SUMMARY

1. **How will the KAC fit with the AMATS MTP Financial Plan?**

   Sensitivity Analysis shows that changes in traffic/toll forecast result in large differences in state support

2. **Analysis of February 2011 Wilbur Smith Associates (WSA) Update**

   Inconsistency between projected growth in households and traffic suggests too high trip/ toll forecast

3. **Comparison of ISER-CH2MHill and WSA/KABATA traffic and toll projections**

   Significant difference in traffic/toll forecast explains difference in KABATA estimate of $3.2 Billion in cumulative contractor payments from KABATA financial plan and my estimate of $5.75 Billion

4. **AMATS will need to reconcile different growth and KAC tolling estimates so MTP projects and KAC Bridge Financial Plan are consistent**

   State Guarantee to cover toll shortfall = Bridge =Fiscal Constraint
   No Guarantee = No Bridge = Manageable Fiscal Constraint

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August 29, 2011
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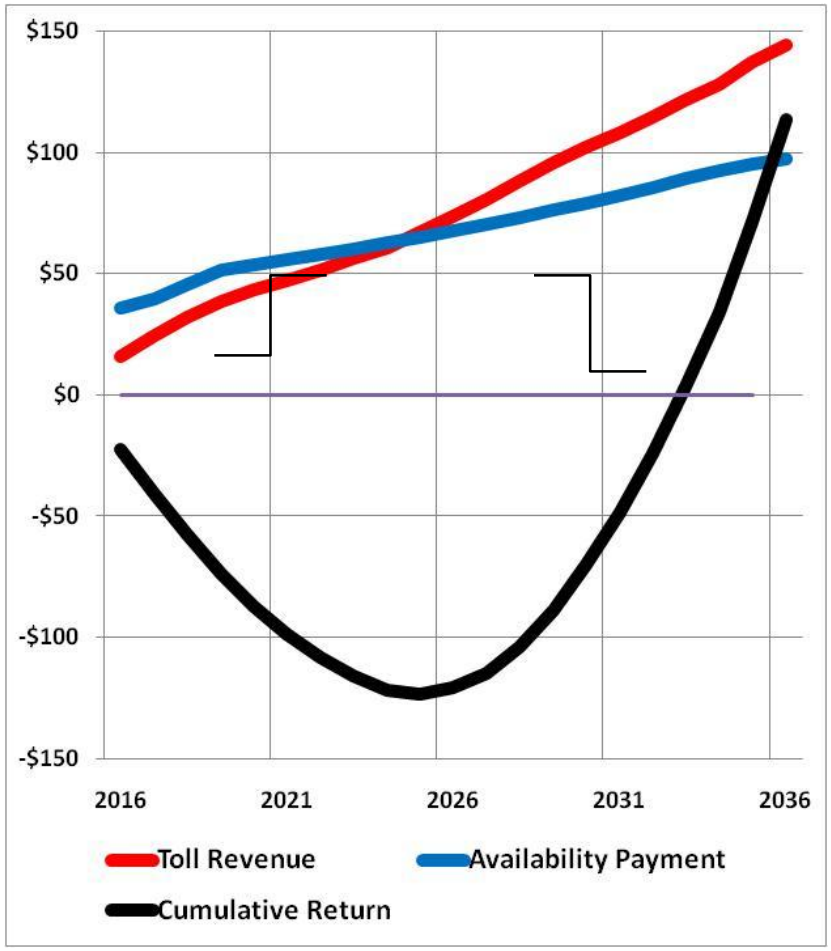
KABATA BASELINE PROJECTION
February 2011

- Toll Revenue<Payments thru 2025
- Break Even 2033



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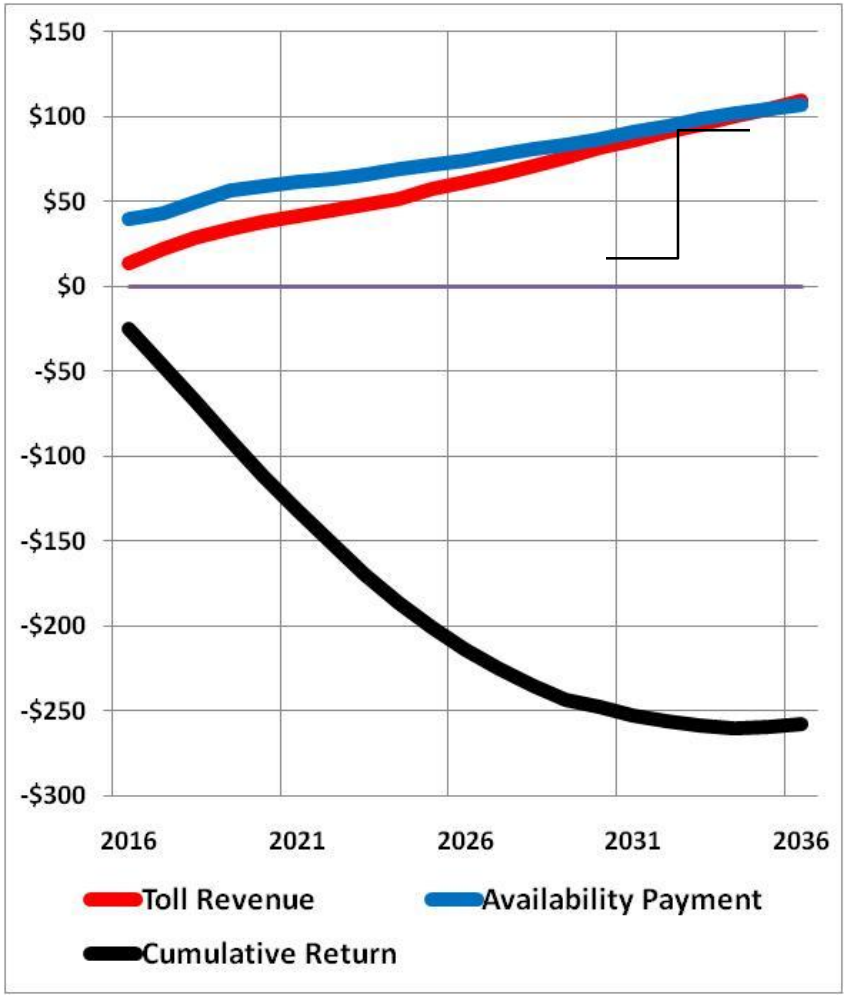
PROJECTED ANNUAL TOLLS, COSTS, STATE SURPLUS (SHORTFALL), & CUMULATIVE DEFICIT/RETURN

