

# Chapter 1

## ORGANIZATION

### *Introduction*

The Bureau of Highway Design has prepared this manual for the New Hampshire Department of Transportation (NHDOT) as a guide to designers and others involved in the highway improvement process. This chapter deals with the organization of the NHDOT and the Bureau of Highway Design.

### New Hampshire Department of Transportation

The Department of Public Works and Highways was established by State Statute, Chapter 228 of the *New Hampshire Revised Statutes Annotated* (1); however, its functions, powers, duties, personnel, records, equipment, etc. were transferred to the Department of Transportation created by RSA 21-L in 1985. The joint committee on implementation of reorganization and the Governor determined the effective date the NHDOT became operational to be February 28, 1986.

Section 21-L: 2 states:

- I. There is established the department of transportation, an agency of the state under the executive direction of a commissioner of transportation.
- II. The department of transportation, through its officials, shall be responsible for the following general functions:
  - a. Planning, developing, and maintaining a state transportation network which will provide for safe and convenient movement of people and goods throughout the state by means of a system of highways, railroads, air service, mass transit, and other practicable modes of transportation, in order to support state growth and economic development and promote the general welfare of the citizens of the state.
  - b. Performing any regulation of transportation activities required by law which is not within the jurisdiction of another state agency.

### State Laws Regulating Functions

The powers and duties of the Commissioner are delegated by statutes and regulated to promote the general welfare of all citizens of New Hampshire. As an example, the powers of “eminent domain” are necessary to appropriate private property for public use, but they are restricted by law to procedures which ensure fair consideration for landowners of the State. Most laws related to transportation are contained within the Title 20 (Transportation), which includes Chapters 228 through 240, and Title 39 (Aeronautics), which includes Chapters 422 through 424, of the *New Hampshire Revised Statutes Annotated* (1).

## **Mission Statement**

Transportation excellence enhancing the quality of life in New Hampshire.

## **Purpose**

Transportation excellence in New Hampshire is fundamental to the state's sustainable economic development and land use, enhancing the environment, and preserving the unique character and quality of life. The Department will provide safe and secure mobility and travel options for all of the state's residents, visitors, and goods movement, through a transportation system and services that are well maintained, efficient, reliable, and provide seamless interstate and intrastate connectivity.

## **Strategic Goals**

- Customer Satisfaction
- Effective Resource Management
- Performance
- Employee Development

## **Vision**

Transportation in New Hampshire is provided by an accessible, multimodal system connecting rural and urban communities. Expanded transit and rail services, a well-maintained highway network and airport system provide mobility that promotes smart growth and sustainable economic development, while reducing transportation impacts on New Hampshire's natural, cultural, and social resources. Safe bikeways, sidewalks, and trails link neighborhoods, parks, schools, and downtowns. Creative and stable revenue streams fund an organization that uses its diverse human and financial resources efficiently and effectively.

## ***Organization***

As shown in the Organizational Chart in Appendix 1-1, the NHDOT is under the executive direction of the Commissioner who manages the functions of the Department through a Deputy Commissioner and an Assistant Commissioner who also serves as Chief Engineer.

The organization is composed of five Divisions as follows, each headed by a Director:

- Project Development,
- Operations,
- Finance and Contracts,
- Policy and Administration, and
- Aeronautics, Rail, and Transit

Each Division is comprised of Bureaus, each headed by an Administrator. The Bureau of Highway Design, based in Concord, is one of eight (8) Bureaus under the Division of Project Development.

Additionally, there are a number of workgroups within the Department that are comprised of representatives from various bureaus and associated organizations, according to specific areas to be addressed. These include, but are not limited to:

- Specifications Committee
- Joint Loss Committee
- Unit Safety Committee
- Lean Steering Team
- TRAC Committee
- Contribute Users Group
- Strategic Planning
- Traffic Control Committee
- Cultural Resources Group
- Natural Resources Group
- Balanced Score Card Team
- Consultant Selection Committee
- Internal Labor Management Committee
- Turnpikes/Interstates Aggregation Committee
- Strategic Highway Safety Plan Committee

### ***Bureau of Highway Design***

The Bureau of Highway Design is part of a public service organization and, as such, its major objective is to deliver service economically and effectively. Policy and procedure memoranda, manuals, design directives, and other communications provide the regulations for operation of the Bureau of Highway Design. The services provided by the Bureau are:

- Geodetic and topographic and detail surveys,

- Highway design including preparation of Public Meeting Plans, Right-of-Way Plans, Environmental Permit Plans, Construction Plans, and supporting documentation, (Bid) Proposals, and
- Engineering services to the NHDOT, other New Hampshire State agencies/departments, and municipalities, as requested.

