



# Preliminary Design of a Leadership Academy for the Alaska Department of Transportation and Public Facilities, Report to Management, Reviews and Discussions

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# SI\* (MODERN METRIC) CONVERSION FACTORS

## APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
<b>LENGTH</b>				
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
<b>AREA</b>				
in <sup>2</sup>	square inches	645.2	square millimeters	mm <sup>2</sup>
ft <sup>2</sup>	square feet	0.093	square meters	m <sup>2</sup>
yd <sup>2</sup>	square yard	0.836	square meters	m <sup>2</sup>
ac	acres	0.405	hectares	ha
mi <sup>2</sup>	square miles	2.59	square kilometers	km <sup>2</sup>
<b>VOLUME</b>				
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft <sup>3</sup>	cubic feet	0.028	cubic meters	m <sup>3</sup>
yd <sup>3</sup>	cubic yards	0.765	cubic meters	m <sup>3</sup>
NOTE: volumes greater than 1000 L shall be shown in m <sup>3</sup>				
<b>MASS</b>				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
<b>TEMPERATURE (exact degrees)</b>				
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C
<b>ILLUMINATION</b>				
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	candela/m <sup>2</sup>	cd/m <sup>2</sup>
<b>FORCE and PRESSURE or STRESS</b>				
lbf	poundforce	4.45	newtons	N
lbf/in <sup>2</sup>	poundforce per square inch	6.89	kilopascals	kPa
<b>APPROXIMATE CONVERSIONS FROM SI UNITS</b>				
Symbol	When You Know	Multiply By	To Find	Symbol
<b>LENGTH</b>				
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
<b>AREA</b>				
mm <sup>2</sup>	square millimeters	0.0016	square inches	in <sup>2</sup>
m <sup>2</sup>	square meters	10.764	square feet	ft <sup>2</sup>
m <sup>2</sup>	square meters	1.195	square yards	yd <sup>2</sup>
ha	hectares	2.47	acres	ac
km <sup>2</sup>	square kilometers	0.386	square miles	mi <sup>2</sup>
<b>VOLUME</b>				
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m <sup>3</sup>	cubic meters	35.314	cubic feet	ft <sup>3</sup>
m <sup>3</sup>	cubic meters	1.307	cubic yards	yd <sup>3</sup>
<b>MASS</b>				
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
<b>TEMPERATURE (exact degrees)</b>				
°C	Celsius	1.8C+32	Fahrenheit	°F
<b>ILLUMINATION</b>				
lx	lux	0.0929	foot-candles	fc
cd/m <sup>2</sup>	candela/m <sup>2</sup>	0.2919	foot-Lamberts	fl
<b>FORCE and PRESSURE or STRESS</b>				
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in <sup>2</sup>

\*SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.  
(Revised March 2003)

Objective:

All organizations, including such technically-oriented organizations as the Alaska Department of Transportation and Public Facilities (AK DOT&PF), have continuing needs for training of many types. Opportunities for self-improvement are essential for technical professionals, for management professionals and for support personnel. These improvements help make a more competent workforce that, in the case of AK DOT&PF, can more effectively serve the Alaska public with projects and services. In 2012, the AK DOT&PF and the AUTC funded a project, *Design of a Leadership Academy for the Alaska Department of Transportation and Public Facilities, Report to Management, Reviews and Discussions*, INE contract 13-019, to work with the AK DOT&PF to develop the concept for the continued development of managers into effective leaders. So far this project has:

1. Reviewed relevant literature, with emphasis on how various organizations are providing leadership training successfully.
2. Interviewed with representatives of a selected set of organizations identified in 1 above.
3. Compiled two summary documents in outline form, one containing the basic elements of a sampling of 22 leadership development programs and the other an outline of continuing education delivery methods, based on the efforts in 1 and 2 above.
4. Held a video conference with AK DOT&PF training managers and parallel managers in three other states. At this meeting we a) presented the leadership academy concept, b) reported on the findings from 1, 2, and 3 above, c) reviewed the department's leadership needs and how training might meet those needs, and d) compared the above with the leadership training activities of the other three states.

This document reports activities related to the four tasks above. We also make suggestions, some concrete and others more general, for the next step, which we suggest should be a review by the AK DOT&PF upper management with consultation by HR and DOA as needed. Following that review and any other appropriate meetings within AK DOT&PF, the concept can be finalized and additional detailed curricula can be developed.