Availability Payment Structure (CITI 2/26/2011 11:30 AM, Page 6)

	Toll Revenue	Availability Payment	KABATA Admin-istrative Costs	Net State Surplus	Cumulative Deficit/Return
	(a)	(b)	(c)	(d=a-b-c)	Sum d
16-36	$ 1,633.2	$ 1,436.9	$ 82.8	$ 113.5	
16-51	$ 4,812.4	$ 3,228.4	$ 178.2	$ 1,405.8	
2016	$ 16.0	$ 35.8	$ 2.9	$ (22.7)	$ (22.7)
2017	$ 24.5	$ 39.6	$ 3.0	$ (18.1)	$ (40.8)
2018	$ 32.0	$ 45.5	$ 3.1	$ (16.6)	$ (57.4)
2019	$ 38.5	$ 51.5	$ 3.2	$ (16.2)	$ (73.6)
2020	$ 43.3	$ 53.5	$ 3.3	$ (13.5)	$ (87.1)
2021	$ 47.4	$ 55.7	$ 3.4	$ (11.7)	$ (98.8)
2022	$ 51.7	$ 57.9	$ 3.5	$ (9.7)	$ (108.5)
2023	$ 56.1	$ 60.2	$ 3.6	$ (7.7)	$ (116.2)
2024	$ 60.8	$ 62.6	$ 3.7	$ (5.5)	$ (121.7)
2025	$ 67.3	$ 65.1	$ 3.8	$ (1.6)	$ (123.3)
2026	$ 73.9	$ 67.7	$ 3.9	$ 2.3	$ (121.0)
2027	$ 80.8	$ 70.5	$ 4.0	$ 6.3	$ (114.7)
2028	$ 88.0	$ 73.3	$ 4.1	$ 10.6	$ (104.1)
2029	$ 95.6	$ 76.2	$ 4.2	$ 15.2	$ (88.9)
2030	$ 102.3	$ 79.2	$ 4.3	$ 18.8	$ (70.1)
2031	$ 108.4	$ 82.4	$ 4.5	$ 21.5	$ (48.6)
2032	$ 114.8	$ 85.7	$ 4.6	$ 24.5	$ (24.1)
2033	$ 121.5	$ 89.4	$ 4.7	$ 27.4	$ 3.3
2034	$ 128.4	$ 92.7	$ 4.9	$ 30.8	$ 34.1
2035	$ 137.6	$ 95.0	$ 5.0	$ 37.6	$ 71.7
2036	$ 144.3	$ 97.4	$ 5.1	$ 41.8	$ 113.5

SENSITIVITY ANALYSIS #1:
KABATA LOW TOLL REVENUES & REVISED COST

- Toll Revenue<Payments thru 2034
- Break Even 2047



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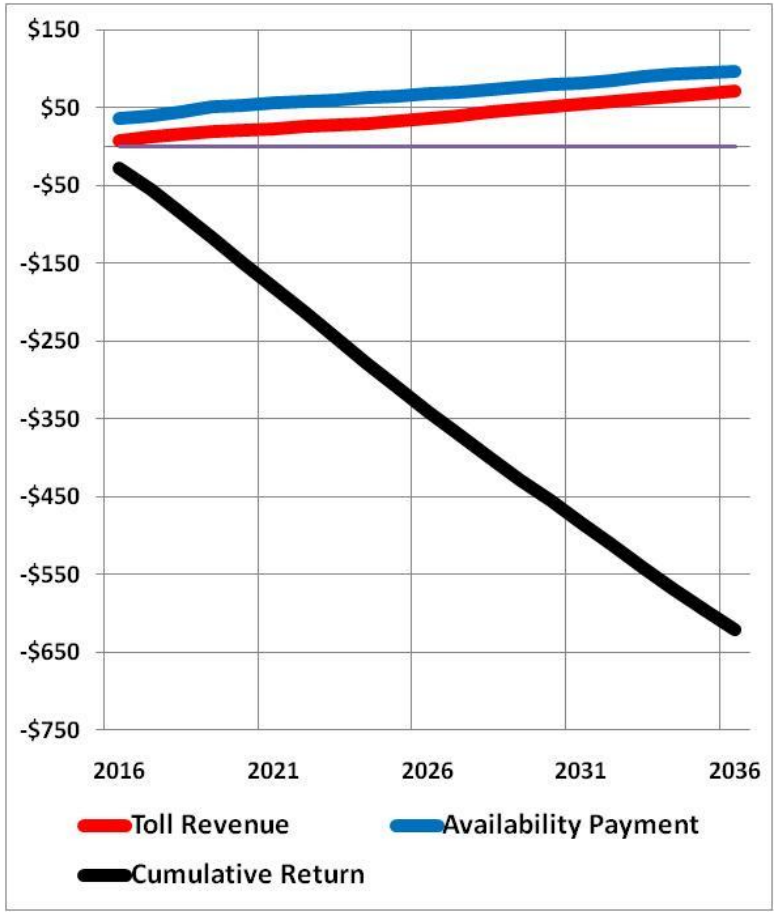
		SENSITIVITY ANALYSIS #1			
		CUMULATIVE DEFICIT/RETURN			
Toll Revenue		**Wilber Smith Low Feb 23, 2011 Page 23**			
Availability Payment compared to KABATA BASELINE					**110%**
	Toll Revenue	Availability Payment	KABATA Admin-istrative Costs	Net State Surplus	Cumulative Deficit/Return
	(a)	(b)	(c)	(d=a-b-c)	Sum d
16-36	$ 1,323.0	$ 1,580.6	$ 82.8	$ (257.6)	
16-51	$ 3,799.5	$ 3,551.2	$ 178.2	$ 248.2	
2016	$ 14.1	$ 39.4	$ 2.9	$ (25.3)	$ (25.3)
2017	$ 22.0	$ 43.6	$ 3.0	$ (21.6)	$ (46.8)
2018	$ 28.8	$ 50.1	$ 3.1	$ (21.3)	$ (68.1)
2019	$ 34.1	$ 56.7	$ 3.2	$ (22.6)	$ (90.6)
2020	$ 37.7	$ 58.9	$ 3.3	$ (21.2)	$ (111.8)
2021	$ 41.1	$ 61.3	$ 3.4	$ (20.2)	$ (132.0)
2022	$ 44.5	$ 63.7	$ 3.5	$ (19.2)	$ (151.2)
2023	$ 48.1	$ 66.2	$ 3.6	$ (18.1)	$ (169.3)
2024	$ 51.9	$ 68.9	$ 3.7	$ (17.0)	$ (186.2)
2025	$ 57.1	$ 71.6	$ 3.8	$ (14.5)	$ (200.7)
2026	$ 61.5	$ 74.5	$ 3.9	$ (13.0)	$ (213.7)
2027	$ 66.1	$ 77.6	$ 4.0	$ (11.5)	$ (225.2)
2028	$ 70.8	$ 80.6	$ 4.1	$ (9.8)	$ (235.0)
2029	$ 75.8	$ 83.8	$ 4.2	$ (8.0)	$ (243.0)
2030	$ 82.1	$ 87.1	$ 4.3	$ (5.0)	$ (248.0)
2031	$ 86.4	$ 90.6	$ 4.5	$ (4.2)	$ (252.3)
2032	$ 90.9	$ 94.3	$ 4.6	$ (3.4)	$ (255.6)
2033	$ 95.6	$ 98.3	$ 4.7	$ (2.7)	$ (258.4)
2034	$ 100.4	$ 102.0	$ 4.9	$ (1.6)	$ (260.0)
2035	$ 104.7	$ 104.5	$ 5.0	$ 0.2	$ (259.8)
2036	$ 109.3	$ 107.1	$ 5.1	$ 2.2	$ (257.6)

