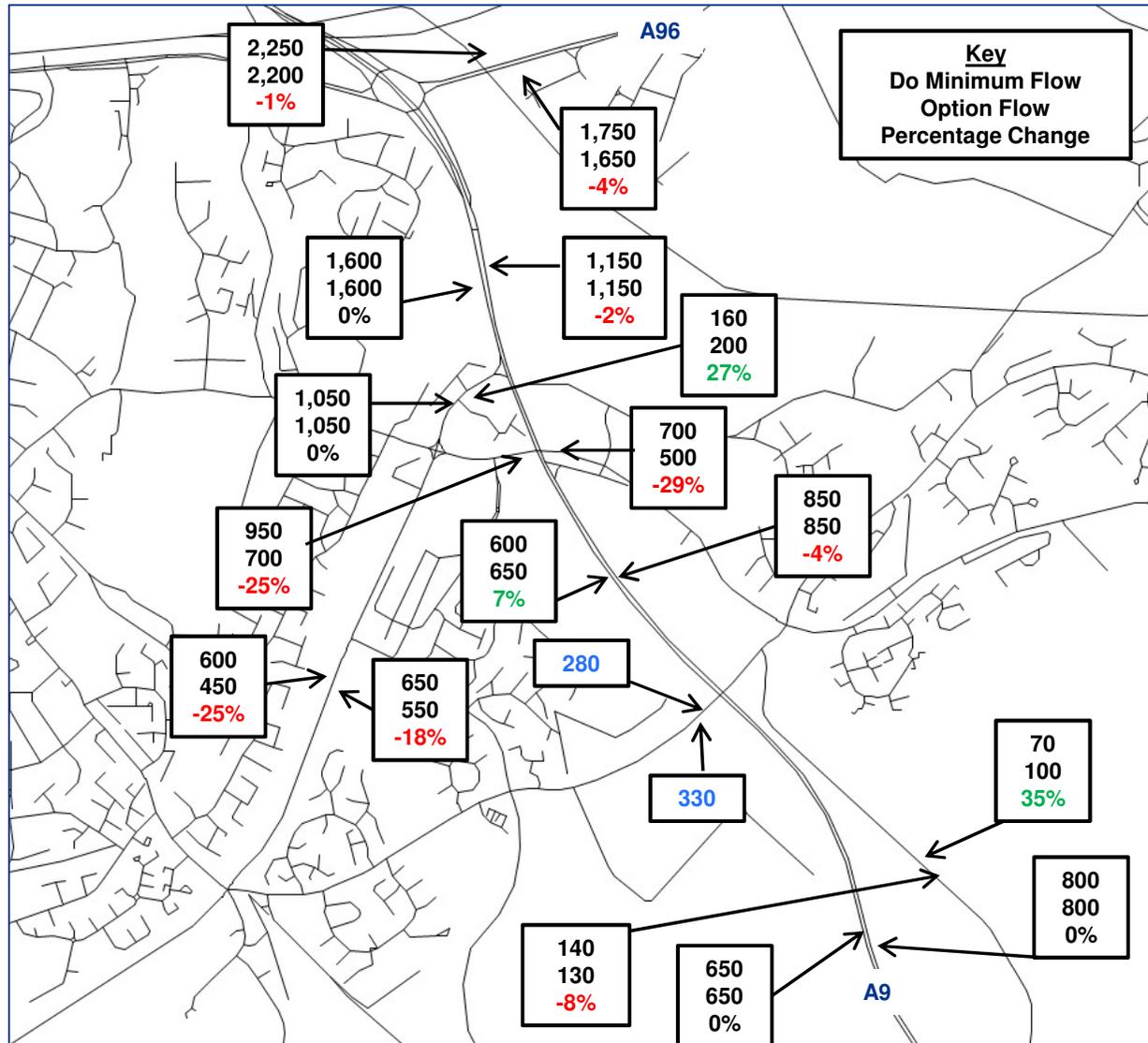
Stevenson Road Option 1



AM Peak Flow Differences



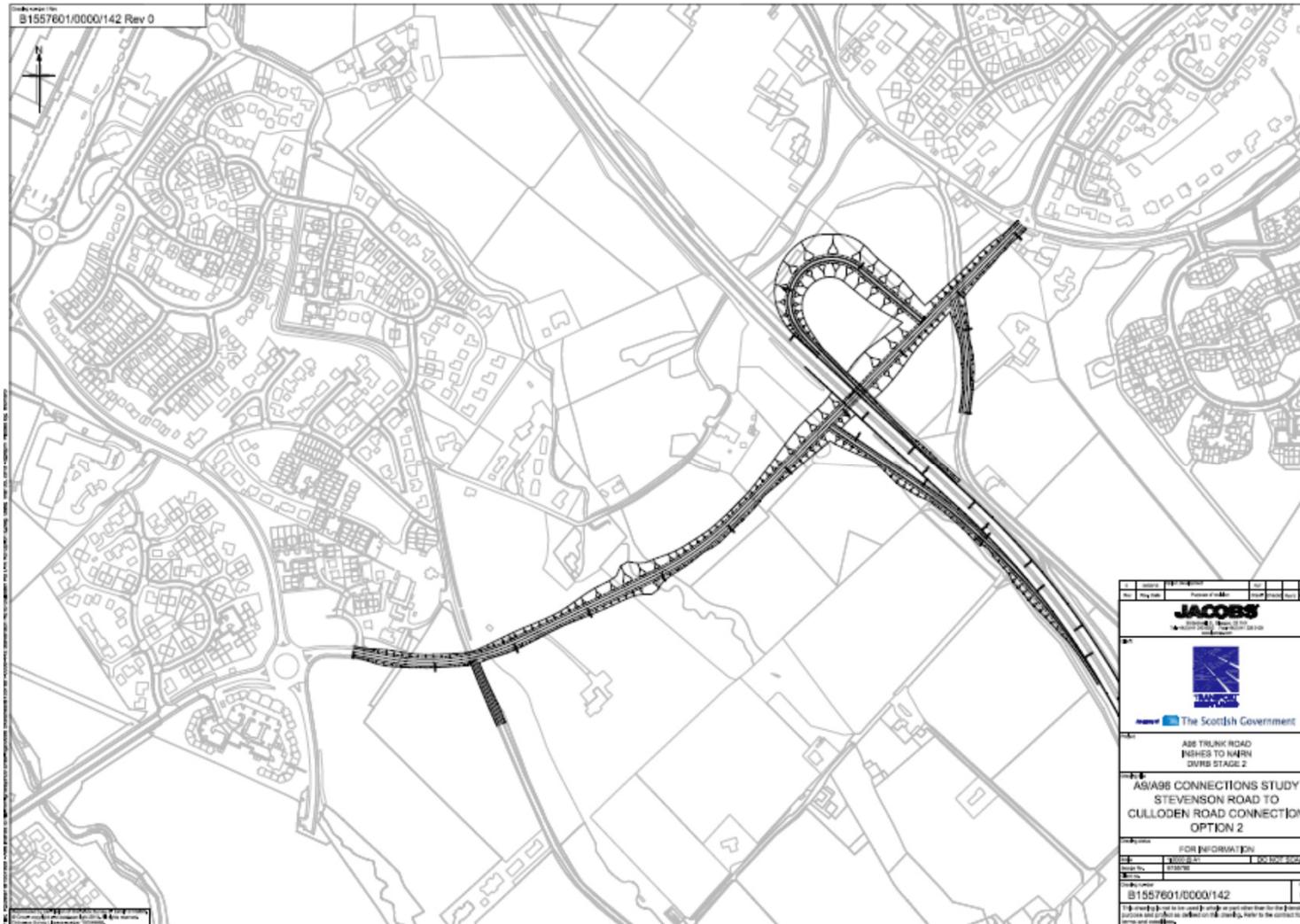
PM Peak Flow Differences



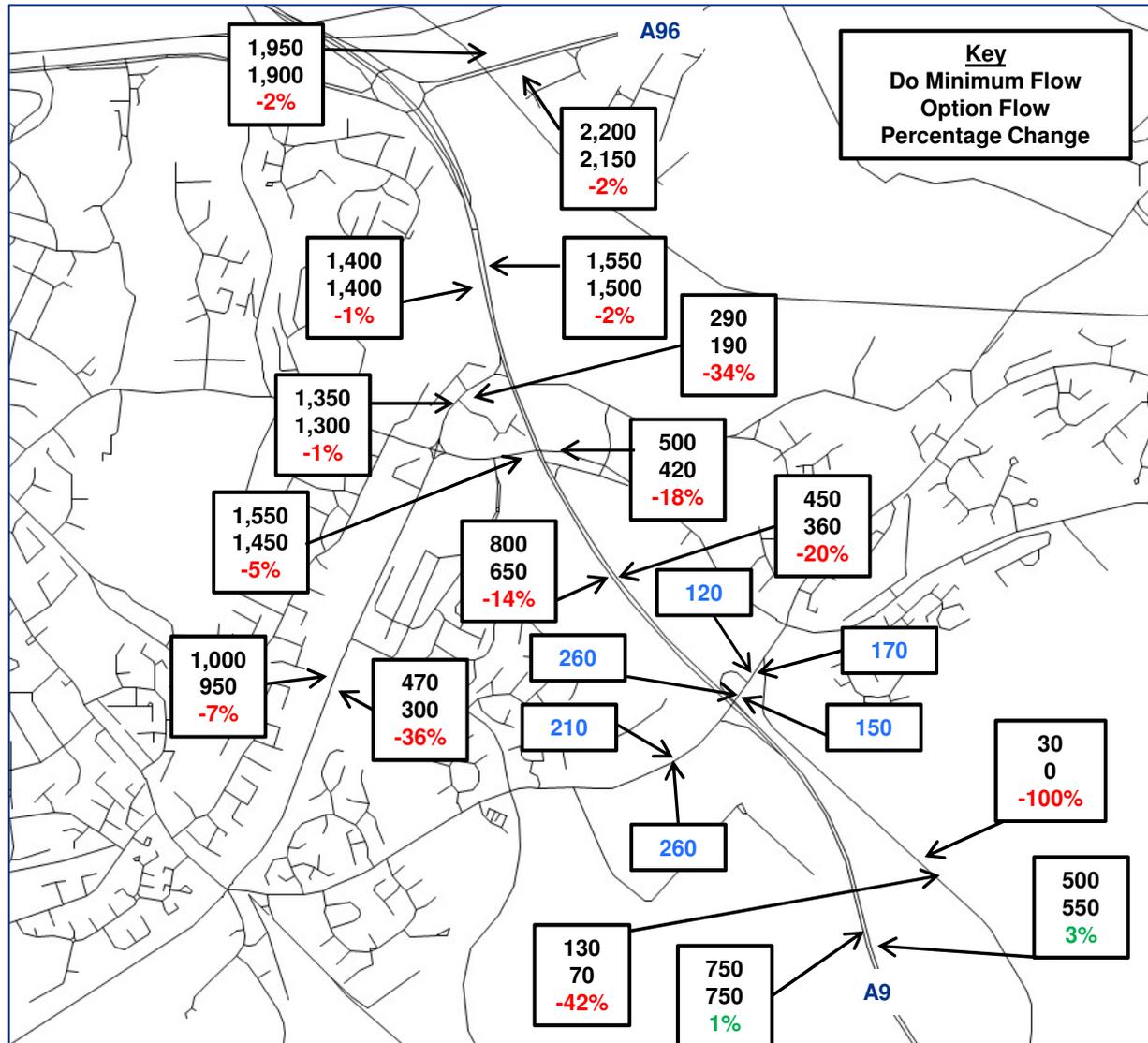
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Stevenson Road Option 1		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
Culloden Road east of B9177	A9 South of Milton of Leys	190	190	184	185	-5	-5	-3%	-2%
Culloden Road east of B9177	Sir Walter Scott Drive South of Stevenson Road	322	316	184	190	-138	-126	-43%	-40%
Culloden Road east of B9177	Old Perth Road South	264	258	245	244	-20	-13	-7%	-5%
A9 South of Milton of Leys	Culloden Road east of B9177	234	268	227	231	-7	-37	-3%	-14%
A9 South of Milton of Leys	Sir Walter Scott Drive South of Stevenson Road	320	385	357	379	37	-6	12%	-2%
A9 South of Milton of Leys	Old Perth Road South	278	339	316	339	38	0	14%	0%
Sir Walter Scott Drive South of Stevenson Road	Culloden Road east of B9177	298	310	187	204	-112	-106	-37%	-34%
Sir Walter Scott Drive South of Stevenson Road	A9 South of Milton of Leys	412	444	358	378	-55	-66	-13%	-15%
Sir Walter Scott Drive South of Stevenson Road	Old Perth Road South	207	209	187	202	-20	-7	-10%	-3%
Old Perth Road South	Culloden Road east of B9177	221	297	245	292	24	-6	11%	-2%
Old Perth Road South	Sir Walter Scott Drive South of Stevenson Road	191	293	208	268	17	-25	9%	-9%
Old Perth Road South	A9 South of Milton of Leys	394	498	423	488	29	-9	7%	-2%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	456	169	-39	-5	-8%	-3%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	179	191	-2	-2	-1%	-1%

