

M I N U T E S

SPECIAL COMMITTEE ON WAYS AND MEANS - B

November 7, 1977

Chairman Weaver called the meeting to order at 9:00 a.m. and announced that the Committee would undertake consideration of the proposal on building construction. In addition to Chairman Weaver, the following Committee members were present: Senator Paul Hess, Senator Arnold Berman, Senator Frank Gaines, Representative William Bunten, Representative Roy Garrett, Representative Richard Harper, Representative David Heinemann, Representative Loren Hohman, and Representative John Ivy. Staff members present were: Marlin Rein, Julie Mundy, Robert Haley, Louis Chabira, John Rowe, Jim Wilson, David Barclay, and Ben Barrett. Others who were in attendance are listed in a separate attachment at the end of these minutes.

Proposal No. 77 - State Building Construction
Procedures

The Committee reviewed with staff an initial draft of proposed legislation concerning the creation of a State Building Commission. Discussion centered on the provisions to be included in the proposed legislation as well as the revisions to current statutes that will be necessary in order to make existing building procedures consistent with the proposed legislation.

Proposal No. 78 - Review of the Department of
Transportation

The Committee heard testimony from representatives of the State Department of Transportation. Secretary Turner distributed to members of the Committee copies of a letter (Attachment I) from the Department to Chairman Weaver which compared state construction costs with those in Missouri and Oklahoma. Members of the Committee questioned what differences exist in the operational methods of Kansas, Missouri, and Oklahoma which would explain the variation in construction costs between them. J.O. Adams of the Department noted the difficulty in making any valid comparison of costs but stated that the variation could probably be attributed primarily to differences in labor costs. He also stated, however, that the availability and cost in materials, design techniques, and terrain over which roads are constructed also account in part for the differences in construction costs. Chairman Weaver remarked that terrain should not be a determining factor in the cost of overlays. Mr. Adams agreed it would not.

Representative Garrett wanted to know if the Department considered this cost differential acceptable or whether some way existed by which it could be reduced. He mentioned as an example establishing policies to change the Department's design practices in order to reduce costs. Mr. Adams said that he felt the Department's policies, with respect to construction, were adequate, but that design policies could be changed if the Legislature so desired.

Representative Ivy asked whether the design principles followed by the Department were established by the federal government and, accordingly, whether all states were obliged to follow them, thereby ensuring some degree of uniformity. Mr. Adams indicated that federal construction procedures have not ensured uniformity and that significant differences exist between the states and the construction procedures followed by each.

Representative Hohman inquired of the vehicular speed for which roads are currently being designed in Kansas. Mr. Adams replied that it remains at 70 m.p.h. The same question was asked about Oklahoma. Mr. Adams indicated it was probably the same as Kansas and added that the cost of construction would not be significantly reduced if the state would adopt a policy of designing roads for traffic traveling at 55 m.p.h.

Mr. Adams noted that the Department has experienced some problem with the interpretation of 1977 S.B. 204 regarding the transfer of property. Under this legislation,

a part of the function has been delegated to the Department of Revenue. Representative Hohman inquired if the Department was working with the Department of Revenue and if any problems arising from the new policy have been resolved. Mr. Adams indicated that the agency had experienced some difficulty with the Department of Revenue in resolving the problems associated with the operation of this program. He noted that many of the employees transferred to the Department of Revenue were formerly Department of Transportation employees and many of the relations thus established still remain. These employees have maintained contact with DOT, especially at times when problems arise.

Senator Berman made reference to a previous Committee request concerning the status of the Freeway Construction Fund. Secretary Turner distributed copies to the Committee of a letter indicating the status of this fund (Attachment II). Secretary Turner presented a summary of the letter and proceeded to provide the Committee with an estimate of future revenues and anticipated expenditures. Also, in response to a previous request from Representative Hohman, Secretary Turner stated that the Department would provide to the Committee a list of the current projects scheduled for construction.

Senator Hess questioned why balances were so high. He suggested that some savings could have been realized if the Department had expended those funds at an earlier date before inflation had reduced their purchasing power. Secretary Turner agreed, but stated that the "lead" time that is required for initiating construction on a project prohibited the utilization of these funds in this manner. The Secretary indicated also that the Department will be reaching a "crossroad" in 1979 or 1980 as regards the issuance of new bonds and the settlement of bonds outstanding.

Senator Berman asked if the agency has developed long-range plans to cover the debt service. Secretary Turner stated that he believed the agency would be able to handle the current debt service but indicated that even if no new projects are approved and no additional revenues discovered, inflation would continue to have the effect of reducing balances. He stated his primary concern was whether the Department would be able to match federal funds in 1982.

Some discussion was devoted to alternate sources of revenue and whether funds committed to specific projects could be redirected to others. Secretary Turner said he would need to review the statutes to determine whether this was possible.

Senator Berman wanted to know how much revenue was being raised by authorized taxes on non-farm trucks and if trucks were paying "their fair share." Secretary Turner stated that he would make an assessment for the Committee of the revenue derived from this source. He stated further that there is no basis for determining "fair share." Senator Berman said he thought a formula could be developed to determine this.

Proposal No. 79 - Review of the Forestry, Fish and Game Commission Policies for Farming Contracts

The Committee reviewed the proposal which concerned problems arising from the licensing of land under the jurisdiction of the Fish and Game Commission to farmers for agricultural purposes. Discussion centered on the feasibility of treating lease agreements on an individual basis which some have felt to be a more equitable basis for such agreements. Staff indicated that the Fish and Game Commission had raised doubts as to whether this recommendation was administratively feasible and renewed its advocacy for a statewide rate structure. After some deliberation, the Committee recommended that resolution of the problems associated with farming contracts be considered the responsibility of the Forestry, Fish and Game Commission to resolve as it deems appropriate.

The Committee also recommended that if the Commission is unable to resolve the current farm licensing problems to the satisfaction of both the Commission and current licensees that the Commission consider granting licenses contracts based upon closed bids.

Proposal No. 75 - Zero-Based Budgeting and Sunset Laws

Chairman Weaver directed the Committee's attention to the report on sunset legislation. On a motion by Representative Hohman and seconded by Representative Ivy, the Committee recommended adoption of the report which endorsed 1977 S.B. 277 by Senator Steineger. The bill authorizes the Post Audit Committee to conduct studies on state agencies, to determine the necessity of continuing the operation of such agencies as

they are presently constituted. In addition, the Committee recommended that the Post Audit Committee consider the questions raised by the 1977 audit of occupational licensing agencies in its determination of which agencies should be audited. The motion was passed.

Proposal No. 76 - Financing Vocational Education

The Committee report on financing vocational education was reviewed by staff. Following consideration of the proposal, Representative Hohman moved that the Committee adopt the report. Representative Ivy seconded the motion which was subsequently passed.

