MASS INTERCHANGE

Volume 21, Number 4 Fall 2007

EVER WONDER WHERE YOUR SCENIC ROADS ARE?

Dr. Michael A. Knodler, Assistant Professor, University of Massachusetts

The Massachusetts Cooperative Research Progam (at UMASS/Amherst) sponsored by the Executive Office of Transportation and Public Works has recently completed an extensive identification effort of scenic roads in Massachusetts. This research project undertook the task of surveying all 351 cities, towns and municipalities in the Commonwealth in order to catalog scenic roads that fall within the MGL Chapter 40 Section 15(C) designation. In accordance with this law, municipalities have the authority to designate selected roadways as "scenic" which may also be accompanied by specific town by-laws which govern activity of said roads. Specifically, Chapter 40, Section 15(C) states:

Section 15C. Upon recommendation or request of the planning board, conservation commission or historical commission of any city or town, such city or town may designate any road in said city or town, other than a numbered route or state highway as a scenic road... After a road has been designated as a scenic road any repair, maintenance, reconstruction, or paving work done with respect thereto shall not involve or include the cutting or removal of trees, or the tearing down or destruction of stone walls, or portions thereof, except with the prior written consent of the planning board, or if there is no planning board, the selectmen of a town, or the city council of a city, after a public hearing...

The purpose of this research was to identify scenic roads, historic roads, and other specifically designated roadways in Massachusetts for the purpose of building a centralized database. The database will be used and maintained by the Office of Transportation Planning (Planning), and the acquired data will, in time, form a new layer in Planning's Geographic Information Systems database.

Relevant information on designated scenic roads was collected through the completion of a survey sent to over 1,300 representatives of the cities and towns in the Commonwealth. The survey included both 1) basic community information and 2) specific roadway information including: roadway name, designation type, date of designation, roadway length and boundaries, ordinance specifications, and designation of board or commission. Respondents had the opportunity of responding with either a hard copy or online at: **mascenicroads.com** As of the project's completion, over 331 communities had responded, identifying more than 2,500 scenic roadways.

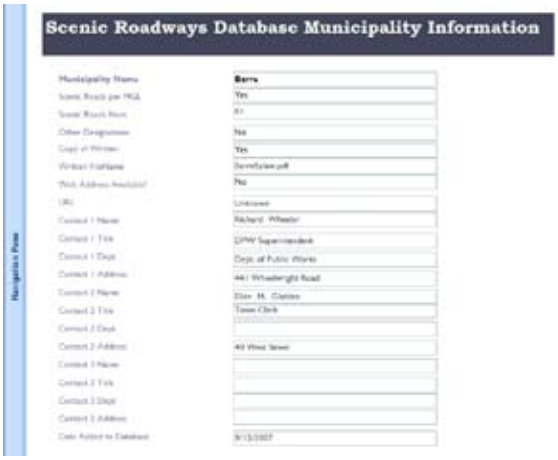
An initial challenge and task in the research plan involved the identification of appropriate officials to complete the developed surveys. Upon completion of the contact list, the survey was administered, and the researchers are incredibly appreciative of the time and effort that many folks put in to complete the surveys. In reality, the database is only as good and functional as the quality of information that it contains. An initial version of the database with all of the roadway information has been delivered to the Office of Planning and is likely to be completed in the Fall of 2007; however, it is intended that the database be dynamic in nature so new roads can be added at any point in time. Sample reports from some typical database queries are pictured to the right. Queries wihthin the database can be made at either the "Municipality Level" to collect information about how many roads a community has, the designating authority, and a specific contact, or at the "Roadway Level" to get specifics including the mileage (start and end points), designation date and presence of any by-laws. Once in place, this database will be consistently updated and available not only for use by the Office of Transportation Planning, but for the cities and towns of the Commonwealth and their residents.