In this report:

Chapter 1 is an introduction and outlines some concepts and suggests recommendations,

Chapter 2 is the review of other states' programs and analysis of the literature,

Chapter 3 is a summary and analysis of the different modes of leadership training,

Chapter 4 is a discussion of the curricular content,

Chapter 5 summarizes our ideas.

The report has three appendices:

Appendix I: Report on Seminar on Leadership Best Practices,

Appendix II: Summary of Leadership Academy-type programs, and

Appendix III: Montana DOT LEAD Class Calendar.

## Chapter 1 -- Introduction and Summary

### Goals of this Project

This project investigates the feasibility of developing a cohesive series of training experiences for DOT&PF personnel that will prepare them to perform effectively in leadership roles at their appropriate levels of responsibility. The outcome of the investigation will be a recommendation on the feasibility of such an endeavor and, if found feasible, suggested guidelines for launching such an academy, including sample curricula and methods of instruction.

What is the objective of the AK DOT&PF regarding leadership training – why should the AK DOT & PF invest in this? In general, an effective program should accomplish the following:

1. Increase the stock of competent managers who are capable of assuming leadership roles – *replace the retiring Baby Boomers.*
2. Demonstrate to emerging leaders that AK DOT&PF has an interest in their future – *increase retention.*
3. Review individual needs for technical and managerial training to provide a strong base for leadership - *improve current efficiency.*
4. Improve the basic skills in leadership such that sufficient department personnel are prepared – *provide for future personnel need.*
5. Increase the basic ability to deal with future uncertainties – *prepare staff to deal with change*

### Training for Leadership

Opportunities for leadership development exist in many forms in private and public sector organizations. The study reported herein found a variety of “academies,” “programs,” “schools,” “institutes,” “seminars,” and the like in current practice, with various names, various formats, various program content, and various delivery methods. For the most part, they seem to be satisfying the needs of the respective organizations and their members.

We realized early in our study that our eventual conclusions must be based on the following notions, among others:

1. Leadership development, to be effective, must be just that – opportunities for individuals to develop as leaders. That is, any such program must not emphasize a series of courses that teach participants “how to” be leaders, to the exclusion of an emphasis on issues beyond the facts about leadership. Thus, learning leadership is different from learning management, or learning engineering, or learning accounting. In these latter disciplines, a competent professional is one who has learned facts, techniques, processes and then how to apply those learnings to real

world situations. Becoming a competent leader is more about a process of development. So we shy away from the word “training” as central to the concept of leadership development.

2. To that end, a successful leadership development program – an “academy,” if you wish – must include elements beyond “going to class to learn leadership.” The program suggested here includes personal assessments, a clear individual development plan, mentoring, and other such non-classroom components.
3. Notwithstanding the basic tenet suggested just above, the program must have a clear structure, and formal classes will be an important aspect of a portion of that structure.
4. Since the program envisioned here is for working professionals who are already charged with responsibility for accomplishing important work (a polite way of saying they are already busy fulltime), any program for assisting in developing emerging leaders must be reasonable in terms of convenient schedules and locations, must not overburden participants with too great a program workload, and must not adversely impact current projects.

Within AK DOT&PF, many opportunities already exist for training, especially in technical subjects so important to the department’s mission. Many aspects of this training and technical needs are well defined. However, enhancing training and personnel development efforts to prepare employees for the leadership roles that many will take on as they pursue typical career paths is not well defined. How might such preparation be organized and carried out? What leadership skills, traits, abilities and functions are important to AK DOT&PF’s activities, and which of these can be learned? What might a curriculum look like? What are similar organizations providing in the way of preparation for leadership, and how are they doing so? Who among the AK DOT&PF workforce ought to be provided with such preparation, at what stage(s) of their careers, and how might they be identified and selected? These are some of the questions this study addresses.

All DOT’s have training programs directed toward improving or maintaining skills for their employee’s current job. Defining the skills needed follows directly from the job description and defining the employee’s needs relative to those skills is a straightforward task for the employee or immediate supervisor. This simple training paradigm is unsatisfactory to most DOTs because it is inherently rooted in the past and limited to preparing for the present. The rapid loss of Baby Boomers from senior ranks, the transition in state transportation programs, and an evolving workforce are examples of rapid changes that require training for the future – leadership.

