

MINUTES OF THE SENATE COMMITTEE ON WAYS AND MEANS

The meeting was called to order by Senator Paul Hess at _____
Chairperson

On Adjournment January 25, 1984 in room 123-S of the Capitol.

All members were present except:
Senators Bogina, Doyen and Harder

Committee staff present:
Research Department: Mary Galligan, Lynne Holt, Ray Hauke
Revisor's Office: Norman Furse
Committee Office: Mark Skinner, Doris Fager

Conferees appearing before the committee:
John Kemp, Secretary, Department of Transportation

The meeting was called to order by the Chairman, who asked Secretary Kemp to proceed with his review of the Department of Transportation and its needs. He was asked to discuss the Kansas Turnpike Authority at the beginning of his presentation.

Secretary Kemp explained that there are five members on the KTA, and he is one of those members. He said the Authority is considering the possibility of refunding through a bond issue to provide much needed maintenance, etc. The final decision has not yet been made. At the present time, the KTA is a separate entity, and the law provides that when the bonds are completely paid off or when it has a reservoir of money to pay them off the Turnpike may be turned over to the Secretary of the Department of Transportation for incorporation in the state highway system. This can be done only if the turnpike is in good condition and repair. At the present time, this is not the case, and the present income stream is not sufficient for doing necessary upgrading.

Secretary Kemp reminded the committee that the turnpike was built 30 years ago within a very short time period and the entire route is wearing out at one time. The turnpike has had good management and a good program for minor upgrading and repair, but has not had the funds needed for major renovation. When asked what he meant by major renovation, Secretary Kemp said there is a very narrow median, and there have been a number of accidents from crossing that median. He said that where there is high exposure and the traffic volumes are the heaviest, a barrier may need to be placed in the median. In addition, bridge repair is a continuous process.

There was brief discussion concerning proposed interchanges between Lawrence and Topeka, in Butler County, and at Andover.

Mr. Kemp then distributed his presentation to the committee and reviewed the presentation. (Attachment A) There was extensive discussion during his review.

The discussion which followed included questions about reduction in forces of the KDOT and the replacement of some of those forces by outside contracting; the possibility of turnbacks of state highways to local units of government; the effect of the Davis-Bacon wage rates on costs of highway projects. Senator Hein asked for some information concerning these rates, and Secretary Kemp promised to provide that information to him.

Senator Werts asked about the work of the Advisory Commission within KDOT. Secretary Kemp said they are a sounding board for the communities. When asked if the Commission really contributes a lot, Secretary Kemp said they serve a useful purpose as 12 interested citizens throughout the state advising him about what is going on in specific areas.

There being no questions, the meeting was adjourned.

Unless specifically noted, the individual remarks recorded herein have not been transcribed verbatim. Individual remarks as reported herein have not been submitted to the individuals appearing before the committee for editing or corrections.

KANSAS DEPARTMENT OF TRANSPORTATION

STATE OFFICE BUILDING—TOPEKA, KANSAS 66612



JOHN B. KEMP, Secretary of Transportation

JOHN CARLIN, Governor

MEMORANDUM TO: SENATE WAYS AND MEANS COMMITTEE
FROM: JOHN B. KEMP, P.E.
SECRETARY OF TRANSPORTATION
DATE: JANUARY 25, 1984
REGARDING: PRIORITIZATION OF PROJECTS

I. PROJECT SELECTION

THE PRIORITIZATION OF THE PROJECTS FOR THE DEVELOPMENT OF THE HIGHWAY PROGRAM CONSISTS OF TWO DISTINCT CYCLES. THE FIRST CYCLE - THAT USED FOR THE DEVELOPMENT OF THE FY 1984-1988 PROGRAM WAS BASED UPON A CONSENSUS PRIORITY LISTING, WHICH I WILL EXPLAIN IN DETAIL. WE ARE BEGINNING USE OF A CONSTRUCTION PRIORITIZATION OPTIMIZATION SYSTEM AND A PAVEMENT MANAGEMENT SYSTEM FOR THE FY 1985-1989 PROGRAM. THESE TWO SYSTEMS ARE BEING DEVELOPED BY TASK FORCES IN THE DEPARTMENT WITH THE HELP OF THE CONSULTING FIRM OF WOODWARD-CLYDE.

