

Montana

Local Technical Assistance Program

Work Plan and Budget

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LOCAL TECHNICAL ASSISTANCE PROGRAM

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Executive Summary

The Local Technical Assistance Program (LTAP) has a 33-year proven track record as an outreach program for the transportation workforce and has become a trusted resource for local agencies seeking training and technical assistance.

Montana LTAP's ability to efficiently and effectively transfer technology and information through courses and relationships to our rural and urban partners and customers is its primary measure of success. This past year Montana LTAP covered 46 training sessions in presentations attended by 2890

2016-17 Montana LTAP Training Opportunities

- 2890 Participants Attended
- 46 Training Sessions
- 242 Training Hours
- 11,560 Participant Hours

participants. With regards to training hours, Montana LTAP providing 242 hours of training and 11,560 participant hours of training.

LTAP enables local transportation workers to study road fundamentals, safety, drainage, snow and ice removal,

Roads Scholar Program:

- 2,674 Participants
- 2017: 28 Road Scholars Awarded
- Total Scholars to Date: 329
- Total Road Masters: 15

and other topics with the goal of becoming expert managers. Two particularly successful means for promoting ongoing skills are certification as a Roads Scholar (10 classes required) followed by Road Master (30 classes required). These Road Masters are our champions who assist with instruction during workshops.

A very successful training effort is through our half hour, monthly webinars. This method saves on travel time and costs by providing requested training in an electronic format. This is especially true for those in the northeast corner of the state and eastern Montana where it is too costly to send crew to face-to-face trainings. These recorded webinars are available to be reviewed by our customers at their discretion.

Webinar Topics

Winter Safety for Montana Roadways; Hearing Safety; Best Practices for Cattle Guards; Weed Mowing Safety & Mobile Operations; Slips, Trips, and Falls; Hand, Eye Safety, & Personal Protective Equipment

The mission of Montana LTAP Safety Congress is to provide learning on all aspects of transportation safety. In January 2017, Montana LTAP held its 15th Annual Safety Congress in Great Falls. At this training event, Workzone Technician, Traffic Control Supervisor, Train the

Trainer courses were requested by state, local, and private transportation providers. The Safety Congress brought together like-minded people to convene in a central location. Participants came from cities, counties and state departments who have responsibilities for permanent signing, work zone signing, or are in charge of overall roadway safety.

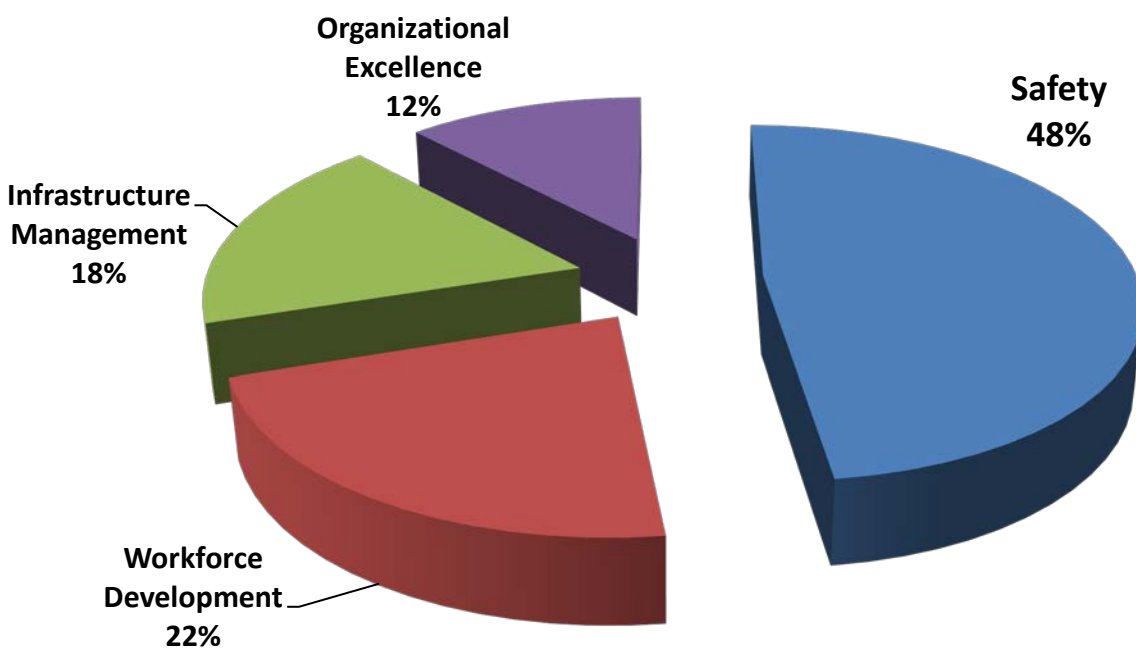
Future growth in the program delivery in the coming year includes expansion of LTAP's on-line penetration in cooperation with the National Center for Rural Road Safety. Multiple recorded webinars as well as new webinars each month throughout the year will add significantly to the breadth of topics available to our stakeholders through the LTAP/National Rural Road Safety Center cooperative efforts.

LTAP provides education and technical assistance on transportation matters to a wide variety of entities, including city and town street departments, county road departments, public works departments, elected and appointed public officials, private individuals, and government transportation agencies. By sharing and improving the distribution of this transportation-related information, the program promotes efficient use of local transportation agencies scarce resources. Our vision is to improve the quality and safety of the surface transportation system through interactive relationships and information exchange. LTAP builds on long-standing relationships among partners including the Montana Association of County Road Supervisors (MACRS), Montana Association of Counties (MACo), Montana League of Cities and Towns, American Public Works Association (APWA), National Association of County Engineers (NACE), and Montana Department of Transportation (MDT). The overarching methodology of Montana LTAP will be to:

- **Coordinate** with all stakeholders to meet training and tech transfer needs
- **Integrate** training and technology transfer resources and services and into a centralized location at LTAP
- **Accelerate** distribution of transportation technology by passing along training opportunities within the LTAP program, and those provided by stakeholders and neighboring state programs, communicating current information on Federal Highway Administration mandates, passing on information on new resources, and getting timely information into the hands of constituents

The mission of LTAP is guided by the four focus areas as directed by FHWA, and attention to each is vital to the success of LTAP's mission of fostering a safe, efficient, and environmentally sound surface transportation system by improving the skills and increasing the knowledge of the local and tribal transportation workforce. The four focus areas are Safety, Workforce Development, Infrastructure Management and Organizational Excellence. Figure 1 shows the percentage of its budget Montana LTAP allocated to each of these focus areas.

Figure 1: LTAP Focus Areas



The tasks engaged in by LTAP to achieve these objectives include:

- Conducting on-site seminars and trainings
- Administering certification programs
- Webinars
- Email correspondence and site visits
- Digital sharing of technology and technical information
- On-site technical assistance
- Distribution of a quarterly newsletter
- Transfer of technology and educational materials developed outside LTAP
- External communication through e-mails to a network of stakeholders
- Evaluation of program needs and content

Introduction

LTAP plays a unique part in transportation education. This national LTAP program's development has answered a pressing need for transportation training and technical assistance at the local level where resources are limited. LTAP's capacity to provide face-to-face, hands-on training enables members of the transportation workforce to learn valuable information from our instructors, and provides them with opportunities to discuss issues and share solutions with their peers. This technology transfer program is all about sharing knowledge and best practices. In many instances LTAP is the primary source of professional development for the transportation staff of local governments.

To provide technical transportation training to local road agencies, local public works agencies, public officials, city, county and other municipal engineers, and the Montana Department of Transportation, LTAP will continue to be an easily accessible, central source for current state of the practice transportation information, technology transfer, relevant, high-quality course information, stakeholder coordination, and technical outreach assistance.

Montana LTAP's role in responding to training requests, technology transfer needs, and implementation of best practices throughout the Montana transportation community has been considerable and will continue to grow based on its strategic approach to increase its impact in Montana for the benefit of our stakeholders. The need will continue to grow, as well as retirement rates, and the number of new employees in Montana. Our partnerships with Montana Department of Transportation, FHWA, National Highway Institute, and others previously mentioned will allow us to better meet those needs.

The Montana LTAP Program is flexible and meant to accommodate the local needs of our stakeholders. LTAP works in conjunction with outside entities to provide the resources and training topics requested by its constituents. Figure 2 illustrates the various topics of interest that intersect with Montana LTAP training topics and those training topics requested by local government agencies and MDT. The overlapping areas show interests in common, and help focus the areas where LTAP can be most effective.