The Committee directed staff to prepare the report on the proposal relating to operation of the Department of Transportation for consideration at the next Committee meeting.

Prepared by Louis Chabira

Approved by Committee on:

Fred L. Weaver
(Date) 11-21-77

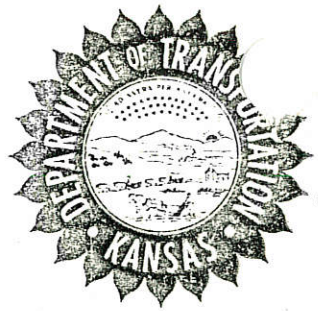
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OTHERS IN ATTENDANCE

<u>Name</u>	<u>Representing</u>
Dr. O.D. Turner	Secretary, Department of Transportation
J.O. Adams	Department of Transportation

KANSAS DEPARTMENT OF TRANSPORTATION

STATE OFFICE BUILDING—TOPEKA, KANSAS 66612



O. D. TURNER, Secretary of Transportation

ROBERT F. BENNETT, Governor

November 4, 1977

Attachment II

The Honorable Fred L. Weaver
State Representative, First District
R. R. 1
Baxter Springs, Kansas 66713

Dear Representative Weaver:

An attempt has been made to develop a reasonable comparison of construction costs in Missouri and Oklahoma with our costs.

Due to the many variables in projects, we have taken a number of overlay projects, the US-69 grading and bridge project in Miami County and the concrete pavement project in Lyon County, to make the comparison. Unit costs from the other states have been inserted into our projects to arrive at a cost per mile for the different types of projects. The following table relates the cost per mile.

Cost Per 2-Lane Mile

Type of Construction	State		
	Kansas	Missouri	Oklahoma
Grading	389,141.90	505,473.09	357,962.47
Grading & Bridges	583,748.79	718,222.82	514,078.23
2" Overlay	39,000.00	50,000.00	22,500.00
2" O'Lay & Shoulders	42,781.00	75,000.00	37,500.00
3" Overlay	44,600.00	75,000.00	33,500.00
3" O'Lay & Stab. Sho.	58,400.00	100,000.00	56,000.00
4" Overlay	89,100.00	90,000.00	45,000.00
4" O'Lay & Stab. Sho.	112,600.00	115,000.00	75,000.00
Conc. Pvt., 4-Lane	503,602.47	554,623.72	535,546.83
Conc. Pvt., 2-Lane	251,801.24	277,311.86	267,773.42

Very truly yours,

W. H. OGAN, P.E.
State Transportation Engineer

A Comparison of Recently Completed Construction Projects in Kansas and Oklahoma

The two projects which are being compared in this report consist of an asphaltic overlay of an existing portland cement concrete pavement. The Kansas project was 5.323 miles in length and is located on Highway US-59 from its south junction with US-69, north to the city limits of the City of Garnett. The Oklahoma project was 13.8 miles in length and is located on Highway US-60 from the east edge of Fairland, northeasterly.

The pertinent information concerning purpose, type of construction, unit costs, etc., are set out below.

Kansas Project.

Roadway Conditions Prior to Improvement:

The existing roadway consisted of a 20-foot wide portland cement concrete pavement which had considerable cracking and displacement of joints. There were practically no shoulders along the length of the improvement, and that which did exist was not stabilized. The alignment did not have an adverse amount of vertical or horizontal curvature and could be improved within the existing right of way.

Purpose of the Improvement.

There were three existing conditions which could be corrected which would significantly improve the sufficiency rating and bring this section to very nearly the present standards for rural primary highways by means of a 3R type project. The improvement was designed to provide a standard pavement width of 24 feet, to provide a smooth riding surface and added load carry capacity and to provide a stabilized shoulder of the greatest width attainable within the existing right of way. The design would also greatly improve the safety of the highway.

Design Criteria

The design criteria for the project called for widening the pavement 2 feet, 3 inches on each side, with the widening being 9 inches thick. A 1-inch bituminous concrete leveling course, 24 feet, 6 inches wide was to be laid to provide a smooth base for the final 2-inch thick bituminous concrete surface course. Shoulders were to be stabilized with crushed stone and calcium chloride to a depth of 3 inches and a minimum width of 3 feet, 9 inches. It was specified that a greater width was to be built where space would accommodate it. The final shoulder width throughout the project ranged between 6 and 8 feet.

Summary of Quantities and Cost

Pavement Widening

Aggregate for Bituminous Base Course	5694 Tons @ \$6.45	\$36,726.30
Pavement Widening (Excavation & Backfill)	203.53 Sta. @ \$37.00	7,530.61
Water	0.00 M Gal. @ \$4.75	0.00
		\$44,256.91

Bituminous Overlay and Leveling

Aggregate for Bituminous Surface Course	14,427 Tons @ \$6.50	\$ 93,775.50
Asphalt Cement	1,240.9 Tons @ \$71.20	88,352.08
Emulsified Asphalt (Tack)	36.27 Tons @ \$93.00	3,373.11
Water (Emulsion Dilution)	0.00 M. Gal. @ \$20.00	0.00
Asphaltic Pavement Sampling	4.0 Ea. @ \$10.00	40.00
		<u>\$185,540.69</u>

Stabilized Shoulders

Aggregate for Shoulders	6,848 Tons @ \$4.00	\$27,392.00
Calcium Chloride	28.5 Tons @ \$175.00	4,987.50
Water	122 M. Gal. @ \$2.10	256.20
		<u>\$32,635.70</u>

Supplementary Items

Adjustment of Gutter Inlets	6 Ea. @ \$50.00	\$ 300.00
Restoration and Maintenance of Haul Roads	L.S. @ \$2,000.00	2,000.00
Mobilization	L.S. @ \$6,000.00	6,000.00
Traffic Control	L.S. @ \$7,000.00	7,000.00
Field Office and Laboratory	L.S. @ \$250.00	250.00
Corrugated Metal Pipe		1,560.00
Surface Repair		195.00
Side Road and Entrance Surfacing		
		<u>9,628.62</u>
		<u>\$26,933.62</u>

Total Cost of Project \$289,366.92

Cost Per Mile \$54,361.62

Oklahoma Project

Roadway Conditions Prior to Improvement:

The existing roadway consisted of a 24-foot wide portland cement concrete pavement which had some cracking and displacement of joints. There were existing 6-foot bituminous stabilized shoulders along the entire project length. The alignment was satisfactory and right of way was sufficient to accommodate the planned improvement.

Purpose of the Improvement

The condition which needed correction consisted of a rough riding surface. The surface width was standard and stabilized shoulders were in place. The improvement was designed to provide a smooth riding surface and to raise the shoulder to coincide with the new surface.

Design Criteria

The design criteria for the project called for a 1 1/4 inch bituminous concrete overlay over the 24-foot wide pavement. The shoulders on each side were to be overlaid to a width of 4 feet to provide a transition from the new surface. The contract simply called for an overlay 1 1/4 inch in thickness and 32 feet in width.