## Organization

The Bureau Organization Chart (Appendix 1-2) shows the Bureau of Highway Design functional groups, subdivided into sections and team units.

As in most closely coordinated organizations, there is an informal exchange of information at all levels and the Bureau of Highway Design benefits from this type of informal relationship. There is an internal exchange of duties and personnel from time to time as needed, but the organizational structure remains as shown.

## Functions and Responsibilities

A Section Chief heads each functional group (Section). The Section Chiefs are responsible to the Bureau Administrator who oversees all design and support activities within the Bureau. Each section is organized to carry out their duties as either teams or as individuals, or a combination of both. A supervisory level engineer or technician heads each Design team that is composed of other technicians and/or engineers. A senior survey technician heads each Survey team that is usually comprised of three survey technicians.

There are two stages of project development, pre-hearing (Preliminary Design) and post-hearing (Final Design). Designers within the Bureau, i.e. “in house,” or Consultants may perform either or both the Preliminary Design and/or the Final Design of a project. (All consultant services are procured by a qualifications based selection process.) If the Preliminary Design is done “in house” or by Consultant, it is administered by the Chief of Preliminary Design, except for certain smaller projects that may be entirely developed by Final Design. If the Final Design is done “in house” or, in some instances done for smaller projects by Consultant under a Special Statewide Agreement, the Chief of Final Design administers it. The Chief of Consultant Design administers most Consultant Final Design projects.

Certain Consultant projects may be described as Part A/Part B. For these projects, the NHDOT negotiates an Agreement with the Consultant to perform the Preliminary Design (Part A) and the Final Design (Part B) separately. For example, the Preliminary Design may be done “in house” and the Final Design is done by the Consultant, or vice versa.

Additionally, these Sections conduct training for staff, consultants, and other participants in the design process and do research into specific highway design issues and procedures.

### *Preliminary Design*

The Preliminary Design Section prepares the preliminary engineering layout including line and grade along with preliminary cost estimates and correlates field and office information necessary to process projects through the Public Hearing.

**Design and Geometrics:** The Preliminary Design Section develops road geometry and serves as advisors on geometric details throughout plan development. Staff from Preliminary Design review preliminary Design done by Consultants. They also review geometric designs and any associated traffic studies for access-drive permit applications upon request by the Bureau of Highway Maintenance. The portion of Preliminary Design that does this work is composed of civil engineers.

**Safety:** Another group within the Preliminary Design Section is the Safety Section, which currently consists of two Civil Engineers, one of which is the Highway Design Safety Engineer. This section coordinates safety-related activities pertaining to the Strategic Highway Safety Plan (SHSP), the Highway Safety Improvement Program (HSIP), Road Safety Audits, High Risk Rural Road safety improvements, and the Intersection Safety Improvement Program. The Safety Section also analyzes crash data using the AASHTO SafetyAnalyst software in support of these safety programs, and provides crash reports as needed for NHDOT projects, municipal officials, consulting engineers, and regional planning commissions. This section also produces and maintains the HSIP and SHSP manuals.

**Plan Preparation:** Within Preliminary Design is a group composed of engineering technicians called Plan Preparation (Plan Prep) whose responsibility is to process the digital survey data collected by the survey crews into a format usable by the project designers. The result is a plan and ground model (from which cross sections and profiles can be developed) for all Highway Design projects as well as for projects in the Bureau of Bridge Design, the Bureau of Aeronautics, the Bureau of Rail and Transit, and the Bureau of Planning and Community Assistance, and also survey information required for Maintenance and Turnpike activities. This base information for Highway Design projects is used by the engineers in Preliminary Design (or by a consultant) to develop conceptual alternatives for review by the Director of Project Development and other members of the Commissioner's Office.

**CAD/D:** Another group within Preliminary Design Section is the Computer Aided Drafting/Design (CAD/D) support section that consists of Civil Engineers and Engineering Technicians who have become proficient in CAD/D technology as used by the Bureau of Highway Design. This groups primary function is to provide programming, training, and other necessary non-hardware related support as most of the designs are developed using CAD/D software.