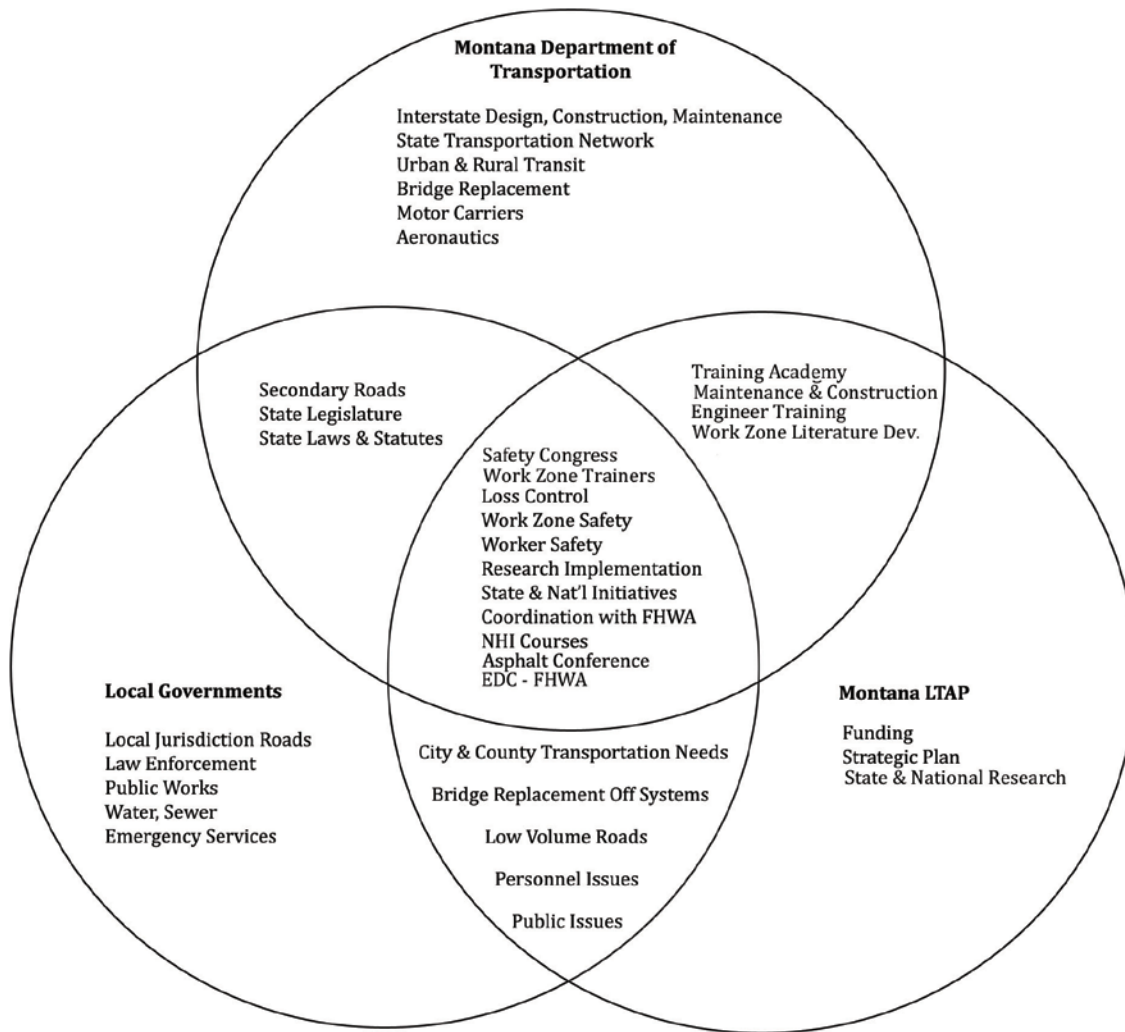


Figure 2: Stakeholder Intersection of Interests

Montana LTAP's ability to efficiently and effectively transfer technology and information to our rural and urban partners and customers is its primary measure of success. See **Figure 3** for the diversity and training areas covered in the state. Montana LTAP staff has played key roles in the development, coordination, analysis, enhancement and day-to-day operations of transportation technology transfer. Many Montana counties have engaged with LTAP to learn better methods of gravel road maintenance through application of knowledge gained through LTAP technical training and involvement with these stakeholders in the field. Significant environmental, material operational cost savings are realized through use of good materials,

techniques and stabilization many counties grade roads once or twice a year rather than the six to eight times in the past.

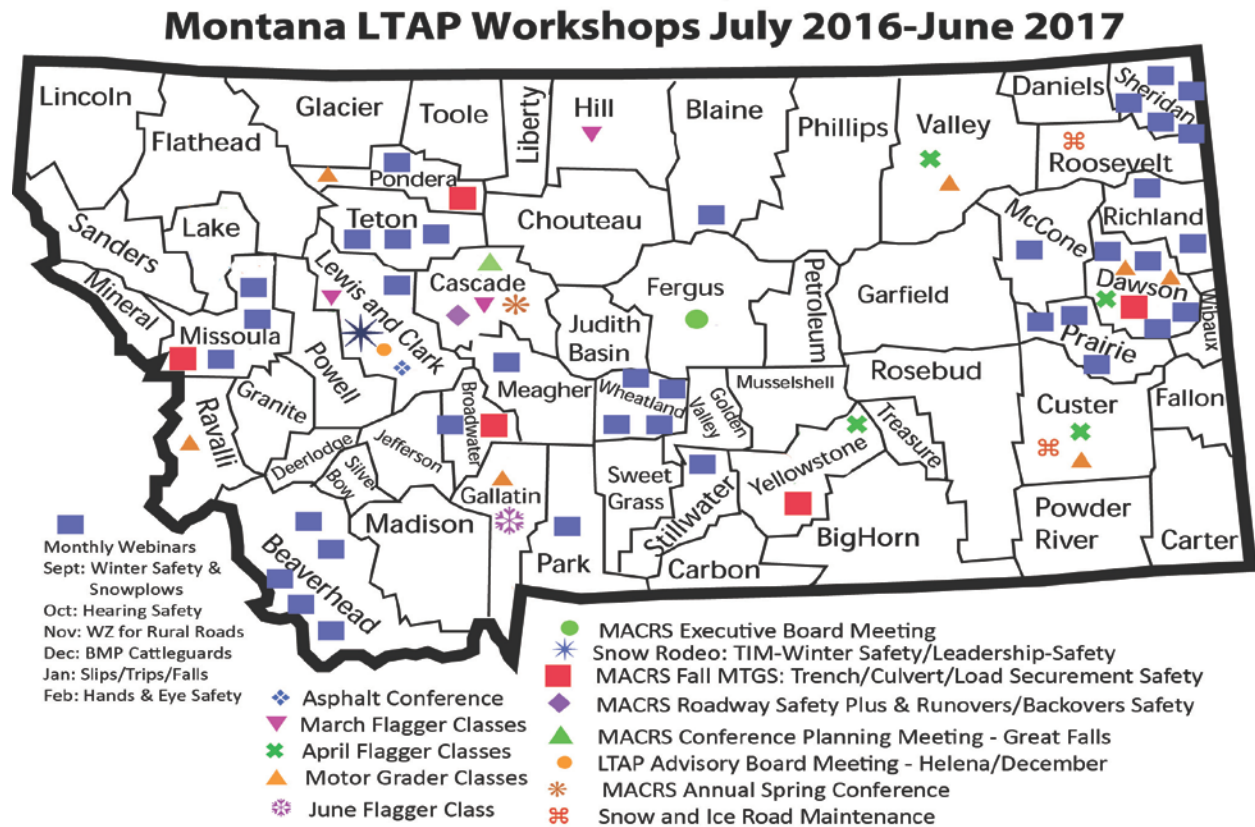


Figure 3: Montana LTAP 2015 Workshop Map

Montana LTAP Spotlight: Roads Scholar Program

One particularly successful means for promoting ongoing skills development at the local and tribal levels is the Roads Scholar and Road Master programs, which recognize staff for reaching competency levels through training and development of transportation expertise.

The underlying approach is to provide curricula that enable local transportation workers to study road fundamentals, safety, temporary traffic control, drainage, snow and ice removal, and other topics with the goal of becoming expert road managers. The courses help participants develop professionalism and advance their careers.

There are currently fifteen Road Masters who successfully completed the rigorous program requirements to obtain this recognition and certification.

Montana LTAP continues to work with the following workforce-development-focused learning institutions:

- MACRS
- MACo
- MSU-Bozeman
- Iowa LTAP
- North Dakota LTAP
- Flathead Valley Community College
- Salish–Kootenai College
- Miles City Community College
- MSU – Northern at Havre
- Tribal Transportation Agencies.
- Montana Safety Fest

Montana LTAP Professional Staff

Currently there are three full-time staff members at Montana LTAP with the potential to involve a Montana State University work-study student to assist on various projects as need dictates.

- ***Matthew Ulberg, P.E.***

April 1, the Montana LTAP welcomed a new Director, Matthew Ulberg. Matt returns to MSU after spending the last 19 years working in the private consulting industry. Matt's strengths include working closely with public and private sector clients to solve their engineering challenges. Matt's experience includes proposal development, client management, rural transportation and highway projects, municipal infrastructure projects, right-of-way acquisition, safety studies, and traffic engineering. **He will help provide organizational leadership, expertise in a variety of technical areas, and will work toward bringing a broad range of new educational programs to bring a fresh perspective to training and technical assistance** to local city, county, and state entities throughout the state of Montana (Appendix C).

- ***Genevieve Houska, B.S.***

Administrative Associate and Conference Coordinator, Montana LTAP, Genevieve has 18 years of experience in private and public sector accounting, database management, federal and state reporting, and over 10 years of travel planning and conference coordination experience. **She provides the LTAP office with expertise in accounting and budget planning, and coordinates approximately 70 workshops and conferences per year for the program.**

- ***Shawna Page, Training Program Coordinator, Training Specialist***

Training Program Coordinator and Training Specialist, Montana LTAP, Shawna has over 28 years of experience in private and public sector construction, safety training and program coordination. Shawna delivers a large portion of our LTAP Sponsored safety training, including Flagger Certification, Traffic Control Supervisor, Work Zone Technician, Flagger Re-Certification, Pilot/Escort Operations, Lead Contractor Supervisor training, Asbestos Awareness and Lead Contractor Supervisor, Hazardous Waste Awareness, OSHA Instructor, and first aid/CPR Training.

Program Development

Customer Needs Assessments and Program Development

Our transportation workforce is constantly changing, and it is critical Montana LTAP monitors the current and future needs of transportation providers. Road supervisors are retiring and new operators need technical and safety training for equipment operation. To keep up with these changes, a formal Needs Assessment will be conducted again in 2017. Montana LTAP monitors the needs of transportation providers through a variety of methods. In order to fulfill our mission, information is gathered from the LTAP Advisory Board, Needs Assessment Survey (Appendix D), various survey questionnaires, personal interviews, and injury insurance reports to gain a broad scope of the education technology transfer needs of our workforce. The LTAP training and resources offered reflect the requests made by its partners and customers.

