CHAPTER 5

THE INTERSTATE

In what now seems a token gesture, the 1952 Federal-Aid Highway Act authorized $25 million for the nationwide Interstate system for each of Fiscal Years 1954 and 1955, using the traditional 50-50 cost sharing. The 1954 Federal-Aid Highway Act increased the nationwide Interstate funding to $175 million for each of Fiscal Years 1956 and 1957 and changed the cost sharing to 60-40. These Interstate funds for Fiscal Years 1954-57 were apportioned among the states by a formula based on population, land area, and postal route mileage.

Then, on June 29, 1956, President Dwight D. Eisenhower signed the historic 1956 Federal-Aid Highway Act which authorized construction of the National System of Interstate and Defense Highways. And, in doing so, he set in motion the greatest public works program in the history of mankind! President Eisenhower's recognition of the importance of highways was formulated in 1919 when, as Lieutenant Eisenhower, he participated in the U.S. Army's first transcontinental motor convoy from Washington, D.C. to San Francisco, California. This 62-day trek, along with his experiences in World War II, prompted him to later say:

> "The old convoy started me thinking about good, two-lane highways, but (the autobahn in) Germany made me see the wisdom of broader ribbons across the land."

But the Army officer who rose to the presidency in 1952 could hardly have visualized the vast network of of multi-lane highways that is today's Interstate system.

With the 1944 Federal-Aid Highway Act, Congress laid the foundation for a 40,000-mile system of Interstate highways within the continental limits of the United States but no funding was provided. Another attempt was made in 1955 to provide adequate Interstate funding, but it too failed. In Nebraska, the State Highway Commission had only begun its work

of reviewing the state system and measures to increase funding for converting gravel surfacing to pavement when Congress passed the 1956 Federal-Aid Highway Act. This landmark legislation established a timetable for the completion of the Interstate, substantially increased federal funding for the Interstate and other federal-aid roads, and provided a mechanism for raising the money. The mechanism was the federal Highway Trust Fund, similar in concept to the highway trust funds which had earlier been established in most states. The plan called for the completion of the Interstate in 16 years, with authorizations spread over 13 years. It was a monumental piece of legislation and one destined to change the landscape of America. Requiring only 10 percent matching funds from the states, it provided an opportunity for the states to address their transportation needs in a more vigorous fashion than ever before. Indeed, it was the most consequential highway legislation since the initial Federal-Aid Road Act of 1916. The 1956 Act created the position of Federal Highway Administrator and also changed the name of the Interstate system to the National System of Interstate and Defense Highways, because of its primary importance to the national defense. For Nebraska, it meant the possibility of $168 million in highway construction over the next three years if state matching funds were available.

After the 1956 Act became law, AASHO issued an immediate call to its Committee on Administration to meet for the purpose of considering and adopting the necessary geometric design standards for the Interstate program. On July 12, 1956, the meeting was held in Chicago and on July 16, AASHO submitted the proposed standards to the Bureau of Public Roads for concurrence. The Bureau approved the standards on July 17. The Act had directed that the standards be those developed by the Secretary of Commerce, in cooperation with the state highway departments, and the AASHO process was the manner which was used to accomplish this requirement.

Much credit for the congressional support of the 1956 Act must be given to William Randolph Hearst, Jr., whose nationwide chain of newspapers ground out the highway story relentlessly between 1952 and 1956. From 1952 to the end of 1955, for example, the Hearst newspapers printed enough

highway articles to fill the columns of an average size metropolitan daily with nothing but such articles and editorials for 76 consecutive days. Much of this effort toward an accelerated highway program was directed toward building the Interstate system. For his "outstanding contribution to highway progress," Mr. Hearst was presented AASHO's prestigious George S. Bartlett Award at the 1955 AASHO Annual Meeting in New Orleans.

In 1956, the estimated cost to complete the Interstate was $27 billion. The Interstate was seen as the first step in a grand plan to modernize the entire highway system of the nation. Although the Interstate would comprise only about 1.2 percent of the U.S. road mileage, it would carry almost 25 percent of the total highway traffic. Thus, it was intended as the foundation of the total modernized highway network.

One enthusiastic engineer called the Interstate program the most extensive engineering project since the Great Pyramid at El Giza, Egypt was built by the Pharoah Cheops in the 2600 B.C. era. The pyramid was constructed 755 feet square at the base, 481 feet in height, and was composed of approximately 2.3 million blocks of stone averaging about 5,000 pounds each. In comparison, the Nebraska State Capitol building is 437 feet square at the base and 405 feet in height, topped by a 13-foot pedestal and 19-foot bronze statue of a "sower." Weighing 15,000 pounds, the "sower" serves not only as a sculpture but also as a lightning rod. The capitol, completed in 1932, has been named among the top five best-constructed buildings in the world by the American Institute of Architects.