Summary of Quantities and Cost

As the Oklahoma Department of Transportation considered this a maintenance contract, the project included only one bid item.

Asphaltic Concrete (Type C)	18,900 Tons @ \$13.40	\$253,260.00
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This item includes the asphalt cement, aggregate, tack coat and supplementary items.

Total Cost of Project	\$253,260.00
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Cost Per Mile	\$18,285.92
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Cost Per Mile Pavement Overlay (24-feet x 1 1/4 inch)	\$16,000.18
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The Kansas Department of Transportation has traditionally broken down construction contracts into individual unit prices rather than gross units as was done in the Oklahoma project. It has been our experience that better bid prices and increased accountability are obtained by this method. In order to provide a more realistic comparison of cost between the two projects, the unit prices of the Kansas project have been combined and listed on a cost per mile basis.

Widening	\$ 8,314.28
Overlay (3 in.)	38,719.44
Stabilized Shoulders	6,131.07
Pavement Overlay (24 ft. x 1 1/4 in.)	15,262.97

(Overlay cost includes all units included in bituminous overlay and leveling plus supplementary items prorated to the overlay portion of the project.)

CONSTRUCTION COST COMPARISON
TYPE OF CONSTRUCTION-COST PER MILE

State Type of Construction	Kansas \$ Cost/Mile	Missouri \$ Cost/Mile	Oklahoma \$ Cost/Mile
2-Lane Grading	Average 389,500	200,000 to 600,000	89,000 to 210,200
4-Lane Grading	Average 602,750	1,000,000 to 1,200,000	226,400 to 420,400
2-Lane Concrete Pavement	Average 266,600	230,000	222,200
2-Lane Asphaltic Concrete	Average 204,800	230,000	222,200
2-Inch Overlay	Average 39,000	50,000	22,500
2-Inch Overlay & Stabilized Shoulders	Average 42,781	75,000	37,500
1-Inch overlay	Average 44,600	75,000	33,500
3-Inch Overlay & Stabilized Shoulders	Average 58,400	100,000	56,000
4-Inch Overlay	Average 89,100	90,000	45,000
4-Inch Overlay & Stabilized Shoulders	Average 112,600	115,000	75,000

Variance in grading costs probably relate to difference in terrain.
 Others vary in direct relation to labor rates and availability of materials.

KDOT MAINTENANCE BUDGET

A breakdown of the major areas included in the DOT Maintenance Budget are for your information. The following listings can be correlated with actual dollar amounts in Attachment #1 in numerical sequence. Labor dollars actually expended on specific work items are included in Attachment #2.

1. SALARIES:

All amounts paid to Department of Transportation Field Maintenance, Maintenance Headquarters and Communications employees in return for their services. This also includes amounts paid by Department of Transportation for: Kansas Employees Retirement Fund, Federal Insurance Contribution Act, Health and Hospitalization Insurance and Workers Compensation Contributions.

2. EQUIPMENT:

2a. The 1977 budget included replacements for automobiles, road maintenance equipment and a variety of support equipment.

The replacement was as follows:

<u>Equipment</u>	<u>On Hand</u>	<u>Replacement</u>
Passenger Cars	203	76
Truck ½ Ton	316	31
Truck ¾ Ton	157	49
Dump Trucks	564	67
Vans & Suburbans	71	3
Tractor Truck	4	2
Motor Grader	61	5
Tractor Loader	107	8
Tractor Mower	106	9
Loader, Pneumatic-tired	23	1
Rotary 90" Mower	32	1
Truck Mounted Hydraulic Derrick	2	2

The 1978 budget includes replacements for automobiles, road maintenance equipment and a variety of support equipment.

The planned replacement is as follows:

<u>Equipment</u>	<u>On Hand</u>	<u>Replacement</u>	<u>New</u>
Passenger Cars	244	68	1
Truck 1/2 Ton	314	21	
Truck 3/4 Ton	228	30	
Dump Truck	596	45	
Van & Suburban	29	3	
Motor Grader	18	1	
Tractor Loader	25	3	
Tractor Mower	14	3	
Truck Elevating Stake Bed	0		7
Center Striper	2	1	
Asphalt Distributor	21	1	
Rock Cutter	0		1
Pneumatic Roller	8	1	
Air Compressor	7	1	

2b. Parts and Supplies - Includes all items used or consumed in the operation and maintenance of motor vehicles and road equipment (gasoline, diesel fuel, oil, tires, parts, etc.)

3. TOTAL COMMUNICATIONS

Total Communications includes all Activity 40 funds except salaries and travel and subsistence. These funds are used for the operation, maintenance and improvement of the Kansas Highway Patrol and Department of Transportation radio communications system. This system includes 190 base stations (90 KDOT, 85 KHC & 15 microwave combined) and 1051 mobile units (611 KDOT & 440 KHP).

FY 1977 - Replace 1 KDOT base station, 5 KHP base stations, 42 KDOT mobile units, 36 KHP mobile units.

FY 1978 - Replace all remaining obsolete tube base stations. No mobile units will be replaced.

4. BUILDINGS

4a. Contract Repair - Includes primarily the repairing of heating and air conditioning units and roofs, of DOT buildings. FY 1977 included roofs at Turkey Creek (KHP), Seneca, Garnett, Augusta, and Dodge City.

4b. Repair Materials - Materials needed for the repair and upkeep of 361 DOT numbered buildings.

4c. Capital Improvements - Includes all projects which add to the inventory value of an existing building or the construction of a new building.

FY 1977 - Renovating KHP Building at Topeka; rewiring to meet OSHA Regulations at Topeka, Mankato, Oakley, Ft. Scott, Pratt and Ulysses; Welding Room Ventilation at Salina, Norton, Chanute, Hutchinson and Garden City; Wash Bays at Blaine, Grainfield, Eureka, Leoti, and Tribune; Reroof at Topeka, District Office & Shop.

FY 1978 - Rewiring to meet OSHA Regulations at Osage City, Ellsworth, Hays, Independence, Anthony and Syracuse; New metal storage buildings at Olathe, Wamego, Kansas City, Horton, Ellsworth, Marion, El Dorado, Wichita and Pratt; Improve heating and air conditioning at Junction City; Ventilating Conference Room, District Office, Hutchinson.

5. TRAVEL & SUBSISTENCE:

All expenses incurred by Department of Transportation employees while away from his official headquarters or domicile.

6. CONCRETE PAVEMENT REPAIRS:

- 6a. Ready Mix Concrete - Concrete used to repair pavement joints and blow ups.
- 6b. Portland Cement - Cement purchased to make concrete where local ready mix plants are not available. Cement is also used in pavement mud-jacking operations.

6c. Joint Filler - Material used to fill relief slots cut in pavements. Relief slots are cut to relieve the pavement pressure on bridge back walls.