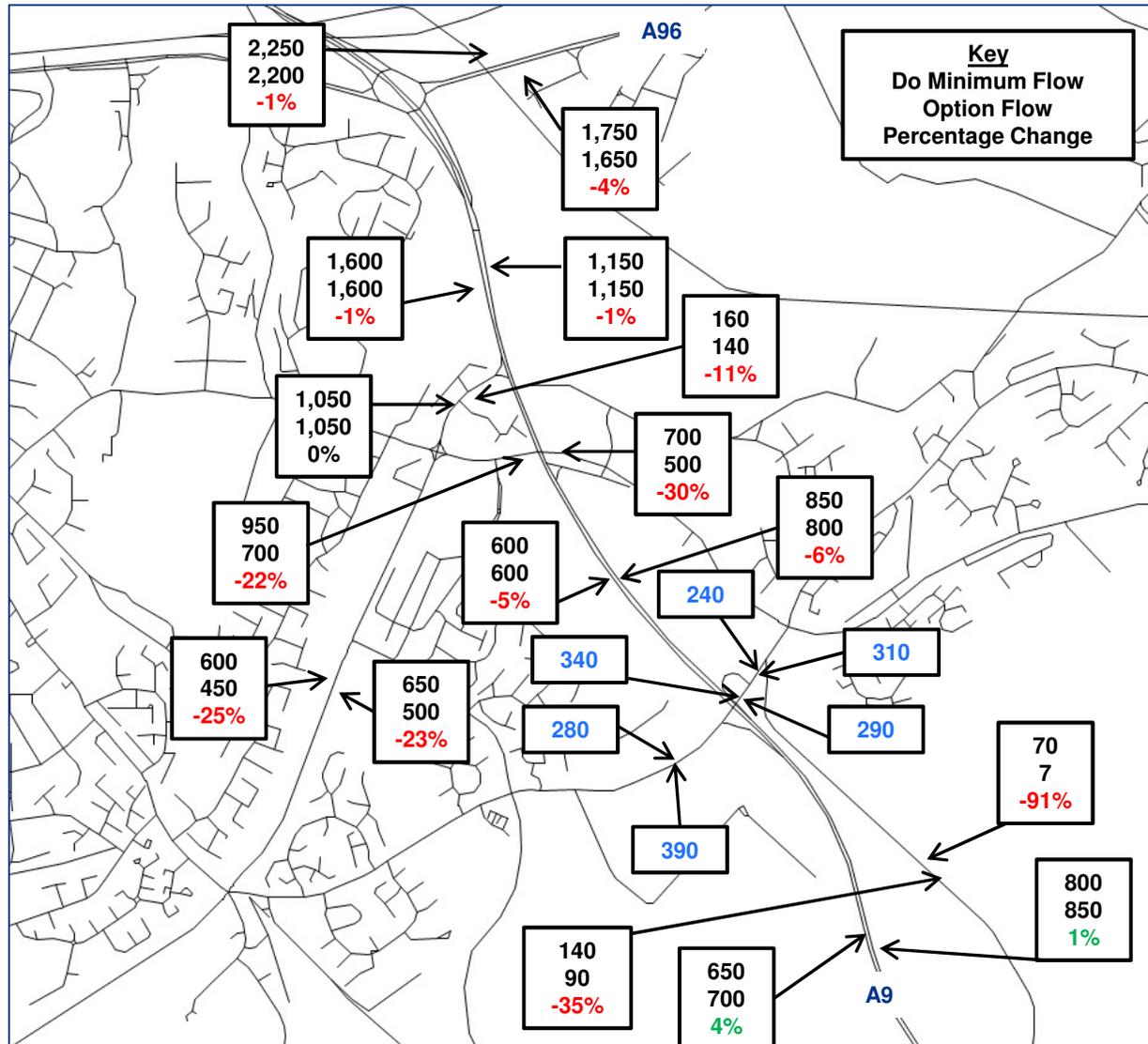
Stevenson Road Option 2



AM Peak Flow Differences



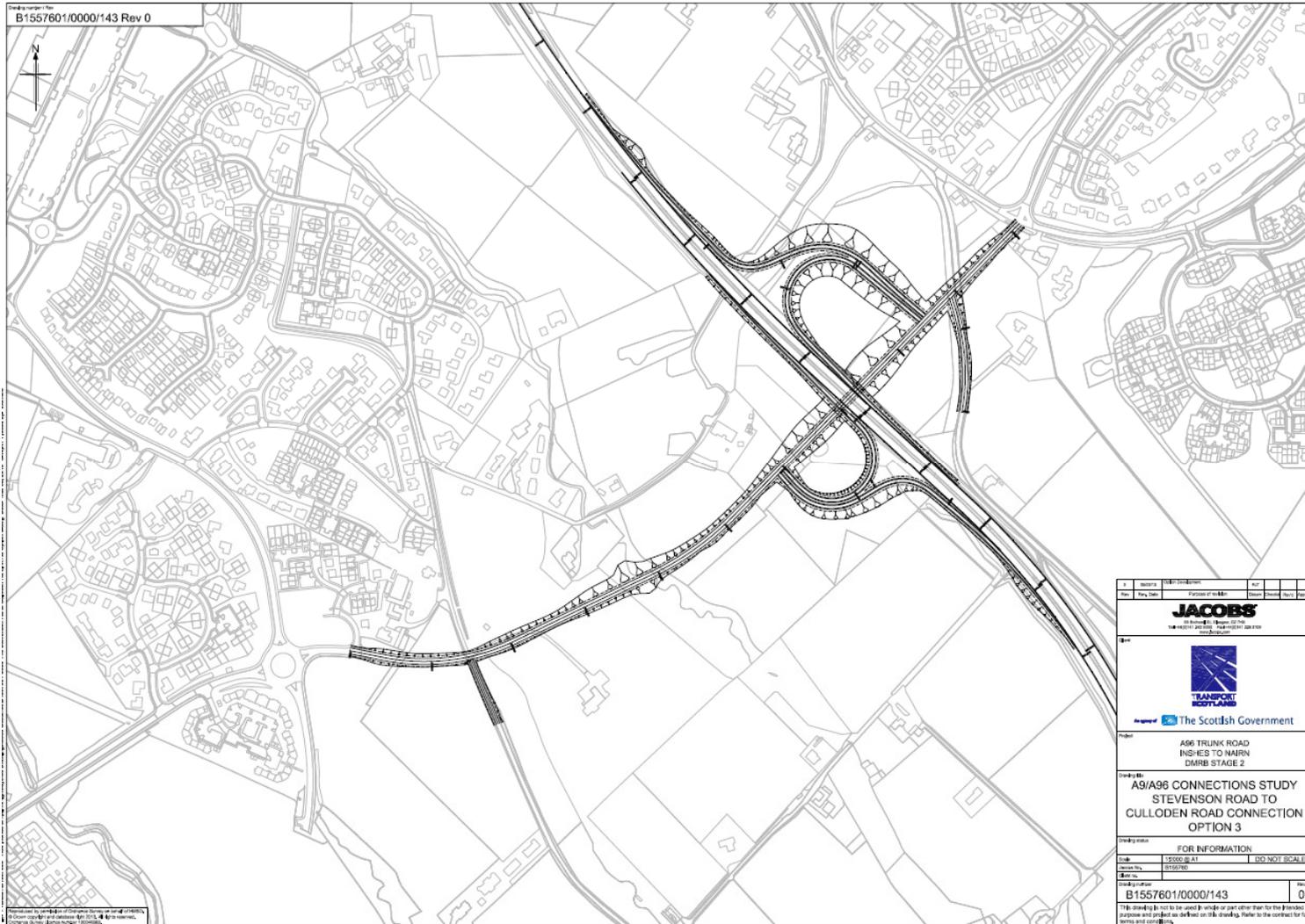
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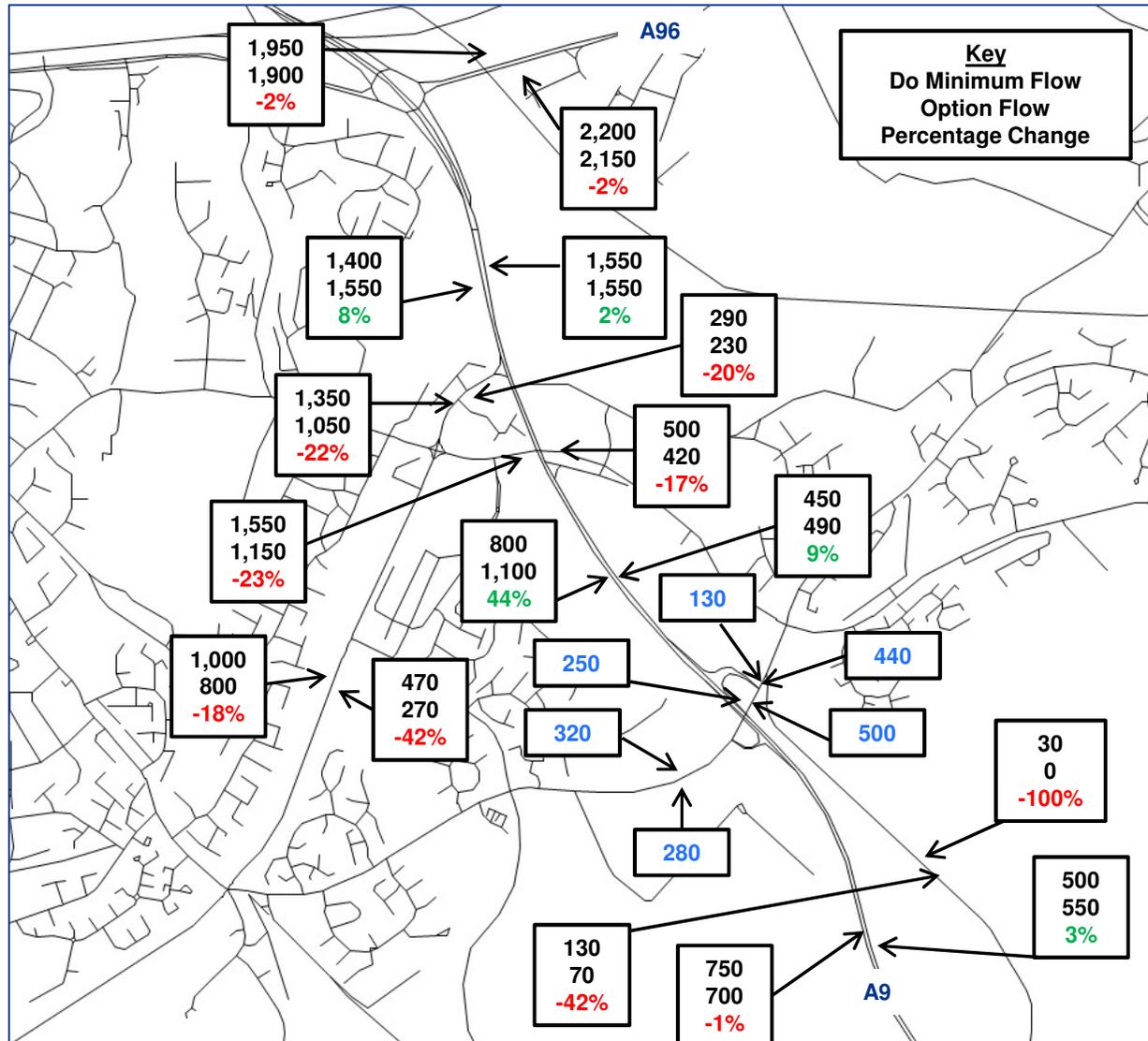
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Stevenson Road Option 2		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
Culloden Road east of B9177	A9 South of Milton of Leys	190	190	165	169	-25	-21	-13%	-11%
Culloden Road east of B9177	Sir Walter Scott Drive South of Stevenson Road	322	316	198	209	-124	-107	-39%	-34%
Culloden Road east of B9177	Old Perth Road South	264	258	233	245	-31	-13	-12%	-5%
A9 South of Milton of Leys	Culloden Road east of B9177	234	268	176	179	-58	-89	-25%	-33%
A9 South of Milton of Leys	Sir Walter Scott Drive South of Stevenson Road	320	385	320	332	0	-54	0%	-14%
A9 South of Milton of Leys	Old Perth Road South	278	339	277	338	-1	-1	0%	0%
Sir Walter Scott Drive South of Stevenson Road	Culloden Road east of B9177	298	310	190	215	-108	-95	-36%	-31%
Sir Walter Scott Drive South of Stevenson Road	A9 South of Milton of Leys	412	444	325	353	-87	-91	-21%	-21%
Sir Walter Scott Drive South of Stevenson Road	Old Perth Road South	207	209	200	202	-7	-7	-3%	-3%
Old Perth Road South	Culloden Road east of B9177	221	297	219	288	-2	-10	-1%	-3%
Old Perth Road South	Sir Walter Scott Drive South of Stevenson Road	191	293	187	277	-4	-17	-2%	-6%
Old Perth Road South	A9 South of Milton of Leys	394	498	393	483	-1	-15	0%	-3%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	452	169	-44	-5	-9%	-3%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	180	191	-1	-2	0%	-1%

