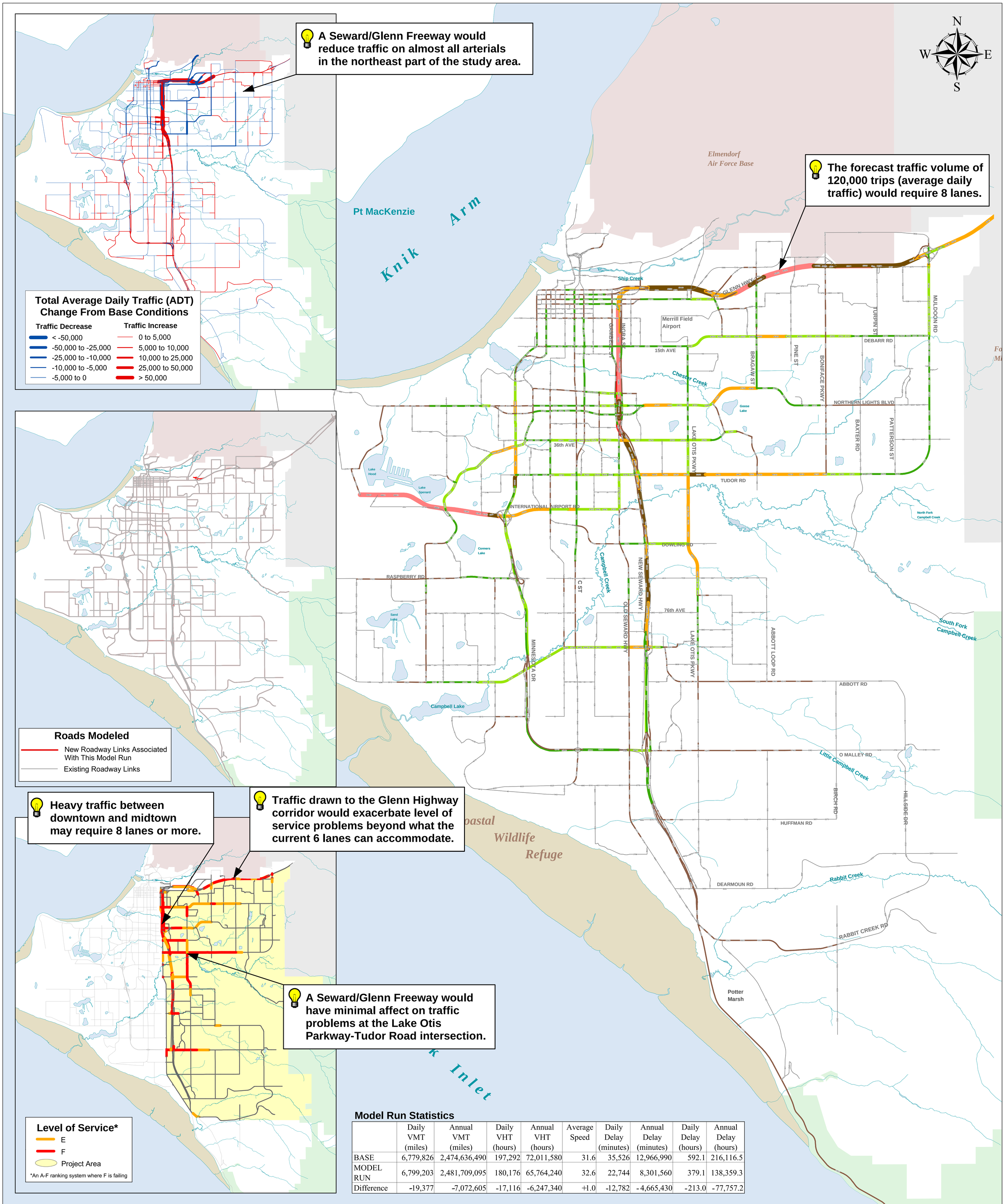
Appendix F

Major Cross-town Connections Model Runs



Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,799,203	2,481,709,095	180,176	65,764,240	32.6	22,744	8,301,560	379.1	138,359.3
Difference	-19,377	-7,072,605	-17,116	-6,247,340	+1.0	-12,782	-4,665,430	-213.0	-77,757.2

LEGEND

Predicted Average Daily Traffic
(# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Major Cross-Town Connections Solution Theme

Model Run: New Seward /Glenn Freeway Connection

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

F1

The growth in ADT on Tudor Road express (2nd level) would reduce travel on the arterial (bottom deck).

The southern line represents a bypass of the Tudor Road business district on an elevated viaduct. This viaduct runs between the New Seward Highway on the west and the Boniface Parkway on the east.

For comparison, the New Seward Highway carries about 60,000 cars today. The bypass (upperdeck) attracts 33,000 ADT.

The 27,000 cars on the lower level arterial would be accommodated on the current roadway configuration at LOS C.

This intersection would need to be grade-separated.

This heavy volume of traffic would cause this intersection to fail.

These improvements would have a marginal overall affect on traffic service levels in the core area.

These improvements would exacerbate level of service problems in the Muldoon area.

Total Average Daily Traffic (ADT) Change From Base Conditions

Traffic Decrease	Traffic Increase
< -50,000	0 to 5,000
-50,000 to -25,000	5,000 to 10,000
-25,000 to -10,000	10,000 to 25,000
-10,000 to -5,000	25,000 to 50,000
-5,000 to 0	> 50,000

Roads Modeled

- New Roadway Links Associated With This Model Run
- Existing Roadway Links

Level of Service*

- E
- F
- Project Area

*An A-F ranking system where F is failing

Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,727,598	2,455,573,270	190,708	69,608,420	32.1	30,474	11,123,010	507.9	185,383.5
Difference	-52,228	-19,063,220	-6,584	-2,403,160	+0.5	-5,052	-1,843,980	- 84.2	- 30,733.0

LEGEND

Predicted Average Daily Traffic (# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Major Cross-Town Connections Solution Theme

Model Run: Tudor Road Double-Decked with Interchange at Lake Otis and Tudor Intersection