Methods of Needs Assessments conducted over the past year:

Questionnaires and Surveys:

- Workshop Evaluations
- Electronic Version of Needs Assessment Survey on Its Website
- Hard Copies of Needs Assessment Surveys Gathered at District Meetings

Key Contact Informational Interviews:

- Personal Interviews with City Transportation Officials and County Road Constituents at MACRS and other trainings and conferences
- Interviews with Vendors at regional and national meetings
- Interviews with LTAP Directors and staff from other states
- Contact and communication with Federal and State-level subject experts
- Contact and communication with National Centers of Excellence at WTI

Group Assessment Methods:

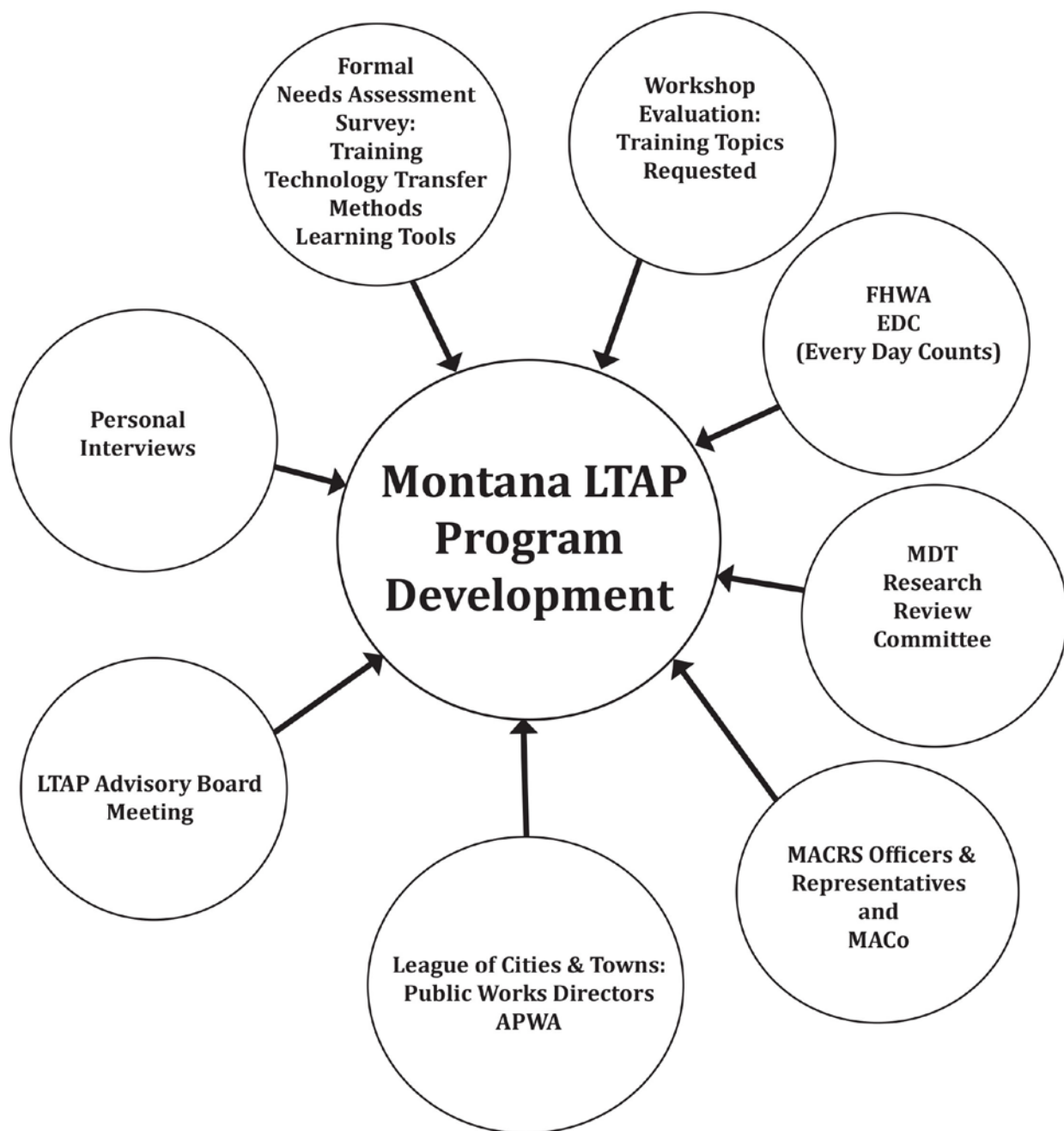
- Semi-Annual Meetings with MACRS Officers and District Representatives
- League of Cities & Towns Conference with Public Works Directors
- LTAP Advisory Board Meeting

Mapping

- Annual Training Workshop Map

Through analyzing the information gained through conducting these assessments, LTAP can develop programs that best meet customers' needs. On the following page, **Figure 4** illustrates the variety of information gathered and put into action.

Figure 4: Program Inputs



Formal Needs Assessment Survey conducted in 2017

The needs assessment survey was sent out electronically, delivered in hard copy at conferences and workshops, and mailed to city and county employees. Following is a summary of the survey results. Subjects were rated 1-5 by attendees, and given weighted averages accordingly.

Focus Area: Worker Safety

- Winter Survival
- Back Safety
- Slips, Trips, & Falls

Focus Area: Workforce Development

- Excavation & Loader Safety
- Dump Truck/Trenching Safety
- Load Securement

Focus Area: Work Zone/Highway Safety

- MUTCD 2N & 6
- Flagger Certification
- Workzone Technician

Focus Area: Organizational Excellence

- Crew Supervision
- Motivation
- Technical Leadership

Focus Area: Infrastructure Management

- Gravel Road Maintenance & Design
- Cattle Guards
- Culvert Placement & Trenching
- County Road Standards

I. MDT Research Review Committee (2016)

- Urban Issues
- Pavement Management
- Work Zones

II. League of Cities and Towns: City Transportation Officials (2016)

- Asphalt
- Work Zone Safety
- Personal Safety/Personnel Issues
- Liabilities/Safety Audits
- AASHTO Design
- Stormwater Drainage Issues

III. LTAP Advisory Committee (Listed from most votes to least, 2016)

- 1) Worker Safety (PPE)
- 2) Gravel Roads
- 3) Work Zone Safety
- 4) General Safety in Work Areas
- 5) Personnel Issues
- 6) Asset Management

IV. MACRS Officers and Representatives and MACo

Spring Training Requests:

- 1) Motorgrader Operation
- 2) Work Zone Technician
- 3) Traffic Control Supervisor

Conference Requests:

- 1) Loss Control
- 2) Construction Math
- 3) Culvert Sizing
- 4) DES - Procurement
- 5) Plan Reading
- 6) Virtual Gravel Pit Permitting

Fall Training Requests:

- 1) Trenching Safety
- 2) Load Securement
- 3) Culvert Installation

V. Federal Highway Administration

- 1) Every Day Counts (EDC)
- 2) Vision Zero

Other Inputs: Training Topics Requested

The LTAP survey is designed for participant to select more than one topic. These topics are rated from most frequently selected to least:

- Chip Seal/Asphalt
- Technical Leadership
- Winter Maintenance
- Gravel Roads
- Signing
- Cattle Guards
- Summer Survival
- Dust Control
- Loader Safety
- Dump Truck Safety
- Skid Steer
- CDL Truck Driving Safety

- Plan Reading
- Part 46 Safety Training
- Surveying
- County Road Standards
- Winter Survival
- Weed Mowing
- Surveying
- Work Zone
- Trenching
- Forklift
- Community Preparedness
- MUTCD – Signing
- Safety Audits
- OSHA 10/OSHA 30

Leveraging its Capabilities and partnerships: *LTAP Program Growth*

Due to the increase in flexibility and availability of online trainings and coursework, it is anticipated that some of these opportunities will expand the courses that will become part of the curriculum for the Roads Scholar and Roads Master programs. In addition, many new courses are currently under development at LTAP that leverage the professional experience of its Program Coordinator, Shawna Page, and that of its Director, Matt Ulberg. The new courses shadow courses developed and used in the Roads Scholar and Roads Master programs at other state LTAPs, including Ohio LTAP. The courses will be tailored to meet the needs of Montana stakeholders before being fully integrated into the Montana program.

One such training that LTAP is working to bring on-line is Road Safety Audits for small and rural municipalities. The RSA Training course is modeled on the successful Tribal Road Safety Audit (RSA) Workshop developed and delivered through the Rural Road Safety Center March 1-2, 2016. The goals of the RSA training program are to:

1. Teach road managers how to conduct a multi-disciplinary RSA which would allow them to identify countermeasure projects to include in their transportation safety plans
2. Accomplish the first goal by providing them with hands-on experience in conducting a RSA for one or two locations within a short distance of each training

Partnerships

Western Transpiration Institute

As part of its continuing efforts to leverage the capabilities, resources and opportunities at MSU-Bozeman and within the Centers housed at the Western Transportation Institute (WTI), Montana LTAP has adopted cooperative attitudes with multiple training, technology transfer and research entities. This will allow Montana LTAP access to an unprecedented amount of research and practical training resources.

One partnership that LTAP is currently just beginning, is the partnership with the National Center for Rural Road Safety (Safety Center), which is one of the Centers of Excellence housed within the organization of WTI.

The Safety Center training program is a multi-disciplinary, collaborative effort to accelerate knowledge transfer from training to implementation. The Safety Center has designed their work plan to include a variety of training methods (e.g., videos, webinars, in-person trainings, summits), topics, and audiences. To find out more, please see below.

- **Safety 365 – A Safety Workshop for Local Governments**

Length: 8-hour course

Audience: Local/rural maintenance supervisors

Instructors: Keith Knapp and Nicole Oneyear, InTrans

This one-day workshop focuses on processes for incorporating safety into all aspects of local and rural road projects, and on making safety a priority through inclusion in the traditional decision-making process—365 days a year. The course stresses the importance of road safety, and illustrates how it can be integrated into rural/local transportation project development at all stages: planning, design, construction, implementation, operations, and maintenance.