7. BITUMINOUS PAVEMENT REPAIR:

7a. & b. Asphalt used to mix the aggregate in 7c.

7c. Aggregate combined with the asphalt is used in bituminous pavement repair and surface preparation ahead of the contractual seals in 16c & d.

8. SHOULDER REPAIR:

8a. Aggregate used to repair stablized shoulders.

8b. Calcium Chloride is used to maintain rock shoulders.

No calcium chloride was purchased in FY 1977, bids were taken twice, with no bidders.

9. WEED SPRAYING:

9a. County Contracts - KDOT has entered into agreements with 92 counties, for the counties, to spray noxious weeds along highway right of way. We try to have these agreements with all counties.

9b. Chemicals - These chemicals are used to spray primarily those counties where we were unable to get an agreement, and around signs, bridge ends and under guard rails. More chemicals may be needed in the future with our current reduced mowing policy.

10. SNOW & ICE:

10a, b, c. Materials used in maintaining the bare pavement policy of the Department of Transportation. No calcium chloride is being purchased for snow and ice control.

11. BRIDGES:

11a. Lumber, primarily plywood is used to construct the forms for various bridge repair activities.

11b. Bridge Repair Materials include bridge plank, bearing devices, piling, handrail, etc., needed to repair damaged or deteriorated bridges.

11c. Steel for bridge repair includes reinforcing steel, steel bridge planks and structural steel.

12. SIGNING:

12a. Signs from Sign Shop - The Department of Transportation sign shop annually manufacturers for the districts 240,000 square feet of highway signs.

12b. Signs Other - This includes plastic cones, plastic lane lines, and fastening hardware, etc.

12c. Posts needed for new signing and to replace posts vandalized, deteriorated or damaged. The average annual usage is approximately 15,000 posts.

13. STRIPING:

13a. Paint includes the paint for all highway markings such as center line, edge line, and lane line markings. It is an established Department of Transportation policy to paint the center line and one-half the edge line each year. This requires approximately 225,000 gallons.

13b. Glass Beads are needed to add reflectivity to the painted stripe and are added at a rate of 4 pounds per gallon, requiring approximately 900,000 pounds of glass beads annually.

14. HIGHWAY LIGHTING:

14a. Lighting Maintenance Contracts have been awarded along Interstate Highway in Sedgwick, Harvey, McPherson Salina, Shawnee, Wyandotte, Lyon, and Johnson Counties. At the present time there are 148 locations. Maintenance refers to all maintenance necessary to keep the highway lighting system in normal working order.

14b. Repair Materials includes all materials necessary to maintain all lighting systems, light standards, shear bases, luminaires, refractors, etc.

14c. Electricity

15. Rest Areas (143 locations)

15a. Rest Area Updating is a new program with FY 1978 to annually update three, high usage, locations. The updating will include the installation of flush facilities and equipment to make facilities accessible to the handicapped.

15b. Contract Pit Pumping is needed at 175 locations to maintain sanitary conditions. The pits are pumped as needed.

15c. Supplies include such items as: paint, detergents, soaps, and disinfectants, deodorants, and approved chemicals for flies and mosquitoes.

15d. Electricity

16. CONTRACTURAL

Includes all projects funded with Maintenance funds and let through the Construction Department, and otherwise handled as a regular construction project.

16a. Bridge Repair is a continuing program to repair bridges by contract which are beyond the scope of normal or routine maintenance such as the rebuilding of a back wall or the construction of a 2" concrete bonded overlay. 35 bridges were repaired by contract in FY 1977 and 26 bridges are programmed in FY 1978.

- 16b. Bridge Painting is a continuing program to paint approximately five percent of the total steel tonnage each year. This amounts to approximately 5,000 tons annually.
- 16c. Seal Program is a continuing program to resurface all bituminous surfaces in a seven to ten year cycle. The preparation needed for a contract seal constitutes a large percent of the materials required for Bituminous Pavement Repairs, see No. 7, page 5.
- 16d. Seal Other includes detours and roads needing extensive and unprogrammed resurfacing. The 3R Program will eventually eliminate most of need for these seals other than for detours.
- 16e. Pavement Repairs is a continuing program of extensive pavement patching primarily in the urban areas, Johnson, Wyandotte, & Sedgwick Counties. (High traffic plus extensive use of deicing salts.
- 16f. Slide Repairs are made by contract due to extensive grading usually involved, projects were let in Riley and Johnson Counties in FY 1977.

Category	Includes	Actual 1977		Approved 1978	
		Category Total	Total Includes	Category Total	Total Includes
1. Total Salaries		\$20,998,824		\$22,149,464	
2. Equipment		6,380,535		6,006,625	
	2a. Capital		\$2,218,480		\$1,129,743
	2b. Parts & Supplies		4,162,055		4,376,880
3. Total Communi- cations		219,439		150,600	
4. Buildings		219,163		277,585	
	4a. Contract Repair		33,916		60,000
	4b. Repair Materials		64,725		62,500
	4c. Cap. Improve.		120,522		155,085
5. Total Travel & Subsistence		199,120		216,304	
6. Concrete Pave. Repair		122,241		153,800	
	6a. Ready Mix Conc.		90,096		106,000
	6b. Portland Cement		15,105		26,100
	6c. Joint Filler		17,040		21,700

Actual 1977

Approved 1977

Category	Includes	Category Total	Total Includes	Category Total	Total Includes
7. Bit. Pave. Repair		\$ 6,951,774		\$ 7,121,950	
	7a. Asphalt (emulsion)		\$3,339,387		\$3,824,175
	7b. Asphalt (Other)		970,202		534,500
	7c. Aggregate (Surface Repair)		2,642,185		2,763,275
8. Shoulder Repair		110,836		399,690	
	8a. Aggregate		110,836		104,000
	8b. Calcium Chloride				295,690
9. Weed Spraying		203,064		213,300	
	9a. County Contracts		182,569		197,700
	9b. Chemicals		20,495		15,600
10. Snow & Ice		712,168		974,050	
	10a. Aggregate for Ice Control			166,450	
	10b. Salt			517,600	
	10c. Combined	712,168		290,000	

Category	Includes	Actual 1977		Approved 1978	
		Category Total	Total Includes	Category Total	Total Includes
11. Bridges		\$ 245,276		\$ 307,800	
	11a. Lumber		\$ 14,605		\$ 22,800
	11b. Br. Repair Mat.		156,573		127,000
	11c. Steel		74,098		158,000
12. Signing		596,496		677,900	
	12a. Signs from Sign Shop		420,962		507,150
	12b. Signs Other		14,072		25,750
	12c. Posts		161,462		145,000
13. Striping		1,006,465		1,068,941	
	13a. Paint		866,830		928,741
	13b. Glass Beads		139,635		140,200
14. Highway Lighting		792,395		630,675	
	14a. Light Maint. Contract		142 locations 194,051		148 locations 214,000
	14b. Repair Materials		59,018		61,200
	14c. Electricity		539,326		355,475