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

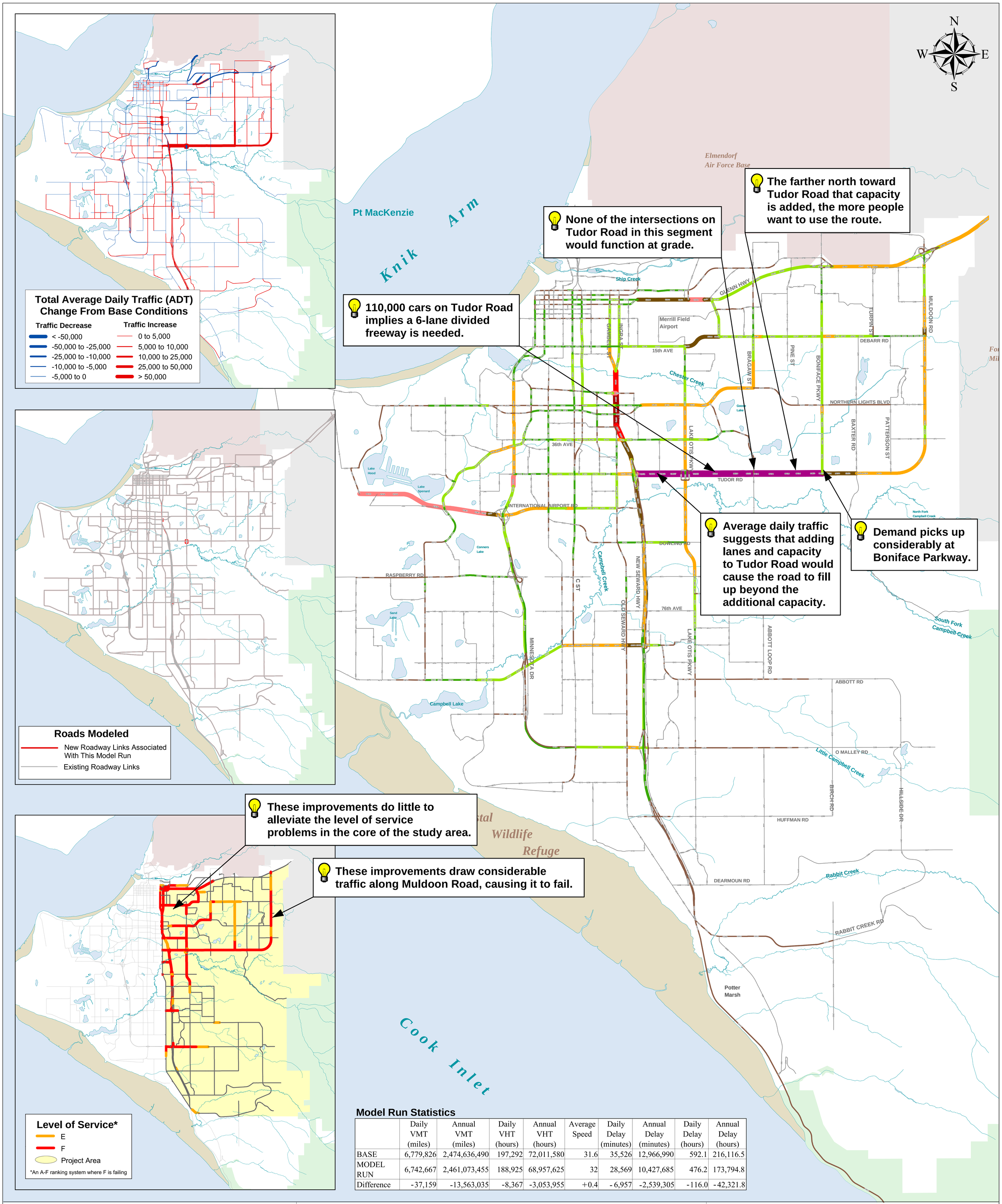
0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

F2



Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,742,667	2,461,073,455	188,925	68,957,625	32	28,569	10,427,685	476.2	173,794.8
Difference	-37,159	-13,563,035	-8,367	-3,053,955	+0.4	-6,957	-2,539,305	-116.0	-42,321.8

LEGEND

Predicted Average Daily Traffic (# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Major Cross-Town Connections Solution Theme

Model Run: Tudor Road Expressway with Grade Seperation of Lake Otis and Tudor Roads