SENSITIVITY ANALYSIS #2: HALF OF KABATA BASELINE TOLL REVENUE

- Toll Revenue<Payments thru 2050
- Break Even— ??? Probably after 2060



	SENSITIVITY ANALYSIS #2				
	CUMULATIVE DEFICIT/RETURN				
Toll Revenue	**Half of KABATA Baseline**				
Availability Payment	**KABATA, 2/26/2011**				
	Toll Revenue	Availability Payment	KABATA Admin-istrative Costs	Net State Surplus	Cumulative Deficit/Return
	(a)	(b)	(c)	(d=a-b-c)	Sum d
16-36	$ 816.6	$ 1,436.9	$ 82.8	$ (620.3)	
16-51	$ 2,406.2	$ 3,228.4	$ 178.2	$ (822.2)	
2016	$ 8.0	$ 35.8	$ 2.9	$ (27.8)	$ (27.8)
2017	$ 12.3	$ 39.6	$ 3.0	$ (27.4)	$ (55.2)
2018	$ 16.0	$ 45.5	$ 3.1	$ (29.5)	$ (84.7)
2019	$ 19.3	$ 51.5	$ 3.2	$ (32.3)	$ (116.9)
2020	$ 21.7	$ 53.5	$ 3.3	$ (31.9)	$ (148.8)
2021	$ 23.7	$ 55.7	$ 3.4	$ (32.0)	$ (180.8)
2022	$ 25.9	$ 57.9	$ 3.5	$ (32.1)	$ (212.8)
2023	$ 28.1	$ 60.2	$ 3.6	$ (32.2)	$ (245.0)
2024	$ 30.4	$ 62.6	$ 3.7	$ (32.2)	$ (277.2)
2025	$ 33.7	$ 65.1	$ 3.8	$ (31.5)	$ (308.6)
2026	$ 37.0	$ 67.7	$ 3.9	$ (30.8)	$ (339.4)
2027	$ 40.4	$ 70.5	$ 4.0	$ (30.1)	$ (369.5)
2028	$ 44.0	$ 73.3	$ 4.1	$ (29.3)	$ (398.8)
2029	$ 47.8	$ 76.2	$ 4.2	$ (28.4)	$ (427.2)
2030	$ 51.2	$ 79.2	$ 4.3	$ (28.1)	$ (455.2)
2031	$ 54.2	$ 82.4	$ 4.5	$ (28.2)	$ (483.4)
2032	$ 57.4	$ 85.7	$ 4.6	$ (28.3)	$ (511.7)
2033	$ 60.8	$ 89.4	$ 4.7	$ (28.7)	$ (540.4)
2034	$ 64.2	$ 92.7	$ 4.9	$ (28.5)	$ (568.9)
2035	$ 68.8	$ 95.0	$ 5.0	$ (26.2)	$ (595.1)
2036	$ 72.2	$ 97.4	$ 5.1	$ (25.3)	$ (620.3)

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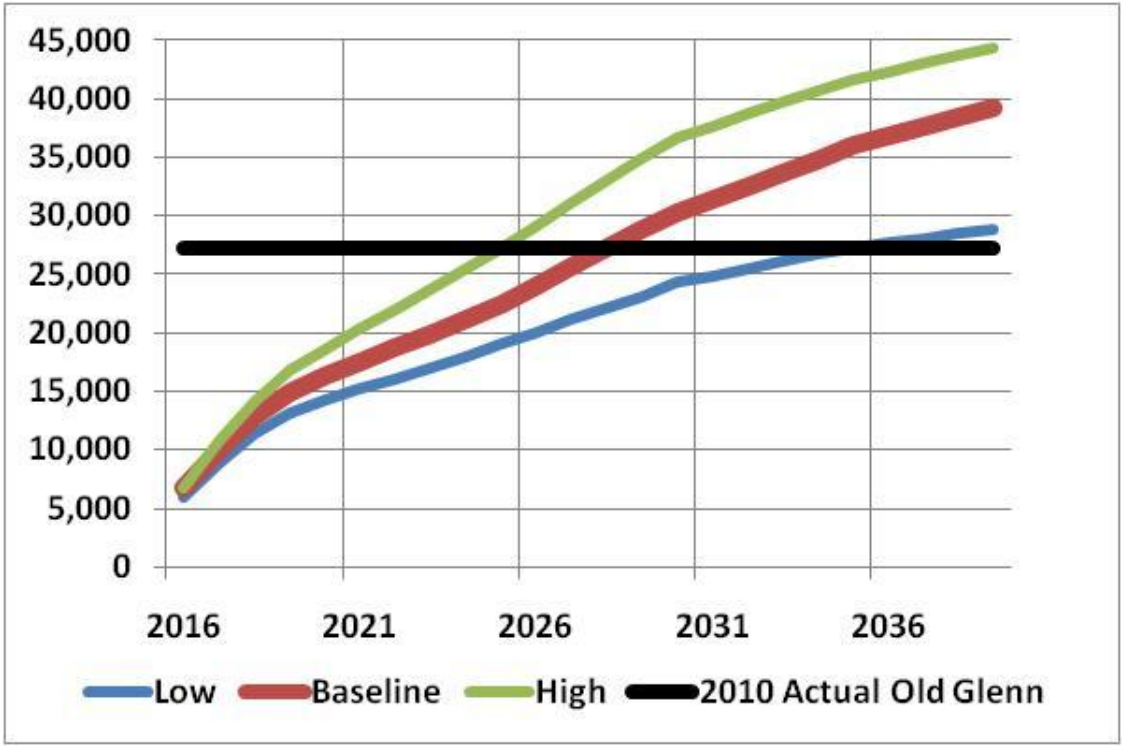
KAC PROJECTED AVERAGE ANNUAL DAILY TRIPS