Category	Includes	Actual 1977		Approved 1978	
		Category Total	Total Includes	Category Total	Total Includes
15. Rest Areas 143 Locations		\$ 157,147		\$ 269,320	
15a. Rest Area Updating					3 locations \$ 100,000
15b. Contract Pit Pumping			175 locations \$ 20,101		175 locations 29,520
15c. Supplies			49,769		68,300
15d. Electricity			87,277		71,500
Sub-Total		\$38,914,943		\$40,618,002	
16. Contractural		\$ 8,731,369		\$ 8,251,758	
16a. Bridge Repair			35 Bridges \$1,704,209		26 Bridges \$1,375,000
16b. Bridge Paint			17 Bridges 180,855		4,700 Tons 235,000
16c. Seal Program			*1,038 miles 6,314,242		946 miles 5,651,758
16d. Seal Other			293,166		625,000
16e. Conc. Pavement Repair			183,768		265,000
16f. Slide Repairs			55,129		100,000
GRAND TOTAL		\$47,646,312	- 98% Total Expenditures	\$48,869,752	- 97% Total Budget

*Includes mileage for seal other

	Total Expenditures 1977	Budget 1978
Activity 20	\$47,950,844	\$49,369,177
Activity 08 (Maintenance Headquarters)	334,788	372,362
Activity 40 (Communications)	453,729	496,868
Activity 70 (Buildings)	<u>120,522</u>	<u>155,085</u>
TOTAL	\$48,859,883	\$50,393,492

DISTRIBUTION OF LABOR COSTS TO
 MAINTENANCE ACTIVITIES AND SUB-ACTIVITIES (1977)

Cutting Relief Slots	\$ 26,965
Crack or Joint Filling	98,894
Full Depth Repair	110,399
Less Full Depth Repair	77,545
Pre-Cast Repair	664
Mudjacking	19,718
Other	<u>94,364</u>
Sub Total	\$428,549

Pre-Mix Repair	\$1,483,566
Hot-Mix Repair	584,548
Dilute Sealing	215,363
Crack Filling	419,342
Slurry Sealing	34,122
Other	<u>298,796</u>
Sub Total	\$3,035,737

Hot-Mix	\$ 192,655
Pre-Mix	519,595
Other	<u>288,436</u>
Sub Total	\$1,000,689
Grand Totals - Pavement	\$4,464,975

Surfacing or Repair	\$ 656,175
Dilute Sealing	34,363
Reseed or Resod	13,950
Blading and Rolling	175,865
Other	<u>120,183</u>

Group Total - Shoulder,
Approach, Turn Arouds \$1,000,536

Mowing	\$ 924,503
Slope Repair	162,428
Fence Repair R/W	53,991
Landscaping	93,368
Ditch & Channel Repair	570,960
Litter & Trash Pickup	179,821
Pipe Repair-Replace	40,463
Other	<u>804,984</u>

Group Total - Roadside &
Drainage \$2,830,518

Painting	\$ 35,601
Handrail	28,837
Guradrail Attach to Bridge	51,062
Deck Repair	89,201
Abutment or Pier Repair	48,677
Expansion Joint Repair	11,776
Epoxy Grouting	1,298
Linseed Oil Surface Treatment	33,790
Other	<u>388,601</u>

Group Total - Bridges \$ 688,843

Guardrail Installation	\$ 50,670
Guardrail Repair-Replacement	112,060
Signing	1,369,271
Rest Area - Weight Station	559,847
Other	<u>156,268</u>
Group Total - Traffic Control	\$2,248,116

Snow-Ice Removal	\$ 482,453
Abrasive Application	151,315
Chemical Application	135,764
Snow Fence	64,470
Other	<u>374,409</u>
Group Total - Snow & Ice	\$1,208,411

Paint Buildings & Yards	\$ 124,954
Building Repair	50,337
Elec. - Mech. Repair	4,771
Landscaping	5,073
Janitorial Work	138,421
Driveway & Lot Repair	31,676
Yard Maintenance	105,628
Other	<u>122,719</u>
Group Total - Capital Improvements	\$ 583,578

Travel Time	\$ 908,620
Weather Delays	8,938
Equipment Repair	358,224
Leave - All Types	1,673,413
Other	<u>214,667</u>
Group Total - Subsidiary Charges	\$3,163,862

GRAND TOTAL \$16,188,839*

*All amounts paid to 1539 Department of Transportation employees in return for their services, including over time, this also includes amounts paid by the Department of Transportation for Kansas Employees Retirement Fund, Federal Insurance Contribution Act, Health and Hospitalization Insurance, and Workers Compensation Contributions. Personnel involved include the EO I, EO II, EO III and the Supervisor classes which are those whose time is charged directly to a work type.

WORK ACCOMPLISHMENT REPORT
1977 LABOR DOLLARS

	Iowa 1977 Actual		Nebraska 1977 Actual
Cutting Relief Slots		\$ 26,965	29,379
Crack or Joint Filling		98,894	
Full Depth Repair	187,018	110,399	49,554
Less Full Depth Repair	470,145	77,545	
Pre-Cast Repair		664	
Mudjacking	96,526	19,718	8,568
Other		94,364	
Sub Total	\$ 753,691	\$428,549	\$ 87,801
Pre-Mix Repair	158,962	\$1,483,566	1,179,192
Hot-Mix Repair	104,741	584,548	32,340
Dilute Sealing	101,212	215,363	240,175
Crack Filling	161,594	419,342	177,156
Slurry Sealing	8,749	34,122	
Other	123,127	298,796	239,022
Sub Total	\$ 743,385	\$3,035,737	\$1,867,865
Hot-Mix		\$ 192,655	
Pre-Mix		519,595	302,400
Other		288,436	157,578
Sub Total		\$1,000,689	\$ 460,278
Grand Totals - Pavement	\$1,502,076	\$4,464,975	\$ 2,415,964

	Iowa Actual 1977	Kansas Actual 77	Nebraska Actual 77
Surfacing or Repair	733,775	\$ 656,175	579,138
Dilute Sealing	134,362	34,363	18,522
Reseed or Resod	109,762	13,950	
Blading and Rolling	223,094	175,865	
Other	430,863	120,183	157,878
Group Total - Shoulder, Approach, Turn Arounds	\$1,633,736	\$1,000,536	\$ 755,538
Mowing	179,991	\$ 924,503	572,807
Slope Repair	56,447	162,428	93,072
Fence Repair R/W	24,391	53,991	28,476
Landscaping	18,456	93,368	33,280
Ditch & Channel Repair	521,157	570,960	141,652
Litter & Trash Pickup	263,277	179,821	149,604
Pipe Repair-Replace	177,714	40,463	118,440
Other	1,956,970	804,984	413,366
Group Total - Roadside & Drainage	\$3,196,403	\$2,830,518	\$1,532,697
Painting	29,293	\$ 35,601	27,954
Handrail	11,132	28,837	19,356
Guradrail Attach to Bridge		51,062	
Deck Repair	48,088	89,201	77,941
Abutment or Pier Repair	44,156	48,677	22,568
Expansion Joint Repair	58,499	11,776	
Epoxy Grouting		1,298	
Linseed Oil Surface Treatment	122,705	33,790	44,604
Other	163,733	388,601	61,483
Group Total - Bridges	\$ 477,606	\$ 688,843	244,911