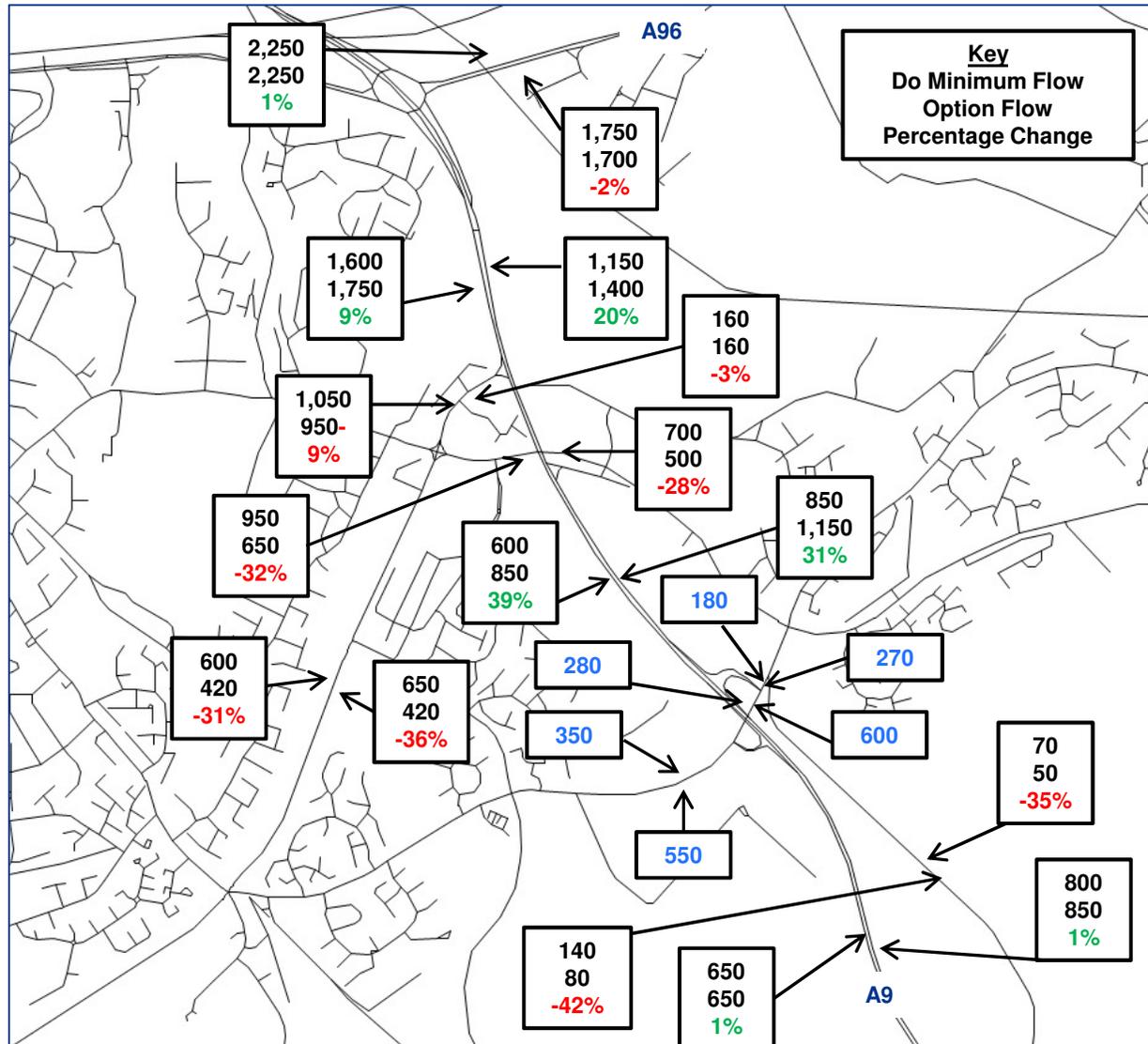
Stevenson Road Option 3



AM Peak Flow Differences



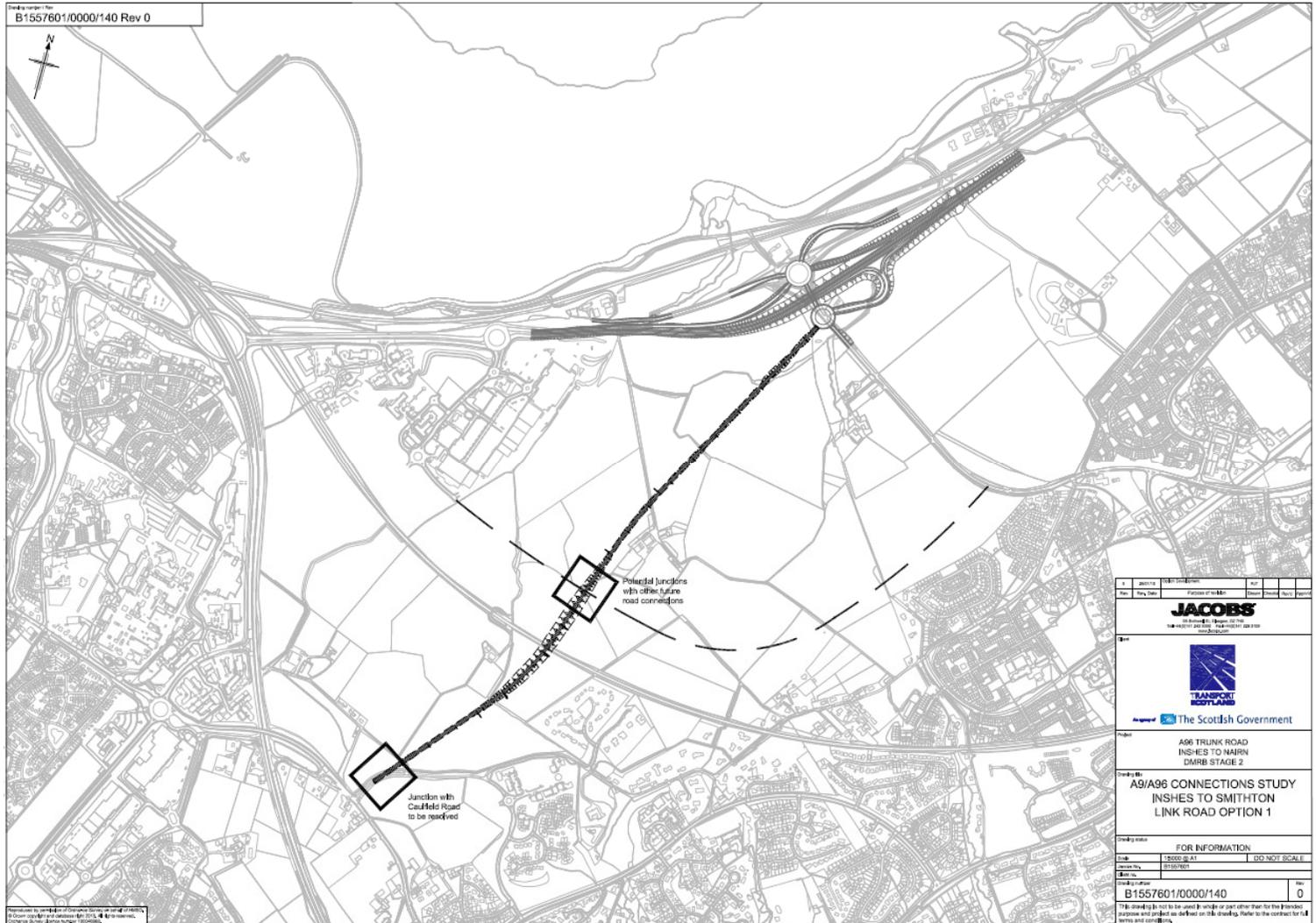
PM Peak Flow Differences



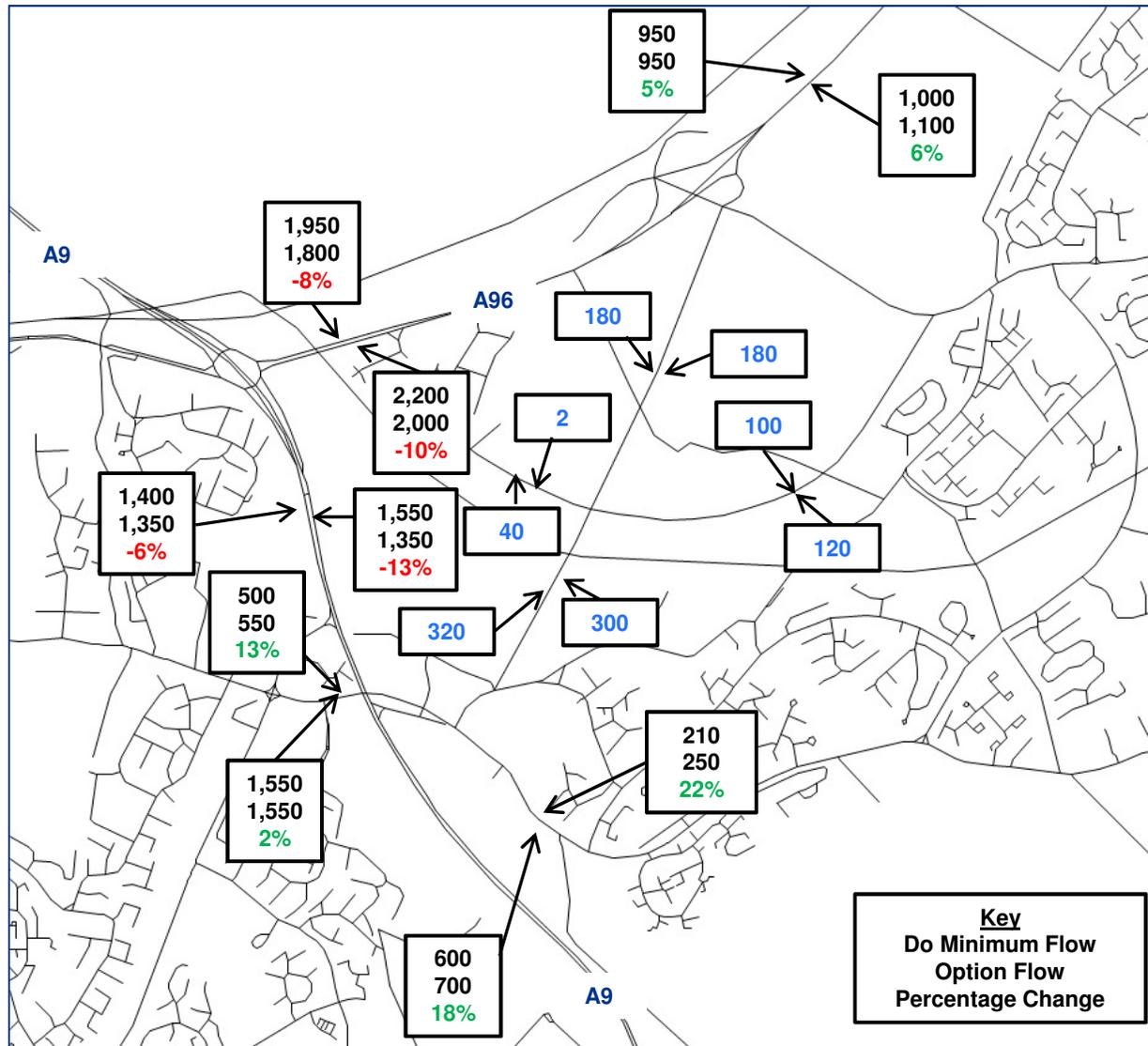
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Stevenson Road Option 3		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
Culloden Road east of B9177	A9 South of Milton of Leys	190	190	166	168	-23	-22	-12%	-11%
Culloden Road east of B9177	Sir Walter Scott Drive South of Stevenson Road	322	316	205	233	-117	-83	-36%	-26%
Culloden Road east of B9177	Old Perth Road South	264	258	205	242	-59	-16	-22%	-6%
A9 South of Milton of Leys	Culloden Road east of B9177	234	268	194	199	-40	-69	-17%	-26%
A9 South of Milton of Leys	Sir Walter Scott Drive South of Stevenson Road	320	385	328	358	7	-28	2%	-7%
A9 South of Milton of Leys	Old Perth Road South	278	339	279	340	1	1	0%	0%
Sir Walter Scott Drive South of Stevenson Road	Culloden Road east of B9177	298	310	192	214	-106	-96	-35%	-31%
Sir Walter Scott Drive South of Stevenson Road	A9 South of Milton of Leys	412	444	329	353	-83	-91	-20%	-20%
Sir Walter Scott Drive South of Stevenson Road	Old Perth Road South	207	209	196	203	-11	-6	-5%	-3%
Old Perth Road South	Culloden Road east of B9177	221	297	219	286	-1	-12	-1%	-4%
Old Perth Road South	Sir Walter Scott Drive South of Stevenson Road	191	293	188	270	-3	-23	-2%	-8%
Old Perth Road South	A9 South of Milton of Leys	394	498	388	461	-6	-37	-2%	-7%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	419	170	-76	-4	-15%	-2%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	177	192	-4	-1	-2%	-1%

