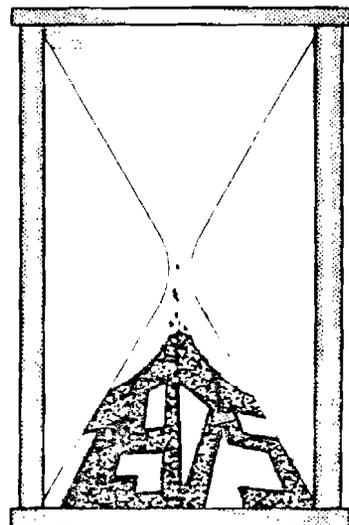


# ANNUAL REPORT 1975



Department of Highways and Transportation

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## DEPARTMENT OF HIGHWAYS & TRANSPORTATION

The Department of Highways & Transportation is involved in meeting the total transportation needs of the State of Delaware.

As the needs of our State vary in that direction, so do the many functions of the Department in striving to reach that goal. From the very basic concept of a roadway, to appropriate accommodations for an air terminal this Department keeps pace with the State's need to move people and goods vital to the economy of Delaware.

On the Administrative level the Public Information Office keeps Delawareans informed of Departmental affairs and responses to requests for pertinent information. The Community Liaison Office directs its efforts towards managing the process of community involvement in highway planning. The Project Scheduling Section schedules projects by use of the critical path method network and monitors each project from date of authorization through all the activities necessary for the project to be available for advertising. Project Scheduling will have 24 projects available for bids in Fiscal Year 1976. Fund appropriations for the Sign Removal Program enabled the Roadside Control Section to begin Phase 1 (Rt. 13, jct. Rt. 13 & Rt. 40 to Kent County 9) of its removal program. In Fiscal Year 1975, 143 land use plans were reviewed by Subdivision Zoning & Design and 118 of those plans were approved.

Under Support, the Bureau of Materials and Research has been working towards improving the quality and effectiveness of materials used in highway construction. The Safety Section monitors work area traffic control procedures used in highway projects, and is also responsible for the overall safety of personnel in the field, shop, yard or office. The Bureau of Traffic instituted various changes, in order to achieve greater flexibility with the minimum staffing currently available.

The Advance Planning Section has been conducting several critical Location Studies, in addition to serving as Department's liaison to the Governor's Bicycle Task Force. Safety Planning has completed "First Filming" of all state maintained roads. The Environmental Studies Office continued to monitor environmental impacts, associated with the transportation system.

In Design, the Review Section is responsible for supervising the preparation of contract plans and specifications for major highway and bridge projects. A total of 34 projects were under design during the past Fiscal Year. These projects were distributed statewide and vary in complexity from simple dirt road resurfacing to complex freeway design. The Department awarded contracts for 20 bridges and other structures in Fiscal Year 1975 with a total construction cost of \$27.5 million. This year an additional 495 utility franchise added 1482 miles to the existing lines.

During Fiscal Year 1975 the Relocation Section gave assistance to 16 families and 47 businesses, farms and non-profit organizations.

In Operations, the Construction Section final inspected and accepted over 37 million dollars worth of projects. Maintenance continued to operate with a large number of inadequate equipment and shortages of material and manpower.

In the Division of Transportation, the Aviation Section completed the State Aviation System Plan Study.

The Aviation Section also completed a book, Delaware Laws Governing Aeronautics.

DART received a grant of \$3,587,585 to be used for 45 transit buses and additional equipment. In operations, DART suffered its first drop in ridership in three years.

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On December 1, 1974 DAST assumed all assets and liabilities of DIMS and began operations as a subdivision of the State of Delaware.

The Rail Section has served as the primary staff for the Governors office in the state's dealings with the entire northeast railroad situation by Legislative action.

In July 1974, the Division of Transportation assumed regulatory authority over public carriers, previously held by the Public Service Commission.

The Transit Plans Section has been actively engaged in the updating of the Short Range Transit Improvements Program and the Kent County Transit Study.

In the Office of Administration, employment was primarily confined to maintenance personnel. The hiring freeze was adhered to all but critical areas of the Department. Minority employment was stressed in accordance with the Department's Equal Employment and Affirmative Action Programs.

Unified Systems Planning is furthering its process in establishing and maintaining optimum, comprehensive, region wide, multi-modal forecast transportation plans. As the multi-modal transportation systems planning component, of the Wilmington Metropolitan Area Planning Coordinating Council, Unified Systems Planning has made every effort to maintain internal and external agency coordination in appropriate areas.

More detailed information pertaining to Unified Systems Planning and other topics touched upon in this summary, can be found in other parts of this Report.

### COUNCIL ON HIGHWAYS

The Council on Highways serves at the pleasure of the Governor in an advisory capacity. The Council meets the third Tuesday of each month. The members on the Council on Highways are:

<u>Member</u>	<u>Term Expires</u>
Raymond Townsend, Chairman (reappointed Chairman 9/17/74)	8/9/76
William Philip Short, Jr.	10/6/76
Robert A. Fulwiler, Jr. (vacant)	6/5/75
Kenneth E. English	8/9/76
Ernest S. Spence, Jr.	8/9/76
John W. Fennemore, Jr.	9/29/77
Kathryn T. Derrickson (replaced Eugene Auen - Resigned 9/17/74)	8/9/76

## COUNCIL LIAISON

During the Fiscal Year 1975 eleven meetings were held. A special meeting was held in the Governor's Office relative to the function and responsibilities of the Council.

### COUNCIL ACTIVITIES

#### Resolutions:

- (1) The impact regarding offshore drilling would have on our Department as well as other State Agencies.
- (2) The layoff within the Department of Highways and Transportation that would exist if a "Bond Bill" does not pass the 128th General Assembly.

#### Approvals:

- (1) The Program of Work submitted for Fiscal Year 1975-76 was approved November 19, 1974.
- (2) The Capital Improvement Program was approved December 17, 1974.
- (3) The Policy on Dirt Roads with a minimum of thirty feet right of way where determined feasible by the Division of Highways.
- (4) Condemnation approval for dirt roads was withheld in May stating that Road 288A and Road 373 would be used as examples for construction using both 30 foot and 50 foot right of way without condemnation.
- (5) Rules and Regulations for Outdoor Advertising were approved.
- (6) An interim policy for erection and maintenance of signals in municipalities since a Federal program had been established on a 90-10 basis.
- (7) Franchise Annual Fee Schedule and Regulations were adopted. (It must be submitted to the Attorney General's Office for approval).
- (8) The Department of Highways and Transportation, by an Attorney General's Opinion, and the approval of the Council accepted the maintenance and repair on the Maple Avenue Bridge, Milford.
- (9) The Council accepted the Department's recommendations on the replacement of three bridges, No. 118, 128 and 593, on Barley Mill Road at Ashland near Del. Rt. 82. Bridge No. 118 (Ashland Covered Bridge) is on the National Register of Historic Places.
- (10) New Castle County along with the Division of Highways is in agreement a new bridge is needed

to replace Bridge No. 290 on Rt. 273 at Broad Dike. The Council accepted the concept; therefore, advance planning can be prepared.

#### Reports:

- (1) Reports from the other Divisions within the Department were given periodically at the Council meetings.
- (2) The status of the Budget for Fiscal Year 1975-76 was reported to the Council. In the area of appropriated funds, the Department requested \$37 million and received a little over \$34 million.
- (3) The Emergency Bond Bill was signed by the Governor on February 2, 1975, which prevented a threatened layoff.
- (4) The Bond Bill for Fiscal Year 1976 was signed July 11, 1975 by the Governor. The amount for the Division of Highways is \$41,579,150 (State Money). This will enable the Division of Highways to receive \$46,673,533 Federal money.
- (5) The Director of Highways reported on President Ford's announcement releasing \$2 billion of Federal Aid Highway Funds for obligations in Fiscal Year 1975. The money will be distributed on "first come, first serve" basis. The staff worked feverishly to line up as many projects as possible for advertising and bidding in order that our State should not be penalized.
- (6) An internal Highway Day was held on Monday, February 24th, for Council Members and Legislators. The Chairman stated he found it very interesting and worthwhile but regretted that more Legislators had not attended.

## DIVISION OF HIGHWAYS

### ADMINISTRATIVE ENGINEER

#### PUBLIC INFORMATION OFFICE

Keeping Delawareans informed, as well as utilizing public input, has been the sustaining task of the Public Information Office.

Improved coordination with the media has resulted in increased communications with the public.

As in the past, the Public Information Office has continued to provide information pertinent to Department affairs. On the most part, this was accomplished through the use of news releases offered to radio, newspapers and television.

An additional means of communication has been the production and presentation of several slide programs, portraying Departmental functions. These have been viewed by various interested groups in the state. These presentations generate dialogue which are proving to be extremely useful in furthering the understanding between the Department and the public.

A strong support function, in the form of photographic capabilities, has proven to be a valuable asset in its first year of operation.

The Public Information staff photographer handles all of the photo reproduction duties for the Department including aerial, color and graphics. This work is in addition to the regular news photography and the public presentation programs.

In its efforts to document past accomplishments of the Department, and to illustrate the history making role of the Department in the past, the Public Information Office has embarked on the task of cataloging and condensing past and present information concerning the Department into a conventional and usable form.

Upon request, this office has prepared special articles and reports for use by the media and other state offices; and has provided data in support of Operation Beach Traffic.

This Section developed and instituted the "Response Line", and at the request of the Chief Engineer coordinated the production and issuance of identification cards to all Departmental employees.

#### COMMUNITY LIAISON

Fiscal Year 1975 was the first full year of operation of the Department of Highways & Transportation's Citizen Participation Advisory Council. The Community Liaison Office served as executive staff to the CPAC. The Department created this citizen group for the purpose of helping the Division of Highways improve the process by which citizens are involved in transportation development decisions. The group has met regularly during the year providing useful advice to the Division for the conduct of studies in systems planning, project planning and road design. The Chairman of CPAC is Robert M. Heinz of Fairfax. Major accomplishments during the year were the design of community involvement programs for important planning projects in New Castle County.

During the past year numerous meetings have been coordinated by the Community Liaison Office between citizens' groups and the Department. These meetings have increased public awareness of the Department's plans for highway improvements. They have also helped the Department make the plans better by improving their responsiveness to local needs and conditions.

#### Community Liaison Public Meetings in FY 1975

CPAC Meetings	12
Public Hearings	2
Formal Public Meetings	7
Informal Public Meetings	<u>22</u>
TOTAL	43

In addition there were a large number of individual conversations with private citizens relating to projects in planning or design and to general Department policy.

Action Plan revision efforts began in FY 1975. The revision will be complete in September 1975. The objective of the revision efforts is a simpler Action Plan which will have greater acceptance by both the Department and the community.

The Community Liaison Office also prepared the Department's Title VI guidelines for the implementation of the Federal Civil Rights Act of 1974. These were approved by the Federal Government and have begun to be implemented.

#### EEO

All Department construction contracts have been monitored by the Equal Employment Opportunity Officer to assure that equal employment and fair labor practices and provisions of construction contracts are adhered to by construction contractors. Supportive services and training programs for disadvantaged and minority persons have been operated by the Delaware Opportunities Industrialization Center with support from the Delaware Contractors Association and the Federal Highway Administration.

#### PROJECT SCHEDULING AND SUPPORT

##### Planning Support and Mapping

The Planning Support Section was engaged largely in the day to day duties of administration involving control and general services, purchases, payrolls, budgeting, and fiscal matters for Engineering Administration, Project Planning, Design and Unified Systems Planning.

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 and preparation of our Bicentennial Edition has begun. The pictorial side of this map is prepared by the Department of Community Affairs and Economic Development. Various Incorporated City and Town Maps of Delaware were revised and printed. A map manual was prepared and distributed to other states.

A large amount of time was spent on maps, reports, charts and graphics. Most of these projects were for such

sections as Unified Systems Planning, Project Planning and Safety Planning.

### Six-Year Capital Improvements Program

The Six-Year (1976-1981) Capital Improvements Program was reviewed, up-dated and, after approval by the Council on Highways, submitted to the State Planning Office. On June 28, 1975, the Capital Bond Bill was passed by the State Legislators. The Division of Highways' portion of this Bond Bill amounts to \$41,579,150.00. This is the largest Bond Bill that the Division has ever received. Of the \$41,579,150.00, the Legislature has approved \$9,826,000.00 for Corridor Projects and \$13,189,150.00 for Non-Corridor Projects which takes a major portion of the State Highway Budget.

All other programs and approved funds are listed below:

Intersection Improvements	\$1,471,000.00
Traffic Signal Improvements	150,000.00
Small Bridge Replacements	1,080,000.00
Miscellaneous Small Projects	1,628,000.00
Dirt Road Program	1,000,000.00
Suburban Street Improvements	3,500,000.00
Engineering and Contingencies	2,600,000.00
Advance R/W Acquisition	200,000.00
Pave & Rehabilitate Primary and Secondary Roads	2,800,000.00
Long Life Heavy Equipment	1,100,000.00
Suburban Drainage Program	1,535,000.00
Health Insurance, Pensions & FICA	1,500,000.00

### 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. Data relative to finance and personnel are displayed by graphic presentations on 5 charts in the Department's Chart Room and the Office of the Chief, Project Scheduling and Support.

The following 24 major projects will be available for advertising for bids during fiscal year 1976.

CONTRACT NO.	DESCRIPTION	COST ESTIMATE (CONST.)
74-12-010	I-495 (Paving Christina River to Edgemoor Road), N.C. Co.	6,500,000.00
67-10-015	Rehoboth Bypass (S.B. Super-structure & Approaches, Paving), Sussex County	3,800,000.00
75-06-001	I-95, I-295, I-495 - Structure & Paving, R.E. & Const., N.C. Co.	7,400,000.00
69-11-002	Wilmington Boulevard (I-95 to Jefferson St.), N.C. Co.	9,600,000.00
72-04-005	Wilmington Boulevard (Jefferson St. to 4th St.), R/W & Partial Const., N.C. Co.	4,970,000.00
-	King & Walnut Sts. (4th to 8th Sts.), N.C. Co.	800,000.00
-	Safety Improvements - Statewide	2,800,000.00

CONTRACT NO.	DESCRIPTION	COST ESTIMATE (CONST.)
-	Del. 9 - Tidewater to Delaware City, N.C. Co.	510,000.00
-	Kent Co. Rd. 88, Nichols to Rt. 9, Kent County	900,000.00
73-10-011	Ruthby Road - B & O Underpass/ Approaches, N.C. Co.	1,907,500.00
72-02-004	Ruthby Rd. - P.C. Overpass, N.C. Co.	2,150,000.00
75-04-013	Del. Rt. 10, U.S. 13 to U.S. 113, Kent Co.	3,600,000.00
73-08-012	Denney Road, P.E., R/W & Partial Const., Kent Co.	1,500,000.00
65-11-003	Swanwyck Connector (U.S. 13 to Moore's Lane), N.C. Co.	550,000.00
74-01-004	New Road (Dupont Road to Sander Road), N.C. Co.	350,000.00
72-04-003	Polly Drummond Hill Road (Partial), N.C. Co.	500,000.00
-	W. Chestnut Hill Road (Del. 896 to Arbour Dr.), N.C. Co.	500,000.00
-	Cedar St., Lewes (Partial), Sussex Co.	625,000.00
72-09-007	Woodland-Port Mahon (Completion of Project), Kent Co.	400,000.00
73-12-003		
72-10-009	Moore's Lane, N.C. Co.	1,000,000.00
-	East Street, Harrington (Del. 14 to Race Track), Kent Co.	115,000.00
72-04-003	New Connector Road (Del. 2 to Del. 896), N.C. Co.	3,200,000.00

### MANAGEMENT SYSTEMS

The Highway Maintenance Management Program is on-line and producing monthly reports that are being analyzed at the District and Maintenance Headquarters. This section coordinated and completed the FHWA management training series, "Managing Highway Maintenance", for all Foremen and Area Supervisors. The maintenance work standards have been developed for 80% of the total cost in highway maintenance. This section has developed a Work Standards and Scheduling Manual, and once it is implemented it will complete the Highway Maintenance Management System.

