

Traffic Analysis Data

Appendix C

CRW ENGINEERING GROUP, LLC

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Anchorage, Alaska 99503
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JOB 1011900 Campbell Airstrip
SHEET NO. 1 OF _____
CALCULATED BY ESS DATE 9/16/11
CHECKED BY _____ DATE _____
SCALE _____

• Design Hour Volume = 9.7%
(from 30th highest hour from the Permanent Traffic Recorder at Tudor West of Patterson)

• Adjusted AADT

- traffic counts = 1362 (Tuesday in May) (5/10/11)
• adjustment for Tuesday in May = 107.7%
AADT = $1362 / 107.7\% = 1265$

- traffic counts = 1485 (5/11/11)
• adjustment for Wednesday in May = 106.3%
AADT = $1485 / 106.3 = 1397$

AADT = average of 1265 & 1397 = 1331

• Directional Distribution

- 5:00 - 6:00 pm: 5/10/11 \Rightarrow 30/70 } average = 33/67
" 5/11/11 \Rightarrow 36/64 } N/S

• Traffic Projections

MoA 2009 counts = 1030

MoA 2027 model = 1602

$$1030 \cdot (x)^{(2027-2009)} = 1602 \quad x = \text{growth rate}$$

$$18 \ln x = \ln(1602/1030)$$

$$\ln x = .0245$$

$$x = e^{.0245}$$

$$x = 1.0248$$

\Rightarrow growth rate = 2.5% \Rightarrow use 2.0% b/c
growth rate over 30 years probably won't
exceed 2%

$$1602 (1.02)^{(2031-2027)} = \span style="border: 1px solid black; padding: 2px;">1734$$

Station Name: Campbell Airstrip & Tudor .5mi S (CH1 NB CH2 SB)