The 1956 Act also specified certain control points that the Interstate should go through or near within each state. These points were determined with national defense in mind. In Nebraska, Omaha was a control point because the headquarters of the Strategic Air Command was located nearby:

> "The Interstate was intended to be a defense highway for the movement of troops, materiel, and so forth, in times of national emergency. The Interstate had to go from Omaha to or near Lincoln, then to or near Grand Island, and follow the Platte River and our major cities through Nebraska to the West Coast." (Merle Kingsbury, 1985 Interview)

Beyond these requirements, the actual route was to be determined by the states. The potential for political bickering and maneuvering was great and the State Highway Commission would become the major arbiter in these disputes as it held public hearings across the state:

> "The control points had to be used but the exact location near or around those control points was a matter of considerable dispute. Our commission held many, many hearings in those days. We'd hold hearings, for instance, at Grand Island, Kearney, North Platte, and all the way out, about whether the Interstate would be north or south of the Platte, or whether it would be up on US-30. Those were real contentious days. The public had a lot of input and concern about how it would affect their towns. I think we held several hundred location hearings. The entire commission would go west, for instance, and hold a hearing at North Platte or Kearney. The public would come and give its views about whether the Interstate ought to go north or south of the Platte. The South Platte Chamber of Commerce and various cities were very active. At one time, before the exact location was determined, the chairman of our commission, J. R. McBride, went to Washington with State Engineer L. N. Ress and contacted senators and congressmen in an attempt to convince the Washington authorities where the location should be. However, the controversy continued into the sixties." (Merle Kingsbury, 1985 Interview)

Steven R. Gilbert (1900-1996) served as the State Airport Engineer from 1949 to 1957 and was also the Director of the Department of Aeronautics from February 1956 to March 1957. Although the Department of Aeronautics was established as a separate agency in 1945, the engineering expertise was furnished by the Department of Roads and Irrigation. In 1957, Mr. Gilbert was appointed Assistant Design Division Engineer in charge of Interstate design. He recalled many disputes over the location of the Interstate such as the following incident in Omaha:

> "One problem area was Hobo Park. It was a square block where the hobos used to drink wine and lay around. There was a lady, connected with the Omaha World-Herald newspaper, who didn't want us to take Hobo Park and she had quite a bit of clout in Omaha. We proposed a relocation that was close to the World-Herald building and through a section of Omaha that the World-Herald had planned-on for future expansion. She then withdrew her objection and we went over Hobo Park." (Stephen R. Gilbert, 1985 Interview)

Without the State Highway Commission, the disputes would probably have been far worse. According to Merle Kingsbury, the commission attempted to represent the public and lessen controversy:

> "We had some volatile public hearings back in those days for which we had to use the Omaha Auditorium. We had several hundred people there, hostile people, because we were displacing people along I-480 down through town. I-680, around the edge of town, was more wide open and therefore, not quite so contentious. I recall that some of those hearings were very disagreeable. I guess they felt that the state was trying to run roughshod over the local people, homes, businesses, and therefore said, 'Leave us alone'. I think the people became accustomed to the fact that the commissioners were not governmental employees or engineers. We were lay-people from the various communities, exactly like they were, and we were there to hear their problems, their questions, and were trying to get answers from the engineers for them. Therefore, we represented both the people and the public interest." (Merle Kingsbury, 1985 Interview)

Although the department made every effort to accommodate landowners, including the construction of livestock underpasses where feasible, problems arose when the Interstate divided land in such a way that it affected the access. According to Geoffrey R. King, sometimes this was unavoidable:

> "The Interstate takes a wider strip of land than an ordinary road would. People just didn't want you cutting across their place. The alignment of the Interstate is very important and you want as straight a road as you can get. Often, that meant that you would isolate one part of a farm from the rest of it and there would be no way to cross it like on an ordinary road. So, you can't blame the farmer for fighting a situation like that. The judgment that was handed down, when you finally got one, would be to compensate him for his loss of access. The only way you can cross the Interstate, of course, is where you have a bridge. For a farmer with 40 acres on the other side of the road, who has to drive 10 miles to get to it, that's pretty rough." (Geoffrey R. King, 1985 Interview)

There were many other problems in the path of the Interstate. One such case occurred during the mid-1960's and required delicate handling:

> "As we proceeded west from Lincoln to Grand Island, the Interstate alignment followed the quarter-section line. In many cases, we could shift north or south to avoid a farmstead, etc. Near Aurora, we

encountered a small pioneer cemetery in which several persons were interred. Assistant Attorney General Harry Salter went to work on the problem and found some descendants who granted us permission to relocate the graves to the Aurora Cemetery. Actually, we found that it was almost easier to relocate a grave than to go through park land." (Kenneth J. Gottula, 1986 Interview)

The first construction on the alignment of the future Interstate in Nebraska, projects F-147(6) and I-316(9), involved the relocation of US-30 between Kimball and the Cheyenne County line. Let to contract in December 1954, this 14.8 mile section was completed in October 1955 and financed with federal funds on a 50-50 matching basis. The project included grading, structures, four lanes of right-of-way, two lanes of asphaltic concrete surfacing, and limited at-grade access. The contractor was the Missouri Valley Construction Company of Omaha. However, this section was designated as US-30 until the early seventies when the additional westbound lanes were constructed and the original lanes were partially reconstructed to Interstate design standards. Upon completion of this work in December 1973, the highway was officially designated as Interstate 80.

With the passage of the 1956 Act, adequate funding was finally available for Interstate construction nationwide. In June 1957, Nebraska's first true Interstate project, I-80-9(1), was let to contract with 90-10 matching and involved 6.4 miles near Gretna under the supervision of Project Engineer H. Shaw Little. State Engineer L. N. Ress was happy to announce that the Interstate highway program had begun in Nebraska. In November 1959, the Gretna project became the first segment of Nebraska's Interstate to be completed and open to traffic. The contractors were the Western Contracting Corporation of Sioux City, Booth and Olson, Inc. of Sioux City, Capital Bridge Company of Lincoln, Wrenn and Taylor of Grand Island, and the Platte Valley Construction Company of Grand Island. From 1957, it would take 17 years to complete Interstate 80 in Nebraska and during that time, the Interstate would occupy a central focus for the department and State Highway Commission, which continued to conduct hearings relative to Interstate plans.