## Change

As employees mature and gain more experience, they typically assume changed job responsibilities. An entry-level highway designer may eventually become a project manager, after which she may take on the role of group chief, and so forth. Further, tools and methods for performing tasks change as technology changes. And, of course, changing public priorities lead to changed emphases within the AK



DOT&PF mission, resulting in the need for some employees to develop new skill sets, including leadership skills. Thus, one can never be fully “trained up” during one’s career.

Both an individual and the DOT itself are in constant change. An employee has current interests that may change, and future responsibilities may be unknown. Programs are added and reduced and personnel needs of the organization change. Thus, for hundreds of potential future management-level employees, we will be dealing with a continuum. However, it may be beneficial to break this down into stages. Here we assume that upon entry into the supervisor ranks, the employee has the needed technical skills, licensure, and so on, or the need for acquisition of these skills is patent.

Needed skills change with employee’s career stage					
General Description	Entry Supervisor		Mid-manager		New Executive
Focus of Job	Procedures: What must I do to keep my team working efficiently <b>this week</b>		Programs: What must I do to plan and prepare for <b>next year?</b>		Policy: What changes must I effect to keep our department efficient for the next <b>five years.</b>
Pre-requisite Minimum Training for entry into this level’s program	Entry DoA supervisor training.		That needed for Entry Supervisor plus Knowledge of State and Federal program laws		That needed for Mid-manager
Management Skills	Very important		Important		Assumed or can be delegated
Leadership Skills	Never hurts		Important		Very important
Technical skills	Important		Important		Less important
People Skills, Emotional IQ	Very Important		Important		Important
“Political Skills”	Somewhat Important		Important		Very Important

For each stage there are skills basic to that stage that all or most entrants to that stage do not currently possess. In addition, certain skills are needed, either for a particular job, or for a particular individual. Thus a realistic leadership program will have a plan for providing the core skills and also identify special skills that an individual might need. It follows that periodic leadership training will also provide an opportunity for self-assessment and updating an IDP (Individual Development Plan) for the next few years that leads toward the next stage. Some one-on-one mentoring would also take place during this leadership training.

## Acceptance of Program

A successful program must be enthusiastically endorsed by upper AK DOT&PF management and pass scrutiny of the Legislature, the Department of Administration, and the relevant collective bargaining organizations. Within the AK DOT&PF, the upper and line managers must be willing participants in the program, and prospective leaders must see a benefit from participating in the program.

## Overall structure

A key point is whether the AK DOT&PF 1) wants a structured program for developing future leaders, or 2) chooses to rely on employee choice from a variety of training and leadership development opportunities that these prospective leaders might take “cafeteria-style:” selecting menu item(s) that appear useful and fulfilling from a large number available that day. At the recent seminar of state transportation training departments regarding leadership training (See Appendix I) use of those two very different approaches was noted. Two of the three DOTs offer more or less conventional training, some of which applies to leadership, and then “let the cream rise to the top.” Employees and their supervisors would select what courses and trainings fit on an ongoing basis. This has organizational simplicity, since the training department needs to fill the classes and if the right classes are being filled, sufficient raw materials are being provided and it will be taken up by self-selection – “They know what they need.” The opposite approach is taken by the third DOT from a large state. That program starts shortly after an employee is selected as a supervisor. The employee is given a battery of tests which identifies skills needed. The training section then selects which of those skills are most important to the needs of the DOT in that job description. This has the advantage of, at least theoretically, making the training specific to the need, but has the disadvantage of rigidity and organizational complexity.

## Assessing Employee Needs

Variation in personalities, location, current job duties, and need for the development will require some degree of individualization of the program. But how are the leadership development needs of the individual assessed? In the case of an HR-driven program, the general needs of the department, that is, the personnel in the department, must be assessed. Typically this must rely on standardized testing. Alternatively, in the cafeteria-style, individuals must self-assess their needs and then, often, persuade upper management of the best way to meet those needs. Training that is available may not be what the individual needs. Will training for tomorrow take a back seat to getting today’s projects built?

So, having overviewed here some of the complexities and overarching issues, we will finish this chapter by asking some questions that the rest of the report will attempt to answer. Or, if not answered, they provide a list of topics that need to be discussed with AK DOT&PF leaders.