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

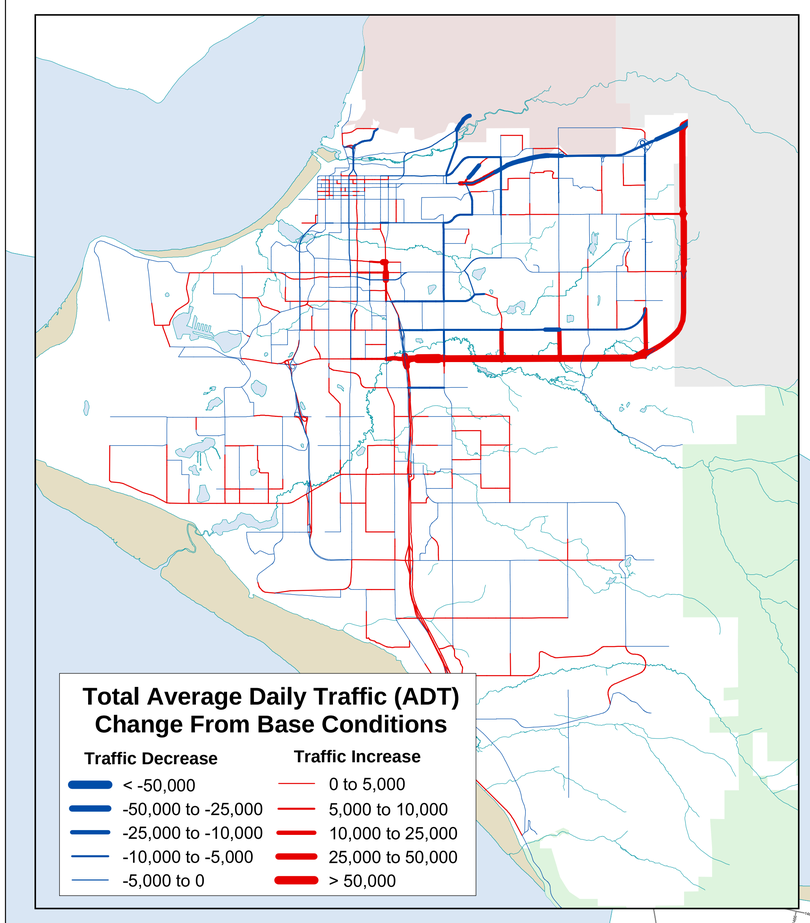
0 0.5 1 2 3 Kilometers

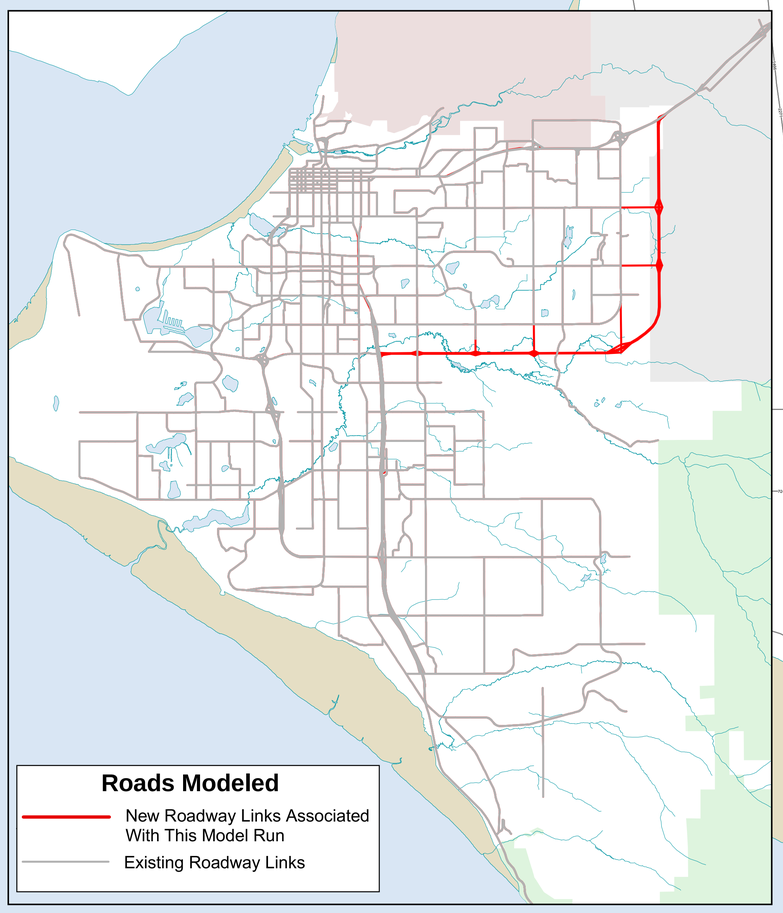
Data Sources: MOA

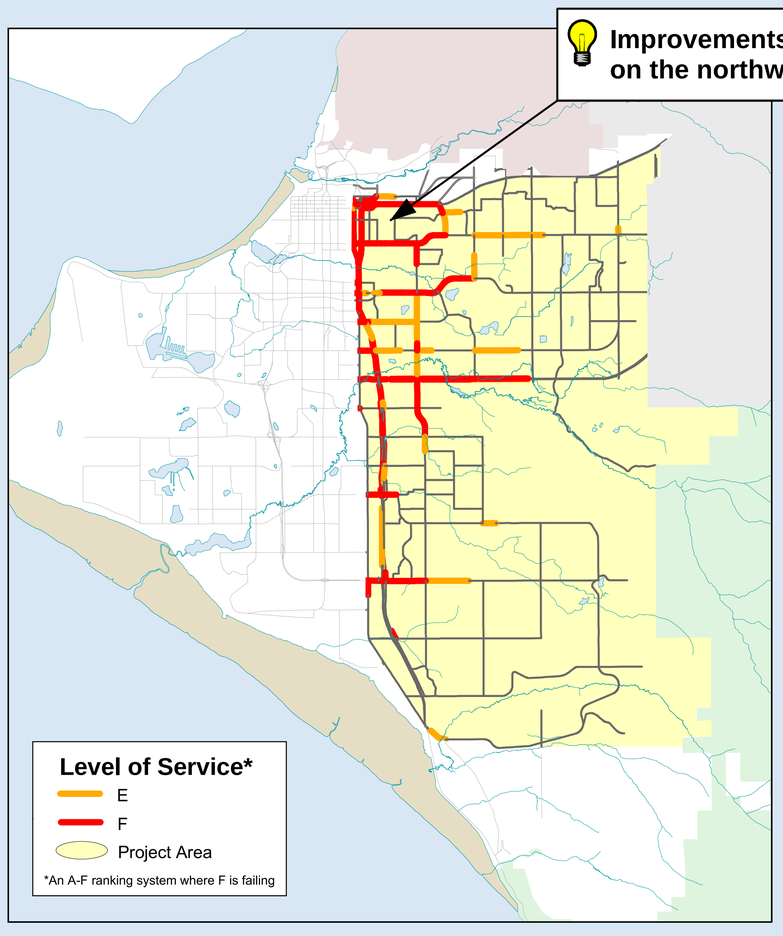
Map Date: May 2003

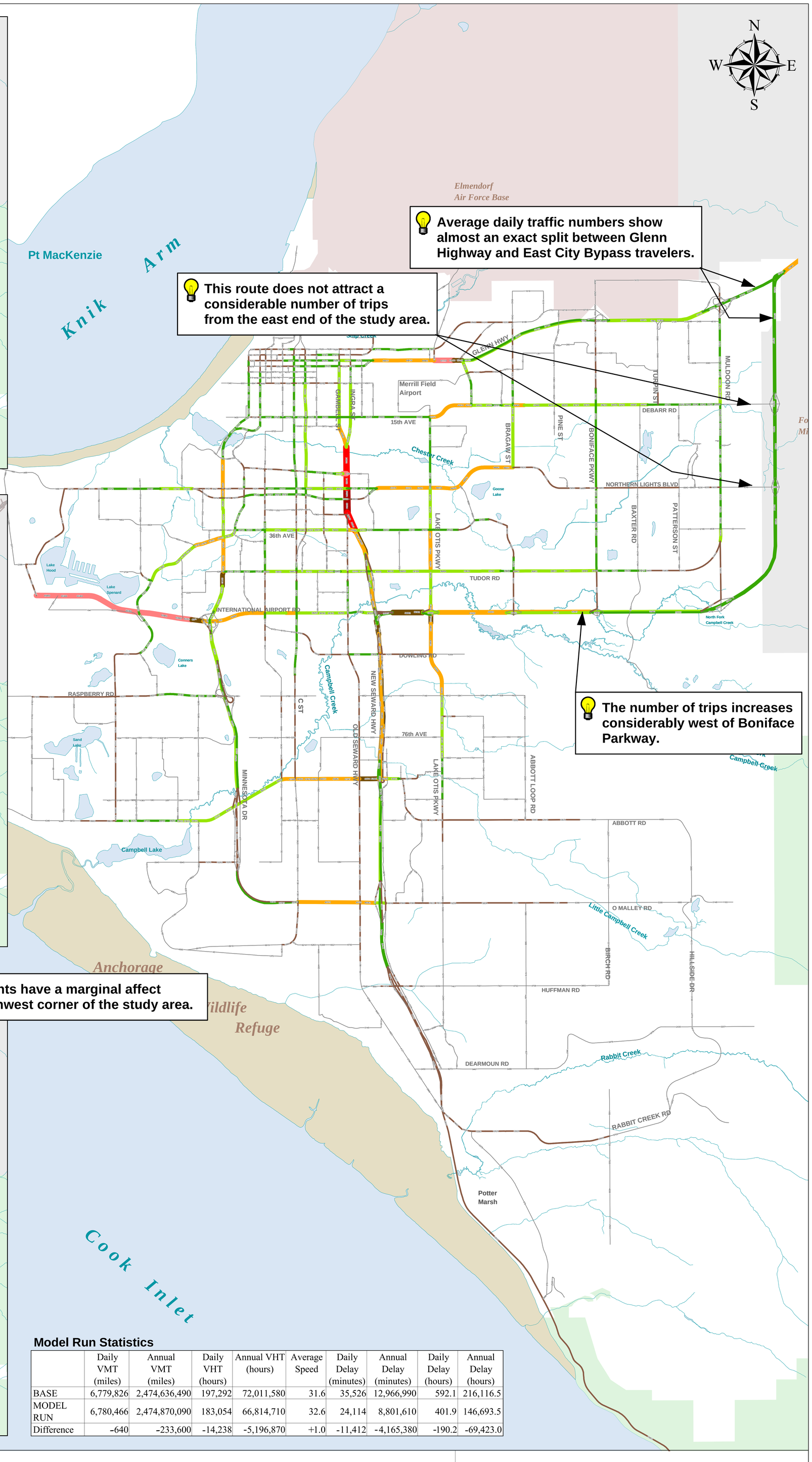
FIGURE

F3









Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,780,466	2,474,870,090	183,054	66,814,710	32.6	24,114	8,801,610	401.9	146,693.5
Difference	-640	-233,600	-14,238	-5,196,870	+1.0	-11,412	-4,165,380	-190.2	-69,423.0

LEGEND

Predicted Average Daily Traffic
(# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Major Cross-Town Connections Solution Theme