	-3- Iowa Actual 1977.	Kansas Actual 1977	Nebraska Actual 1977
Guardrail Installation		\$ 50,670	
Guardrail Repair-Replacement	45,718	112,060	54,600
Signing	1,741,459	1,369,271	894,741
Rest Area - Weight Station	529,866	559,847	
Other	<u>1,051,319</u>	<u>156,268</u>	<u>228,159</u>
Group Total - Traffic Control	4,336,342	\$2,248,116	1,177,500
Snow-Ice Removal	1,249,672	\$ 482,453	} 956,685
Abrasive Application	133,383	151,315	
Chemical Application		135,764	
Snow Fence	194,702	64,470	131,272
Other	<u>588,462</u>	<u>374,409</u>	<u>106,348</u>
Group Total - Snow & Ice	2,216,219	\$1,208,411	1,244,305
Paint Buildings & Yards		\$ 124,954	
Building Repair		50,337	
Elec. - Mech. Repair	783,452	4,771	
Landscaping		5,073	
Janitorial Work		138,421	
Driveway & Lot Repair		31,676	
Yard Maintenance		105,628	
Other		<u>122,719</u>	
Group Total - Capital Improvements	783,452	\$ 583,578	

	-4- Iowa Actual 1977	Kansas Actual 1977	Nebr Actual
Travel Time		\$ 908,620	
Weather Delays		8,938	
Equipment Repair		358,224	
Leave - All Types	3,773,053	1,673,413	
Other	264,436	214,667	
	<u>4,037,489</u>		
Group Total - Subsidiary Charges		\$3,163,862	
GRAND TOTAL	17,217,343	\$16,188,839*	7,391,415

*All amounts paid to 1539 Department of Transportation employees in return for their services, including over time, this also includes amounts paid by the Department of Transportation for Kansas Employees Retirement Fund, Federal Insurance Contribution Act, Health and Hospitalization Insurance, and Workers Compensation Contributions. Personnel involved include the EO I, EO II, EO III and the Supervisor classes which are those whose time is charged directly to a work type.

Iowa and Nebraska comparisons are based on a brief review of their budgets and has not been confirmed with their Maintenance Departments.

	Approved 1978 Fiscal Budget		Actual 1977 Fisc Budget		Iowa Actual FY 77		Nebraska Actual FY	
Salaries	\$22,149,464	44%	\$20,998,824	43%	\$23,342,723	61%	\$ 9,083,270	37%
Contractural	8,251,750	60%	8,731,369	61%			3,272,257	
Bit. Surf. Repair	7,121,950	74%	6,951,774	75%	716,226		3,085,994	
Equipment	6,006,623	86%	6,380,535	88%	5,476,305		5,349,149	
Striping	1,068,941	89%	1,006,465	90%	1,076,963		1,132,971	
Snow & Ice Control	<u>974,050</u>	90%	<u>712,168</u>	92%	<u>1,415,967</u>		<u>582,486</u>	
Sub-Total	\$45,572,778		\$44,781,135		\$32,028,184	84%	\$22,506,127	93%
Signing	677,900	92%	596,496	93%	610,539		417,812	
Highway Lighting	630,675	93%	792,395	95%	354,202		214,445	
Shoulder Repair	399,690	94%	110,836	95%	1,683,246		272,707	
Bridges	307,800	94%	245,276	95%	206,054		190,008	
Rest Area	269,320	95%	157,147	96%	179,303		5,312	
Buildings	217,585	95%	219,163	96%				
Travel Expenses	216,304	96%	199,120	96%	193,531			
Weed Spraying	213,300	96%	203,064	97%	156,500		292,081	
Conc. Pave. Repair	153,800	97%	122,241	97%	123,671		38,149	
Communications	<u>150,600</u>	97%	<u>219,439</u>	98%	<u>3,072</u>		<u>190,280</u>	
	\$48,809,752		\$47,646,312		\$35,538,302	94%	\$24,126,921	99%
TOTAL BUDGET	\$50,393,492		\$48,859,883		\$37,950,816		\$24,197,894	

KANSAS DEPARTMENT OF TRANSPORTATION

STATE OFFICE BUILDING—TOPEKA, KANSAS 66612



O. D. TURNER, Secretary of Transportation

ROBERT F. BENNETT, Governor

November 7, 1977

Attachment III

Mr. Robert Haley
Research Analyst
Legislative Research Department
State Capitol
Topeka, Kansas 66612

Dear Mr. Haley:

During our last meeting with the Sub-Committee we were requested to furnish the status of the Freeway fund.

Attached please find this information for both the Freeway Construction fund and the Freeway fund, each showing the amount obligated and the amount remaining.

Yours very truly,

A handwritten signature in cursive script, appearing to read "W. H. Ogan".

W. H. Ogan, P.E.
State Transportation Engineer

WHO:1mh

Freeway Construction Fund

Spent to 9-30-77	114,985,450.29
*Obligated to 10-20-77	<u>57,526,754.48</u>
Spent and Obligated to 10-20-77	172,512,204.77

Remaining in Freeway Construction (Pooled Money Investment Board)	177,847,037.56
Balance on Deposit with State Treasurer	<u>10,420,691.42</u>
Balance in Freeway Construction Funds 9-30-77	188,267,728.98
Less Obligations	<u>57,526,754.48</u>
Balance Remaining in Bond Fund 10-20-77	130,740,974.50

*Federal Aid Projects = 18,025,364.19

x	70%	
<u>12,617,754.93</u>		12,617,754.93 (Estimated)

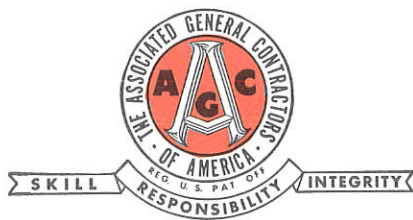
Freeway Fund

On Deposit in First National Bank 9-30-77	
Sinking Fund	10,784,929.05
Freeway Fund	65,104,398.16
Earned Interest July, August, September (from Freeway Construction)	2,329,652.89
Balance on Deposit with State Treasurer	<u>2,618,669.52</u>
Total Funds Available 9-30-77	80,837,649.62
Principal and Interest Payment (in Sinking Fund)	10,784,929.05
Obligations to 10-25-77	2,887,121.54
Spent to 9-30-77	35,933,092.14

the single contract

method of
construction

efficiency
economy
quality



Foreword

Whether you are a private owner, a business executive, or a public official concerned with a building project, you have a right to expect from the construction industry the best possible structure, in the shortest possible time, at the lowest possible cost.