Site ID: 000005091101

Station Num: 00000000308

Description: Speed Study

City: Anchorage

Start Date/Time: 05/10/2011 00:00

End Date/Time: 05/10/2011 23:59

Time / Lane Type	10 MPH	15 MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	> 65 MPH	All Speeds
00:00 Northbound	0	0	0	0	2	1	1	0	0	0	1	0	0	5
00:00 Southbound	0	0	0	0	0	2	6	1	0	1	0	0	0	10
01:00 Northbound	0	0	0	0	0	2	0	0	1	0	0	0	0	3
01:00 Southbound	0	0	0	0	0	1	0	0	1	0	0	0	0	2
02:00 Northbound	0	0	0	0	0	0	1	0	0	0	0	0	0	1
02:00 Southbound	0	0	0	0	0	0	1	2	0	0	0	0	0	3
03:00 Northbound	0	0	0	0	1	0	1	0	0	0	0	0	0	2
03:00 Southbound	0	0	0	0	0	1	0	0	0	0	0	0	0	1
04:00 Northbound	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:00 Southbound	0	0	0	0	0	0	0	1	0	0	0	0	0	1
05:00 Northbound	0	0	0	0	0	1	2	4	2	0	0	0	0	9
05:00 Southbound	0	0	0	0	0	0	0	1	0	0	0	0	0	1
06:00 Northbound	0	0	0	0	0	2	14	8	5	3	0	0	0	32
06:00 Southbound	0	0	0	0	1	0	3	5	4	0	0	0	0	13
07:00 Northbound	0	0	0	1	7	4	23	17	3	0	0	0	0	55
07:00 Southbound	0	0	1	0	3	4	4	5	0	0	0	0	0	17
08:00 Northbound	0	0	0	0	1	8	21	18	10	0	0	0	0	58
08:00 Southbound	0	0	0	0	3	7	12	3	2	0	0	0	0	27
09:00 Northbound	0	0	1	1	2	14	13	7	2	2	0	0	0	42
09:00 Southbound	0	0	1	0	3	13	12	13	1	0	1	0	0	44
10:00 Northbound	0	0	0	2	4	7	9	2	3	1	0	0	0	28
10:00 Southbound	0	0	2	1	2	8	14	3	0	0	0	0	0	30
11:00 Northbound	0	0	0	0	1	6	17	13	4	0	0	0	0	41
11:00 Southbound	0	0	0	3	4	6	10	3	3	0	0	0	0	29
12:00 Northbound	0	0	1	0	6	14	14	2	0	0	0	0	0	37
12:00 Southbound	0	0	0	2	7	11	13	5	1	0	0	0	0	39
13:00 Northbound	0	0	1	1	6	14	11	6	1	0	0	0	0	40
13:00 Southbound	0	0	2	1	2	5	10	5	2	0	0	0	0	27
14:00 Northbound	0	1	0	0	4	11	15	5	2	0	0	0	0	38
14:00 Southbound	0	0	2	3	1	10	14	8	1	0	0	0	0	39
15:00 Northbound	0	0	1	1	8	25	12	6	3	0	0	0	0	56
15:00 Southbound	0	0	2	0	5	5	16	21	6	4	2	0	0	61
16:00 Northbound	0	0	0	0	5	19	14	2	1	1	0	0	0	42
16:00 Southbound	0	0	0	1	2	4	6	18	19	4	0	2	0	56
17:00 Northbound	0	0	0	2	6	7	13	6	3	1	0	0	0	38
17:00 Southbound	0	0	0	0	1	2	6	21	41	10	4	2	0	87
18:00 Northbound	0	0	0	0	1	9	13	9	2	0	0	0	0	34
18:00 Southbound	0	0	0	0	1	4	8	16	8	10	2	0	0	49
19:00 Northbound	0	0	0	1	4	17	11	0	1	0	0	0	0	34
19:00 Southbound	0	1	0	0	2	8	26	12	4	3	2	0	0	58
20:00 Northbound	0	0	1	0	9	4	12	4	1	1	0	0	0	32
20:00 Southbound	0	0	0	0	0	1	21	7	2	2	3	1	0	37
21:00 Northbound	0	0	0	0	3	3	3	4	0	1	0	0	0	14
21:00 Southbound	0	0	0	0	0	8	0	17	4	1	0	0	1	31
22:00 Northbound	0	0	0	2	0	2	6	1	0	0	0	0	0	11
22:00 Southbound	0	0	0	1	1	0	8	5	3	0	0	0	0	18
23:00 Northbound	0	0	0	2	3	3	1	2	0	0	0	0	0	11
23:00 Southbound	0	0	0	0	0	2	9	3	4	0	0	0	0	18
Northbound	0	1	5	13	73	173	228	116	44	10	1	0	0	664
Southbound	0	1	10	12	38	102	199	175	106	35	14	5	1	698
Total NSB	0	2	15	25	111	275	427	291	150	45	15	5	1	1362
Percentages	0.00%	0.15%	1.10%	1.84%	8.15%	20.19%	31.35%	21.37%	11.01%	3.30%	1.10%	0.37%	0.07%	100.00%

Station Name: Campbell Airstrip & Tudor .5mi S (CH1 NB CH2 SB)
Site ID: 00005091101
Station Num: 00000000308
Description: Speed Study
City: Anchorage
Start Date/Time:05/10/11 00:00
End Date/Time:05/10/11 23:59

Lane Type	Total Vehicles	% Of All Lanes	50th Percentile	85th Percentile
Northbound	664	48.75%	36.47 MPH	43.06 MPH
Southbound	698	51.25%	39.65 MPH	47.59 MPH
All Lanes	1362	100.00%	37.95 MPH	45.37 MPH