**How?** What methods will be used for delivery? They range from face-to-face in-person traditional classroom settings; through live video conferencing using a live classroom and interactive video at remote sites, on-line meeting formats and live webinar presentations; to such asynchronous methods as on-line, DVD and CD. In what size packages will the

training be presented? What written materials will be needed? How will program completion be recognized?

**Who?** Which employees will be eligible to participate? How will they be selected? If we design a three-tiered training plan, say, how will the tiers be defined? Who will be the instructors, and how will they be selected? Shall we establish a steering committee to guide the academy's development, launch, and continuing operations? Who will be the point person/coordinator, during detailed design, during startup, and after launch? How does this academy fit into the AK DOT&PF organizational structure, T2 in particular?

**When?** This question is partly the packaging size question noted above –how long will a course last? Also, class length, time of day, frequency of meetings for a course, time of year, and course repeat frequency are when questions that will have to be confronted eventually.

**Where?** Where will face-to-face sessions, if any, be held? If all AK DOT&PF employees are encouraged to participate, will the program be presented at smaller, as well as larger, AK DOT&PF stations? If on-line offerings are developed, where will that development take place, and by whom?

**How much?** Will participants be expected to pay a fee? Will they be expected to do some of the class work on their own time? What would a pro forma budget look like?

## Chapter 2 – Review of Leadership Development Programs

In this chapter we review leadership programs in state transportation agencies and also in similar organizations. We review programs titled “leadership” and also programs of different titles that relate to our topic. First we’ll examine some programs that Alaska has utilized, then those of other transportation and similar public agencies, and finally some other, non-public, organizations with interesting leadership development programs. Appendix II has a summary of these programs. This review is far from exhaustive, as there are literally hundreds of similar programs in existence. The following is simply a representative sampling.

### **Past and current AK DOT&PF management/leadership/supervisor training**

1. Alaska DOT&PF Statewide Maintenance and Operations has launched the Alaska Maintenance Leadership Academy. Developed and led by Statewide Maintenance and Operations Chief Michael J. Coffey, one offering of the academy has been held, in October 2012, with about 30 current and future Maintenance and Operations leadership personnel in attendance. The four-day meeting, lasting from Monday noon through Friday noon, was held in Anchorage and was attended by personnel from throughout the state. Topics included DOTPF Mission, Vision, Values and Goals; Leadership; Personnel Management; Safety; Budgeting; various Management Systems, such as Material and Equipment; Environmental/Hazmat; Communication; Team Building and Collaboration; "A Day in the Life." Speakers came from both inside and outside the division; Tim Parker and Elroy Ainsley, both from the Alaska Department of Administration, were especially successful presenters. In addition to lecture/discussions, activities included interactive sessions and sufficient breaks to allow networking. Participants received vests, lapel pins and certificates to recognize their involvement. In the future, 2 to 3 such sessions will be held per year until the need to train about 150 leaders is met, after which a session will be held about once per year. It is likely that the academy will be expanded from 4 to 4 ½ days, with the start on Monday morning. Common threads throughout all modules were 1) Core values of integrity, excellence and respect; 2) why and how your decision matters; 3) enabling others to act instead of controlling them; and 4) servant leadership. The stated goals of the Alaska Maintenance Leadership Academy are
  - Introduce AK DOT&PF leadership philosophy
  - Develop and improve leadership skills
  - Improve operational alignment with AK DOT&PF Strategic Plan
  - Understand how priorities are set for Maintenance and Operations
  - Gain tools and resources to help balance the division’s priorities with daily work
  - Foster cross organizational networking
2. The State of Alaska Department of Administration conducts a five-day Academy for Supervisors designed for both newly-appointed and more experienced supervisors (<https://aws.state.ak.us/TrainAlaska/TrainingSchedule.aspx>). Through Train Alaska, the Academy is conducted face-to-face about five times in four months and is held in Anchorage, Fairbanks and Juneau. Course objectives include acquiring knowledge of the supervisor as an agent of the State of Alaska, communication and dialogue skills, goal setting, assigning and delegating, coaching, interviewing and hiring, performance management, and discipline, among many others.