(PASSENGER CAR + COMMERCIAL VEHICLE TRANSACTIONS)

With 2010 ACTUAL GLENN HIGHWAY TRIPS (OLD GLENN INTERSECTION)

Year	Low	Baseline	High	Old Glen
2016	5,900	6,700	6,800	27,280
2017	8,900	10,000	10,700	27,280
2018	11,400	12,800	14,100	27,280
2019	13,200	14,900	16,800	27,280
2020	14,300	16,300	18,600	27,280
2021	15,200	17,500	20,300	27,280
2022	16,100	18,700	22,000	27,280
2023	17,000	19,900	23,700	27,280
2024	17,900	21,100	25,400	27,280
2025	19,100	22,500	27,300	27,280
2026	20,100	24,100	29,200	27,280
2027	21,100	25,700	31,100	27,280
2028	22,100	27,300	33,000	27,280
2029	23,100	28,900	34,900	27,280
2030	24,300	30,300	36,700	27,280
2031	24,900	31,400	37,700	27,280
2032	25,500	32,500	38,700	27,280
2033	26,100	33,600	39,700	27,280
2034	26,700	34,700	40,700	27,280
2035	27,300	36,000	41,600	27,280
2036	27,700	36,800	42,300	27,280
2037	28,100	37,600	43,000	27,280
2038	28,500	38,400	43,700	27,280
2039	28,900	39,200	44,400	27,280



SOURCE: Wilbur Smith , Feb 25, 2011, and ADOT.

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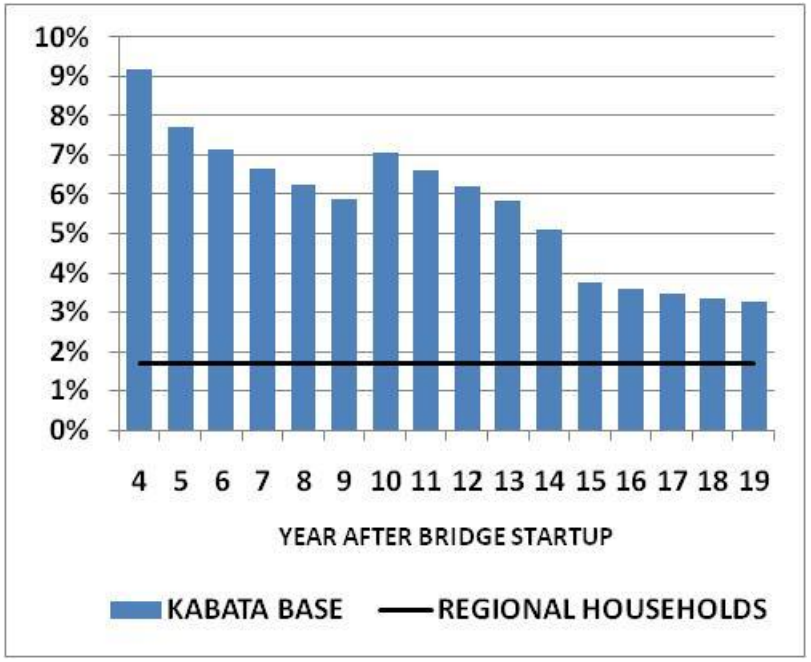
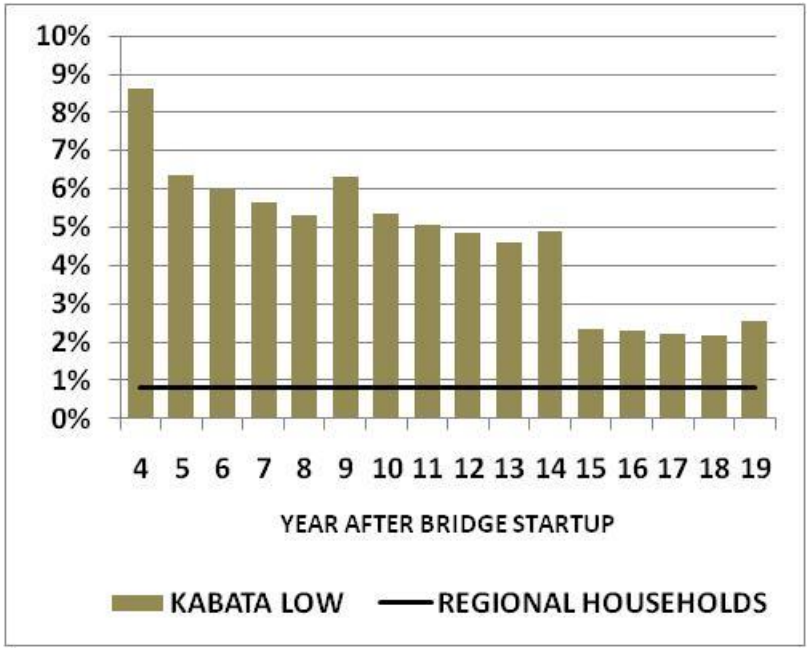
TRIP GROWTH RATE (CAR TRANSACTIONS) COMPARED TO REGIONAL HOUSEHOLD GROWTH RATE (ANCHORAGE PLUS MATSU)