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Description: Speed Study

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Time / Lane Type	10 MPH	15 MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	> 65 MPH	All Speeds
00:00 Northbound	0	0	0	0	5	1	2	1	0	0	0	0	0	9
00:00 Southbound	0	0	0	0	0	2	6	0	0	1	0	0	0	9
01:00 Northbound	0	0	0	0	0	0	1	0	0	0	0	0	0	1
01:00 Southbound	0	0	0	0	0	0	0	3	0	0	0	0	0	3
02:00 Northbound	0	0	0	0	0	1	1	0	0	0	0	0	0	2
02:00 Southbound	0	0	0	0	0	1	0	2	0	0	0	0	0	3
03:00 Northbound	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00 Southbound	0	0	0	0	0	1	0	0	0	0	0	0	0	1
04:00 Northbound	0	0	0	0	0	0	2	0	2	0	0	0	0	4
04:00 Southbound	0	0	0	0	0	1	0	0	0	0	0	0	0	1
05:00 Northbound	0	0	0	0	0	1	3	5	2	0	0	0	0	11
05:00 Southbound	0	0	0	0	0	0	1	2	0	1	0	0	0	4
06:00 Northbound	0	0	0	0	2	2	8	7	5	1	1	0	0	26
06:00 Southbound	0	0	0	1	1	0	1	4	1	0	0	0	0	8
07:00 Northbound	0	0	0	5	1	5	21	20	5	1	0	0	0	58
07:00 Southbound	0	0	0	0	0	1	5	3	2	0	0	1	0	12
08:00 Northbound	0	0	0	1	2	18	14	19	1	1	0	0	0	56
08:00 Southbound	0	0	0	0	0	3	14	11	2	1	1	0	0	32
09:00 Northbound	0	0	0	0	1	22	12	7	5	0	0	0	0	47
09:00 Southbound	0	0	0	0	0	1	16	22	4	2	2	0	0	47
10:00 Northbound	0	0	0	0	0	14	11	5	1	0	0	0	0	31
10:00 Southbound	0	0	0	0	0	2	14	3	2	2	0	0	0	23
11:00 Northbound	0	0	0	1	4	12	15	10	1	0	0	0	0	43
11:00 Southbound	0	0	0	0	0	1	40	1	4	1	1	1	0	49
12:00 Northbound	0	0	0	0	10	26	15	7	2	0	0	0	0	60
12:00 Southbound	0	0	1	0	0	4	24	5	3	2	1	1	0	41
13:00 Northbound	0	0	0	1	5	15	15	10	1	0	0	0	0	47
13:00 Southbound	0	0	0	1	1	1	22	8	3	1	1	0	1	39
14:00 Northbound	1	0	1	0	3	15	19	10	2	0	0	0	0	51
14:00 Southbound	0	0	0	0	1	0	24	7	5	2	1	0	1	41
15:00 Northbound	0	0	0	4	7	8	11	11	1	0	0	0	0	42
15:00 Southbound	0	0	0	0	0	4	9	5	14	5	2	0	5	44
16:00 Northbound	0	0	0	1	2	10	8	8	4	0	0	0	0	33
16:00 Southbound	0	0	0	1	0	6	2	4	28	13	6	5	6	71
17:00 Northbound	0	0	0	1	3	16	13	12	3	0	0	0	0	48
17:00 Southbound	0	1	0	1	0	0	12	35	14	15	5	3	1	87
18:00 Northbound	0	0	0	0	5	14	26	10	1	1	0	0	0	57
18:00 Southbound	0	0	0	0	1	3	23	9	16	2	2	1	4	61
19:00 Northbound	0	0	0	0	2	12	12	6	1	1	0	0	0	34
19:00 Southbound	0	0	0	1	1	0	20	13	5	0	4	1	1	46
20:00 Northbound	0	0	0	1	5	12	9	4	0	0	0	0	0	31
20:00 Southbound	0	0	0	0	0	1	28	1	19	4	5	0	0	58
21:00 Northbound	0	0	0	0	8	7	5	4	0	0	0	0	0	24
21:00 Southbound	0	0	0	0	0	1	26	0	2	4	3	0	0	36
22:00 Northbound	0	0	0	1	3	2	4	2	0	0	0	0	0	12
22:00 Southbound	0	0	0	0	0	1	7	7	1	2	1	0	0	19
23:00 Northbound	0	0	0	0	1	5	1	1	0	1	0	0	0	9
23:00 Southbound	0	0	0	0	0	0	12	0	0	0	0	1	0	13
Northbound	1	0	1	16	70	218	228	159	37	6	1	0	0	737
Southbound	0	1	1	5	5	34	306	145	125	58	35	14	19	748
Total NSB	1	1	2	21	75	252	534	304	162	64	36	14	19	1485
Percentages	0.07%	0.07%	0.13%	1.41%	5.05%	16.97%	35.96%	20.47%	10.91%	4.31%	2.42%	0.94%	1.28%	100.00%

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City: Anchorage

Start Date/Time:05/11/11 00:00

End Date/Time:05/11/11 23:59

Lane Type	Total Vehicles	% Of All Lanes	50th Percentile	85th Percentile
Northbound	737	49.63%	36.36 MPH	42.89 MPH
Southbound	748	50.37%	40.41 MPH	49.92 MPH
All Lanes	1485	100.00%	38.57 MPH	46.73 MPH