Consulting engineers, who previously had a rather limited part in the highway program, began to take an extensive interest. By 1957, the consulting firms that specialized in highway work and had highway divisions had increased from some 10 or 15 to over 300 nationwide.

The 1957 Legislature addressed the increased administrative burden placed on the Department of Roads and Irrigation by dividing it into three separate state agencies: the Department of Roads, Department of Motor Vehicles, and Department of Water Resources. For the first time in its history, Nebraska had a separate agency solely responsible for highway planning, construction, and maintenance.

The Bureau of Highways had previously reorganized and streamlined its operations in 1955 by building-up its field division headquarters and assigning field construction employees to the division offices instead of Lincoln. According to most of the engineers, this decentralization was welcome. Gerald Grauer saw it as the most significant change in his 34 years with the department:

> "The most significant change was the way they treated personnel. We moved a lot and there was no attempt to establish permanent headquarters in the field. We moved all over the state and that's why we had trailer houses." (Gerald Grauer, 1985 Interview)

Orville L. Lund agrees. The following account, which took place in 1936, points out that the frequent moving of personnel sometimes produced real hardships:

> "My future wife and I had gone together a while and I was stationed at Chadron. In those days, contractors worked six to seven days a week, twelve to fourteen hours a day. I had been doing this for months and hardly had a weekend off. So, we decided to get married. The local project engineer gave me four days off, which included Saturday and Sunday, to come to Lincoln to get married. I had an old car and paid-down most of my money on an apartment in which to live after we returned. So, I drove to Lincoln on Friday. Enroute, I burned out a bearing in my car and had to get that fixed at Mullen. We got married Saturday night, started back and arrived in Chadron on Monday morning. Tuesday, I was called into the office and told that I was being transferred to Falls City. I couldn't get my money back on my

apartment, having paid that down. When I came through Lincoln on the way to Falls City, I stopped to see the man who made the assignment-switch and as I walked in the door, he saw me and said, 'Hi Orville. I understand that you're doing a lot of traveling now, ha-ha-ha'." (Orville L. Lund, 1985 Interview)

Oliver W. Johnson saw the 1955 policy changes as beneficial to both the department and employees:

"They would move our employees from one end of the state to the other. They weren't assigned to a field division. It wasn't until after I came to Lincoln that they eliminated the subsistence paid to the men in the field. They eliminated that in 1955 and assigned the men to field divisions instead of moving them back and forth, the idea being that they ought to be better class citizens, they ought to belong to a church, and shouldn't be moving their children from one school to another. In general, the engineering employees welcomed that. I think it has been a benefit to the department because the quality of work and engineering should be better when the engineers are not moved all over, when they know an area, and are acquainted with the local people. I'm sure they are better employees than they were back when they just moved them from one end of the state to the other." (Oliver W. Johnson, 1985 Interview)

Kenneth J. Gottula, who was hired by the department as a junior engineer in 1950 a few days after graduating from the University of Nebraska College of Engineering, comments on the change:

"After five years of moving from town to town, I was assigned to permanent headquarters at Holdrege in 1955. At the same time, I received my engineering license and a promotion to senior engineer at an increase of $85 a month. But, since the permanent headquarters meant that I would lose my non-taxable subsistence allowance of $105 a month, my take-home pay was actually $30-$35 a month lower. Nevertheless, I think that everyone was happy to get the permanent headquarters." (Kenneth J. Gottula, 1986 Interview)

Also in 1955, the department established the position of Division Construction Engineer in each of the eight field divisions. The positions were immediately filled except for Division 6 at McCook and Division 8 at Ainsworth.

With the Interstate highway program under way in 1958, Congress increased allocations to the states for improving federal primary,

secondary, and urban highway systems. Referred to as A-B-C systems, Nebraska received $6.6 million under this appropriation which, by regulation, it matched with $3.3 million to provide $9.9 million to improve these highways which had been in need of repair since World War II.

Because of the dual concern for the Interstate and A-B-C systems, department activities expanded significantly by the late fifties. These activities affected all divisions within the department. Otto B. Griess, a 1941 graduate of the University of Nebraska who was hired by the department in 1946 after wartime service with the Army Air Forces, was directing the geological field work for the Materials and Tests Division:

> "We knew that in order to build the Interstate and start meeting the rapid demand of construction, we had to hire a larger staff in our Soils Section. We had a number of crews and drill trucks. The largest number of drill trucks that we ever owned was through that period starting in 1956 up to the time that most of the Interstate in Nebraska was finished. We needed every truck and sometimes we could have used twice the equipment." (Otto B. Griess, 1985 Interview)

According to Messrs. Lund and Griess, Nebraska's varied geological resources presented a challenge for the Materials and Tests Division:

> "In constructing the Interstate, we had a tremendous research project. Between Lincoln and Omaha, we used limestone as aggregate because it was available in the eastern part of the state. You will find almost no 'joint' problems between Lincoln and Omaha even though that concrete is the oldest. It also has the heaviest traffic. West of Lincoln, you'll see more 'joint' problems, especially in the Platte River Valley where we primarily used Platte River gravel. Close to Wyoming, we used limestone again." (Orville L. Lund, 1985 Interview)

> "As you go further west, the supplies and sources of gravel are limited. In the Grand Island, Kearney, and North Platte areas, there are tremendous amounts of material. Once you get past North Platte and to the South Platte River, supplies dwindle. The contractors had to set up their pits and pump many months ahead in order to produce the gravel that they wanted. For work in that part of the state, the geology and composition of the gravels was different. We had more problems but they were things we could handle with more work to find the right materials. It took longer to do the work." (Otto B. Griess, 1985 Interview)