KABATA BASELINE



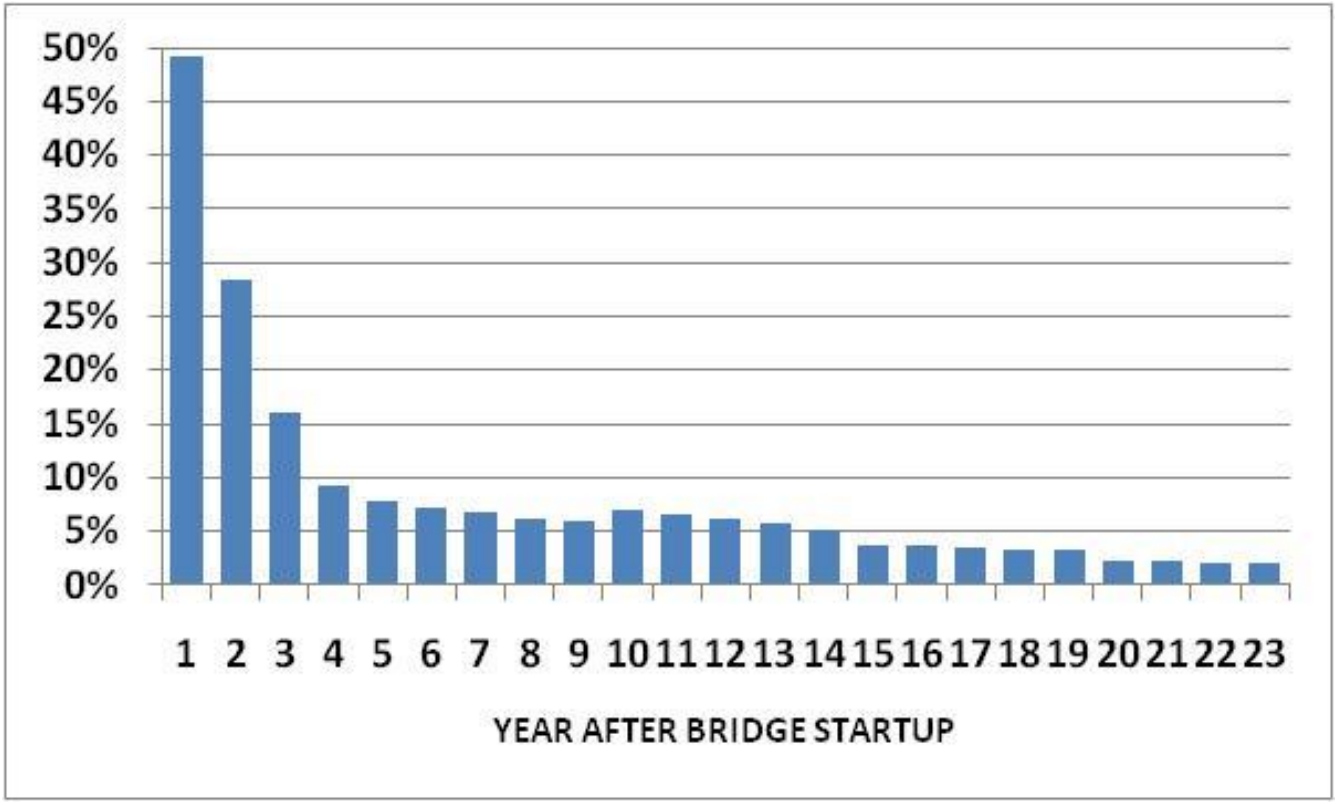
KABATA LOW



SOURCE: Wilbur Smith , Feb 25, 2011. Annual households based on ISER , 2009.

ANNUAL GROWTH RATE OF CAR TRIPS (TRANSACTIONS) : KABATA BASELINE CASE

Year	Car	Grow Rate
2016	5,900	
2017	8,800	49.2%
2018	11,300	28.4%
2019	13,100	15.9%
2020	14,300	9.2%
2021	15,400	7.7%
2022	16,500	7.1%
2023	17,600	6.7%
2024	18,700	6.3%
2025	19,800	5.9%
2026	21,200	7.1%
2027	22,600	6.6%
2028	24,000	6.2%
2029	25,400	5.8%
2030	26,700	5.1%
2031	27,700	3.7%
2032	28,700	3.6%
2033	29,700	3.5%
2034	30,700	3.4%
2035	31,700	3.3%
2036	32,400	2.2%
2037	33,100	2.2%
2038	33,800	2.1%
2039	34,500	2.1%



SOURCE: Wilbur Smith , Feb 25, 2011.