The Equipment Maintenance Management System is still in the development stages. Some of the systems design and programming have been completed. We are able to report, on a semi-annual basis, the operating cost and repair cost of equipment. It is hoped that the system will be completed by the end of Fiscal Year 1976.

The Management Systems Section has developed Annual Work Programs with performance budgeting in mind, thus making it a vital tool for use by top management.

The section is continually monitoring and refining its systems in order to meet Departmental needs.

## HAULING PERMITS

COUNTY	NO. OF PERMITS	NO. OF BLOCK VALIDATIONS	VALUE	BLOCK RECEIPTS	TOTAL VALUE
New Castle	1,176	-----	\$ 5,832.23	-----	\$ 5,832.23
Sussex	1,230	-----	8,499.74	-----	8,499.74
Kent	19,343	9,714	70,014.35	\$ 47,000.00	117,014.35
<b>TOTALS</b>	<b>21,749</b>	<b>9,714</b>	<b>\$ 84,346.32</b>	<b>\$ 47,000.00</b>	<b>\$ 131,346.32</b>

### SUMMARY OF RECEIPTS

Total Value -----	\$ 131,346.32
Transferred to Accounts Receivable -----	63,644.43
Daily Deposits -----	67,701.89
Received on Account -----	64,081.90
Overpayments -----	.02
<b>TOTAL DEPOSITS -----</b>	<b>\$ 131,783.81</b>

### BREAKDOWN BY TYPE OF PERMIT

8,109	Heavy Hauls
6,732	Mobile Homes
488	Piling (30-day) (8 of these for periods of 1-year)
47	Piling (Trip)
241	Buildings
527	Boats
4,763	Construction Equipment (Private)
711	Construction Equipment (Government)
81	Construction Equipment (Highway)
50	Void
<b>21,749</b>	<b>TOTAL</b>

## ROADSIDE CONTROL

Receipts for fiscal year 1975 were as follows:

Outdoor Advertising Sign Permits	\$15,122.00
Junkyard Licenses	780.00
<b>TOTAL</b>	<b>\$15,912.00</b>

As of March 27, 1975, Outdoor Advertising Permit Fees were changed according to size of the sign rather than a flat rate. The fee is as follows:

Size of Sign	Fee
1 - 30	\$ 5.00
30 - 100	10.00
101 - 300	15.00
over 300	20.00

This fee change will take effect for signs already in existence on our annual billing of January 1, 1976.

The Sign Removal Program is underway. Phase I, Route 13, Junction 13 and 40 to Kent County Line, is near completion.

A junkyard inventory was compiled. However, extensive research is required to determine the status of each junkyard.

The Abandoned Vehicle Program has been in operation in Kent and Sussex Counties.

## SUBDIVISION ZONING & DESIGN

This year the Subdivision Zoning and Design Section has reviewed 143 land use plans covering 5114 acres and including 11,435 living units. In addition, this section has approved for recording purposes 118 land

use plans consisting of 3,914 acres and 8,518 living units. Thirty-three Performance Bonds, representing 10% of estimated construction costs, were received and approved. These Bonds covered 15.3 miles of roadwork totaling \$234,258.55 which represents the amount held by the Department until the streets have been completed to specifications. Four Voluntary Completion Bonds in the amount of \$24,500.00 representing 150% of the uncompleted construction costs were received and approved. There were 9.018 miles of subdivision streets accepted into the state maintenance system. Numerous meetings were attended coordinating with other governmental agencies, consultants, developers, contractors and the public. In addition to these accomplishments, many drainage problems were investigated and commented on also, several Suburban Road Act projects were coordinated by this office.

The past year has been a prosperous year for land development which directly reflects good coordination and higher standards. The Subdivision Zoning & Design Section is striving every year to improve coordination so that we may better serve the needs of the public.

## RIGHT OF WAY

Total right of way expenditures for the year were \$1,995,789. Relocation payments accounted for \$184,313 of the total expenditures.

During the year the Relocation Section relocated 16 families and 47 businesses, farms and non-profit organizations. In most instances the inconveniences suffered by persons being relocated were offset by the fact that they moved into better accommodations at no additional expense.

As a direct result of the Department's policy to become more involved in advance acquisitions, the Property Management Section received \$70,921 in rentals during the year. In addition, \$52,165 was received from the sale of improvements and land. This year was by far, the most active year for the Property Management Section.

The Bureau of Right of Way met some resistance from the sign industry in the acquisition of non-conforming signs and billboards, as mandated by Delaware Law. The main problem was the price to be paid to the companies for their signs. This obstacle has been largely overcome by the adoption of Uniform Schedules of payment for certain classes of signs.

Acquisition and relocation work was performed for the Department of Natural Resources and Environmental Control and the Division of Historical and Cultural Affairs.

Road closure proceedings resulted in the official vacation of 12 old or abandoned roads in the State during the year. Upon closure the Department is relieved of any and all responsibility for further possible maintenance.

#### SPECIAL ASSIGNMENTS

During Fiscal Year 75, an organizational manual for the Division of Highways was completed. This manual fixes the authority and responsibilities of all positions shown on the organizational charts dated December 1, 1974.

In order for a contractor to participate in the competitive bidding process of the Department of Highways and Transportation, we must first prequalify.

There were 194 prequalified contractors in year 1974-1975. Twenty-six (26) did not renew by May 31, 1975, however, twenty-five (25) new contractors were prequalified during the year, having a total for this year of 193. A breakdown of out-of-state and Delaware contractors is as follows:

127 out-of-state contractors with a total net surplus of \$7,702,744,164.00. 0

65 Delaware based contractors with a net surplus of \$617,853,605.00 - (this figure includes Warren Brothers \$568,077,678.00).

Therefore, the total net surplus of 193 prequalified contractors is \$8,320,647,769.00 - or using a factor of 10 = \$83,200,000,000.00.

## SUPPORT

### MATERIALS & RESEARCH

The Bureau of Materials and Research maintains a laboratory with complete testing facilities in Dover at the Administration Center, as well as, a project field control office and soils testing laboratory at the Newport Yard to inspect, sample and test all engineering materials used in construction of highways and bridges throughout the State. Materials and Research personnel are primarily responsible for maintaining quality control of all construction materials through a comprehensive sampling, testing and inspection program.

For several years the project field control office was located on New Castle Avenue in Wilmington; however, recurring vandalism and break ins resulted in increasing operating costs at that location. Upon acquisition of facilities at Newport for a maintenance yard, provisions were made to relocate in a section of the Newport complex. This brought about a savings in operations and maintenance costs. The New Castle Avenue property was sold shortly after our relocation to Newport.

While most of the activities of this section were directed towards testing and quality control, numerous research projects and special studies were also undertaken. A statewide evaluation of bridge decks for chloride contamination due to application of de-icing salts was made. Corrosion of bridge deck steel by chlorides has developed into a major maintenance problem in many states. Preliminary testing seems to indicate Delaware's bridge deck problems are not as severe as those of surrounding states.

Pavement surfaces throughout the State are continually tested and evaluated with respect to slipperiness. Testing is accomplished through the use of a specially designed, highly instrumented skid test unit which enables detection and monitoring of pavement surfaces which may be deficient in skid resistance, and possibly present a safety hazard to the driving public. One of the pavement types under study is the open graded plant mix seal placed on Route 13 north of Camden. This is a specially designed mix to improve skid resistance, reduce tire splash and night glare, and retard ice formation at the roadway surface. In conjunction with studies of pavement surfaces, pavement wear from studded tires and studded tire usage were also investigated. Our results show a negligible increase (approximately .02") in pavement wear over the past year at selected wear study locations such as I-95. This is attributed to the marked decrease in studded tire usage. In northern New Castle County 30% of vehicles surveyed were equipped with studded tires during the winter of 1971. This percentage has dropped to 10% in 1975.

Evaluation of new construction products is a continuing process with our research personnel. The expanding use of epoxy coating systems and bonding compounds has necessitated investigations of performance capabilities of these materials. Testing of various brands of epoxy mortars and adhesives will assist construction personnel in specifying the best product to use for a particular job at a lesser cost.

The bulk of personnel effort in Fiscal 75 was expended in the testing of soils, aggregates, bituminous materials, cement, concrete and paints. Other necessary functions included hot mix and concrete production inspection as well as quality control testing on active construction projects. The volume of work output included the processing of over 6000 soil samples, the inspection of 75,500 cubic yards of concrete and 205,500 tons of bituminous concrete, the testing of 950 asphalt samples as well as over 1000 density tests on bituminous concrete and soils. The soils engineering staff has continued to provide road and bridge design personnel with the subsurface data essential to project planning and design. This included 3500 feet of cased boring work.

Inspect, sample, test and evaluate are the key words with personnel from Materials and Research. 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.

#### **SAFETY SECTION**

The overall effectiveness of this section was adversely affected by the death of the section head and the untimely transfer of two of the other personnel to different jobs.

The Safety Section has been quite active this year in handling traffic control problems that were prevalent in highway maintenance, construction and utility company work areas. Traffic control problems continue to be the area where the safety representatives spend the major portion of their time.

There were 56 employees who completed the American Red Cross Standard First Aid course and 145 who completed a course on defensive driving. A 6 1/2 hour course on O.S.H.A., as related to construction, was presented to 56 construction personnel.

The Division of Highways Safety Manual is being updated to include the latest changes of the Occupational Safety and Health Act (O.S.H.A.). Considerable time and effort is being expended toward revising the Delaware Traffic Control Manual to incorporate changes that will improve on the control of traffic through highway maintenance, construction and utility company work areas.

Considerable time and effort has been expended toward development of procedures and forms to more accurately report personal injuries. The recording of personal injuries is but one of the requirements under the Occupational Safety and Health Act.

Conducted the following conferences:

1. Highway Air Pollution Conference.
2. Traffic Safety For Engineers Conference.
3. Noise Measurements Techniques
4. Hosted Region III Trainers Conference (Pa., Del., Md., Va., W. Va., Washington, D.C.)

Verbal Communications Seminars given for all office employees responsible for intracommunications and communicating with the public.

Cardio-Pulmonary Resuscitation (C.P.R.) mini course given for all employees of the Highway Administration Center (Dover) and other interested personnel who work in the building.

Defensive Driving and First Aid Course given to employees of the three districts.

Following seminars and film showings:

1. Pesticide Seminar
2. Hot-Mix Seminars
3. Lighting Design Seminars
4. Snow Removal Seminars
5. Asphalt Institute Seminar
6. Bridge Deck Seminars
7. Erosion Control Seminars
8. Structures (film)

#### **TRAFFIC**

##### Revisions to the Delaware Code - Rules of the Road

Considerable time and effort was expended by Bureau of Traffic personnel serving on the Rules of the Road Committee in working on the item by item review of the existing sections of the Delaware Code pertaining to the rules of the road and the Uniform Vehicle Code which is backed by the Federal Government.

As a result of these meetings the Rules of the Road Committee drafted a legislative bill which if passed will serve to clear up the current laws pertaining to the rules of the road and introduce some changes.

The bill has passed both houses and is currently awaiting further action by the Senate to a House amendment.

##### Removal of Highway Lighting Units

As an energy conservation measure, the Bureau of Traffic authorized the power company to temporarily

disconnect a number of highway lighting units in late 1973 and in early 1974.

During the year evaluations have been made of these locations and as a result it was determined that certain of the temporarily disconnected highway lighting installations could be removed permanently from service without unreasonably reducing the level of safety at these locations. Since we do not have an extensive lighting program, it was not possible to effect a large number of reductions.

#### Municipal Re-Signing Program

The Bureau of Traffic with the assistance of Federal Funding has embarked on an extensive program to upgrade the signing in the municipalities on a statewide basis.

Each municipality has been field surveyed to evaluate the current signing and to determine what signs should be replaced in order to comply with the standards set by the Manual on Uniform Traffic Control Devices.

As the needs for each municipality were developed, the information was relayed to our Sign Shop where the new replacement signs were manufactured. In those municipalities which were unable to provide crews, our signing crews assisted in the installation of the new signs.

This program is moving along on schedule and it is expected that it will be completed by the end of 1975.

#### Reduction of Traffic Signal Power Consumption

Due to certain changes in technology, we are now able to reduce the power consumption of signal lamps by replacing the existing 67 watt and 116 watt lamps with the new type 60 watt and 107 watt lamps. In a year, the accumulated savings of \$8,247 is more than the cost of the lamps. It should also be noted that the new lamps will consume approximately 11% less electrical current.

#### New Accounting Procedure in Sign Shop

A new accounting procedure was instituted for the Sign Shop facility. Information is obtained from each respective employee on the specific quantities of raw materials used and the length of time required to do a given job. This information is forwarded to the Materials Analyst Section for key punching into the computer. This information will provide valuable information to the Bureau of Traffic in that it will enable us to maintain a constant updated price list to determine the cost of silk screening and fabricating highway signs. This information will also provide a current list of project charges which are used in the purchase of raw materials.

#### Single Head Flashers

A few years ago, the procedure of using two flashing signal heads to replace the single flasher was undertaken in various states to determine if the accident rate at these locations could be reduced. A study of the locations involved in Delaware clearly indicates that the rate of accidents has not lowered since the installation of the additional flasher. As a result, we have discontinued the dual head flashing system and have reverted to the use of the single flashing head. This has resulted in the conservation of 50% of the energy used for flashers.

#### Signals on Flash at Beach Communities in Winter

During the winter months when traffic is relatively light in the beach areas, we have instituted a program of changing selected intersections from a signalized stop and go to control by a signalized flasher. This facilitates a smoother traffic flow with less delays and enables us to reduce the number of bulbs being energized by two-thirds.

#### Pavement Marking Demonstration Program

As a part of the overall Highway Safety Program, the Bureau of Traffic has developed a program in accordance with Section 205, "Pavement Marking Demonstration Program" which is being sanctioned by the Federal Highway Administration and federally funded under the Highway Safety Act of 1973.

The program involves the pavement marking of roads within the State which have either never been marked before or not marked according to current standards.

This program is being directed primarily to rural roads and is being undertaken to determine if the installation of pavement markings can significantly reduce the number of accidents.

#### Secondary and Tertiary Road Signing Projects

A new program is now in its preparatory stages for the replacement of all existing signs on secondary and tertiary roads that do not conform to the Manual on Uniform Traffic Control Devices. This will be a very beneficial program, since a sizeable percentage of our existing signs on the secondary and tertiary system are undersized and many have already exceeded their useful life.

#### Contracts for Pavement Markings

Due to the severe shortage of manpower in our Pavement Markings group, it became apparent that it would not be possible for us to complete the proposed

1975 painting schedule prior to onset of inclement weather halting operations. It was decided that the most feasible way to handle this problem would be to contract a portion of the work to be done to an outside contractor.

