

# ANNUAL REPORT

Department Of Highways



And Transportation

1973

## CONTENTS

<b>DEPARTMENT OF HIGHWAYS AND TRANSPORTATION</b> .....	1
<b>PERSONNEL</b> .....	1
<b>PUBLIC INFORMATION</b> .....	2
<b>DIVISION OF HIGHWAYS</b> .....	2
<b>BUREAU OF PLANNING AND DESIGN</b> .....	2
<b>COMMUNITY LIAISON</b> .....	3
<b>SUPPORT AND PROJECT SCHEDULING</b> .....	3
<b>ENVIRONMENTAL STUDIES</b> .....	4
<b>SYSTEMS PLANNING</b> .....	4
<b>TRANSPORTATION STUDIES</b> .....	4
<b>HIGHWAY SAFETY COORDINATOR</b> .....	5
<b>PLANNING SURVEY</b> .....	5
<b>PROJECT PLANNING</b> .....	6
<b>ADVANCE PLANNING</b> .....	6
<b>DEVELOPMENT PLANNING</b> .....	7
<b>ROAD DESIGN</b> .....	7
<b>BRIDGE</b> .....	8
<b>REVIEW</b> .....	8
<b>UTILITIES</b> .....	8
<b>SPECIFICATIONS</b> .....	9
<b>BUREAU OF RIGHT OF WAY</b> .....	9
<b>CONSTRUCTION</b> .....	10
<b>MATERIALS AND RESEARCH</b> .....	13
<b>BUREAU OF MAINTENANCE</b> .....	13
<b>BUREAU OF TRAFFIC</b> .....	14
<b>DIVISION OF TRANSPORTATION</b> .....	15
<b>TRANSIT SECTION</b> .....	15
<b>AVIATION SECTION</b> .....	16
<b>OFFICE OF ADMINISTRATION</b> .....	17
<b>FINANCE</b> .....	17
<b>FEDERAL-AID AND AUDIT</b> .....	17
<b>COMPUTER SUPPORT</b> .....	17
<b>OFFICE SERVICES</b> .....	18

OUTDOOR ADVERTISING AND JUNKYARD CONTROL .....	18
FINANCIAL STATEMENT .....	19
APPENDIX (MAPS)	



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
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## PERSONNEL

### EMPLOYMENT

A total of 1,322 employees were on the payroll June 30, 1973 as opposed to 1,311 on July 1, 1972. The increase of eleven employees sparsely narrowed the deficit of ninety-three employees from July 1, 1971, or the deficit of one hundred and twenty-seven employees from authorized strength. Accessions amounted to 216 employees with 17 employees being reinstated or transferred in from another state agency. Thirty-eight other employees returned from a leave of absence which had begun in the prior fiscal year. During the same period the separation rate was 167 of which 55 were by reason of death or retirements.

All terminations, including resignations, discharges, retirements, and deaths averaged 14 per month as compared to 22 per month in 1972. The average employee count for the year was 1,342.

Minority employment was stressed through all levels of employment and through such special programs as the Emergency Employment Act, the Public Service Careers Program, and the Neighbor Youth Corps. An Equal Employment Opportunity Training Officer was added to the staff to increase efforts in this area.

### EMPLOYEE RELATIONS

Negotiations continued with Union Locals 837, 879, 1026, and 1443, and agreement is expected shortly. The Delaware Turnpike Employees Union was disbanded by a unanimous petition of its members.

The State Blue-Cross contract was re-negotiated and health insurance coverages were improved. Benefit under the basic program paid for by the State to eligible employees and retirees have been increased. The supplemental options available to employees, likewise have been improved.

### RECRUITING

The college recruiting program amounted to half of last year's total. Five recent graduates were recruited as opposed to eight in 1972 and sixteen in 1971. However, due to fiscal limitations, only eleven offers were made. Visits were made to the University of Delaware, Delaware State College, Northeastern University, Virginia Polytechnic Institute and Purdue University. Plans have been made to include Widener College in Chester along with these schools for recruiting 1974 graduates. All of the 1973 graduates are Civil Engineers. The continued aim of this program is to accomplish more in-house work with less reliance on consultants and contractors.

## DEPARTMENT OF HIGHWAYS AND TRANSPORTATION

Of all agencies of the state government, the Department of Highways and Transportation most directly affects the day-to-day activities of Delaware's half-million residents.

The Department was created August 5, 1970 with the merging, under the cabinet form of government, of the State Highway Department and the State Department of Transportation.

Headed by Secretary Clifton E. Morris, who succeeded A. Kirk Mearns, Jr., on January 16, 1973, and advised by a six-man Council on Highways, the Department is organized in three general operating divisions: Highways, whose Director is Richard A. Haber, who succeeded Ernest A. Davidson on April 16, 1973; Transportation, John O. Hidinger; Administration, David R. Lovejoy;

### Members of the Council are:

Charles S. Eller, Chairman  
Franklin N. Butler  
Robert A. Fulwiler, Jr.  
William F. Brooks  
L. Donald McKnatt  
William Philip Short, Jr.

## TRAINING

Five civil engineers completed the Engineering Training Program and were given permanent assignments. All five of our recent graduates entered the continuing program.

Training classes were held in construction for newly hired highway engineering aides and the Public Service Careers program conducted training courses for maintenance personnel and also classes for supervisory personnel.

The Tuition Reimbursement Program gave aid to 30 employees for studies in the engineering, technical and administrative fields.

## PUBLIC INFORMATION

The Public Information Section finds its main responsibility with people. Explaining transportation plans of the Department to civic associations, service clubs and private interest groups involves this section in every detail of the Department.

Its personnel are involved in the presentation of departmental matters to the public in an informative, educational and constructive manner. This activity keeps the section in constant contact with the news media, in form of news releases and the HINT (Highway Information News Tip) line. Technical material and language is transformed into presentations, with emphasis on the effects of proposed projects upon the general populace.

Other allied items handled for the signature of the Secretary or the Governor in response to queries from the public regarding highways; distribution of road maps and brochures to Delaware tourists; alerting fire companies, police and schools to road closings; preparing speeches and presentations for civic organizations; producing brochures to cover public hearings, right of way and construction projects; and assembling the annual report.

## DIVISION OF HIGHWAYS

The Division of Highways is responsible for the planning, construction and maintenance of more than 4,446 miles of Delaware state roads and highways.

Keeping these roads in top condition and providing new ones to match the spiraling vehicle registration is the job of 1,322 highway employees.

The hub of the highway system is the Administration Center in Dover where the Division's

major functions - planning, design, right of way, traffic, materials and research, construction and maintenance - are headquartered.

It is here that engineers guide highways and bridges from concept to concrete, a task which involves the talents and training of dozens of specialists.

But equally important, especially to the efficient performance of the Division's construction and maintenance functions, are the district offices, each headed by district engineers.

Construction by contract, which includes the bulk of all road building, is for the most part directed from the district offices at Bear, Dover and Georgetown, with construction sites supervised by engineers and inspectors attached to the districts.

And Maintenance, which is a diverse operation handling jobs from patching potholes to plowing snow to picking up litter, has district offices at Bear, Dover and Georgetown and is further subdivided into two regions and 12 areas: at Delmar, Seaford, Ellendale, Gravel Hill, Dagsboro, Harrington, Magnolia, Cheswold, Middletown, State Road, Kiamensi and Foulk Road.

Citizens with questions or problems relating to the Division of Highways should contact their nearest district or maintenance office for assistance.

## BUREAU OF PLANNING AND DESIGN

The objective of the highway network is to aid local, State and National goals in creating a better total living and working environment. The highway system, as part of the overall transportation system, is a basic force in shaping Delaware's future development.

The highway network should provide for the movement of people and goods with maximum safety, economy, efficiency, convenience and dispatch and result in the minimum disruptive influences in adjacent land utilization, existing neighborhoods and scenic and historic sites. It should do this at the least total expense to the government and highway user.

The principal function of the Planning Sections of the Bureau of Planning and Design is to develop the long range highway system, program the project priorities and then plan the individual projects to be consistent with the master plan. The Design Sections of the Bureau of Planning and Design are responsible for engineering procedures in the preparation of complete plans for contract letting; developing preliminary plan layouts, design criteria and detailed construction plans.

## COMMUNITY LIAISON

The Community Liaison Office was planned during fiscal year 1973 to begin operation at the beginning of fiscal year 1974. During the coming year, the office will assume its duties of managing and improving the manner in which the community (defined as interested agencies, groups, and individuals) participate in the development of highway projects. By establishing dialogue between the Division and the community, the Office will seek to enlarge the community's identification with the operation of the Division.

This will involve close contact with each project throughout its development from Systems Planning through to Project Planning and Design. Means will be developed for obtaining citizen involvement throughout the process. This will involve attending citizens' group meetings, providing a sociological perspective on emerging plans, preparing the Division and the community for public hearings, coordinating with the Department's Public Information Office, and other measures that will increase the input of the community in the Division's plan.

An important part of this work will involve the Citizen Participation Advisory Council (CPAC). This group will be made up of private citizens from across the State representing the public's interest in highway development. It will assure effective involvement of the public throughout the planning and design process. The Community Liaison Office will provide the organizational support necessary for the CPAC to function in the most effective way possible.

### SUPPORT AND PROJECT SCHEDULING

#### A. PLANNING SUPPORT AND MAPPING

The Planning Support Section was engaged largely in the day to day duties of administration involving personnel records, purchases, control and general services, payrolls, budgeting, and fiscal matters.

Mapping and drafting work included preparing and revising various maps in our County General Highway Series in conjunction with the Federal Highway Administration. The Delaware Official Highway Map was revised. The pictorial side of this map was prepared by the Department of Community Affairs and Economic Development. A total of 107,000 copies of this map were printed. A complete revision of the 45 incorporated city and town maps of Delaware was accomplished. Work has been accomplished on the new Orthophoto map of upper New Castle County.

A large amount of time was spent on maps, charts and graphics. These were used in connection with various projects of the Bureau of Highway Planning.

#### B. PROJECT SCHEDULING

The section continues to schedule projects by use of a broad version of the Critical Path Method Network and to monitor each project from the date of authorization through all the activities necessary for the project to be available for advertising. These projects in addition to date relative to finance and personnel are displayed by graphic presentations on 20 charts in the Department's Chart Room.

There are 56 projects displayed on the charts and all are in various stages of design. The following 30 projects will be available for Advertising for bids during fiscal year 1974.

CONTRACT NO.	DESCRIPTION	COST ESTIMATE (CONST.)
70-08-009	Rt. 2, Cleveland Avenue Intersection Imp.	1,200,000
69-03-006	Bridge 6-10 Westbound on I-495	180,000
71-02-012	Sussex County Intersection Imp.	90,000
71-09-006	Route 141 E. of Kennett Pike to Brandywine Bridge	3,900,000
71-11-007	Rd. 52, Wyoming to Hazletville	220,000
72-04-001	Kent County Intersection Imp.	315,000
72-08-001	U.S. Route 13, Safety Improvements (Llangollen)	700,000
67-12-001	Route 896, New London Road	1,400,000
72-01-001	Lancaster Pike & Yorklyn Road, Hockessin	120,000
71-11-004	Bridge 256, Road 339, Churchman's Road	400,000
-----	I-495, Christina River to Edgemoor Road, Edgemoor Road Structure and Penn Central Mainline Structure	3,646,000
72-09-007	Woodland Beach Road Stabilization	220,000
-----	I-495 Christina River to Edgemoor Road, Three Structures over Sanitary Sewer	470,000
67-01-015	Route 14, Rehoboth Bypass	4,600,000
-----	I-495, Christina River to Edgemoor Road, Shellpot Creek Structure and Penn Central Edgemoor Branch Structure	1,736,000
-----	I-495, Christina River to Edgemoor Road, 12th Street over I-495 Structure and 12th Street over Penn Central RR Structure	1,514,000
72-11-009	Moore's Lane - Del. Rt. 9 to Landers Lane	750,000
71-05-004	Rt. 113 - Frederica to Little Heaven	1,000,000
72-08-002	I-495 at Manor Avenue - Pedestrian Overpass	200,000
72-09-018	Greenbank Road Connector	440,000
72-11-009	U.S. 13 Safety Imps. - Smyrna to Tybouts Corner	510,000
71-11-006	Ott's Chapel Rd. - Elkton Rd. to I-95	3,500,000
72-12-006	Ott's Chapel Rd. - I-95 to Old Baltimore Pike	190,000
-----	Port Mahon Road Stabilization	450,000
71-02-009	Rt. 141 - Depressed Section in Newport	5,100,000
69-02-003	Prices Corner - Phase III	3,500,000
-----	Drainage in Sussex County - Columbia Ave.	300,000

CONTRACT NO.	DESCRIPTION	COST ESTIMATE (CONST.)
-----	Drainage & Improvements - Claymont and Hollyoak Street	\$ 923,000
-----	Drainage & Improvements - N.C. County, Pennsylvania Ave.	100,000
-----	Upper Marsh Road - 1 block between Naamans and Zebley	60,000

It is the responsibility of the section to insure that all the above projects, where appropriate, meet the requirements of the U.S. Department of Transportation, Federal Highway Administration.

#### ENVIRONMENTAL STUDIES

The Environmental Studies Office began operation in March, 1973. Prior to that time environmental studies were conducted within the Office of Planning, Research and Evaluation. The primary responsibility of the Environmental Studies Office is to study and advise on the environmental impacts associated with the construction of the transportation system.

In addition to providing general assistance on environmental matters and working with various citizens and community groups, the Office completed or began Environmental Impact Statements for South Chapel Street, DuPont Road, Ott's Chapel Road, Ruthby Road, Greenbank Road, Third Street Bridge and Newark Area Projects.

#### SYSTEMS PLANNING

Systems Planning is the process designed to establish the best, the most efficient, and the most desirable overall transportation network of a specified area. The Systems Planning Section is composed of two major subsections: Transportation Studies and Planning Survey.

#### TRANSPORTATION STUDIES

The Transportation Studies Section is responsible for updating forecast traffic volumes, analysis of development impact and safety coordination.

##### New Castle County

Every effort has been made to maintain internal and external agency coordination in the areas of comprehensive, multi-modal transportation planning. This statement includes the Division of Transportation, the Project Planning Section, the Road and Bridge Design Section and the Bureau of Traffic, within the Department, as well as other State, County and Municipal Agencies and private interest group services.

Liaison efforts with the Division of Transportation took the form of work program coordination and attempts at mutual exchange of data and of publications. To avoid the development of two parallel forecast plans, one by each Division, with the accompanying costs, confusion and duplication of effort, the Division of Highways has extended itself to coordinate with the Division of Transportation, in an attempt to arrive at technical procedures acceptable to both Divisions and thus at a mutually acceptable plan.

In conjunction with the State Planning Office, the implementation of the Regional Inventory and Mileage Cross-Reference (RIMCOR - modified grids and mileposting) system was forwarded for more comprehensive trend surveillance and for service purposes. Many State, County and Municipal planning and emergency agencies are evaluating and/or initiating the system.

##### Kent and Sussex Study

Anticipating the traffic simulation merger of the Kent and Sussex Study with that of the New Castle County Program, in order to attain Statewide forecast traffic assignment capabilities, the Kent and Sussex Study network zones, centroids, external stations and nodes have been recoded and mapped in order to achieve compatibility with those of New Castle County.

Through the introduction of the Regional Inventory and Mileage Cross-Reference System (RIMCOR), the Kent and Sussex Study is being moved into a continuing transportation planning process similar to that required in Standard Metropolitan Statistical Areas. It is felt that this will go far in promoting the orderly development of Kent and Sussex Counties before they experience the heavy development impact of extensive urbanization. In short, we are able to stress preventive rather than corrective planning measures in most instances.

A road sufficiency study was organized for implementation by the Planning Survey Section. This sufficiency study is designed to provide input to the capital improvements priority evaluation and to assign micro priorities to the 3-year increment output of the capital improvements study.