- **Roadside Safety Basics for Local Agencies**

Length: 6-hour course

Audience: Local agency maintenance/engineering staff

Instructors: Frank Julian, FHWA and Keith Knapp, InTrans

This course provides the basics of roadside safety. The roadside safety problem in the United States is defined and countermeasures to keep vehicles on the road are discussed. The provision of a recovery area is also described, including discussions of clear zone and objects within it. The course also covers the basics of drainage features and sign supports and is concluded with a short discussion of barrier basics.

- **Maintaining a Safer Roadway**

Length: 4-hour course

Audience: Maintenance staff and supervisors

Instructors: Keith Knapp (Iowa LTAP, InTrans and Renae Kuehl

Maintaining a Safer Roadway – Local agency maintenance forces are in the best position to be the “eyes and ears” of the road when it comes to identifying safety issues. This session will focus on maintenance safety solutions that local maintenance forces can

implement on a daily basis to address safety issues related to elements such as shoulder drop-offs, right-of-way obstructions, striping and signing, guardrails, mowing, sweeping, patching, drainage, winter maintenance, etc.

The Safety Center provides a compilation of upcoming rural road safety trainings and conferences from multiple sources to your inbox bi-weekly, referred to as Training E-Blasts.

The 2017 E-Blast Newsletter Archives from the Safety Center can be found here:

- [Volume 34](#), January 5, 2017
- [Volume 35](#), January 19, 2017
- [Volume 36](#), February 2, 2017
- [Volume 37](#), February 16, 2017
- [Volume 38](#), March 2, 2017
- [Volume 39](#), March 16, 2017
- [Volume 40](#), March 30, 2017

The Safety Center has developed and conducts trainings on many topics related to rural safety. The page provides an archive (in both pdf and streaming format) of the trainings created by the Safety Center. Below are the archived webinars available for its LTAP Stakeholders.

- November 2015 – [Introduction to the National Center for Rural Road Safety](#)
- December 2015 – [Understanding Organizational Culture and Its Impact on Safety Culture Audio Player](#)
- January 2016 – [Application of Systemic Safety to a Non-Engineering Concern](#)
- February 2016 – [Rural Signing and Marking Resources](#)
- March 2016 – [An Overview of the Factors and Processes to Increase Organization Safety Culture](#)
- April 2016 – [Crash Risk Factors for Low-Volume Roads: an ODOT Case Study](#)
- May 2016 – [Louisiana's Regional 4E Approach to Saving Lives: the Goal is Destination Zero](#)
- June 2016 – [usRAP: An Innovation in Data Driven Safety Analysis](#)
- July 2016 – [Roundtable on the Public Health Side of Rural Transportation Safety](#)
- August 2016 – [TZD through Improved TSMO and Rural Emergency Response](#)
- September 2016 – [National Working Summit on Transportation in Rural America](#)
- November 2016 – [Defining the Future for Safe Rural Transportation in America](#)
- December 2016 – [Toward Zero Deaths-Proactive Steps for Your Community](#)
- January 2017 – [Assessing the Operational and Cultural Environment of the Transportation Workforce](#)
- February 2017 – [Small Town and Rural Multimodal Networks](#)
- March 2017 – [Safety Performance Management](#)
- April 2017 – [Converting Paved Roads to Unpaved](#)

Over the next decade, the need for training, technology transfer, and implementation of best practices throughout the transportation community will be considerable. Its partnerships with

MDT, FHWA, National Highway Institute, and other national transportation partners will allow LTAP to better meet those needs.

The LTAP work plan and program are derived with consideration of local training needs as well as the input provided by its stakeholders, customers, and funding organizations. Federal initiatives such as Every Day Counts and Vision Zero are made a part of its every-day operations and training that are delivered to its stakeholders through scheduled workshops around the State. Its stakeholders provide input through the LTAP Advisory Board and other direct communications with its trainers, staff, and Director. Incorporating 1-on-1 interviews and the needs assessments help LTAP to draw out needs that are specific to current state of the practice. The resulting proposed training program is described in the next section of this document in the context of FHWA's prescribed program areas. The topics mentioned in each of the four focus areas are listed in order according to requests—most requested topics are first, least requested topics appear last.

Four Focus Areas

Safety Focus Area

In previous meetings with MDT upper management, work zone safety was requested. Montana LTAP's planned training fulfills this request and also meets the needs assessment surveys' priority requests as indicated on previous pages 10 - 12. LTAP has partnered with MDT and have a reciprocity agreement with the transportation departments of Washington, Oregon, and Idaho to provide three levels of work zone training:

1. Work Zone Flagger
2. Work Zone Technician
3. Traffic Control Supervisor

In these and other workshops, the importance of seatbelts and danger distractive driving crashes are strongly reinforced. Main contributors to those crashes include hand-held cell phone use, distracted drivers, and drunk drivers. Worker safety is also a concern with respect to safely operating equipment and being aware of the safety of other workers in the work zone, along with backing up safely, pilot car operations, trench safety, equipment loading and securement, and equipment safety training.

Safety is a primary concern in every part of the surface transportation system, including local, tribal, state and federal government partners as well as the private and commercial sector. Consequently nearly **half the LTAP budget** is allocated to this area. The focus area of Safety includes highway safety and worker/workplace safety. The following proposed course topics will be taught to cover the safety focus area:

- Traffic Control: Permanent Signing
- Worker Safety: Hand and Back Safety
- Sign Training and Sign Vandalism
- Shop Safety
- Equipment Safety – Loaders, Heavy Trucks, Dump Trucks, Backhoes
- Work Zone Flagging
- Work Zone Technician
- Work Zone Traffic Control Supervisor
- Winter Survival
- Roadside Design
- Loss Control
- Rural Safety Review

LTAP will initiate the 15th Annual Safety Congress, January 2017, in Great Falls. Topics have been selected from needs assessment surveys and include:

- Work Zone Technician
- Traffic Control Supervisor Certification
- 5 Parts of the Traffic Control Work Zone
- Safety, Uniformity, and Liability in the Workzone

Federal initiatives such as Every Day Counts, Vision Zero, and the Rural Safety Audits will also be covered during the Safety Congress.

Infrastructure Management Focus Area

The Infrastructure Management Focus Area includes gravel road design and maintenance, asphalt, dust control, county road standards, culverts, bridges, and storm water management. On pages 10 and 11, the needs assessment survey lists these course topics from this area as a high priority. Education for road surface management and safety features are provided in the League of Cities and Towns meeting and MACRS Fall District meetings. LTAP can then assist city and county road departments on methods of conducting road audits and inventories of road

systems, in particular using the PASER method, PAVement Surface Evaluation and Rating.

Following is a list of proposed courses to be covered under infrastructure management:

- Gravel Roads: Materials, Equipment, Design, Construction, DCP, Maintenance, Drainage
- Asphalt: Warm Mix Asphalt
- Asphalt: Cold In-Place Recycled Asphalt
- GIS/GPS
- Construction Technique
- Winter Maintenance
- Roadside Design and Management
- Preconstruction and Design
- Asphalt Management
- Road Dust: Dust Abatement BMPs
- Culverts
- Bridges
- Right of Way
- County Road Standards
- Chip Seal/Asphalt
- League of Cities and Towns: Public Works Directors Agenda
- PASER (PAVement Surface Evaluation and Rating)
- Storm Water Management
- Asphalt Patching: Best Practices

Montana LTAP will focus on developing strategies to maximize the performance of local governments' infrastructure while minimizing any negative effects on financial and human resources.

The key solution in bringing the roads up to a higher level of service is Montana LTAP providing training for the workforce who maintains and constructs these roads. Continued strategic training will improve road quality and assure economic stability for Montana.

Workforce Development Focus Area

LTAP provides training to the transportation workforce at an affordable cost to local governments. The needs assessment surveys on pages 10 through 12 indicated these as high priority selected course topics for this focus area:

- Motor Grader Certification
- Dump Truck Safety
- Gravel Pit Safety
- Liability
- Materials Training
- Asphalt Training

- 25th Snow Rodeo Training
- Signing
- Cattleguards
- Forklift
- Loader Safety
- Trenching
- Winter Maintenance
- Community Preparedness
- Surveying
- Weed Mowing

LTAP has a good relationship with Flathead Valley Community College, Miles City Community College, MSU Northern, Salish-Kootenai College, and Montana SafetyFest to further workforce development. Each of these agencies has a program to prepare participants to enter the construction industry. It is hoped these partnerships will assist and encourage those students intending to enter the transportation workforce.

The Roads Scholars and Road Masters are a method of providing training for continued education also. This continuity assures progressive development of the workforce.

Organizational Excellence

Throughout the fiscal year, professional development is a key focus for LTAP personnel as they become better equipped to efficiently transfer technology and information to its stakeholders. By providing training for staff and evaluating training successes, its organizational excellence focus will be met.

Promoting organizational excellence within the constituencies we serve, several leadership courses will be offered again this coming year based on class evaluations from its December 2015 Leadership course that was very well received. Roads Scholar Programs prepare local government personnel for better performance and leadership responsibility. The following organizational excellence courses and assessments are proposed for this focus area:

- Work Ethics
- Employee Supervision
- Needs Assessments
- Center Assessment Report
- Leadership

Other activities that promote Organizational Excellence are described below:

- The Director meets annually with the League of Cities and Towns Public Works Conference Committee to review topic requests and to prepare an agenda for its yearly conference.
- Montana LTAP coordinates with Rocky Mountain APWA Division members for the Snow Rodeo event to provide safety training for the first day. The hosting city street department or county road department organizes and coordinates the Snow Rodeo competition on the second day.
- The LTAP program is developed to meet the four focus areas and coordinated to meet the communicated priorities obtained through the needs assessment and from national training requirements passed down to the LTAPs from FHWA. This program is presented to its Advisory Board annually for its review and approval. This process assures a team effort in fulfilling training needs.