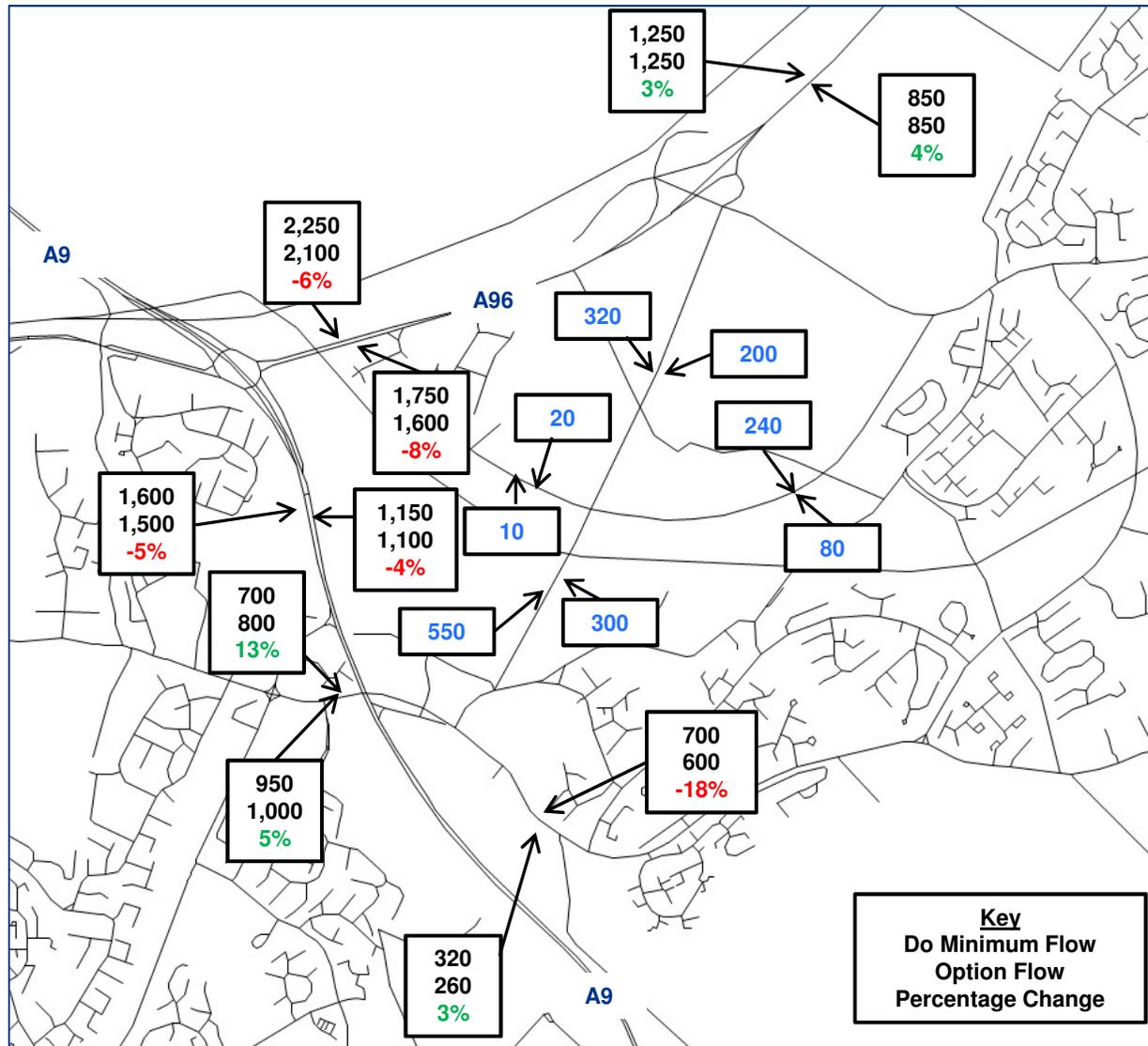
Inshes to Smithton Option 1



AM Peak Flow Differences



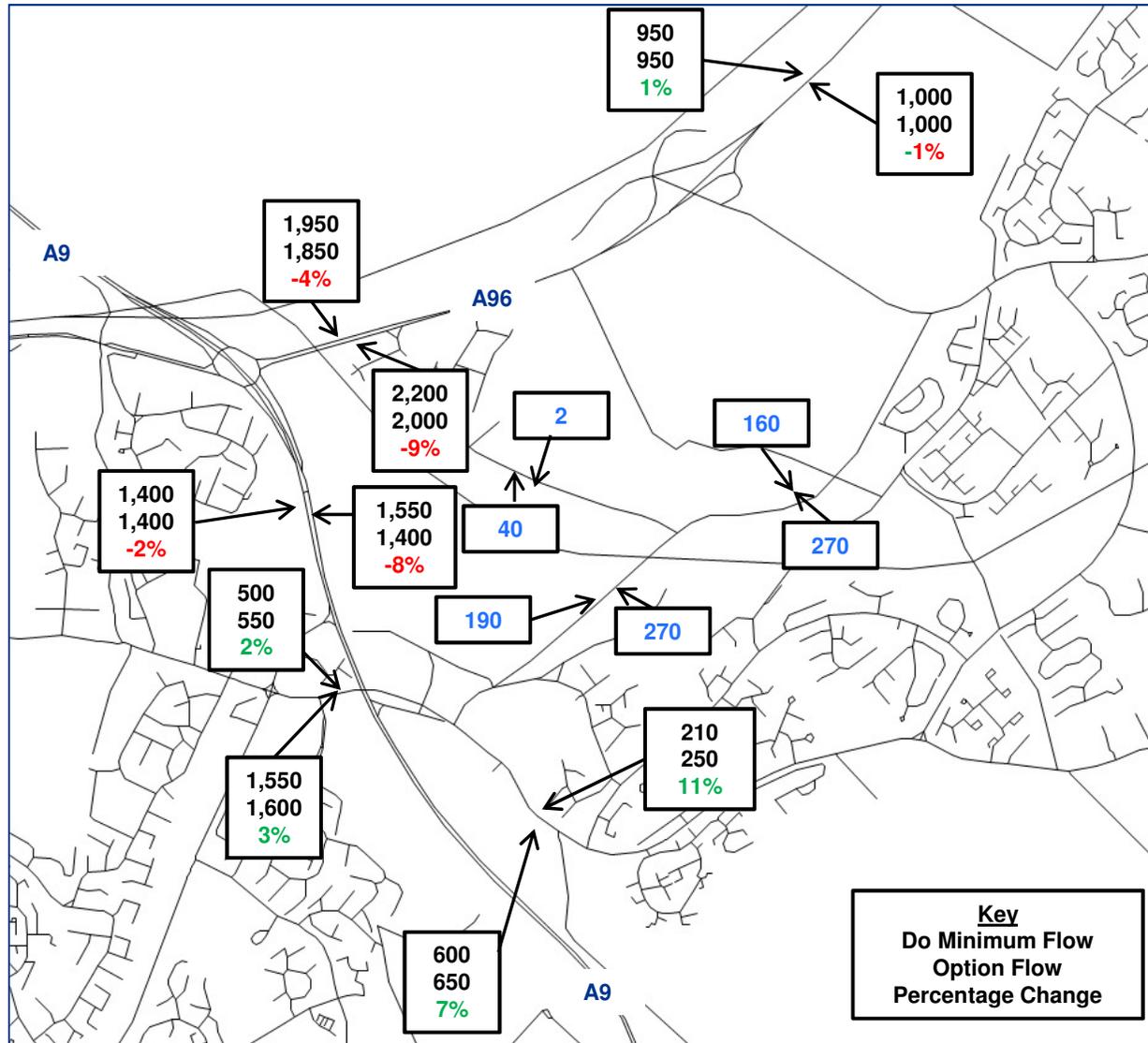
PM Peak Flow Differences



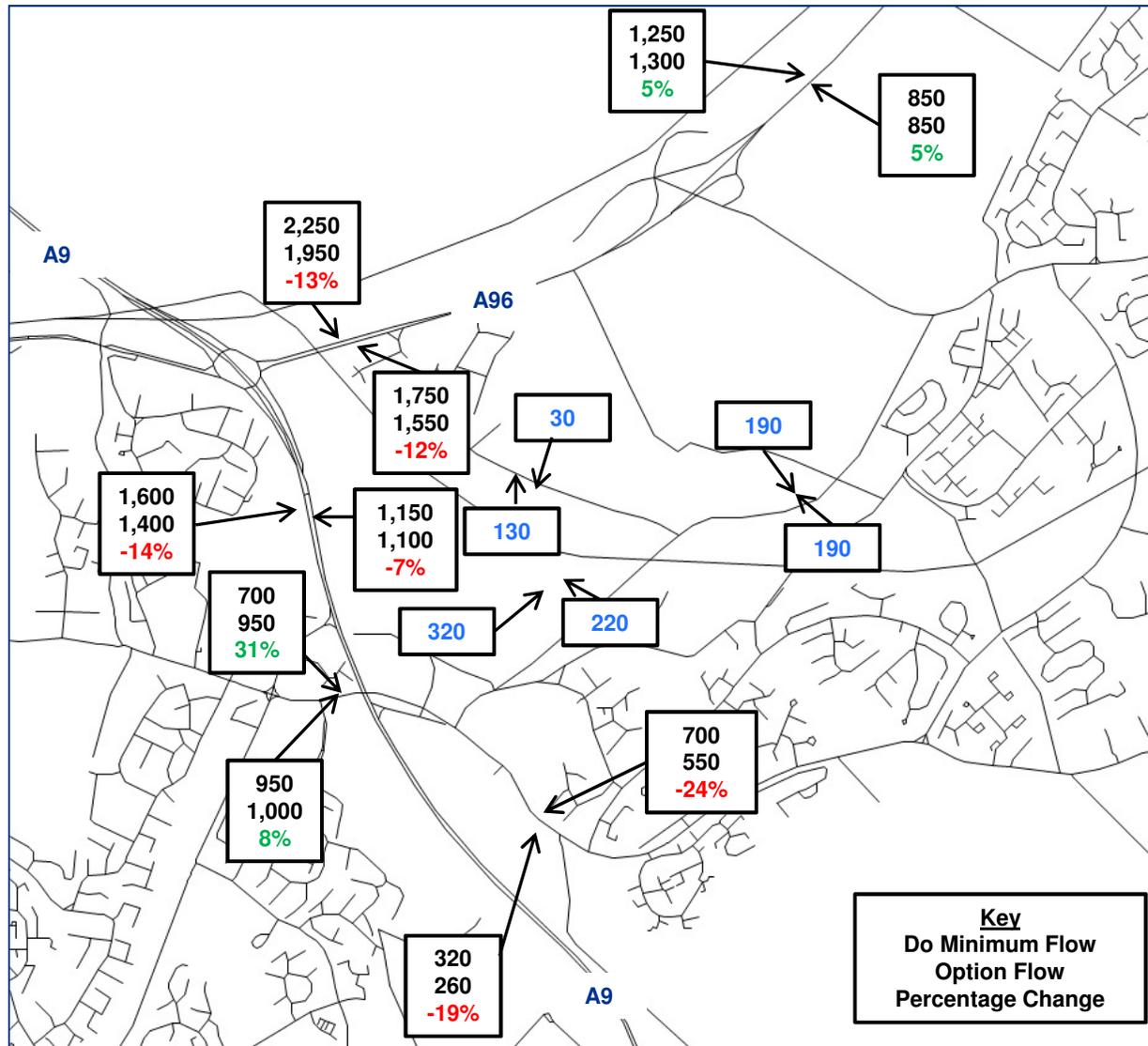
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Inshes to Smithton 1		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
A96 East of Smithton	Cullooden Road east of B9177	591	327	356	236	-235	-91	-40%	-28%
A96 East of Smithton	A9 South of Milton of Leys	604	343	532	325	-73	-19	-12%	-5%
A96 East of Smithton	Sir Walter Scott Drive South of Stevenson Road	982	667	1107	648	124	-20	13%	-3%
Barn Church Road	Cullooden Road east of B9177	641	365	358	235	-283	-130	-44%	-36%
Barn Church Road	A9 South of Milton of Leys	653	381	447	451	-206	69	-32%	18%
Barn Church Road	Sir Walter Scott Drive South of Stevenson Road	1032	705	604	646	-427	-59	-41%	-8%
Cullooden Road east of B9177	A96 East of Smithton	516	526	202	224	-314	-302	-61%	-57%
Cullooden Road east of B9177	Barn Church Road	551	574	192	219	-359	-354	-65%	-62%
A9 South of Milton of Leys	A96 East of Smithton	439	455	418	403	-21	-52	-5%	-11%
A9 South of Milton of Leys	Barn Church Road	474	503	421	451	-54	-51	-11%	-10%
Sir Walter Scott Drive South of Stevenson Road	A96 East of Smithton	454	522	424	450	-31	-72	-7%	-14%
Sir Walter Scott Drive South of Stevenson Road	Barn Church Road	490	570	414	455	-76	-115	-16%	-20%
Sir Walter Scott Drive South of Stevenson Road	Cullooden Road east of B9177	298	310	298	327	0	17	0%	5%
Sir Walter Scott Drive South of Stevenson Road	A9 South of Milton of Leys	412	444	415	468	3	24	1%	5%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	287	155	-209	-20	-42%	-11%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	169	170	-11	-23	-6%	-12%