THE CURRENT PROGRAM PRIORITY LIST IS BASED UPON A CONSENSUS COMMITTEE COMPOSED OF REPRESENTATIVES FROM OUR CONSTRUCTION AND MAINTENANCE, DESIGN, AND MATERIALS BUREAUS, OUR DISTRICT ENGINEERS, AND OUR OFFICE OF PROJECT SELECTION. RESURFACING PROJECTS WERE IDENTIFIED BY THE DISTRICTS AND SUBMITTED TO PROJECT SELECTION IN PRIORITY ORDER. THE SIX DISTRICTS LISTS WERE MERGED INTO A SINGLE STATEWIDE PRIORITY LIST BY THE CONSENSUS COMMITTEE.

A
1-25-84
3:30 P.M.

OUR OFFICE OF PROJECT SELECTION DEVELOPED A LIST OF CANDIDATE BRIDGE PAINTING, REPAIR, AND REPLACEMENT PROJECTS BASED UPON AN AUTOMATED LISTING AND INPUT FROM THE SIX DISTRICTS AND OUR OFFICE OF BRIDGE DESIGN. THE CONSENSUS COMMITTEE THEN PRIORITIZED THESE PROJECTS INTO STATEWIDE PRIORITY ORDER. THE OFFICE OF PROJECT SELECTION ALSO UTILIZED A PRIORITY LISTING OF HIGHWAY CONTROL SECTIONS DEVELOPED BY THE DEPARTMENT OF TRANSPORTATION WITH THE HELP OF WOODWARD-CLYDE CONSULTING FIRM TO DEVELOP A LIST OF CANDIDATE ROADWAY GEOMETRIC IMPROVEMENT PROJECTS, PRIORITIZED ON A STATEWIDE BASIS BY THE CONSENSUS COMMITTEE.

FINALLY, THE THREE PRIORITY LISTS - ONE FOR RESURFACING PROJECTS, ONE FOR HIGHWAY GEOMETRIC IMPROVEMENT PROJECTS, AND ONE FOR BRIDGE PAINTING, REPAIR, AND REPLACEMENT PROJECTS - WERE MERGED INTO A SINGLE CANDIDATE PROJECT LIST IN STATEWIDE PRIORITY ORDER. AT EACH STEP IN THE PROCEDURE, THE PROJECTS WERE PRIORITIZED ON THE BASIS OF NEED FOR IMPROVEMENT IN TERMS OF CONDITION RATINGS, SAFETY, CAPACITY, TRAFFIC VOLUMES, AND FUNCTIONAL CLASSIFICATION (ROUTE SIGNIFICANCE). THE FINAL PRIORITY LIST WAS USED TO BUILD THE PROGRAM THAT THE SECRETARY PRESENTED ON JUNE 10 AND REPRESENTS THE PROFESSIONAL JUDGMENT OF THE MEMBERS OF THE CONSENSUS COMMITTEE.

THE PROGRAM WAS DEVELOPED BY WORKING THROUGH THE PRIORITY LIST WHILE JUGGLING FEDERAL AND STATE FUND BALANCES TO INSURE THAT OUR ENTIRE FEDERAL OBLIGATION CEILING IS UTILIZED AND THAT NO FEDERAL AID APPORTIONMENTS ARE LOST. THIS INVOLVES A GREAT DEAL OF JUGGLING BECAUSE, AS YOU KNOW, THERE ARE NUMEROUS FEDERAL FUND CATEGORIES. SIMULTANEOUSLY, WE INSURED THAT THE PROJECTS WE PROGRAMMED WOULD BE AT A STAGE WHERE THE PLANS WOULD BE READY, THE RIGHT OF WAY PURCHASED, AND SO FORTH.