As a result, a contract for the application of paint in New Castle County was developed and let. The contract is being carried out on schedule, and it is anticipated that it will be completed on time.

#### Hot Paint Test

Preparations are now underway to advertise a contract for the purpose of testing hot applied traffic paint. This test will be made on a performance basis. Samples will be requested from various manufacturers and placed at a single location for observation. It is felt that with the use of this type of paint, painting operations can be performed safer and with more efficiency. The drying time is much shorter and the use of traffic cones for wet line protection is not required, therefore eliminating one phase of the current operation.

#### Four Day Work Week

During the past year, an experimental program consisting of four work days each week instead of five days was undertaken in the Sign Shop and some other areas.

From the standpoint of energy conservation, it was determined during the test that the four day work week had considerable merit. Energy was saved by having the building at a lower temperature for one day each week and by reducing the energy consumption for each employee traveling to and from work each week by 20%.

Significant savings would result if this program could be implemented on a permanent basis.

### PLANNING

#### ADVANCE PLANNING

Advance Planning has been involved in the following location studies in the last year:

I-95, Route 40 Corridor - A consultant study to produce concept and location plans for all highways in study area. A unique transportation tax concept being developed for a more realistic method of sharing the costs of highways.

Delaware Route 26 Corridor - Study for new highway on new alignment between U. S. 113 in the Dagsboro-Frankford area and Delaware Route 1 at Bethany.

Delaware Route 1-Five Points to Rehoboth - Study to improve the safety and to anticipate development on either side of the highway. It will recommend removal of superfluous crossovers as well as determine proper spacing of intersections.

Delaware Route 7-U. S. 13 to Stanton - Location study for this route on new location; target date for public hearing, fall 1975.

Delaware Route 273-Christiana Bypass - As above on Delaware Route 7 study, a target date of fall 1975 for public hearing.

Bikeways - The Advance Planning Section continued in its function of serving as the Department's liaison to the Governor's Bicycle Task Force. Funds for construction of the bikeways planned in the 1974 Bikeway Study were contained in the State's 1975 Bond Bill approved in March 1975. State Funds in the amount of \$250,000 and Federal Matching Funds in the amount of \$110,000 were received. Priorities were selected and bikeway projects were transferred to the Road Design Section in June 1975.

The original Governor's Bicycle Task Force held its final meeting in April 1975. To carry out future bikeway planning, Secretary Hall appointed a new citizen Bicycle Task Force. In June 1975 the new Bicycle Task Force began working through county planning offices in order to develop countywide bikeway master plans. The Advance Planning Section has assisted the Task Force by conducting informal studies on the possible use of railroad abandonments for bikeways and possible alternations in the Department's construction and maintenance procedures in order to benefit bicyclists.

#### SAFETY PLANNING

Photologging of all the state maintained roads continued during the year and the first filming was completed on June 25, 1975, with a total of 4,768 miles documented on color film, bi-directional, or a total of 9,536 miles photologged from one direction. This Program under the Three-Plus Safety Standards is proving to be very valuable as professional road management engineers and planners discover the versatility and accuracy of the film. The total cost for FY 75 was \$22,380 based on a cost of \$10.77 per mile.

Accident Printouts were expanded to include additional pertinent information required to identify hazardous locations, and the coding sheet has been improved this fiscal year. This benefits the safety planners, safety engineers and all who analyze accident locations, and also reduces costs in time and effort, since it eliminates the necessity of looking at each accident report.

Other accomplishments include a program to install complete guardrails to bridges at sixty nine (69) locations for a total cost of \$282,900.00. This program will benefit all by shielding motorists from the exposed parapet ends. Without exception each crash experience against parapet ends, has resulted in death.

Fourteen (14) new guardrail installations, some in each county, are being installed for a total cost of \$57,400.00. This project will protect a vehicle from some fixed objects and will prevent serious injury or death. Also, a program to connect existing guardrails to the bridge parapets to divert vehicles along the rail instead of guiding them to hit the end involves 134 locations, and will cost \$147,000.00. This program alone will save many lives.

During fiscal year 1975, Highway Safety Funds from Federal sources were used to upgrade, train, motivate and bring the latest state of the art - to designers, engineers, planners and professional employees via seminars, courses and lectures. Also, selected employees attended the annual sessions conducted by The Highway Research Board. A total of \$75,218 was expended on training during this reporting period.

The Highway Safety Section funded and coordinated with the Materials and Research Section on the skid testing continuing program. Last year over 1,491 miles of road surface were tested by the specially equipped test vehicle. As a result roads deficient in friction were selected for improvement.

A tree removal program that will eliminate over three hundred potentially dangerous trees, but will save an average of thirteen lives a year, at a cost of \$153,600.00, is ready for implementation.

Continual effort is being made by the Safety Planning Section to identify hazardous locations and to recommend proper field improvements. Continual effort is also being made in coordinating plans, projects, and all types of construction programs prior to building, to insure that all safety factors are met, and to help eliminate after the fact, additional expense, safety improvements.

A delayed time-lapse caused by the present manual records keeping system is a problem. To increase efficiency, provide current information, and reduce storage space, accident records should be micro-filmed and the vital data placed on printout, available for analysis at the same time.

A new highway safety device called a 'FOLLOWING TOO CLOSE' sign has been installed on Del. 7, southbound lane just south of Stanton. The purpose is to reduce rear end collisions caused by following too close.

This project was funded with the aid of the Governor's Safety Representative using Federal funds in the amount of \$4,458.00. If results are beneficial, additional units may be installed at other high rate accident locations resulting from vehicles following too close.

#### ENVIRONMENTAL STUDIES

In January, 1975 a change was introduced in the environmental assessment procedure thru the Federal Aid Highway Program Manual. Under the new procedure, when a project is introduced, the significance of its impact is determined according to guidelines set forth in the Program Manual. If determined to be of no significance such as signals, obstacle removal or lane widening the project is classified as a Minor Action and project development proceeds. If the impact from the project is determined to be significant, the project is classified as a Major Action. All Major Actions require either an Environmental Impact Statement (EIS) or a Negative Declaration (ND). As the project develops and impacts quantified, the environmental document for the project may develop into an EIS or into ND depending on the magnitude or adversity of these measured impacts.

The section has reviewed about 30 projects to determine significance of the actions. There were 25 projects determined as minor projects for which the development of the project proceeded towards the construction contracts. There were five projects determined to be major projects requiring the preparation of either an EIS or ND for which air, noise, etc. impacts were studied. There were Final ND's prepared for U. S. Route 113, Frederica to Little Heaven and Saulsbury Road in Dover, U. S. Route 13 to North Street. A Draft EIS will soon be completed for Delaware Route 273, Christiana Bypass and considerable work was done towards the preparation of Draft EIS's for Delaware Route 26, Dagsboro to Bethany Beach and Delaware Route 7, Stanton to I-95.

There were supplemental studies prepared for several projects. A noise study was done for U. S. Route 202, Murphy to Silverside Road and an air study prepared for the Rehoboth Bypass. There was also considerable effort put forth on the Bridgeville Bypass towards the development of an EIS. Some work was done for South Chapel Street to implement design measures to reduce erosion during construction. The yearly Consistency Report was made to determine if the system plan for New Castle County was compatible with state air quality planning. The new system plan was found to be consistent.

The Department, thru this section, acted as host for the National Highway Institute Noise Demonstration Team. This team of experts with their noise van containing

over \$100,000 of equipment spent about one week in Delaware. They conducted a public information program showing the use of the equipment and discussed noise pollution. Most of the week was spent in a practicum program introducing Department personnel to the use of the equipment while at the same time collecting usable information at selected project sites.

## DESIGN

### REVIEW

The Review Section is responsible for the supervision of consulting engineers retained by the Division of Highways for the purpose of preparing contract plans and special provisions for major highway and bridge projects.

During the past fiscal year, thirty-three (33) projects with an estimated construction cost of 128.3 million dollars were under the supervision of this section. Nine of these projects at a cost of 14.2 million dollars were advertised for construction. A summary of projects are as follows:

#### PROJECTS ADVERTISED

I-495 Grading & Paving, Christina River to Edgemoor Road	6,013,000
I-495 Structures	2,113,000
(1) 12th St. over I-495	
(2) 12th St. over Penn Central	
(3) Three Structures over 84 <sup>th</sup> Sanitary Sewer	552,000
(4) Terminal Avenue Drainage	630,000
(5) Bridge 6-9 Widening	358,000
Rt. 14 - Bridge over Rehoboth Lewes Canal - Substructure	1,085,000
Third Street Bridge - Wilmington Substructure	2,832,000
Stockdale Streets - Claymont Area	321,000
Holly Oak Streets - Claymont Area	260,000
<b>TOTAL ADVERTISED</b>	<b>14,164,000</b>

#### PROJECTS UNDER DESIGN

Route 141 Projects		
69-02-003	Phase III, Prices Corner Int.	5,500,000
71-09-006	Grading & Paving, Sta. 294 to Brandywine Creek	6,050,000
71-09-007	Grading & Paving, Reading R.R. Bridge to Kennett Pike	4,500,000
71-09-008	Grading & Paving, Lancaster Pike to Reading R.R.	3,800,000
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
Other Projects		
70-06-005	Naamans Road - Rt. 202 to Rt. 13 Part 1 - Rt. 13 to Carpenter's Rd.	3,000,000
	Part 2 - Carpenter's Rd. to Foulk Rd.	2,000,000
	Part 3 - Foulk Rd. to Rt. 202	3,000,000
69-02-021	Dover Bypass - Frederica to Woodside	
	Part 1 - U.S. 13 to Rd. 368	3,800,000
	Part 2 - Rd. 368 to Rd. 31	3,025,000
	Part 3 - Rd. 31 to U.S. 113	5,200,000

70-12-003	Newark Arterial, Ogletown to Elkton Road	
	Part 1 - Augusta Drive to Ogletown	2,200,000
	Part 2 - Del. Rt. 72 to Augusta Drive	5,500,000
	Part 3 - Rt. 896 to Rt. 72	3,000,000
	Part 4 - Rt. 2 to Rt. 896	5,300,000
67-10-015	Rehoboth Bypass	
	Rt. 14 Southbound	
	Superstructure & Approaches	1,300,000
	Rt. 14 Northbound	
	Bridges & Approaches	4,400,000
72-12-002	Savannah Road	
	Bridge & Approaches	3,000,000
75-05-006	Third Street Bridge Wilmington	
	Superstructure	5,000,000
69-11-002	Wilmington Blvd., I-95 to Jefferson St.	12,000,000
72-04-005	Wilmington Blvd., Jefferson St. to 4th Street	6,000,000
68-08-002	Relocated DuPont Road	5,000,000
	<b>TOTAL UNDER DESIGN</b>	<b>\$104,075,000</b>

## UTILITIES

Annually hundreds of miles of utility lines - gas, water, telephone, sewer and electric are added to the thousands of miles of existing utility lines that are located within Delaware highway's rights-of-way. This year 495 additional utility franchises added 1482 miles.

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

The Utility Section also reviews and approves all changes, prepares costs figures, processes preliminary and final estimates and arranges for payments in cases where the Department is financially responsible. During the report year over \$1,347,978.00 was processed for payment to utility companies for adjustments to their facilities on highway construction projects.

"Miss Utility" of Delmarva, the new one-call concept to help eliminate utility disruptions has grown to include 12 full memberships and eight associate memberships. During the year legislation was introduced in the Delaware General Assembly to give the State legal powers to enforce the protection and prevention of injury to underground facilities.

The Utility Section is continuing its program for improvements to various railroad crossings. At the present time, there are 18 contracts under design for the installation of automatic flashing lights, protection or improvements to the crossing surface. In addition, it is proposed that all railroad crossings are to be up-graded with protective devices to meet the State and Federal standards.

Major utility installations and relocations are being made on road construction projects currently under construction. The cost of the utility work is approximately \$4,500,000.00. The utility companies are responsible for a large percentage of this cost since their facilities are located on our existing highways and governed by franchise regulations.

CONSTRUCTION

CONTRACTS COMPLETED AND ACCEPTED - JULY 1, 1974 THRU JUNE 30, 1975

<u>Contract No.</u>	<u>Description</u>	<u>Final Cost</u>
<u>New Castle Co.</u>		
67-10-012	12th Street, Wilmington	\$ 482,289.04
68-08-004	Silverside Rd. (Phila. Pike to Marsh Rd.)	1,173,291.21
69-02-001	Prices Corner Interchange, Phase I	4,024,735.24
69-06-006	I-495 Grading & Paving	* 12,770,286.89
70-10-001	11th Street, Wilmington	229,574.86
70-10-011	Kirkwood Hwy.(Possum Pk. to Red Mill Rd.)	443,090.34
70-10-018	Reconstruction of Br. 314 on Rd. 405 & Br. 221 on Rd. 301	* 28,452.04
71-05-003	I-495 from N. C. Ave. to Christina River	3,177,583.16
71-05-007	Christina River Bridge Superstructure	9,149,781.34
72-09-011	Rehabilitation of Br. 127 on Rd. 251 & Br. 112 on Rd. 257	* 68,124.10
72-11-005	Subsurface Exploration Br. 693 Third St. Br.	9,355.78
72-11-006	I-95 Overhead Sign No. 12 Rehabilitation	17,500.00
73-05-009	Bit. Surface Treatment Prog. 1973-74	103,414.22
73-08-004	Hot Mix Asph. Con. Resurfacing Prog.1973-74	* 298,426.69
73-08-009	Repairs & Repl. of Railing, 16th St. Br.	5,600.00
73-11-012	Dept. of Public Safety Driving Course	11,022.03
73-11-013	Sub. Dev. Imp., Brandywine Hundred	192,369.11
73-11-014	S.D. Imp., White Clay, New Castle, Mill Crk., Pencader & Christiana	188,692.23
73-12-002	New Linden Hill Road Drainage	7,342.39
74-02-005	South Chapel Street Fire Hydrants	2,940.00
74-03-006	Basin Road & University Avenue	25,058.79
74-03-011	Cleland Heights & Banning Street	8,268.34
74-03-012	Othoson Avenue	51,453.35
74-04-001	Bridge 577, 11th Street Bridge	60,265.54
74-04-006	Route 896 Drainage	37,702.83
<u>Kent County</u>		
70-10-005	Safety Imps.,US 13, Rt. 10 to Coopers Cor.	944,172.13
71-11-007	County Road 52 (Hazletville to Wyoming)	332,796.79
72-02-003	Camden and Webbs Lane Connector	417,597.28
72-09-007	Woodland Beach Causeway Stabilization	* 368,402.08
72-09-010	Bridge 430A on Road 430, Kent County	102,419.06
73-04-002	Kent County Dirt Road Program	459,035.29
73-05-011	Bit. Surface Treatment Prog. 1973-74	145,996.56
73-08-005	Hot Mix Asph. Con. Resurfacing Prog.1973-74	221,583.69
73-08-011	Smyrna Sidewalk	10,960.32
73-08-014	Killens Pd. State Pk. Entrance Resurf.	46,045.26
73-10-002	Leipsic Bridge Rehabilitation	16,867.50
74-02-003	Willow Grove Drainage	21,586.47
74-10-002	Resurfacing of Camden & Wyoming Avenue	29,699.61
74-12-014	Hot Mix Resurfacing 1974-75	* 102,590.51
<u>Sussex County</u>		
71-03-007	Delmar Streets	92,285.05
73-04-003	Sussex County Dirt Roads	389,100.37
73-05-003	Sandy Brae Development	25,090.92
73-05-010	Bit. Surface Treatment Prog. 1973-74	142,577.80
73-08-006	Hot Mix Asph. Con. Resurfacing Prog.1973-74	215,154.85
73-11-007	County Road 64, Rt. 26 to Rd. 62	277,967.63
73-11-016	Suburban Development Improvements	* 53,168.58
74-04-004	Sussex Dirt Roads	314,627.12
74-04-009	West Rehoboth Drainage	21,099.09
<u>Statewide</u>		
74-09-003	Applied White & Yellow Traffic Paint	82,128.55
TOTAL COST OF ALL COMPLETED & ACCEPTED CONTRACTS		\$ 37,299,572.03

\*Estimated Final Cost

CONSTRUCTION

ACTIVE CONSTRUCTION CONTRACTS AS OF JUNE 30, 1975

Contract No.