If you have any questions or comments, please feel free to contact:

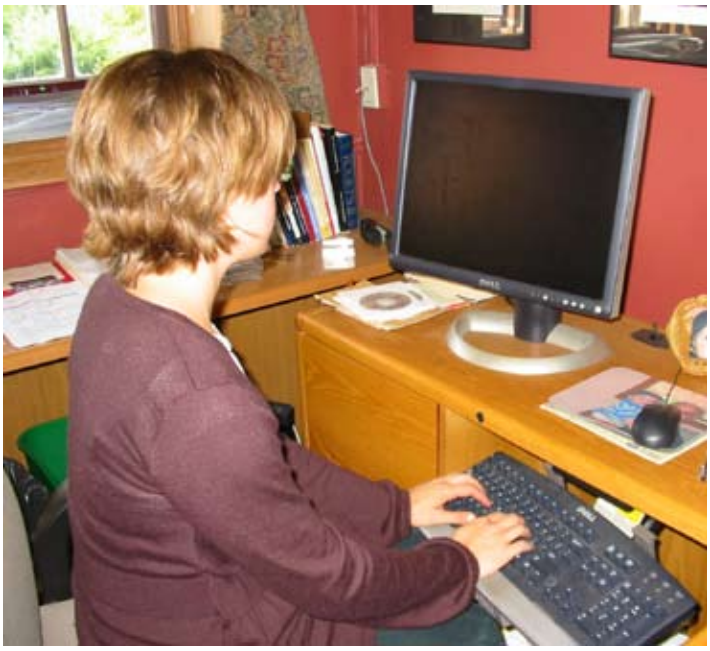
Dr. Michael Knodler, University of Massachusetts
*Email: mknodler@ecs.umass.***edu**
Phone: (413) 545-0228:

Massachusetts Scenic Roads Database Report: Roads by Town

Town Name	**Barre**
Roadway Name	**Dana Road**
Designation Type	Scenic
Length of Roadway	Unknown
Roadway Start Boundary	Route 122 west
Roadway End Boundary	Petersham Town line
Name of Designating Group	Unknown
Ordinances_Bylaws Avail	NO
Ordinances_Bylaws Desc	NO
Date of Designation	4/27/1974
Other Info	
Scenic Byway	NO



Sample input of roads in the Town of Barre



FHWA's Focus on Pavements

Working with States and other partners to deliver a national pavement network that is safe, long lasting, cost effective, environmentally sensitive, and effectively maintained remains the goal of the FHWA's pavement and materials program. In order to deliver a more strategically effective program, efforts are focused on the following six areas:

- Pavement design and analysis.
- Pavement materials/construction technology.
- Pavement management and preservation.
- Pavement surface characteristics.
- Construction and materials quality assurance.
- Environmental stewardship.

"States are having to do more with less. We want to work with them to introduce tools and technologies to make their job easier. We also need to strive to develop a more effective partnership with State and local agencies, industry, and academia," said Peter Stephanos, Director of FHWA's Office of Pavement Technology.

In partnership with States, FHWA will assess the current state of practice nationally for each focus area, recognize best practices that can be advanced, identify gaps where improved technologies can be developed, and define and evaluate existing risks that need to be mitigated. These strategies will consider all areas of technology advancement and program management, including research, development, implementation, technology transfer, policy, and regulatory actions.

To learn more about FHWA's pavement initiatives, visit: **www.fhwa.dot.gov/pavement**

MassHighway Announces 24-Hour Highway Hotline

People are encouraged to utilize the #321 mobile (or 888-359-9595 land) phone system to report concerns about catch basins, manholes, potholes and other critical issues on highways across the Commonwealth. "When drivers come across a location of concern, we want to know about it. The #321 system will ensure we receive the message, so we can address the issue as soon as possible," said MassHighway Commissioner Luisa Paiewonsky.

The #321 mobile (or 888-359-9595 land) phone system is a 24-hour service manned through MHD's Traffic Operations Center. If the location identified does not fall under MHD's jurisdiction, the information will be forwarded to the appropriate state or municipal agencies. Drivers are advised to pull onto the shoulder, completely out of travel lanes, before making a call.

Information can also be submitted through the MassHighway website Feedback Page, by visiting www.mass.gov/mhd and clicking on "Contact Us." This page is manned during working hours.

In the wake of recent highway incidents, MassHighway has begun an inspection of catch basins and manhole covers throughout the Commonwealth. This process includes covers that are both within and outside of driving lanes. While the weight of the covers typically keeps them secure, loose covers can be secured by other methods including welding.

Congratulations to the newest Baystate Roads Scholars on their fine achievement. Keep saving those certificates and you could be listed here.