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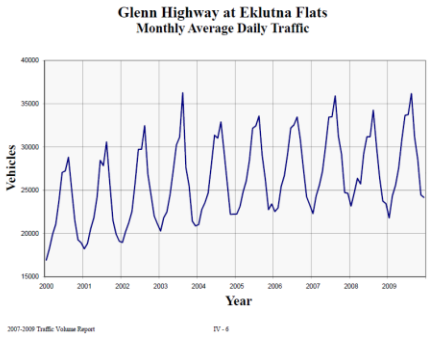
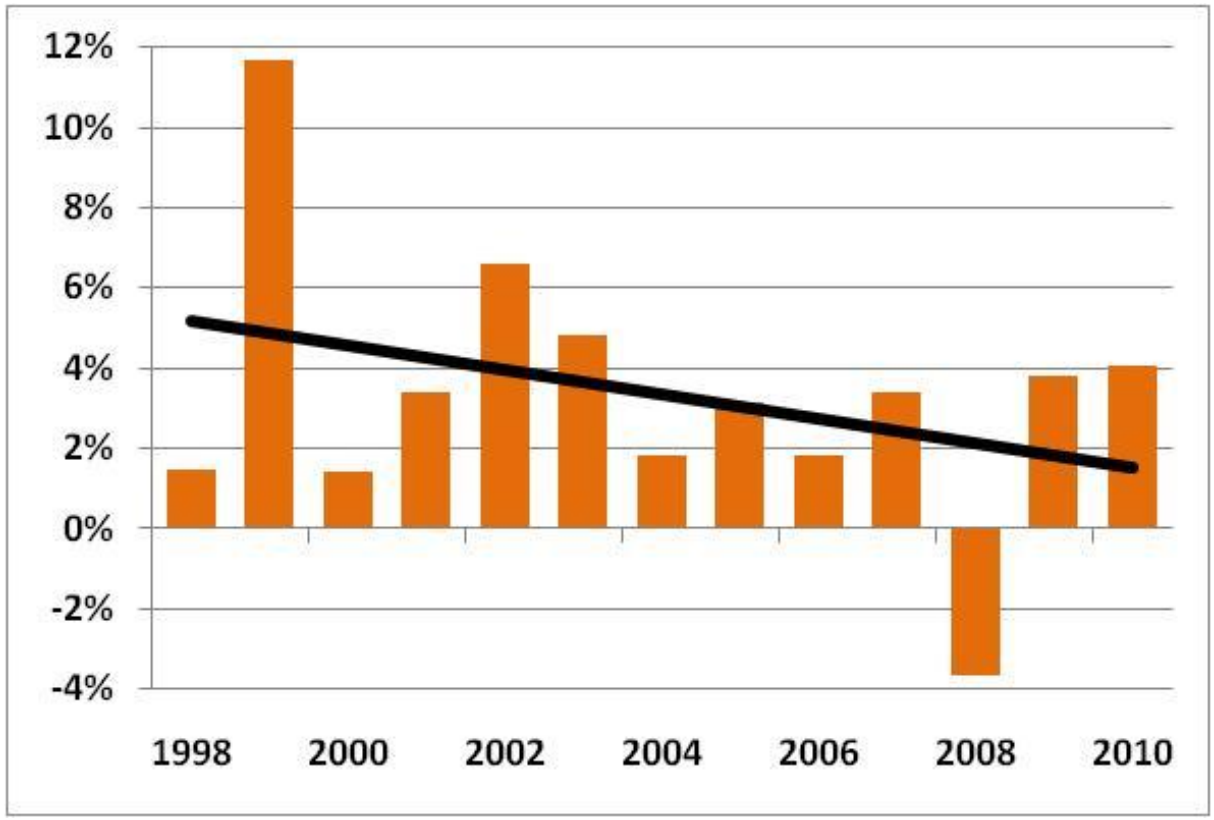
GLENN HIGHWAY AT EKLUTNA FLATS
AVERAGE ANNUAL DAILY TRIPS (AADT): ANNUAL GROWTH RATE AND TREND

HISTORY YEAR	AADT	PERCENT GROWTH
2009	28495	3.8
2008	27454	-3.7
2007	28506	3.4
2006	27570	2.0
2005	27028	3.0
2004	26249	1.8
2003	25782	4.8
2002	24600	6.6
2001	23079	3.4
2000	22321	1.4
1999	22010	11.7
1998	19711	1.5
1997	19423	
1994	19161	
1992	16134	13.8
1991	14177	





SOUCE: Annual Traffic Volume Report, ADOT.

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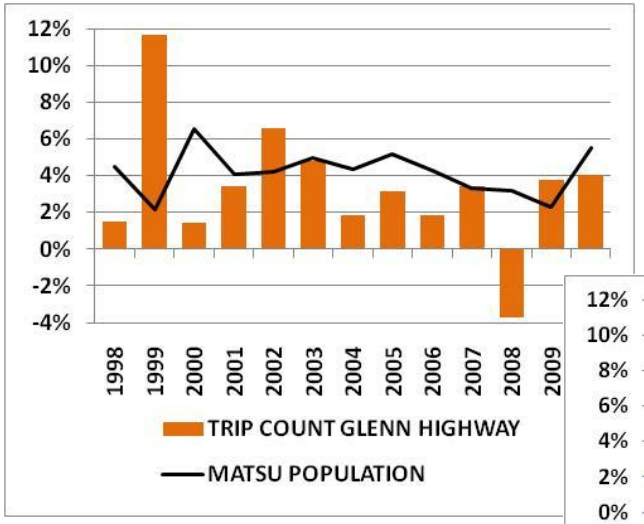
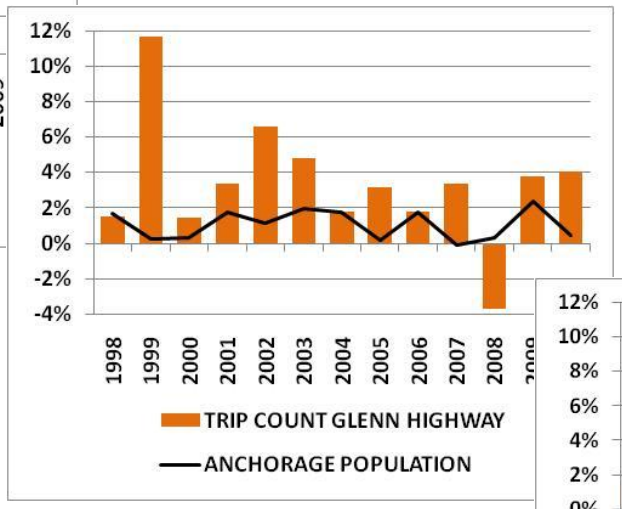
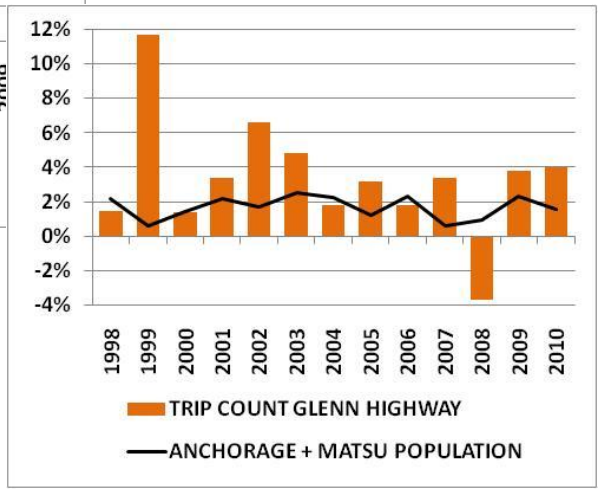
HISTORICAL ANNUAL GROWTH RATES: GLENN HIGHWAY AT EKLUTNA FLATS AADT & POPULATION







Source: ADOT and ADOL.

