



Interoffice Memorandum

DATE: July 18, 2001

TO: Lincoln/Lancaster County Planning Commission

JUL 18 2001

FROM: Jim Linderholm

RE: Request for Information #5 – South and East Beltway
SEQUENCE OF TRAFFIC MODELING ACTIVITIES

The following is a brief summary of the sequence of traffic modeling activities referenced by the South and East Beltways Studies reports containing the information. It should be noted that traffic models are tools that can help to compare alternative infrastructure developments.

First Version --- Completed April 1997 (Task 3.1 and 3.2 Technical Memorandum)

The project sponsors (City, County, NDOR, and FHWA) requested that a preliminary analysis of future traffic in the study area be performed to gather information on different transportation scenarios.

The preliminary traffic analysis was performed using a traffic demand model that was developed by the Lincoln/Lancaster Metropolitan Planning Organization (MPO). The City of Lincoln provided the model calibration, network updates, and land use inputs. The model incorporated the results of a traffic origin and destination study conducted by the Study Team in July 1996.

An important component of the model input was the future land use characteristics that would help to determine travel demand. The City selected the Build Out Scenario (BOS) that was considered to reflect full development within the future service limit identified in the 1994 Comprehensive Plan. The BOS assumed the County could reach a population of 315,000 sometime between the years 2015 and 2025.

The Task 3.1 and 3.2 Technical Memorandum contained the results of initial traffic volume comparisons. An end-to-end beltway comparison (Figure 1, attached) showed the general relationships between the "close", "middle", and "far" beltway alignments. This was the first macroscopic view of what might be expected in the future.

The first sequence of model information was prepared in December 1996 and reviewed by the Citizens Advisory Committee (CAC), the Technical Advisory Committee (TAC), and the Management Committee (MC) on December 18, 1996. The MC discussed traffic model output at their meeting on February 21, 1997. The CAC reviewed a draft report of the Technical Memorandum on April 22, 1997.

Second Version --first draft completed July 1997, second draft completed March 1999

(Interim Report No. 3)

The next level of modeling work was conducted using various combinations of Close, Mid and Far East beltway alignments with Close, Mid and Far South alignments. Traffic projections were prepared for each of the remaining alternatives using the same BOS Land Use Plan and Street Network as was used for the preliminary analysis. Additional output from the model was used to estimate accident savings and timesaving for the economic feasibility analysis also conducted as part of Interim Report No. 3. This analysis along with more detailed review of environmental and cultural resources lead to further screening of alternatives down to three (3) east beltway alignments and one (1) south beltway alignment (Figures 2, 3, and 4 attached).

Exhibit 18
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The Management Committee reviewed traffic model information on April 28, 1997 and a Public Meeting was held at the Berean Church on June 19, 1997 to review all project data. On July 18, 1997, the first Draft Interim Report 3 was mailed to the CAC and the other Committees for review and comment.

After further environmental studies had been completed, the CAC met again on November 10, 1998 to review all data that had been completed to date. On the same date, the Technical Advisory Committee met and asked that minor corrections be made to the traffic model runs. After completion of that work, the second Draft of Interim Report No. 3 was published on March 19, 1999.

