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Governor

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July 15, 2016

To: Chairs of the House of Representatives Committee on Transportation Appropriations
Chairs of the Senate Appropriation Committee on Department of Transportation

From: Nicholas J. Tennyson

RE: Report on Consolidation of Primary and Secondary Maintenance Accounts to the General Maintenance Reserve Account

House Bill 1030 directed changes to the previous system of allocation for maintenance funding for NCDOT and directed that a report be made to document the Department's system of allocation. Relevant portions of the act are:

SECTION 35.24.(a) The Department of Transportation shall transfer all funds in the Primary Maintenance Account (Fund Code 7821) and the Secondary Road Maintenance and Improvement Fund (Fund Code 7822) to the Reserve for General Maintenance (Fund Code 0934).

SECTION 35.24.(b) The Department of Transportation, in consultation with its Division Engineers, shall determine the amount of funds from the Reserve for General Maintenance needed for other purposes prior to making the allocation under G.S. 136-44.6, as amended by subsection (c) of this section. The term "other purposes" includes emergency responses, weather-related events, and statewide programs. By **July 15, 2016**, the Department shall report its findings to the chairs of the House of Representatives Committee on Transportation Appropriations and the Senate Appropriations Committee on Department of Transportation, including the total amount of funds needed, an identification of the purposes the funds are needed for, and the amount of funds needed for each purpose.

The ratified version of House Bill 1030 appropriated to the General Maintenance Fund Code 0934 a total of \$467,583,999 for maintaining the state primary and secondary road networks. In addition, the Joint Conference Committee Report on Base, Capital and Expansion Budgets states that \$9,040,000 of non-recurring funds will be used to restore funding in FY 2017 for inmate road squads and litter crews provided under the supervision of the Department of Public Safety.

On July 7, 2016 the Chief Engineer for the Division of Highways hosted a Maintenance Allocation workshop in Raleigh for Division Engineers and Division Maintenance Engineers to review enterprise programs funded with maintenance funds and distribution formulas to allocate funding to the 14 Highway Divisions. The workshop concluded with consensus on both the purposes and funding of the enterprise level programs and the Division distribution of maintenance allocations.



Enterprise Level Allocations

The first part of the workshop dealt with the amount of funding needed to support enterprise level programs. These programs are separated into four main categories: Emergencies, Research and Development, Asset Management and Operations, and State and Federal Obligations. Each of the enterprise programs are evaluated annually to determine the program's effectiveness in supporting the 14 Divisions' ability to meet the Department's mission and goals. Managers for each enterprise program are required to submit a plan for any uncommitted balances and funds needed for the upcoming fiscal year. The Division Engineers were consulted on the amount of funding for each of the enterprise programs for FY 2017 and program benefits to statewide maintenance and operations. The four major categories are further defined below. A detailed chart of funding amounts allocated to each purpose for FY 2017 is included as an attachment to this report.

Emergencies

Under the Emergencies category, one of the most challenging elements to plan for is the type of weather events our state will face, particularly in regards to the frequency and intensity of snow and ice events. The Department is committed to minimizing the disruption of moving people and goods across our state by proper planning for weather related events. NCDOT maintenance forces and contractors are utilized to minimize clearance times on the state maintained highways. These funds are utilized to cover labor, equipment, materials, and contract costs associated with anti-icing and snow and ice removal activities. These funds are also used to cover unanticipated expenditures for emergency operations which cannot be collected from other sources, such as declared emergency events eligible for FEMA/FHWA reimbursements.

Demonstrating the extreme variability of costs, over the past 4 years, the Department has spent \$15M to \$80M annually on winter weather events. The consensus of the Division Engineers was to continue setting aside funding for weather related events at a statewide level. Once all Emergency activity invoices are paid and contract commitments accounted for, the unused balances for this category will be allocated to the 14 Divisions at the end of the third quarter of the state fiscal year. A sum of \$90,000,000 is allocated for FY 2017 for Emergencies.

Research and Development

These are funds used to research, develop, and implement state of the art maintenance technologies, practices and procedures as well as management and technical training. The objectives of these programs include improving maintenance efficiencies and improving cost effectiveness.

Management and technical training funds are used for the Department's contracted Maintenance Technical Assistance Program. The Institute for Transportation Research and Education (ITRE) provides technical training courses to the 14 highway Divisions. In addition, funds are used to administer the Department's Transportation Supervisors and Engineers Academies. These Academies are career development training programs for Transportation Supervisors and Engineers. The Academies train participants on planning, organizing, implementing and evaluating their daily operations. The Maintenance Engineers Technical Training Sessions (METTS) are typically regional sessions designed for information dissemination and sharing amongst Division maintenance personnel.

The total amount of FY 2017 funds allocated to the Research and Development category is \$550,000

Asset Management and Operations

The Asset Maintenance and Operations programs are to assess and address statewide program needs. A brief description of each program is outlined below. The total amount of FY 2017 funds allocated for this category is \$17,800,000.