AS I NOTED EARLIER, THE NEXT FIVE YEAR PROGRAM (FY 1985-1989) WILL BE BASED ON A MORE FORMALIZED PROCESS USING THE PAVEMENT MANAGEMENT AND PRIORITIZATION/OPTIMIZATION SYSTEMS. BOTH THESE SYSTEMS WERE MANDATED BY THE 1979 KANSAS LEGISLATURE. THE PAVEMENT MANAGEMENT SYSTEM IS AN EXTREMELY EFFICIENT DEVICE FOR DETERMINING THE APPROPRIATE PAVEMENT ACTIONS BASED UPON A GIVEN LEVEL OF FUNDING AND EXPECTATIONS CONCERNING PRESENT AND FUTURE CONDITIONS OF PAVEMENT SECTIONS. IN EFFECT, THE PAVEMENT MANAGEMENT SYSTEM SHOULD DELIVER A SET OF ACTIONS FOR EVERY MILE OF THE STATE OVER A LONG PERIOD OF TIME BASED UPON FUNDING CONSTRAINTS. THE RESULT WILL BE OUR SURFACING PROGRAM. ARIZONA HAS BEEN ONE OF THE LEAD STATES IN THE DEVELOPMENT OF PAVEMENT MANAGEMENT AND HAVE REPORTED SAVING MULTIPLE MILLION OF DOLLARS. KANSAS OBVIOUSLY HOPES TO ACCRUE SIMILAR BENEFITS AS A MEANS OF STRETCHING ITS HIGHWAY DOLLARS EVEN FURTHER.

WE WILL BE USING AN INTERIM PAVEMENT MANAGEMENT SYSTEM FOR SELECTING PROJECTS FOR A NUMBER OF YEARS. THE FINAL SYSTEM WILL SPECIFY THE ACTIONS NECESSARY TO KEEP THE ENTIRE STATE SYSTEM AT A GIVEN LEVEL BASED UPON PREDICTIVE MODELS OF PAVEMENT DETERIORATION. WE CALL THIS NETWORK OPTIMIZATION. WHILE THE FIVE YEARS OF PAVEMENT CONDITION SURVEY DATA NECESSARY FOR THE PREDICTION MODELS WILL NOT BE AVAILABLE UNTIL 1986, WE HAVE DEVELOPED AN INTERIM PREDICTIVE MODEL BASED UPON THE ESTIMATES OF A PANEL OF ENGINEERS AND MATERIALS SPECIALISTS. RESULTS FROM THAT MODEL WILL BE AVAILABLE FOR THE NEXT PROGRAMMING EFFORT.

THE PRIORITIZATION/OPTIMIZATION SYSTEM IS BASICALLY A COMPUTERIZED SYSTEM DESIGNED TO PRODUCE CONSISTENT DECISIONS. IT WILL MEET THE FOUR REQUIREMENTS MANDATED BY THE 1979 LEGISLATURE, THAT:

1. THE SYSTEM BE CLEARLY DEFINED AND USE DOCUMENTED CRITERIA;
2. A SYSTEMATIC AND CONSISTENT PROCEDURE BE USED TO DETERMINE THE RELATIVE WEIGHTS OF VARIOUS CRITERIA AND THE RELATIVE PRIORITY RANKING FOR CONSTRUCTION OF ROAD AND BRIDGE SEGMENTS;
3. THE RESULTS OF THE SYSTEM BE REPRODUCIBLE SUCH THAT AN INDIVIDUAL NOT PART OF THE ORIGINAL DECISION MAKING EFFORT WOULD BE ABLE TO RECREATE THE LIST OF PRIORITIES OF CONSTRUCTION PROJECTS; AND

4. QUANTITATIVE AND VERIFIABLE FACTORS BE USED IN DETERMINING RELATIVE PRIORITIES. IF, FOR SOME FACTORS, HARD DATA ARE NOT AVAILABLE AND PROFESSIONAL JUDGMENTS MUST BE USED, THE RATIONALE FOR THESE JUDGEMENTS MUST BE DOCUMENTED.