Library Resources and Distance Learning

Over the past several years, audiovisual materials have provided other training opportunities identified by the needs assessments. The majority of counties have at least one if not two safety meetings per month for crew members and use these videos and DVDs for meeting topics. The majority of videos checked out from its library database deal with Roadway Safety and Worker Safety.

The following is a list of the videos most frequently checked out:

- | | |
|--|--|
| 1. Slips, Trips, and Falls | 7. Motor Grader Operation – Part III |
| 2. Beware the Bite (Electrical Safety) | and PMA |
| 3. Heat Stress | 8. Blading Unpaved Roads |
| 4. Your Responsibilities as a Dump
Truck Driver | 9. Loader Operation – Part I |
| 5. Defending Your Safety Zone (Back
Protection) | 10. Transport Trailer Safety |
| 6. Operating Guide: Motor Grader | 11. Right of Way Mowing Safety |
| | 12. It Always Happens to the Other Guy
(Equipment Safety) |

The Montana LTAP plans to review these videos for age and content, and update and/or convert many of these videos to an internet-based resource, while maintaining the hard-copy library for rural constituents that don't have easy access to the web. Its other Distance learning

methods include Montana LTAP monthly safety webinars (web-based) and other long-distance learning programs (See Appendix E).

LTAP provides monthly morning safety webinars based on requests from its constituents and through the needs assessments. These monthly webinars will continue to be provided due to constituents' shrinking travel budgets. This method of training is becoming more popular to LTAP constituents for their monthly safety meetings. LTAP has the webinars recorded and available at any time for review on the LTAP website at <http://www.montana.edu/ltap/resources/webinars/index.html>. Larger counties such as Missoula County, Sheridan County, and Richland County have all expressed their approval of this method of training. Missoula County appreciated the recorded webinars so they could arrange to view them on their time during their scheduled monthly safety meetings. Being in the farthest northeast corner of Montana, Sheridan County usually has sixteen crew members watching its monthly webinars. This provides a time for all participants to gather and discuss issues and possible solutions. Another eastern county is Richland County who had twenty-seven crew members available to view recent webinars. This has proven to be an affordable method for learning due to vast distances to get to face-to-face training.

Additional Services

Montana LTAP responds to specific requests and special needs of various organizations. Most of these activities fulfill a local need that is met through training, distribution of resources, and applied research.

1. APWA Annual Snow Rodeo and Equipment Training – technical training and equipment safety training for city and county road employees.
2. MACRS – annual spring conference and fall district training meetings
3. Montana League of Cities and Towns Conference – fall public works meeting and training
4. Safety Congress –January traffic control work zone training
5. MDT Work Zone Meeting – Work zone manuals/instructors/training and FHWA mandates

6. Asphalt Conference – partner with Asphalt Institute
7. MDT’s telecom sites and TLN (Transportation Learning Network) – long distance learning
8. FHWA EDC (Every Day Counts) dynamic webinars

Future Initiatives

Following are five initiatives Montana LTAP proposes to pursue this year:

- 1) Coordinate and plan January 2018 Sixteenth Annual Safety Congress.
- 2) Develop the cooperative program with North Dakota to better serve eastern Montana
- 3) Solidify partnership with the National Rural Roads Safety Center and leverage the partnership to better serve LTAP customers
- 4) Work to improve training program content and delivery coordination and cooperation between LTAP and MDT and FHWA
- 5) Complete formal Needs Assessment for 2017/18
- 6) Encourage all small urban areas to develop pavement management programs in preparation for applying for federal funding
- 7) Prepare tentative workshop schedule for 2017-2018 (Appendix F)
- 8) Reinvest in LTAP’s role with MDT and the Work Zone Safety Committee.

Budget

The following budget provides the basis for Federal, State and University funding of Montana LTAP from July 1, 2016, through June 30, 2017. Expenditures reflect an estimate of last year’s expenses and projected goals for the program during the 2016–2017 state fiscal year. As the work progresses, it may be necessary to move monies among the tasks and expense categories; however, the total amount will be adhered to. Salaries stated are estimates. The University reserves the right to provide cost of living increases based on provisions from the Montana Legislature. **Table 1** shows a breakdown of total costs according to the four focus areas. **Table 2** breaks down the budget by funding source.

Table 1. Breakdown of Budget by Focus Area

Focus Areas	Salary/ Benefits	Prof. Services	Travel	Supplies/ Comm.	Minor Equip	Subtotal	IDC's	Total
Safety – 48%	132,809.95	3,360.00	2,400.00	2,304.00	977.65	141,851.60	40,548.40	182,400.00
Infrastructure Management – 18%	49,803.73	1,260.00	900.00	864.00	366.62	53,194.35	15,205.65	68,400.00
Workforce Development – 22%	60,871.23	1,540.00	1,100.00	1,056.00	448.09	65,015.31	18,584.68	83,600.00
Organizational Excellence – 12%	33,202.49	840.00	600.00	576.00	244.41	35,462.90	10,137.11	45,600.01
TOTAL COSTS	276,687.39	7,000.00	5,000.00	4,800.00	2,036.77	295,524.16	84,475.83	380,000.00

Table 2. Breakdown of Budget by Source

2017-2018 Budget	FHWA 4W6171	GAS TAX REVENUE 4W6173	MDT SPR 4W6174	TOTALS
SALARIES				
Director	\$103,334.16	\$39,744.39	\$15,897.60	\$158,976.15
Genevieve Houska, Administrative Assoc./Conference Coordinator	\$5,990.00	\$40,080.56	\$11,000.00	\$57,070.56
Shawna Page, Training Program Coordinator, Training Specialist	\$2,200.00	\$10,122.60	\$37,102.40	\$49,425.00
Student Work/Study				\$-
WTI Communications and Graphics Staff		\$4,590.00		\$4,590.00
WTI - Stephen Albert		\$2,593.68		\$2,593.68
WTI - Jeralyn Brodowy		\$4,032.00		\$4,032.00
Subtotal: Salaries/Benefits	\$111,524.16	\$101,163.23	\$64,000.00	\$276,687.39
PROFESSIONAL SERVICES				
Conference Speakers, Workshop Trainers		\$5,000.00		\$5,000.00
Printing Expenses		\$2,000.00		\$2,000.00
TRAVEL		\$5,000.00		\$5,000.00
WORKSHOP SUPPLIES		\$4,800.00		\$4,800.00
MINOR EQUIPMENT		\$2,036.77		\$2,036.77
Subtotal: Direct Costs	\$-	\$18,836.77	\$-	\$18,836.77
TOTAL (Salaries/Benefits, Direct Costs)	\$111,524.16	\$120,000.00	\$64,000.00	\$295,524.16
Indirect Costs (34.5% FHWA, 25% Gas Tax, 25% MDT SPR)	\$38,475.84	\$30,000.00	\$16,000.00	\$84,475.83
GRAND TOTAL	\$150,000.00	\$150,000.00	\$80,000.00	\$380,000.00

Appendix A: History

Montana LTAP History

Begun in 1982, the Local Technical Assistance Program was first called “RTAP” for Rural Technical Assistance Program. We became “LTAP,” Local Technical Assistance Program, in 1991 as the Intermodal Surface Transportation Efficiency Act (ISTEA) widened the program’s scope to include urban areas with populations over 50,000. At this time, the Tribal Technical Assistance Program (TTAP) was also created. Together, these programs helped local agencies build, maintain, and operate America’s transportation system by delivering targeted training and technical assistance to local and tribal governments.

Montana LTAP officially began in January 1983 at Montana State University—one of the first ten university sites selected to house this program. Funding support for the program is provided by the Federal Highway Administration (FHWA), the Montana State Legislature (gas taxes from cities and counties), the Montana Department of Transportation (MDT), and Montana State University (MSU).

Over the past 10 years alone, the LTAP and TTAP centers have achieved the following results:

- They conducted more than 60,000 training events.
- More than 1.5 million local transportation professionals attended LTAP and TTAP training.
- Participants logged more than 9 million hours of training.
- Nearly half of all LTAP and TTAP training included content related to highway and worker safety.
- Centers distributed more than 2 million technical publications and resources in response to requests from local and tribal agencies.
- Local transportation agencies saved an estimated \$8 for every \$1 LTAP spent on information and training.

Appendix B: Center Assessment Report

2016 LTAP/TTAP Center Assessment Report

Center Name: **Montana Local Technical Assistance Program**

Reporting Period: **January 1 to December 31, 2016**

Due to the new formatting requirements from FHWA for the Center Assessment Report, this information is a summary of the main sections: Training, Conferences, Technical Assistance, Communications, Center Operations, and Highway Network. A digital copy is available upon request.

Section One: Training

Training delivered by LTAP staff consisted of 25 training sessions and 797 participants from January 1 to December 31, 2016. Topics included forklift safety; work zone technician; traffic control supervisor; work zone flagger certification; front end loader safety; low volume road signing; gravel road design & maintenance; winter safety and traffic incident management; leadership; trenching safety and load securement; hearing safety and PPE; and low volume work zone safety.

Training hosted by LTAP center with contracted trainers consisted of 12 training sessions and 797 participants from January 1 to December 31, 2016. Topics included Part 46 MSHA Training and gravel pit safety; leadership – safety from within; trenching safety, ladder and eye safety; CDL/DOT physicals for truck drivers; railroad, grade crossings, and train safety; bridge safety design; traffic incident management; electrical hazards safety; work zone flagging; and MUTCD.

Section Two: Conferences

LTAP hosted the Asphalt Institute conference in Helena in February 2016. There was a total of 100 participants.