George Sala
Bourne DPW
Richard A. Anctil
Yarmouth DPW
Baystate Roads Scholars

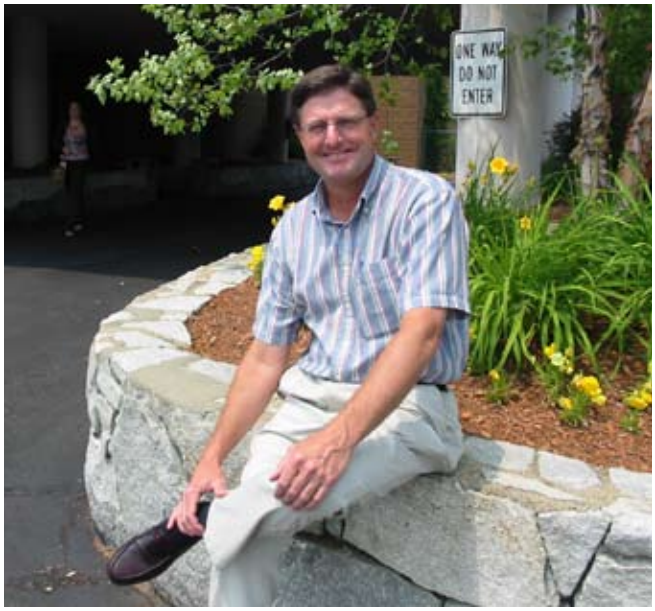
DONALD DI MARTINO
MASTER ROADS SCHOLAR

Originally hired as the water and sewer superintendent by the Town of Bellingham in 1991, Don DiMartino became the town's first director of the Department of Public Works in 1994. In that year, the town charter established a DPW combining the highway department with the water and sewer department along with other management modifications.

Prior to working for Bellingham, Don was president of D. DiMartino Construction Corporation in Franklin, MA. In this capacity, he was involved with public bid utility construction focusing on water, sewer and storm drain issues for municipalities in Massachusetts.

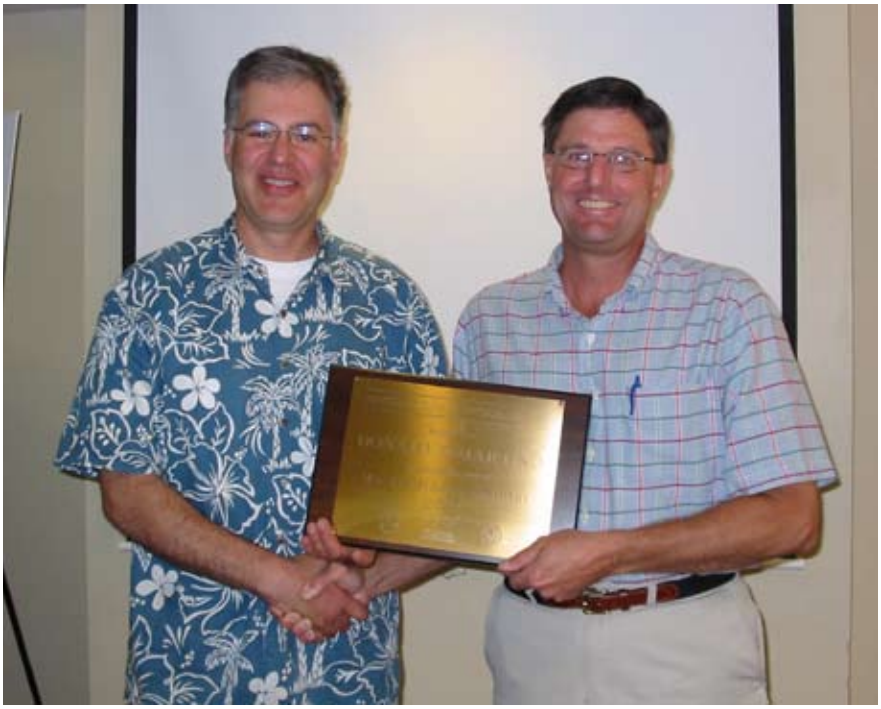
Bellingham has ninety-five miles of roads and Don supervises three full-time clerical staff and twenty-one full-time field, shop, and facilities employees. Five to ten students are hired to help with public works and parks maintenance during the best season for working outside in New England.

Mr. DiMartino has been successful in moving many projects forward in State funding programs and through the use of developer mitigation funds. The wide range of planning and construction activities include resurfacing, crack sealing, chip sealing, road reconstruction and drainage improvements. Upon reflection Don said,



"I would like my legacy to be the resolution of poor roadway drainage areas. During my tenure we have resolved about thirty chronic roadway puddle problem areas with about twenty still on the list for design, permitting, funding, and construction."