Forecast traffic data was supplied to the consultants designing the first segment of the Dover Bypass, and the Road Design Section designing the second segment. Forecast traffic data was supplied to the Design Section for many anticipated improvements.

#### TRAFFIC IMPACT STUDIES PERFORMED IN THE FISCAL YEAR JULY 1, 1972 - JUNE 30, 1973

1. 273 Mall; October 17, 1972; Commercial.

2. University Village and 273 Mall; February, 1973; Residential and Commercial.
3. Proposed Development at the Intersection of McKee and Walker Roads by Hill Crest Associates, Inc.; November 16, 1972; Residential.
4. Proposed Mobile Home and Camping Area on the Property of Stanley L. Thompson and Joseph R. Hudson; January, 1973; Mobile Home and Camper units.

#### TRAFFIC IMPACT STUDIES REVIEWED IN THE FISCAL YEAR JULY 1, 1972 - JUNE 30, 1973

1. Hidden Valley; July 1972; Reviewed December 21, 1972; Residential.
2. Glasgow Pines; September 20, 1972; Reviewed October 26, 1972; Residential, commercial and mobile home units.
3. Wilton; November 20, 1972; Reviewed November 29, 1972; Residential, commercial and community facilities.
4. Green Valley; November 6, 1972; Reviewed November 30, 1972; Residential.
5. J. M. Fields Shopping Center; October 19, 1972, Reviewed December 1, 1972; Commercial.
6. Pike Creek Valley; June 20, 1972; Reviewed January 3, 1973; Residential, commercial, and community facilities.
7. University Village; November 21, 1972; Reviewed December 5, 1972; Residential and commercial.
8. Fox Run; March 8, 1973; Reviewed April 3, 1973; Residential and commercial.
9. Drummond Ridge; June, 1972; Reviewed July 20, 1972; Residential.

#### HIGHWAY SAFETY COORDINATION

The 1973 Annual Work Program under the "3+ Standards" provided for the continuation of skid testing on State maintained highways; the start of a program for replacing obsolete road signs in accordance with the Manual of Uniform Traffic Control Devices in non-federal aid highways; and, the beginning of photologging operations.

A Comprehensive Highway Safety Plan for the period covering 1974-1978 was formulated, continuing present priorities. The 1974 Annual Work Program was developed from the Comprehensive Plan.

With the expansion of the Safety Section, it became possible to compile the necessary data for before-and-after studies.

Accident studies were a continuing effort and were conducted on several locations during this fiscal year.

With the cooperation of the Computer Support Section, new programs were devised to establish a combined Highway/State Police Accident File from which details would be extracted for publication of the Annual Intersection Accident Summary and the Hazard Spot Locations.

An improvement in the coding system reduced the number of items required for coding, resulting in savings in time and effort.

The Section complied with Federal requirements regarding "Inspection Guidelines for Highway Safety Improvement Program," in a report submitted in March 1973.

A new book, "Hazardous Spot Locations" was published and submitted to FHWA. An important innovation in qualifying accident experience, "severity index", was included in the book. It was intended to use this index as a technical tool in determining priority for corrective action, in combination with other factors.

A report was written and submitted to Federal authorities, on the Evaluation of the Highway Safety Improvement Program for fiscal year 1972.

#### PLANNING SURVEY

##### A. Traffic Counting and Classification Counts

The State of Delaware, in cooperation with the Federal Government, has been counting traffic volumes for more than 30 years. In the course of this time, many traffic patterns have evolved, following the rapid growth of the state. Most significant growth has occurred in the southern beach areas and in the Newark to Wilmington corridor. Permanent traffic counting apparatus set in these two locations shows this dramatic growth. Two new permanent locations were installed on Delaware Route 404 and 14. These were placed specifically to record summer volumes.

As the state continues to grow, more and more projections of highway use will be needed to assist in determining needs for new highways or improvements on existing facilities. The year to year traffic patterns, in conjunction with land use projections, are the two most important "tools" used to estimate these needs.

The 1973 Fiscal Year Traffic Counting Schedule served two purposes. The first half-year completed the monthly seasonal schedule set up during fiscal year 1972. This provided valuable information on important roadways not covered by the 13 permanent stations, by giving seasonal patterns which can be applied to many road groups.

The last half-year began a scheduling of counting all the sections of Interstate, U.S., and State Routes. This will give more accurate data for inclusion in the first annual Traffic Volume Map, to be published in July, 1973. Also in the last half-year, an abbreviated seasonal schedule was developed to be used as a quarterly occurrence. Thus, during the months of February, May, August and November, certain important locations are counted for one full week to maintain surveillance. During the same time, a coverage schedule of all secondary and a limited number of tertiary roads was instituted. This, along with Route counting and quarterly seasonal counting, will continue each year, hopefully allowing information to be gathered from every roadway in a 2 1/2 to 3 year cycle.

The installation of inductive loops at selected locations continued, and more counters to accommodate these loops were purchased.

The Annual Truck Weight Survey was performed and the information sent to the Federal Highway Administration. Two stations were relocated to obtain a more representative truck sampling.

#### B. Road Inventory Studies

Road Inventory notes on all the State maintained roads, suburban developments and municipal streets were continuously updated throughout the year.

Municipal Aid monies were distributed according to mileage as in the past.

The Sufficiency Study was begun in New Castle County. This road rating procedure gives each section of roadway a score, based on a 100 point maximum. These ratings are used mainly for determination of needs priority on requested improvements. Traffic volumes are a very important input for this rating procedure. Other uses include determination of needs for condition and safety upgrading. This study will require some 9-12 more months to complete.

A new semi-annual report on Additions, Deletions and Changes in the State road system was instituted for distribution throughout the Department.

## PROJECT PLANNING

This was the year of the Action Plan. In accordance with Federal requirements, the Department has developed a formal document which sets forth the organization, relationships, project development process from Systems Planning thru Project Planning to Design and interest group participation in this process.

The emphasis of the Action Plan is upon an established participatory process. Although the Department has been involving a participatory process in the development of various projects, the Plan formally recognizes this desirable public and agency involvement, setting forth distinct procedures to be followed.

Rapid growth throughout the suburban areas of Delaware has involved the planning effort not only in the present land use planning stages, but in future growth of these areas.

With this growth of development throughout Delaware, we are aware of the constant need to be on top of all construction design of these projects, therefore, we have been in constant review of our present subdivision regulations in order to keep astride with the ever growing need for higher standards in the suburban development area.

## ADVANCE PLANNING

During the past year, public hearings were held for duPont Road (December 5, 1972) and for South Chapel Street (September 26, 1972). These projects used a participatory process prior to ratification of progress via the public hearing. Both projects are now in Design.

The Section of Marsh Road Study from Silverside Road to Wilson-Veale Road has been prepared for public hearing. There was local participation in the planning process and the public hearing is scheduled for July 19, 1973.

The Bridgeville Bypass Study was developed using the participatory planning process. Two corridors were developed and meetings have been held with the local Transportation Committee and property owners. The final draft concept is being completed on the basis of comments from those meetings. A public hearing could probably be scheduled in 1974.

Using the draft Delaware Action Plan for guidance, a study has been undertaken for Delaware Route 896 from I-95 to south of Glasgow. A technical team was formed and an initial concept developed. Thru citizen input in the planning process, this initial concept is being modified prior to scheduling additional meetings with interest groups. A tentative schedule indicated draft completion in 1974.

**DEVELOPMENT PLANNING**

This year, 84 land use plans were approved covering 2,271 acres and including 5,373 living units. Forty-one Performance Bonds representing 10% of estimated construction costs were received and approved. These Bonds covered 18.744 miles of roadwork and \$230,984.00, representing 10% of the estimated construction cost. Sixteen Voluntary Completion Bonds in the amount of \$220,353.00 representing 150% of the uncompleted construction costs were received and approved. There were 12.741 miles of subdivision streets accepted into the state maintenance system. Of this total, 1.114 miles were accepted through the Suburban Road Act. In addition to these accomplishments, numerous meetings were attended coordinating with all three counties, other governmental agencies, the public, contractors, developers and other planning personnel.

The past year has been a very prosperous year for development which directly reflects good coordination and higher standards which are a constant concern for the Development Planning Section.

**ROAD DESIGN**

Road Design is responsible for in-house engineering procedures in the preparation of complete plans for contract letting: developing preliminary plan layouts, design criteria and detailed construction plans.

A total of 42 projects were under design during the past fiscal year with a combined construction cost of over 43 million dollars. These projects are located all over the state and vary in complexity from simple dirt road resurfacing to the intricacies of freeway design.

Advertised during the past fiscal year was the dualization of Route 14 from the Milford Bypass to Route 16. When this construction is completed, it will complete the last link of Route 14 dualization between Frederica and Rehoboth Beach and should facilitate vehicular movement between these locations especially during the summer months.

Safety and safety related projects have accounted for almost one third of all projects under design giving support to our goal of making Delaware's highways as safe as possible.

**PROJECTS UNDER DESIGN**

Hillside & Centerville Roads	\$	500,000
Route 896, Newark to Maryland Line		1,400,000
Shipleigh Road - Washington St. to Murphy Road		860,000
Grubb Road - Foulk Road to Naaman's Road		700,000
Road 156 & Road 100 Kent County		1,000,000

Henderson Hill Road - Kirkwood Hwy. to Road 322	\$	500,000
Intersection Improvements - Sussex County		65,000
Delmar Streets		90,000
Route 113 - Frederica to Little Heaven		1,000,000
West Dover Bypass - Woodside to Rd. 100		15,000,000
Ott's Chapel Road Elkton Road to Old Baltimore Pike		3,700,000
Road 52 - Wyoming to Hazletville		220,000
Lancaster Pike & Yorklyn Road		120,000
Intersection Improvements - Kent County		315,000
Polly Drummond Hill Road		900,000
Red Mill Road - Darwin Drive to Kirkwood Highway		250,000
U.S. 13 - Safety Improvements at Llangollen		700,000
Cedar Neck Drainage		20,000
Bay Vista		250,000
Greenbank Road		440,000
Concord Pike		2,000,000
U.S. 13 Safety Improvements - Smyrna to Tybouts Corner		510,000
Moore's Lane		900,000
A. I. DuPont School Sidewalks		75,000
South Chapel Street Relocated		2,900,000
Wilmington TOPICS (Intersection Improvements)		300,000
Repairs & Drainage - Laurel		50,000
U.S. 40 & Delaware 72 Intersection Improvements		35,000
Ruthby Road		70,000
I-95 Off Ramp at Basin Road		670,000
	<b>TOTAL</b>	<b>\$ 35,540,000</b>

**PROJECTS ADVERTISED**

Delaware Route 14 - Route 16 to Milford Bypass	\$	4,837,508.88
Brookside Connector		41,611.68
Edgemoor Road		43,284.00
Resurface U.S. 13 & U.S. 40		438,641.10
Road 535 - High Street - Seaford		322,973.31
Dover & Georgetown Motor Vehicle Lanes		21,500.00
11th Street, Wilmington		238,945.70
Kirkwood Highway - Possum Park to Polly Drummond Hill Road		328,710.70
U.S. Route 13 - Route 10 to Coopers Corner		919,912.41
Surf Avenue, Rehoboth		61,045.80
Entrance & Crossover Modifications, Rehoboth Safeway		23,466.75
Camden & Webbs Lane Connectors		434,646.19
	<b>TOTAL</b>	<b>\$ 7,712,246.52</b>

July July  
1972-73

**BRIDGE**

The Department awarded contracts for fifteen bridge and other structures between July 1, 1972 and June 30, 1973, with a total construction cost of \$1,892,908.60.

The Bridge Section actually prepared the complete design on thirteen projects with a dollar value of \$1,763,685.10. The remainder of the designs were prepared by consultants with review and approval by the Bridge Section.

In the report summary are included other structures such as roadway fill protection near Woodland Beach, overhead sign supports and others, requiring extensive hydrological studies and structural analysis.

The largest single structure project was the I-495 construction north of New Castle Avenue in Wilmington - the Christina River Bridge.

Several small bridge replacement or maintenance projects were completed; some are still under construction.

Plans are ready for more projects awaiting future funding.

The Bridge Section continued bridge inspection and rating programs to carry out National Bridge Inventory and Inspection Program as required by the Federal Highway Administration. The inventory and operational rating for bridges of 20 feet or longer spans, including appraisal, has been completed for Kent and Sussex Counties. New Castle County is about 85% completed.

**REVIEW**

The Review Section is responsible for the supervision of the preparation of contract plans and specifications for major highway and bridge projects prepared by Consulting Engineers for the State of Delaware. Fourteen Consulting Firms were actively engaged in design projects for the fiscal year.

During the past fiscal year three projects were completed and awarded. Twenty-two other projects in various stages of completion were under design. Construction costs of those projects awarded were 11.3 million dollars and those under design were 106.5 million dollars. A summary of projects awarded and under design are as follows:

**AWARDED**

69-02-002, Phase II, Prices Corner Int.	\$ 3,880,000
71-02-007, Substructure thru Newport	4,400,000
71-09-005, Kennett Pike Reconstruction and Structure	2,970,000
<b>TOTAL</b>	<b>\$ 11,250,000</b>

**UNDER DESIGN**

<b>Route 141</b>	
69-02-003, Phase III, Prices Corner Int.	\$ 3,500,000
71-09-006, Grading & Paving, Sta. 294 to Brandywine Creek	3,900,000
71-09-007, Grading & Paving, Reading RR Bridge to Kennett Pike	1,500,000
71-09-008, Grading & Paving Lancaster Pike to Reading Railroad	2,000,000
70-08-003, Brandywine Creek Bridge - Substructure	2,500,000
70-08-003, Brandywine Creek Bridge - Superstructure	6,000,000
70-08-003, Grading & Paving, Brandywine Creek Bridge to Rockland Road	3,000,000
71-02-008, Superstructure thru Newport	5,700,000
71-02-009, Depressed Section thru Newport	5,100,000

**Route I-495**

Grading & Paving, Christina River to Edgemoor Rd.	3,700,000
I-495, Structures	3,850,000
(1) Penn Central Mainline	
(2) Edgemoor Road	
I-495, Structures	1,825,000
(1) Penn Central Edgemoor	
(2) Shellpot Creek	
I-495, Structures	1,600,000
(1) 12th Street over I-495	
(2) 12th Street over Penn Central	
I-495	500,000
Three Structures over 84" Sanitary Sewer	

**OTHER**

69-02-021, U.S. Route 13, Frederica to Penn Central	25,000,000
70-12-003, Newark Arterial, Ogletown to Elkton Road	18,500,000
67-10-015, Rehoboth Bypass	6,600,000
70-04-012, Lore Avenue	300,000
70-08-009, Cleveland Avenue - Route 2 Intersection Improvement	1,200,000
71-10-001, Third Street Bridge Replacement	5,500,000
69-11-002, South Wilmington Connector, I-95 to Jefferson Street	12,000,000
72-04-005, South Wilmington Connector, Jefferson Street to 4th Street	6,000,000
<b>TOTAL</b>	<b>\$106,475,000</b>

**UTILITIES**

Thousands of miles of utility lines - gas, water, telephone, sewer and electric - are located within the Delaware highway's rights of way. This year 437 additional utility franchises (693 miles) were granted.

Coordinating the relocation and adjustments of those lines is a function of the Utilities Section. This coordination is not only with the utility companies but on an interdepartmental basis as well.

The Utility section also reviews and approves all changes, prepares cost figures, processes preliminary and final estimates and arranges for payments in cases where the Department is financially responsible. During the report year \$556,660.83 was paid to utility companies for adjustments to their facilities on highway construction projects.

Relocated Route 141 Freeway from Christina River Bridge at Newport to the Brandywine River Bridge near the DuPont Experimental Station at Rising Sun, which started this year will require utility relocation work costing approximately \$4,000,000. The utility companies will be responsible for a large portion of this cost since their utilities are located on our existing highways.