**Hearing Preparation:** Lastly, one Engineering Technician assists the Preliminary Design engineers in the preparation of embellished presentation plans for use at internal review meetings and at public meetings.

Coordination with the Federal Highway Administration (FHWA) for Federal Aid projects and with other bureaus within the NHDOT, most commonly with the Bureaus of Right of Way, Environment, and Bridge Design, begins at the Preliminary Design stage. Existing utility locations are also requested and verified at the Preliminary Design stage through the Design Services Section of Highway Design.

### **Final Design**

**Final Design Teams:** The Final Design Section provides pre-hearing support to Preliminary Design and then completes the design of the project following the Public Hearing including

the development of right-of-way plans, construction plans and related documents, environmental permit plans, and specifications and estimates (PS&E). Two Final Design Group Leaders supervise two to three design teams that do the Final Design of the projects assigned to the Section. Each design team is composed of a supervisory Civil Engineer or Civil Engineering Technician and, typically, three to five Civil Engineers and/or Civil Engineering Technicians.

Throughout a project's Final Design process the final design team closely coordinates with the Design Services Section as well as all other additional bureaus involved including; the Bureau of Environment, the Bureau of Construction, the Bureau of Materials and Research, Bureau of Bridge Design, the Bureau of Traffic, and the appropriate Highway Maintenance District and/or the Bureau of Turnpikes. Formal submissions are made to FHWA on Federal Aid projects at different stages to ensure compliance with Federal requirements. These submissions vary in extent and content but are governed by a memorandum of agreement with FHWA regarding project oversight. This Section also reviews the final design for access-drive permit applications when requested by the Bureau of Maintenance and reviews some final design done by Consultants.

Roadside Development: Within Final Design is a group called Roadside Development. Their responsibility is to provide landscaping design for contract work, wildflower establishment, plant stock inspection, herbicide and pesticide application, and public outreach.

### **Consultant Design**

The Consultant Design Section reviews the Final Design work performed by consultant firms for the NHDOT. The section also performs coordination activities for the project design and is also responsible for tracking Consultant agreements, submissions, and billing. The Consultant Design section is composed primarily of Civil Engineers with some senior Engineering Technicians. Part of the Consultant Design Section staff is dedicated to reviewing Turnpike projects.

### **Design Services**

The Design Services Section is primarily responsible for survey, utility, and railroad coordination; however, the section also provides support with hydraulics and lighting design. This work continues throughout the design phase and the construction phase.

Survey: Survey responsibilities include locating "detail" and topographic information by survey data recorder (SDR); establishing construction line(s) on the ground during design for Geotechnical work performed by Materials of Research and at times verifying that control points are met or, establishing the construction lines(s) just prior to beginning construction; establishing new right-of-way bound and easement location; and, assisting in construction staking. Survey also coordinates their activities with geodetic work and cadastral surveying.

Utilities and Lighting: The Utility Section consists of a number of Civil Engineers and Engineering Technicians (Utility Coordinators) who coordinate between the project designers and the utility companies and municipal utilities. Utility coordination endeavors to ensure that existing utility locations are known and that efforts are made to eliminate or minimize their relocation. If unavoidable, provisions are made to relocate the utility and, in some instances, upgrades or new installations are performed. Certain members of the staff perform lighting design as well as utility coordination. The project's Utility Coordinators typically

arrange with electric companies for electrical service and relocation or installation (LDS) of street lighting under a Force Account Agreement with the State. Maintaining the Utility Accommodations Manual and Highway Lighting Design Manual are also the responsibility of the Utility Section.

**Hydraulics:** The Hydraulics Engineer is available to review the more complex drainage designs, develop unique drainage solutions, coordinate related work with Bridge Design, provide support as needed to the Highway Maintenance Districts and the Bureau of Turnpikes, and maintains hydrologic records and the *Manual on Drainage Design for Highways* (8).

**Railroad Coordination:** The Railroad/Highway Crossing Coordinator deals with issues in connection with NHDOT projects affecting all railroads operating within the State including the State owned rail lines. Responsibility also includes implementing the Railroad/Highway Crossing Program.

### **Contracts and Specifications**

The Contracts and Specifications Section is responsible for preparing, processing and amending consultant agreements for preliminary and final design engineering and technical services as well as developing, administering and maintaining specifications and special provisions for construction materials and assembling bid proposals for construction projects. Further, the Section provides executive support and maintains file documentation for both the Consultant Selection Committee and the Specifications Committee.