Model Run: East City Bypass East of Muldoon Road to International Airport Road

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

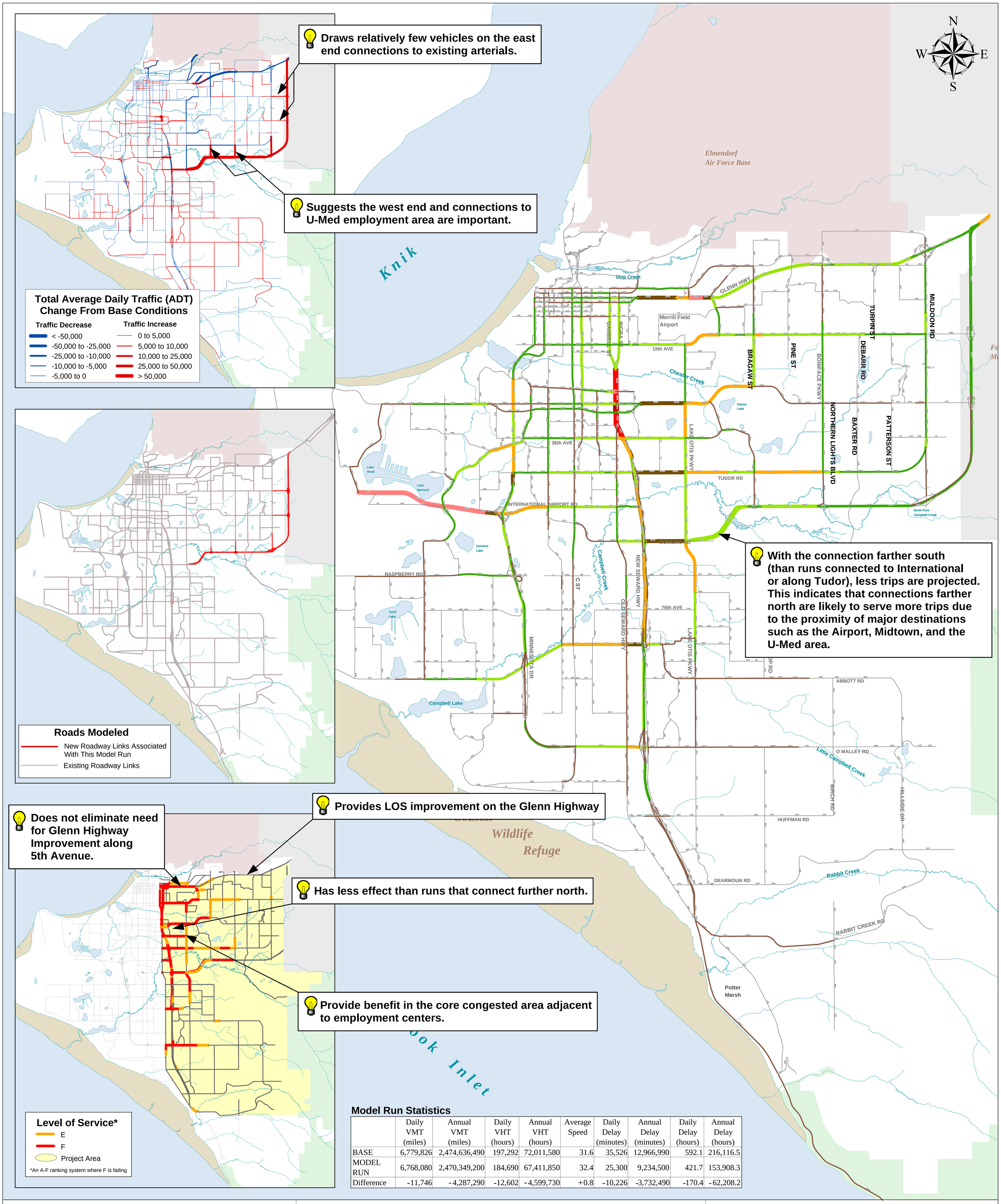
0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

F4



Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,768,080	2,470,349,200	184,690	67,411,850	32.4	25,300	9,234,500	421.7	153,908.3
Difference	-11,746	-4,287,290	-12,602	-4,599,730	+0.8	-10,226	-3,732,490	-170.4	-62,208.2

LEGEND

Predicted Average Daily Traffic (# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Major Cross-Town Connections Solution Theme