A new "one call concept to help eliminate utility disruptions" for reporting all construction excavations by contractors to utility companies was first discussed in April by representatives of various utility companies and governmental officials. The purpose of this type of organization is to help eliminate costly and dangerous disruptions to existing utility lines. This type of program has been in operation in various locations in the United States for the past few years. There was considerable interest shown and subsequent meetings were held in May and June. It is significant to note that it took a similar type of organization approximately 14 months to get under way in Maryland.

Recent rulings by the Federal Highway Administration whereas they will now pay all costs concerning safety protection on railroad crossings has resulted in the Division of Highways reactivating railroad highway grade crossing work. Prior to their rulings the State law required the railroads to pay 10% of the cost of this type of improvements. Since several of the railroads are now bankrupt this meant a suspension of most railroad crossing work.

There were five contracts under design as of June 30, 1973 for grade crossing reconstruction and/or installing automatic flashing light protection.

#### SPECIFICATIONS

The Specifications Section prepares special provisions for construction contracts. The work covers highway and bridge construction, drainage, repairs, demolition, and materials. The function of the section is allied to the design sections. The Specifications Engineer works in direct contact with Squad Leaders of Bridge and Road Design, and with Review Section Engineers, to insure that items of work on contract plans are covered with respect to construction methods, type of materials, and payment for required work.

Contract operations must be performed within the framework of the Standard Specifications. Where new or special construction methods may be required, or where the use of new or up-dated materials need clarification, the information is directed to the contractor through the contract documents relevant to each contract.

During the fiscal year 1973, specifications were advertised for 30 100% State contracts and eight Federal Aid contracts for construction improvements. Additional specifications have been prepared for contracts not yet advertised.

The Specifications Engineer is working with the Special Assignments Engineer in the preparation of a new Standard Specifications Book.

#### BUREAU OF RIGHT OF WAY

During fiscal year 1973 the Relocation Section gave assistance to 74 families, businesses and organizations displaced by highway construction.

Total Right of Way expenditures for the year were \$11,105,305.67. Relocation payments accounted for \$156,352.66 of the total expenditures. Increased land values, plus relocation payments, were largely responsible for the highest Right of Way expenditures of any year to date.

The Federal Relocation and Acquisitions Policies Act of 1970, implemented by State enabling legislation in May of 1972 guarantees that all property owners from whom the State acquires property will be treated equitably and will not suffer undue hardship. Persons who have to relocate must be given adequate time to relocate, and this presents many difficult and time-consuming problems.

This year 29 buildings were sold, moved or demolished. Sales produced a revenue of \$13,027.50 and rental of excess lands or buildings earned \$32,892.22.

Federal funds were used to the extent of \$327,700.00 for advance purchases of right of way. The basis for these acquisitions was hardship and protective buying. It was estimated that \$1,302,350.00 was saved by reason of the availability of these Federal funds.

The relocation of 315 people from Burton's Island, which was accomplished for the Department of Natural Resources and Environmental Control by the Bureau of Right of Way, was completed early in the fiscal year with all payments having been made both to temporary as well as permanent occupants.

**CONSTRUCTION**

**ACTIVE CONSTRUCTION CONTRACTS AS OF JUNE 30, 1973**

<u>CONTRACT</u>	<u>CONTRACT DESCRIPTION</u>	<u>PERCENT COMPLETED</u>	<u>BID PRICE</u>
<u>New Castle County</u>			
65-01-004	Route I-495, Between Penn-Central R.R. and New Castle Ave.	46	\$16,876,227.81
65-01-003	Grading-Marsh Road to Harvey Road	99	1,668,733.38
67-01-009	Centerville Road-No. of Kirkwood Highway to Lancaster Pike	87	679,152.95
67-10-012	12th Street, Wilmington	94	426,153.41
68-01-003	Rte. 9 - Rd. 381 to New Castle (Washington St.)	85	1,025,968.49
68-01-004	Silverside Road (Phila. Pike to Marsh Rd.)	80	980,460.17
68-10-018	Casho Mill Road	99	116,743.80
69-01-001	Relocated Del. Rte. 141 (Prices Cor. Interchange (Phase I))	91	3,890,000.00
69-01-002	Relocated Del. Rte. 141 (Prices Cor. Interchange (Phase II))	23	3,879,895.14
69-01-006	I-495, Grading & Paving	71	11,907,352.08
69-11-002	Apple Road Extension	99	465,489.34
70-01-005	Harmony Road II-Road 355 (Ruthar Drive to Kirkwood Hwy.)	75	1,796,723.57
70-01-008	Newark Topics Intersections	99	396,457.10
70-01-010	Elmhurst Area	99	450,359.95
70-01-003	Interstate Hwy. Rte. I-495-Grading, Stab. & Drainage	74	11,934,361.25
70-01-009	Fennimore Bridges Nos. 391 & 392 on Road No. 9	60	724,355.10
70-01-002	Replacement of Bridges, Nos. 401 & 402 on Road No. 427	99	97,917.80
70-01-004	Colonial Heights	99	308,819.50
70-01-008	Structure - Reading R.R. Over Route 141 Relocated	99	877,302.10
70-01-003	Kiamensi Road Garage	65	129,500.00
70-10-001	11th Street, Wilmington - Adams St. to Jefferson St.	12	238,945.70
70-10-011	Kirkwood Highway-Possum Park Rd. to Red Mill Road	15	328,710.70
70-11-002	Pedestrian Bridges over U.S. 13 (Br.#27 at Lincoln; Br. #28 at Harrison Avenue)	92	154,395.75
71-01-007	Relocated Delaware Route 141 thru Newport, Substructure	27	4,399,884.15
71-01-010	Intersection Improvements (N.C.Co.)	93	249,439.75
71-01-003	Route I-495 - Between New Castle Ave. & Christina River	70	3,156,652.30
71-01-007	Christina River Bridge Superstructure	32	9,155,623.50
71-01-001	Hot Mix Resurfacing Program, 1972-73 - North District	93	342,103.50
71-01-008	Hot Mix Resurfacing Program, 1972-73 - So. District,Reg.2	94	191,972.80
71-01-005	Kennett Pike Relocation	4	2,967,924.74
72-01-006	Brookside Connector	99	41,611.68
72-01-010	Suburban Development Improvements - Brandywine Hundred	73	207,908.75
72-01-011	S.D. Improvements - White Clay, Mill Creek, Pencader, Christina & N. C. Hundreds	90	227,807.00
72-01-003	Hot Mix Asph. Conc. Resurfacing Program 1972-73 (North District)	52	347,555.20
72-01-004	Concrete Patching Program, 1972-73 (North District)	41	216,625.00
72-01-005	Concrete Patching Program, 1972-73	90	82,788.05
72-01-006	Curb & Gutter Replacement Program, 1972-73	50	78,875.00
72-01-013	Resurfacing U.S. Routes 13 & 40	85	438,641.10
72-01-016	S.D. Improvements, Brandywine Hundred	70	97,522.50
72-01-017	S.D. Improvements; New Castle, White Clay, Mill Creek and Pencader Hundreds	0	104,832.50
72-01-019	Canby Park Wall Replacement	25	25,394.40
72-10-002	Demolition of Buildings	99	12,300.00

<u>CONTRACT</u>	<u>CONTRACT DESCRIPTION</u>	<u>PERCENT COMPLETED</u>	<u>BID PRICE</u>
<u>Kent County</u>			
07-72-001	Dover Lane Auto Storage & Parking Improvements	50	21,500.00
70-10-005	Safety Improvements U.S. Route 13 - Delaware Rte. 10 to Coopers Corner	1	919,912.41
71-07-008	Hot Mix Resurfacing Program, 1972-73 - South District, Region 2	94	191,972.80
72-02-003	Camden & Webbs Lane Connectors	1	434,646.19
72-02-011	Painting-Indian River Inlet Bridge	9	72,995.93
72-07-002	Hot Mix Asph. Conc. Resurfacing Program 1972-73 (South District, Region 2)	45	233,585.80
72-07-005	Concrete Patching Program, 1972-73	90	82,788.05
<u>Sussex County</u>			
68-03-001	Delaware Route 14 - Delaware Route 16 to Milford Bypass	20	4,837,508.88
70-10-004	Road 535 - High Street, Seaford	47	322,973.31
72-06-003	Bituminous Surface Treatment Program, 1972-73 (South District, Region 1)	85	138,632.90
72-07-001	Hot Mix Asph. Conc. Resurfacing Program 1972-73 (South District, Region 1)	28	331,667.30
72-07-005	Concrete Patching Program, 1972-73	90	82,788.05
72-09-005	Surf Avenue, Rehoboth	0	61,045.80
72-09-015	Woodland Ferry Repairs	0	29,600.00
73-01-002	Craigs Pond Dam & Bridge Replacement	15	49,952.50
73-02-004	Entrance and Crossover Modifications - Rehoboth Safeway	0	23,466.75
73-05-005	Woodland Ferry Slips & Dolphins Repairs	0	21,900.80

CONTRACTS COMPLETED AND ACCEPTED - JULY 1, 1972 TO JUNE 30, 1973

<u>CONTRACT</u>	<u>CONTRACT DESCRIPTION</u>	<u>FINAL COST</u>
66-9-006	McKennans Church Road	\$ 967,697.03
68-3-012	Relocation of Harmony Road I	* 1,299,419.64
68-9-011	Bridge Replacement - Bridge 111 on Road 253	166,388.04
68-10-019	Traffic Capacity Improvements-Hercules Rd. & Lancaster Pike	448,619.70
69-6-003	Barksdale Road	433,126.11
69-11-001	Polly Drummond Hill Road	718,834.12
70-4-007	Delaire	115,268.73
70-4-016	I-495 - Christina River Bridge - Substructure	5,225,563.03
70-6-008	A. I. DuPont School District Sidewalk & Pedestrian Overpass	59,413.33
70-10-008	U.S. Route 13 - Resurfacing - Rogers Corner to Tybouts Corner	559,416.17
70-10-021	Bridge No. 686 - Wilmington Causeway Rehabilitation	* 403,703.56
71-04-004	Intersection Improvements - Route 2 thru Elsmere	256,530.05
71-05-001	New Castle Avenue. (Rogers Road to S. Heald Street)	* 558,510.44
71-10-006	Philadelphia Pike over Shellpot Creek Retaining Wall Replacement	26,452.00
71-10-007	I-95 over B & O R.R. - Drainage & Slope Repairs	29,083.06
71-11-002	Drainage Modifications - Bridge Culverts 798 & 799	57,220.54
71-12-001	Borings - Route 141 - Brandywine Creek to Rockland Road	7,532.05
72-01-003	Dem. & Removal of Buildings - Prices Cor. & Rt. 141 thru Newport	27,200.00
72-01-009	Repairing Supporting Steel for Bridge - 6th Street Overpass I-95 N.B. Lane	11,974.00
72-02-010	Tyler McConnell Bridge Deck Repairs	97,387.39
72-03-001	Edgemoor Road	43,844.17
72-03-002	Bituminous Surface Treatment Program 1972-73	96,113.40
72-03-004	Bituminous Surface Treatment Program	149,826.66
72-10-006	Repairing of Parapet Wall & Replacement of Light Standard	7,548.00

Kent County

67-10-014	Safety Improvements - U.S. 13 thru Dover	1,761,050.00
68-01-003	Eberton Development	80,738.66
69-01-003	Philcris Drive	38,301.31
70-01-008	Hot Mix Patching Program 1970-71	449,517.82
70-01-011	Overhead Signs - Existing Dover Bypass	80,635.62
71-01-011	Intersection Improvements - Route 42 & U.S. 13	85,581.86
72-01-002	Dirt Road Program - Roads 385, 310, 433 and Harrington Streets	185,316.33
72-01-004	Bituminous Surface Treatment Program	149,826.66

Sussex County

69-01-003	Bridge Replacement - Bridge 206 on Road 490A	58,303.07
70-11-001	Boring - State Route 14 - Town of Rehoboth, Town of Lewes	12,124.80
71-01-005	Dirt Roads Nos. 229, 313A and 367A	87,409.33
71-01-003	Quaker Road	4,286.23
71-01-004	Hot Mix Asph. Conc. Resurfacing Program 1972-73	* 170,000.00
72-01-013	Removal of N. Indian River Inlet Fishing Pier	28,000.00

\* Estimated Final Cost

## MATERIALS AND RESEARCH

The Department maintains a Materials and Research laboratory with testing facilities at the Administration Center, Dover and a field soils laboratory in Wilmington to inspect, sample, and test materials used in the construction of highways and bridges throughout the state. Inspect, sample, and test are the key words with personnel of this section since they are responsible for quality control of all construction materials.

To keep abreast of the rapidly expanding highway construction industry, it is imperative that new innovations in testing be evaluated. Evaluation of nuclear testing devices has been completed and implementation of this equipment has been made. The use of nuclear testing units has increased the control capabilities of soils and bituminous field technicians. The skid test unit, with its sophisticated instrumentation, enables the section to detect and monitor pavement surfaces which may be deficient in skid resistance, and possibly present a safety hazard to the driving public. Such a condition was found to exist on the Brandywine Creek Bridge portion of I-95 through Wilmington. Subsequent paving of the bridge deck with a special anti-skid surface has proven to be very successful from an accident reduction standpoint. The development and evaluation of other bituminous surfaces with desirable anti-skid and anti-hydroplaning characteristics is in progress.

Section personnel have been employing statistical methods as a means of judging sampling and testing adequacy. Hopefully, continued use of statistical methods of analysis will reveal deficiencies or extremities in sampling and testing procedures resulting in both better materials control and greater economy.

Fiscal year 1973 saw a broadening in the scope of inspection in which the section had heretofore been engaged, particularly inspection of the fabrication of structural steel, iron casting and paint systems. A broadening in the competence of section personnel has also been realized through "cross-training" and personnel reassignment within the section. Technician specialization has been reduced in favor of technician proficiency in sampling and testing varying construction materials.

More emphasis has recently been placed in the areas of soils engineering and design. The soils engineering staff has worked closely with Road and Bridge Design personnel to provide the accurate subsurface information needed for project planning and design, as well as, with construction personnel to solve soils and foundation problems so often encountered during construction.

Field technicians, laboratory technicians and the engineering staff of Materials and Research continue to strive towards assuring the use of quality materials in the construction of Delaware highways and bridges.

## BUREAU OF MAINTENANCE

The most significant change in the Bureau of Maintenance during the year involved the reestablishment of a three district system within the state. In conjunction with this change, the responsibility for and supervision of equipment maintenance has been transferred back to the respective District Engineer.

By operating a three district system with the responsibility for both highway maintenance and equipment maintenance falling directly on the District Engineer, it is felt that better service, controls and supervision can be exercised and a more responsive program obtained.

The Hauling Permit Section fiscal year report shows that they issued a total of 25,417 permits during the year having a total value of \$152,337.16. This represents an eight percent increase over last year's operation.

The Highway Maintenance Management Program is on line and is producing meaningful monthly reports that are being reviewed at the Districts and Maintenance Headquarters. It has become apparent that the program which is in the development stage needs expansion. An Equipment Maintenance Management Program is under development and should be on line by the end of 1974.

Major problems exist in three areas within the Bureau of Maintenance; manpower, equipment, and materials and parts.

Manpower statewide is twenty percent below the 1966-67 level. This problem has been aggravated by the hiring freeze. Operating with this manpower shortage requires that many of the small details, which contribute greatly to the overall maintenance picture, must be overlooked. This situation will increase maintenance costs if allowed to continue.