### **Records Section**

The Records Section assists the general public, surveyors, consultant engineers, and the Attorney General's Office in obtaining highway construction plans of completed or upcoming projects. After a project is complete, the Records Section receives highway correspondence and construction plans from the Bureau of Construction's Engineering Audit Section and then submits precise records to the State of New Hampshire Archives for accurate material storage and recall. This section maintains the Highway Design Equipment Inventory System (equipment and furniture inventory) and monitors the location and routing of survey field books. The Records Section also is responsible for the sale of numerous DOT publications such as the Standard Plans and the Standard Specifications for Road and Bridge Construction.

### **Administrative Section**

The Administrative Section is responsible for the day-to-day Bureau administrative duties of word processing, filing, clerical and similar administrative duties along with time-keeping, processing invoices, monitoring the supply inventory and keeping administrative records.

## ***Related Bureaus and Organizations***

There are a number of bureaus and organizations that contribute to the development of highway projects. They are engaged in activities that are affected by highway design, but each has major responsibilities in other areas of public service. They provide the benefit of special expertise and, in turn, the Bureau of Highway Design reciprocates when these groups require assistance. Coordination with other bureaus and organizations is essential to efficiently and systematically produce designs for highway improvements.

## *Other NHDOT Bureaus*

### **Bureau of Right of Way**

The Bureau of Right-of-Way coordinates the establishment of the location of existing rights of way, including land title abstracts, and acquires and documents the property rights required for the construction of a project. The latter involves appraisals, acquisitions, relocation assistance, and arrangements for legal activities. The designer(s) provide Right of Way purchase plans and Registry Plans to allow these functions. A separate Property Management Section coordinates the management and disposition of surplus real estate properties. Additionally, this Bureau organizes and schedules Public Hearings, which are required to allow the ability to exercise eminent domain, for Department projects. A more extensive discussion of the Right of Way Process is within its own separate chapter in this manual.

### **Bureau of Environment**

The Bureau of Environment's principal role is to evaluate transportation construction projects and maintenance activities relative to impacts on natural, cultural and socioeconomic resources. The Bureau also acts as an environmental liaison between the Department and the appropriate federal, state, local and private environmental organizations as well as the general public. Coordinated interagency efforts address such issues as water quality, air quality, noise, wetlands (tidal and non-tidal), floodplains, shorelands, wildlife, conservation lands, historic resources, archeological sites, farmlands, hazardous waste/contamination, etc. and the permitting and regulatory compliance associated with these.

The bureau assigns an Environmental Manager to each Design project to complete the National Environmental Policy Act (NEPA) analysis and documentation, and to coordinate the completion of permit applications, historical /archaeological assessments, contaminated material assessments, and other analyses in compliance with local, State, and Federal regulations.

### **Office Of Stewardship and Compliance**

The purpose of this office is to promote environmental stewardship and good health and safety practices throughout the Department. Primary responsibilities include training and auditing Department personnel with regard to compliance with environmental, health and safety rules, regulations, policies, procedures and best practices; developing and implementing environmental and health and safety management systems; conducting risk assessments and monitoring medical exposure; conducting the workers compensation and drug and alcohol programs, and; managing environmental/health and safety training and compliance databases

### **Bureau of Construction**

The Bureau of Construction is responsible for the development and implementation of construction methods and procedures, quality acceptance and overall quality assurance, final audit documentation, and the contract administration of all transportation projects advertised by the Department's Division of Project Development. The Bureau, with its field representatives, provides contract administration and oversight on a wide variety of

transportation projects including Congestion Mitigation, Transportation Alternatives, Signal Replacement, Guardrail Upgrades, Wetland Creation, Landscaping, Rest Area and Toll Plaza Reconstruction, Resurfacing, as well as the more common Highway and Bridge projects.

Civil Engineers and Civil Engineering Technicians in the field are responsible for inspection of all Contractor work, material testing, and the computation and recording of contract quantities to ensure compliance with Plans, Standard Specifications, Estimate, and other applicable state and federal standards. Senior field personnel (Contract Administrators) also authorize progress payments to Contractors for completed work and resolve contract disputes resulting from either changed field conditions, or additional work that was not anticipated in the contract plans. Field personnel coordinate with the Highway Designers as necessary during construction when site conditions are not as proposed, when design intent clarification is required, or when alternatives/alterations to the work as designed are proposed or are being considered.