New Castle Co.

65-01-004	I-495 from Penn Central Railroad to N.C. Ave.	93%	\$16,876,227.81
67-12-001	Route 896, Maryland Line to Newark	61%	1,577,870.31
69-02-002	Prices Cor. Interchange, Phase II	90%	3,879,895.14
70-06-003	I-495 Grading, Stab. & Drainage	98%	11,934,361.25
70-07-005	Repl. of Br. 353 on Rd. 8	0%	61,752.05
70-08-009	Kirkwood Highway	50%	1,444,993.54
71-02-007	Rel. Rt. 141 thru Newport, Sub.	98%	4,399,884.15
71-02-008	Rel. Rt. 141 thru Newport, Sup.	0%	10,768,346.25
71-02-009	Rel. Rt. 141 thru Newport	20%	6,034,890.79
71-09-005	Kennett Pike Relocation	65%	2,967,924.74
71-10-001	Third Street Bridge	0%	2,831,670.00
71-11-004	Bridge 256 on Churchmans Road	86%	412,561.05
71-11-006	Otts Chapel Rd. Elkton Rd. to I-95	1%	3,786,902.44
72-08-001	Llangollen Estates, New Castle	28%	649,694.12
72-09-018	Greenbank Road	90%	396,222.30
72-10-007	Br. 556 on Pierce Rd. & Br. 522 on Bedford Rd.	98%	129,825.68
72-11-001	Wilmington Topics Improvements	2%	397,952.50
73-08-002	Br. 688, So. Market St. Bridge	23%	97,037.00
73-09-001	I-495 over Edgemoor Rd. & P.C.T. Co. RR Mainline	32%	6,039,784.40
73-09-002	I-495 over Edgemoor Brch. of P.C.T. Co. & Shellpot Creek	55%	2,256,942.40
73-10-013	I-495 Stru. over Sanitary Sewer	0%	552,003.50
73-10-014	I-495 Stru. at 12th Street	2%	2,112,649.80
73-11-008	Rd. 432, Mt. Pleasant to Md. Line	98%	235,819.52
74-03-005	Ped. Br. over I-495 at Everett Ave.	67%	354,614.00
74-03-008	Br. 645 on Marrows Road	0%	1,326,231.10
74-04-007	Chapel Hill & Possum Park Road	98%	8,295.00
74-07-001	Stockdale Ave. & Cathedral St.	98%	146,796.00
74-10-001	I-495 Drainage, Terminal Avenue to Christina River	0%	357,878.50
74-11-001	Br. 748, So. Wilm. Viaduct	30%	25,666.80
75-01-001	Hot Mix Bit. Con. Res. Prog. 1974-75	95%	138,270.00
75-02-002	Cleaning & Painting Bridge 138	0%	16,500.00
75-03-001	Applied White & Yellow Traffic Paint, N.C. Co.	67%	106,849.28
75-03-004	Applied White & Yellow Traffic Paint, Upper N.C.	0%	69,611.23
75-04-011	Bridge 6-10 over P.C.T. Company	0%	448,570.50
75-04-014	Suburban Development Improvements	0%	183,786.50

Kent County

71-05-004	U.S. 113, Frederica to Little Heaven	5%	1,669,361.51
72-04-001	Inters. Impr., Kent County	0%	289,967.80
73-04-006	Rep. of Br. 208A on Rd. 208	50%	225,794.35
73-04-007	Rep. of Br. 95A on Rd. 95	0%	119,521.79
73-08-013	Relocation Maintenance Rd. 107	0%	137,495.20
73-11-015	Suburban Development Improvements	98%	41,870.00
73-12-003	Port Mahon Stabilization	38%	504,457.75
74-04-002	Schoolview Drainage	98%	128,429.00
74-11-002	Dirt Roads 450 & 466	75%	171,712.05
75-03-009	Safety Improvement Work Program	0%	199,413.00

Sussex County

67-10-015	Route 14, Rehoboth Bypass	0%	1,085,401.95
68-03-001	Delaware Route 14	94%	4,837,509.88
71-03-003	Repl. of Br. 215 & 216 on Rd. 536	0%	254,421.70
73-04-005	Rep. of Br. 924 on Rd. 224	0%	137,415.91
73-12-001	Alterations to Maint. & Admin. Bldg., Georgetown	98%	84,231.00
74-04-003	Indian River Inlet Bridge-S.B. Lane	0%	2,366,032.00
74-09-004	Georgetown M. V. Parking Impr.	95%	9,982.50
74-12-013	Hot Mix Bit. Con. Res. Prog. 1974-75	94%	101,900.00

Statewide

75-03-003	Applied White & Yellow Traffic Paint	0%	127,585.78
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TOTAL BID PRICE OF ALL ACTIVE CONSTRUCTION CONTRACTS \$95,520,782.82

## ROAD DESIGN

Road Design is responsible for in-house engineering in the preparation of complete plans for construction. Final details are prepared on roadway width, alignment and grade, drainage erosion control measures, detour schemes, methods of disposing of waste materials, construction sequences, and other items necessary for contract plans.

A total of thirty-four projects were under design during the past fiscal year. These projects are distributed statewide and vary in complexity from simple dirt road resurfacing to complex freeway design.

Safety and safety related projects have accounted for more than one-third of all projects under design. Safety continues to be a prominent factor in developing plans for Delaware highways.

### PROJECTS UNDER DESIGN

Centerville Road  
 Wilmington Manor Gardens Drainage  
 Drainage Improvements - Liftwood  
 U. S. 13 - Safety Improvements - Odessa to Tybouts Corner Intersection Improvement - New Castle Avenue and Cherry Lane  
 Upper Marsh Road Drainage  
 Moores Lane  
 Ruthby Road - Penn Central and B & O Structures and Approaches  
 Kirkwood Highway Improvement - St. James Church to Red Mill Road  
 Swanwyck Connector  
 Red Mill Road - Darwin Drive to Kirkwood Highway  
 Concord Pike - Murphy Road to Silverside Road  
 Denneys Road  
 Henderson Road - Kirkwood Highway to Road 322  
 South Chapel Street Relocated  
 North Chapel Street and Cleveland Avenue - Newark  
 Columbia Avenue Drainage  
 New Road - Elsmere  
 Ruthar Drive - Harmony Road to Ruthby Road  
 U.S. 40 and Route 72 Intersection Improvements  
 U.S. 13 and Route 404 Intersection Improvements  
 Prices Corner - 141 Northbound on Ramp  
 Railroad Crossings Statewide  
 Jackson Street and Delaware Avenue  
 Saulsbury Road - Route 8 to Walker Road  
 Middletown Bypass  
 Bicycle Paths - Statewide  
 I-95 Off Ramp Int at Basin Road  
 Webbs Lane Sidewalk  
 Critical Area Treatment for U.S. Department of Agriculture  
 Varlano Drainage  
 I-95 Widening - Bridge 9-1 to South Wilmington Viaduct  
 Old Newark Road - Shoulder and Bikeway  
 Route 10 - Lebanon Road - U.S. 13 to U.S. 113

### PROJECTS ADVERTISED

Rt. 896 Drainage - N. C. Co.	\$	33,134.10
Drainage Imp. - Chapel Hill & Possum Park Rd. - N. C. Co.		8,295.00
West Rehoboth - Sussex Co.		24,571.75
Dirt Rd. Nos. 450 & 466 - N. C. Co.		171,712.05
U.S. 13 - Safety Imps. - Llangollen, N.C. Co.		649,694.12
Ott's Chapel Rd. - Elkton Rd. to I-95, N.C. Co.		3,786,902.44
U.S. 113 - Frederica to Little Heaven		1,669,361.51
Wilmington Topics Improvements		397,952.50
Indian River Inlet Bridge - Southbound Lane		2,366,032.00
Relocation Maintenance Rd. 107		137,495.20
Safety Improvement Work Program - Kent Co. Intersection Improvements - Kent Co.		199,413.00
Safety Improvement Work Program - Sussex Co.		229,967.80
Safety Improvement Work Program - Kent Co.		

### PROJECTS ADVERTISED (Cont.)

Othoson Avenue	\$	47,786.50
Basin Rd. and University Ave.		25,242.85
Cleland Heights - Banning Street		10,170.00
Schoolview Drainage		128,429.00
Stockdale Avenue & Cathedral		146,796.60
Georgetown Motor Vehicle Parking Imps.		9,982.50
Stanley Manor - Suburban Development	Advertising	
Bay Vista - Suburban Development	administered by	
St. Georges Heights - Suburban Develop.	individual	
	counties	

## BRIDGE

The Department awarded 20 contracts for bridges and other structures between July 1, 1974 and June 30, 1975, with a total construction cost of \$27,516,413.96.

The Bridge Section actually prepared the complete design on 15 projects with a dollar value of \$10,166,342.46. The remainder of the designs were prepared by consultants with review and approval by this Section.

The largest single structure project was the Rt. 141 thru Newport Viaduct Superstructure. For the first time in Delaware this structure is designed as a single and continuous box type girder. The other largest structures are Ott's Chapel Rd. over Penn Central Transportation Company Railroad tracks and Third Street Bridge Substructure and Stabilization in Wilmington.

Several small bridge replacement or maintenance projects were completed, some are still under design (6 each). Plans are ready for more projects awaiting future funding (15 each).

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, U. S. Department of Transportation. The review and up-dating of inspection reports for structures with spans over 20 feet on primary and secondary roads is progressing, and will be resubmitted in Fiscal Year 1976.

### STRUCTURAL CONTRACTS BIDS RECEIVED JULY 1, 1974 - JUNE 30, 1975

CONTRACT	DESCRIPTION	COST
N.C. Co.		
73-08-002	Br. 688, S. Market St. Br., Wilm.	\$ 97,037.00
72-08-001	U.S. Rt. 13 Safety Imps., Llangollen, New Castle	649,694.12
75-02-002	Cleaning & Painting Br. 138	16,500.00
71-10-001	Third St. Br. Stabilization, Abutments, Land & River Piers	2,831,670.00
74-03-008	Br. 645 on Marrows Rd. across Penn Central Transportation Co.	1,326,231.10
75-04-011	Br. 6-10 over P. C. Trans. Co.	448,570.50
74-06-005	Cantilever Sign # 17 on I-95	26,910.30
74-03-005	Pedestrian Br. over I-495 at Everett Ave.	354,614.00
73-10-014	I-495 Structure at 12th Street	2,112,649.20
71-02-008	Rt. 141 thru Newport - Supstr.	10,768,346.25
73-10-013	I-495 Strs. over Sanitary Sewer	552,003.50
71-11-006 & 72-02-005	Ott's Chapel Rd. from Elkton Road to I-95	3,786,902.44
70-07-005	Replacement of Br. 353 on Rd. 8	61,752.05

STRUCTURAL CONTRACTS BIDS RECEIVED (Cont.)

CONTRACT	DESCRIPTION	COST
<u>Kent County</u>		
73-04-007	Replacement of Br. 95A on Rd. 95	\$ 119,521.79
72-09-007	Woodland Beach Causeway Stabilization	294,918.00
73-04-006	Replacement of Br. 208A on Rd. 208	225,794.35
<u>Sussex Co.</u>		
74-04-003	Indian River Inlet Bridge S. B. Lane	2,366,032.00
73-04-005	Replacement of Br. 924 on Rd. 224	137,415.91
67-10-015	Rt. 14 - Rehoboth Bypass, Phase I	1,085,401.95
71-03-003	Replacement of Bridges 215 & 215 on Road 536	254,421.70
TOTAL		\$ 27,516,413.96

**SPECIFICATIONS**

The Specifications Section prepared special provisions for construction contracts involving highway and bridge construction, drainage, repairs, demolition, materials, etc. The functions of the section are allied to the design sections, and require 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 description, 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.

Specifications include the contractual requirements under which the contractor shall perform the work, and contain the detailed requirements for the work to be accomplished. They complement the plans which delineate the extent and nature of the work to be done.

**MAINTENANCE**

During Fiscal Year 75, the Bureau of Maintenance continued as a staff section, reporting to the Assistant Chief Engineer of Operations, acting in an advisory capacity on all matters pertaining to maintenance.

During the year, the bureau initiated additional controls over the expenditure of capital outlay funds to insure their judicious use and adherence to the bidding laws. In addition, the bureau was charged with the responsibility of monitoring the use of all appropriated funds, reporting, in this area, to the Director of Highways.

The lack of sufficient funding to continue the replacement of uneconomically repairable and obsolete

equipment at an acceptable rate was an area of major concern. The result of inadequate funding can only be an increase in overall costs due to an increase in vehicle maintenance and downtime. The major purchases made with the funds available were 41 light trucks and 15 automobiles. While the impact of these replacements was very favorable, the overall program suffered greatly from fund restrictions.

During Fiscal Year 75, Roadside Development expanded training programs for statewide landscape crew personnel to include the preliminary federal certification requirements for commercial pesticide applicators. This program deals with the safe use, handling and storage of pesticides.

In roadside construction activities, the use of temporary erosion control measures has been expanded to reduce erosion during construction. Tidal marsh seeding specifications were developed and chemical erosion agents were evaluated for future use.

North District

In July, 1974, Maintenance personnel numbered 175; by the close of the Fiscal Year a slight gain was experienced. Forces totalled 187, an increase of 12 employees. This total was still short of the number employed at the close of the '73 Fiscal Year. The continuation of budget cuts, hiring freezes, promotion restrictions, all initiated in preceding years, continued to seriously hamper operations. Long range planning and monthly scheduling resulted in an "exercise in futility". Available manpower was basically utilized for demand maintenance.

The South Wilmington Viaduct, Bridge #738, I-95 continued to require considerable attention. Expansion dams periodically required tightening and in several instances rebuilding. The repair and/or replacement of bridge guard and handrail damaged thru vehicular accidents was routine.

The Third Street Bridge counterweight strut for balancing the 450 ton counterweight had to be removed, rebuilt and installed. Seven roadway safety traffic gates were damaged by vehicles and required replacement.

Central District

During the past fiscal year, maintenance management has emphasized qualitative and quantitative improvements that include manpower, equipment, and materials.

Budget allocations are still below the necessary requirements to supply total maintenance services to the public. As a result, some services have been completely discontinued or strictly limited to emergency or temporary type repairs.