The chief concern relating to equipment is age. Approximately fifty-nine percent of the assigned equipment is overage or more meaningfully, has passed its economical life expectancy. Even the significant increase in monies allocated for equipment in the present budget will not correct the problem unless that level of funds is maintained over a period of six years. The Bureau of Maintenance has, is and will continue to reduce its total inventory, but by the most realistic figures an inventory in excess of eight million dollars

mus be maintained in order to perform the mission. To keep this inventory within an economical spectrum, capital equipment funds of just over one million dollars a year must be made available. This figure of one million dollars relates to the requirement after all equipment has been updated and it can easily be seen that in this area, we have a long way to go. Overage equipment increases costs in many ways, but the most obvious is the requirement to maintain two or more items in order to have some assurance that one will be available. The only action that will alleviate this situation is to replace the overage equipment. This action is expensive but in the long run will result in an overall savings.

Availability of funds is also the problem which relates to materials and parts. Stone is required to repair roads as are parts required to repair equipment. In recent years however, very realistic requests for funds have been cut to the point where materials and parts are not available in sufficient supply to allow a complete program of preventive maintenance. Preventive maintenance is the economical answer to both road and equipment maintenance. When road surfaces and equipment are allowed to deteriorate because of inadequate preventive maintenance, the service life of each is shortened thus requiring more frequent replacement.

To provide the services expected by the public, preventive maintenance schedules and replacement programs must be established and followed. To accomplish this, adequate and stable funds must be available upon which to base the programs.

## BUREAU OF TRAFFIC

During fiscal year 1973 the Bureau of Traffic undertook a number of new procedures and programs in an effort to improve highway safety and to attain better methods of production.

It has always been difficult and many times hazardous to temporarily close a lane to traffic, particularly on high speed highways. In an effort to make this procedure safer both to the motoring public and to our field personnel, members of the Equipment Maintenance Group of the Bureau of Traffic recently manufactured and put into service a new safety device which has proven very effective. It is a high intensity arrow light device which is mounted on the back of a vehicle. By a simple maneuver they may be transferred from one vehicle to another. By the flick of a switch the traffic can be directed to the left or right of the vehicle by displaying a flashing arrow, or by operating both switches, the arrow will flash in both directions at the same time. There are presently three of these units in service. The Department has manufactured these units at a cost less than one half of the units commercially produced.

In order to control left turns by the advance green method, the new standards require 5 face signal heads. At many locations this causes vertical clearance problems. These can be overcome by raising the entire installation, which can be difficult and expensive, or by alternate methods of signal displays.

An experimental method of display was devised and tested in Kent County. This display places the green and yellow arrow beside the green and yellow circular lenses instead of below them. The vertical clearance item is not increased by the addition of the arrow lenses.

Because no problems occurred with the display in Kent County, installations have been made in New Castle County.

The special brackets were developed by the Equipment Maintenance Group of the Bureau of Traffic. They are also producing them as needed. The rest of the equipment necessary is standard out of stock.

As a result of reduced budgeted signing funds, we are experiencing difficulties in our attempts to install new signs and to replace signs which have become damaged, on a regular basis.

The need for signs has grown rapidly in this State during recent years. The \$61,200 which was earmarked for signing during the 1971-72 fiscal year proved to be insufficient to provide for the proper maintenance of existing signs, or to install new signs authorized by resolutions on a daily schedule.

Since the 1972-73 budget for signing was reduced by \$36,000 from the last fiscal year, we have been forced to curtail our signing operation to the point where only critical items are being handled.

In addition many existing signs have been in place for a number of years. The sheeting material on much of this signing has aged to the degree that the material no longer retains sufficient reflective qualities to be considered standard.

During the summer months when the beach resort areas are very crowded and pedestrian activity is quite heavy, the situation of driver disregard for pedestrians has become a very large problem which has steadily worsened each year.

In an attempt to solve this problem, the Bureau of Traffic has produced signs which read "YIELD TO PEDESTRIANS IN CROSSWALK". Approximately 45 of these signs have been fabricated and installed to date.

The Bureau of Traffic recently obtained and put into service an automatic screening table for the purpose of mass producing certain signs in our Sign Shop.

It is important to note that with signs that can be mass produced, this new machine will at the very least triple the rate of production. Since the ink application is applied with even pressure much wear and tear on the screen material will be reduced and should cut down on the screen replacement rate.

Wherever it is practical, painted yellow curbing will be used to denote "No Parking" areas instead of the currently used signs which signify this restriction.

The elimination of this signing will result in immediate savings by eliminating sign production, installation and maintenance.

In an effort to better shop test repaired equipment, personnel in the signal repair group recently designed and put into operation a test panel which is operated from the repair shop at Bear but is plugged directly into the Kirkwood Highway Coordination System. This enables the technicians to actually create a fully signalized intersection within the repair shop using the control equipment in question under field conditions.

The Sign Shop in a cooperative effort with members of the Department of Administrative Services completed the production of 12 Capital Guide Signs.

These signs, which have been erected near various State buildings, graphically illustrate for the public the specific location of all the State buildings located within the Dover area. Also, included is an accompanying legend which details the various Divisions and Sections located in each of the buildings.

## DIVISION OF TRANSPORTATION

During the fiscal year 1973, the Division of Transportation continued its work in the area of statewide transportation planning in conjunction with the Division of Highways and other involved State and local agencies. The major portions of the work performed to date have been with respect to the development of a year 1995 Unified Transportation Plan for New Castle County and the State of Delaware Airport Systems Plan.

### TRANSIT SECTION

#### DART

In fiscal year 1973, the Delaware Authority for Regional Transit (DART) continued to increase its ridership over previous years. During fiscal year 1973, 250,000 more riders were carried on DART buses than during the preceding year; the percent increase was 5%. Total ridership in fiscal 1973 was 5,250,000, a new high since the initiation of public ownership. New bus

routings and improved service were initiated systemwide to better serve the residents of the Wilmington Metropolitan Area. However, even with the encouraging increases in ridership which were noted, DART still operated at a deficit of \$564,813 in fiscal 1973. Higher labor cost, emergency repairs to the DART garage, and increases in the cost of fuel and other supplies were the primary contributors to this increase in the deficit from the \$355,452 deficit recorded during fiscal 1972. To assist in the payment of the fiscal 1973 deficit, the State of Delaware authorized \$200,000, New Castle County \$117,500 and the City of Wilmington \$66,880 for a total of \$384,380. An additional \$142,000 was appropriated by the State to defray a loan that was necessary in fiscal year 1973.

### TRANSPORTATION PLANNING

Work on the second of the three reports describing the role of mass transit in the overall transportation picture for the Wilmington Metropolitan Area entitled, "Short-Range Transit Improvements Program" was completed, and the draft report was transmitted to the Urban Mass Transportation Administration for their review and comments. This report described in detail the recommended proposals developed by DART, the Division of Transportation, and the Governor's Transit Task Force for northern Delaware, as to the best steps to be taken to improve DART's service during the next five years. Some of the major items included in this report were: new bus routes, improvements to service on existing routes, the purchase of new buses and support equipment, the construction of passenger shelters and Park-N-Ride lots, and the initiation of bus service in the Dover area.

In conjunction with the Division of Highways, work has continued on the development of a Unified 1995 Transportation Plan for New Castle County to include both Highways and Mass Transit. The development of the mathematical models necessary to predict future trips in New Castle County is nearing completion, subject to review by the Federal Highway Administration. The efforts of the Governor's Transit Task Force for Northern Delaware and the Transit Review Committee have contributed greatly to the development of both the Short-Range and Long-Range Transportation Plans for New Castle County, particularly with respect to the recommendations on the role of transportation in the future development of the region, as well as the rest of the State.

### TRI-STATE EMERGENCY BOARD

The Division of Transportation was heavily involved with the activities of the Tri-State Emergency Board, formed in early February with representatives of Delaware, Maryland and Virginia after a ship collision disabled Delmarva's sole rail link to the north, the Summit Rail Bridge. The Division provided staff

assistance and represented Secretary Morris's office at all of the Emergency Board's meetings. The Division was also instrumental in convincing the Federal government to initiate emergency repairs to the bridge by the Corps of Engineers in order to allow rail use of the facility to get underway again as soon as possible. Assistance was provided to various Delmarva industries during this period to enable them to use alternative transportation routes for the movements of their raw materials and finished products. At the present time, the Division is engaged in evaluating possible long term solutions to ensure that the situation does not repeat itself.

#### DELAWARE ENERGY EMERGENCY BOARD

The Energy Emergency Board was formed in May including representation from all State agencies with Secretary Morris of the Department of Highways and Transportation as Chairman. This study group was initiated to evaluate the effects of the energy crisis upon the State of Delaware. Since the first meetings, the Division of Transportation has contributed substantially to the making staff. The Division has assisted businesses in various parts of the State in obtaining the fuels necessary to continue their operations. The long run effects of the energy crisis as it relates to Delaware are also being studied.

#### NORTHEAST RAILROAD SITUATION

Efforts to encourage the continuation of commuter rail service in the Wilmington to Philadelphia corridor have been actively pursued by the Division of Transportation. At the present time, more than 1,000 persons commute between Wilmington and Philadelphia each day to work. Close cooperation has been maintained with SEPTA and the Penn Central Railroad in regard to this matter. Legislation is currently under study which would provide a subsidy to enable this service to be continued.

With regard to railroad abandonment within the State, the Division of Transportation, working closely with the Division of Economic Development, has been able to postpone indefinitely any rail abandonments which have been proposed by the Penn Central Railroad.

The Division of Transportation has acted as the primary staff for Secretary Morris's office in the State's dealings with the entire northeast railroad situation. Working in conjunction with the Office of the Attorney General, the Division has prepared several depositions which have been submitted to Congress and other Federal bodies studying this problem.

## AVIATION SECTION

The Aviation Section of the Division of Transportation continued its programs of planning and design, education, and safety during the 1973 fiscal year. Highlights of these programs are individually described below.

#### AVIATION PLANNING AND DESIGN

In October 1972 the Division of Transportation received a grant offer of \$90,575 from the Federal Aviation Administration (FAA) to prepare the State of Delaware Aviation and Airport System Plan. The study which began in December 1972 will inventory all existing airports in the state, forecast future aircraft traffic, passenger, and cargo volumes, develop an acceptable and viable plan for either improving or constructing new airports in Delaware as they are warranted, and suggest other aviation related programs that should be either revised or established. Completion of the study is scheduled for December 1973.

A grant application for \$17,033 was submitted to the FAA in November 1972 to conduct an airport site selection and master plan study for the Rehoboth Beach, Delaware area. FAA grant approval is expected early in the 1974 fiscal year. This study is being initiated at the request of the City of Rehoboth Beach and the Rehoboth Beach Chamber of Commerce.

Negotiations with the Department of the Air Force by the Division of Transportation resulted in a civilian joint-use agreement of Dover Air Force Base being executed by Kent County on March 20, 1973. A ramp and taxiway for civilian aircraft as well as a terminal building and auto parking facilities must now be constructed. After these facilities are completed, civilian multi-engine aircraft will be able to use Dover Air Force Base without prior permission.

Technical assistance was given to the Sussex County Council concerning airport operations and future airport planning.

#### AVIATION EDUCATION

In order to make more Delaware residents and visitors aware of the aviation facilities available to them in the First State, Governor Sherman W. Tribbitt proclaimed May 1973 as "Aviation Month in Delaware". The Division of Transportation coordinated the scheduling of twelve primary events during the month. More than 16,000 people visited the six airports which held formal public open house celebrations. Other events during the month included four aviation seminars, an FAA Pilot's Educational Clinic, and an aviation symposium.

The Division of Transportation again assisted the Southern Branch of the Delaware Technical and Community College with their aviation ground school classes for pilots.

### AVIATION SAFETY

Ten evenings of aviation safety seminars for pilots were arranged and cosponsored by the Division of Transportation in fiscal year 1973. Over 1,200 people attended the programs in Dover, Georgetown, and Newark which featured nationally prominent aviation speakers.

A three evening safety seminar for aviation mechanics and avionics technicians was held in Newark. A total of 110 aviation maintenance and repair specialists attended the programs.

### OFFICE OF ADMINISTRATION

The Office of Administration handles the financial and administrative functions of the Department of Highways and Transportation. Significant activities of the various sections are as follows:

### FINANCE

Again, in fiscal year 1973, significant progress was made in upgrading the Highway Accounting System. A single input into the Highway System was initiated with an automatic extract to the State's system. Both the Highway Accounting System and the Federal Claim were brought to a current status during the year with approximately \$29 million in cash received from the Federal government. Account reconciliations during the year and at year end were also re-instituted.

Delaware hosted the annual State/Federal Financial Management Conference in Dover during September of 1972. The detailed financial statement has been prepared and is included in the report.

### FEDERAL-AID AND AUDIT

During fiscal year 1973, a total of 43 Final Reimbursement Vouchers were submitted to the Federal Highway Administration. These vouchers claimed \$30,764,966.85 as the Federal share of the projects costs.

The External Audit function encountered considerable difficulty in attempting to overcome a heavy backlog of final billings from railroads, utility companies and consulting engineers which had accumulated in an earlier period when audit activity was either sporadic or inactive. For the fiscal year ending

June 30, 1973, a total of 39 on-site audits were performed of costs amounting to \$884,579.26.

### SUMMARY OF CONTRACTS ADVERTISED THIS FISCAL YEAR

#### TYPE

#### CONSTRUCTION

Federal Participating	8	\$ 14,740,214.99
Toll Road	4	255,283.50
100% State	29	3,602,399.52
Rejected	4	
<b>Total Construction</b>	<b>45</b>	<b>\$ 18,597,898.01</b>

#### MATERIAL

Materials and Supplies	39	\$ 1,610,143.22
Equipment	25	1,083,900.92
No Bids Received	7	
<b>Total Material</b>	<b>71</b>	<b>\$ 2,694,044.14</b>
<b>Total Construction and Material</b>	<b>116</b>	<b>\$ 21,291,942.15</b>

#### RECEIPTS

Contract Sales	\$	9,265.00
Map Sales		2,129.02
Books & Misc. Sales		595.00
Collections from Traffic, Adm. & Misc. Bills		474,549.72
<b>Total Receipts</b>	<b>\$</b>	<b>486,538.74</b>

### COMPUTER SUPPORT SECTION

During the past year the Section's activities have been limited by the failure of the Division of Central Data Processing to upgrade its equipment. The Division has revised plans twice, and at the end of this fiscal year the Division is back to indefinite continuation of the 360/40's.

The largest casualty of this has been the Division's plan to install the FHWA sponsored Road Design System (RDS). The present computer remains about 8200 bytes smaller than the minimum core required for the system. The Computer Support Section is now hoping to obtain the WYOMING UNMES earthwork system for use.

The design of the Delaware Maintenance Management System has been streamlined by consolidating files, cutting passes required for report generation, and re-evaluating and improving report content.

The Computer Support OS/PCP has been in operation for one year and has been very successful. ICES COGO and STRUDL, and the URBAN 1 transportation battery are the principle jobs being run. Considerable experience has been gained with the planning battery, thus enabling the completion of several total traffic assignment networks.

The Transportation Studies Section has recently procured photologging equipment. The Computer Support Section will be working with them to develop means of digitizing or deriving data from the photos for use in the Coordinated Data System.

### OFFICE SERVICES

The Office Services Section provides support for the various Divisions and Sections of the Department. The Word Processing Center is a branch of this section and incorporates a telephone dictation system, magnetic tape selectric typewriters, and a composer which furnish services more efficiently and economically than with traditional methods. At the present time the composer is being used for the preparation of a new Delaware Standard Specifications book. The Records Center maintains the Department's record retention and disposal system through file maintenance, microfilming and disposal. The Center also maintains a complete file of all legislation and its status.

### OUTDOOR ADVERTISING AND JUNKYARD CONTROL

Receipts for fiscal year 1973 were as follows:

Outdoor Advertising Sign Permits	\$ 14,259.00
Junkyard Licenses	<u>600.00</u>
	\$ 14,859.00

The issuance of outdoor advertising sign permits continued as the primary operation in that phase of the Section's activities. Very little progress was made in the outdoor advertising sign removal program due to both a lack of personnel and the State matching funds.