3. In 2000, the Alaska Department of Transportation and Public Facilities conducted a Supervisor's Track Pilot Management Training Program, in response to a directive from the AK DOT&PF Commissioner's Training Committee (Howell 2000). The original plan was to develop tracks for supervisors, managers, and executives, so this pilot was a trial run for the supervisors' track. In a total of 83 hours over nine weeks, participants took part in five sessions taught by instructors from the University of Alaska Fairbanks Tanana Valley Campus Professional Development Department, three sessions taught by state employees, and seven web-based training (WBT) courses provided by SkillSoft Corporation. An evaluation following completion of the pilot program indicated that 1) UAF instructors were competent, enthusiastic and well-received, 2) state employee instructors were less successful, 3) web-based training was comprehensive but somewhat difficult to use and should not be used in a stand-alone mode without face-to-face instruction, and 4) the training experience was successful in making participants better supervisors.

The list of the 38 employees who completed the training shows an impressive group of women and men who have risen to responsible management and leadership positions within AK DOT&PF. Most are still with the department, while some have retired. The program was not continued after the initial pilot, for reasons of cost, the lack of a champion, changing departmental priorities, and the generally intense workload that tends not to allow time for such training.

4. The Research, Development and Technology Transfer (R D T2) section of the Alaska Department of Transportation and Public Facilities provides a wide variety of training opportunities, most of which are related to transportation and facilities design and to construction operations, with some presentations on supervision and leadership (<http://dot.alaska.ecatts.com/lmsTrainingCalendar> ). Individual courses typically last from one-half to two days, with face-to-face sessions led by expert presenters. Most sessions are in Anchorage, Fairbanks, and/or Juneau. T2 averages 100 training events a year with about 2000 participants from state and local governments and other transportation agencies for a total of 25,000 participant hours. Most events focus on highway safety, infrastructure management, workforce development, and worker safety.

Recent offerings in technical and construction operations include Traffic Control Supervisor; Traffic Control Technician; Grader Operator Training; Construction Inspection, Workmanship, and Quality; Roadside Safety Design; Designing and Operating Intersections for Safety; and Understanding GIS Data Quality. Examples of supervisory, management, and leadership courses are Scheduling for Design, Systematic Development of Informed Consent, NEPA Basics for Planning & Project Development, and Managing Highway Contract Claims: Analysis and Avoidance. On-line training in Wetlands and Stormwater is also offered.

In addition, the RDT2 training website provides a link to a large number of on-line and face-to-face training opportunities offered by the National Highway Institute (NHI) in such areas as Bridge Inspection, Asphalt Pavement Recycling, Urban Drainage Design, Writing Specifications, Value Engineering, Critical Path Method, Utility Coordination, and Quality Assurance (<http://www.nhi.fhwa.dot.gov/default.aspx> ). Some of these offerings, including the NHI Maintenance Leadership Academy, are described in more detail in a later section of this report.

5. Many AK DOT&PF employees have participated, or are now participating, in the University of Alaska Fairbanks Construction Management Graduate Certificate Program. Approved by the University's Board of Regents in 2009, and launched shortly thereafter, the program culminates in the award of a graduate certificate after completion of 15 credit hours of graduate studies in project management, human resources and communications, technical aspects of construction, and other

related subject areas. The certificate is available to those with undergraduate degrees in engineering or related fields who hold management positions in private or public construction-related organizations or who expect to hold such positions.

Program courses are packaged into one credit hour modules, each offered in six 2 ¼ hour classes held in the late afternoon over three or six weeks. Conventional three credit hour graduate courses may be used to fulfill the requirements if their content is appropriate. The classes are given live in real time and are made available for broadcast using interactive video so that students located away from the instructor's home base may take part. The sessions are also recorded so that a student who misses a class may view it later on-line.

### **Other management/leadership/supervisor training related to public transportation agencies and/or engineering organizations**