Model Run: East City Bypass East of Muldoon Road to Dowling Road

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

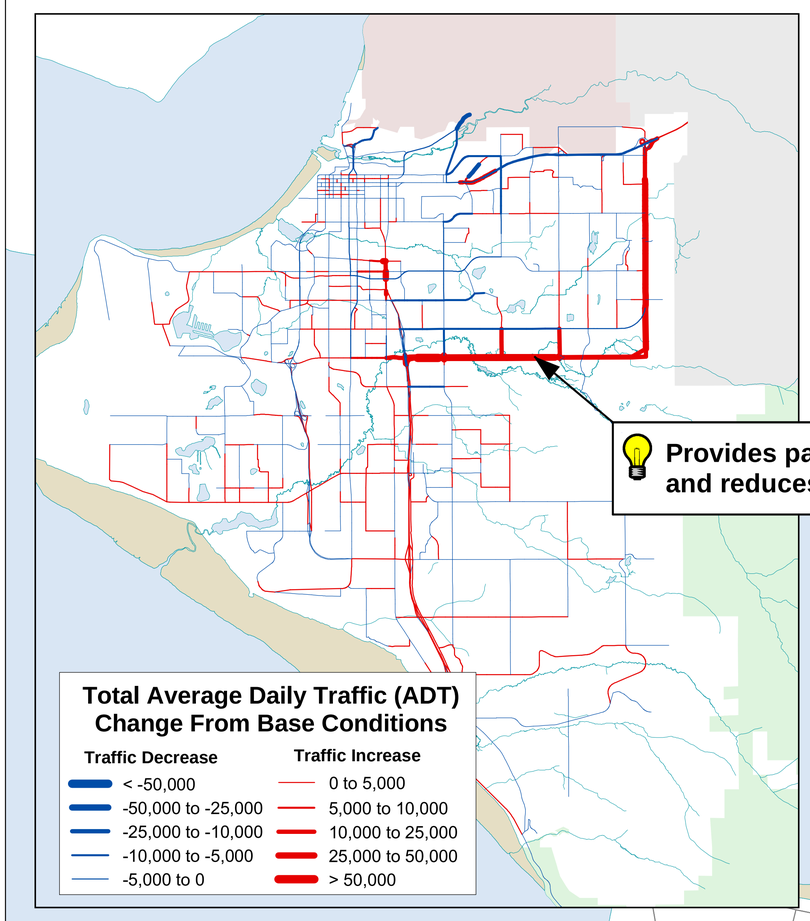
0 0.5 1 2 3 Kilometers

Data Sources: MOA

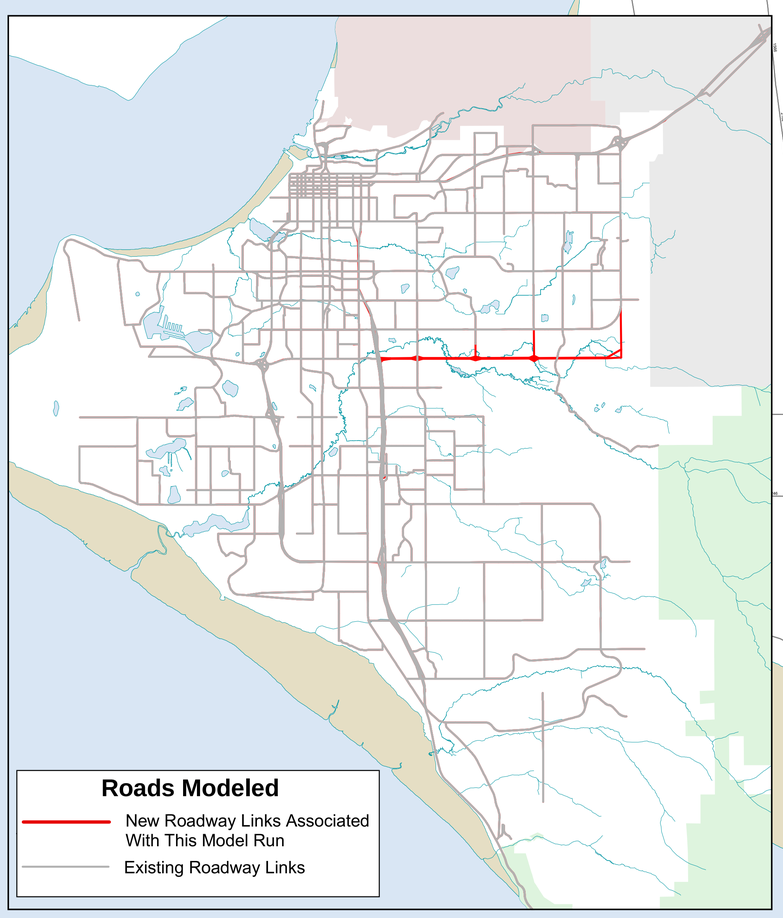
Map Date: May 2003

FIGURE

F5



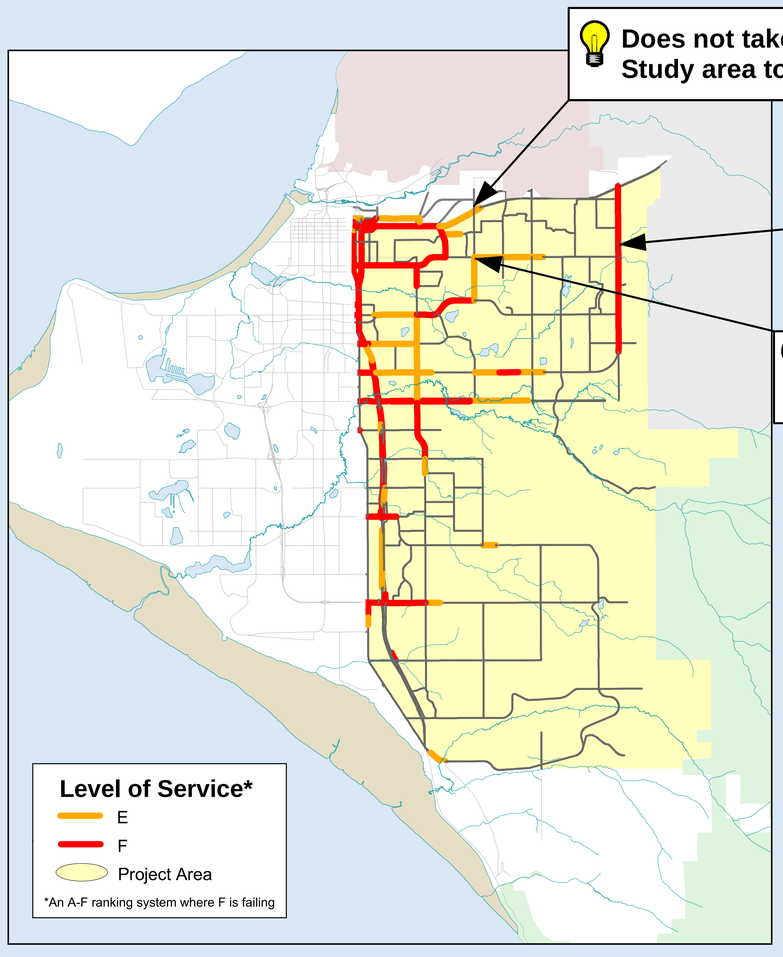
Provides parallel capacity to Tudor Road and reduces traffic along Tudor's entire length.

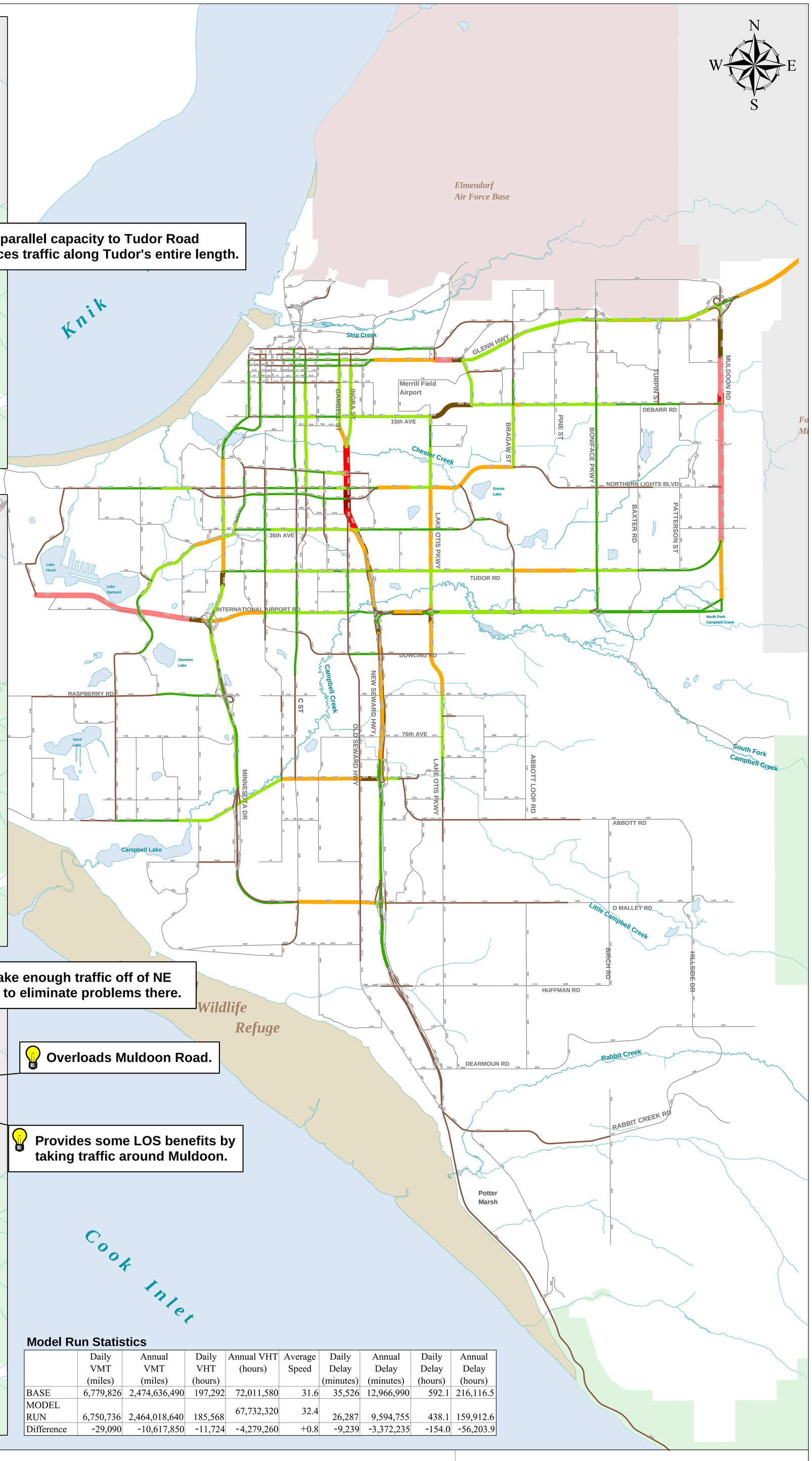


Does not take enough traffic off of NE Study area to eliminate problems there.