Convictions were obtained against junkyard owners who were operating without a license and proper screening. As a result of these convictions, several other owners that had received warrants for their arrests complied with the law and obtained a license prior to being taken to court. We have three cases from Sussex County that will be going to trial in the very near future.

The abandoned vehicle program was a limited operation due to lack of funds and personnel. We concentrated mainly on the owners that contacted our office for the removal of their vehicles.

SCHEDULE A-1

DEPARTMENT OF HIGHWAYS & TRANSPORTATION  
 COMPARATIVE STATEMENT OF TOTAL FUNDS AVAILABLE, EXPENDITURES AND UNEXPENDED BALANCES -  
 ALL FUNDS  
 FOR THE YEARS ENDED JUNE 30, 1973 & 1972

	YEAR ENDED JUNE 30		INCREASE/ (DECREASE)
	1973	1972	
Funds Available	\$ 100,332,960.85	\$ 86,556,623.60	\$ 13,776,337.25
Expenditures	<u>62,863,310.11</u>	<u>47,608,227.71</u>	<u>15,255,082.40</u>
Unexpended Balances	\$ 37,469,650.74	\$ 38,948,395.89	\$ (1,478,745.15)

DISPOSITION OF UNEXPENDED BALANCES

	YEAR ENDED JUNE 30		INCREASE/ (DECREASE)
	1973	1972	
Continuing	\$ 31,112,770.52	\$ 32,055,097.08	\$ (942,326.56)
Encumbered	5,939,139.45	6,178,811.04	(239,671.59)
Reverted	<u>417,740.77</u>	<u>714,487.77</u>	<u>(296,747.00)</u>
Unexpended Balances	\$ 37,469,650.74	\$ 38,948,395.89	\$ (1,478,745.15)

DEPARTMENT OF HIGHWAYS & TRANSPORTATION  
CONDENSED STATEMENT OF APPROPRIATIONS, TRANSFERS, AVAILABLE FUNDS,  
EXPENDITURES AND UNEXPENDED BALANCES - ALL FUNDS  
FOR YEAR ENDED JUNE 30, 1973

	CONTINUING BALANCES JUNE 30, 1972	ENCUMBERED BALANCES JUNE 30, 1972	ORIGINAL APPROPRIATIONS AUTHORIZATIONS	SUPPLEMENTAL APPROPRIATIONS	REVENUE
<b>GENERAL FUNDS</b>					
Office of Secretary		\$ 1,674.17	\$ 107,265.00		
Office of Administration		11,065.08	640,826.00		
Division of Highways	\$ 162,456.58	471,451.58	8,750,779.00	\$ 24,561.61	
Division of Transportation		204,047.61	272,580.00	5,108.00	
<b>TOTAL GENERAL FUNDS</b>	<b>\$ 162,456.58</b>	<b>\$ 688,238.44</b>	<b>\$ 9,771,450.00</b>	<b>\$ 29,669.61</b>	
<b>SPECIAL FUNDS</b>					
<b>Construction Funds</b>					
<b>FUND</b>					
10 U.S. Grant - Federal Aid Fund	\$ 96,987.00				
11 U.S. Grant - Advance Right of Way	80,115.00				\$ 263,785.00
40 Highway Improvements 1959	959,517.10				972,458.55
41 Hard Surfacing Dist Roads 1955	1,481.01				
42 Highway Construction Fund 1961	174,494.24	\$ 536,185.94			2,193,938.04
43 Highway Construction Fund 1964	96,949.93	489,257.28			15,611,640.78
44 Garrison's Pond Dam	3,209.21				
45 Delaware River & Bay Authority	65,388.82	34,611.18			
46 Capital Improvements 1966	342,232.72	296,418.52			50,724.15
47 Capital Improvements 1967	2,764,873.94	715,634.25			654,075.82
48 Capital Improvements 1968	2,803,092.87	695,192.28			1,657,013.78
49 Capital Improvements 1969	5,631,882.25	582,579.85			452,826.98
51 Special Construction Funds	17,690.92	42,602.60			
52 Capital Improvements 1970	3,956,954.49	1,027,677.39			68,980.72
53 Capital Improvements 1971	6,308,024.78	772,451.02			2,425,137.78
72 Capital Improvements 1972	8,348,730.43	147,089.56			2,241,729.13
73 Capital Improvements 1973					2,357,625.44
<b>TOTAL</b>	<b>\$ 31,743,604.71</b>	<b>\$ 5,328,899.87</b>	<b>\$ 23,730,000.00</b>		<b>\$ 28,949,936.16</b>
<b>OTHER SPECIAL FUNDS</b>					
<b>FUND</b>					
10 U.S. Grant - Met. Transportation Needs Study ***	\$ 9,228.50	\$ 28.00			\$ 18,023.00
12 Emergency Employment Act**	8,669.78				3,300.28
12 Federal Aviation Adm. Grant***					9,615.01
86 Reozow Account*	133,141.80				44,262.13
86 Sussex County Motor Pool**	16,904.46	10,364.11			2,640.68
88 Traffic Planning**	94,234.41	37,480.62			62,103.39
89 Beach Erosion**	110.88				
90 Suburban Roads**	145.96				
<b>TOTAL OTHER</b>	<b>\$ 262,435.79</b>	<b>\$ 48,272.73</b>			<b>\$ 139,943.39</b>
<b>TOTAL SPECIAL FUNDS</b>	<b>\$ 32,006,040.50</b>	<b>\$ 5,377,172.60</b>	<b>\$ 23,730,000.00</b>		<b>\$ 29,089,879.55</b>
<b>TOTAL ALL FUNDS</b>	<b>\$ 32,168,497.09</b>	<b>6,065,411.04</b>	<b>\$ 33,501,450.00</b>	<b>\$ 29,669.61</b>	<b>\$ 29,089,879.55</b>

\*55-02-000

\*\*55-03-000

\*\*\*55-04-000

EXHIBIT A

TRANSFERS	OTHER TRANSACTIONS	TOTAL AVAILABLE FUNDS	EXPENDITURES	UNEXPENDED BALANCES	DISPOSITION OF FUNDS		
					ENCUMBERED	CONTINUING	REVERTED TO GENERAL FUND
\$ 5,581.83		\$ 114,521.00	\$ 101,049.44	\$ 13,471.56	\$ 1,637.98		\$ 11,833.58
14,139.66		666,030.74	646,982.82	19,047.92	3,649.92		15,198.00
112,762.47		9,522,011.24	8,544,400.38	937,610.86	529,660.97	\$ 8,500.00	389,449.89
8,527.75		490,263.36	488,099.83	2,163.53	833.73	70.50	1,239.30
\$ 141,011.71		\$ 10,792,826.34	\$ 9,820,532.47	\$ 972,293.87	\$ 545,982.60	\$ 8,570.50	\$ 417,740.77
		\$ 96,987.00		\$ 96,987.00			\$ 96,987.00
		343,900.00	327,700.00	16,200.00	12,300.00		1,900.00
		1,931,975.65	1,366,863.00	565,112.65	2,590.09		562,522.56
		1,461.01		1,461.01			1,461.01
		2,904,818.22	2,168,564.96	736,253.26	5,988.54		730,264.72
\$ 65,388.82		16,263,236.81	14,755,416.54	1,507,820.27	448,578.76	1,059,241.51	1,059,241.51
		3,209.21	33.98	3,175.23			3,175.23
(65,388.82)		34,611.18	34,611.18				
(12,389.96)		676,985.43	481,883.20	193,102.23	119,719.63		73,382.60
(2,694.79)		4,131,889.22	1,662,002.24	2,469,886.98	602,397.05		1,867,493.93
(10,220.51)	\$ (1.00)	5,245,077.42	2,534,374.13	2,710,703.29	400,722.20		2,309,981.09
(38,475.88)		6,628,813.20	1,980,131.92	4,648,681.28	446,138.45		4,202,542.83
		60,293.52	28,019.94	32,273.58	19,805.01		12,468.57
(362,047.59)		4,681,565.00	1,626,420.69	2,855,144.31	414,030.53		2,441,123.78
	(26.91)	9,504,586.67	7,109,802.41	2,394,784.26	555,436.47		1,839,547.79
(269,644.66)		10,459,904.46	6,298,697.29	4,161,207.17	895,029.67		3,266,177.50
32,800.00		26,120,425.44	12,197,918.52	13,922,506.92	1,447,673.19		12,474,832.72
\$ (662,673.39)	\$ (27.91)	\$ 89,089,739.44	\$ 52,774,730.00	\$ 36,315,009.44	\$ 5,370,405.59	\$ 30,945,103.85	\$ 30,945,103.85
		\$ 27,279.50	\$ 18,780.18	\$ 8,499.32	\$ 28.00		\$ 8,471.32
		11,969.96	11,969.96				
		9,615.01	7,199.01	2,416.00			2,416.00
		177,402.93	86,198.66	91,204.27			91,204.27
		29,909.25	26,989.34	2,919.91	2,891.46		28.45
		194,218.42	117,410.49	76,807.93	19,832.80		56,976.13
\$ (110.88)							
(145.96)							
\$ (256.84)		\$ 450,395.07	\$ 268,547.64	\$ 181,847.43	\$ 22,751.28		\$ 159,096.17
\$ (662,930.23)	\$ (27.81)	\$ 89,540,134.51	\$ 53,042,777.64	\$ 36,497,356.87	\$ 5,393,156.85	\$ 31,104,200.02	\$ 31,104,200.02
\$ (521,918.52)	\$ (27.91)	\$ 100,332,960.89	\$ 62,862,380.11	\$ 37,469,680.74	\$ 5,929,139.45	\$ 31,212,770.52	\$ 417,740.77

DEPARTMENT OF HIGHWAYS & TRANSPORTATION  
 DETAILED STATEMENT OF AVAILABLE FUNDS, EXPENDITURES AND UNEXPENDED BALANCES  
 FOR YEAR ENDED JUNE 30, 1973

	CONTINUING BALANCES JUNE 30, 1972	ENCUMBERED BALANCES JUNE 30, 1972	ORIGINAL APPROPRIATIONS	SUPPLEMENTAL APPROPRIATIONS	REVENUE	TRANSFERS
<b>OFFICE OF THE SECRETARY (55-01)</b>						
Salary, Secretary			\$ 31,000.00			\$ 1,208.33
Salaries & Wages of Employees			68,515.00			6,373.50
Travel			600.00			300.00
Contractual Services			6,000.00			(300.00)
Supplies and Materials	\$ 1,674.17		1,000.00			
Capital Outlay			150.00			
<b>TOTAL - OFFICE OF THE SECRETARY</b>	<b>\$ 1,674.17</b>		<b>\$ 107,265.00</b>			<b>\$ 5,581.83</b>
<b>OFFICE OF ADMINISTRATION (55-02)</b>						
Salary, Chief of Administration			\$ 22,000.00			\$ 916.66
Salaries & Wages of Employees			240,086.00			13,223.00
Salaries - Overtime			540.00			
Personal Services			3,500.00			
Travel			500.00			
Contractual Services			65,450.00			(400.00)
Supplies and Materials	\$ 10,372.02		3,000.00			400.00
Capital Outlay	697.06		200.00			
Social Security Contribution			305,550.00			
<b>TOTAL - OFFICE OF ADMINISTRATION</b>	<b>\$ 11,065.08</b>		<b>\$ 640,826.00</b>			<b>\$ 14,139.66</b>
<b>DIVISION OF HIGHWAYS (55-04)</b>						
Salary of Director			\$ 29,000.00	\$ 16,061.61		
Salaries & Wages			5,769,248.00			\$ 38,050.97
Salaries - Overtime			36,646.00			74,711.50
Personal Services	\$ 586.00					
Contractual Services	39,147.92					
Resurfacing Contracts	134,848.07		400,000.00			
Supplies and Materials	32,425.57					
Capital Outlay	8,071.44		160,000.00			
Operations	208,200.31		1,782,285.00	8,507.00		54,200.00
Lines-Center & Edges of Highways	41,464.46		105,000.00			
Emergency Funds - Snow Removal	4,908.61		207,500.00			
Highway Lighting			15,000.00			
Route 14 Drainage	\$ 42,989.41					
Bridge Repainting			50,000.00			
N.C. - C. E. Ped. Overpass	113,402.93					
Highway Signing			25,000.00			
Roadside Grass & Growth Control	1,799.20		90,000.00			(54,200.00)
A. I. duPont Sidewalk Const.	6,065.24					
Fire Lights - Middletown			20,000.00			
Flashing School Lights - Rich. Pk.			1,100.00			(550.00)
Traffic Lights - Clayton			10,000.00			
School Lights - St. Matthews						550.00
Contingency - Borrow Pits			50,000.00			
<b>TOTAL - DIVISION OF HIGHWAYS</b>	<b>\$ 162,456.58</b>	<b>\$ 471,451.58</b>	<b>\$ 8,750,779.00</b>	<b>\$ 24,561.61</b>		<b>\$ 112,762.47</b>
<b>DIVISION OF TRANSPORTATION (55-06)</b>						
Salary, Director			\$ 21,000.00			\$ 875.00
Salaries & Wages of Employees			20,480.00	\$ 1,058.00		902.75
Personal Services			1,000.00			(66.47)
Plan-Public Transportation			25,000.00			
Travel			400.00			66.47
Contractual Services			4,200.00			
Supplies and Materials			500.00			
Penn Central Train Transportation Study				4,050.00		6,750.00
DART	10,547.61		200,000.00			
<b>TOTAL - DIVISION OF TRANSPORTATION</b>	<b>\$ 204,047.61</b>		<b>\$ 272,540.00</b>	<b>\$ 5,108.00</b>		<b>\$ 8,527.75</b>
<b>TOTAL-GENERAL FUND</b>	<b>\$ 162,456.58</b>	<b>\$ 688,238.44</b>	<b>\$ 9,771,450.00</b>	<b>\$ 29,669.61</b>		<b>\$ 142,012.71</b>

EXHIBIT B

OTHER TRANSACTIONS	TOTAL FUNDS AVAILABLE	EXPENDITURES	UNEXPENDED BALANCES	DISTRIBUTION OF FUNDS		
				ENCUMBERED	CONTINUING	REVERTED TO GENERAL FUND
\$	32,200.33	\$ 31,148.65	\$ 1,059.68			\$ 1,059.68
	72,888.50	64,457.14	8,436.36			8,436.36
	900.00	870.02	29.98	\$ 6.50		23.48
	7,374.17	3,578.63	3,795.54	1,631.48		2,164.06
	1,000.00	1,000.00				
	150.00		150.00			150.00
\$	114,521.00	\$ 101,049.44	\$ 13,471.56	\$ 1,637.98		\$ 11,833.58
\$	22,916.66	\$ 22,851.96	\$ 64.70			\$ 64.70
	253,309.00	253,227.61	81.39			81.39
	540.00	71.89	468.11			468.11
	3,500.00	3,500.00				
	500.00	43.30	456.70			
	75,422.02	58,071.91	17,350.11	\$ 3,469.17		13,456.70
	4,093.06	3,681.10	412.96	380.75		31.21
	200.00		200.00			200.00
	305,550.00	305,535.05	14.95			14.95
\$	666,070.74	\$ 646,982.82	\$ 19,047.92	\$ 3,849.92		\$ 15,198.00
\$	45,061.61	\$ 43,352.51	\$ 1,709.10			\$ 1,709.10
	5,807,298.97	5,768,172.99	39,125.98			39,125.98
	111,357.50	105,072.44	6,285.06			6,285.06
	586.00		586.00			586.00
	39,147.92	32,407.86	6,740.06			6,740.06
	534,848.07	470,670.34	64,177.73	\$ 52,637.29		11,540.44
	32,425.57	28,125.09	4,300.48			4,300.48
	168,071.44	160,970.88	7,100.56	1,300.24		5,800.32
	2,053,185.31	1,994,570.14	458,615.17	396,567.05	\$ 8,500.00	53,548.12
	146,464.46	84,241.86	62,222.60	62,187.97		34.63
	212,408.61	49,745.86	162,662.75			162,662.75
	15,000.00	7,440.89	7,559.11	7,557.46		1.65
	42,989.41		42,989.41			42,989.41
	50,000.00	29.87	49,970.13			49,970.13
	113,401.93	113,400.00	1.93			1.93
	25,000.00	24,962.50	37.50			37.50
	37,599.20	33,540.73	4,058.47	4,058.47		
	6,065.24	5,006.24	59.00	59.00		
	30,000.00	10,347.20	9,652.80	6,016.58		3,636.22
	550.00	491.78	58.22	25.31		32.91
	10,000.00	475.89	9,524.11	9,084.75		439.36
	550.00	375.31	174.69	166.85		7.84
	50,000.00	50,000.00				
\$	9,522,022.24	\$ 8,584,400.38	\$ 937,621.86	\$ 539,660.97	\$ 8,500.00	\$ 389,449.89
\$	21,875.00	\$ 21,833.33	\$ 41.67			\$ 41.67
	22,440.75	22,370.25	70.50		\$ 70.50	
	933.53	915.25	18.28			18.28
	25,000.00	25,000.00				
	466.47	439.03	27.44			27.44
	4,200.00	3,104.48	1,095.52	\$ 833.73		261.79
	500.00	413.90	86.10			86.10
	10,800.00	10,800.00				
	10,547.62	9,723.59	824.02			824.02
	393,500.00	393,500.00				
\$	490,263.36	\$ 488,099.83	\$ 2,163.53	\$ 833.73	\$ 70.50	\$ 1,259.30
\$	10,792,826.34	\$ 9,820,532.47	\$ 972,293.87	\$ 545,982.60	\$ 8,570.50	\$ 417,740.77