1. The Montana Department of Transportation conducts a Leadership Enhancement And Development Program (LEAD), a nine class series intended to provide existing MDT supervisors and managers with tools to lead employees. The program provides participants with a better understanding of themselves and their leadership style. It encourages participants to develop a better understanding of the people they lead, to create a work environment that includes trust and collaboration, and to foster quality performance and commitment to the goals of the agency. Participants explore their strengths and areas needing development. They are encouraged to develop decision making, change management, conflict management, and team building skills. The LEAD Program focuses on enhancing the Leadership Skills of existing supervisors and managers; with a few exceptions, it is limited to those who supervise others, with responsibility for at least time sheet approval and performance evaluation. The classes provided include: Myers-Briggs 2- day program, Leadership, Problem Solving, Conflict & Change Management, Discipline Handling, Performance Management, Team Building, Delegation, and Recruitment & Selection. It is, as of early 2013, in its second year. In its first year (2011-2012), the program was held in six Montana locations – headquarters in Helena plus five regional offices. A total of 116 employees participated. The 2012-2013 program is being presented in Helena and one other site only (Billings). The nine sessions are being presented between October and March. Total enrollment is about 40. Sessions are face-to-face, instructor-led; all instructors are MDOT employees, not outside contractors. Some outside-of-class work is expected, to prepare action plans and to consider how lessons learned can be incorporated into the employee's work situation. All costs are covered by the department, including three books: 1) a book on leadership, 2) *Change Your Questions, Change Your Life* (Marilee Adams), 3) *Crucial Confrontations* (Patterson et al). Appendix III is a 2013 LEAD calendar of class sessions. Further information: Renae Johansen Workforce Planning Bureau Chief 406.444.0876 MDOT [rjohansen@mt.gov](mailto:rjohansen@mt.gov)
2. The Transportation Leadership Graduate Certificate Program leads to a post-baccalaureate certificate after completion of four semester-long graduate courses (12 credit hours) with a grade of B or better (<http://www.transleader.org/>). It is designed for transportation and logistics professionals who have some industry experience and is described as "beneficial to young, up-and-coming transportation leaders as well as seasoned leaders of the transportation workforce." Offered completely on-line and coordinated by North Dakota State University, its courses are provided by North Dakota State University, Kansas State University, University of South Florida, University of Illinois at Urbana-Champaign and Pennsylvania State University. Tuition for one three-credit course ranges from \$2,196 (North Dakota State) to \$3,846 (Penn State).

Course topics include the following:

- traffic safety
- traffic engineering
- transportation planning
- logistics and supply chain management
- transportation policy
- transportation management
- transportation planning
- transportation systems
- transportation industry

3. The Nevada Department of Transportation's Leadership Academy (<http://www.nevadadot.com/about/employment/>, Jones 2012) is based on principles set forth by The Leadership Challenge® (TLC), an international program for training leaders (<http://www.leadershipchallenge.com/home.aspx>). The Nevada Academy is presented in five face-to-face, in-person sessions spread over five months, the first session lasting three days and each of the others lasting two days (a total of 11 days). Although not directly connected with The Leadership Challenge, it relies for its structure on that organization's five "leadership practices" of 1) Model the Way, 2) Inspire a Shared Vision, 3) Challenge the Process, 4) Enable Others to Act, and 5) Encourage the Heart. In its early sessions, the Nevada Academy conducts various assessments such as TLC's Leadership Skills Inventory (LSI). The final two-day session features a project presentation by each participant. A total of about 40 employees complete the Academy each year, 30 in Carson City and 10 in Las Vegas.

Participants need not be in leadership positions, but they are expected to manage or supervise people, projects or programs and show potential for advancement; a typical class includes employees with a wide range of experience. "Successful participants should be high achievers in their respective positions and have support of their management. Applicants should demonstrate a high degree of conceptual ability, reading comprehension, and written and oral communication capabilities. It is critical that employees and their managers understand the importance of commitment to the Academy. The Academy is very rigorous in scope and not considered to be 'entry level.'" (Nevada Department of Transportation). Support of the participant's supervisor is an essential part of the program.

Although extensive, the list of "Nevada DOT Leadership Competencies" covered in the program is worth including here:

Vision  
Teamwork, Building Commitment & Trust  
Self Management, Continual Learning  
Creative Thinking  
Partnering  
Organizational Awareness (NDOT Organization))  
Strategic Planning, Thinking, Evaluation  
Time Management  
Interpersonal Skills  
Motivating Others  
Accountability  
Integrity & Honesty  
Problem Solving, Decision Making

Effective Communication  
Negotiation  
Conflict Management  
Financial Management, Budgeting  
Customer Service

4. The American Association of State Highway and Transportation Officials (AASHTO) sponsors an annual Transportation Leadership Institute (AASHTO 2011). Lasting two weeks, the program covers basic management principles, principles and practices, as well as such current topics as organizational conflict and change, effective communication strategies, and implementing a quality culture. It also includes a voluntary personal wellness component, with a fitness evaluation and suggestions for a personal program. This is a face-to-face training experience in which the teaching techniques include lecture-demonstrations, seminars, case problem analyses, role playing, and team demonstrations; reading and other assignments; films, slides and other visual aids; visiting discussion leaders; and association with other participants. The 2013 edition was held April 7 to 18 at the NCAA Conference Center in Indianapolis, Indiana.