Section Three: Technical Assistance

LTAP is receiving more requests for technical assistance. 5,655 technical assistance requests were provided in the form of written correspondence and 21 requests LTAP provided on site visits to its constituents. See **Table 1** listing technical assistance data below.

Table 1. Direct Technical Assistance within the LTAP State or Assigned Region

Technical Assistance Provided	Program Area	Tribe or Local Agency Name	Total Number of Individuals Receiving TA	Outcome
Develop Traffic Incident Management Webpage on our LTAP Website for MT TIM	Work Zone Safety	MT FHWA	1 and TIM Committee	TIM Site Partially Developed
Wheatland County Road Department - Gravel Road Design	Infrastructure Management	Wheatland County	1	County now can test gravel
Forklift Certification for Flathead County	Worker Safety	Flathead County	20	County has Certified Forklift Operators
Guardrail Guide from Ohio LTAP, Requested by Brad Nelson, MDT	Infrastructure Management	MT Dept of Transportation	1	State Trans. Now has Guardrail Guide
Distributed AASHTO's book info on Infrastructure and Road Funding	Infrastructure Management	Counties and cities	271	Resource delivered
Six Cities requested forklift/skid steer certification methods for meeting MT Labor & Industry compliance requirements	Worker Safety	Counties and cities	6	Cities now have certification methodology

Technical Assistance Provided	Program Area	Tribe or Local Agency Name	Total Number of Individuals Receiving TA	Outcome
Announced Traffic Control Supervisor and Work Zone Technician Classes available from ATSSA	Work Zone Safety	Counties and cities	271	TCS and WZ Tech certification available
Open Cut Program by DEQ announcements throughout the year for their meetings for counties with gravel pits	Environment	Counties and cities	271	Counties aware of DEQ meetings
Announcing EDC dynamic webinars to constituents for 2016	Roadway Safety	Counties, cities, state DOT	307	Constituents aware of EDC webinars
FHWA announcement on upcoming solar eclipse and roadway safety methods	Roadway Safety	Counties, cities, state DOT	307	Constituents aware of solar eclipse coming
Work Zone training announcements for flagger, wz tech, tcs for all	Work Zone Safety	Counties, cities, state DOT	307	All aware of LTAP Work Zone Trainings
Provided county road departments with gravel road standards and gravel specifications for gravel materials	Infrastructure Management	Counties	183	Sent counties updated gravel road specs
Provided assistance to Powder River County by sending out vacancy announcement for truck driver position to other counties	Workforce Development	Counties and cities	271	Other local governments aware of job opening
Announced MT Public Works Directors conference for MT League of Cities and towns	Planning	cities	88	Cities knowledgeable about PWD meeting
Provide training, conference planning, and latest EDC info to MACRS Officers	Workforce Development	counties	183	MACRS officers aware of training
Sent out snow policy announcement to local governments per request of county road supervisor, Wayne Wendt	Roadway Safety	counties and cities	271	Helping local governments answer publics questions on why certain roads get plowed first
Ran a query of county bridge departments of how they split costs of bridge replacement in municipalities	Construction and Maintenance	Counties and cities	271	Query helped new supervisors understand split
Assist MDT with Highway-Rail Conference survey of local agencies	Design and Traffic Operations	counties	183	MDT needed info from counties about rail crossings for conference
Disseminate all MDT training to local governments	Roadway Safety	Counties and cities	271	Provide Local Governments another training outlet
Distribute Montana Municipal Insurance Association article on Department of Labor & Industry new compliancy requirements	Worker Safety	counties and cities	271	Prepare local governments for compliance inspections
Email MUTCD clarifications of existing standards and guidance on new and innovative traffic standards	Roadway Safety	Counties, cities, state DOT	271	Keep all agencies aware of new MUTCD standards
Announced NHI Pedestrian Facility Design training available in Helena, MT	Design and Traffic Operations	cities	271	City and towns aware of pedestrian training available
Sent out to constituents the NHTSA "Drive Sober or Get Pulled over" Holiday Campaign	Roadway Safety	Counties, cities, state DOT	271	Local agencies aware of NHTSA campaign
Sent acknowledgement to WTI Director Steve Albert about positive response from county about Laura Fay's Unpaving Report	Infrastructure Management	university	1	Bringing to the Director's attention about Laura Fay's article
Broadcast to all constituents about Montana SafetyFestMT about free worker safety training available	Worker Safety	Counties, cities, state DOT	307	Valuable free worker safety training announced to constituents
Sent out notice about Toward Zero Deaths Webinar to constituents	Roadway Safety	Counties, cities, state DOT	307	Constituents had knowledge of TZD training

Table 5. Direct Technical Assistance outside the LTAP State or Assigned Region

Technical Assistance Provided	Program Area	Tribe or Local Agency Name	Total Number of Individuals Receiving TA	TA provided in what form (?)	Outcome
Sent Colorado, Ohio, New Hampshire, Indiana, LTAPs our training version of CDL preparation	Workforce Development	LTAPS	4	written correspondence	LTAPs had a basis to design own CDL training
Broadcast 31st Annual North Central Regional Local Road conference in Rapid City, SD	Workforce Development	counties	183	written correspondence	Attendance at Local Roads conference
Promoted all webinars, TLN training, and onsite trainings for North Dakota LTAP/ UGPTI	Workforce Development	counties, cities, MDT	307	written correspondence	Provide another venue for training

Section Four: Communications

Montana LTAP sends out 375 electronic versions of its news letters to 271 local agencies, 7 tribal agencies, 70 state agencies, 2 federal agencies, and 25 contractors. The news letters are sent out quarterly over the fiscal year.

There were 4 articles relating to Every Day Counts, 6 articles relating to Infrastructure Management, 3 Safety articles, and 4 Workforce Development articles that were published in the quarterly newsletter for the fiscal year. LTAP sends its newsletters out electronically to its constituents and the links to the newsletters are posted on the Montana LTAP website. The LTAP website does not have the capacity to track if its constituents are sharing the information with others or how many views its website receives. The website is updated weekly to keep the information up-to-date for its viewers.

Section Five: Communications

The LTAP Center staff spent 10 hours per month participating as a member of a committee. LTAP does not charge a fee for services such as data analysis, safety audits, project management, or consulting services.

The fiscal year for Montana LTAP starts July 1. Its annual estimated budget for 2016 was \$207,168. The annual revenue collected from fees associated with the training and conferences resulted in no net profit for LTAP.

During the 2016 fiscal year the Montana LTAP had 2.75 FTEs within the center. The Center hired 4 contracted instructors to provide on-site-training to its constituents around the state of Montana. Currently, the center does not have a succession plan in place at this time. This is an issue that will be addressed in the next fiscal year. The new Director, Matthew Ulberg, joined LTAP March 15, 2017.

LTAP is working on internal workforce development such that its internal staff will have the opportunity for advancement and rewarding careers at Montana LTAP. Its technical staff is in CONTINUAL need of ADOBE Suite training with InDesign, Acrobat, Illustrator, etc. Ongoing technology upgrades and practices, including digital media delivery require continual training opportunities. MSU-Bozeman provides a variety of opportunities that staff is encouraged to participate in, and take advantage of, as LTAP is located on the MSU Campus. This includes software, personnel, management, web development, IT basics, grant writing, financial management, and other professional development courses.

Success Story

In 2016, the Montana LTAP program operated for 7 months without a director. The Executive Director of the Western Transportation Institute (WTI) stepped in to fill the needed administrative roles, and the Conference Coordinator, Graphic Designer and Field Engineer continued to provide all scheduled training through a combination of inside resources and outside contracting with previously established contracts with technical experts. The efforts were such that none of the LTAP stakeholders or training class attendees noticed any shift in quality of service from the Montana LTAP Program.

*Section Six: Highway Network***for LTAP Centers**

	Centerline Miles
How many centerline miles of public roads are owned by Local Public Agencies in your State?	75,000
How many centerline miles of public roads are maintained and operated by Local Public Agencies in your State?	75,000

Appendix C: Staff

Matthew A. Ulberg, PE



Matt has is a talented public speaker, and has the ability to quickly build a friendly and professional rapport with clients and the public. Matt has more than 18 years of experience working closely with public and private sector clients to solve their engineering challenges. Matt will serve with integrity as Director of the Montana LTAP at MSU Bozeman. He looks forward to forging strategic partnerships within the transportation community, leading staff into new areas of expertise, and finding efficiencies to improve service to the transportation workforce throughout the whole of Montana.

EDUCATION

- M.S. - Civil Engineering (1997), Montana State University
- B.S. - Civil Engineering (1996), Montana State University

REGISTRATIONS: Professional Engineer (PE) registered in **MT**, AK, ID, ND, SD

Accomplishments and Honors

ACEC-Montana, President (2013-2014)

ITE Montana, President (2000-2001)

Chi Epsilon – MSU Bozeman

PROFESSIONAL WORK EXPERIENCE

1998 - present: DJ&A, P.C. (Missoula, MT)

1997-1998: Western Transportation Institute (Bozeman, MT)

1996 (Summer): CH2M Hill, (Boise, ID)

1995-1996: Western Transportation Institute, (Bozeman, MT)

TRAINING

GEOPAK Road I, II and III, Survey

ACADD 2012/Civil 3D

ACI Technician

Nuclear Densimeter Certified

IHSDM Beta-testing and implementation (FHWA)

NHI Earned Value Management

Negotiation Skills

Right of Way Acquisition (IRWA)

Experience on Selected Projects
Bozeman Area Alternative Transportation Study (Gallatin National Forest/ Bozeman, MT)

Transportation Engineer: DJ&A conducted this federally-funded study that involves assessing, planning and designing alternative transportation options for safely accessing National Forest recreational sites surrounding Bozeman. The primary modes of transportation are bicycling, ride share, and transit.