Perhaps the most extensive improvement of manpower

and equipment was the organization of the Float Crew Surface Treatment Section within the Central District. Under the old system each area had equipment to do all types of surface treatment, but was limited in work volume. Equipment under the new system was consolidated and the more experienced equipment operators were selected as part of the operation. With the purchase of a self-propelled stone spreader considerably more work was accomplished at reduced costs. The maintenance area work force was left free to do their routine maintenance work.

Average daily production figures indicate the Float Crew averaged 178.2 tons of coarse aggregate and 6,779 gallons of asphalt for twenty-six work days. In addition, other work was completed in the North District for fifteen work days averaging 219.8 tons of coarse aggregate and 7,795 gallons of asphalt. Total production figures included improvements on fifty roads that required 293,179 gallons of asphalt and 7,930 tons of coarse aggregate for forty-one work days from April 21, 1975 through June 30, 1975.

Additional changes within the District included the relocation of Area 21 personnel and some heavy equipment to the Magnolia Yard to alleviate the overcrowded situation in the Dover Yard. A surplus trailer was purchased and set up as office space for supervisors. Utility services were installed by maintenance personnel. Other improvements included surface treating the parking lot at Magnolia with the new self-propelled stone spreader.

Small timber bridge replacements during the past year were below the projected program due to lack of funds to purchase materials. The following locations were completed:

Road 7, New Castle County - 2 lines of 72" C.M.  
Pipe - 50 L.F. each line.

Road 131 (132-39), Area 8 - 3 lines of 72" C.M.  
Pipe - 50 L.F. each line.

If funds are available to purchase materials, approximately 12 bridge locations are scheduled to be replaced during the next fiscal year.

The Hot Mix Resurfacing Program has been completed. As previously mentioned, funds are below that necessary to keep pace with a satisfactory resurfacing program. Again, it is recommended that approximately 40,000 tons of hot mix to resurface most of the primary roads over the next three years be approved. Preventative maintenance requirements increase when deterioration of primary roads is neglected.

Safety improvements included the construction of left and right turn lanes at various locations listed below:

U.S. 13 at County Road 361, Southbound Lane,  
left turn lane.

U.S. 113 at County Road 19, Northbound Lane,  
right turn lane.

U.S. 13 at County Road 25, Southbound Lane, left  
turn lane.

Five additional locations are proposed in the near future if budgetary allocations permit.

The manpower shortage within the Central District is more critical than reported last year. To resolve this important factor, maintenance management must approach the problem from a different angle. Since the manpower situation within the maintenance areas is below minimum standards, additional work loads must be distributed to the Float Crew to maintain a minimum level of maintenance.

Available funds for a Hot Mix Resurfacing Program and the Surface Treatment Retreatment Program are apparently more strict than last year. As a result, each program will require serious consideration as to the degree of priority to be done.

The Concrete Patching Program again this year did not materialize as recommended previously. In order to maintain an adequate riding surface on our primary roads, approximately 1,635 square yards of roadways were repaired to remove bumps or high spots. In the majority of cases repairs other than a concrete patch are impossible. The general condition of some of our primary roads is deteriorating to such a degree that a concrete patching program will be a necessity.

The equipment preventative maintenance program has improved somewhat with the purchase of new dump trucks and pickups. Older equipment has been neglected due to lack of funds. Last year approximately \$300.00 per vehicle was spent to meet the daily requirements for services necessary to improve efficiency and economy of the equipment. Today, the cost per vehicle would probably be in excess of \$500.00.

Training programs resumed during the winter months with the completion of the Maintenance Management Training School in February. Certificates were awarded to eleven Labor Foremen in the Level I category and eleven Area Supervisors and Assistants in the Level II category. Additional training sessions were held in Defensive Driving sponsored by the National Safety Council. Approximately seventeen maintenance personnel completed the course.

#### South District

Activities in the South District during the 1974-75 fiscal year have been successfully carried out in most categories of routine maintenance.

Through careful planning and proper utilization of available resources, we have, in this period of excessive inflation, performed what should be considered to be

at least an acceptable service to the citizenry.

The special crews operating out of Area 20, with cooperation from the various area forces, have corrected scores of drainage problems, replaced several timber bridges with pipe, stayed abreast of surface treatment requirements, assisted the areas on beautification projects and have remodeled three of our area headquarters.

We attribute our limited success in part to the cooperation of all the various heads of sections within the Division of Highways. Their concern and guidance have, in most instances, proved to be beneficial.

Problems dealing with demand or priority maintenance have been handled quite successfully due to the fact our legislators and others realize the budgetary restrictions under which we operate.

The South District, during the past year, has acquired several new tractors and mowers, three portable sprayers, several heavy duty trucks, five bump burners, and a mechanical stone spreader. This equipment will be an asset to the district in our future maintenance programs.

Our plans for the current year are to increase our efforts and achieve better results.

## DIVISION OF TRANSPORTATION

The Division of Transportation is organized in two sections to properly carry out its responsibilities. The Aeronautics Section is responsible for all Aviation matters and the Surface Transit Section is responsible for all surface transit matters.

### Aeronautics

#### Aviation Planning and Design

The State Aviation System Plan Study, which began in December 1972 with financial assistance from the Federal Aviation Administration, was finalized in draft form in June, 1975. This plan covers the projected aviation needs of the State of Delaware through 1995. Phase I of the Rehoboth Beach Airport Site Selection and Master Plan Study was completed in June, 1975. This particular study was funded with a grant of \$17,033 from the FAA. Phase II, which is the Master Plan Study for Sussex County Airport at Georgetown, Delaware, is nearing completion.

#### Air Commuter

Air Exec, a privately-owned commuter, began scheduled service in January 1974 from Delaware Airpark, Cheswold, Delaware and Sussex County Airport, Georgetown, Delaware to Philadelphia, Pennsylvania,

Baltimore, Maryland, and Washington, D.C. However, service was terminated at Cheswold in January, 1975 but was continued at Georgetown. The Division of Transportation, in cooperation with the Sussex County Council and Diamond Aviation at Cheswold, Delaware are presently negotiating with other interested commuter companies to provide improved scheduled passenger and cargo services to the two counties.

### Joint Use Facility

Construction plans for the Joint Use Facility at Dover Air Force Base were terminated in early 1975. Lack of ADAP funds and negative public reaction were cited as the main reasons for the Kent County Levy Court's action not to proceed, even though the land had been purchased and construction bids received. The completion date was set for June 15, 1975. Although Kent County has found it necessary to suspend for the time being its efforts to establish a civilian terminal adjacent to Dover Air Force Base, the Division will continue to supply technical assistance as required throughout the extension period ending in April, 1977.

### Aviation Laws

During fiscal year 1975 the Division published a book, Delaware Laws Governing Aeronautics. This booklet was compiled to present the applicable State of Delaware laws in a simple easy-to-read format. The work effort in producing this volume was expended during the development of the State of Delaware Aviation System Plan with the support and cooperation of the Federal Aviation Administration. Copies have been distributed to various state agencies, Delaware airport operators, pilots and other interested organizations and individuals. The booklet is available on request.

### Safety and Accident Investigations

The Aeronautics Section investigated a total of nine aircraft accidents and one helicopter accident during the Fiscal Year 1975. Of the total accidents investigated, six were considered major with two fatalities while the other three were minor with negative injuries.

The Aeronautics Section participated in four aviation seminars during the reporting period.

### Surface Transit

#### Grant Applications

UMTA Capital Grant DE-03-0002 for the Delaware Authority for Regional Transit in the amount of \$3,587,585 of which the Federal amount is \$2,870,068 and the State share is \$717,517. The grant was received by DART on April 28, 1975. The grant covers the following capital equipment: 45 transit buses, 3 minibuses, non-revenue vehicles, fare boxes, communications equipment and transit complements.

UMTA Capital Grant DE-03-0003 for the Delaware Authority for Specialized Transportation, whose mission is to provide transportation services to the elderly and handicapped. The final application was submitted on March 14, and is expected to be awarded by UMTA to DAST on September 1, 1975. This grant covers the following capital equipment: 30 specialized vehicles, communications system, maintenance and shop equipment. The anticipated grant amount is \$586,000 of which \$468,800 is Federal participation and \$117,200 is the State share.

Section 5 (operating) Grant for Wilmington Urbanized Area (Delaware portion) in the amount of \$807,162 for DART. This grant is to reimburse State and county funding DART's FY 75 deficit.

### Capital Bond Programs

FY 75 Emergency Bond Bill for transit improvements in the amount of \$764,000 which allocated funds to be used as follows:

DART Capital Improvements	\$415,000
DAST Capital Improvements	\$329,000
Engineering & Contingency	\$20,000
TOTAL	\$764,000

FY 76 Bond Bill for transit improvements in the amount of \$576,000 which allocated funds to be used as follows:

DART	\$276,000
DAST	\$150,000
Rural Transit	\$50,000
Engineering & Contingency	\$100,000
TOTAL	\$576,000

### DART Operations

Total ridership on DART for Fiscal Year 75 reached 5,450,000. DART suffered its first drop in ridership in three years, due in part to increased maintenance problems with the older equipment, and in part to the nature of the economy. DART is authorized to operate solely within New Castle County.

The rapid rise in the number of breakdowns of the older DART buses created a drop in ridership. This problem was partially alleviated through the leasing of twelve buses from SEPTA in Philadelphia for use on fixed routes in Wilmington. The maintenance problems will be tempered somewhat by new garage facilities which should be available in late Fiscal Year 76. New buses will also be bid in early Fiscal Year 76. Another contributing factor to the decline in ridership was a decrease in the use of midday service. This is attributed to the nature of today's economic conditions which have cut sharply into retail sales.

Subsidies appropriated during Fiscal Year 75 were as follows: \$1,091,638 from the State and \$528,925 from New Castle County.

### DAST Operations

Chapter 306, Volume 59, Laws of Delaware became law in the latter part of Fiscal Year 74 and gave the Division of Transportation the responsibility for planning and eventual implementation of a Transportation Authority to serve the specialized transportation needs of physically, mentally or economically handicapped persons. On December 1, 1974 DAST assumed all assets and liabilities of the Delaware Interagency Motor Service, Inc. (DIMS) and began operations as a subdivision of the State of Delaware.

For its first seven months of operation the DAST program has been basically the same as that under DIMS. All transportation services were provided by contract arrangements with various public and private agencies. Any person transported by DAST was certified for service by a contract agency. The contract agency, not the rider, paid for the service. As of May, 1975 DAST was providing approximately 12,000 trips per month.

In May, 1975 DAST operated a fleet of 39 vehicles and had 42 employees - 39 drivers and 3 persons engaged in administration. The DAST fleet is spread statewide. The bulk of the fleet is located in New Castle County and the main office and garage is in Wilmington at the Old State Armory Building at 10th and DuPont Streets. There are three DAST dispatching offices in the state, one serving each of the three counties. These dispatching offices are located in Dover, Georgetown and the main office in Wilmington.

A technical study is in progress to develop and implement an operations plan for DAST. The consultant, Applied Resource Integration, LTD., Schenectady, N.Y. was selected to undertake this study and work actually began early in March, 1975. At the close of Fiscal Year 75 this study was making good progress and its continuation until the Fall of 1975 is planned.

### Rail Studies

The Rail Section has served as the primary staff for the Governor's office in the State's dealings with the entire northeast railroad situation. Working in conjunction with the United States Railway Association, the Rail Services Planning Office, the Federal Railroad Administration and the Interstate Commerce Commission, the Division has completed Stage 1 of its rail planning inventory and Phase 1 of the State Rail Plan.

In October, the Division created the State Rail Plan Advisory Committee to assist in the preparation of the State Rail Plan and to serve as the future liaison group necessary to ensure the continuation of rail planning. The committee membership is made up of representatives from the three county planning agencies, the State Division of Economic Development,

WILMAPCO and the State Chamber of Commerce with provision for expansion to include private industry.

The Division has retained membership on USRA's Technical Panel and on the Conference of States for Rail Planning. The Division also appeared at the various public hearings held by RSPO and submitted written testimony with regard to USRA's Preliminary System Plan. Liaison was also maintained with FRA in their preparation of the Northeast Corridor High Speed Rail Passenger Service Improvement Project.

The Division has served as the go-between for USRA and the City of Newark in their attempts to reroute the B & O mainline around the city. Wilmington has also sought to alleviate the potential congestion created by transferral of all freight off of the Penn Central onto the B & O.

In April, the Division conducted a Rail Passenger Survey to determine the ridership characteristics of the passengers using SEPTA/Penn Central commuter service to and from Philadelphia, Pennsylvania. As a result of the work done by the Division, legislation was introduced in the 128th General Assembly to provide \$150,000 to SEPTA for the Delaware service. The subsidy was designed to be supplied equally by the State, the county, and the city. The legislation cleared the House but was not introduced in the Senate. The commuter service will be discontinued by CONRAIL if there are no subsidy provisions in effect with Penn Central upon takeover of the Penn Central by CONRAIL.

#### Regulatory Services

In July, 1974, the Division of Transportation, by legislative action, assumed regulatory authority over public carriers from the Public Service Commission. Public carriers are the non-publicly owned bus companies and railroads which operate in this State.

By September 1974, the initial office staff organization and transfer of files from the PSC had been accomplished. It was recognized that a comprehensive compendium of rules and practices would be necessary to clearly identify the responsibilities of both this office and the carriers it regulates. The enabling legislation confers upon the Division "exclusive original supervision over public carriers" in both the economic and safety areas. At the end of the Fiscal Year, a draft copy had been prepared, a public hearing had been held, and the office was reviewing the comments of the carriers prior to issuing its final document.

Early in the year the Attorney General advised the Division that the original enabling legislation was wanting in many respects. In cooperation with the Department of Justice, remedial legislation was developed and came to be known as S.B. 449. This bill, which would greatly strengthen the office, was passed in the Senate, but the House did not take action.

In its function to regulate buses and railroads, the office accomplished the following during the year:

Conducted semi-annual safety inspections of 212 buses. Originally these inspections were made by a bus inspector on loan from the Public Service Commission. Plans have been formulated to have future inspections made at Division of Motor Vehicle lanes utilizing existing personnel inspecting according to Division of Transportation standards.

Issued Certificates of Public Convenience and Necessity (operating licenses) to five charter bus companies. One application for a certificate was denied.

Authorized Greyhound and Trailways to increase intrastate regular route passenger fares.

Denied application of Greyhound and Trailways to increase intrastate charter rates.

Approved five schedule revisions for Greyhound and Trailways.

Investigated five passenger complaints of poor bus service.

Met with eight bus owners to resolve minor administrative problems.

Initiated communications with U.S. Department of Transportation so that joint safety investigations can be made and information shared.

Participated in three joint economic investigations with the Interstate Commerce Commission.

Established reciprocal agreements with New Jersey and New York in which each state accepts the other's bus safety inspection windshield stickers.

Attended an ICC-sponsored seminar on the functions of regulatory agencies.

Authorized both the Penn Central and Chessie System to abandon certain obsolescent freight agency stations.

Investigated six complaints of poor passenger and freight service.

Communicated with Penn Central regarding four locations where track safety was in question. Responses by railroad indicated tracks would be upgraded.

#### Transit Plans

The Plans Section has been actively engaged in two major planning projects:

The update of the Short Range Transit Improvements Program is designed to build upon and

expand the existing Transit Improvement Program for the Greater Wilmington Area. The study will encompass those deficiencies as outlined by UMTA and expand the program to include the specialized transportation network which was recently incorporated as a public agency in the area. The Division has completed selection of a consultant and with UMTA concurrence work will begin in early FY 76 and will take eight months.