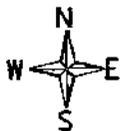
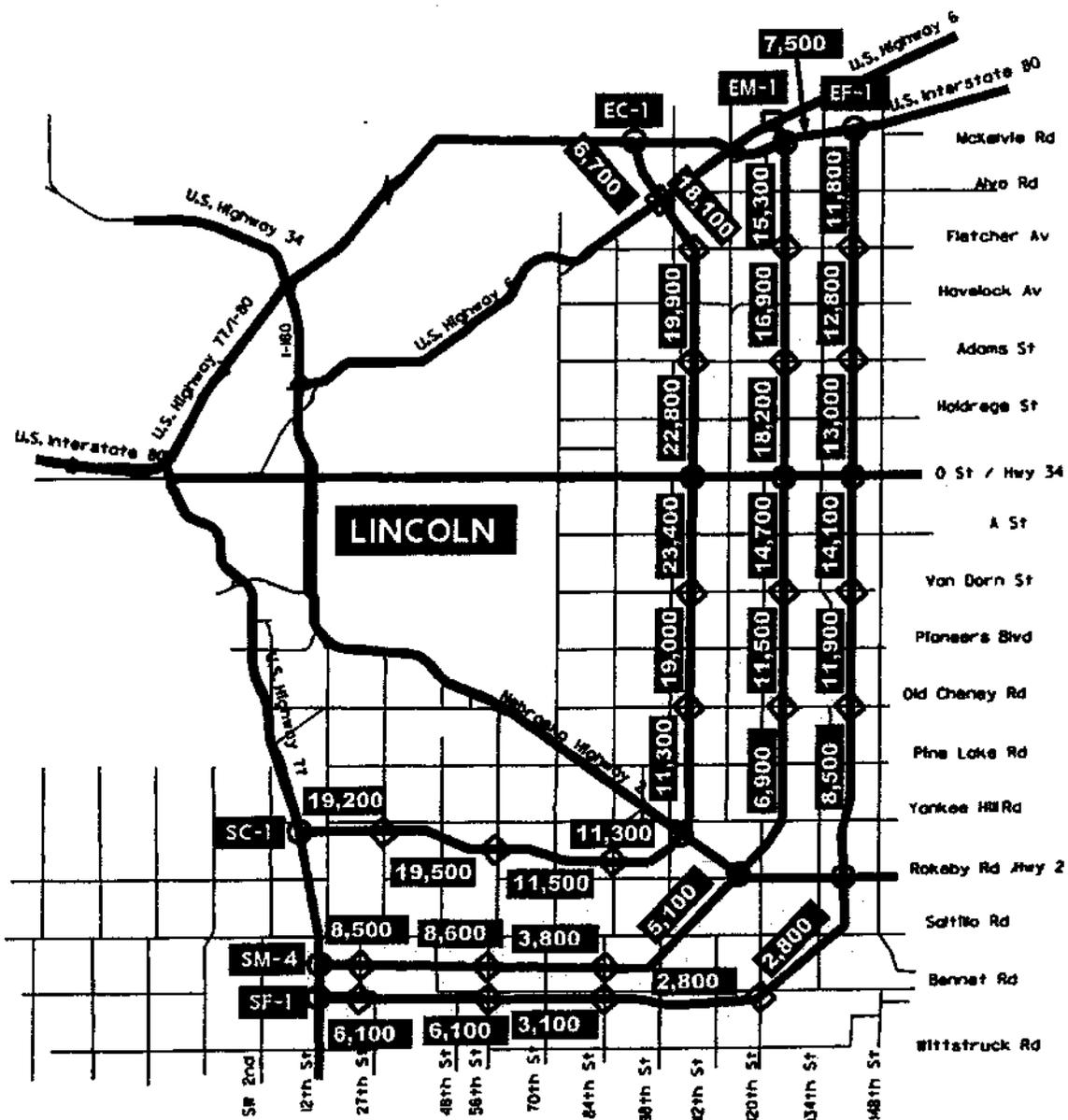
Third Version --completed March 2001 (Draft Environmental Impact Statement)

By late 1999, the City and County had formally amended the BOS Land Use Plan to expand Lincoln's Future Service Limit into the North (N1 - N2) and South (S1 - S2) growth areas. This new plan is referred to as the BOS II Land Use Plan, and assumed a County population of 374,630 within a 25 to 30 year period for the purposes of the South and East Beltway Studies. The BOS II Land Use Plan was used for the Level IV analysis discussed in the Draft Environmental Impact Statement.

The last sequence of traffic analysis, also shown on Figures 2, 3, and 4 (attached), was prepared to assist in the refinement of beltway alternatives using an updated base network and new software. In December 1999, the MPO Technical Committee approved this new model and the Planning Department completed the new modeling work for the beltways. In addition to the new land use assumptions, the City used external year 2030 traffic projections provided by the Nebraska Department of Roads. Traffic projections using the BOS II Land Use Plan are substantially higher than those shown in the initial analysis.

The Lincoln-Lancaster Planning Department delivered the data for their final modeling work on December 9, 1999 and January 12, 2000 to the Studies Team. The Draft EIS was prepared for distribution to the public on March 2, 2001.

In summary, traffic modeling was carried out under the direction and approval of the four sponsor agencies. It had various levels of review from both technical and non-technical entities. As the Beltways Study continued to analyze alternatives, new land use information and an updated traffic model were used to provide the best available picture of the future traffic patterns. The new land use Plan (BOS II) reflects changes made to the Comprehensive Plan and greater area than in the original BOS. Also, the updated travel demand model more accurately portrays the differences between freeway facilities and arterial streets.