Additionally, there are more senior and experienced Civil Engineers that are the District Construction Engineers who have the responsibility for certain geographical segments of the State. They oversee the Contract Administrators within that area. During the design phase of a project, District Construction Engineers are consulted to provide input on constructability and maintenance of traffic issues, as well as, to assist the designers with establishing anticipated construction time frames.

### **Bureau of Materials and Research**

The Bureau of Materials and Research provides a wide range of technical services related to the specification, testing, acceptance and evaluation of transportation materials, facilities and innovations. The Bureau is composed of five major sections, each with its own specialized function, as described below.

- Administration – Coordinates personnel, Bureau safety program and administrative functions of the Bureau.
- Geotechnical
  - Conducts subsurface explorations to evaluate soil, bedrock and groundwater conditions including installing and decommissioning monitoring wells.
  - Performs pavement coring and base course sampling on existing roadways.
  - Provides exploration logs and geotechnical engineering recommendations for structure foundations, embankment fills, cut slopes, frost protection, and subsurface drainage.
  - Maintains the Department Rock Cut Inventory Database, performs vibration monitoring and approves blasting plans.
- Materials Technology
  - Responsible for the Department Quality Assurance Program and manages the Department Independent Assurance Testing Program and the Central Laboratory, which performs Acceptance and Independent Assurance tests on soil, concrete, asphalt and other materials used in Department projects.
  - Provides material use recommendations, specification development and analyses of failed materials. Maintains the Laboratory Information Management System (LIMS).

- Pavement Management
  - Provides pavement section recommendations for new construction and rehabilitation projects.
  - Maintains the Department Pavement Management System (PMS) for all State maintained roadways. Evaluates pavement condition and measures ride quality on roadways for design and construction quality assurance.
  - Provides retroreflectivity testing for permanent pavement markings.
  - Administers District and Turnpike resurfacing contracts.
- Research
  - Coordinates various research efforts for the Department including administration of the Federal-Aid research program, technical reviews, and implementation activities.
  - Evaluates new products and performance of in-place materials or innovative applications.
  - Maintains the Qualified Products List (QPL).
  - Provides bridge deck condition assessments to Bridge Design to assist in determining appropriate rehabilitation options for existing structures. .

### **Bureau of Bridge Design**

The Bureau of Bridge Design is responsible for bridge structure design, large drainage structure design/evaluation, i.e., those with a span of 10 feet or greater as measured along the centerline of the road, and assistance in the design of miscellaneous highway structures, e.g., retaining wall design, and foundation design for overhead sign structures and long mast arm traffic signals. Members of the staff also review shop and fabrication drawings and on site inspection of the facilities producing certain related components.

The Bureau has three sections, one of which does the “in house” designs, another does the review of consultant designs, and the third inspects bridges and maintains the inventory of bridges.

### **Bureau of Bridge Maintenance**

The Bureau of Bridge Maintenance performs routine maintenance and limited replacement of State bridges. They also assist municipalities in the maintenance of their bridges. They are frequently consulted regarding rehabilitation of larger drainage structures that are not considered bridges, such as metal arch pipes, and the maintenance aspects of any unusual larger drainage installations.

At times the Bureau of Bridge Maintenance will perform remedial bridge work in conjunction with a project due to the type of work involved.

### **Bureau of Traffic**

The Bureau of Traffic is responsible for the installation and maintenance of all traffic control devices, including traffic signals, highway signs, and pavement markings on state highways. They also provide the design and special provisions for plans and proposals, and perform

construction inspection for all traffic control devices. The Bureau of Traffic is also responsible for the statewide Transportation Management Center (TMC) and Intelligent Transportation Systems (ITS) programs. Deployment of new ITS devices, such as permanent Dynamic Message Signs (DMS), Road Weather Information Systems (RWIS), and Closed Loop Traffic Signal Systems are often included as part of comprehensive capital improvement projects. Design for such devices, and related construction inspection and acceptance, is to be provided through the Bureau of Traffic TMC/ITS section.

As the construction plans progress, the Bureau of Traffic reviews the Traffic Control Plan (TCP) and develops the Construction Signs and Warning Devices “package” including a cost estimate. Projects designed by Consultant are coordinated through Traffic as a review function.