TUDOR ROAD - WEST OF PATTERSON STREET

ROUTE: 133899

MILEPOINT: 5.578

STATION NUMBER: 13395037 0

PERMANENT STN SUMMARY: 2009

MNTH	MADT	% AADT	6AM - 10PM	10PM - 6AM	PERCENT OF AADT FOR DAY OF WEEK								HISTORY		PERCENT GROWTH
					MON	TUE	WED	THU	FRI	WKDY	SAT	SUN	YEAR	AADT	
JAN	20678	87.9	89.2	10.8	108.3	112.0	103.3	100.3	109.1	106.6	91.4	75.7	2009	23534	-2.0
FEB	22463	95.4	90.5	9.5	100.7	107.1	106.4	107.5	114.2	107.2	90.1	74.0	2008	24012	2.9
MAR	22900	97.3	90.7	9.3	103.9	108.5	108.3	106.3	111.3	107.7	89.6	72.1	2007	23335	-2.5
APR	25085	106.6	90.9	9.1	102.2	107.0	107.8	107.5	110.4	107.0	90.7	74.4	2006	23925	
MAY	25259	107.3	90.0	10.0	96.4	107.7	106.3	108.4	112.0	106.2	90.8	78.3			
JUN	25091	106.6	89.6	10.4	106.5	107.3	108.9	107.6	108.8	107.8	84.3	76.5			
JUL	25169	106.9	88.8	11.2	105.1	107.2	110.0	109.6	107.3	107.8	82.9	77.9			
AUG	25410	108.0	89.7	10.3	105.7	105.6	105.5	106.4	109.6	106.6	90.3	76.9			
SEP	24319	103.3	91.1	8.9	97.8	107.0	108.4	109.4	112.7	107.1	89.3	75.4			
OCT	23662	100.5	91.0	9.0	102.0	105.5	106.0	108.6	112.5	106.9	91.1	74.3			
NOV	21319	90.6	90.1	9.9	106.9	111.5	107.8	101.5	108.1	107.2	89.1	75.1			
DEC	21049	89.4	89.3	10.7	106.4	108.2	108.4	106.0	103.6	106.5	90.6	76.8			
AADT	23534		90.1	9.9	103.5	107.9	107.3	106.6	110.0	107.1	89.2	75.6			

HIGH DAYS	1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	AVG	DIR. DISTR.			
VOLUME	30079	28912	28822	28634	28627	28572	28562	28319	28300	28288	28712	EB - 51.6%			
DAY	05/01	07/15	07/10	04/24	08/21	04/30	07/17	07/01	07/16	07/31		WB - 48.4%			
% AADT	127.8	122.9	122.5	121.7	121.6	121.4	121.4	120.3	120.3	120.2	122.0				

HIGH HOURS	1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	10TH	20TH	30TH	40TH	50TH	AVG
VOLUME	2382	2354	2329	2328	2316	2312	2311	2310	2310	2307	2291	2273	2257	2249	2326
HOUR	5PM	5PM	6PM	6PM	6PM	6PM	6PM	5PM	6PM	6PM	6PM	6PM	6PM	6PM	
DAY	04/24	04/17	08/24	09/30	06/24	04/29	07/21	05/01	04/30	07/22	04/23	08/17	07/09	08/19	
% AADT	10.1	10.0	9.9	9.9	9.8	9.8	9.8	9.8	9.8	9.8	9.7	9.7	9.6	9.6	9.9

PERCENT OF AADT BY HOUR

1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	12AM
1.3	0.8	0.6	0.4	0.5	1.5	3.9	5.8	5.3	4.6	4.6	5.2	5.9	5.9	6.3	7.2	8.0	8.0	6.6	5.0	4.2	3.7	2.8	1.9

Erica Jensen

From: Brewer, Teresa M. <BrewerTM@ci.anchorage.ak.us>
Sent: Friday, September 02, 2011 3:33 PM
To: Erica Jensen
Subject: 2027 - Campbell Airstrip
Attachments: Campbell Airstrip.doc

Categories: Filed by Newforma

Erica,

Let me know if there is any other data that you need.

Thanks, Teresa

Attachment from Teresa Brewer:

2009 Traffic Volume Map from ADOT&PF shows 1730 ADT near Benny Benson and 1030 past the airstrip.

Below is a screen shot from our 2027 travel demand model. The 2035 model may predict slightly different volumes; I do not have that data at this time.