AM Peak Flow Differences



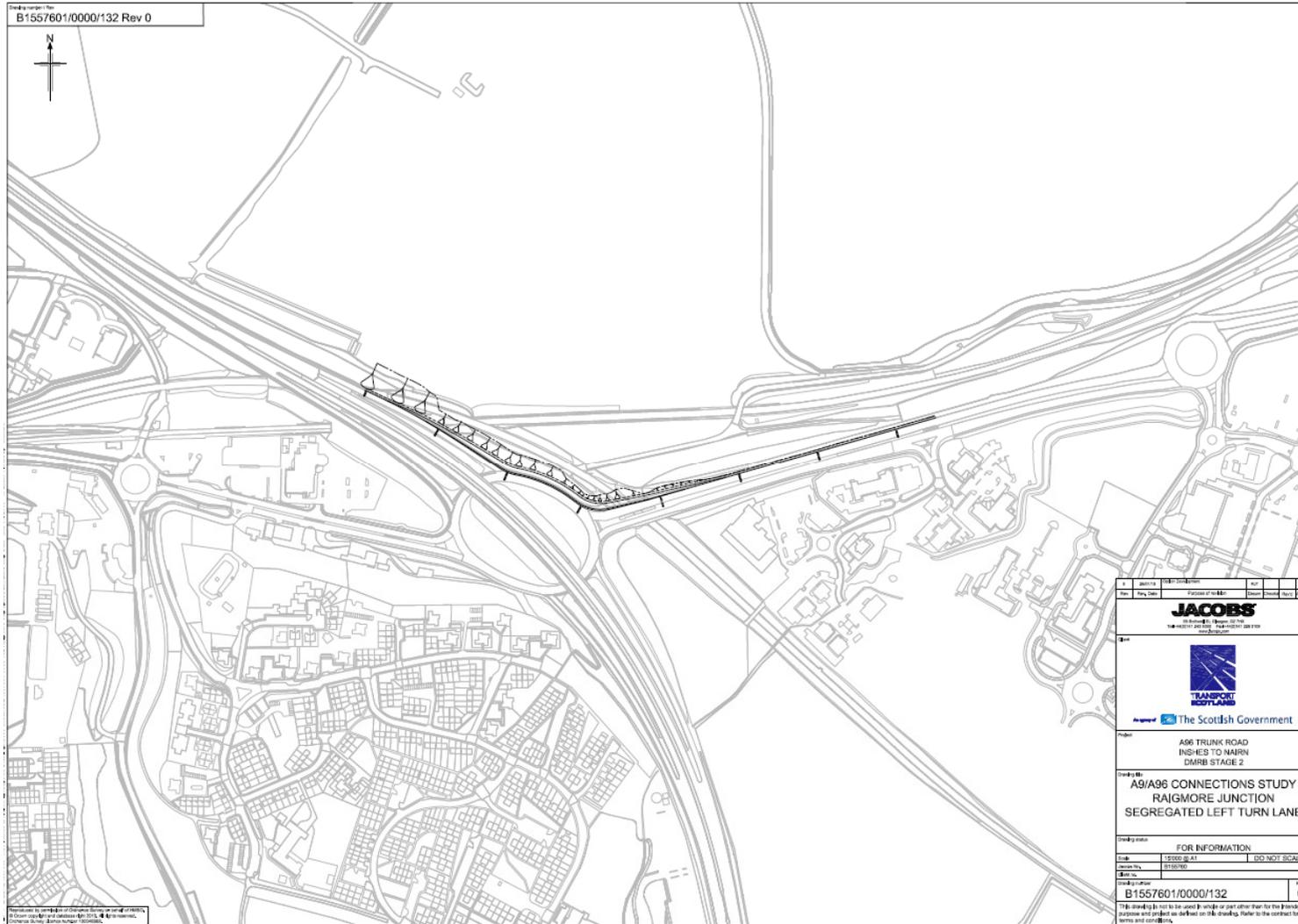
PM Peak Flow Differences



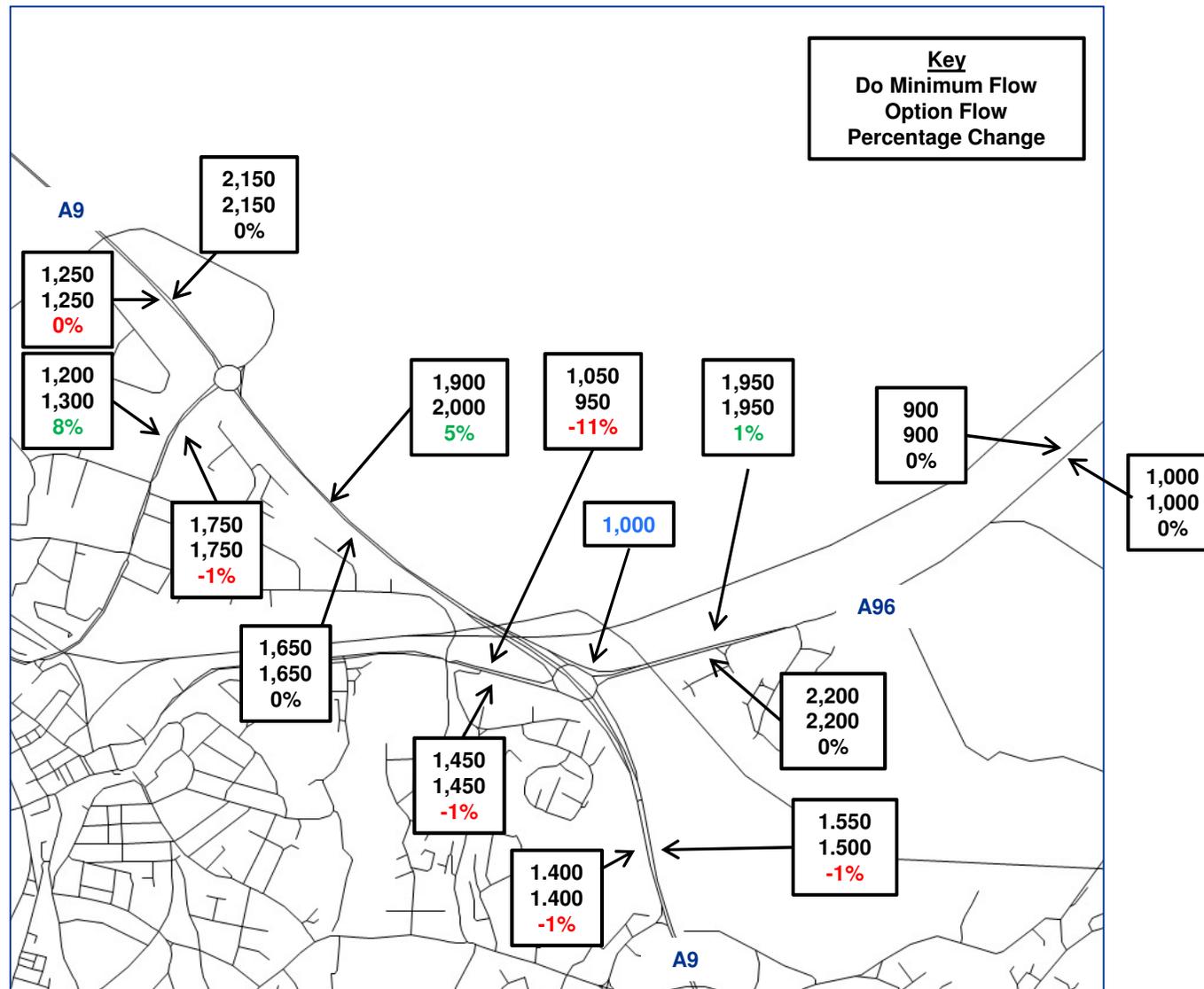
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Inshes to Smithton 2		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
A96 East of Smithton	Culloden Road east of B9177	591	327	412	406	-180	79	-30%	24%
A96 East of Smithton	A9 South of Milton of Leys	604	343	417	328	-187	-15	-31%	-4%
A96 East of Smithton	Sir Walter Scott Drive South of Stevenson Road	982	667	671	521	-311	-146	-32%	-22%
Barn Church Road	Culloden Road east of B9177	641	365	336	320	-304	-44	-47%	-12%
Barn Church Road	A9 South of Milton of Leys	653	381	437	437	-216	56	-33%	15%
Barn Church Road	Sir Walter Scott Drive South of Stevenson Road	1032	705	741	570	-291	-135	-28%	-19%
Culloden Road east of B9177	A96 East of Smithton	516	526	307	362	-209	-164	-40%	-31%
Culloden Road east of B9177	Barn Church Road	551	574	187	203	-364	-371	-66%	-65%
A9 South of Milton of Leys	A96 East of Smithton	439	455	424	419	-14	-35	-3%	-8%
A9 South of Milton of Leys	Barn Church Road	474	503	433	433	-41	-70	-9%	-14%
Sir Walter Scott Drive South of Stevenson Road	A96 East of Smithton	454	522	440	480	-15	-42	-3%	-8%
Sir Walter Scott Drive South of Stevenson Road	Barn Church Road	490	570	404	415	-86	-155	-18%	-27%
Sir Walter Scott Drive South of Stevenson Road	Culloden Road east of B9177	298	310	297	309	1	1	0%	0%
Sir Walter Scott Drive South of Stevenson Road	A9 South of Milton of Leys	412	444	414	449	2	5	0%	1%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	294	159	-201	-16	-41%	-9%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	175	176	-5	-17	-3%	-9%