MDT/City and County of Missoula – Feasibility Study for Missoula to Lolo Trail (Missoula, MT):

Project Engineer: The City and County of Missoula partnered with MDT to conduct a feasibility study to determine the safest, most economical, least impactful and most user-friendly trail alignment within existing right of way to connect Missoula and Lolo. DJ&A completed the study of this 8-mile corridor. Services included data collection, detailed site surveys at key locations, hosting of public meetings, research of existing right of way, data analysis and report writing. The report, which positioned the project for full funding, established feasibility of two alignments. I provided technical support for the feasibility study and participated in the public involvement.

Missoula to Lolo Trail Design Project Engineer: In cooperation with Missoula County, The City of Missoula, and The Montana Department of Transportation, DJ&A was awarded the contract to design the 8-mile trail between the two communities of Missoula and Lolo. Funding for this project came as the result of a successful \$4.58M TIGER Grant application authored by DJ&A. This project includes the design of the trail, retaining walls, and traffic signalization evaluation. Additionally, this project required coordination between DJ&A and MT FWP to assess the needs and feasibility of any wildlife crossing structures for mitigation.

City of Missoula – Hillview Way, SID #549, Missoula, MT As Project Manager, Matt oversaw PS&E development for this comprehensive reconstruction of a major street in Missoula. Matt assisted with the SID creation, developing a revised SID financing assessment methodology; analysis of roadway design and alignment alternatives; preparing cost estimates that accurately reflected current bidding practices; specification writing and advanced project management that kept the project on schedule and the stakeholders informed.

USFS Region 1 and Region 4 (2010-2014): Engineering Analyses of Motorized Mixed Use on National Forest System Roads on Select Idaho Forests: Caribou-Targhee NF, Sawtooth NF, and the Nez Perce NF

Matt led the effort to developing an analysis methodology and field data collection procedures to enable analysis of any forest road segment for crash probability and severity of mixed use crashes. The result was a methodology for evaluating the safety of Forest Roads that experience mixed use in Idaho, with particular focus on risk factors, user types, recreational areas of focus and recreational attractions. This evaluation was made necessary due to the

passage of Idaho SB 1098, which allowed all unlicensed and underage operators on FS Roads. Utilizing the existing USFS FSM Guidance and the expertise of two retired Forest Engineers, a decision matrix was developed that categorizes risk and indicates potential mitigation alternatives and strategies based on different threshold criteria.

Rouse Ave. Right of Way Acquisition Montana Department of Transportation (MDT, Bozeman, MT)

This right-of-way acquisition contract includes 106 parcels for Montana Department of Transportation under a term contract that DJ&A secured based on qualifications. The parcels include a mix of fee title acquisition, construction easements/permits, and drainage easement acquisitions. As the Project Manager, Matt was responsible for contract management, quality assurance, schedule, parcel negotiation assignments, negotiations with attorney-represented parcels, and issue resolution for all aspects of right-of-way acquisition and negotiations with landowners.

Petty Creek Road Reconstruction Project (Missoula County): Matt was a lead negotiator on this project that included 84 parcels for right of way acquisition to accommodate road widening and improvements. Matt successfully met with irrigators and land owners, accommodated irrigation concerns through negotiating and evaluating replacement costs, reviewed project impacts, checked calculations; field reviewed proposed plan revisions, completed negotiations and prepared temporary and permanent easement submittals.

USFS – Region 1 – Hyalite Road and Bridge Project: As the Project Engineer/Project Manager, Matt completed the preliminary design, including alignment alternatives for three different design speed alternatives, determination of construction impact areas for environmental review, approach road design, intersection design, trailhead layout and design, parking area layout and design and preliminary construction cost estimates. DJ&A completed final design and construction services and the roadway has now been rebuilt in key segments, including two bridge replacements.

ROW Acquisition: Montana-Alberta-Tie Limited (MATL) Conrad, MT: Matt served as the Project Manager for this \$1.5M ROW acquisition contract for the MATL in northern Montana. The project included acquisition of more than 550 parcel acquisitions including permanent and temporary easements. All parcels were completed in a 45-day window from obtaining final revised exhibits and within 4 months of the last appraisal.

Hurricane Ridge Road, Olympic National Park: Lead Project Engineer, Design Manager

This included the rehabilitation of approximate 17.6-mile stretch of road known as Hurricane Ridge Road. The road segment runs from the intersection of Hurricane Ridge Road and Mount Angeles Road to the Hurricane Ridge Visitor Center. Improvements included a 3-R that ultimately rehabilitated the road surface, turnouts, and Visitor Center Parking Area, reconstruction of curbing and guardrails, creating a turning lane and paving the additional unpaved parking area at the Heart O' the Hills entrance station, placing a sheet drain in a landslide area, several deep patches to stabilize currently unstable sections of the roadway, adjusting two parking area layouts, pulling up the fill slope from a landslide adjacent to a parking area, lining approximately four culverts, installing several headwalls at culvert inlets and riprap aprons at several culvert outlets, and modifying the intersection with Mount Angeles Road.

Appendix D: Needs Assessment

2017 Formal Needs Assessment for Montana LTAP

LTAP Workshop Needs

Subjects were rated 1-5 by attendees and given weighted averages accordingly.

Focus Area: Worker Safety

Top 3 Responses

- Winter Survival
- Back Safety
- Hand Safety

Focus Area: Work Zone/Highway Safety

Top 3 Responses

- MUTCD 2N & 6
- Flagger Certification
- Work Zone Technician

Focus Area: Infrastructure Management

Top 4 Responses

- Gravel Road Maintenance & Design
- County Road Standards
- Culvert Placement & Trenching
- Cattle Guards

Focus Area: Workforce Development

Top 3 Responses

- Excavation & Loader Safety
- Dump Truck/Trenching Safety
- Load Securement

Focus Area: Organizational Excellence

Top 3 Responses

- MACRS Conference
- Personnel Management
- Technical Leadership

LTAP Workshop Information

Are Montana LTAP Workshops cost affordable?

- Yes: 90%
- No: 10%

LTAP Website Information

Is the Montana LTAP Website easy to navigate?

- Yes: 83%
- No: 17%

LTAP Library Information

Have you or your agency received material from the Montana LTAP Library?

- Yes: 55%
- Unsure: 35%
- No: 10%

LTAP Newsletter Information

Do you read Montana LTAP's newsletter "LTAP Matters"?

- Yes: 65%
- Yes: 35%

What type of articles would you like in "LTAP Matters"?

- Worker Safety: 36%
- Highway Safety: 14%
- Infrastructure Management: 19%
- Workforce Development: 31%

What types of local topics would you like to see?

- Budget/Costs: 14%
- Laws/Regulations: 39%
- Local Road/Highway Projects: 33%
- Technical Articles and Reports: 14%

LTAP Listserv Information

Are you a subscriber to the Montana LTAP Listserv?

- No: 45%
- Yes: 55%

LTAP Demographic Information

What is your job description?

- Road Crew: 15%
- **Road Superintendent/Foreman/Supervisor: 70%**
- Public Works Director: 10%
- Other: 5%

How many years of work experience do you have?

- 0-3 years: 5%
- 4-6 years: 10%
- 7-9 years: 5%
- 10-14 years: 15%
- 15-19 years: 15%
- **20 + years: 50%**

What is the population of your city?

- Under 4,000: 25%
- **4,000-10,000: 40%**
- 10,000-15,000: 15%
- 15,000-30,000: 0%
- 30,000-45,000: 0%
- 45,000 and above: 15%

How many miles of road does your city/county maintain?

- Under 250: 0%
- 250-500: 10%
- 500-750: 20%
- 750-900: 20%
- **900-1,150: 25%**
- **1,150-2,000: 25%**
- 2,000 and above: 0%

LTAP Methods for Providing Technology Transfer

Top 4 Responses

- Technical Visits
- Conferences/Workshops
- Personal Communications
- Distance Learning (Webinars)

Appendix E: Distance Learning Lessons

Eleven safety meeting webinars were held via Adobe Connect through the National LTAP

Clearinghouse at Montana LTAP:

- Winter Safety for Montana Roadways
- Hearing Safety
- Best Practices for Cattle Guards
- Weed Mowing Safety & Mobile Operations
- Slips, Trips, & Falls
- Hand, Eye Safety, and Personal Protective Equipment

Other distance learning programs used and available for use:

- MDT's GoToMeetings
- MDT's connection with TLN (Transportation Learning Network) live training sessions •NHI's training sessions to MDT's telecom sites in Montana
- National LTAP Clearinghouse's Adobe Pro Connect
- Webinars from NHI, FHWA, and other LTAPs

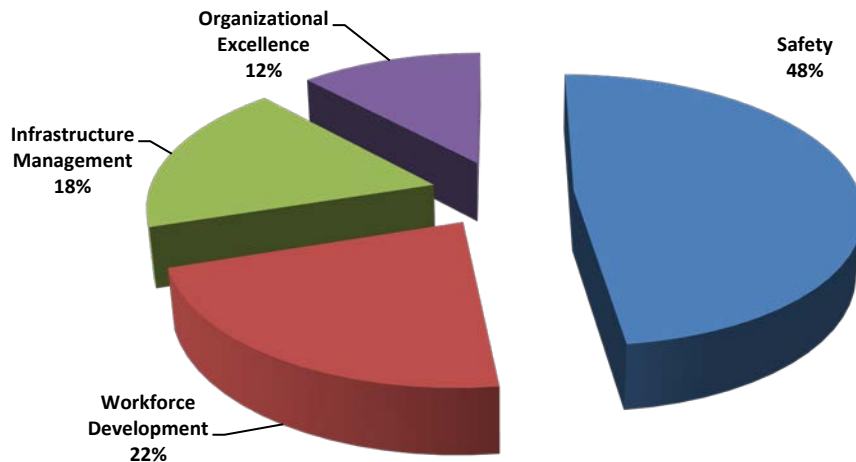
Montana LTAP provided Montana FHWA dissemination of Every Day Counts Dynamic Webinar information for their events and will continue to work with them for future EDC webinars.