Bureau of Traffic engineering staff are critical partners in the Department’s traffic safety program. The bureau is typically represented in all Road Safety Audits. They also participate in the Highway Safety Improvement Program (HSIP), providing insight for the identification of candidate projects and for determining measures to mitigate safety concerns.

The Bureau of Traffic is also responsible for:

- Maintaining the annual statewide traffic data collection program (traffic volumes, vehicle classification, and Weigh-in-Motion).
- Processing, analyzing, and reporting of traffic data to support planning and development of the statewide transportation system
- Project and/or site-specific traffic data collection efforts and developing traffic forecasts for design projects, and conducts speed studies as requested.
- Reviewing Traffic Impact Statements (TIS) related to access permits for major developments.
- Outdoor advertising and junkyard control as required per the Highway Beautification Act and subsequent Federal Highway reauthorization programs. This includes permitting of qualified off premise advertising devices, removal of unauthorized devices, and permitting of junkyards on controlled highways.

### **Bureau of Highway Maintenance**

The Bureau of Highway Maintenance administers and performs the highway maintenance through six (6) geographical Districts. This bureau assists the Bureau of Highway Design by providing local information about project sites and identifying existing problem conditions or other local considerations. Highway Design closely coordinates the designs with Highway Maintenance to identify existing situations to be addressed and to ensure that the roadway improvements are reasonable to maintain after construction is completed. The Bureau of Highway Maintenance processes all oversize/overweight load permits and coordinates with other agencies and organizations regarding these. The individual Highway Maintenance Districts are responsible for processing all driveway permits and licensing utility poles along State maintained highways within their jurisdiction.

## **Bureau of Turnpikes**

The Bureau of Turnpikes is responsible for the administration and maintenance of New Hampshire's turnpike system, including toll collection and the EZ-Pass system. The New Hampshire Turnpike System presently consists of 93 miles of limited access highway, 36 miles of which are part of the U.S. Interstate Highway System, comprising a total of approximately 655 total lane miles. As with the Bureau of Highway Maintenance, this bureau assists the Bureau of Highway Design by providing local information about project sites and identifying existing problem conditions or other local considerations. Highway Design closely coordinates designs with Turnpikes to identify existing situations to be addressed and to ensure that the roadway improvements are reasonable to maintain after construction is completed.

## **Bureau of Planning and Community Assistance**

The Bureau of Planning and Community Assistance performs the many activities necessary to initiate a transportation improvement project including point of contact with Regional Planning Commissions (RPCs) and Metropolitan Planning Organizations (MPOs).

Planning and Community Assistance maintains the roadway network data through the Department's Geographic Information System (GIS) which is updated regularly to show completed construction, current roadway ownership and maintenance information and other transportation attributes through the Statewide GIS. Aerial photographs, GIS layers, and custom maps are available through the Bureau. In addition the GIS section is responsible for maintaining intranet and internet versions of the GIS system that is available for all to use in a self-service environment.

The Bureau is also responsible for the coordination and development of several key planning and programming documents, including:

- Ten Year Plan
- Statewide Transportation Improvement Program
- Long Range Transportation Plan

These efforts support state and federal goals, policies and regulations to demonstrate affordable short and long range transportation needs and improvements.

The Community Assistance Section within the Planning and Community Assistance Bureau functions as the NHDOT liaison with municipalities in providing aid and assistance for highways and bridges. Specifically, the section administers the following State Aid Programs:

- *State Aid for Class I, II, or III Highways* -Funding available for improving a portion of State Highway that is an issue of local concern and the community wishes to advance priority of construction by providing the requisite one-third funding of project costs. Project implementation is coordinated with the individual Maintenance District Office.

- *Highway Block Grant Aid* - Yearly disbursement of funds to a community to assist in the maintenance, construction, or reconstruction of Class IV and V highways, and,
- *State Aid Bridge* -Provides 80% of qualifying project costs to rehabilitate or replace existing deficient Town owned bridges on Class IV and V highways.