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PROJECTED CAR TRIPS COMPARED TO PROJECTED HOUSEHOLDS

ASSUME 2/3 TRIPS ORIGINATE MATSU, 1/3 ANCHORAGE

KABATA ONLY TRIPS

KABATA household projection for 2035			
	anch	ms	sum
	(a)	(b)	(c)
low	130.5	43.8	174.3
baseline	142.7	74.6	217.3
high	156.7	104	260.7

KABATA car trips (transactions) in 2035			
	anch	ms	sum
	(d)	(e)	(f)
low	8	16	24
baseline	10.6	21.1	31.7
high	12.2	24.4	36.6

SHARE OF KABATA car trips / HH 2035			
	anch	ms	sum
	(d)/(a)	(e)/(b)	(f)/(c)
low	6.1%	**36.5%**	13.8%
baseline	7.4%	**28.3%**	14.6%
high	7.8%	**23.5%**	14.0%

KABATA + GLENN HIGHWAY TRIPS*

KABATA + GLENN trips / households 2035			
	anch	ms	sum
	(26.1)/(a)	(52.2)/(b)	(78.3)/(c)
baseline	**18.3%**	**70.0%**	**36.0%**

ACTUAL 2010			
	anch	ms	sum
hh	107.3	31.8	139.1
trips	8.18	16.37	24.55
trips / hh	**7.6%**	**51.5%**	**17.6%**

SOURCE: Wilbur Smith , Feb 25, 2011, US Census, and ADOT.
* Glenn Highway trips measured at Old Glenn, adjusted downward 10% to net out estimated commercial trips
27.28 in 2010 net 10% = 24.55
51.8 in 2035 net 10% = 46.6.
Total car trips in 2035 in baseline , 78.3 = 31.7 KABATA + 46.6 Glenn.

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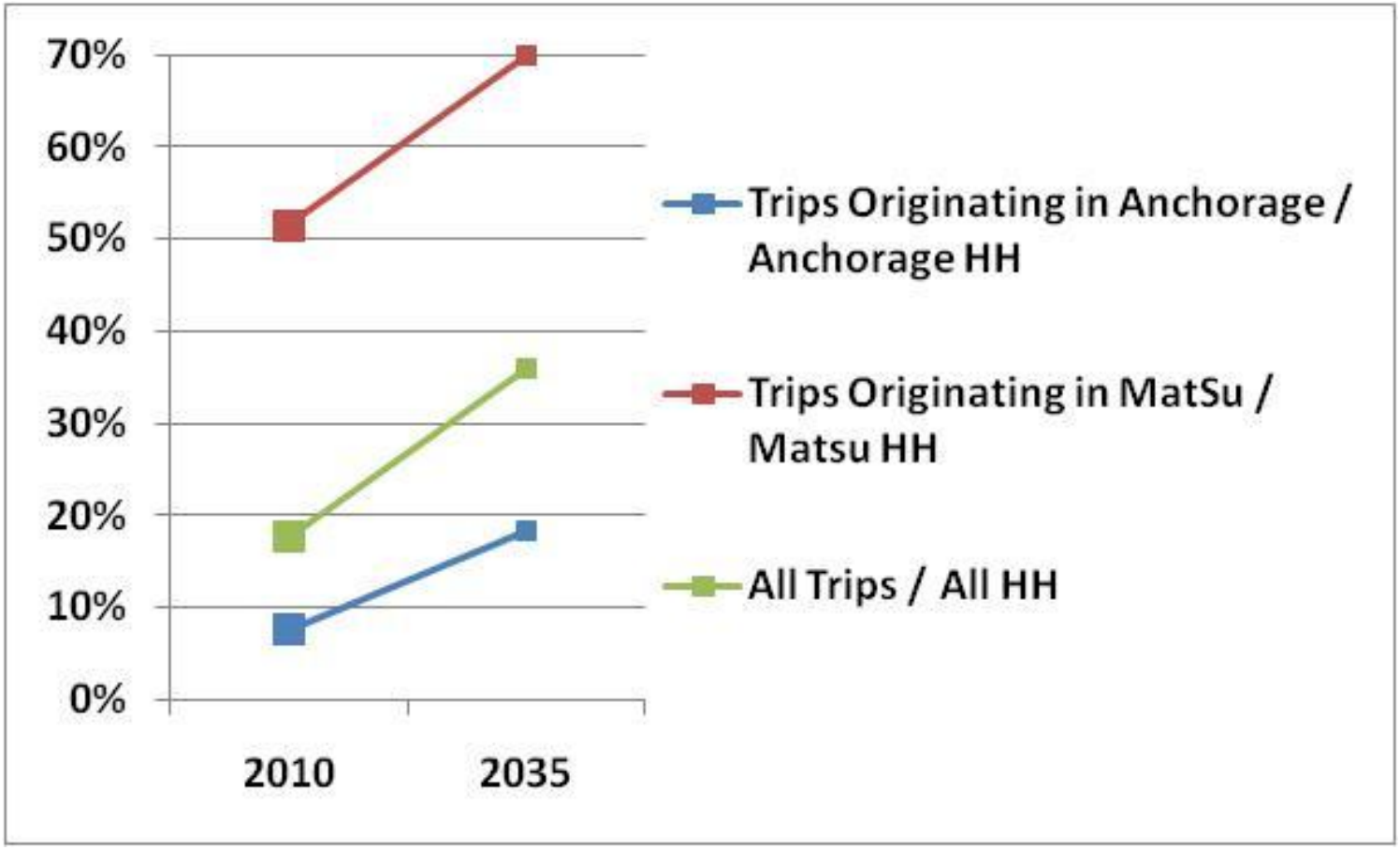
TRIP TO HOUSEHOLD RATIO:
ACTUAL 2010 AND KABATA 2035 PROJECTIONS
ASSUME 2/3 TRIPS ORIGINATE MATSU, 1/3 ANCHORAGE



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Unreasonable Assumptions in WSA Update/KABATA Financial Plan

- **WSA/KABATA projects a larger share of households travel Anc-Valley in Low Growth Model than Baseline**

  Should be smaller share

- **WSA/KABATA projects 2x share of Anc-Mat-Su households commute between Anc-Valley in 2035 than 2010**

  Historically fairly flat % of households commute

- **KABATA Financial Plan includes revenue from Phase II traffic but no cost for Phase 2 in Plan**

  How do 36,000 AADT happen in 2035 on 2 lanes?