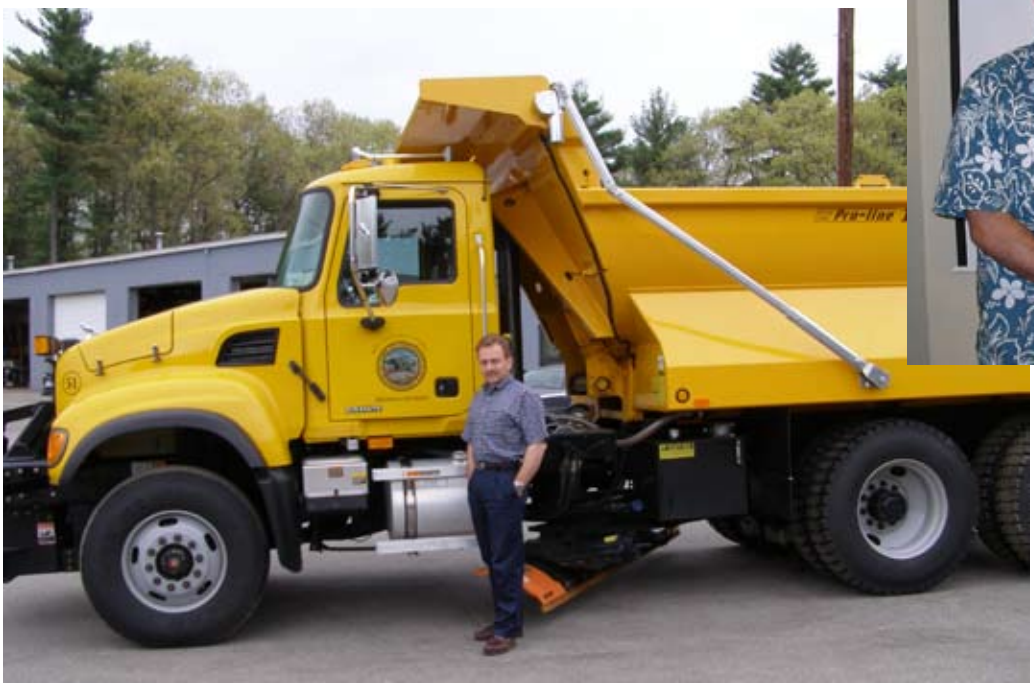
"Today's biggest challenge is not 'doing more with less' but doing 'something with close to nothing'. We have done a lot of public works master planning and utilize road management software to assist in project planning. We have over $15.0 million in good viable and important public works projects on the list. However, at present funding levels, Mother Nature and Father Time keep pushing us further behind."

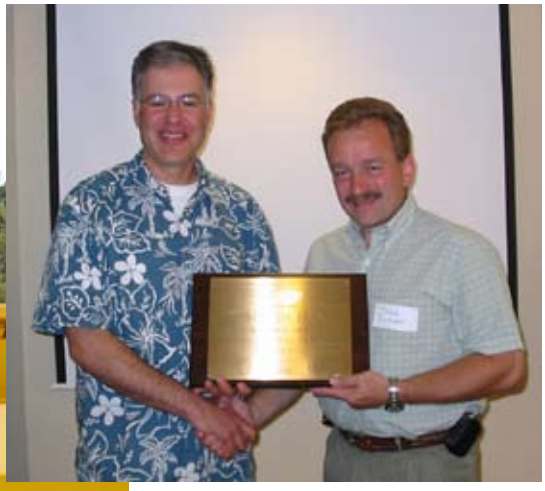


Don is a Magna Cum Laude graduate of Merrimack College in North Andover (Class of 1978) with a Bachelor of Science degree in Civil Engineering. His professional affiliations include APWA, NEWA, AWWA, ASCE and the Massachusetts Highway Association.

He lives in Franklin with his high school sweetheart and wife of 28 years, Christine. They are both proud to be Franklin "townies" born and raised in their home town. Don is an avid golfer and can be found on the links after the paving is finished. Christine was "avid" but is currently on sabbatical. They both enjoy membership at the Franklin Country Club.

TOMA DUHANI
MASTER ROADS SCHOLAR





Toma Duhani, P.E., has achieved 26 years of service in the civil engineering field with 20 of those years spent in management roles. He has been the superintendent of public works in Tewksbury for three years during which time, he has overseen an annual operating budget of $7.5 million. His expertise in specialized areas includes highway and storm drainage construction, solid waste and recycling, and project management.