- Bridge Central (Electrical/Emergency)

Emergency bridge repair or replacement, repair or replacement of draw bridge electrical components and equipment and maintenance of navigational lighting systems on high level bridges located over navigational waterways.

- Asphalt Emulsion Storage Tanks

Replace deficient or irreparable Asphalt Storage Tanks on a priority basis based on biannual inspection on all Asphalt Storage Tanks.

- Non-TIP Pavement Activities

Collect data related to pavement performance, including friction, profile and deflections not covered under STI Programs. This data is used to assist field personnel in planning maintenance activities or scheduling pavement improvements.

- National Pollutant Discharge Elimination System (NPDES)

Assure maintenance yards and salt storage facilities remain in compliance with the Department's NPDES permit and US EPA regulations.

- Repair of Rest Areas

Making maintenance repairs (painting, floor repairs, bathroom renovations, roof replacements, HVAC improvements, correction of safety hazards and minor additions to sidewalks) to rest areas located along Interstate and Primary System Routes.

- Renovation of Rest Areas

Major renovations of rest areas once programmed into the statewide transportation improvement program (STIP). Under STI, these projects are no longer eligible for programming into the STIP and are now funded with maintenance funds.

- Central Signal Maintenance (Previously R-4701 STIP)

Central functions related to signal maintenance once programmed into the STIP and supplemented with highway fund maintenance funds. The funding is for enterprise software and controllers for automated signal system. Under STI, the signal maintenance program is no longer eligible for programming into the STIP and is now funded with maintenance funds.

- Incident Management (Previously R-4049)

These funds are used for the operations contract associated with the State Transportation Operations Centers managed by the Transportation Safety and Mobility Unit. The funding is used to pay for and administer the state's NC511 system, operators for the Transportation Management Centers and incident management staff. Under STI, this

program is no longer eligible for programming into the STIP and is now funded with maintenance funds.

State and Federal Obligations

These funds are funds required either by state or federal laws, regulations or rules. A total of \$21,835,000 is allocated in FY 2017 to support the following enterprise programs:

- **Asphalt Testing Lab Corrective Actions**

In the late 1980s, it was discovered that chlorinated solvents were discharged onto the ground at a number of asphalt manufacturing sites across North Carolina resulting in soil and groundwater contamination. While these asphalt production sites were owned and operated by private entities, the North Carolina Department of Transportation (“NCDOT”) operated asphalt testing labs at the locations for QA/QC activities for its projects. Subsequently, NCDOT entered into a Memorandum of Agreement with the North Carolina Department of Environment and Natural Resources, now the NC Division of Environmental Quality, to perform site screening, soil and water sampling, development of specific site evaluation plans, and development of remedial action plans. To date, NCDOT has screened over 200 potentially contaminated asphalt sites. Based upon the screening results, NCDOT has completed comprehensive site assessments which resulted in the preparation of corrective action plans, remediation and long term monitoring.

- **Beaver Control**

The North Carolina Beaver Management Assistance Program is a program established by the North Carolina State Legislature with the purpose of “controlling beaver damage on private and public lands” by providing landowner assistance in beaver control and management. The NCDOT has provided support in an advisory role and by an annual contribution since the program’s inception to supplement work performed for the protection of NCDOT assets and allows NCDOT maintenance forces more flexibility in utilizing their limited resources on mission critical activities. This funds an annual agreement with USDA Animal & Plant Health Inspection Services (APHIS).

- **Drug & Alcohol Testing for Commercial Driver’s License (FHWA Requirement)**

In December of 1994, the Board of Transportation approved allocations to perform drug and alcohol testing to comply with rules and regulations established by the U.S. Department of Transportation. The Department’s Drug and Alcohol Testing Program was implemented, and all employees who have a commercial driver’s license are being randomly tested for drugs and alcohol.

- **Historical Markers (NC Department of Cultural Resources)**

G.S. 146-42.3 provides that the Department of Transportation may purchase historical markers prepared and delivered to it by the Department of Natural and Cultural Resources. The Department of Transportation erects the markers on sites selected by the Department of Natural and Cultural Resources. HB 1030 increased this funding to a maximum of \$60,000 per year.

- Outdoor Advertising

The Outdoor Advertising Control Act (G.S. 136-126) directs the Department to manage the outdoor advertising programs along state highways. The program is outsourced to a private firm. The annual cost is approximately \$500,000 to supplement the revenue from processing permits and to provide annual reviews of existing permits.

- Oversize/Overweight Fees (Revenue that is appropriated for maintenance.)

In accordance with G.S. 20-119.1, funds generated by overweight & oversize permit fees in excess of the cost to administering the program, shall be used for highway and bridge maintenance required as a result of damage caused from these loads.