Eligibility includes a bachelor's degree, preferably in civil engineering or business/public administration, ten years' experience, and demonstrated leadership potential. The program is managed by Indiana University, with a tuition fee of \$3,485.

5. AASHTO also sponsors several National Transportation Management Conferences across the US each year (57<sup>th</sup> Annual AASHTO). Planned by CMS and Associates and focused on mid-level managers, each face-to-face conference lasts four days. Presentation techniques include illustrated lectures, panel discussions, case studies and role-playing sessions. The conferences emphasize recognizing the manager's multiple jobs, creating a nationwide network for mid-level transportation managers, leading change, team building, managing people in today's world, improving communication skills, learning to detect and mitigate risks in managing projects, professional ethics, and evolving transportation policy. The 2012 agenda, held at four locations, included the following topics:

Critical Issues in Transportation  
Leading Change  
Identifying Customers and Managing Conflicting Needs  
Managing Projects for Success  
Communication  
Managing Multiple Priorities  
Teamwork  
Conflict Reduction  
Ethics  
Performance Measurement  
Hiring, Developing and Coaching People  
Motivation  
Individual Growth Plan

Those attending the entire conference receive 3.0 CEUs. Tuition for 2012 was \$1,495.

6. The National Highway Institute (NHI) offers a Maintenance Leadership Academy for state, district and county maintenance supervisors (<http://www.nhi.fhwa.dot.gov/default.aspx>). The purpose is



to acquire knowledge of personnel management, materials selection, equipment use and applicable methods to react to problems in bridges, roadways, budgeting and planning. A typical course includes 12 days of classroom training in addition to independent study and web conferences, all in an eight week timeframe. Class size is limited to 30, tuition is \$3,500, and 10.5 CEUs are granted upon completion. A sample schedule is as follows:

- Week 1: Participants enroll and attend a 1-hour Web conference orientation
- Weeks 2-3: Participants complete 22 hours of independent study materials
- Weeks 4-5: Participants attend 8 days of classroom training
- Weeks 6-7: Participants complete 10.5 hours of independent study material and attend a 1-hour homework review Web conference
- Week 8: Participants attend 4 days of classroom training

The face-to-face sessions are held in various locations and are typically hosted by local or state government agencies. Previous courses in quality assurance and pavement preservation treatment, or equivalent experience, are prerequisites.

7. In addition to the Maintenance Leadership Academy described above, the National Highway Institute also offers a myriad of other training opportunities, many related to management and leadership. Both web-based and instructor-led courses are available. Examples of web-based courses are Strategic Highway Safety Plan Development (4 hours, 0.4 CEU, \$0 cost), Introduction to Value Engineering (0.5 hours, 0 CEU, \$0 cost), and Change Orders, Claims, and Dispute Resolution (1 hour, 0 CEU, \$0 cost). Instructor-led courses include Managing Highway Contract Claims: Analysis and Avoidance (2.5 days, 1.5 CEUs, \$450), Alternative Contracting (2 days, 1.2 CEUs, \$400), and Partnering (1.5 days, 0.9 CEUs, \$350).

Furthermore, NHI also offers two series of free monthly seminars, given as webinars using Adobe Connect Meeting, on “real solutions” (<http://www.nhi.fhwa.dot.gov/about/realsolutions.aspx>) and “innovative solutions” (<http://www.nhi.fhwa.dot.gov/about/innovationseries.aspx>). Each is given in real time but also recorded so they are available on-demand after the live presentation. Most are technical in nature, but some have leadership/management components. Examples of the “real solutions” webinars are Using CPM to Avoid and Measure Project Delays and a design-build case study. “Innovative solutions” seminars include Performance Contracting and “Time is Money” Construction Project Management using Scheduling Software.