Toma is directly responsible for six divisions within the Tewksbury DPW including highway, forestry, water and sewer, fleet maintenance, facilities management, and the water filtration plant. With his multifaceted background and record of developing and implementing efficient methods of operation, he has been able to achieve substantial cost savings for the town. Within a 3 year tenure, he was able to administer and direct the design and construction of a $3.5 million sludge dewatering facility for the water filtration plant, a $15 million capital improvement of the water distribution system, a $6 million water storage tank, and an $80 million sewer collection system scheduled for completion in 2010.

Prior to Tewksbury, Mr. Duhani held the position of director of highway operations at the Town of Wayland for eleven years. There he developed and administered an annual operating budget of $3 million overseeing highways, the septage treatment plant, fleet maintenance and the landfill. He was successful in dramatically improving efficiency of the financial and operating needs by establishing a 5-year capital replacement and improvement program. Implementation of a cost effective, computerized pavement management program reduced road failure by 45% and avoided major reconstruction efforts. His effective preventive maintenance program reduced overhead costs on fleet maintenance, extended the lifecycle of equipment by 35%, and reduced downtime and failure rate.

Career highlights include:

* A prototype self cleaning, drop inlet storm drainage structure design
* "Best Recycling Program" in Massachusetts - 1995
* Recognized for most effective snow and ice operations statewide with fewest school closures.

Toma holds a B.S. (cum laude) in civil engineering and a M.S. in management from the Worcester Polytechnic Institute and is a registered professional civil engineer, licensed construction supervisor, and licensed real estate broker in Massachusetts. His affiliations include ASCE, APWA, AWWA, and Massachusetts Highway Association.

When time allows, Toma enjoys traveling and boating with his family.

LET IT SNOW, LET IT SNOW, LET IT SNOW

Winter Maintenance Preparation

One way to keep cool when the temperature reaches the 90s is to think cool thoughts. Many of us have just returned from our annual summer vacations or are enjoying the beautiful warm weather. However, before we know it and much before we want it, the warm breeze will turn cooler and winter will be upon us. We all know what happens next; snow and winter maintenance operations will be here.

Though public works officials and employees think of late summer and fall as the seasons to fix roadway assets, they can't lose track of the fact that winter operations are a year round activity. The first snow storm leaves a lasting impression with residents and sets the tone for how they perceive winter maintenance operations. Proper planning and preparation now can go a long way in making operations a success and ensuring that your department comes out on top in the first fight with Mother Nature.

What should be done now? The obvious is preparation of bids for material and equipment purchases. But what else should you be working on? For starters, as major roadway maintenance projects wind down, you should be fixing the items that caused grief last winter. Minimal efforts now can eliminate many headaches this winter. Hopefully your winter plan contains a wrap up meeting from the spring. Dust off the notes and review the areas that presented problems last winter. Schedule drainage repairs that caused ice problems. Trim or remove trees that damaged equipment. Review the concerns that were expresssed by residents. Do any driveways need attention to keep from icing roadways? What about mail boxes? Can they be set back or altered in any way to avoid damage? A little community work now will make your job easier once the action starts.

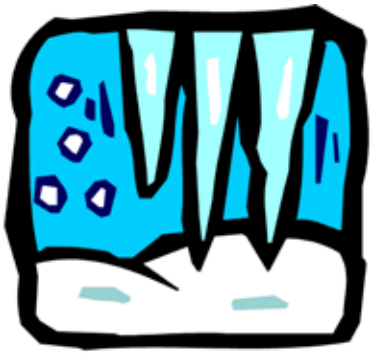
Take a few minutes to check on supplies in your garage. Do your spreaders or plows need to be sandblasted or repaired? Early fall is the time to thoroughly inspect all equipment and order parts. Start making the repairs and plan to calibrate the spreaders.

This is a good time to review the Bay-state Roads DVD on "Sand and Salt Spreader Calibration" provided to every town. Make some popcorn and invite the crew.

Check out your building and grounds facilities. Are the material storage buildings in need of repair? Do mixing and loading areas need to be paved? These areas must be addressed now before the material starts rolling in.

Schedule a fall meeting for the entire team. The meeting can serve as a refresher for experienced employees and an introduction to winter maintenance for new hires. Set an atmosphere that allows for an open exchange of information. Discuss what worked last season and what needs to be changed to improve services for your customers.