You and your architect or engineer will naturally want to consider how you can best obtain this assurance of satisfactory performance.

Long experience has demonstrated that maximum efficiency in the construction of a project normally results when undivided responsibility for its execution is placed with a competent, experienced general contractor through the award of a single contract for the entire job.

If you and your architect or engineer are typical, you would prefer dealing with one general contractor anyway, for convenience as well as economy. For buyers, the single contract provides a one-stop construction service with no waste or duplication.

The Single Contract Method has many important advantages. It is the purpose of this booklet to outline them for the information of private owners, business executives, stockholders, legislators, public officials, architects and engineers, and to support them with opinions from authoritative sources.

The Single Contract Method Saves Money on Construction

Undivided Responsibility in the management of a building project protects construction funds by coordinating complex operations.

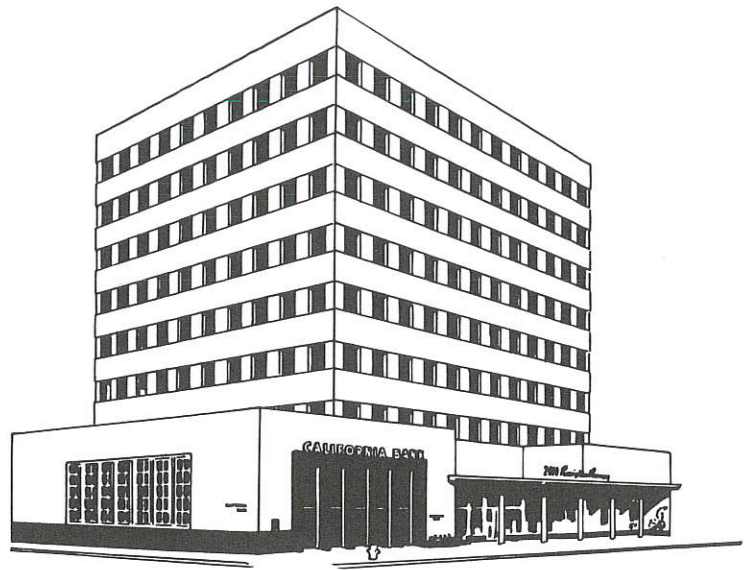
Centralized Responsibility for a building project can be effectively provided in only one way—through the Single Contract Method of Construction. This time-tested method assures these results:

- *The lowest ultimate cost*, based on a guaranteed over-all contract price.
- *Completion on schedule*, avoiding costly delays.
- *Quality construction* in accordance with plans and specifications.
- *Protection to the owner* against loss from lawsuits, claims, or other encumbrances.
- *A uniform safety program* for the entire project to prevent or reduce accidental deaths and injuries, and financial losses as well.

The Work of General Contractors And Mechanical Specialty Contractors

Under the construction contracting system that has developed in the United States and many other countries through the years, the overall single contract for a building project has been administered by the general contractor. The general contractor is responsible to the owner for completion of the entire project, and for every phase of the project, whether a particular part of the work is done by his own forces or by those of a subcontractor.

If there is any delay or shortcoming on any part of the project, it is the general con-



These advantages of the Single Contract Method of Construction are not merely theoretical. They have been demonstrated conclusively over many years of experience in the United States and other countries, in countless building projects and under all kinds of conditions. That is why the Single Contract Method continues to be the standard method employed in building construction, public or private. It is favored by the great majority of architects, engineers, public works officials, and private owners.

tractor who is held accountable for it, no matter who may have been at fault. This is a reason of prime importance why the contractor who has the full responsibility for a construction project must have the necessary authority over it, and this authority can be properly placed only through a Single Contract.

The responsibilities of the various mechanical specialty contractors on a building project have to do only with their respective portions of the job. They are concerned either with the electrical work, the plumbing, the

heating and air conditioning systems, or with other kinds of mechanical installations.

The function of each mechanical specialty contractor is important, but none of them can effectively supervise or be responsible for any of the work of others involved. Ordinarily, the various kinds of mechanical specialty contractors on a project act in the capacity of subcontractors to the general contractor. Each one has a particular ability and a role of his own in the project. The task of coordinating and efficiently scheduling the

work of all the various specialists is that of the general contractor.

This characteristic plan of organization for a building construction job, where the overall responsibility is placed on the general contractor and mechanical portions of the work requiring special skills are performed separately by subcontractors, has consistently demonstrated its superiority over any other method in producing results—on-time completion with guaranteed cost.

Project Management: Orderly Scheduling Of Labor and Materials

To those who are not familiar with the intricacies of construction, the arguments over single contracts vs. separate contracts may be confusing.

Consider some basic facts:

One of the most important and costly ingredients in any construction project is labor, which must be quickly mobilized, directed, and demobilized as the various specialties demand during the construction of a building. Any delays, late starts, conflicting or confusing orders mean inefficient or excessive use of labor's time, which costs money.

Labor accounts for up to 50 percent of the cost of today's structures. Inefficient use of labor therefore means waste of time and money.

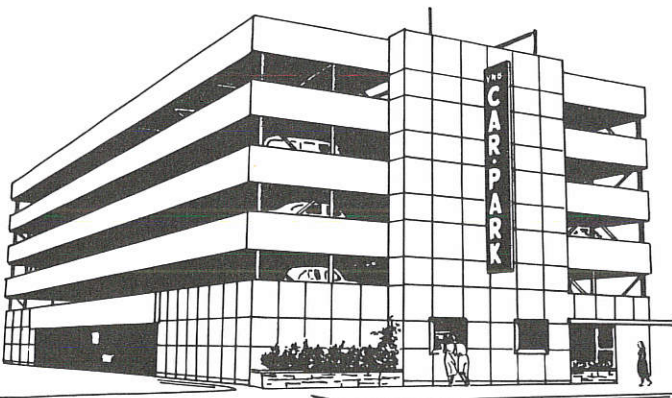
Efficient and orderly scheduling of labor is accomplished only when one responsible person has the authority to exercise control. Only through the Single Contract Method can clear and definite responsibility be pinpointed, and this responsibility is welcomed by the general contractor.

Similarly, the orderly scheduling of the flow of materials to a construction project requires undivided responsibility.

With complex modern structures, many being erected adjacent to congested city streets, the problems and difficulties of trying to spread responsibilities over four or five different contractors whose work is interrelated is chaotic, inefficient, and therefore costly to the owner.

Someone must coordinate the work and be responsible for the entire project.