OUR NEW PRIORITY SYSTEM IS BASED UPON WHAT IS CALLED A DELPHI PROCESS IN WHICH A NUMBER OF PROFESSIONAL ENGINEERS IN THE DEPARTMENT, COMPRISING A CROSS SECTION OF THOSE INDIVIDUALS IN THE AGENCY HAVING SIGNIFICANT HIGHWAY RESPONSIBILITIES, ARRIVED AT A GROUP CONSENSUS CONCERNING THE ORDER IN WHICH DEFICIENCIES ON THE SYSTEM SHOULD BE ADDRESSED. THESE FACTORS ARE LISTED BELOW ALONG WITH THE ESTABLISHED RELATIVE WEIGHTS.

ATTRIBUTES	RELATIVE WEIGHT
<u>Bridges:</u>	
Horizontal Clearance (ft.)	.196
Deck Condition	.232
Structural Condition	.314
Operating Rating (tons)	.170
Bridge Roadway Restriction (ft.)	.088
	<u>T.000</u>
<u>Road Sections:</u>	
Number of Narrow Structures	.086
Shoulder Width (ft.)	.089
Number of Substandard Stopping Sight Distance per mile	.069
Surface Lane Width (ft.)	.101
Volume/capacity	.091
Commercial Traffic	.065
Rideability	.088
Pavement Structural Evaluation	.208
Observed Condition	.104
Number of Substandard Horizontal Curves/Mile	.099
	<u>T.000</u>

THE OFFICE OF PROJECT SELECTION IS IN THE PROCESS OF DEVELOPING CRITERIA TO COMBINE THE VARIOUS CONTROL SECTIONS INTO PROJECTS AND TO FORMULATE SETS OF POSSIBLE ACTIONS, OR SCOPES, FOR EACH OF THOSE PROJECTS. THE PRIORITIZATION/OPTIMIZATION TASK FORCE, IN CONJUNCTION WITH WOODWARD-CLYDE, IS DEVELOPING THE OPTIMIZATION SYSTEM CAPABLE OF SELECTING THE BEST GROUP OF PROJECTS (TO INCLUDE THE BEST SCOPE FOR EACH PROJECT) FOR A GIVEN PERIOD BASED UPON AVAILABLE STATE AND FEDERAL FUNDING. IN EFFECT, THE SYSTEM SHOULD DELIVER TO US A SET OF PROJECTS WHICH WILL GO THE FARTHEST IN USING AVAILABLE FUNDS TO HAVE THE GREATEST IMPACT ON THE SYSTEM. IT IS THIS SYSTEM WHICH WILL BE USED TO DEVELOP THE PROGRAM IN THE FUTURE.

YOU CAN SEE THAT THE FACTORS ARE EXPLICITLY LISTED. THE CONSENSUS PROCESS USED PREVIOUSLY MAY HAVE IMPLICITLY CONTAINED THE SAME FACTORS. THE DIFFERENCE IS THAT CONSENSUS WAS USED IN THE EARLIER PROCESS TO PICK PROJECTS WHILE IN THIS PROCESS IT IS USED TO DETERMINE THE FACTOR. FOR EXAMPLE, WE NOW KNOW THAT CONSIDERATION WILL BE GIVEN TO THE AMOUNT OF TRUCK (COMMERICAL) TRAFFIC IN EVERY CASE, JUST AS THE FORECAST TRUCK LOADINGS ARE EXPLICITLY USED TO PREDICT PAVEMENT DETERIORATION IN THE PAVEMENT MANAGEMENT SYSTEM.