Appendix F: 2017-2018 Montana LTAP Tentative Workshop Schedule

Sept 6-Sept. 7, 2017: Bozeman	APWA Snow Rodeo & Equipment Safety
September 26, 2017: Conrad	MACRS Fall District Meeting: TBD
September 27, 2017: Townsend	MACRS Fall District Meeting: TBD
September 28, 2017: Missoula	MACRS Fall District Meeting: TBD
October 3, 2017: Billings	MACRS Fall District Meeting: TBD
October 4, 2017: Glendive	MACRS Fall District Meeting: TBD
September 27 – 29, 2017: Missoula	League of Cities and Towns – Public Works Directors Meeting
November 14, 2017: Great Falls	Leadership
November 14 - 15, 2017: Great Falls	MACRS Planning Meeting
December 12, 2017:	Winter Maintenance
December 14, 2017:	Winter Maintenance
January 23, 24, 25, 2018: Helena	15 th Annual Safety Congress: Jan. 23 – am: Work Zone Technician Jan. 23 – pm: Traffic Control Supervisor Jan. 24 – Traffic Control Supervisor Jan. 25 – am: Train the Trainer
Feb. 27, 2018: Helena	Asphalt Institute Conference
March 20, 2018: Havre	Work Zone Flagging
March 21, 2018: Great Falls	Work Zone Flagging
March 22, 2018: Helena	Work Zone Flagging
March 26, 2018: Great Falls	MACRS 38 th Annual Spring: Pre-conference
March 27-39, 2018: Great Falls	MACRS 38 th Annual Conference, Heritage Inn
April 10, 2018: Miles City	Work Zone Flagging
April 11, 2018: Glendive	Work Zone Flagging
April 12, 2018: Glasgow	Work Zone Flagging
April 17, 2018: Billings	Work Zone Flagging
May 8, 2018: Hamilton	MACRS Spring District Meeting: TBD
May 9, 2018: Conrad	MACRS Spring District Meeting: TBD
May 10, 2018: Bozeman	MACRS Spring District Meeting: TBD
May 15, 2018: Glasgow	MACRS Spring District Meeting: TBD
May 16, 2018: Glendive	MACRS Spring District Meeting: TBD
May 17, 2018: Miles City	MACRS Spring District Meeting: TBD
May 30 - 31, 2018	Regional Meeting: LTAP North Central Region – Kansas City, MO
June 5, 2018: Bozeman	Work Zone Flagging
June 6, 2018: Bozeman	MACRS Executive Meeting
June 7, 2018: Bozeman	LTAP Advisory Board Meeting

Appendix G: Needs Assessment Survey Topics in 2017-2018 Workshop Schedule

Four Focus Areas



Infrastructure Management

Sept. 6 & 7, 2017
Snow Rodeo: Equipment Safety

Sept 27, 2017
League of Cities and Towns: Road Management

Feb. 20, 2018
Asphalt Conference:

May 8, 9, 10, 15, 16, 17, 2017
MACRS: Gravel Road Maintenance and Design

Workforce Development

Sept. 7 & 8, 2017
Snow Rodeo: Equipment Safety

Jan. 23-25, 2018
Safety Congress: Roadway Safety

March 27 – 30, 2017
MACRS Spring Conference: Motivational Speaker, Leadership, Ethics

Organizational Excellence

Sept 27, 2016
League of Cities and Towns
Public Works Directors Meeting

Nov. 14, 2017: LTAP Leadership Course

November 14-15, 2017
MACRS Planning Meeting

June 6, 2018: MACRS Executive Meeting

June 7, 2018: LTAP Advisory Board Meeting

May, 2018:
National LTAP North Central Meeting

Safety

Worker Safety

September 26, 27, 28, 2017
October 3 & 4, 2017
MACRS Fall District Meetings

Jan. 23-24, 2017:
Safety Congress: Work Zone Technician, Work Zone Traffic Control Supervisor, & Roadway Safety

March 20, 21, 22, 2018
April 10, 11, 12, 17, 2018
Work Zone Flagging, Work Zone Tech

May 8, 10, 2018
Work Zone Flagging, Work Zone Tech

June 5, 2018
Work Zone Flagging, Work Zone Tech

Appendix H: Summary of Work Tasks

The following seven technical assistance work tasks were assigned by FHWA when LTAP was first created. Although each LTAP operates to meet its specific customers' needs, all were given these specific directives to fulfill each quarter. As electronic methods of communication and training are developed, Montana LTAP has progressively evolved to stay abreast with the most effective means of transportation technology distribution.

1. Seminars/Training Sessions: Training sessions provided by Montana LTAP are guided by the needs requested from our constituents. For meetings, conferences and training sessions, the following summarizes allowable costs under this agreement: facilities rental and necessary equipment, supplies, and meals and coffee breaks (when meals are an integral part of a conference or meeting). Montana LTAP presented webinar safety meetings that have and will continued to be used for safety meetings for all constituents.

2. Information and On-Site Technical Assistance: The LTAP program will continue to contract individuals who can offer expertise in a variety of subject areas and on-site technical assistance. LTAP will continue to update and develop listservs to enhance communication and share timely, pertinent information with all other transportation entities. Present listservs include Montana Association of County Road Supervisors (all 56 counties), Montana Association of Counties (all county commissioners), League of Cities and Towns (public works directors, mayors, and local city officials), and Montana Department of Transportation (employees). Our toll free line has proven a useful tool for clients as has our website providing training opportunities and links to other libraries, newsletters and transportation sites.

3. Quarterly Newsletter: The LTAP electronic newsletter provides current articles each quarter to Montana LTAP's audience. Articles are gathered from a variety of sources including various transportation partnerships Montana LTAP has developed. A lead article demonstrates local expertise in one of the four focus areas each quarter. Announcements of the latest DVDs and

publications available are issued each quarter. The training calendar announces regional and national training opportunities in addition to LTAP's local workshops and all of LTAP's partners.

4. Transfer of Technology Materials: Funding will be directed to producing publications and DVDs, and on transferring to DVDs from our VHS collection, which contains material that supports in-house training opportunities. The library presently contains over 550 videotapes, 930 publications, 135 sets of software, and 98 DVDs. Links are provided under the Library heading on our website to additional resources for researching transportation topics. Montana LTAP will continue to provide webinar links for further training opportunities. At training sessions, handouts are provided so participants can update their colleagues on the information discussed at the workshops.

5. External Communication: Montana LTAP maintains a mailing list composed of the county road workforce, city and street constituents, county commissioners, public works directors, MDT employees, U.S. Forest Service personnel, and various private transportation entities. Its development originated from the transportation workforce requesting training notifications, library information, quarterly newsletters, and technology research. Throughout the year the list is updated by phone and e-mail requests, address change notices, and conference attendees. With technological advances, LTAP is finding electronic communication via e-mail and our website is becoming more widely used by our audience. It also provides immediate notification.

6. Evaluation: Evaluations will continue to be collected at each workshop following the Kirkpatrick level I format to assess our training effectiveness. These evaluations indicate how training courses are valued as well as what is not effective. Over the past years our instructors and course content always scored favorably, in the 90th percentile. There is an area on the evaluation form where participants can express workshop needs. This information is tabulated and presented to the MACRS Executive Committee and the League of Cities and Towns when determining future training direction. Montana LTAP's quarterly report also summarizes the

work progress within each of the four focus areas and is sent to the Montana LTAP Advisory Board members and WTI. The annual Advisory Board meeting allows direct input into LTAP's future planning. The FHWA reports of PAR (Performance Assessment Report) and FHWA Work Plan Addendum (Appendix B) provide overall accomplishments and activities, highlights and challenges faced by Montana LTAP over the contract period. These reports are also discussed at the Advisory Board meeting.

7. Future Classes

Potential Training Class	Sponsor	Partners	
Acquisition Plan Reading - Real Estate Academy 2017	LTAP	MDT	
Asbestos Awareness - Real Estate Academy 2017	LTAP		
Geotechnical Software Training	LTAP	WTI	
Asphalt Recycling and Pavement Preservation	LTAP	MDT	
Asphalt maintenance for small municipalities	LTAP		
Highway Plan Reading	LTAP		
Inspector Testing for Flexible Pavements, Advanced Structures, Compaction Testing and Traffic Work Zones	LTAP	MDT	
PASER	LTAP		
Safety Studies	LTAP		
Signing & Markings	LTAP		
Tort Liability and Risk Management	LTAP	MDT	MACo
Traffic Signs & Pavement Markings	LTAP	MDT	
Bridge Inspection Refresher Training	MDT	FHWA	NHI?
Highway Safety Manual (HSM) Focused Training Class	MDT	FHWA	
Public Involvement - OES	MDT		
Purpose & Need Training - OES	MDT	FHWA	
Relocation 201 - Advanced Residential Relocation Assistance			
Real Estate Academy	MDT		
Relocation 202 - Advanced Business Relocation Assistance -			
Real Estate Academy (REA)	MDT		
Road Diets Workshop	MDT		
NHI - Bicycle Facility Design	NHI		
NHI - Inspection and Maintenance of Ancillary Highway Structures	NHI		
NHI - Principles and Applications of Highway Construction Specifications	NHI		
NHI - Road Safety Audits/Assessments	NHI		
NHI Bridge Maintenance	NHI		

NHI Stream Stability and Scour at Highway Bridges for Bridge Inspectors	NHI
NHI-Combating Roadway Departures	NHI
NHI-Fracture Critical Inspection Techniques for Steel Bridges	NHI
Designing for Pedestrian Safety	WTI
Designing Pedestrian Facilities for Accessibility	WTI
Geotechnical Software Training (gINT)	WTI