Overloads Muldoon Road.

Provides some LOS benefits by taking traffic around Muldoon.





Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,750,736	2,464,018,640	185,568	67,732,320	32.4	26,287	9,594,755	438.1	159,912.6
Difference	-29,090	-10,617,850	-11,724	-4,279,260	+0.8	-9,239	-3,372,235	-154.0	-56,203.9

LEGEND

Predicted Average Daily Traffic (# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Major Cross-Town Connections Solution Theme

Model Run: East City Bypass from Muldoon Road to International Airport Road

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

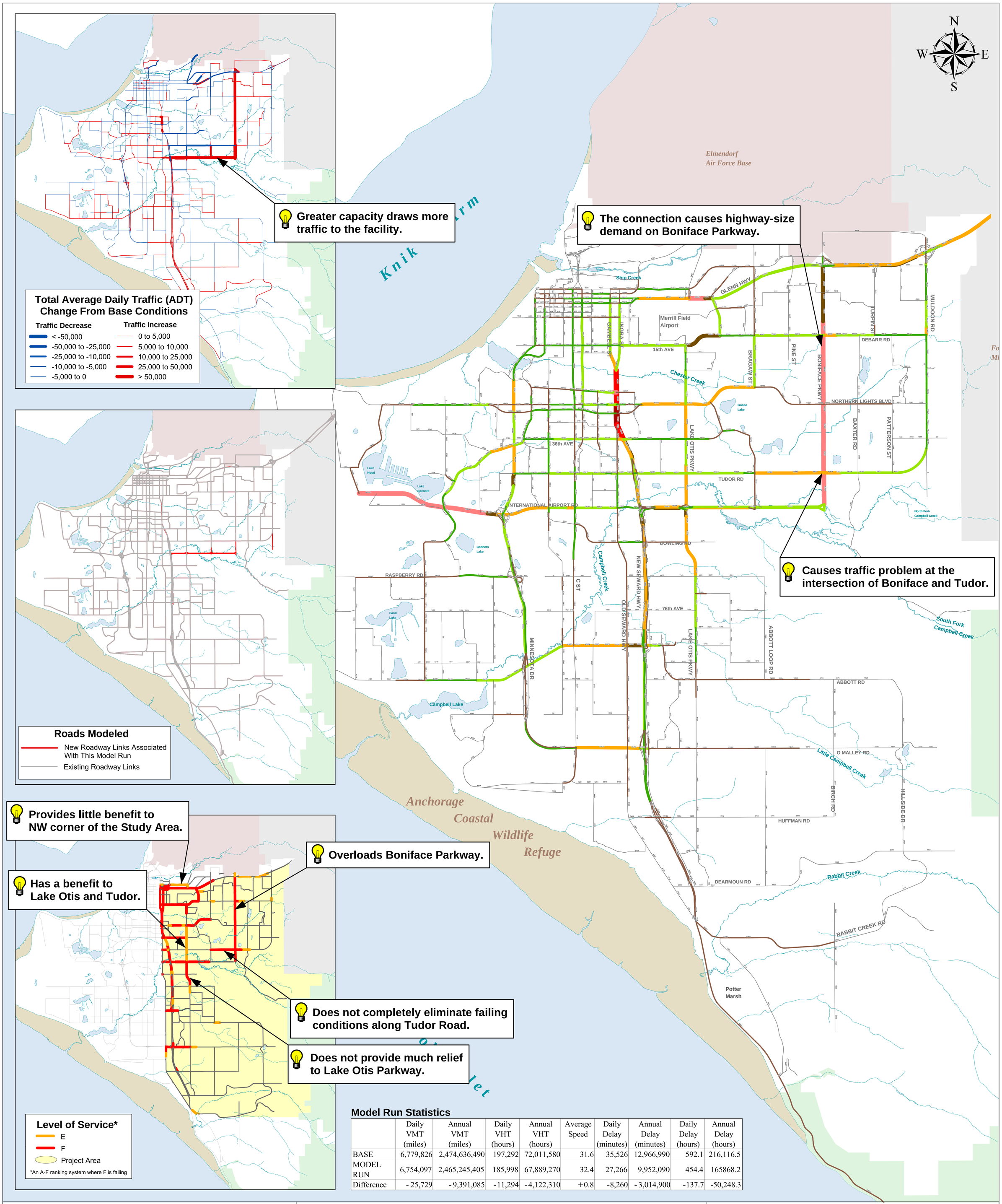
0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

F6



Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,754,097	2,465,245,405	185,998	67,889,270	32.4	27,266	9,952,090	454.4	165868.2
Difference	- 25,729	- 9,391,085	- 11,294	- 4,122,310	+0.8	-8,260	- 3,014,900	-137.7	-50,248.3

LEGEND

Predicted Average Daily Traffic
(# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Major Cross-Town Connections Solution Theme

Model Run: Boniface Parkway to International Airport Road Expressway with Grade Seperations

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

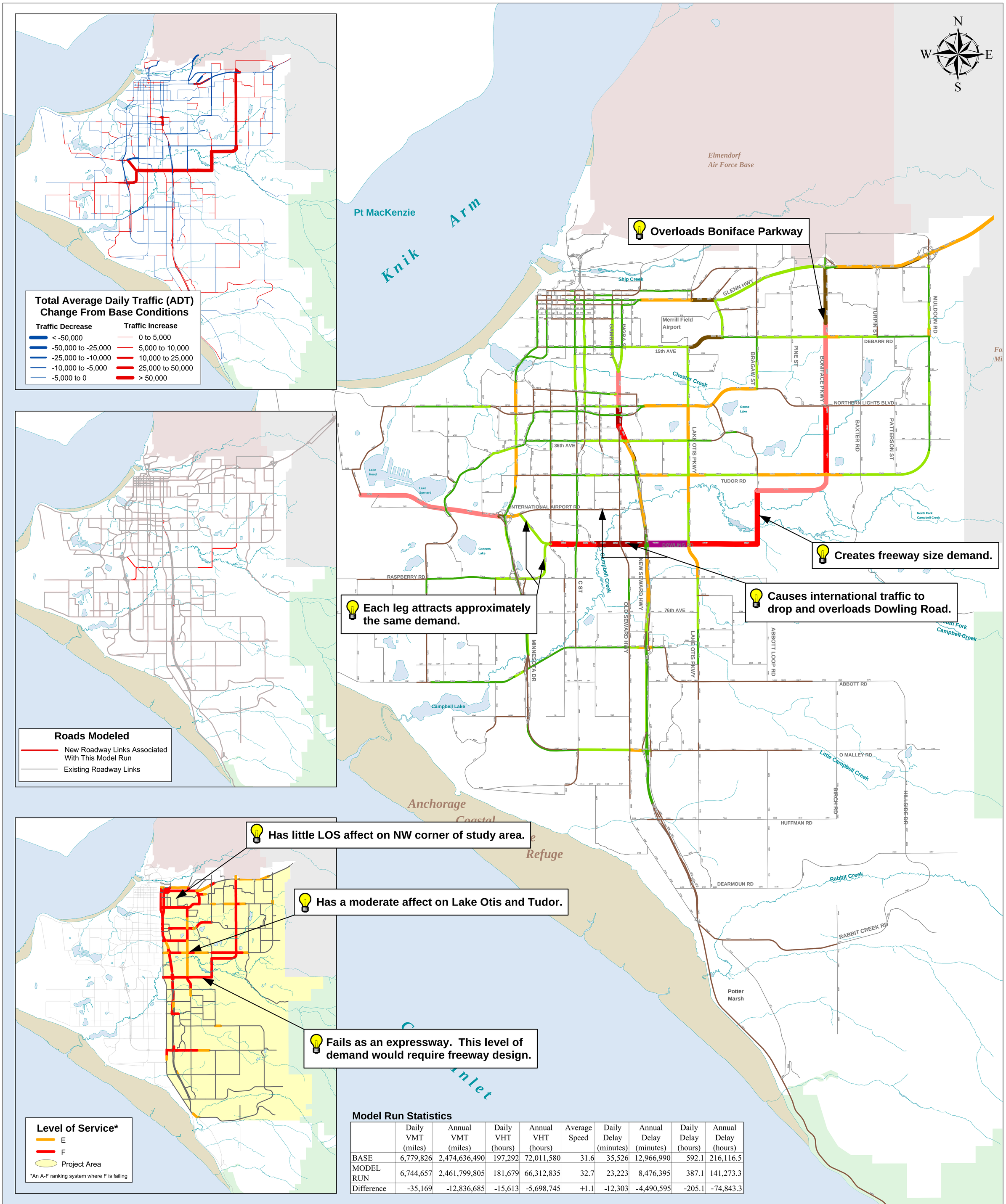
0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