The Bureau administers the apportionment of Federal funds to cities and towns for a number of transportation purposes. Projects that receive such funds are referred to as Local Public Agency (LPA) projects. LPA projects are managed and match funded (as necessary) to implement eligible projects at the local level. The funds are made available for a variety of projects. These projects include, but are not limited to, the following types:

- |   |   |
|---|---|
| <input type="checkbox"/> Critical highway safety improvements   | <input type="checkbox"/> Rehabilitation and operation of historic transportation buildings, structures or facilities (including historic railroad facilities and canals)              |
| <input type="checkbox"/> Highway and bridge improvements  | <input type="checkbox"/> Preservation of abandoned railway corridors (including the conversion for use as bicycle paths and pedestrian facilities)                                    |
| <input type="checkbox"/> Intersection improvements  | <input type="checkbox"/> Control and removal of outdoor advertising   |
| <input type="checkbox"/> Provision of facilities for bicyclists and pedestrians   | <input type="checkbox"/> Archaeological planning and research   |
| <input type="checkbox"/> Congestion-related improvements  | <input type="checkbox"/> Environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity |
| <input type="checkbox"/> Public transit enhancements  | <input type="checkbox"/> Establishment of transportation museums  |
| <input type="checkbox"/> Provision of safety and educational activities for bicyclists and pedestrians                          | <input type="checkbox"/> Improvements to air quality  |
| <input type="checkbox"/> Acquisition of scenic easements and scenic or historic sites   |   |
| <input type="checkbox"/> Scenic or historic highway programs (including the provision of tourist and welcome center facilities) |   |
| <input type="checkbox"/> Landscaping and other scenic beautification  |   |
| <input type="checkbox"/> Historic preservation  |   |

Technical assistance through the Technology Transfer (T<sup>2</sup>) Center at UNH or direct communication to a community is provided. Consultation and advice includes addressing roadway or structural problems, guidance on design standards for rural roads and overview of the general application of highway laws as they might affect a community.

### **Bureau of Rail and Transit**

The Bureau of Rail and Transit has three main emphasis areas. The Bureau

- Works to preserve and efficiently manage railroad corridors and state owned railroad properties and improve rail safety. The railroad programs include track inspection and safety investigation in cooperation with the Federal Railroad Administration, a revolving loan program for railroads, a dedicated railroad fund for improvements to state-owned rail lines, and acquisition and preservation of railroad corridors for future use.
- Supports transit services to the public, including a rideshare program and transportation for the elderly and disabled citizens. The public transportation program

includes federal grants for transit operations, capital improvements, planning, technical assistance and training. The rideshare coordinator helps those who wish to carpool or vanpool with a ride matching service, and helps to manage the state's park and ride lots for transit users, carpools and vanpools.

- Oversees the bicycle/pedestrian program that assists individuals, communities and groups to improve opportunities for non-motorized travel.

### **Bureau of Aeronautics**

The Bureau of Aeronautics works with aviation agencies at the Federal, State and local levels to preserve and promote a system of airports necessary to promote the future of air transportation in New Hampshire.

### **Bureau of Finance and Contracts (Project Programming Section)**

Project Programming Section within the Bureau of Finance and Contracts is responsible for requesting federal funds for all federal aid projects based on STYP-RMS estimates received from other bureaus. This section also tracks all project and financial information for all Project Development projects. This information is used to produce the Ten Year Plan, the Statewide Transportation Improvement Program (STIP), Advertising Schedule and other reports.

Additionally, there are other NHDOT bureaus that may be involved beyond the preceding ones, but are less likely to be involved in projects in general.

## ***Organizations Outside of the NHDOT***

There are many organizations, groups, and individuals who are stakeholders in highway improvements; however, not all interested parties become actively involved in the process. It is difficult to identify all those who will eventually contribute their views.

One that is commonly involved in practically all Highway Design projects is the Office of Information Technology that is part of the Department of Administrative Services.

The Office of Information Technology Services (OIT) is primarily a support organization for services relating to personal computers (PCs) and computer aided drafting and design (CAD/D) equipment. Their programmers (non-CAD/D applications) and technicians are responsible to assist in administering this function and support all the bureaus within the NHDOT. Their "Help Desk" (tel. 271-7555) is available to answer questions and resolve computer related issues.