"Just wanted to say thanks for having Paul Brown come back to the western part of Massachusetts. I attended his class last year in Pittsfield and was able to cut my sand consumption from 5,000 tons per year down to 1,000. We also switched salt products after his class and have been able to reduce overtime and vehicle maintenance costs," said Mike Smith, Highway Superintendent, Heath DPW



Review routing of equipment. Can any deadheading be avoided by changing routes? With the cost of fuel escalating, be as efficient as possible with equipment and manpower. Set up routes that bring the equipment back to the storage areas as they empty out. Pick a date to schedule dry runs to familiarize operators with routes.

Meet with representatives of other agencies to discuss winter maintenance plans and ways to work together. Include members of the local police and fire departments, emergency management officials, and school transportation personnel. Encourage feedback and consider developing an advisory committee to meet periodically. Publicize the meeting with your local media to ensure positive coverage up front.

This is a good time to post winter maintenance procedures for your town; use a local newsletter, town publications, bulletin boards at town halls, or community access TV stations.

As the weather changes and route maintenance cannot be performed, start marking structures. Use the time to mark inlets, catch basins, ends of curbing and guide rails, and fire hydrants. Once covered with snow they can make snow removal a nightmare for your operators.

Last, but certainly not least is training. Working safely is a priority for every operation performed by maintenance personnel. Properly training your personnel can go a long way to ensuring a safe and efficient work force. Be sure to include training in your winter maintenance preparation planning.

This a good time to request training tapes from Baystate Roads such as:

M0-182 Technical Advancements for Maintenance
M0-253 Snow Removal Techniques: Plowing
M0-256 Sand & Salt Spreader Calibration
ST-138 Safety Restoration Snow Removal Guidelines
ST-189 Plowing Techniques

Request by FAX: 413-545-6471 or online: baystate_roads@hotmail.com

During the fall, this checklist will aid in preparation for safe and successful winter operations:

- **Place first order for material;**
- **Finalize rental agreements;**
- **Finalize snow agreements with neighboring agencies;**
- **Obtain weather service;**
- **Meet with local advisory committee;**
- **Finalize snow map and make revisions;**
- **Inspect and calibrate winter equipment;**
- **Meet with crew to schedule and conduct training;**
- **Mark all obstacles;**
- **Trim trees;**
- **Install snow fences;**
- **Prepare news releases;**
- **Meet with the media;**
- **Meet with the police, fire, and emergency management personnel;**
- **Conduct dry runs.**

Adapted with permission from "Moving Forward" quarterly newsletter of the Pennsylvania LTAP, Fall 2006. By Sam Gregory, Technology Transfer specialist, PennDOT LTAP.

BAYSTATE ROADS WORKSHOPS

Snow and Ice 2007

Oct. 31	Holiday Inn, Holyoke
Nov. 9	Red Lion Inn, Stockbridge
Nov. 16	Chocksett Inn, Sterling
Nov. 29	Holiday Inn, Taunton
Dec. 7	Holiday Inn, Tewksbury

Paul Brown, Instructor

Inspection for Quality Hot Mix Asphalt Pavement

Dec. 4	Courtyard Marriott/Hadley
Dec. 6	Hilton Garden, Worcester
Dec. 10	Coonamessett Inn, Falmouth
Dec. 12	Holiday Inn, Tewksbury

Robert Christman, Instructor

Register at: www.baystateroads.org

in this issue

NEW DVD for loan from Baystate Roads Program

ST-213 SAFETY LEADERSHIP FOR EVERYONE

American Training Resources 23 minutes

Instructor connects safety messages with actions, shows how to reinforce safety actions through personal recognition and suggests discipline for those not practicing this.

The Baystate Roads Program, which publishes Mass Interchange each quarter, is a Technology Transfer (T2) Center created under the Federal Highway Administration's (FHWA) Local Technical Assistance Program (LTAP). This newsletter is prepared in cooperation with The Excecutive Office of Transportation (EOT) and the United States Department of Transportation Federal Highway Administration. FHWA is joined by EOT, UMass Transportation Center at the University of Massachusetts/Amherst, and local public works departments in an effort to share and apply the best in transportation technologies. In addition to publishing Mass Interchange, the Baystate Roads Program facilitates information exchange by conducting workshops, providing reports and publications and videotapes on request, and offering one-to-one technical assistance on specific roadway issues. Because the program relies on input from many sources, inquiries, articles and ideas are encouraged.

LTAP Local Technical Assistance Program

To contact the Baystate Roads Program call (413) 545-2604 or FAX 413-545-6471

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