As a 1935 graduate of the University of Nebraska College of Engineering, Marvin L. Nuernberger found himself fortunate to be hired as a draftsman in June of that year because there was an oversupply of graduate engineers and the department was turning away applicants. Mr. Nuernberger had a break in department employment from 1941-47 because of his work in private industry and wartime service in the U. S. Navy. After World War II, engineers were in very short supply:

> "Years later when I was reemployed by the department, I was subsequently assigned as the Division Construction Engineer at Norfolk. Division Engineer George Koster and I were the only two licensed engineers in the entire division. In the middle to late fifties, I proceeded on my own to school our division construction employees in the fundamentals of engineering to assist them in becoming licensed engineers. Mr. Lobdell, our Personnel Chief in Lincoln, later requested that I include statewide construction employees. The school had phenomenal success with over 75 percent of the attendees becoming licensed engineers." (Marvin L. Nuernberger, 1986 Interview)

In 1956, Division 3 Engineer George E. Koster, Jr. reported on the shortage of experienced engineering employees:

> "During the past two years, our Division Construction Engineer has reduced engineering costs and handled projects with a minimum number of experienced personnel. He was able to shift inspectors and staking parties where they were most needed. His biggest problem has been the shortage of experienced workers. Many projects were handled with the engineer-in-charge being the only experienced employee on the project. We hope that these helpers develop into capable engineering employees in the next two years."

The Bureau of Highways increased its manpower to meet the post-war and Interstate challenges. From an average of 535 employees in 1945, the bureau averaged 1,982 employees in 1957. By 1970, the average number of employees in the bureau was 2,691, an increase of 36 percent in 13 years and 403 percent in 25 years:

> "We were in the State Capitol in 1955-56 and had to expand our work capabilities overnight. In the Bridge Division, we doubled, even tripled our personnel almost on a crash basis. The overall organization grew and entire sections were created with new and different

tasks. It was a time when the department changed from a predominately rural-type organization to a large group able to handle Interstate and urban design/construction as well. It was an exciting period!" (G. C. Strobel, 1986 Interview)

Department of Roads employees also received increased benefits including a 40-hour workweek by January 1958. Many of the benefits were the result of federal guidelines that had to be followed to maintain eligibility for federal funds, which provided 90 percent of the Interstate cost. These benefits improved the working conditions for everyone in the department:

"I think the greatest change was the dramatic improvement in working conditions for not only department employees, but also contractors. We worked a minimum of 60 hours a week back in the late twenties and the thirties, worked hard and didn't have any fringe benefits." (Oliver W. Johnson, 1985 Interview)

Gerald Grauer also remembers the new forty-hour workweek and regular pay periods that came with the Interstate:

"When I was hired by the department in 1951, we worked 44 hours, which meant we had to work Saturday until noon. When the workweek was shortened to 40 hours, we got the same pay as we previously had received for 44 hours. But, one of the best things they ever did for us was determining a certain day and location where we were going to be paid. It used to be that we would not know, within 10 to 14 days, when we were going to get our paychecks. Of course, when we moved, we never knew where it was going to be mailed. I remember many a time when my bank account was flat and I didn't have a dime in my pocket. I had money floating around the state in the mail, somewhere, but I didn't get it." (Gerald Grauer, 1985 Interview)

The irregularity of pay was a common complaint from those in the field before the new accounting and payroll procedures were instituted:

"One year, when my family was in North Platte and I was working somewhere else, we hadn't been paid for November and it was nearly Christmas. I had to go to a hock shop and borrow money to buy my little girl and little boy a Christmas present. I didn't get my November paycheck until after December 25th. This was common." (Oliver W. Johnson, 1985 Interview)

Sometimes highway work had a lighter side, including a little humor, as shown by the following 20th Century tombstone epitaph:

"This is the grave of Michael O'Day,
Who died maintaining his right-of-way.
His right was clear, his will was strong,
But, he's just as dead as if he'd been wrong."

On January 1, 1960, the Social Security deduction from each employee's pay, excluding the Safety Patrol, was increased to three percent of the first $4,800 in earnings. Also in that year, the department had eight field divisions and the state highway system totaled 9,282 miles. Of the latter, 6,584 miles were hard-surfaced, 2,634 miles were graveled, and 64 miles had dirt surfacing.

Since 1937, the Department of Roads has had a provision in its "Standard Specifications for Highway Construction" that requires contractors to suspend operations whenever excavation uncovers Indian relics, fossils, meteorites, or other items of historical or geological interest. Even prior to 1937, several of the department's engineers who had an amateur interest in archeology and paleontology, encouraged contractors and others to treat such items with care. Pre-eminent among those engineers was Thomas C. Middleswart, who served as the Division 5 Engineer at Scottsbluff from 1927-33 and at Bridgeport from 1933-41 and 1943-64. Mr. Middleswart discovered the fossil remains of a number of previously unknown prehistoric animals, four of which were later named in his honor by the scientific community: (1) Sphenophalos middleswarti (ancestral pronghorn), (2) Satherium piscinaria middleswarti (otter), (3) Megasespia middleswarti (small pig-like animal), and (4) Bathyopsis middleswarti (hoofed herbivore). Mr. Middleswart was also a volunteer part-time Research and Field Associate in the Division of Vertebrate Palentology at the University of Nebraska State Museum. He and his wife, Gwen, discovered many new fossil "beds" and donated a large number of specimens to the State Museum.