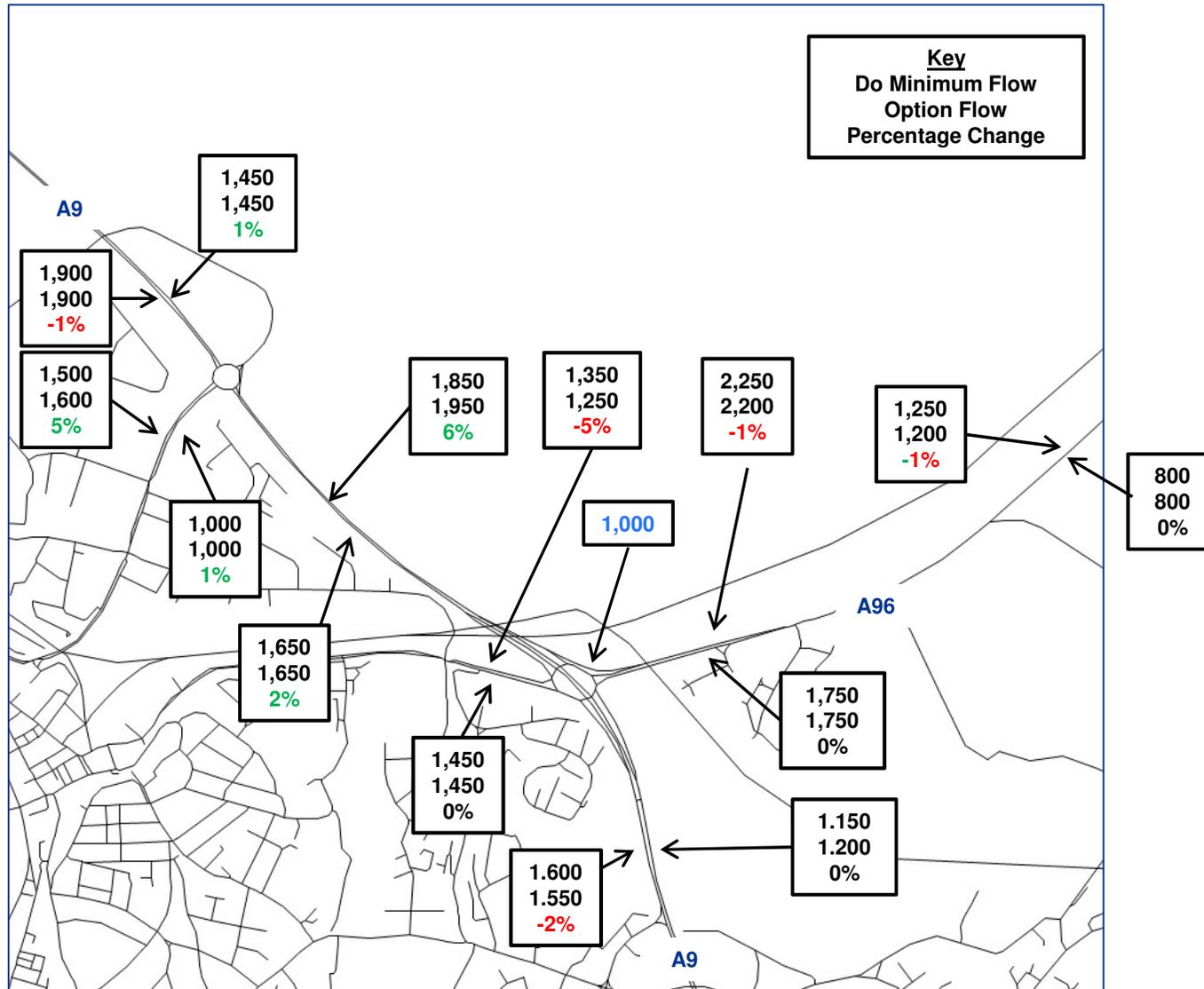
Raigmore



AM Peak Flow Differences



PM Peak Flow Differences



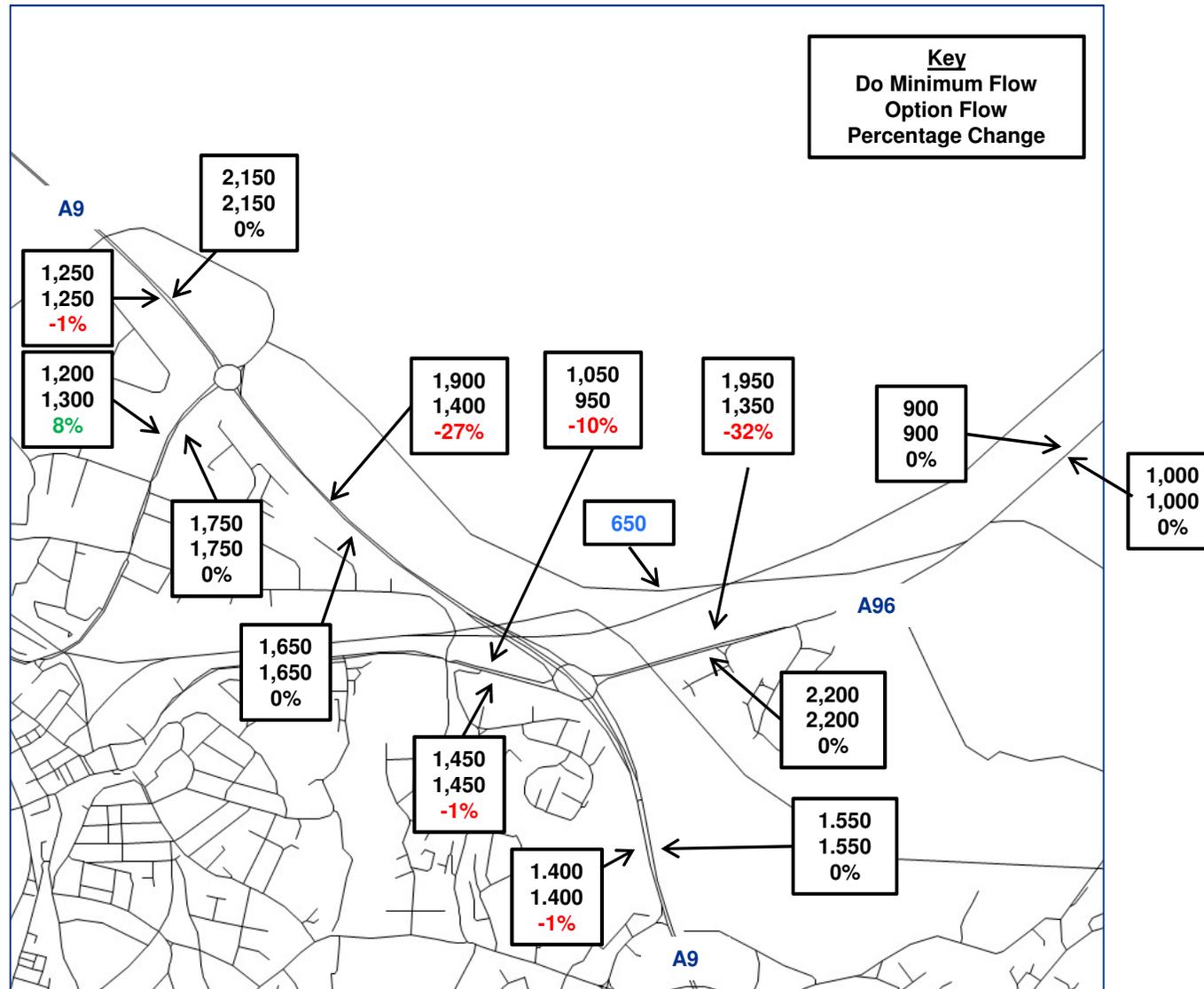
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Raigmore		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
Kessock Bridge	A96 East of Smithton	340	349	327	309	-13	-40	-4%	-11%
Kessock Bridge	Barn Church Road	375	396	363	357	-13	-40	-3%	-10%
A96 East of Smithton	Kessock Bridge	924	495	917	513	-7	17	-1%	4%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	492	174	-4	0	-1%	0%
A96 East of Smithton	Harbour Road Roundabout (A82)	891	462	884	478	-7	16	-1%	4%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	169	183	-12	-10	-6%	-5%
Millburn Road/Harbour Road Junction	Barn Church Road	216	241	205	230	-12	-11	-5%	-4%
Harbour Road Roundabout (A82)	A96 East of Smithton	369	381	351	346	-18	-35	-5%	-9%
Harbour Road Roundabout (A82)	Barn Church Road	404	428	386	393	-18	-35	-4%	-8%