The Kent County Transit Study is an outgrowth of interest demonstrated by the City of Dover, Kent County and the General Assembly in establishing a public transportation system in this predominately rural county. The study is designed to determine the potential for transit usage in the county and to determine the structure most efficiently implemented which could provide the most cost effective transit service in the county. The Division has completed selection of a consultant and entered into an agreement on June 30, 1975 and the study will take approximately nine months.

The information determined by these two studies will be used to project capital improvements needed for improvement of the state's transit needs. Once the capital needs have been determined and approved by the appropriate agencies, the results will be passed on to the Office of Grants and Capital Programs within the Division for their use in justifying necessary funding.

## OFFICE OF ADMINISTRATION

### PERSONNEL

#### EMPLOYMENT

A total of 1296 employees were on the active payroll on June 30, 1975 as opposed to 1281 employees on July 1, 1974. The increased complement consisted of additional highway maintenance personnel who are involved in the day to day upkeep of the State's road system. The hiring freeze was closely adhered to in all but critical areas of the Department.

Accessions included 126 new hires, 26 return from leaves of absence (medical, military and educational), 7 transfers in and 5 reinstatements. Separations included 52 voluntary resignations, 47 retirements, 26 leaves of absence (mostly medical), 12 dismissals, 8 deaths and 3 transfers out. Accessions averaged 13.7 per month and separations averaged 12.4. The median employee count for the year was 1276.5.

The Division of Highways experienced an average monthly vacancy total of 56.5 employees based upon a budgeted strength of 806 employees. The large vacancy total maintained throughout the year was composed mainly of needed maintenance personnel. The high vacancy level can be attributed to three factors:

- (1) The July 1, 1974 revision to the Merit Rules requiring mandatory job posting for all reclassifications and promotions,
- (2) The delays intrinsic to the Merit System employment procedure, and
- (3) The restriction against "averaging" employee counts in the Budget Appropriations Act.

The practical effect was that the Division of Highways did not, in fact, maintain a manning complement of 806 employees. The highest average monthly figure that could be maintained was 749.5 employees.

Summer employees increased from a total of 29 in the summer of 1974 to 36 in the summer of 1975. The majority of summer employees were assigned to mowing, trashing and other road maintenance projects. A total of 39 employees were hired under various Federally funded programs designed to combat the high unemployment rate. As of June 30, 1975, 27 of these employees remained on the payroll. All were working in road maintenance.

The Department's Affirmative Action Program was reemphasized with the issuance of a new program policy statement accompanied by specific goals. The Department remains active in the Emergency Employment Program and the Comprehensive Employment Training Act, and maintains close contact with the State Personnel Office and the State Human Relations Commission to further effect established Affirmative Action Goals.

#### EMPLOYEE AND LABOR RELATIONS

Labor relations with Locals 837, 879, 1026 and 1443 of the State, County and Municipal Workers Union (A.F.L.-C.I.O.) were maintained at a high level of success during F.Y. 1975. Grievances were all settled within the Department and no arbitration cases were required.

The United Fund Drive again resulted in a new record for both frequency and amount of contributions pledged by Department personnel. Blue Cross/Blue Shield participation was increased despite an increase in rates, and the Blood Bank membership drive was successful with a new level of participation being reached. Participation in the High Risk Factor screening by the Heart Association was excellent. A successful Savings Bond drive was also held.

Well over 120 employees took advantage of the Tuition Reimbursement Program to further their formal education. Courses of study approved were at the high school, trades and college levels. A total of 47 employees were individually counseled prior to their retirement dates and assisted in all aspects of retirement such as social security, life and medical insurance and personal budget preparation. A bill was successfully introduced

and passed by the General Assembly at the Department's request to greatly improve Workman's Compensation benefits to employees who are injured on the job.

No employee position reclassifications were accomplished during the year as a result of restrictions in the F.Y. 1975 Budget Appropriations Act. Double increment wage and salary increases for outstanding employee performance were also completely restricted. Promotions were held to a bare minimum and were awarded only to employees filling permanent vacancies created by attrition.

### RECRUITING

Due to the extremely competitive recruiting market that existed in F.Y. 1974, only two civil engineers were engaged in the Engineer-In-Training Program and upon completion, both were given permanent assignments in the North Construction District. Although the competition remained high in F.Y. 1975, the Department's efforts were more fruitful and six engineers were recruited and entered the training program. Visits were made to the University of Delaware, Delaware State College, Virginia Polytechnical Institute, Northeastern University, Lehigh University, Lafayette College, West Virginia University, and Pennsylvania State University. A total of ninety-three individuals were interviewed at their University and thirty-four of those interviewed were invited to the Administration Building for a tour of our facilities.

During F.Y. 1975, engineering turnover was high with 13 resignations. Therefore, the college recruiting program has become a necessity to maintain our existing level of engineering employment, but has been unable to fulfill its original objective of allowing the Department to accomplish more inhouse work.

### FINANCE

Refinements were made in the computerized Highway Accounting System. A major revision of the Payroll Distribution System is complete.

Approximately \$13.5 million in cash was received from the Federal Government from billings through the Federal Aid Claim. Detailed financial statements are included in this report.

### FEDERAL-AID AND AUDIT

Federal-aid activities continued at an accelerated pace during the period. Additional Federal funds in the amount of \$21,774,631.00 were approved as the Federal share of project costs for work authorized by the Federal Highway Administration. The Federal-aid Highway Program has been further complicated since

enactment of the Federal-aid Highway Act of 1973. Under this Act, we now have more than 30 separate Highway and Highway related Programs each with its own special conditions and requirements.

The External Audit Section continues to be hampered in overcoming an inherited backlog of audit work and is unable to reach a current status in this area because of inadequate staffing.

### COMPUTER SUPPORT

During the past fiscal year the Computer Support Section continued data processing services to all divisions of the Department and began planning to provide more responsive interactive support for users. Hardware changes effecting the Section included lease of an improved and more economical plotter, and the lease by Central Data Processing of IBM 360/50 processors.

Steady progress was made in all systems and programming work of the Section. Phase I and II of the Equipment Maintenance Systems are now operational. Monthly Fuel Bills for outside agency billing, semi-annual Equipment Operation and Repair Cost, and Detailed Motor Vehicle Repair reports are being produced. Accident programs were updated to produce spot summary data. Inventory programs were developed to produce update listings and provide update capability for: skid test data, work area definitions, and sufficiency. The Maintenance Management System is near completion. The latest networks adopted as interim networks by WILMAPCO are CO4 and SRT-2. We digitized a data base for New Castle County and prepared geographical displays of network information.

The Section continued participating in training facilities with Central Data Processing, and in HEEP (Highway Engineers Exchange Program). Two Key punch Operator II positions were filled.

### OFFICE SERVICES

Support for all Divisions and Sections of the Department continues to be given by the various units of the Office Services Section. The Word Processing Center with its telephone dictation system and magnetic tape selectric typewriters, continues to provide typing and composing services at a greater speed and more efficiently than through conventional methods. A great variety of work is done by the Word Center including agreements, contracts, manuals, reports, inventory records and automatic letters. The Records Center has continued with the microfilming and disposal of Department files and records. The microfilm files are often used for research and reference by the Department. A complete file of all legislation is also kept in the Records Center. There are plans to increase the Office Services Section to include mail service, Xerox and Library functions.

DEPARTMENT OF HIGHWAYS & TRANSPORTATION  
 COMPARATIVE STATEMENT OF TOTAL FUNDS AVAILABLE,  
 EXPENDITURES & UNEXPENDED BALANCES - ALL FUNDS  
 FOR YEAR ENDED JUNE 30, 1975 & 1974

	<u>YEAR ENDED</u> <u>1975</u>	<u>JUNE 30</u> <u>1974</u>	<u>INCREASE/</u> <u>(DECREASE)</u>
unds Available	\$ 99,575,169.34	\$ 114,982,820.82	\$(15,407,651.48)
penditures	66,365,771.66	70,811,889.57	( 4,446,117.91)
expended Balances	33,209,397.68	44,170,931.25	(10,961,533.57)

DISPOSITION OF EXPENDED BALANCES

ntinuing	\$ 27,867,677.83	\$ 36,501,247.58	\$( 8,633,569.75)
cumbered	5,024,429.77	7,449,606.01	( 2,425,176.24)
verted	317,290.08	220,077.66	97,212.42
expended Balances	33,209,397.68	44,170,931.25	(10,961,533.57)

DEPARTMENT OF HIGHWAYS & TRANSPORTATION  
COMPARATIVE STATEMENT OF EXPENDITURES BY DIVISIONS  
AND SPECIAL FUNDS FOR YEAR ENDED JUNE 30, 1975 & 1974

	YEAR ENDED 1975	JUNE 30 1974	INCREASE/ (DECREASE)
<b>GENERAL FUNDS</b>			
Office of Secretary	48,703.87	81,760.25	(33,056.38)
Office of Administration	350,037.21	283,145.87	66,891.34
Division of Highways	29,679,751.87	27,635,600.78	2,044,151.09
Division of Transportation	1,236,553.82	820,358.81	416,195.01
<b>SUB TOTAL</b>	<b>\$ 31,315,046.77</b>	<b>\$ 28,820,865.71</b>	<b>\$ 2,494,181.06</b>
<b>SPECIAL FUND - CONSTRUCTION FUNDS</b>			
U.S. Grant-Federal Aid	96,987.00	-0-	96,987.00
U.S. Grant-Advance Right of Way	-0-	16,200.00	(16,200.00)
Highway Improvements 1959	457,145.99	3,928,164.93	(3,471,018.94)
Highway Construction Fund 1961	969,978.86	2,561,941.58	(1,591,962.72)
Highway Construction Fund 1964	2,569,169.26	8,893,720.24	(6,324,550.98)
Capital Improvements 1966	187,108.33	54,685.65	132,422.68
Capital Improvements 1967	1,300,422.60	1,359,388.29	(58,965.69)
Capital Improvements 1968	1,202,940.60	2,095,150.00	(892,219.40)
Capital Improvements 1969	1,165,440.45	2,423,165.72	(1,257,725.27)
Special Construction Funds	-0-	23,610.89	(23,610.89)
Capital Improvements 1970	1,114,413.56	1,703,999.22	(589,585.66)
Capital Improvements 1971	1,239,486.16	1,982,769.15	(743,282.99)
Capital Improvements 1972	1,572,328.82	2,957,592.59	(1,385,263.77)
Capital Improvements 1973	6,666,817.11	10,766,316.05	(4,099,498.94)
Capital Improvements 1974	14,005,367.37	2,978,781.94	11,026,585.43
Capital Improvements 1975	2,295,213.06	-0-	2,295,213.06
<b>TOTAL CONSTRUCTION FUNDS</b>	<b>\$ 34,842,819.17</b>	<b>\$ 41,745,496.25</b>	<b>\$ (6,902,677.08)</b>
<b>OTHER SPECIAL FUNDS</b>			
National Transportation Needs Study	8,723.85	7,878.97	844.88
UMTA DE 09-0002	54,568.62	70,253.68	(15,685.06)
Public Employment Program	10,987.37	-0-	10,987.37
Federal Aviation Admin. Grant	29,731.92	28,929.40	802.52
UMTA-ST 09-8001	6,000.00	-0-	6,000.00
Liquidated Damages	-0-	3,120.55	(3,120.55)
Fire Loss Damages	936.95	9,948.00	(9,011.05)
Sussex County Motor Pool	67.03	2,852.88	(2,785.85)
Escrow Account	28,064.93	48,523.27	(20,458.34)
Traffic & Planning	68,825.05	74,020.86	(5,195.81)
<b>TOTAL OTHER SPECIAL FUNDS</b>	<b>\$ 207,905.72</b>	<b>\$ 245,527.61</b>	<b>\$ (37,621.89)</b>
<b>TOTAL SPECIAL FUNDS</b>	<b>35,050,724.89</b>	<b>41,991,023.86</b>	<b>(6,940,298.97)</b>
<b>TOTAL ALL FUNDS</b>	<b>\$ 66,365,771.66</b>	<b>\$ 70,811,889.57</b>	<b>\$ (4,446,117.91)</b>

DEPARTMENT OF HIGHWAYS & TRANSPORTATION  
 CONDENSED STATEMENT OF APPROPRIATION, TRANSFERS, AVAILABLE FUNDS,  
 EXPENDITURES AND UNEXPENDED BALANCES - ALL FUNDS  
 FOR YEAR ENDED JUNE 30, 1975

	CONTINUING BALANCES JUNE 30, 1974	ENCUMBERED BALANCES JUNE 30, 1974	ORIGINAL APPROPRIATIONS AUTHORIZATIONS	SUPPLEMENTAL APPROPRIATIONS	REVENUE	TRANSFERS
<b>GENERAL FUNDS</b>						
Office of Secretary 55-01	\$	\$ 9,710.00	\$ 64,599.00			
Office of Administration 55-02		7,416.42	376,671.00			
Division of Highways 55-04	36,409.00	906,425.87	29,204,242.00	37,705.90		\$ 508,430.49
Division of Transportation 55-06	15,000.00	744.14	526,823.00	741,638.00		
<b>TOTAL GENERAL FUNDS</b>	\$ 51,409.00	\$ 915,563.53	\$ 30,172,425.00	\$ 779,343.90		\$ 508,430.49
<b>SPECIAL FUNDS</b>						
<b>Construction Funds</b>						
10 U.S. Grant-Federal Aid	96,987.00					
40 Highway Improvements 1959	418,676.70				39,325.14	
41 Hardsurfacing Dirt Roads 1955	1,461.01					
42 Highway Construction Fund 1961	275,716.31	5,033.88			1,001,468.22	
43 Highway Construction Fund 1964	279,952.23	828,853.00			1,782,161.29	
44 Garrison's Pond Dam	3,275.23					
46 Capital Improvements 1966	163,348.56	99,940.36			29,456.16	
47 Capital Improvements 1967	1,349,694.42	114,935.43			429,118.56	
48 Capital Improvements 1968	1,394,600.82	165,201.73			571,507.90	
49 Capital Improvements 1969	2,577,688.33	252,825.74			344,449.12	
51 Special Construction Fund	8,662.69					
52 Capital Improvements 1970	1,350,523.55	271,618.33			463,475.83	
53 Capital Improvements 1971	930,270.03	351,220.44			704,855.13	
72 Capital Improvements 1972	1,437,156.39	438,235.47			744,947.16	
73 Capital Improvements 1973	5,840,487.79	1,492,249.35			2,966,391.56	
74 Capital Improvements 1974	20,194,743.24	2,468,502.83			4,039,131.37	
75 Capital Improvements 1975			10,642,000.00		84,662.33	
<b>TOTAL SPECIAL FUNDS</b>	\$ 36,322,144.30	\$ 6,488,616.56	\$ 10,642,000.00		\$ 13,200,950.77	
<b>OTHER SPECIAL FUNDS</b>						
10 National Transportation Needs Study	592.35	28.00			8,134.50	
11 UMTA DE 09-0002	4,746.32				60,000.00	
11 Public Employment Program					70,591.06	
12 Federal Aviation Adm. Grant	8,556.61				21,653.51	
13 UMTA-ST 09-8001					6,000.00	
14 Transportation Study-Kent County					24,675.00	
28 CETA VI					9,356.34	
29 CETA VI					3,826.28	
80 Liquidated Damages	101.45					
81 Fire Loss Damages		936.95				
86 Sussex County Motor Pool	67.03					
86 Escrow Account	94,798.33				40,801.75	
88 Traffic & Planning	21,246.21	44,210.97			76,377.15	
<b>TOTAL-OTHER SPECIAL FUNDS</b>	\$ 130,108.70	\$ 45,175.92			\$ 321,415.59	
<b>TOTAL ALL SPECIAL FUNDS</b>	\$ 36,452,253.00	\$ 6,533,792.48	\$ 10,642,000.00		\$ 13,522,366.36	
<b>TOTAL ALL FUNDS</b>	\$ 36,503,662.00	\$ 7,449,356.01	\$ 40,814,425.00	\$ 779,343.90	\$ 13,522,366.36	\$ 508,430.49