LEGEND

6,100

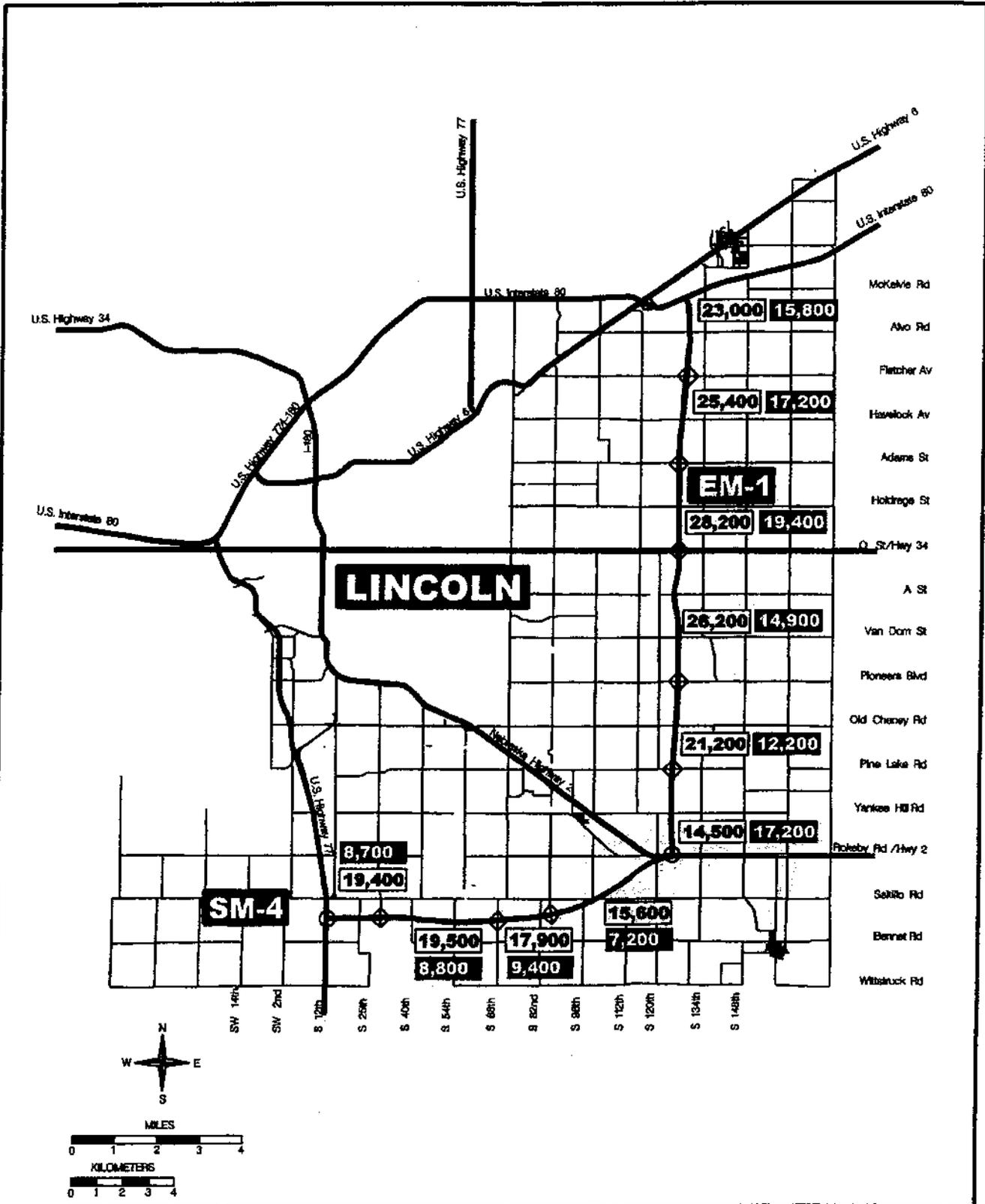
BOS Landuse Plan /2020 Network
(Task 3-1 & 3-2 Technical Memeradum, April 1997)



**LINCOLN
SOUTH AND EAST
BELTWAYS**

**BELTWAYS TRAFFIC
VOLUME COMPARISON**

Figure 1



LEGEND

8,800 VEHICLES PER DAY - BOS Landuse Plan /2020 Network (Interim Report No. 3, March 1999)

25,000 VEHICLES PER DAY - BOS II Landuse Plan /2025 Network (Draft Environmental Impact Statement, March 2001)



**LINCOLN
SOUTH AND EAST
BELTWAYS**

**EM-1 / SM-4
TRAFFIC VOLUMES**

Figure 3