- Railroad Signal Maintenance

In accordance with G.S. 135-20(h) these funds are utilized to reimburse various Railroad Companies for maintenance of railroad crossing signals necessitated by State System Highway Railroad Crossings. The proposed expenditures are in accordance with existing agreements with the affected Railroad Companies.

- State Park Roads Maintenance

These funds are used for maintenance of state park roads as required by G.S. 136-44.12.

- Weigh Stations

Maintaining nineteen weigh stations at ten locations across the state on the Primary Highway System. These expenditures will include both contract and force account maintenance.

- Inmate Labor

Reimbursement to the Department of Correction for the daily furnishing of minimum and medium custody inmates to the Department of Transportation for highway purposes, paying for inmate road squads and for litter crews provided under the supervision of the Department of Public Safety. A total amount of \$9,140,000 (\$100,000 for minimum & medium custody labor, \$9,040,000 litter crews) is debited from each Division's allocation in accordance with a 3-year average utilization rate.

Of the \$467,583,999 FY 2017 appropriation for maintaining the primary and secondary state highway systems, the total amount of \$130,185,000 will be allocated for enterprise programs, including \$9,140,000 for inmate road squads and for litter crews.

Division Allocations

The second part of the workshop explored distribution formulas for allocating maintenance funding to the 14 Divisions. Several scenarios using various combinations of asset inventory and needs-based formulas were reviewed.

Asset inventory includes two parts: road lane miles of state maintained roads and square feet of bridge deck area of state maintained bridges. The needs-based portion also has two parts: assessed needs and non-assessed needs.

Assessed needs are collected as part of Department's maintenance condition assessment program where several roadway features are measured and given a condition score. Some examples are bridges and pavement condition scores, pavement markings, and damaged or blocked crossline pipes. Non-assessed needs are maintenance needs based on cyclical demands. For example, roadside mowing cycles, power bills for roadway lighting, and litter control are non-assessed needs based on historical expenditures. Additional funds may be allocated to a Division based on anticipated special events (for example, US Open).

Consensus was achieved to allocate maintenance funding 65% based on the road and bridge asset inventory in each Division, and 35% based on each Division's assessed and non-assessed needs. The road and bridge asset inventory was further weighted at 70% road and 30% bridge. Incorporating the asset inventory component brings a level of stability from year to year to help Divisions plan work beyond the current fiscal year. Division allocations are listed in Figure 1.

Figure 1: Distribution of FY 2017 Maintenance Funds

Division	GMR	Percent
1	25,323,647	7.51%
2	20,096,182	5.96%
3	22,819,274	6.76%
4	24,428,479	7.24%
5	30,153,276	8.94%
6	23,889,102	7.08%
7	24,832,613	7.36%
8	23,983,557	7.11%
9	21,790,318	6.46%
10	24,712,668	7.32%
11	22,851,640	6.77%
12	25,736,464	7.63%
13	24,349,860	7.22%
14	22,431,919	6.65%
<i>Division Subtotal</i>	<i>337,398,999</i>	
Statewide Enterprise Programs	130,185,000	27.84%
<i>Total</i>	<i>467,583,999</i>	

Enterprise Maintenance Allocation Breakdown

Group	Description	FY 2017 Recommended
<u>Emergencies</u>		
	Emergency WOs and Snow & Ice	\$ 90,000,000
		\$ 90,000,000 *
*Unused balances distributed to Divisions in late spring		
<u>Research and Development</u>		
	Management & Technical Training	\$ 550,000
		\$ 550,000
<u>Asset Maintenance and Operation</u>		
	Bridge Central (Electrical/Emergency)	\$ 6,000,000
	Asphalt Emulsion Storage Tanks	\$ 50,000
	Non-TIP Pavement Activities	\$ 1,100,000
	NPDES	\$ 1,200,000
	Repair of Rest Areas	\$ 1,000,000
	Renovation of Rest Areas (Previous STIP Program)	\$ 3,000,000
	Central Signal Maintenance (Previously R-4701)	\$ 225,000
	Central Incident Management (Previously R-4049)	\$ 5,225,000
		\$ 17,800,000
<u>State and Federal Obligation</u>		
	Asphalt Testing Lab Corrective Actions	\$ 1,000,000
	Beaver Control	\$ 450,000
	Drug & Alcohol Testing for CDL	\$ 150,000
	Historical Markers	\$ 60,000
	Outdoor Advertising	\$ 500,000
	Oversize/Overweight Fees	\$ 4,460,000
	Railroad Signal Maintenance	\$ 3,575,000
	State Park Maintenance	\$ 500,000
	Weigh Station	\$ 2,000,000
	Inmate Labor (Min & Med Custody and Litter Crews)	\$ 9,140,000
		\$ 21,835,000
	Total Enterprise Maintenance Allocation	\$ 130,185,000
	Division Allocations	\$ 337,398,999
	Total Maintenance Appropriation	\$ 467,583,999