OF COURSE, NOT ALL PROJECTS WILL IMMEDIATELY FIT INTO THE PRIORITIZATION/OPTIMIZATION AND PAVEMENT MANAGEMENT SYSTEMS. PROJECTS ARE CURRENTLY DEVELOPED ON THE BASIS OF DATA ON EXISTING CONTROL SECTIONS AND BRIDGES CONTAINED IN THE KANSAS DATA BASE. WHILE THIS IS A TRULY REMARKABLE DATA BASE IN THAT IT CONTAINS EXCELLENT DATA ON EVERY PORTION OF THE SYSTEM AND CAN BE USED TO DEFINE EXACTLY WHAT NEEDS TO BE CORRECTED ON THAT SYSTEM, IT DOES ADDRESS ONLY WHAT IS ACTUALLY OUT THERE. IT WILL NOT TELL US, FOR EXAMPLE, WHERE THERE SHOULD BE A ROAD WHERE THERE IS NOT ONE CURRENTLY. THE SYSTEM ALSO WILL NOT IDENTIFY THE NEED FOR NEW INTERCHANGES, BRIDGE PAINTING, LIGHTING PROJECTS, AND A NUMBER OF OTHERS. MOST OF THESE TYPES OF PROJECTS GET INTO THE PROGRAM AS A RESULT OF SOMEONE WITH KNOWLEDGE OF THE DEFICIENCY MAKING AN INPUT TO POLICYMAKERS WHO THEN MAKE A DETERMINATION TO DEAL WITH THE DEFICIENCY. WE ARE WORKING ON SYSTEMS AND PROCEDURES TO DEAL WITH ALL OF THESE TYPES OF PROJECTS IN A SYSTEMATIC WAY. CURRENTLY, THESE ITEMS CONSIST OF PROBABLY LESS THAN FIVE PERCENT OF THE TOTAL PROGRAM.

KANSAS DEPARTMENT OF TRANSPORTATION
A STATEMENT TO THE KANSAS HIGHWAY ADVISORY COMMISSION
CONCERNING THE HIGHWAY PROGRAM

JUNE 10, 1983
TOPEKA, KANSAS

BY
JOHN B. KEMP
SECRETARY OF TRANSPORTATION

INTRODUCTION

For the past several years, I have had the unhappy task of informing Kansans that the roads they drove over then and today may be the best they will ever be. Our road systems at the state, county and city levels have been deteriorating at a faster rate than they were being refurbished or replaced --and at the federal, state and local level we faced a critical shortage of funding for our road and bridge needs. We were truly at a crossroads this past year and I had asked repeatedly -- is this the end of serviceable roads, streets and highways in Kansas?

I am very gratified that the answer to that question is that this is not the end of serviceable roads in Kansas; this is the beginning of a new program to preserve and improve our highways.

The Kansas Legislature and Governor have provided a highway funding program which, coupled with the recent Federal Surface Transportation Assistance Act (nickel gas tax increase), will provide Kansas with a billion dollars of preservation work and improvements over the next five years.

FUNDING PACKAGE

The highway funding package, passed by the 1983 Legislature and signed by Governor Carlin in May, was a compromise measure with features of both the Governor's proposal to transfer user-related sales tax revenues from the general fund to the highway fund and the legislative leadership's proposal for an indexed gasoline gallonage tax. The result is a more stable funding mechanism -- one less susceptible to the loss of buying power resulting from inflation and declining gasoline consumption.

The funding package also includes the transfer of \$65 million from the state freeway fund to the state highway fund over a three year period. This allows us to begin statewide projects immediately while still completing the scheduled freeway projects. Finally, the support of the highway patrol will be transferred to the state general fund starting in fiscal year 1985.

This is an excellent piece of legislation which will support a long-range program for the preservation and improvement of our state highway system. Without indexing of the gasoline tax, KDOT will receive an average of about 54 million additional dollars a year over the next five years as a result of this legislation. We hope that motor fuel prices have stabilized, but if inflation increases the price of gasoline enough to trigger a one cent per gallon increase in fiscal year 1986, KDOT would receive an additional \$9 million; the cities and counties would receive \$5 million more. We will also receive an average of \$114 million per year in federal funds, which is about \$50 million more per year than we had been receiving.

MULTI-YEAR PROGRAM

The combination of these funds will allow us to begin addressing our needs throughout our whole system. We have developed a balanced program that fully utilizes all the federal-aid highway funds available to us. It emphasizes the preservation of the network of roadways and bridges we now have, completion of the Interstate system and the state's freeway program, and initiating of the rehabilitation of the current road network to be responsive to the demands for service, safety and capacity.