DEPARTMENT OF HIGHWAYS & TRANSPORTATION  
DIVISION OF HIGHWAYS  
DETAILED STATEMENT OF AVAILABLE FUNDS, EXPENDITURES AND UNEXPENDED BALANCES  
FOR YEAR ENDED JUNE 30, 1973 - GENERAL FUND APPROPRIATIONS

	CONTINUING BALANCES JUNE 30, 1972	ENCUMBERED BALANCES JUNE 30, 1972	ORIGINAL APPROPRIATIONS	SUPPLEMENTAL APPROPRIATIONS	REVENUE	TRANSFERS
<b>DIVISION OF HIGHWAYS (55-04)</b>						
<b>OFFICE OF THE DIRECTOR (010)</b>						
Salary of Director			\$ 29,000.00	\$ 16,061.61		
Salary & Wages			110,142.00			\$(70,282.50)
Personal Services		\$ 568.00				
Contractual Services		10,658.82				
Supplies and Materials		2,543.62				
Capital Outlay		6,021.44	160,000.00			
Operations		6,920.27	110,000.00	8,500.00		427.77
TOTAL - OFFICE OF THE DIRECTOR		\$ 26,730.14	\$ 409,142.00	\$ 24,561.61		\$(69,854.73)
<b>CONSTRUCTION HEADQUARTERS (012)</b>						
Operations			\$ 1,670.00			\$ (185.00)
TOTAL - CONSTRUCTION HEADQUARTERS			\$ 1,670.00			\$ (185.00)
<b>CONSTRUCTION DISTRICT - NORTH (013)</b>						
Salaries & Wages			\$ 113,887.00			\$ 4,664.50
Salary - Overtime			480.00			800.00
Contractual Services		\$ 1,189.50				
Supplies and Materials		33.00				
Operations		391.96	16,520.00			(4,798.59)
W.C.-G. B. Fed. Overpass	\$ 113,401.93					
A. I. deFont Sidewalk Const.	6,065.24					
TOTAL - CONSTRUCTION DISTRICT - NORTH	\$ 119,467.17	\$ 1,604.46	\$ 130,807.00			\$ 465.91
<b>CONSTRUCTION DISTRICT - SOUTH (014)</b>						
Contractual Services		\$ 3,699.32				
Operations		111.64	\$ 15,750.00			\$ (4,130.35)
Drainage - Route 14	\$ 42,989.41					
TOTAL - CONSTRUCTION DISTRICT - SOUTH	\$ 42,989.41	\$ 3,810.96	\$ 15,750.00			\$ (4,130.35)
<b>MAINTENANCE HEADQUARTERS (015)</b>						
Salaries & Wages			\$ 255,903.00			\$ 30,394.90
Salaries - Overtime			100.00			(100.00)
Contractual Services		\$ 812.83				
Supplies and Materials		380.96				
Operations		2,165.00	24,800.00			(3,069.54)
Emergency Funds - Snow Removal			57,500.00			
Bridge Repainting			50,000.00			
Roadside-Cross and Growth Control		1,799.20	90,000.00			(54,200.00)
Contingency - Borrow Pits			50,000.00			
TOTAL - MAINTENANCE HEADQUARTERS		\$ 3,157.99	\$ 528,503.00			\$(26,974.64)
<b>MAINTENANCE DISTRICT - NORTH (016)</b>						
Salaries & Wages			\$1,200,054.00			\$(127,479.75)
Salaries - Overtime			14,879.00			26,236.24
Contractual Services		\$ 8,070.62				
Resurfacing Contracts			100,000.00			
Supplies and Materials		5.50				
Capital Outlay		456.00				
Operations		48,317.41	427,075.00			(46,543.82)
Emergency Funds - Snow Removal			75,000.00			
TOTAL - MAINTENANCE DISTRICT - NORTH		\$ 62,801.00	\$1,817,008.00			\$(17,787.33)
<b>MAINTENANCE DISTRICT - SOUTH (017)</b>						
Salaries & Wages			\$2,677,585.00			\$ (1,929.42)
Salaries - Overtime			14,967.00			29,793.47
Contractual Services		\$ 9,757.21				
Resurfacing Contracts		134,040.07	300,000.00			
Supplies and Materials		1,450.82				
Capital Outlay		1,394.00				
Operations		59,132.03	539,930.00			(28,897.01)
Emergency Funds - Snow Removal		4,659.12	75,000.00			
TOTAL - MAINTENANCE DISTRICT - SOUTH		\$ 212,641.45	\$3,602,482.00			\$(1,032.96)
<b>EQUIPMENT MAINTENANCE (019)</b>						
Salaries & Wages			\$ 728,770.00			72,038.39
Salaries - Overtime			1,100.00			1,012.99
Contractual Services		\$ 775.04				
Supplies and Materials		20,940.14				
Operations		41,007.30	467,500.00			89,117.33
TOTAL EQUIPMENT MAINTENANCE		\$ 62,722.48	\$1,197,370.00			\$162,167.61
<b>TRAFFIC (010)</b>						
Salaries & Wages			\$ 623,522.00			\$ 29,104.58
Salaries - Overtime			4,000.00			17,337.68
Contractual Services		\$ 3,746.10				
Supplies and Materials		1,179.75				
Operations		49,450.89	150,320.00			53,000.00
Lines-Center & Edges of Highways		42,464.46	105,000.00			
Highway Lighting			15,000.00			
Highway Signing			25,000.00			
Fire Lights - Middletown			20,000.00			
Fleeting School Lights - Rich. Pk.			1,100.00			(550.00)
Traffic Light - Clayton			10,000.00			
School Lights - St. Matthews						550.00
TOTAL - TRAFFIC		\$ 95,841.20	\$ 953,942.00			\$ 99,442.26
<b>MATERIALS AND RESEARCH (022)</b>						
Salaries & Wages			\$ 24,288.00			\$ (9,500.00)
Salaries - Overtime			1,000.00			(367.68)
Operations		\$ 525.47	8,020.00			819.45
TOTAL - MATERIALS AND RESEARCH		\$ 525.47	\$ 33,308.00			\$ (9,048.23)
<b>PLANNING SUPPORT (045)</b>						
Salaries & Wages			\$ 33,097.00			\$ 2,040.27
Contractual Services		\$ 438.49				
Operations		177.94	20,700.00			(2,540.14)
TOTAL - PLANNING SUPPORT		\$ 614.43	\$ 53,797.00			\$ (499.87)
<b>TOTAL - DIVISION OF HIGHWAYS</b>	<b>\$ 162,456.58</b>	<b>\$ 471,451.58</b>	<b>\$8,750,779.00</b>	<b>\$ 24,561.61</b>		<b>\$212,762.47</b>