EXHIBIT A

OTHER TRANSACTIONS	TOTAL FUNDS AVAILABLE	EXPENDITURES	UNEXPENDED BALANCES	DISPOSITION OF FUNDS		
				ENCUMBERED	CONTINUING	REVERTED TO GENERAL FUNDS
	\$ 65,576.10	\$ 48,703.87	\$ 16,872.23	\$ 256.04	\$	\$ 16,616.19
	384,177.42	350,037.21	34,140.21	8,588.48		25,551.73
	10,693,211.26	29,679,751.87	1,013,461.39	743,804.71		269,656.68
	1,284,205.14	1,236,553.82	47,651.32	42,185.84		5,465.48
	<u>572,427,171.92</u>	<u>51,315,046.77</u>	<u>5 1,112,125.15</u>	<u>5 794,835.07</u>		<u>5 317,290.08</u>
	96,987.00	96,987.00				
	458,001.84	457,145.39	855.85	1.00	854.85	
	1,461.01		1,461.01		1,461.01	
	1,282,218.41	969,978.86	312,239.55	24,055.02	288,184.53	
	2,889,966.52	2,569,169.26	320,797.26	260,984.13	59,813.13	
	3,175.23		3,175.23		3,175.23	
	292,745.08	187,108.33	105,636.75	37,044.77	68,591.98	
79.47	1,893,827.88	1,300,422.60	593,405.28	91,740.55	501,664.73	
	2,131,310.45	1,202,940.60	928,369.85	231,500.53	696,869.32	
9.79	3,174,972.98	1,165,440.45	2,009,532.53	141,694.80	1,867,837.73	
	8,662.69		8,662.69		8,662.69	
	2,085,617.71	1,114,413.56	971,204.15	121,909.04	849,295.11	
	1,986,345.60	1,239,486.16	746,859.44	274,951.15	471,908.29	
(89.26)	2,620,249.76	1,572,328.82	1,047,920.94	296,669.15	751,251.79	
(3,706.66)	10,295,422.04	6,666,817.11	3,628,604.93	505,999.40	3,122,605.53	
1,292.24	26,703,669.68	14,005,367.37	12,698,302.31	1,821,229.92	10,877,072.39	
(2,414.42)	<u>10,726,663.33</u>	<u>2,295,213.06</u>	<u>8,431,450.27</u>	<u>377,340.55</u>	<u>8,054,109.72</u>	
	\$66,651,297.21	\$ 34,842,819.17	\$ 31,808,478.04	\$4,185,120.01	\$ 27,623,358.03	
	8,754.85	8,723.85	31.00	28.00	3.00	
	64,746.32	54,568.62	10,177.70	5,431.38	4,746.32	
	70,591.06	10,987.37	59,603.69		59,603.69	
	30,210.12	29,731.92	478.20		478.20	
	6,000.00	6,000.00				
	24,675.00		24,675.00	24,675.00		
	9,356.34		9,356.34		9,356.34	
	3,826.28		3,826.28		3,826.28	
	101.45		101.45		101.45	
	936.95	936.95				
	67.03	67.03				
	135,600.68	28,064.93	107,535.75		107,535.75	
	141,834.13	68,825.05	73,009.08	14,340.31	58,668.77	
	<u>5 496,700.21</u>	<u>5 207,905.72</u>	<u>5 288,794.49</u>	<u>5 44,474.69</u>	<u>5 244,319.80</u>	
(2,414.42)	<u>567,147,997.42</u>	<u>5 35,050,724.89</u>	<u>5 32,097,272.53</u>	<u>54,229,594.70</u>	<u>5 27,867,677.83</u>	
(2,414.42)	<u>899,575,169.34</u>	<u>5 86,365,771.66</u>	<u>5 33,209,397.68</u>	<u>55,024,429.77</u>	<u>5 27,867,677.83</u>	<u>5 317,290.08</u>

DEPARTMENT OF HIGHWAYS & TRANSPORTATION  
 DETAILED STATEMENT OF AVAILABLE FUNDS,  
 EXPENDITURES, & UNEXPENDED BALANCES  
 FOR YEAR ENDED JUNE 30, 1975

	CONTINUING BALANCES <u>JUNE 30, 1974</u>	ENCUMBERED BALANCES <u>JUNE 30, 1974</u>	ORIGINAL APPROPRIATION AUTHORIZATIONS	SUPPLEMENTAL APPROPRIATION	REVENUE	TRANSFER
<b>OFFICE OF SECRETARY (55-01)</b>						
Salary-Secretary	\$		\$ 29,000.00			\$
Salaries & Wages-Employees			32,429.00			(300.00)
Travel			600.00			300.00
Contractual Services		977.10	2,070.00			
Supplies & Materials			500.00			
<b>TOTAL OFFICE OF SECRETARY</b>	\$	<u>977.10</u>	\$ <u>64,599.00</u>			
<b>OFFICE OF ADMINISTRATION 55-02</b>						
Salary-Chief of Administration			22,880.00			
Salaries & Wages - Employees			272,590.00			
Personal Services			2,000.00			
Travel			650.00			
Contractual Services		2,814.26	70,391.00			(500.00)
Supplies & Materials		1,406.66	5,150.00			1,490.00
Capital Outlay		3,195.50	3,100.00			(990.00)
<b>TOTAL OFFICE OF ADMINISTRATION</b>	\$	<u>7,416.42</u>	\$ <u>376,761.00</u>			
<b>DIVISION OF HIGHWAYS 55-04</b>						
Salary-Director			28,080.00			
Salaries & Wages - Employees			6,195,524.00			422,000.00
Salaries - Overtime			100,000.00			66,000.00
Resurfacing Contracts		394,284.60	400,000.00			
Capital Outlay		103,199.46	400,000.00			
Debt Service - Principal			13,012,000.00			20,000.00
Debt Service - Interest			6,223,638.00			
Operations		303,340.50	2,000,000.00			
Lines, Center & Edges		70,115.25	125,000.00			
Snow Removal			200,000.00			
Highway Lighting		11,151.07	5,000.00			
Bridge Repainting			50,000.00			
Bituminous Resurfacing			400,000.00			
Highway Signing		6,190.37	30,000.00			
Roadside Grass & Growth Control		10,047.76	35,000.00			
Prior Year Obligation						430.49
Compensation-Richard Lee				2,750.00		
Auto Repair				406.90		
Trees-Knollwood				1,900.00		
Trees-Rodney Village				15,000.00		
Traffic Signal-Greenwood				6,095.00		
Traffic Signal-Indian River Sch.				2,900.00		
Traffic Signal-Selbyville				4,025.00		
Traffic Signal-Ellendale				4,629.00		
Overhead Walkway	25,000.00					
Traffic Signal-Cranston Hts.	1,955.00					
Traffic Signal-Hillville	4,629.00					
Traffic Signal-Bridgeville	4,825.00					
Expenses-Employees		8,096.86				
<b>TOTAL DIVISION OF HIGHWAYS</b>	\$	<u>36,409.00</u>	\$ <u>906,425.87</u>	\$ <u>37,705.90</u>		\$ <u>508,430.49</u>
<b>DIVISION OF TRANSPORTATION 55-06</b>						
Salary-Director			21,840.00			
Salaries & Wages-Employees			23,753.00			
Personal Services		305.47	1,000.00			(992.97)
Travel			400.00			50.00
Contractual Services		342.48	4,330.00			742.97
Supplies & Materials		96.19	500.00			80.00
Capital Outlay						120.00
Statewide RR Service Plan			50,000.00			
DART Grants			350,000.00			
Contingency DART			50,000.00			
Cont. Special Transp.			25,000.00			
DART Grant				741,638.00		
Railroad Commission	15,000.00					
<b>TOTAL-DIVISION OF TRANSPORTATION</b>	\$	<u>15,000.00</u>	\$ <u>744.14</u>	\$ <u>526,823.00</u>	\$ <u>741,638.00</u>	<u>-0-</u>
<b>TOTAL-GENERAL FUNDS</b>	\$	<u>51,409.00</u>	\$ <u>915,563.53</u>	\$ <u>30,172,425.00</u>	\$ <u>779,343.90</u>	\$ <u>508,430.49</u>

OPERATIONS	TOTAL FUNDS AVAILABLE	EXPENDITURES	UNEXPENDED BALANCES	DISPOSITION OF FUNDS		
				ENCUMBERED	CONTINUING	REVERTED TO GENERAL FUNDS
	\$ 29,000.00	\$ 23,883.26	\$ 5,116.74			\$ 5,116.74
	32,429.00	21,259.64	11,169.36			11,169.36
	300.00	32.15	267.85			267.85
	3,347.10	3,083.16	263.94	202.39		61.55
	500.00	445.66	54.34	53.65		.69
	\$ 65,576.10	\$ 48,703.87	\$ 16,872.23	\$ 256.04		\$ 16,616.19
	22,880.00	21,926.67	953.33			953.33
	272,590.00	250,274.59	22,315.41			22,315.41
	2,000.00		2,000.00			2,000.00
	650.00	577.85	72.15			72.15
	72,705.26	66,130.28	6,574.98	6,416.82		158.16
	8,046.66	6,428.71	1,617.95	1,569.10		48.85
	5,305.50	4,699.11	606.39	602.56		3.83
	\$ 384,177.42	\$ 350,037.21	\$ 34,140.21	\$ 8,588.48		\$ 25,551.73
	28,080.00	25,380.00	2,700.00			2,700.00
	6,617,524.00	6,429,129.11	188,394.69			188,394.69
	166,000.00	154,275.87	11,724.13			11,724.13
	794,284.60	641,919.46	152,365.14	150,069.12		2,296.02
	503,199.46	388,028.32	115,171.14	115,157.05		14.09
	13,032,000.00	13,032,000.00				
	6,223,638.00	6,222,562.80	1,075.20			1,075.20
	2,303,340.50	1,995,982.60	307,357.90	267,221.87		40,136.03
	195,115.25	102,887.05	92,228.20	91,665.52		562.68
	200,000.00	200,000.00				
	16,151.07	14,416.97	1,734.10	1,734.10		
	50,000.00	21.40	49,978.60	49,966.80		11.80
	400,000.00	359,417.85	40,582.15	40,501.69		80.46
	36,190.37	11,794.93	24,395.44	24,128.13		267.31
	45,047.76	43,937.09	1,110.67	897.91		212.76
	430.49	430.49				
	2,750.00	2,750.00				
	406.90	406.90				
	1,900.00	1,900.00				
	15,000.00	3,405.99	11,594.01			11,594.01
	6,095.00	1,982.23	4,112.77	433.24		3,679.53
	2,900.00	2,053.64	846.36	391.58		454.78
	4,025.00	3,250.92	774.08	356.01		418.07
	4,629.00	1,887.16	2,741.84	375.08		2,366.76
	25,000.00	25,000.00				
	1,955.00	1,264.70	690.30	204.95		485.35
	4,629.00	3,331.02	1,297.98	381.84		916.14
	4,825.00	2,238.11	2,586.69	319.82		2,266.87
	8,096.86	8,096.86				
	\$30,693,213.26	\$ 29,679,751.87	\$ 1,013,461.39	\$ 743,804.71		\$ 269,656.68
	21,840.00	18,018.00	3,822.00			3,822.00
	23,753.00	22,338.13	1,414.87			1,414.87
	312.50	312.50				
	450.00	450.00				
	5,415.45	5,295.05	120.40	91.85		28.55
	676.19	543.15	133.04	131.18		1.86
	120.00		120.00	119.18		.82
	50,000.00	42,510.01	7,489.99	7,489.99		
	350,000.00	350,000.00				
	50,000.00	25,127.62	24,872.38	24,675.00		197.38
	25,000.00	25,000.00				
	741,638.00	741,638.00				
	15,000.00	5,321.36	9,678.64	9,678.64		
	\$ 1,284,205.14	\$ 1,236,553.82	\$ 47,651.32	\$ 42,185.84		\$ 5,465.48
	\$32,427,171.92	\$ 31,315,046.77	\$ 1,112,125.15	\$ 794,837.07		\$ 317,290.08

DEPARTMENT OF HIGHWAYS & TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DETAILED STATEMENT OF AVAILABLE FUNDS,  
 EXPENDITURES & UNEXPENDED BALANCES  
 FOR YEAR ENDED JUNE 30, 1975 - GENERAL FUND APPROPRIATION