In 1959, the Legislature enacted a law authorizing the Department of Roads to enter into agreements with various state agencies to remove and

preserve archeological, paleontological, and other historic items when such items are to be disturbed by highway construction. This law also authorizes the use of highway funds for this specific purpose. Thus, in 1960, the department entered into agreements with the State Historical Society and University of Nebraska to survey for and excavate archeological, paleontological, and other historic items on our highway projects. In 1996, as a result of these ongoing agreements, the department pays the salaries and associated costs of four archeologists from the State Historical Society and two paleontologists from the University of Nebraska - Lincoln. In turn, those persons work full-time surveying the rights-of-way and borrow areas, usually well in advance of highway construction.

The Department of Roads is proud of its long and successful association with the State Historical Society and University of Nebraska - Lincoln in this cooperative program of historical salvage. Indeed, the knowledge obtained enables mankind to learn more about the way things were and from whence we come. It may also provide a window to our future.

With the increased workload brought about by the Interstate, the department was fortunate to hire a few more experienced engineers. One of these was Donald O. Swing, an Indiana native who graduated from the Purdue University College of Engineering in 1951. After working nine years in the private sector, Mr. Swing joined the department in 1960 as an associate engineer. He became the Assistant Design Division Engineer in 1968, Project Development Division Engineer in 1971, Materials and Tests Division Engineer in 1974, and Deputy Director-Operations in 1986.

In addition to work on the Interstate, the department began to address the problem of its unpaved highways and over 650 miles of gravel routes were hard-surfaced in 1959-60. Throughout the early sixties, the department's goal was to provide at least one hard-surfaced highway to each incorporated town. In early 1961, there were 70 towns without a hard-surfaced highway leading to it. According to John W. Hossack, the

department was successful in reducing the number of gravel highways to about 10 percent of the state system:

> "During that nine year period (1960-68), we got down to about 10 percent that were gravel. Of course, on a number of them we were only able to provide an oil mat, which was not going to last forever. Our biggest emphasis was trying to get the people out of the mud and then, of course, to keep our other roads in a passable or reasonably decent condition." (John W. Hossack, 1985 Interview)

Interstate construction also had an impact on non-Interstate highways in Nebraska during the 1960's:

> "Highways had stayed much the same for quite a number years until the coming of the Interstate. That stretched the imagination of people, the idea of surfaced-shoulders. Until that time, nobody had ever seen a shoulder that was hard-surfaced. That was a big change. The new safety section also was adopted which meant that there had to be a recovery zone beyond the shoulder to accommodate out-of-control vehicles. There were numerous changes that occurred in a short period of time, right after the Interstate concept came into being." (Gerald Grauer, 1985 Interview)

Throughout the early sixties, the Interstate remained a top priority and federal funding continued at the 90-10 ratio. The department had never experienced such an infusion of outside funds and this produced its share of problems. According to G. C. Strobel, the year-to-year variance in the allocation of federal funds placed serious strains on the department:

> "There were super problems that we thought were insurmountable. In 1960, we had a large apportionment of Interstate funds, probably about $30 million. I think we had two years of this higher figure. Thereafter, we tapered off to $15 or $16 million a year of federal funds. For some reason, we got two big years and we were really under the gun to try to use it. We started from nowhere picking our alignments and having studies done from scratch. So, we had a very accelerated period when we really had to push our consultants and our own people. We moved some of our jobs from hearings to construction in about 10 or 11 months. It now takes five or six years." (G. C. Strobel, 1985 Interview)

A bitter fight over the allocation of Interstate construction funds between Omaha and most of the rest of Nebraska erupted in late 1959.

William O. Dobler, editor of the Lincoln Star newspaper, blamed Lincoln businessmen for the problem. He wrote in an editorial that:

> "The entire issue started with a Lincoln group which, armed with the 'facts' which must have come from a bad dream, told outstate interests that Omaha was getting all the Interstate funds and that there would be no construction outstate until the entire project (Omaha) was finished."

As a result, an organization called Greater Nebraska Interstate, Inc. (GNI) was formed and its president was Eugene O. "Gene" Kemper, publisher of the Alliance Times-Herald newspaper. GNI hired Roy M. Green, Dean of the University of Nebraska College of Engineering, as its consultant. At first, GNI called on Governor Ralph G. Brooks and the department to abandon I-480, the downtown Omaha route. The Lincoln Chamber of Commerce endorsed the group's proposal. When Governor Brooks refused to consider the proposal, GNI pressed for 77 percent of the Interstate money to be spent outstate and 23 percent in urban areas. The State Highway Commission recommended that the 77-23 formula be formally adopted but also pointed out that their recommendation was moot because the department had already been spending 77 percent outstate and 23 percent in Omaha. The controversy raged for years and the ratio was changed to 73.7 percent rural and 26.3 percent urban. It turned out that the department had difficulty keeping up with the 26.3 percent urban allotment. In fact, in April 1968, Mr. Green reported that urban spending was down to 23.43 percent.

The 1963 Legislature created a State Employees' Retirement System which became effective on January 1, 1964. The department had about 1,500 eligible employees, of which 866 qualified for prior-service benefits. With the passage of this law, state employees finally had their own retirement plan in addition to Social Security benefits.

Although the department was rightfully focusing attention on the need to build the Interstate highway across Nebraska, the needs on the balance of the state system continued to grow. Delegation after irate delegation appeared monthly before the State Highway Commission, pleading that scarce funds be allocated to their respective highway needs. While their pleas

were met with sympathy, the plain fact was that available revenue could not begin to address the growing highway problems. Numerous efforts to increase highway user taxes were thwarted by special interest groups and the situation was reaching a crisis stage.