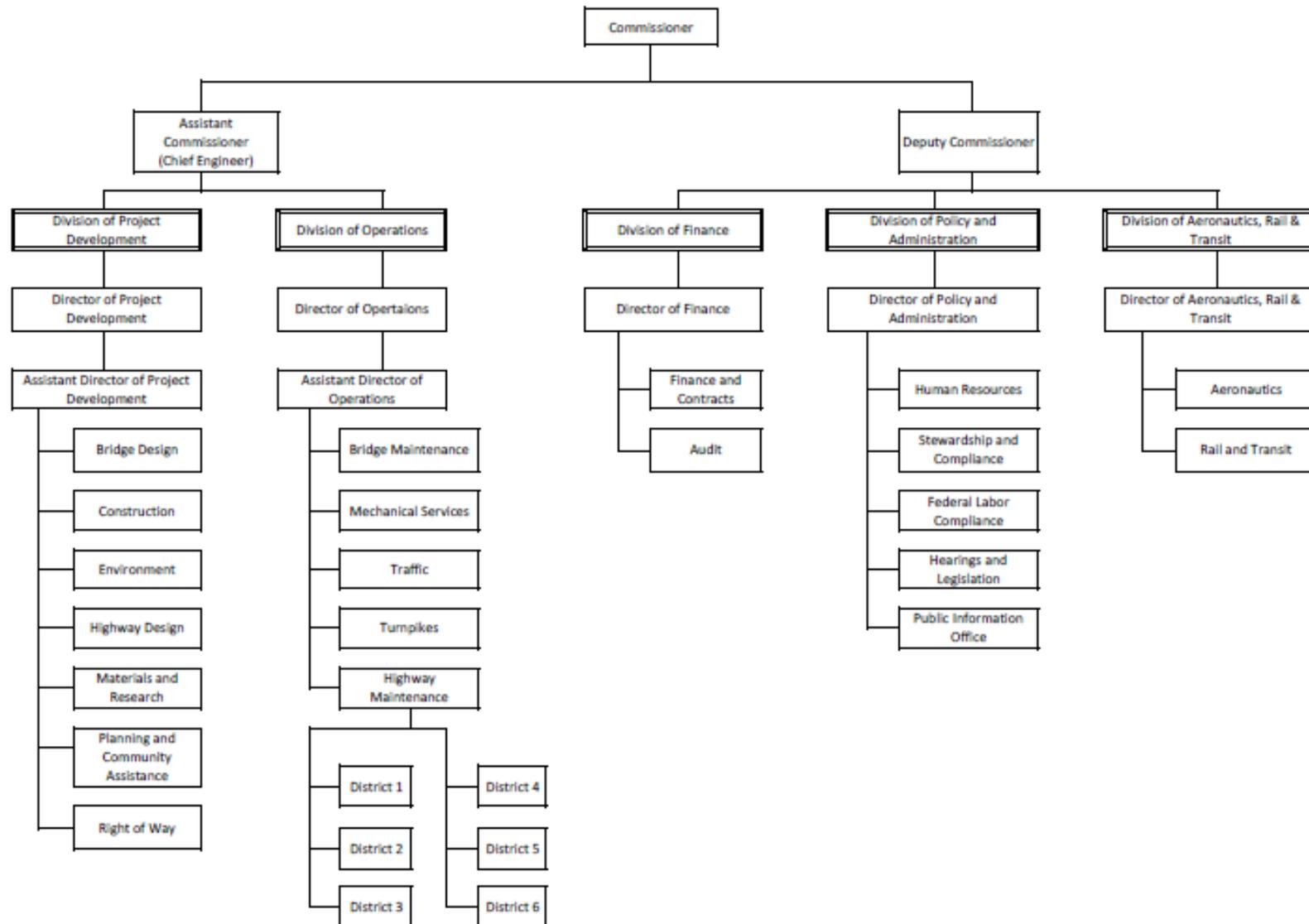
One of the more common services that OIT performs for Highway Design is to convert the final body of the project estimate prior to bid based on cost information provided by Highway Design and generates other documents for the Bid Proposal.

Also involved in many aspects of the Department of Transportation's responsibilities is the Federal Highway Administration (FHWA). The role of FHWA includes, but is not limited to:

- Oversight of Federal Aid projects ranging from a full review to an oversight of certain facets of Federal Aid projects,
- Participation in workgroups to resources for guidance on varying issues,
- And notification and monitoring for compliance with specific Federal requirements.

Also, there are other State, Federal, regional, city and local planning groups, highway users and special interest groups, environmentalists, and individuals who become involved in the planning and design of highway projects. As the design of a project is developed from concept through final plans, the designer must coordinate with those involved and, as a result, will become aware of the many organizations that contribute to the development of the project. Chapter 2, “Project Development”, deals with the process and the diverse organization involvement.

### New Hampshire Department of Transportation Organizational Chart



Bureau of Highway Design Organizational Chart