F7



Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,744,657	2,461,799,805	181,679	66,312,835	32.7	23,223	8,476,395	387.1	141,273.3
Difference	-35,169	-12,836,685	-15,613	-5,698,745	+1.1	-12,303	-4,490,595	-205.1	-74,843.3

LEGEND

Predicted Average Daily Traffic
(# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Major Cross-Town Connections Solution Theme

Model Run: Boniface Parkway/Dowling Road Expressway to International Airport and Raspberry Roads (4 Lanes)

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

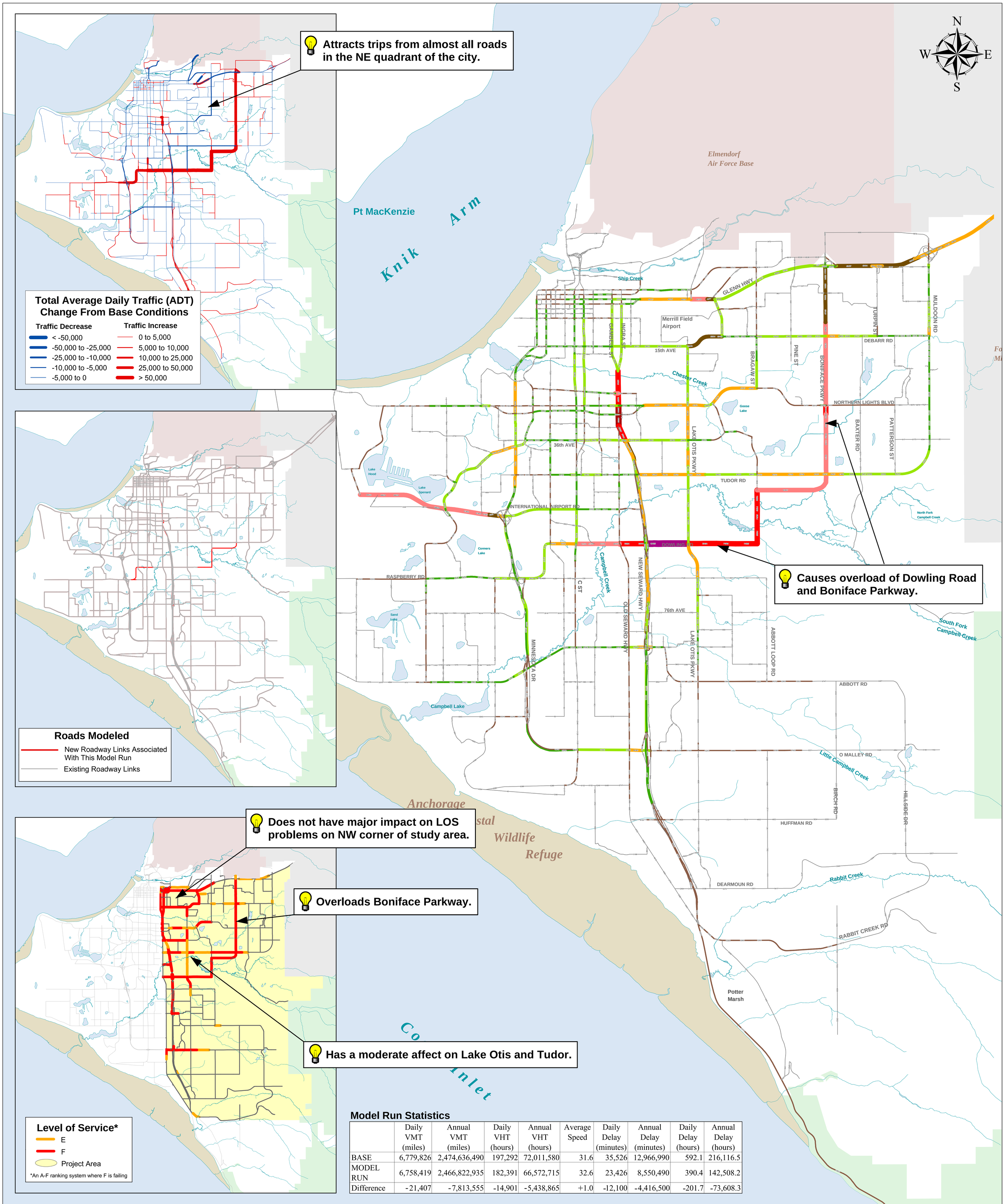
0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

F8



Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,758,419	2,466,822,935	182,391	66,572,715	32.6	23,426	8,550,490	390.4	142,508.2
Difference	-21,407	-7,813,555	-14,901	-5,438,865	+1.0	-12,100	-4,416,500	-201.7	-73,608.3

LEGEND

Predicted Average Daily Traffic
(# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Major Cross-Town Connections Solution Theme

Model Run: Boniface Parkway/Dowling Road Expressway Raspberry Road (4 Lanes)