	CONTINUING BALANCES JUNE 30, 1974	ENCUMBERED BALANCES JUNE 30, 1974	ORIGINAL APPROPRIATION AUTHORIZATIONS	SUPPLEMENTAL APPROPRIATION	REVENUE	TRANSFER
<u>DIVISION OF HIGHWAYS 55-04</u>						
<u>OFFICE OF THE DIRECTOR (011)</u>						
Salary-Director			\$ 28,080.00			
Salaries & Wages-Employees			199,745.00			233,548.00
Salaries-Overtime						1,000.00
Resurfacing Contract		394,284.60	400,000.00			(400,000.00)
Capital Outlay		103,092.26	375,000.00			(368,000.00)
Debt Service-Principal			13,012,000.00			20,000.00
Debt Service-Interest			6,223,638.00			
Operations		20,624.09	140,000.00			22,000.00
Bituminous Resurfacing			400,000.00			(400,000.00)
Expenses-Employees		8,096.86				
Prior Year Obligations						430.49
TOTAL-OFFICE OF DIRECTOR	\$	526,097.81	\$ 20,778,463.00			\$(891,021.51)
<u>CONSTRUCTION HEADQUARTERS (112)</u>						
Operations			\$ 2,000.00			
TOTAL CONSTRUCTION HEADQUARTERS			\$ 2,000.00			
<u>MAINTENANCE HEADQUARTERS (015)</u>						
Salaries & Wages-Employees			\$ 248,077.00			7,016.00
Salaries-Overtime			1,500.00			2,900.00
Capital Outlay		107.20	5,000.00			361,677.07
Operations		2,901.02	30,000.00			41,875.00
Bridge Repainting			50,000.00			
Roadside Grass & Growth Control		10,047.76	35,000.00			
TOTAL-MAINTENANCE HEADQUARTERS	\$	13,055.98	\$ 369,577.00			\$ 413,468.07
<u>NORTH DISTRICT (016)</u>						
Salaries & Wages			1,532,004.00			(105,303.00)
Salaries-Overtime			39,000.00			17,600.00
Resurfacing Contract						150,000.00
Capital Outlay			5,000.00			53.00
Operations		99,275.38	607,000.00			(7,675.00)
Snow Removal			67,000.00			59,188.00
Bituminous Resurfacing						78,000.00
Overhead Walkway	25,000.00					
Compensation-Richard Lee				2,750.00		
Trees-Knollwood				1,900.00		
TOTAL-NORTH DISTRICT	\$	25,000.00	\$ 2,250,004.00	\$ 4,650.00		\$ 191,863.00
<u>SOUTH DISTRICT (017)</u>						
Salaries & Wages			1,956,082.00			144,308.00
Salaries-Overtime			25,000.00			18,000.00
Resurfacing Contracts						125,000.00
Capital Outlay			5,000.00			(52.00)
Operations		85,488.88	495,000.00			(35,000.00)
Snow Removal			66,000.00			(43,956.00)
Bituminous Resurfacing						162,000.00
TOTAL-SOUTH DISTRICT	\$	85,488.88	\$ 2,547,082.00			\$ 408,300.00
<u>CENTRAL DISTRICT (018)</u>						
Salaries & Wages			1,412,713.00			106,967.00
Salaries-Overtime			18,000.00			(1,000.00)
Resurfacing Contract						125,000.00
Capital Outlay			5,000.00			(276.00)
Operations		45,257.89	430,000.00			(12,000.00)
Snow Removal			67,000.00			(15,232.00)
Bituminous Resurfacing						160,000.00
Trees-Rodney Village				15,000.00		
TOTAL-CENTRAL DISTRICT	\$	45,257.89	\$ 1,932,713.00	\$ 15,000.00		\$ 364,459.00
<u>TRAFFIC (030)</u>						
Salaries & Wages			696,373.00			47,763.00
Salaries-Overtime			16,000.00			29,500.00
Capital Outlay			5,000.00			4,675.21
Operations		43,255.25	250,000.00			15,000.00
Lines, Center & Edges		70,115.25	125,000.00			
Highway Lighting		11,151.07	5,000.00			
Highway Signing		6,190.37	30,000.00			
Auto Repair				406.30		
Traffic Signal-Greenwood				6,095.00		
Traffic Signal-Indian River Scc.				2,900.00		
Traffic Signal-Selbyville				4,025.00		
Traffic Signal-Ellendale				4,629.00		
Traffic Signal-Bridgeville	4,825.00					
Traffic Signal-Cranston Hts.	1,955.00					
Traffic Signal-Hillville	4,629.00					
TOTAL-TRAFFIC	\$	11,409.00	\$ 1,127,373.00	\$ 18,055.30		\$ 96,938.01
<u>SAFETY (031)</u>						
Salaries & Wages			63,237.00			5,771.00
Operations			15,000.00			(11,000.00)
TOTAL SAFETY			\$ 78,237.00			\$ (5,229.00)
<u>MATERIALS &amp; RESEARCH (132)</u>						
Salaries & Wages			47,928.00			(18,705.00)
Salaries-Overtime			500.00			
Capital Outlay						1,922.32
Operations		849.73	15,000.00			1,300.00
TOTAL MATERIALS & RESEARCH	\$	849.73	\$ 63,428.00			\$ (14,928.00)
<u>PLANNING SUPPORT (045)</u>						
Salaries & Wages			39,365.00			(39,365.00)
Operations		5,688.26	16,000.00			(16,000.00)
TOTAL-PLANNING SUPPORT	\$	5,688.26	\$ 55,365.00			(55,365.00)
TOTAL-DIVISION OF HIGHWAYS	\$	36,409.00	\$ 22,204,242.00	\$ 37,705.30		\$ 388,430.49

OTHER TRANSACTIONS	TOTAL FUNDS AVAILABLE	EXPENDITURES	UNEXPENDED BALANCES	DISPOSITION OF FUNDS		
				ENCUMBERED	CONTINUING	REVERTED TO GENERAL FUNDS
	28,080.00	25,080.00	2,700.00			2,700.00
	433,293.00	432,287.28	1,005.72			1,005.72
	1,000.00	624.54	375.46			375.46
	394,284.60	391,989.58	2,296.02			2,296.02
	110,092.26	108,361.96	1,730.30	1,717.80		12.50
	13,032,000.00	13,032,000.00				
	6,223,638.00	6,222,562.80	1,075.20			1,075.20
	182,624.09	158,383.12	24,240.97	23,188.78		1,052.19
	8,096.86	8,096.86				
	430.49	430.49				
	<u>320,413,539.30</u>	<u>20,380,115.63</u>	<u>33,423.67</u>	<u>24,906.58</u>		<u>8,517.09</u>
	2,000.00	1,446.08	553.92	553.92		
	<u>2,000.00</u>	<u>1,446.08</u>	<u>553.92</u>	<u>553.92</u>		
	255,093.00	255,019.13	74.87			74.87
	4,400.00	4,155.36	244.64			244.64
	366,784.27	259,134.24	107,650.03	107,650.03		
	74,776.02	71,289.83	3,486.19	3,140.23		345.96
	50,000.00	21.40	49,978.60	49,966.80		11.80
	45,047.76	43,337.09	1,110.67	897.91		212.76
	<u>796,101.05</u>	<u>633,556.05</u>	<u>162,545.00</u>	<u>161,654.37</u>		<u>890.03</u>
	1,426,701.00	1,389,688.78	37,012.22			37,012.22
	56,600.00	50,784.99	5,815.01			5,815.01
	150,000.00	134,268.90	15,731.10	15,731.10		
	5,053.00	4,130.69	922.31	922.31		
	698,600.38	613,190.99	85,409.39	69,286.78		16,122.61
	126,188.00	126,188.00				
	78,000.00	51,873.13	26,126.87	26,126.87		
	25,000.00	25,000.00				
	2,750.00	2,750.00				
	1,900.00	1,900.00				
	<u>2,570,792.38</u>	<u>2,399,775.48</u>	<u>171,016.90</u>	<u>112,067.06</u>		<u>58,949.84</u>
	2,140,390.00	2,051,250.20	89,139.80			89,139.80
	41,000.00	37,327.12	3,172.88			3,172.88
	125,000.00		125,000.00	125,000.00		
	4,948.00	4,856.31	91.69	91.69		
	545,488.88	482,828.95	62,659.93	51,783.21		10,876.72
	22,044.00	22,044.00				
	162,000.00	155,364.88	6,035.12	5,954.66		80.46
	<u>3,040,870.88</u>	<u>2,754,771.46</u>	<u>286,099.42</u>	<u>182,829.56</u>		<u>103,269.86</u>
	1,519,680.00	1,469,408.19	50,271.81			50,271.81
	17,000.00	14,972.20	2,027.80			2,027.80
	125,000.00	115,661.98	9,338.02	9,338.02		
	4,724.00	4,680.44	43.56	43.56		
	464,257.89	419,159.86	45,098.03	36,603.99		8,494.04
	517.68	517.68				
	160,000.00	151,579.84	8,420.16	8,420.16		
	15,000.00	3,405.99	11,594.01			11,594.01
	<u>2,357,429.89</u>	<u>2,230,636.50</u>	<u>126,793.39</u>	<u>54,405.73</u>		<u>72,387.66</u>
	744,136.00	733,968.46	10,167.54			10,167.54
	45,500.00	45,423.73	76.27			76.27
	9,675.01	4,362.01	4,713.00	4,713.00		
	308,255.25	226,706.08	81,549.17	78,509.40		3,039.77
	195,115.25	102,897.05	92,228.20	91,665.52		562.68
	16,151.07	14,416.97	1,734.10	1,734.10		
	36,190.37	11,794.93	24,395.44	24,178.13		267.31
	406.90	406.90				
	6,995.00	1,982.23	4,112.77	433.24		3,679.53
	2,900.00	2,053.64	846.36	391.58		454.78
	4,025.00	3,250.92	774.08	356.01		418.07
	4,629.00	1,887.16	2,741.84	375.08		2,366.76
	4,325.00	2,238.31	2,086.69	319.82		2,266.87
	1,955.00	1,264.70	790.30	204.95		485.35
	4,629.00	3,331.02	1,297.98	381.84		916.14
	<u>1,384,487.85</u>	<u>1,156,574.11</u>	<u>227,913.74</u>	<u>203,212.67</u>		<u>24,701.07</u>
	69,008.00	68,761.50	246.50			246.50
	4,000.00	1,275.67	2,724.33	2,724.33		
	<u>73,008.00</u>	<u>70,037.17</u>	<u>2,970.83</u>	<u>2,724.33</u>		<u>246.50</u>
	29,223.00	28,746.77	476.23			476.23
	500.00	487.33	12.67			12.67
	1,922.32	1,902.67	19.65			1.99
	17,649.71	15,151.46	2,498.25	1,431.23		1,067.02
	<u>49,295.65</u>	<u>47,283.23</u>	<u>2,006.42</u>	<u>1,449.89</u>		<u>556.53</u>
	3,638.26	3,550.16	88.10			88.10
	<u>5,638.26</u>	<u>3,550.16</u>	<u>2,088.10</u>			<u>2,088.10</u>
	<u>930,693,110.36</u>	<u>29,879,751.87</u>	<u>1,034,461.39</u>	<u>743,894.71</u>		<u>262,656.68</u>

## ADMINISTRATIVE SERVICES

Activities for the Administrative Services Section are summarized as follows:

### Summary of Contracts Advertised:

<u>Construction</u>		
Federal Participating	25	\$19,251,297.34
Toll Road	4	372,200.75
100% State	27	3,302,818.00
Rejected	<u>3</u>	
TOTAL Construction	59	\$22,926,316.09
<u>Material</u>		
Material & Supplies	35	\$ 1,345,962.68
Equipment	10	237,234.57
Rejected	4	
No Bids Received	<u>1</u>	
	50	\$ 1,583,197.25
TOTAL Construction & Material	109	\$24,509,513.34
<u>Receipts</u>		
Contract Sales		\$ 11,031.00
Map Sales		2,384.83
Books & Misc. Sales		803.80
Collections from Traffic, Adm. & Mjisc. Bills		<u>236,460.47</u>
TOTAL Receipts		\$ 250,680.10

## LIBRARY

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## UNIFIED SYSTEMS PLANNING

Systems Planning is the process defined to establish and maintain optimum, comprehensive, regional, multi-modal forecast transportation plans. The term Unified is applied to indicate a sincere concern with the public transportation mode as well as with that of the automobile and truck.

Because forecast planning must be conducted with an acute awareness of existing conditions and trends, Unified Systems Planning work also encompasses the traffic counting program and the road sufficiency and inventory studies.

Unified Systems Planning is composed of two major sections: Transportation Studies and Planning Survey:

### A. Transportation Studies

The Transportation Studies Section is responsible for the maintenance of 20-year regional forecast travel demands. Project design data, as provided the Department design sections, are components of the comprehensive regional transportation system and so are extracted from same.

The Transportation Studies Section also evaluates the impact of proposed land platform developments on the existing and forecast transportation systems.

### 1. New Castle County:

As the multi-modal transportation systems planning component of the Wilmington Metropolitan Area Planning Coordinating Council, Unified Systems Planning makes every effort to maintain internal and external agency coordination in appropriate areas. These areas incorporate the Divisions of Highways and Transportation as well as other State, County and Municipal Agencies and private interest citizen groups.

A major land use and transportation plan re-evaluation is being conducted for New Castle County. This time consuming procedure has been necessitated by the desire for a major reallocation of development in the forecast County Comprehensive Plan and for the placing of greater technical emphasis on public transportation.

Federal law mandates that the Wilmington Standard Metropolitan Statistical Area have a comprehensive, coordinated, continuing transportation process if the State is to receive Federal transportation monies for expenditure within the SMSA.

### 2. Kent and Sussex Counties:

The Kent and Sussex Study is the regional, comprehensive, coordinated, forecast transportation study for Kent and Sussex Counties.

Because of the increasing densities in shoreline development and because of the Dover growth rate, this plan is being subjected to a major review and update. The State Planning Office is providing the socio-economic data necessary for calculation of present and forecast travel generations.

Surveillance of new development trends and of traffic volume patterns has been maintained.

### 3. Impact Studies:

The following development proposals were evaluated for their impact on the existing and forecast highway systems:

Academy Hill; Residential and Commercial  
 Barrett Run; Residential and Commercial  
 Bringham Woods; Residential and Commercial  
 Caravel; Residential and Commercial  
 Jamestowne; Residential  
 Loveville Shopping Center; Commercial  
 Rodney Manor; Residential and Commercial  
 Silverside Professional Park; Commercial

Summit Power Station, Industrial  
Valley Stream Village, Residential and  
Commercial  
Whitechapel; Residential and Commercial  
Woods Road; Residential and Commercial

## B. Planning Survey

### 1. Road Inventory Studies:

Notes were updated throughout the year on the physical characteristics of all State Maintained Roads, Suburban Developments and Municipal Streets. This updating occurred quarterly as reports on changes were received from the Bureau of Construction and Maintenance.

The annual distribution for Municipal Street Aid Monies was accomplished.

The Sufficiency Study initiated in 1973 was completed. The result of this study is a rating of the condition, rideability, alignment consistency, safety and varied other roadway characteristics. The rating is based on a 100 point maximum score, therefore, problem sections of roadway are easily identifiable. The ultimate use of this study is one input to condition, capacity and safety improvements studies.

### 2. Traffic Accident Coding:

As in the past, copies of all reported accidents, statewide, are sent to this office where they are coded for Electronic Data Processing. The results of this process is a listing by county, road number and milepost of all accidents. This listing shows, at a glance, the areas of high accident locations, as well as giving many of the particulars of each accident. Some of this specific data includes condition of roadway, time of day, and driver condition (whether or not the accident was alcohol or drug oriented).

The final output is utilized mainly by the Bureau of Traffic, and the Highway Safety Section of this Department.

### 3. Traffic Volume, Vehicle Classification, and Truck Characteristics Studies:

As in the past 30 or more years, the State of Delaware, in cooperation with the Federal Highway Administration, has done traffic volume and classification counts throughout the entire State.

The output of this traffic counting procedure is a valuable tool in the Transportation Planning Process. By maintaining surveillance on the main arteries of the State, checks can be made on validity of projections, and patterns of traffic

movement. Many times, projections have been reached far before the expected time, and thus can be further refined.

The Manning Survey Section reports traffic volumes at 18 permanent surveillance locations (3 of these being the toll facilities at the Delaware Memorial Bridge, Kennedy Turnpike and Cape May-Lewes Ferry). The remaining 15 locations are traffic counters owned and maintained by this Section. These counters, placed in strategic locations statewide gather data every hour, and the results are made available to the Department and the public.

The portable traffic counter schedule is designed to cover all the locations not involved with the above mentioned permanent locations, and requires about a 3-year cycle to complete.

More traffic counters of varied capabilities were purchased this past year along with the installation of additional inductive traffic counting loops in the pavement.

The quarterly seasonal counting schedule on the Interstate, U.S. and State Routes and at selected important locations continued in the months of February, May, August and November.

Vehicle Classification Counts were formerly done manually but are now also done with the assistance of two new automatic traffic classifiers. The output of both the manual and machine process gives a percentage of all type vehicles, and is an adjunct to the Truck Weight Study mentioned below.

The Truck Weight Study, conducted annually in the past, has now been shifted to a biannual occurrence. This study gives a sample of the vehicle types, weights and commodities being carried on main arteries in the state. This data is a necessity for accurate pavement depth and composition design. In Fiscal Year 1975-6, this study will again be performed.