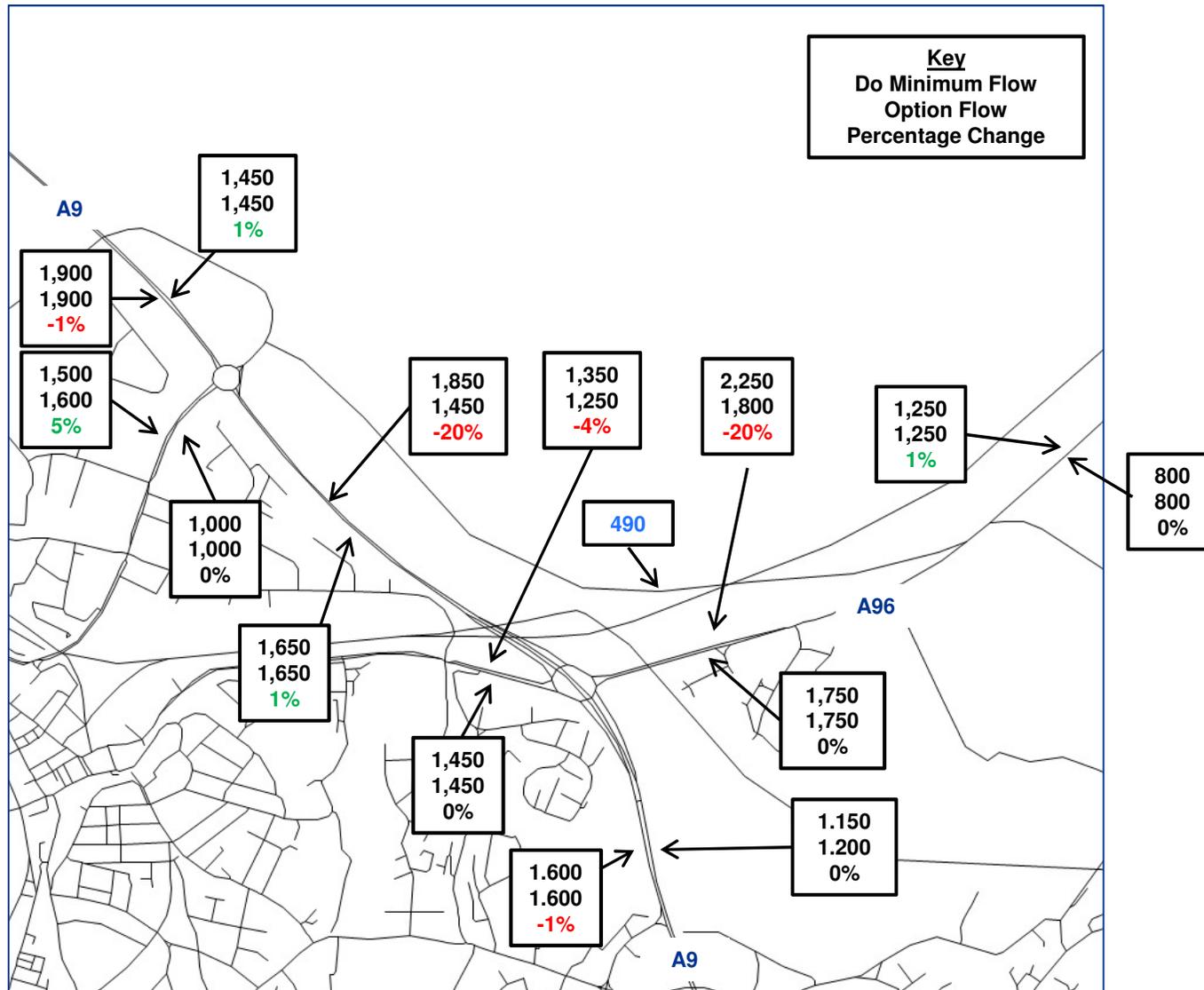
Longman to Smithton



AM Peak Flow Differences



PM Peak Flow Differences



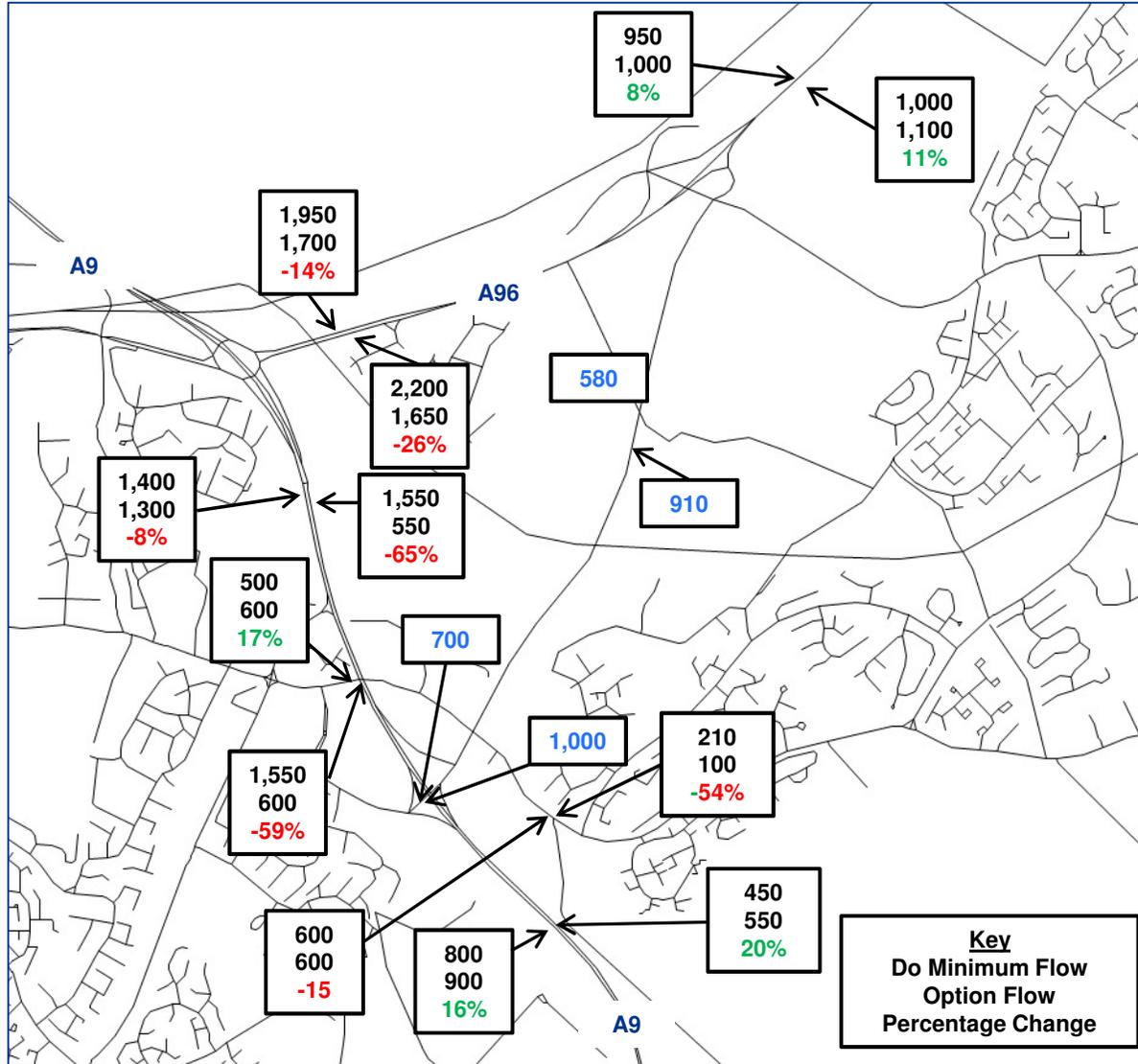
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Longman to Smithton		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
Kessock Bridge	A96 East of Smithton	340	349	344	307	5	-41	1%	-12%
Kessock Bridge	Barn Church Road	375	396	380	355	5	-41	1%	-10%
Stadium Road	A96 East of Smithton	308	347	285	274	-23	-73	-7%	-21%
Stadium Road	Barn Church Road	343	395	321	322	-23	-72	-7%	-18%
A96 East of Smithton	Kessock Bridge	924	495	912	508	-11	12	-1%	2%
A96 East of Smithton	Stadium Road	990	537	986	551	4	14	0%	3%
Harbour Road Roundabout (A82)	A96 East of Smithton	369	381	337	344	-32	-37	-9%	-10%
Harbour Road Roundabout (A82)	Barn Church Road	404	428	372	392	-32	-36	-8%	-8%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	493	174	-3	0	-1%	0%
A96 East of Smithton	Harbour Road Roundabout (A82)	891	462	881	473	-11	11	-1%	2%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	166	182	-14	-11	-8%	-6%
Harbour Road Roundabout (A82)	A96 East of Smithton	369	381	337	344	-32	-37	-9%	-10%