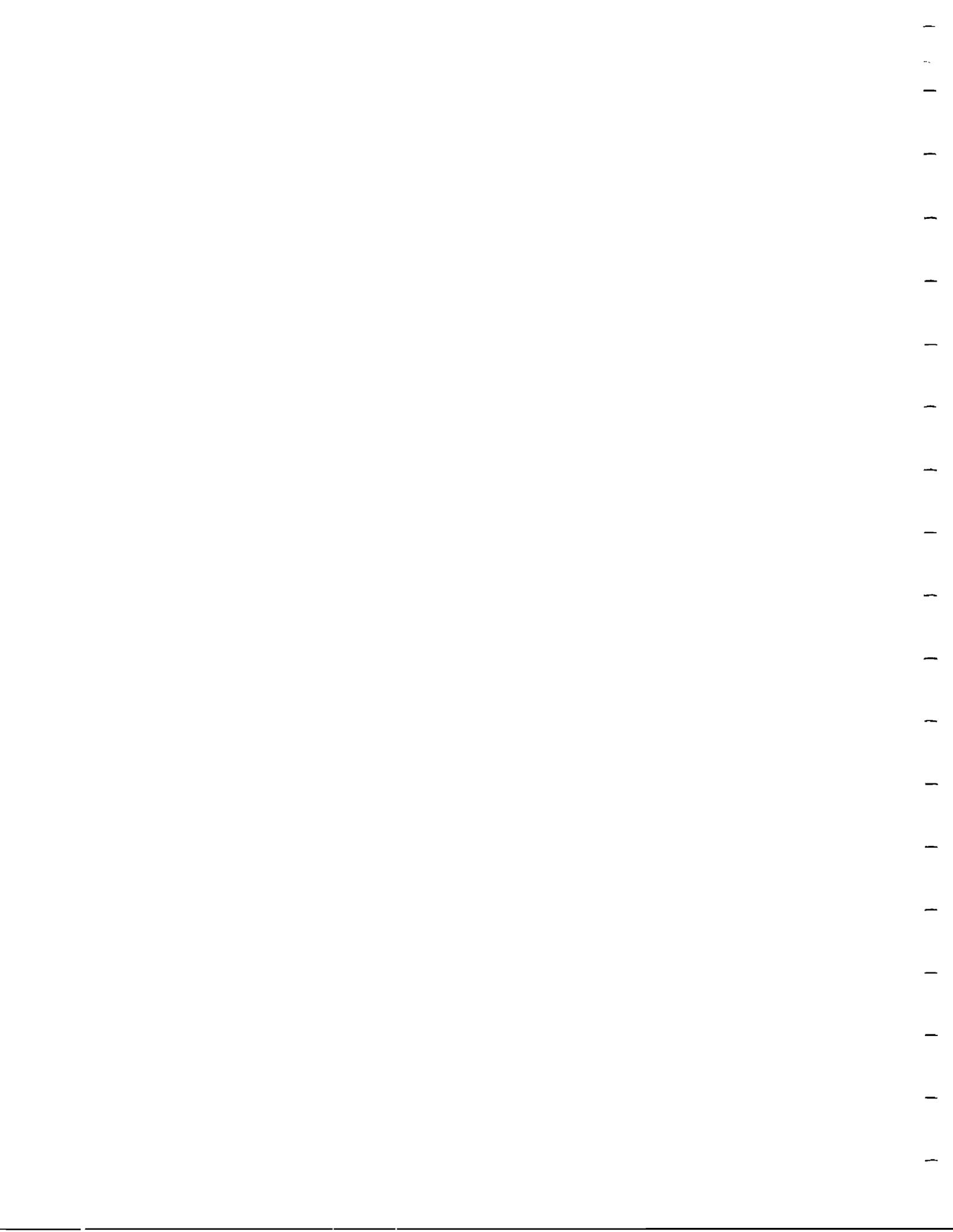
EXHIBIT C

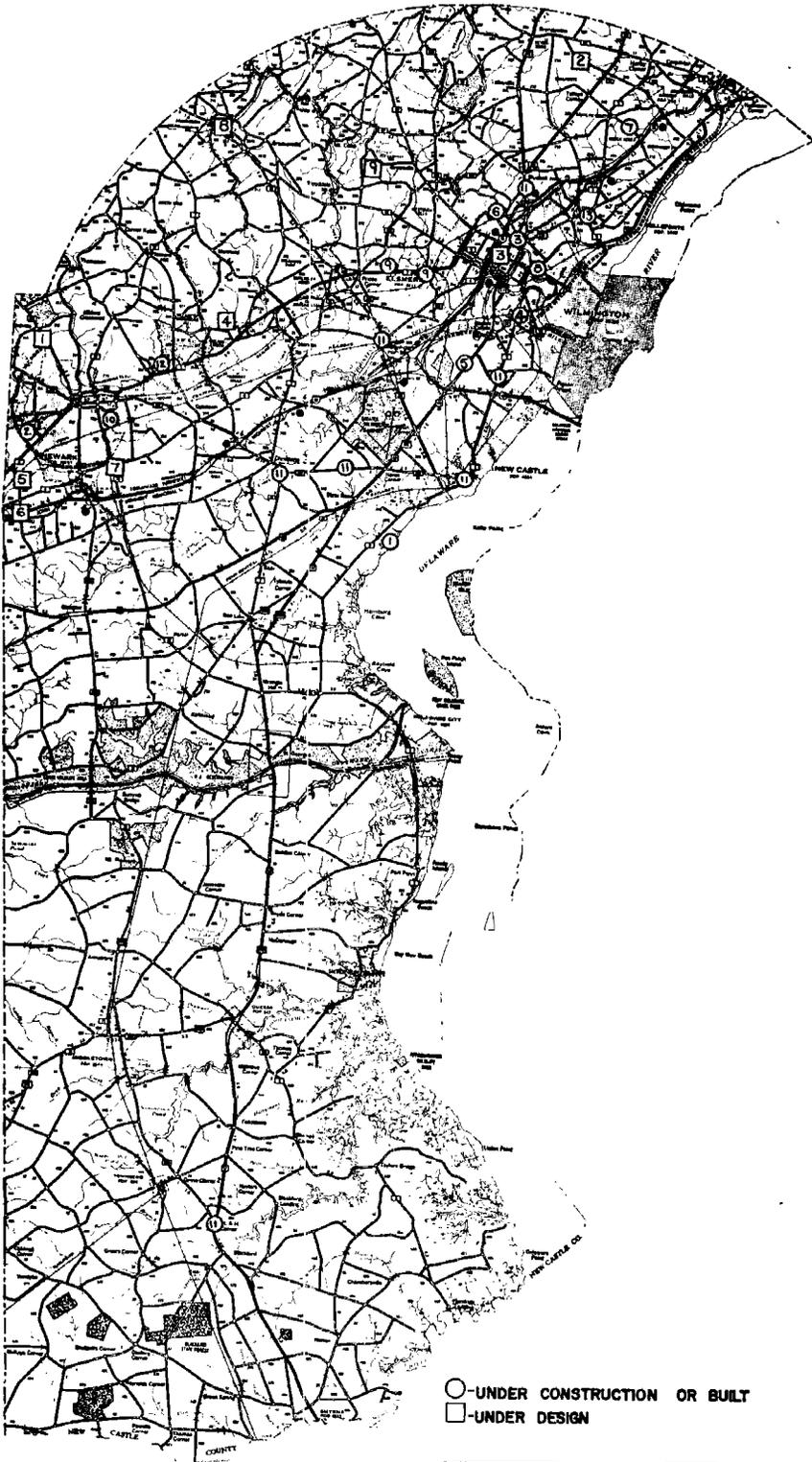
OTHER TRANSACTIONS	TOTAL FUNDS AVAILABLE	EXPENDITURES	UNEXPENDED BALANCES	DISTRIBUTION OF FUNDS		
				ENCUMBERED	CONTINUING	REVERTED TO GENERAL FUND
\$ 45,061.61	\$ 43,352.51	\$ 1,709.10				\$ 1,709.10
39,859.50	28,031.59	11,827.91				11,827.91
586.00		586.00				586.00
10,658.82	9,297.14	1,361.68				1,361.68
2,543.61	1,202.86	1,340.75				1,340.75
166,021.44	158,920.88	7,100.56	\$ 1,300.24			1,300.32
125,848.04	82,828.78	33,018.26	19,465.82	\$ 8,500.00		5,052.44
\$ 390,579.02	\$ 333,634.96	\$ 56,944.06	\$ 20,766.06	\$ 8,500.00		\$ 27,678.00
\$ 1,485.00	\$ 1,084.72	\$ 400.28	\$ 400.28			
\$ 1,485.00	\$ 1,084.72	\$ 400.28	\$ 400.28			
\$ 118,552.50	\$ 115,116.56	\$ 3,434.94				\$ 3,434.94
1,200.00	889.51	310.49				310.49
1,189.50	350.00	839.50				839.50
23.00		23.00				23.00
12,112.37	7,975.70	4,137.67	\$ 3,429.96			707.71
113,401.93	113,400.00	1.93				1.93
6,065.24	6,006.24	59.00	59.00			
\$ 252,544.54	\$ 243,738.01	\$ 8,806.53	\$ 3,488.96			\$ 5,317.57
\$ 3,699.32	\$ 3,496.90	\$ 202.42				\$ 202.42
11,731.29	6,895.30	4,835.99	\$ 2,474.38			2,361.61
42,969.41		42,969.41				42,969.41
\$ 58,420.02	\$ 10,392.20	\$ 48,027.82	\$ 2,474.38			\$ 45,553.44
\$ 286,297.90	\$ 284,436.20	\$ 1,861.70				\$ 1,861.70
200.00	121.62	78.38				78.38
812.83	26.00	786.83				786.83
380.96	369.28	11.68				11.68
21,895.46	21,712.18	1,183.28	\$ 1,890.50			292.78
57,500.00		57,500.00				57,500.00
50,000.00	29.87	49,970.13				49,970.13
37,599.10	33,540.73	4,058.47	4,058.47			
50,000.00	50,000.00					
\$ 506,686.35	\$ 390,635.88	\$ 116,050.47	\$ 5,948.97			\$ 110,101.50
\$ 1,282,574.25	\$ 1,173,587.41	\$ 8,986.84				\$ 8,986.84
41,115.24	38,912.09	1,203.15				1,203.15
8,070.61	6,229.54	1,841.07				1,841.07
100,000.00	96,111.40	3,888.60	\$ 3,888.60			
3,507.29	4,974.90	532.39				532.39
656.00	656.00					
428,888.99	314,386.30	114,502.69	102,843.06			11,659.63
75,249.29	75,248.14	49,501.15				49,501.15
\$ 1,842,091.67	\$ 1,661,567.78	\$ 180,453.89	\$ 106,748.66			\$ 73,704.23
\$ 2,675,655.58	\$ 2,674,195.75	\$ 1,459.83				\$ 1,459.83
44,760.47	41,340.53	3,419.94				3,419.94
9,757.21	8,265.13	1,492.08				1,492.08
434,848.07	374,556.94	60,291.13	48,750.69			11,540.44
1,850.82	322.90	1,527.92				1,527.92
1,194.00	1,194.00					
570,165.02	444,179.31	125,985.71	117,484.07			8,499.64
79,658.32	21,997.72	55,661.60				55,661.60
\$ 3,818,090.49	\$ 3,568,252.28	\$ 249,838.21	\$ 268,248.76			\$ 81,591.45
\$ 800,808.39	\$ 797,131.45	\$ 3,676.94				\$ 3,676.94
2,111.89	1,909.50	202.49				202.49
775.04	714.51	60.53				60.53
20,940.14	20,075.40	864.74				864.74
597,674.53	472,478.24	125,145.29	\$ 105,572.58			19,572.71
\$ 1,422,760.09	\$ 1,292,312.12	\$ 129,947.97	\$ 105,572.58			\$ 24,375.39
\$ 652,626.58	\$ 651,908.59	\$ 717.99				\$ 717.99
21,337.64	20,340.94	996.70				996.70
3,746.10	3,587.93	158.17				158.17
1,179.75	1,179.75					
252,770.89	209,157.91	43,612.98	\$ 39,627.37			3,975.61
146,464.46	84,241.86	62,222.60	62,187.97			34.63
15,000.00	7,440.89	7,559.11	7,557.46			1.65
25,000.00	24,962.50	37.50				37.50
20,000.00	10,347.20	9,652.80	6,016.58			3,636.22
530.00	491.78	58.22				58.22
10,000.00	675.89	9,524.11	9,084.75			439.36
550.00	375.31	174.69	166.85			7.84
\$ 1,149,225.46	\$ 1,014,510.55	\$ 134,714.91	\$ 124,676.29			\$ 10,038.62
\$ 14,788.00	\$ 10,161.11	\$ 4,626.89				\$ 4,626.89
632.12	558.25	73.87				73.87
9,364.92	8,218.84	1,146.08				1,146.08
\$ 24,785.04	\$ 18,938.00	\$ 5,847.04	\$ 42.03			\$ 5,805.01
\$ 36,137.27	\$ 33,204.33	\$ 2,932.94				\$ 2,932.94
438.49	438.49					
19,337.80	15,691.06	3,646.74	\$ 3,295.00			351.74
\$ 53,913.56	\$ 49,333.88	\$ 4,579.68	\$ 3,295.00			\$ 1,284.68
\$ 9,522,011.24	\$ 8,584,400.38	\$ 937,610.86	\$ 528,680.97	\$ 4,500.00		\$ 389,449.89

DEPARTMENT OF HIGHWAYS & TRANSPORTATION  
 COMPARATIVE STATEMENT OF EXPENDITURES BY DIVISIONS  
 AND SPECIAL FUNDS  
 FOR THE YEARS ENDED JUNE 30, 1973 & 1972

	<u>YEAR ENDED JUNE 30</u>		<u>INCREASE/ (DECREASE)</u>
	<u>1973</u>	<u>1972</u>	
<b>GENERAL FUNDS</b>			
Office of Secretary	\$ 101,049.44	\$ 76,126.37	\$ 24,923.07
Office of Administration	646,982.82	566,207.97	80,774.85
Division of Highways	8,584,400.38	7,382,532.57	1,201,867.81
Division of Transportation	488,099.83	379,435.08	108,664.75
<b>SUB TOTAL</b>	<b>\$ 9,820,532.47</b>	<b>\$ 8,404,301.99</b>	<b>\$ 1,416,230.48</b>
<b>SPECIAL FUNDS</b>			
<b>Construction Funds:</b>			
U.S. Grant - Advance Right of Way	\$ 327,700.00	\$ 216,875.00	\$ 110,825.00
Highway Improvements 1959	1,366,863.00		1,366,863.00
Highway Construction Fund 1961	2,168,564.96	1,331,045.77	837,519.19
Highway Construction Fund 1964	14,755,416.54	10,359,795.68	4,395,620.86
Garrison's Pond Dam	33.98		33.98
Delaware River & Bay Authority	34,611.18		34,611.18
Capital Improvements 1966	483,883.20	1,209,491.44	(725,608.24)
Capital Improvements 1967	1,662,002.24	1,841,356.59	(179,354.35)
Capital Improvements 1968	2,534,374.13	2,973,174.66	(438,800.53)
Capital Improvements 1969	1,980,131.92	6,397,688.12	(4,417,556.20)
Special Construction Funds	28,019.94	24,623.48	3,396.46
Capital Improvements 1970	1,826,410.69	7,764,110.73	(5,937,700.04)
Capital Improvements 1971	7,109,602.41	6,003,674.90	1,105,927.51
Capital Improvements 1972	6,298,697.29	1,028,575.77	5,270,121.52
Capital Improvements 1973	12,197,918.52		12,197,918.52
Court Street Appraisal		250.00	(250.00)
<b>TOTAL CONSTRUCTION FUNDS</b>	<b>\$ 52,774,230.00</b>	<b>\$ 39,150,662.14</b>	<b>\$ 13,623,567.86</b>
<b>OTHER SPECIAL FUNDS</b>			
U.S. Grant - National Transportation			
Needs Study	\$ 18,780.18	\$ 14,500.00	\$ 4,280.18
Emergency Employment Act	11,969.96		11,969.96
Federal Aviation Adm. Grant	7,199.01		7,199.01
Escrow Account	85,198.66	17,790.75	68,407.91
Sussex County Motor Pool	26,989.34	1,673.73	25,315.61
Traffic & Planning	117,410.49	19,299.10	98,111.39
<b>TOTAL OTHER</b>	<b>\$ 268,547.64</b>	<b>\$ 53,263.58</b>	<b>\$ 215,284.06</b>
<b>SUB TOTAL SPECIAL FUNDS</b>	<b>\$ 53,042,777.64</b>	<b>\$ 39,203,925.72</b>	<b>\$ 13,838,851.92</b>
<b>TOTAL</b>	<b>\$ 62,863,310.11</b>	<b>\$ 47,608,227.71</b>	<b>\$ 15,255,082.40</b>

MAPS DEPICTING  
CONSTRUCTION & DESIGN  
PROJECTS





○-UNDER CONSTRUCTION OR BUILT  
□-UNDER DESIGN

**NEW CASTLE COUNTY**

NEW CASTLE COUNTY

Construction:

- ① 68-04-003 Route 9 - Road 381 to New Castle
- ② 68-10-018 Casho Mill Road
- ③ 71-06-004 Delaware Avenue Beautification
- ④ 71-06-001 New Castle Avenue
- ⑤ 70-10-008 U.S. 13 Resurfacing - Rogers Corner to Tybouts Corner
- ⑥ 71-04-003 Resurfacing Brandywine River Bridge
- ⑦ 68-08-004 Silverside Road
- ⑧ 67-10-012 12th Street Wilmington
- ⑨ 71-04-004 Intersection Improvements - Elsmere
- ⑩ 70-04-008 Newark TOPICS
- ⑪ 71-02-010 Intersection Improvements
- ⑫ 70-10-011 Kirkwood Highway - Possum Park Road to Polly Drummond Hill Road
- ⑬ 72-05-001 Edgemoor Road

Design:

- 1 67-12-001 Rt. 896 - Newark to Maryland Line
- 2 69-11-004 Grubb Rd. - Roulk Rd. to Naaman's Road
- 3 70-10-001 11th Street, Wilmington
- 4 70-10-010 Henderson Road
- 5 71-11-006 Otts Chapel Rd. - Elkton Rd. to I-95
- 6 72-12-006 Otts Chapel Rd. - I-95 to Old Balt. Pike
- 7 72-02-006 Brookside Connector
- 8 72-01-001 Lancaster Pike and Valley Rd. (Hockessin)
- 9 66-09-005 Centerville Road and Hillside Road - Spot Improvements



KENT COUNTY

Construction:

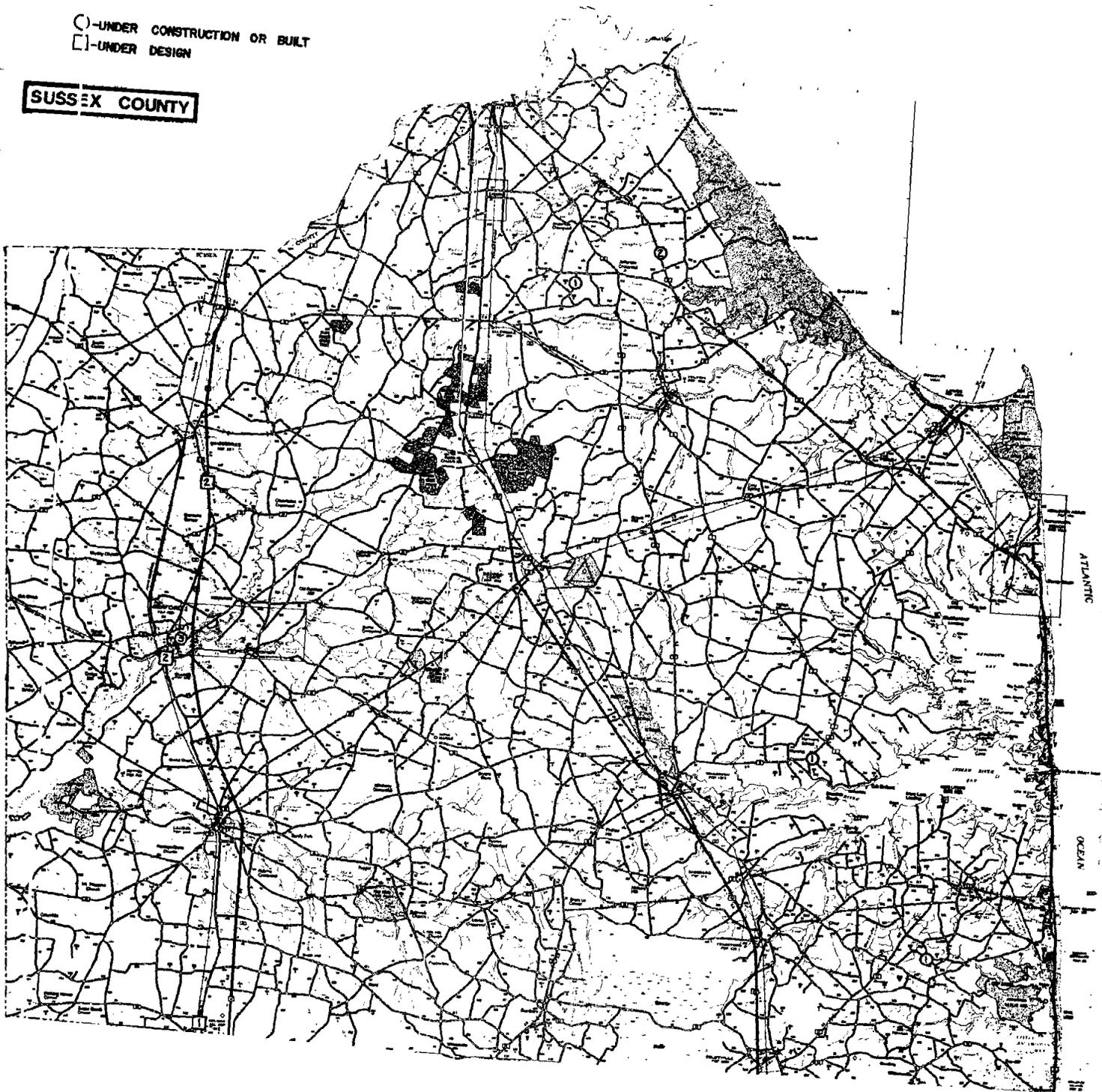
- ① 71-05-002 Dirt Roads
- ② 70-03-020 Smyrna Drainage
- ③ 71-02-011 Bishops Corner, Cheswold
- ④ 72-05-002 Dirt Roads

Design:

- 1 70-10-005 U.S. 13 - Delaware 10 to Coopers Corner - Safety Improvements
- 2 72-02-003 Camden and Webbs Lane Connectors
- 3 72-04-001 Intersection Improvements
- 4 71-05-004 U.S. 113 - Frederica to Little Heaven
- 5 71-11-007 Road 52 - Wyoming to Hazlettville
- 6 71-11-001 West Dover Bypass - Penn. R.R. to Rd. 100