  No toll revenue to pay Phase 2 in Financial Plan

  Phase 2 Cost $375 MM (KABATA 2010), FHWA $835 MM (2009)

- **Between 2010 actual and 2035 WSA projected, households increase 135% in Mat Su and 56% in Anc + Mat Su but Mat Su – Anc trips (KAC + Glenn) increase 219 %**

  Not Credible

  If KAC = 18,000 AADT, then 2035 Mat-Su-Anc trips increase from 2010 to 2035 = 146%

KABATA 2011 Financial Plan (TIFIA Application)

- **$686 MM Cost of Bridge (2009 estimate)**
  - **$306 MM TIFIA Loan**
  - **$150 MM additional from state & state guarantee on contractor payments**
  - **12% annual ROI compounded for private contractor**
  - **$ 5 car toll each way, $18 commercial Year 1 rising 2.5%/year**
  - **No Phase 2 financing included as cost, but includes 4 Lane Phase 2 toll traffic in revenue**

    KABATA Phase 2 Estimate $375 MM

    FHWA Phase 2 Median Estimate $835 MM 2009

Issues in KABATA 2011 Pro Forma Financials

- **Ballooning Contractor Payments from Year 1, $36 MM to Year 36, $141 MM**
- **Toll Revenues are not sufficient to cover annual contractor payments until 2025 so extra financing costs makes total contractor payments 4.7x cost of the bridge**
- **Contractor takes out $64 MM of original $78 MM equity before first TIFIA loan payment Year 5, a compounded 12% annual return**
- **In addition to a Primary Bond, KABATA needs a Secondary Bond of $41 MM with first payment in 2034, so Secondary Bond requires $248 MM in payments before fully repaid**
- **State cumulative cash will not go positive until 2034**
- **Based on *optimistic* Population and Toll Revenue Projections**

Mat-Su Borough Projections

KABATA Data			
Year	Population	Households	Source
2030	250,700	*92,169*	Insight/WSA '07
2035	*202,912*	74,600	WSA '11

Non-KABATA Data			
2030	169,000	*62,132*	ISER '09
2034	152,456	*56,050*	12/2010 AK Demographer
2035	*160,929*	59,165	ISER '09, H2H

2010 Census counted 88,995 people in 31,824 households or 2.72 persons/household on average. The 2.72 number is used in this analysis (i.e., calculated #s shown in italics).

Observations Based on KABATA vs. Non-KABATA Projections

- KABATA 2035 household number is 15,435 more than ISER's (74,600 vs. 59,165 or 26% more), which represents *41,983* additional people

- WSA shows 10% less toll revenue in Year 20 (2035) in its 2011 update than its original 2007 toll forecast; population dropped 19% (250,700 to *202,912*), so changes to the model added 9% more revenue (19% minus 10%)

2035 Knik Arm Bridge Traffic and Toll Comparisons

AADT	Car/Truck Toll (one way)	Source	Notes
17,700	$5/$18	ISER/CH2M Hill '09	Toll increases annually with per capita income
36,100	$0	DOT '09	H2H estimate
36,000	$7.99/$28.78	WSA '11/KABATA	2011 Pro Forma
18,000	$7.99/$28.78	J. Kenworthy	Probable case

Changes from 2011 Pro Forma to J. Kenworthy Realistic

Same

- Cost of Bridge $686 MM Phase 1
- Interest Rate
- All costs including O&M, Toll Collection, Capital Reserve, Admin
- Deal Structure
- No Phase 2 Cost but Phase 2 4 lane traffic revenue
- Additional $150 MM from State + Unlimited Guarantee

Changes

- No TIFIA Loan which Adds $306 Million
- Halve Toll Revenue with Half AADT which Adds $2.4 Bill
- Lower Contractor Return from 12% Compound ROI to 10% which Subtracts $154 Million

Result: Cumulative contractor payments increase from $3.2 Billion to $5.75 Billion or an additional $2.55 Billion is needed to cover the toll shortfall.

Of that $2.55 Billion increase, $1.1 Billion occurs from 2016-2035 and $1.45 Billion occurs from 2036-2051.

AMATS MTP Assumptions

Decision	Source	Growth	Revenue	Notes
MTP revenue	AMATS	Moderate	Moderate	Low case + state transportation fund
Regional projection	ISER	Moderate	N/A	Gasline 2019, Pebble, federal spending okay, Mat Su HH 59,165, Anc+Mat Su HH 193,394
Households	WSA	High	N/A	Mat S HH 74,600, Anc+Mat Su HH 217,300, Higher share growth Mat Su
KAC traffic/toll	ISER/ CH2M Hill	Moderate	N/A	KAC 2035 17,700 AADT
KAC traffic/toll	WSA	High	Improbably high	KAC 2035 36,000 AADT; 2011 traffic model 9% more revenue from same population; 2x more trips per HH than today

NEXT STEPS

Assuming:

- TAZ analysis of WSA and ISER/Ch2M Hill data confirm this household/trip growth disjunction
- Final WSA update (expected imminently) has same trip numbers as WSA 2/11 report and so unchanged WSA toll numbers from KABATA 2/11 financial plan
- Private sector continues to have no interest in taking financial risk on toll shortfall to cover bridge bonds and costs (except minor O&M pass through) without state guarantee

THEN…

Suggested Options

AMATS should set aside WSA analysis and KABATA financial plan as insufficiently documented and unrealistic (i.e., not consistent with the regional forecast). AMATS cannot now determine state cost for the KAC and it is substantial, i.e., $1.1 billion to cover toll shortfall until 2035 is more than 50% of total MTP road projects.

1. KAC removed from the MTP

AMATS recommends that the Depts. of Revenue and Transportation &Public Facilities conduct independent, investment-grade KAC traffic and toll study.

2. KAC moved to the illustrative project list

Project note states that further KAC decisions depend on legislative action on a state financial guarantee and AMATS' acceptance of a traffic and toll revenue study. To be included in the MTP, that study must produce reasonable cost to the state so as to meet the MTP's fiscal constraint requirements.