In 1965, the Legislature authorized a sweeping study of the needs of every public road in Nebraska: state highways, county roads, and city streets. Chaired during the first two years by Senator Jules W. Burbach of Crofton, the special legislative study committee chose to employ out-of-state consultants to insure objectivity. In September 1967, Roy A. Jorgenson & Associates of Maryland completed the engineering needs study of the then-existing 103,000 miles of public roads. In November 1967, Wilber Smith & Associates of South Carolina completed the financing portion of the study, and in December 1967, Ernst & Ernst of Chicago completed the management study of the Department of Roads, county highway, and city street departments.

Two advisory committees also were named by the legislators: one consisting of groups which had a special interest in highways such as motor carriers, petroleum interests, highway contractors, farm organizations, Chambers of Commerce, etc., and the other composed of representatives of county and city governments. By making these groups part of the study, it was hoped that a broader understanding would develop on the needs of all concerned.

Senator Jerome Warner of rural Waverly was named to chair the special legislative study committee for the second two years, 1967-68 and 1968-69. While it would be nearly four years from its inception before all aspects of the study were acted upon, certain phases were implemented earlier.

While the department was contemplating changes in its organizational structure, it was making changes in its physical structure. The Testing Laboratory, completed in 1948 at 14th and Burnham Streets in south Lincoln, housed the Materials and Tests Division. The State Patrol/Engineering Building, completed in 1958 at the same address, housed the Construction

Division, Right-of-Way Section, Utilities Section, Division 1 and 2 headquarters staffs, and State Patrol. On September 18, 1967, forty-four Design Division employees moved from the State Capitol to the newly constructed Central Office Building located between the Testing Laboratory and the State Patrol/Engineering Building. By December of that year, the remainder of the department employees at the State Capitol had moved to the new building. The completion of this two million dollar, 105,000 square foot structure enabled the department to have all of its administrative home offices in the three-building complex at the south Lincoln location. The project engineer in charge of construction was Daniel J. Sharp. The new building was dedicated by Governor Norbert T. Tiemann in a formal ceremony on September 27, 1968. The Testing Laboratory was the first permanent building at this address and had been constructed under the supervision of George E. "Dutch" Koster, Jr., who was hired by the department as a chainman soon after his 1933 graduation from the University of Nebraska. He served as the department's District 3 Engineer at Norfolk from 1951 until his death of a heart attack during an April 1972 meeting in Lincoln.

Beginning in early 1968 and following the recommendation of the management study, the department underwent the first phase of an extensive reorganization and was divided into four basic areas: planning, design, operations, and administration; each headed by a deputy director.

October 15, 1966 saw the creation of a U.S. Department of Transportation (DOT), composed of the Federal Highway Administration, Federal Railroad Administration, Federal Aviation Administration, and U.S. Coast Guard (in peacetime).

A look at the evolution of the Federal Highway Administration shows that its earliest predecessor was the Office of Road Inquiry, which was created in 1893 as a small unit of the Department of Agriculture. This unit became the Office of Public Road Inquiry in 1899, the Office of Public Roads in 1905, the Office of Public Roads and Rural Engineering in 1915, and the Bureau of Public Roads in 1919. It was renamed the Public Roads

Administration (PRA) in 1939 and transferred from the Department of Agriculture to the Federal Works Agency (FWA). When the FWA was disbanded in 1949, the PRA was transferred temporarily to the General Services Administration, a new agency. Later in the same year, the PRA was reidentified as the Bureau of Public Roads and transferred to the Department of Commerce. In 1966, the Bureau of Public Roads became the Federal Highway Administration in the new DOT.

Creation of the federal DOT inspired an immediate trend toward the establishment of similar organizations at the state level. New York led off the parade in 1967 and was followed that same year by Wisconsin. In 1996, only five states did not have a DOT and Nebraska is among these. Of course, Nebraska has always taken a conservative, "non-bandwagon" approach to government and is the only state to have a one-house Legislature. The latter was approved at the polls on November 6, 1934 by a vote of 286,086 (59.7%) to 193,152 (40.3%).

The 1967 Legislature changed the name of the Nebraska Safety Patrol by creating the Nebraska State Patrol within the Department of Roads. At that time, "patrolmen" became known as "troopers."

As the Nebraska legislative study continued, another portion receiving early consideration was the financial consultant's recommendation that bond financing be considered for major state highway construction. Since Nebraska had a constitutional prohibition against indebtedness exceeding $100,000, it was necessary to put the question before the voters. The 1967 Legislature placed the proposed constitutional amendment on the 1968 general election ballot. Said amendment would allow the state to issue bonds for the construction of highways, if authorized by a three-fifths vote of the Legislature. It was approved by a vote of 224,927 (51.9%) to 208,758 (48.1%). Marvin L. Nuernberger, who was appointed State Engineer on November 1, 1968, gives this recollection:

> "In 1968, the people thought the state highways were in poor shape and that there ought to be a way to improve them. Therefore, the bond issue won and became part of the massive bundle of highway legislation

that was developed and passed in 1969. The enactment of this total highway package permitted Nebraska to become progressive in the planning and construction of an integrated network of highways, roads, and streets. Of the 16 bills in the package, six involved increases in and distribution of highway user revenues. New funds and accounts were set up such as the Highway Cash Fund, the Highway Allocation Fund, and the Highway Trust Fund. The department, for the first time, through the Highway Cash Fund, was permitted to invest and collect interest on short and intermediate-term surplus funds. There was a one cent per gallon increase in gasoline and special fuel taxes and an increase in motor vehicle registration fees. There was a general fund appropriation of $1.7 million for recreation roads which passed directly into the Highway Cash Fund. Of special significance and long range importance was the provision for the proceeds of sales and use taxes derived from motor vehicles, trailers, semi-trailers, and certain appurtenances thereto, to be credited to the Allocation Fund. Also, there was the establishment of the Nebraska Highway Bond Commission for the issuance of limited obligation bonds for highway construction providing the department with considerable versatility for monetary maneuvering with the intricacies of federal funding for Interstate construction. In the late 1960's, the department was in double-trouble in programming Interstate construction. Nebraska's share of Interstate mileage was a single route (I-80) which was predominately rural. Only one other state was limited to a single route. Federal Interstate funding allocations were based on a continually updated remaining cost estimate for the individual states, which theoretically provided for the simultaneous completion of the entire Interstate system. Coupled with this was the department's commitment for the simultaneous completion of all rural and urban Interstate construction in Nebraska. Enactment of federal legislation providing ACI (Advance Construction-Interstate) and state legislation authorizing the issuance of limited obligation bonds for highway construction provided a timely solution for the department. The Legislature authorized a $20 million bond issue for 1969 and an additional $10 million for 1971 for the specific purpose of accelerating Interstate construction. The $10 million was not issued, however. Nebraska was one of the first states to program ACI and the first state to complete its main-line portion of Interstate construction. All federal highway fund apportionments, except Interstate, were based on factors involving comparative needs of the various states, but with the stipulation that the minimum apportionment for any state would be one-half of one percent. With ACI, there was an evident need for such a stipulation for Interstate apportionments. The department directed national attention to this problem and with the assistance of our Washington delegation, one-half of one percent was established as the minimum apportionment factor for Interstate funding. Provisions were included that permitted the one-half of one percent allocation to be used on other federal-aid routes upon any state's Interstate completion. The $20 million bond issue was originally a loan to the federal government. It was totally repaid and used for constructing other Nebraska highways. More important is the fact that one-half of one percent of each Interstate appropriation has been allotted to Nebraska for use on other

highways. The $20 million bond issue has been a fantastic investment for highway construction." (Marvin L. Nuernberger, 1986 Interview)

While the impact of this legislation ultimately allowed Nebraska to be the first state in the union to complete its main-line Interstate, it was a major break with precedent by authorizing state indebtedness for highway development. According to G. C. Strobel, the bond issue proved to be a fortunate move:

"It was a good thing because in later years, when inflation went up in a straight line, the work we did would have cost three or four times more. It gave us a highway across the state and allowed us to be the first state to complete its main-line Interstate." (G. C. Strobel, 1985 Interview)

When these 4000 bonds were sold for $5,000 each on November 6, 1969 by Eastman-Dillon of New York, Nebraska received $20,000,000 in cash for highway construction and incurred a debt of $32,520,415 to be repaid in 20 years. The latter included $20,000,000 in principal, $12,448,250 in interest at an average rate of 5.926 percent, $52,165 in issuance costs, and $20,000 in agent fees. The Department of Roads made the final payment and retired the debt on November 1, 1989.

In October 1968, the department submitted a request to the Bureau of Public Roads to add 246.3 miles of Interstate in Nebraska. The request included: (1) I-29 in Iowa to South Sioux City, Nebraska, (2) York south to connect with I-35 north of Salina, Kansas, (3) Grand Island to I-80, (4) Hastings to I-80, (5) I-80 near Lincoln to South Sioux City, and (6) Omaha west to connect with the Lincoln-South Sioux City route west of Fremont. Unfortunately, the Bureau approved only the 2.5 mile segment (1.9 miles in Nebraska) from I-29 in Iowa to South Sioux City.

Achieving only a small portion of its request, the department proposed that the state undertake a major project to establish a freeway-expressway system. Using the Interstate as its model, the department designated a system of high-speed highways to link the state's major cities. If adopted, the system would include 775 miles of four-lane freeways and 1,454

miles of two-lane expressways, the latter having four lanes of right-of-way to meet future needs for expansion:

> "When the Interstate was completed, we planned to take $15 million each year to accelerate construction of at least one and possibly two proposed expressway routes in Nebraska. They would be built to Interstate standards and we probably would have got them designated as Interstate. It was my judgment that we should design and construct to Interstate standards and we could do it with the bond issue. It would bring a lot of traffic through Nebraska since there was a natural desire for traffic between Canada and Mexico. I even went up to Canada and promoted it. A mind stretched by a new idea never returns to its original dimension." (Marvin L. Nuernberger, 1985 Interview)

Plans for the proposed expressway system ultimately were reduced in scope, but certain segments have been constructed and others are still on the drawing board. There is no question, however, that the construction of the Interstate brought a new image of highways throughout the nation. Some were directly involved with the development of the Interstate from its beginning to end. One such person was Kenneth J. Gottula, who was assigned to the Interstate Design Section in 1957, promoted to Roadway Design Division Engineer in 1968, became the Construction Division Engineer in 1974, and the Traffic Engineering Division Engineer in 1986:

> "I could probably talk about the Interstate for a couple of days. As a professional engineer, it was a real privilege to be involved with a project of that magnitude!" (Kenneth J. Gottula, 1986 Interview)

During the mid to late sixties, Nebraska was the scene of sweeping changes in many areas of government, not the least of which was the landmark highway legislation enacted in 1969 as a result of the special legislative study. Through extensive public hearings held across the state and the careful nurturing of all factions involved in the study, the legislative committee engendered public support for its program:

> "The Legislature adopted a functional classification system for all public roads; assigned jurisdictional responsibility for each classification; increased funding and divided the revenue between the state, cities, and counties based on needs-formulas; required one-year improvement and five-year planning programs from the state, counties, and cities and for public hearings to be held thereon; required

uniform budgeting and accounting procedures for the expenditure of highway user revenue; and established a Board of Public Roads Classifications and Standards composed of representatives of the state, counties, cities, and lay-citizens to help develop an integrated system of public roads throughout the state. After more than 16 years, this legislation still serves Nebraska citizens splendidly. It has provided a rock-solid foundation on which highway decisions are made, it has helped develop cooperation between jurisdictions in road-building, created better understanding among the people of the state, and has thus encouraged their continuing support for highway financing." (Senator Jerome Warner, 1986 interview)

The Board of Public Roads Classifications and Standards held its first meeting on November 21, 1969. Its eleven members appointed by the governor, the board was composed of two persons from the Department of Roads, three persons representing the counties, three persons representing the municipalities, and three lay-persons representing each of the congressional districts. Thus, each governmental entity and the general public, by its representation, had an equal voice in the operation and decisions of the board. The original board members were C. D. Ackerman, Beatrice; Marvin Athey, Imperial; Floyd Burkinshaw, Jamison; Robert Gaukel, Vice-Chairman, Gering; Bruce C. Gillan, Secretary, Lincoln; R. Doyle Hanson, Newcastle; Gene E. Jordan, Omaha; Melvin Ommen, Unadilla; Alfred E. Rasmussen, Grand Island; A. V. Sorensen, Chairman, Omaha; and Donald O. Swing, Lincoln.

By law, the board was charged with the responsibility of developing the specific criteria for each functional classification of road; the minimum standards of design, construction, and maintenance; one and five-year plan procedures; and the standardized system of annual reporting. The 1971 Legislature increased the board's duties by making it responsible for receiving and reviewing the standardized system of annual reporting and the One and Five-Year Highway, Road, and Street Plans submitted annually by the Department of Roads, the 93 counties, and the 538 incorporated municipalities.

In 1970, the department had six field districts (McCook and Ainsworth were sub-districts) and the state highway system totaled 9,725 miles. Of

the latter, 8,909 miles were hard-surfaced, 782 miles were graveled, and 34 miles had dirt surfacing.

On August 1, 1971, the Liaison Services Division was created within the department under the directorship of Carroll J. Story. The main purposes of this division were to: (1) assist the Board of Public Roads Classifications and Standards, (2) provide assistance to the counties and municipalities in their contact with the board, and (3) receive and review report submittals to the board as specified by law. Providing assistance to Nebraska's 93 counties and 535 municipalities was a new concept for the Department of Roads and proved to be indispensable in the establishment of an integrated system of public roads, streets, and highways within the state. In addition to its office staff in Lincoln, the division employed field liaison officers, one in each of the department's then seven field districts. The original liaison officers were: Mark J. Dorcey, District 1 (Lincoln); Kerry J. Taylor, District 2 (Omaha); R. James Pearson, District 3 (Norfolk); Jesse W. Ross, District 4 (Grand Island); Arthur D. Witkowski, District 5 (Bridgeport); George E. Koster, District 6 (North Platte); and Max E. Allen, District 7 (McCook). In addition to his regular duties, Mr. Story was appointed Secretary to the Board of Public Roads Classifications and Standards in December 1971 and served in that capacity until his retirement in December 1980. He was succeeded as Secretary to the Board by Malcolm D. Hardin.

While there were some who said that the department should have sold the additional $10 million in bonds which the 1969 Legislature authorized for 1971, there were others who favored the traditional "pay as we go" method of highway financing. In a January 15, 1973 letter to a constituent, Governor J. James Exon related some of his feelings on deficit spending:

> "One of the things that concerns me most about bond financing is that the people have been led to believe that if we would just issue $10 million more in bonds, we would have our road problems solved. You certainly know that $10 million in bonds would build only about 10 miles of Interstate or 20 miles of expressway-type highways. Therefore, I always insist that this matter of bond financing be put

in proper perspective. When we talk about doing the things that some people want, we are actually talking about bonds of $100 million to $150 million or more, to engage in a crash program. I guess I am still considered old-fashioned in some circles, but I know that it is easier to go into debt and spend money than it is to pay for it. But, I am still seeking constructive suggestions from all in this area (of concern)."

Though in principle the terms "roads" and "highways" are synonymous, in practice "highways" is normally used only for the more important thoroughfares. The term "road" is used in a narrow sense to denote routes of minor or local importance, but it also retains its broader meaning of any prepared route on land destined for the movement of goods and persons. The term "street," formerly of more general significance, now refers to roads lying within the limits of a municipality.

The following is a summary of Interstate completion in Nebraska:

Route	Mileage	Year last segment open to traffic
I-76	3.15	1969
I-80	455.27	1974
I-129	3.21	1977
I-180	3.47	1964
I-480	4.15	1970
I-680	13.43	1975
	482.68	

Throughout the years, most career department employees have shared a camaraderie based upon loyalty, cooperation, and unity of purpose. An example of this team-spirit is found in a tongue-in-cheek highway adage of uncertain origin: "If you don't go to other peoples' funerals, don't expect them to come to yours." Credit for relating the foregoing must be given to William G. "Bill" Hurst, a 1956 graduate of the University of Nebraska College of Engineering, who was hired by the department in 1959 and is presently serving as the Environmental Studies Engineer in the Project Development Division.