○-UNDER CONSTRUCTION OR BUILT  
□-UNDER DESIGN

**SUSSEX COUNTY**



SUSSEX COUNTY

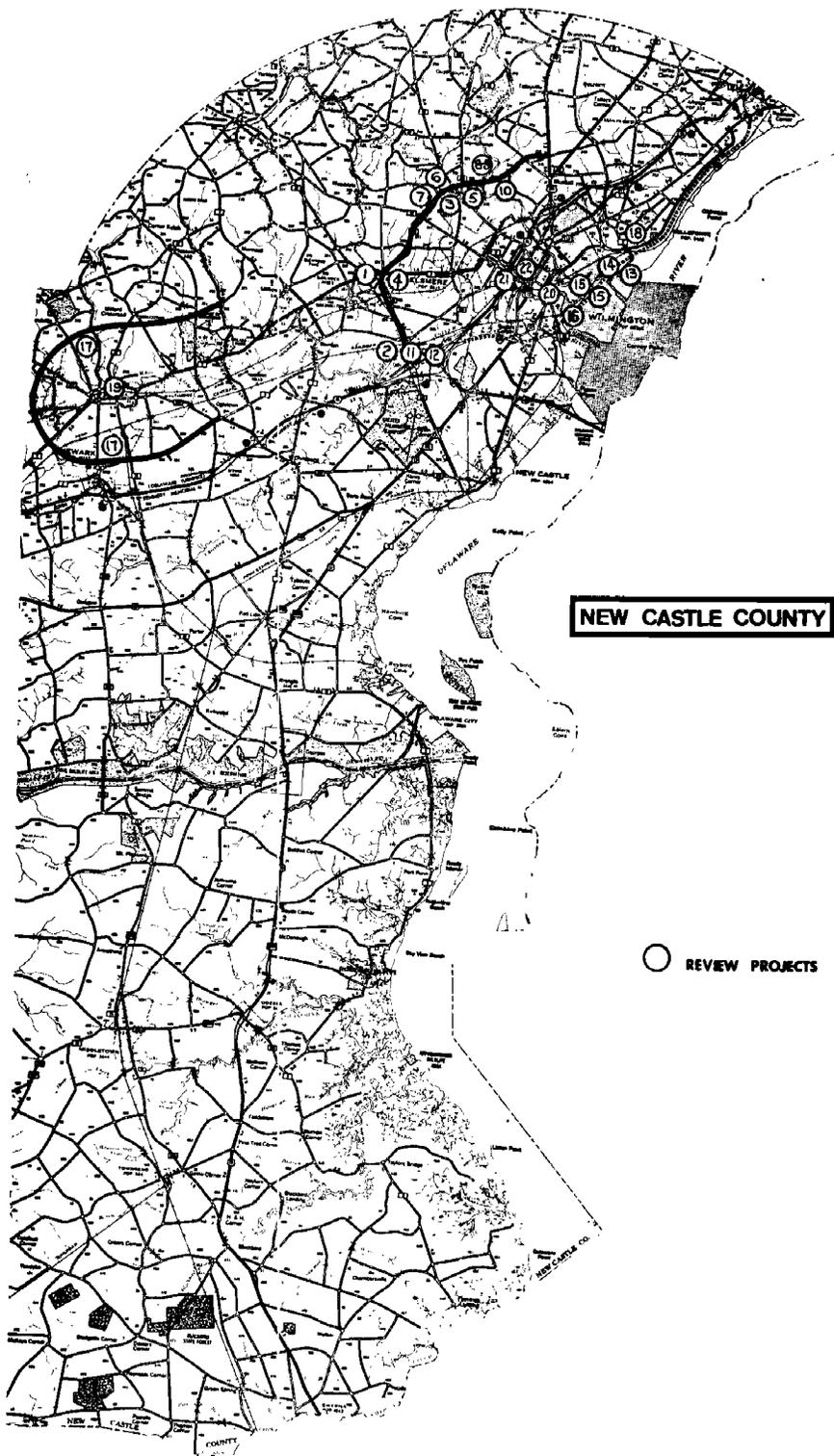
Construction:

- ① 71-05-005 Dirt Roads 229, 313A and 367A
- ② 68-03-001 Route 14 Dualization - Route 16 to  
Milford Bypass
- ③ 70-10-004 Road 535 - Seaford

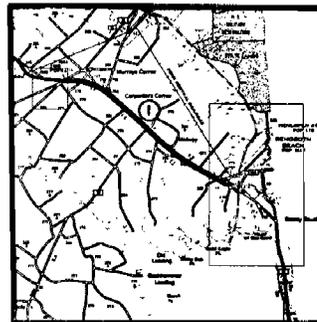
Design:

1. 71-03-007 Delmar Streets
2. 71-02-012 Intersection Improvements

MAPS DEPICTING  
REVIEW PROJECTS



**KENT COUNTY**



**SUSSEX COUNTY**

## REVIEW PROJECTS

### NEW CASTLE COUNTY (Awarded)

- ① 69-02-002 Phase II, Prices Corner Interchange
- ② 71-02-007 Substructure thru Newport
- ③ 71-09-005 Kennett Pike Reconstruction and Structure  
Route 141 (Under Design)
- ④ 69-02-003 Phase III, Prices Corner Interchange
- ⑤ 71-09-006 Grading and Paving, Station 294 to  
Brandywine Creek
- ⑥ 71-09-007 Grading and Paving, Reading RR Bridge to  
Kennett Pike
- ⑦ 71-09-008 Grading and Paving, Lancaster Pike to  
Reading Railroad
- ⑧ 70-08-003 Brandywine Creek Bridge - Substructure
- ⑨ 70-08-003 Brandywine Creek Bridge - Substructure
- ⑩ 70-08-003 Grading and Paving, Brandywine Creek  
Bridge to Rockland Road
- ⑪ 71-02-008 Superstructure thru Newport
- ⑫ 71-02-009 Depressed Section thru Newport  
Route I-495
- ⑬ Grading and Paving, Christina River to Edgemoor Road  
I-495, Structures  
(1) Penn Central Mainline  
(2) Edgemoor Road
- ⑭ I-495, Structures  
(1) Penn Central Edgemoor  
(2) Shellpot Creek
- ⑮ I-495, Structures  
(1) 12th Street over I-495  
(2) 12th Street over Penn Central
- ⑯ Three Structures over 84" Sanitary Sewer

(Other)

- ① 70-12-003 Newark Arterial, Ogletown to Elkton Road
- ① 70-04-012 Lore Avenue
- ① 70-08-009 Cleveland Avenue, Route 3 Intersection Improvement
- ② 71-10-001 Third Street Bridge Replacement
- ② 69-11-002 South Wilmington Connector, I-95 to Jefferson Street
- ② 72-04-005 South Wilmington Connector, Jefferson Street to 4th Street

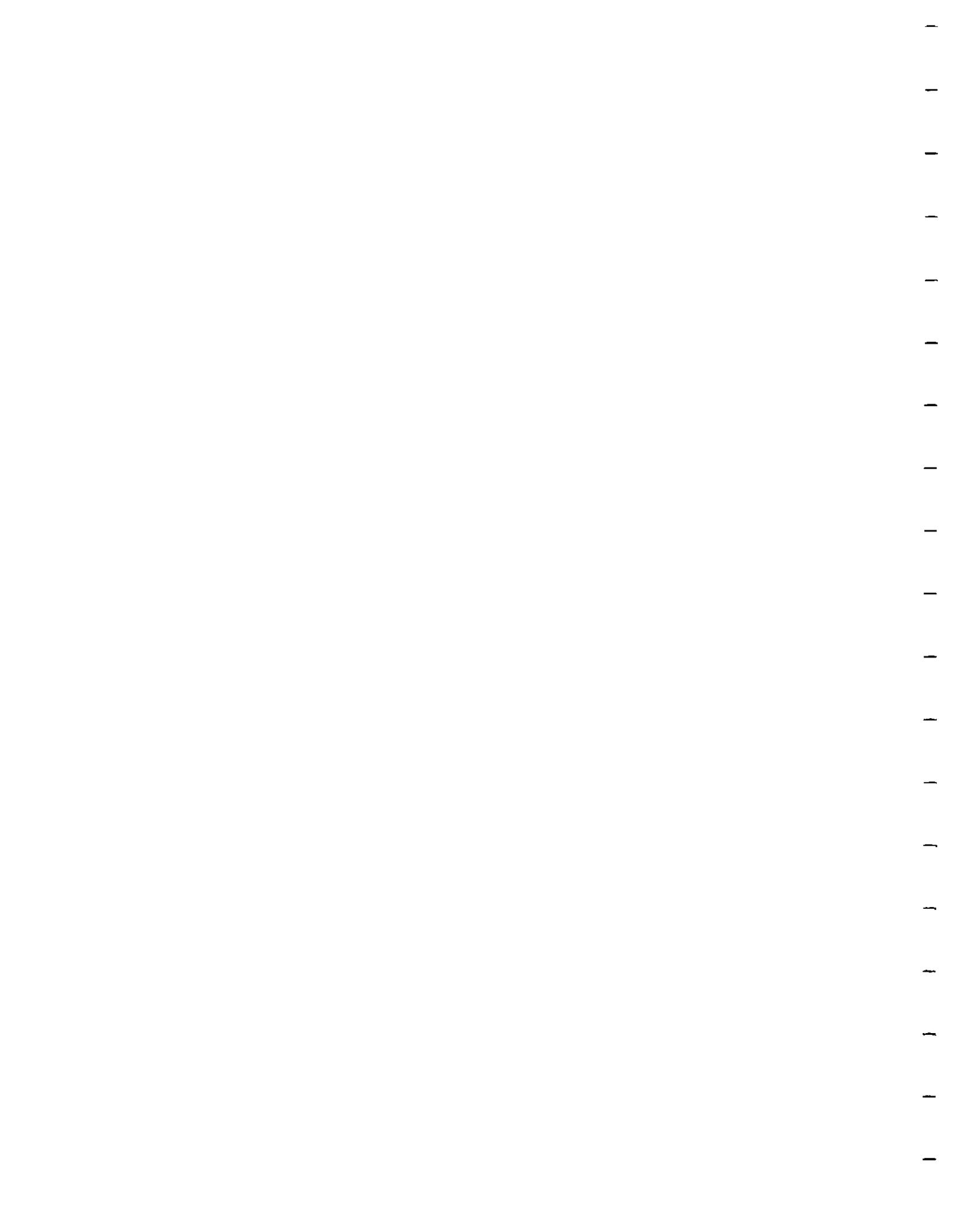
KENT COUNTY

- ① 69-02-021 U.S. Route 13, Frederica to Penn Central

SUSSEX COUNTY

- ① 67-10-015 Rehoboth Bypass

MAPS DEPICTING  
BRIDGE PROJECTS

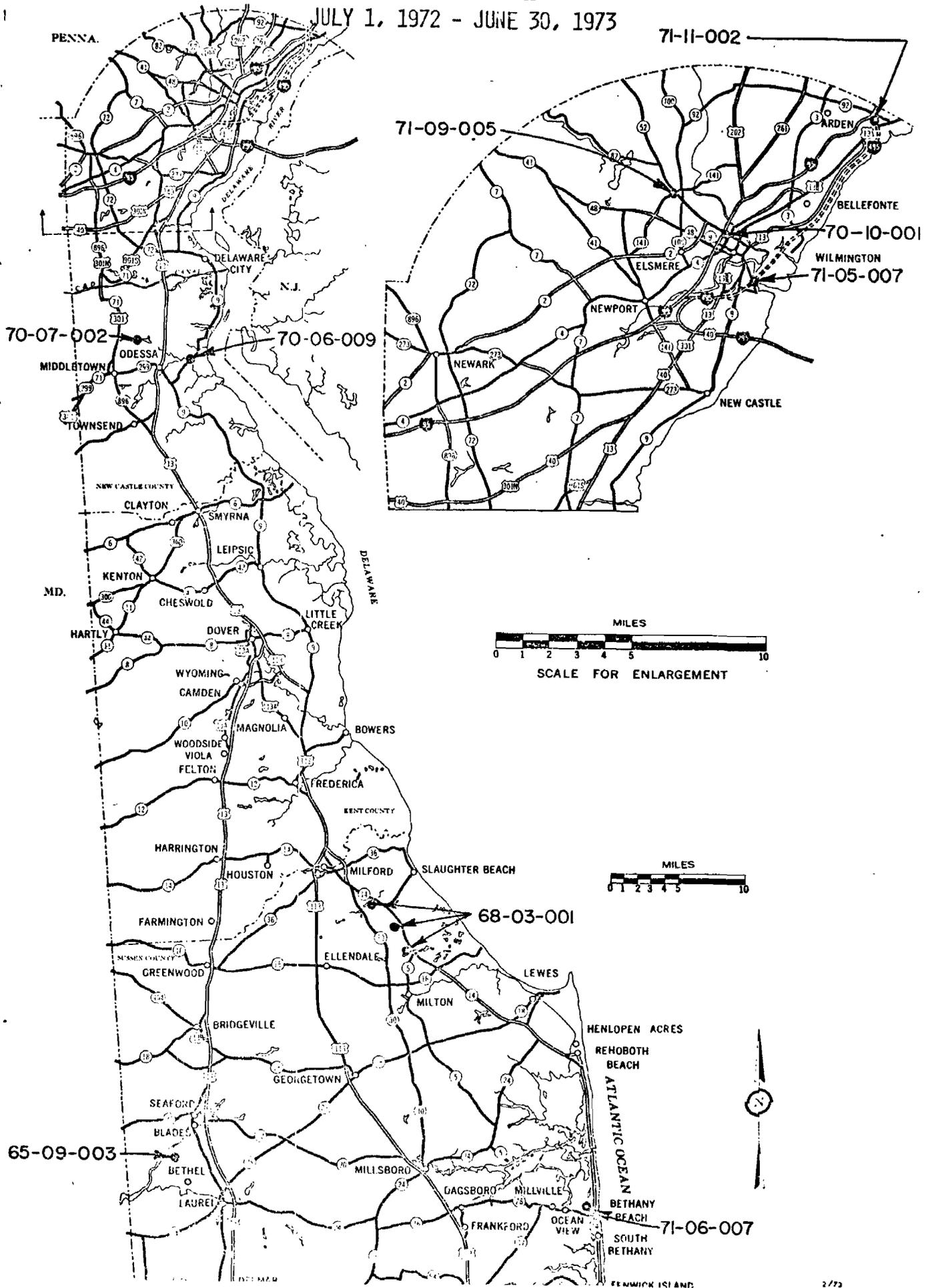


# STATE OF DELAWARE

## STRUCTURAL CONTRACTS

BIDS RECEIVED

JULY 1, 1972 - JUNE 30, 1973



BRIDGE  
 STRUCTURAL CONTRACTS  
 BIDS RECEIVED  
 JULY 1, 1972 - JUNE 30, 1973

<u>CONTRACT</u>	<u>CONTRACT DESCRIPTION</u>		
New Castle County			
70-06-009	Reconstruction of Fennimore Bridges	\$	724,355.10
70-07-002	Small Bridge Replacement at Cedar Lane Road, Br. 401 & 402	\$	97,917.80
70-10-001	Overhead Sign Supports, 11th Street, Wilmington	\$	55,644.00
71-05-007	Revisions of Christina River Bridge Superstructure, Br. 813	\$	9,155,623.50
71-09-005	Relocation of Rt. 141 and Rt. 52, Bridge 589	\$	973,600.00
71-11-002	Bridges 798 & 799, Drainage Modifications, Naamans Inter- change	\$	48,625.00
Sussex County			
68-03-001	Dualization of Rt. 14, which includes widening and new construction, Waples Pond	\$	427,115.00
69-05-003	Small Bridge Replacement at Seaford, Bridge 206	\$	56,526.00
71-06-007	Bethany Beach Pumping Station	\$	<u>122,980.00</u>
	TOTAL		\$11,662,386.40