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

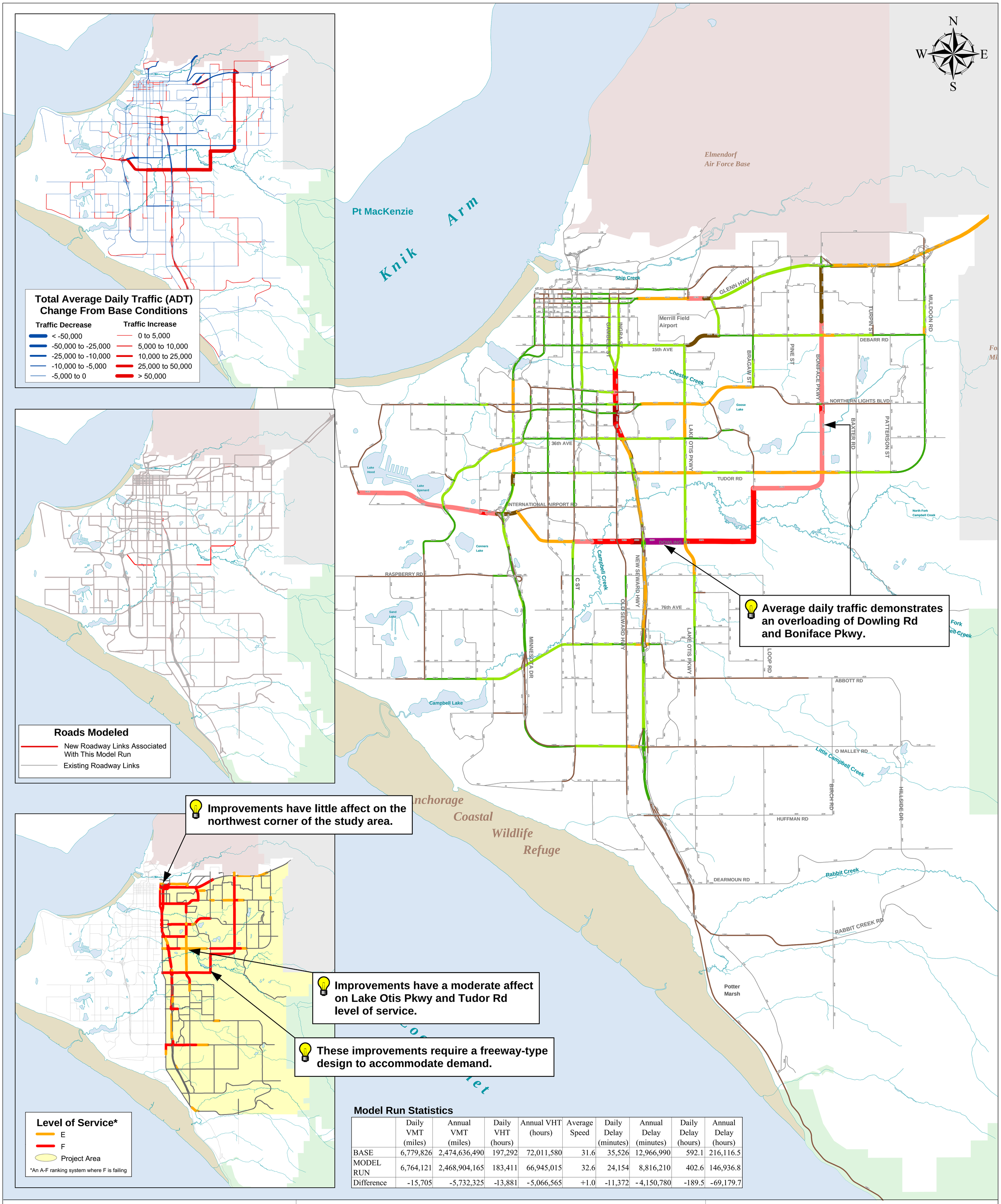
0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

F9



Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,764,121	2,468,904,165	183,411	66,945,015	32.6	24,154	8,816,210	402.6	146,936.8
Difference	-15,705	-5,732,325	-13,881	-5,066,565	+1.0	-11,372	-4,150,780	-189.5	-69,179.7

LEGEND

Predicted Average Daily Traffic (# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Major Cross-Town Connections Solution Theme

Model Run: Boniface Parkway/Dowling Road Expressway to International Airport Road (4 Lanes)

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

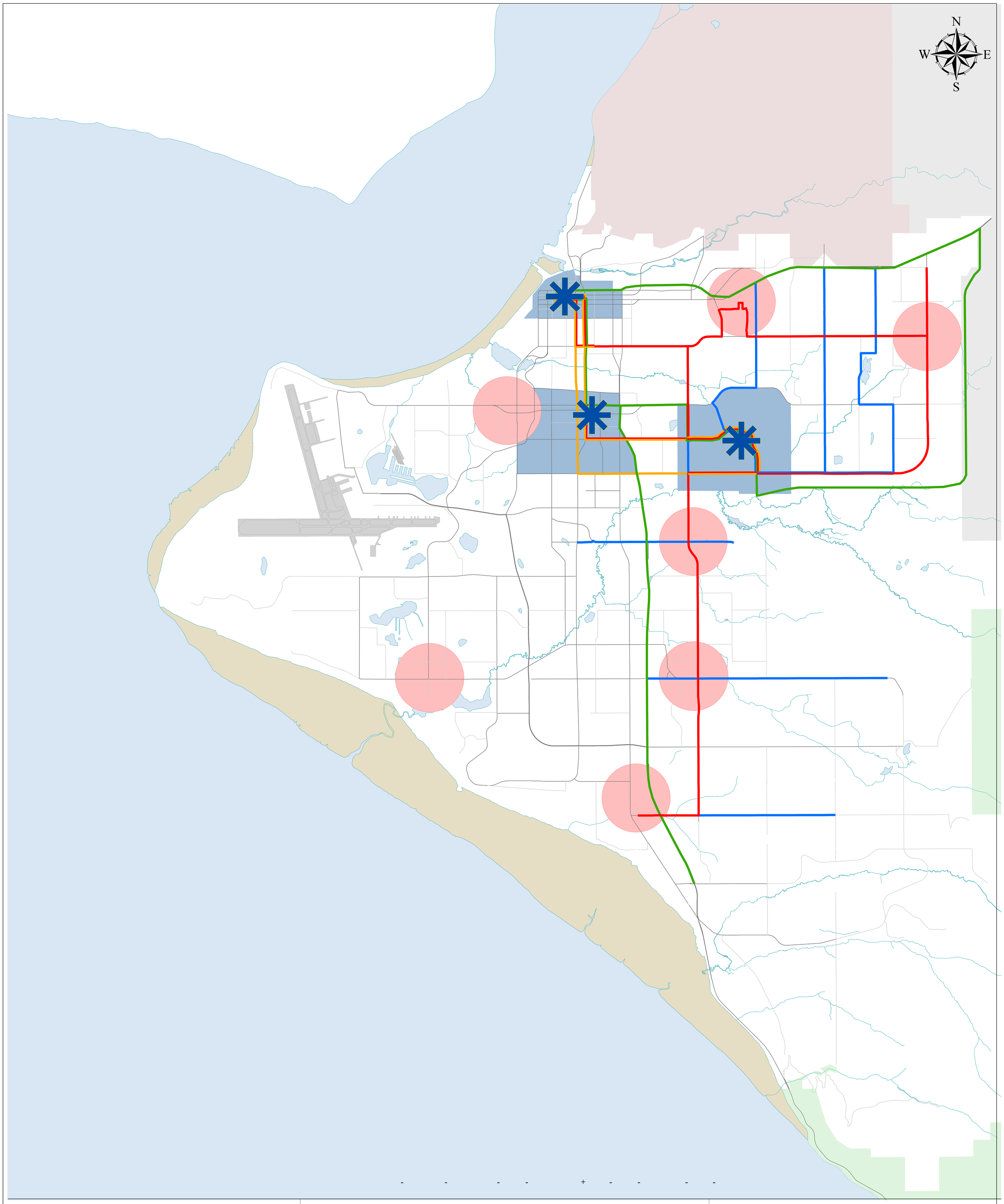
0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

F10



LEGEND

- Feeder Bus Route
- Express Bus Route
- Limited Bus Route
- Employment Center Circulator
- Town Centers
- Major Employment Centers
- Roads
- Streams
- Mud Flats
- Water

Major Cross-Town Connections Solution Theme

Transit Overlay

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

F11