The *one* best qualified for this role is the general contractor, whose profession it is to organize, to coordinate, to build a finished structure with his own forces and those of specialty contractors. There is no substitute



Architects Favor The Single Contract

Through the years, the American Institute of Architects has reviewed construction contract procedure thoroughly and made periodic reports to its membership on the various systems and methods.

In describing the contract system, the AIA in the Architect's Handbook of Professional Practice says:

Because of its simplicity of administration, the single contract system is the most convenient for the architect, and is generally considered to be the most satisfactory . . .

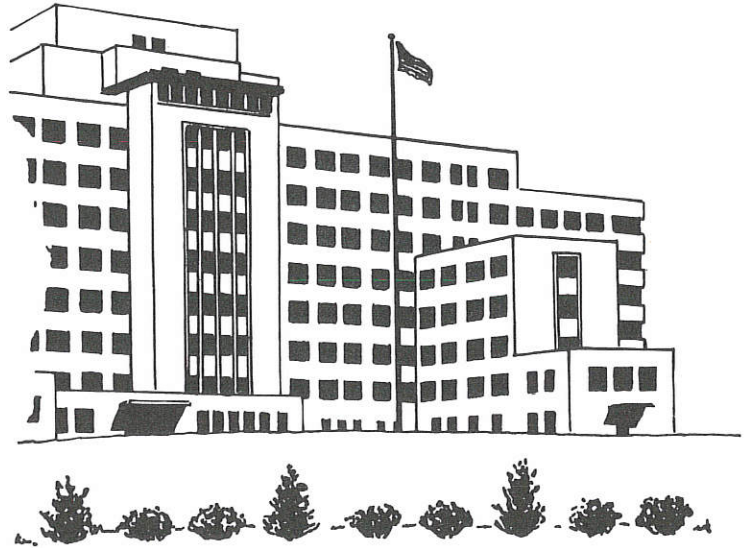
Under the system of separate contracts, the additional services the architect is required to perform will include, among others, the following:

- He must assume the role of coordinator of all of the prime contractors.
- He frequently must also become the expediter if satisfactory construction is to be maintained.
- His plans and specifications must be meticulously drawn to indicate the complete division of the interrelating work, without leaving any items in the "no-man's-land" from which disputes as to responsibility and payment can arise.
- The administration of multiple contracts is obviously more time-consuming than is a single contract.
- Where construction progress is unsatisfactory, and especially where liquidated damages may be involved, it becomes the architect's onerous task to sift through the array of charges and counter-charges to determine where the responsibility reposes.
- He must be cautious about the effects changes in one contract will have on other contracts, since one contractor cannot be expected to accept responsibility for coordinating such changes with the work of other prime contractors.

Included in the "Recommended Guide for Bidding Procedures and Contract Awards for Building Construction," a document jointly endorsed by the AIA and AGC, is this statement:

It is recommended that a complete project be included under a single contract. The General Con-

tractor, under this system, assumes full responsibility for the administration and completion of the project at a guaranteed cost to the Owner.



Leading architects individually have recognized the Single Contract Method and have so stated in public and in submission of testimony.

David F. M. Todd, partner in the New York architectural firm of Ballard Todd Associates and past president of the Metropolitan New York Chapter of the Construction Specifications Institute, writing in the *Construction Specifier*, official publication of the Construction Specifications Institute, said:

The major arguments put forth by the proponents of separate prime contracts suggest that the owner saves money through the elimination of the general contractor's mark-up on the value of subcontractors' work and that the owner will receive better quality of workmanship through the award of separate mechanical and electrical contracts. These arguments have appealed to many owners, but they are essentially fallacious. The logic is based on a narrow,

theoretical premise that unfortunately cannot be supported through practice. An owner who has undergone the agonies of long delays, bickerings, and claims and counterclaims resulting from separate prime contract operations can readily understand the error of saving money through a theoretically lower initial bid price.

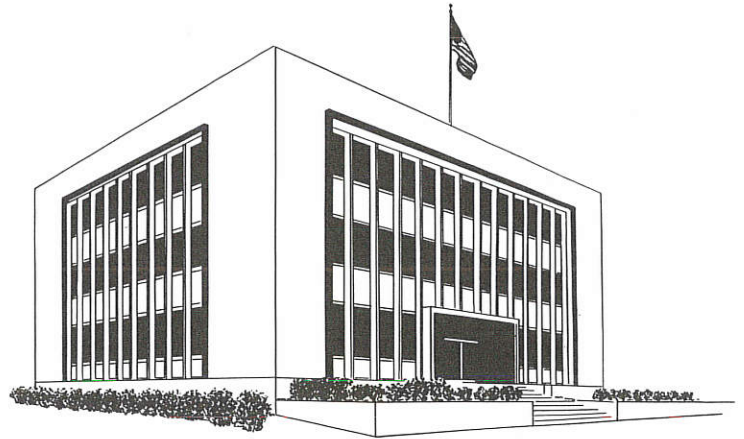
S. Elmer Chambers, as president of the New York State Association of Architects, stated in his testimony before the Trustees of the State University Construction Fund of New York:

The directors, officers, and past-presidents of the New York State Association of Architects were asked recently for their opinions as to how these problems could best be resolved and the reply was significant. Of twenty-nine answers received, nine favored the single contract and twenty favored either a straight single contract or a single contract with either assigned mechanical contracts or the use of a bid depository, *There was no one among those polled who expressed a preference for multiple prime contracts. It must therefore be stated that the New York State Association of Architects has gone on record in favor of the single contract* (emphasis added), wherever possible, with all the protection that can be devised, not only for mechanical subcontractors but also for all the other subcontractors, large or small, who may be engaged on the project.

Sureties Too

Yet another segment of the construction industry that has a vital stake in the timely success of a construction project is the Surety Association of America—the bonding companies who underwrite the performance and payment bonds which safeguard public and private construction funds.

The SAA has consistently reaffirmed its support of the Single Contract Method, which “. . . results in efficiency, economy, guaranteed cost, and the best possible value for the construction dollar.”



Rolf T. Retz, past president of the Sacramento Chapter of the Construction Specifications Institute and member of the CSI National Advisory Board, wrote in the December 1962 issue of *Construction Specifier*:

Centralized management of a construction contract is as imperative as having a single conductor for an orchestra. When such direction is denied him, skill and executive ability are not utilized. They are wasted and the owner is the poorer therefor.

In summary, despite the claims of separate contract proponents, and the sometime appearance initially of lower costs, experience over the years has demonstrated that the most efficient and economic means of construction is through the single contract method. This proven method enjoys the overwhelming endorsement of construction buyers, further testimony to its effectiveness.

If you are an owner about to embark on a construction project, the AGC urges you to ask the opinion of other owners and architects, preferably ones who have built with both single and separate contracts. It is most likely that they, too, will recommend the Single Contract Method.

THE SINGLE CONTRACT METHOD

Brings order to a construction project