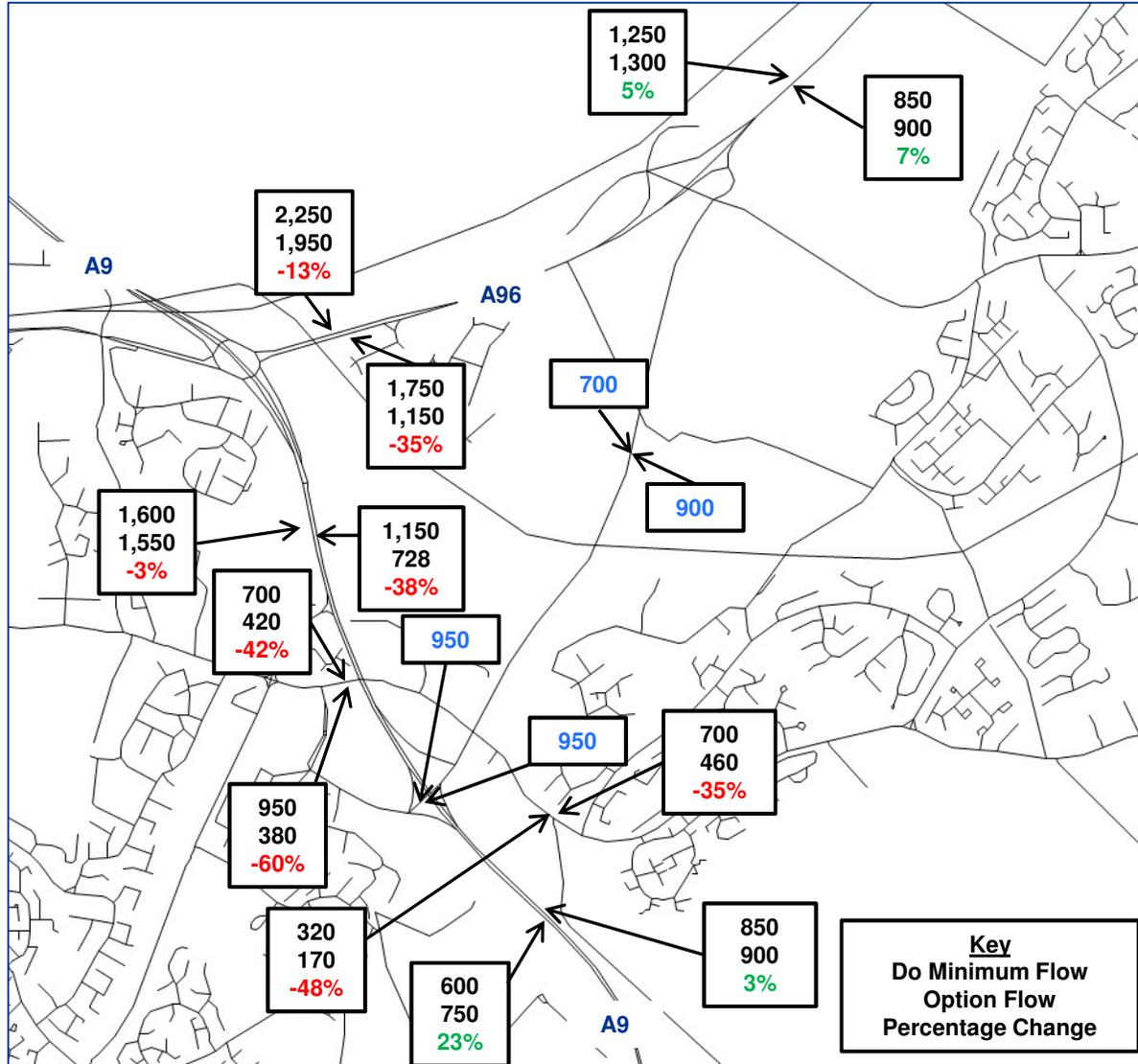
Inshes to Smithton Option 3



AM Peak Flow Differences



PM Peak Flow Differences



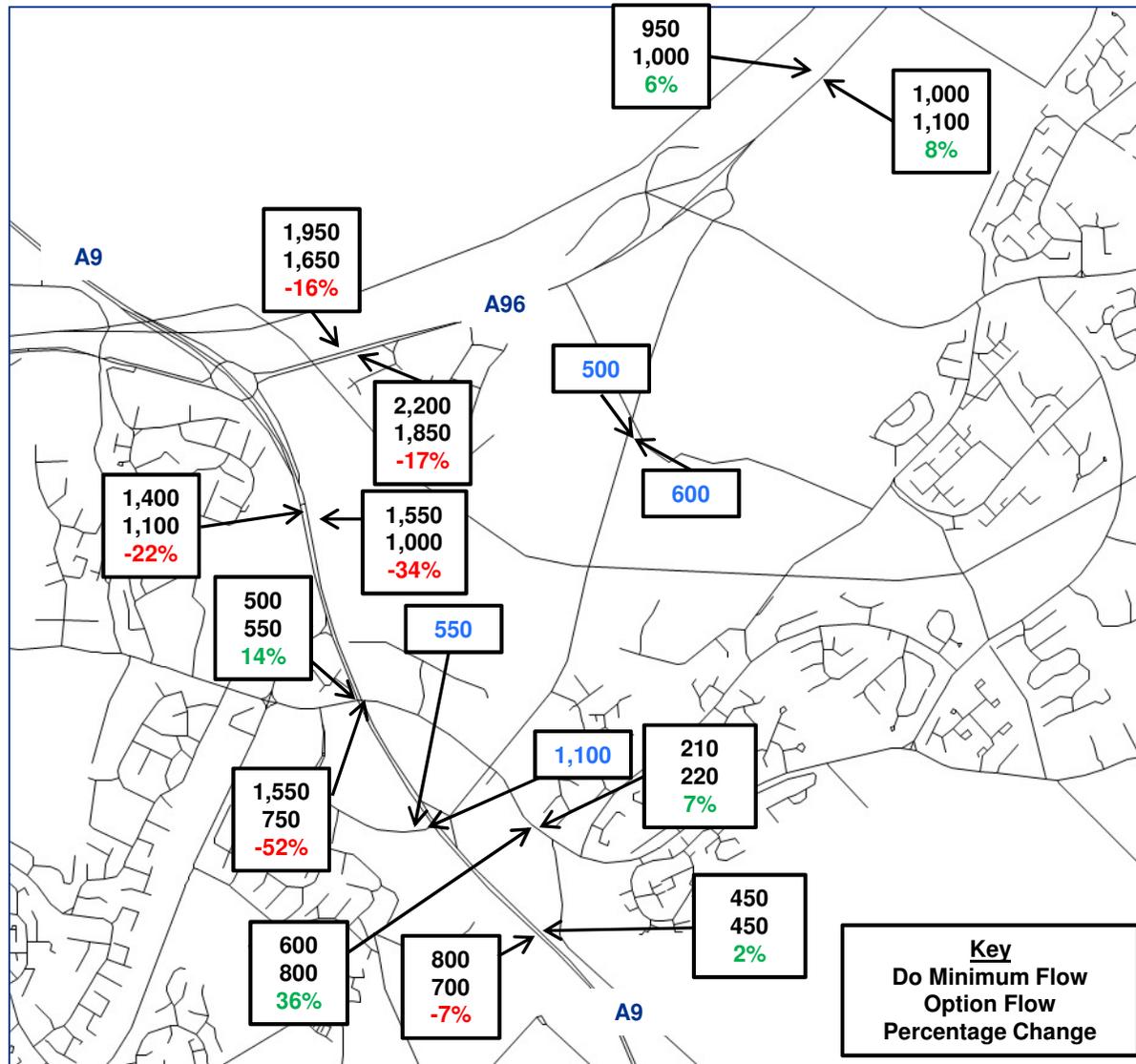
Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Inshes to Smithton 3		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
A96 East of Smithton	Culloden Road east of B9177	591	327	337	344	-254	17	-43%	5%
A96 East of Smithton	A9 South of Milton of Leys	604	343	292	297	-312	-47	-52%	-14%
A96 East of Smithton	Sir Walter Scott Drive South of Stevenson Road	982	667	314	357	-669	-310	-68%	-47%
Barn Church Road	Culloden Road east of B9177	641	365	406	371	-234	6	-37%	2%
Barn Church Road	A9 South of Milton of Leys	653	381	360	324	-293	-57	-45%	-15%
Barn Church Road	Sir Walter Scott Drive South of Stevenson Road	1032	705	382	384	-649	-321	-63%	-46%
Culloden Road east of B9177	A96 East of Smithton	516	526	303	332	-213	-194	-41%	-37%
Culloden Road east of B9177	Barn Church Road	551	574	454	479	-98	-94	-18%	-16%
A9 South of Milton of Leys	A96 East of Smithton	439	455	300	301	-139	-154	-32%	-34%
A9 South of Milton of Leys	Barn Church Road	474	503	318	335	-157	-168	-33%	-33%
Sir Walter Scott Drive South of Stevenson Road	A96 East of Smithton	454	522	365	354	-89	-168	-20%	-32%
Sir Walter Scott Drive South of Stevenson Road	Barn Church Road	490	570	383	388	-107	-182	-22%	-32%
Sir Walter Scott Drive South of Stevenson Road	Culloden Road east of B9177	298	310	304	298	5	-12	2%	-4%
Sir Walter Scott Drive South of Stevenson Road	A9 South of Milton of Leys	412	444	387	374	-26	-70	-6%	-16%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	195	144	-301	-30	-61%	-17%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	164	172	-17	-21	-9%	-11%

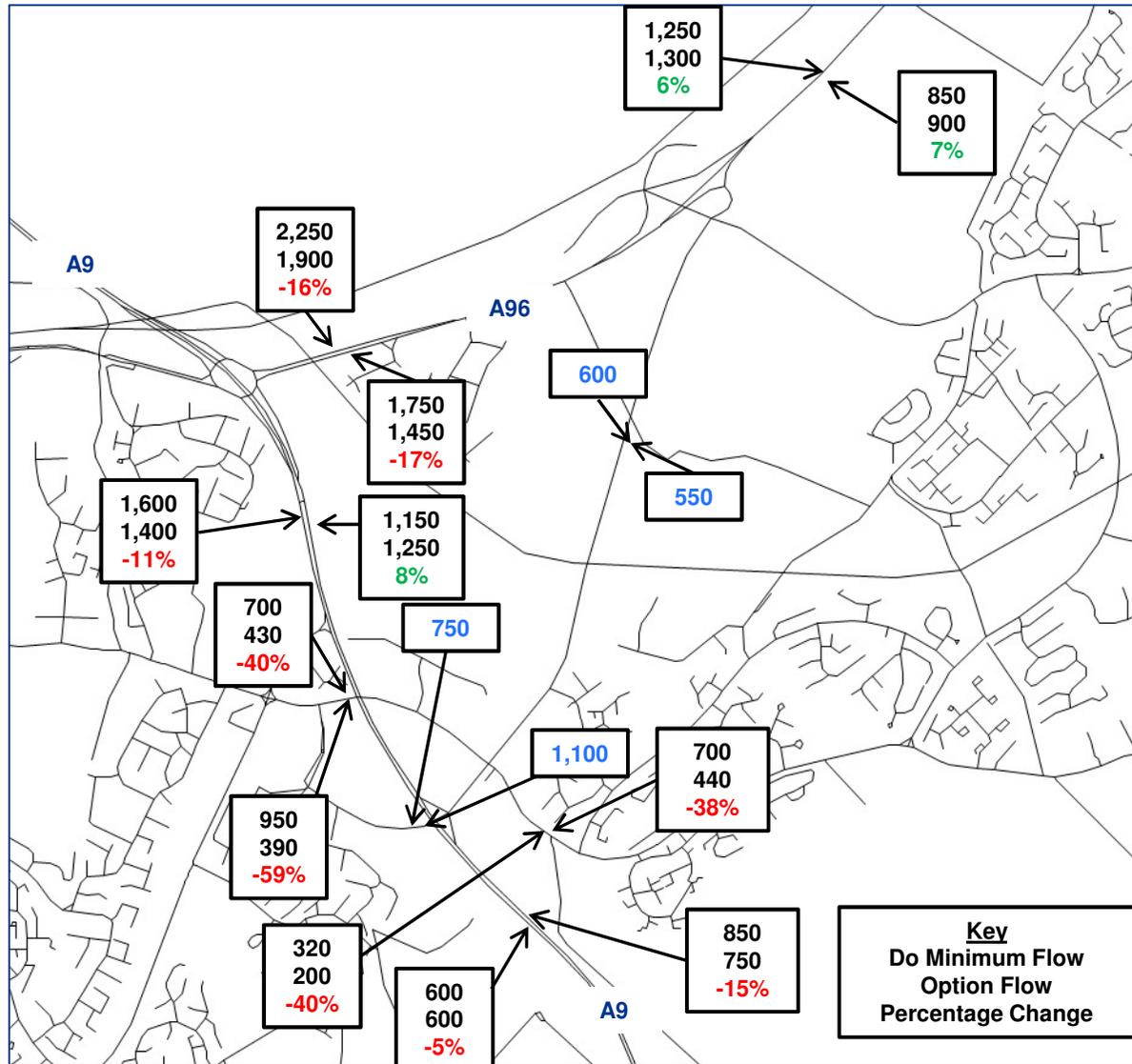
Inshes to Smithton Option 4



AM Peak Flow Differences



PM Peak Flow Differences



Journey Time Changes (seconds)

From Point	To Point	Do Minimum		Inshes to Smithton 4		Difference		Percentage Difference	
		AM	PM	AM	PM	AM	PM	AM	PM
A96 East of Smithton	Cullooden Road east of B9177	591	327	207	199	-384	-128	-65%	-39%
A96 East of Smithton	A9 South of Milton of Leys	604	343	318	315	-286	-28	-47%	-8%
A96 East of Smithton	Sir Walter Scott Drive South of Stevenson Road	982	667	372	393	-611	-274	-62%	-41%
Barn Church Road	Cullooden Road east of B9177	641	365	253	226	-388	-138	-61%	-38%
Barn Church Road	A9 South of Milton of Leys	653	381	364	343	-290	-38	-44%	-10%
Barn Church Road	Sir Walter Scott Drive South of Stevenson Road	1032	705	418	421	-614	-284	-60%	-40%
Cullooden Road east of B9177	A96 East of Smithton	516	526	207	277	-308	-249	-60%	-47%
Cullooden Road east of B9177	Barn Church Road	551	574	471	481	-81	-93	-15%	-16%
A9 South of Milton of Leys	A96 East of Smithton	439	455	402	402	-37	-53	-8%	-12%
A9 South of Milton of Leys	Barn Church Road	474	503	453	472	-22	-30	-5%	-6%
Sir Walter Scott Drive South of Stevenson Road	A96 East of Smithton	454	522	385	370	-70	-152	-15%	-29%
Sir Walter Scott Drive South of Stevenson Road	Barn Church Road	490	570	403	402	-87	-168	-18%	-30%
Sir Walter Scott Drive South of Stevenson Road	Cullooden Road east of B9177	298	310	304	273	6	-37	2%	-12%
Sir Walter Scott Drive South of Stevenson Road	A9 South of Milton of Leys	412	444	367	355	-45	-89	-11%	-20%
A96 East of Smithton	Millburn Road/Harbour Road Junction	495	174	229	151	-266	-23	-54%	-13%
Millburn Road/Harbour Road Junction	A96 East of Smithton	181	193	161	171	-19	-22	-11%	-11%

Next Steps

- **Combined Options Appraisal**
 - Identified combination ‘packages’ assessed using MFTM
 - Further operational assessment using available micro-simulation model (Paramics)
 - Robust evidence-based process for wider stakeholder/public
- **Liaison with UHI Campus**
- **Further Public Consultation as part of A96 Exhibitions in Autumn**
- **Need for continued good working on interface between strategic and local road networks**
- **Need for confidentiality and sensitivity with information**