We have developed a firm program of projects for fiscal years 1984 & 1985 which will total \$450 million. A tentative program for fiscal years 86 through 88 will allow an additional \$600 million of improvements to be made.

Surface Preservation

As I have stressed many times, we must preserve our huge investment in our roads. To help accomplish this, we have implemented a surfacing program which will cover approximately 1,000 miles a year with seals and overlays up to 1 1/2". This will maintain the riding surface on the 1,000 miles in most need each year. On about 25% of these miles, we will also do some contract maintenance work on the existing shoulders of the roadway to stabilize them. This work will assist our maintenance forces and address an important safety concern by preventing dangerous drop offs.

Rehabilitation and Reconstruction

We must also rehabilitate some segments of our highways with overlays of more than 1 1/2" to keep them in condition to handle the traffic they bear. This rehabilitation will include some shoulder work and widening. In FY 84 & 85 we will rehabilitate 114 miles of highways, with an additional 214 miles tentatively scheduled for the following 3 years. Major reconstruction of some of our highways is also necessary where there are dangerous hills and curves, narrow shoulders and high volumes of traffic. Our five year program will reconstruct approximately 200 miles of our interstate, freeway and other highway segments.

New Construction

There will also be a limited amount of new construction to complete the gaps on the Interstate System, the scheduled projects from the freeway fund and several other new alignments which have significant potential for economic development. The Department plans to compete aggressively for interstate discretionary funds to complete the Interstate system. This would allow us to spend a \$20 million per year interstate allocation on other parts of our statewide highway system.

Bridges

We plan to continue our heavy emphasis on repairing, rehabilitating and replacing bridges on our highway system. A significant portion of our program will address these needs on nearly 300 bridges over the next five years. KDOT's bridge program has earned a reputation for innovation. We plan to continue our leadership in rehabilitating the bridges in our system.

Connecting Links

The sections of roadway within cities that carry the U.S. or state marking are called "connecting links." By law the state pays the cities \$1,250 per lane mile per year for connecting link maintenance. In the past we had set aside \$800,000 per year to assist cities with the heavier type of overlay or pavement recycling improvements. We are doubling that amount to provide \$1,600,000 for that purpose each year. We'll match the city funds dollar for dollar up to a maximum of \$100,000 of KDOT funds for major street surface preservation work.

OTHER KDOT ACTIVITIES

In addition to the supervision of our billion dollar contract construction program, our KDOT field forces will be performing much necessary work to keep our system safe and sound -- patching potholes, mowing the right of way, placing and replacing signs, painting centerline and lane line stripes on the pavement, plowing snow in the winter, etc.

Our Engineering and Design Division will be developing the plans for most of the projects and buying the right of way. We will employ consultants to prepare the designs for some of the more complex projects.

Our Planning and Development Division will be collecting and analyzing the data upon which we make our decisions and develop our program. This division is in the process of developing a project prioritization and optimization system, a pavement management system and a highway cost allocation study.

Our Administration Division will be facilitating the process which keeps an organization of 3,000 people on the move. One of the goals of this division is the improvement of our accounting, fiscal and management information systems. They also will be looking at ways in making us more productive through greater use of computers.

Our Inspector General and his staff will review department programs, procedures and controls to assure that integrity prevails in the conduct of our business. Our Chief Counsel and his staff will be giving us legal advice and will handle litigation.

We are well on the way to reducing our forces by 480 positions. We embarked on this program in fiscal year 1982 on the basis of an in-house manpower study and a reorganization of the department. We are on schedule and expect to reach the goal of 480 fewer positions by the end of fiscal year 1985.

The Kansas Department of Transportation is a highly professional organization. We have great technical and administrative expertise. We have dedicated people. We welcome the challenge to translate the new funding package into better highways, and we'll continue our search for ways to become more and more efficient and productive.