8. The American Public Works Association (APWA) offers a year-long national program called the Emerging Leaders Academy that “provides intensive leadership and management training within the context of public works.” (American Public Works Association A) To participate, a candidate must have been working in the public works field for seven years or less and have demonstrated an interest in advancing her or his career in public works. Primary activities of the Academy are as follows: “monthly one-hour conference calls, a two-day retreat in Kansas City, MO, and attendance at the APWA International Public Works Congress & Exposition. It is expected that participants will also complete reading assignments and other class projects as requested by the Academy Coordinator.” (ibid.) Topics covered in the two-day retreat include

- Introduction to APWA
- Defining Leadership
- Exploring Ethics
- Proactive Thinking
- Negotiation Skills
- Presentation Pointers

- Leading Change
- Time Management
- Media Relations

A major component of the Academy is the completion of a class project. In 2012, the sixteen class members prepared an impressive 88 page report on their project, “Sustainability in Public Works.” (American Public Works Association B)

9. APWA also provides professional career development opportunities through its Leadership and Management program under the auspices of the Donald C. Stone Center for Leadership Excellence in Public Works (APWA Leadership and Management). At present, four levels of training are offered: Public Works Supervisor (PWS), Public Works Manager (PWM), Public Works Executive (PWE) and Public Works Leadership Fellow (PWLF). For the PWE program, for example, a participant must have had 5 years’ experience in public works management, and a PWM credential or a master’s degree in one of several specified areas or 18 graduate credits in one of those areas. For completion of the PWE, APWA has developed an interesting set of requirements, which are repeated here verbatim, as follows:

- Complete the 360 Assessment
- Create a professional development plan based on the APWA Core Competencies and the results of your assessment
- Design and implement a capstone project that meets all of the following criteria:
  - The capstone project is specifically designed to improve the operations of your agency, corporation, community and/or other public works related organization
  - Your mentor assists in topic selection and in the analysis/discussion of the project’s practical application
  - The general subject area of the capstone project relates to leadership, management, sustainability, environmental issues or public works infrastructure
  - The capstone project demonstrates academically acceptable use of secondary literature (i.e., it should not include original research)
  - The capstone project is completed at a regionally accredited graduate school in any of the following ways:
    - graduate certificate capstone course (for no credit or for full/partial graduate credit)
    - full-time/part-time graduate capstone studies for graduate credit
    - graduate degree program incorporating a capstone project
  - If previously completed in a graduate program at a regionally accredited graduate school, the capstone project or thesis must meet all of the above criteria as well as:
    - address leadership, management, sustainability, environmental issues or public infrastructure
    - have a practical application to your agency, corporation, community or public works related organization
    - meet the rules of the Institutional Review Board (IRB) of the academic institution in question if original research was conducted
  - Journal and document your thoughts and insights about your experiences as you progress through the program.
  - Present a defense of the capstone project (whether the capstone project was part of a qualified pre-existing graduate degree or completed after entering the Level 3

program) to the Research Council (a team of public works executives and academic specialists) via conference call or Skype.

10. The Iowa Local Technical Assistance Program (LTAP), with encouragement from the Iowa Chapter of the American Public Works Association (APWA) is implementing a Public Employees Leadership Institute (Iowa LTAP). The program consists of the following series of 14 courses:
- Supervisory Techniques and Skills
  - Team Development
  - Communications Skills
  - Leadership Skills
  - Community Service/Customer Orientation
  - Legal Understanding
  - Fundamentals of Government
  - Finance
  - Resource Management
  - Operations and Management
  - Basic Management
  - Emergency Management
  - Project Management
  - Winter Maintenance Management

Each course originated as a live workshop which was videotaped, edited, coordinated with its Power Point presentation, and uploaded for on-demand, on-line access. Lectures were provided by working professionals. Each course website also includes downloadable handouts, speaker photos and biographies, and validation quizzes. The courses are non-credit and each has a \$75 fee.

The program is geared toward current first-line supervisors in Iowa's public agencies. Its vision is to be a leadership academy for all and thus welcomes those aspiring to become leaders.

The final report on the development of the Iowa Institute (ibid) provides valuable guidance in its lessons learned and recommendations sections, especially with regard to the importance of a steering/advisory committee, the need for branding and active marketing, and the challenges of choosing appropriate and up-to-date technology for program dissemination.

11. The Virginia Department of Transportation offers a Project Management Professional Development Program in cooperation with ESI International and its academic partner, The George Washington University. (Virginia Department of Transportation Virtual University)
12. The American Society of Civil Engineers (ASCE) provides extensive continuing education opportunities for its members and others. (<http://www.asce.org/knowledge-learning/continuing-education/>). A wide variety of technical and management/leadership topics is available in several formats. A brief summary with a sampling of offerings in the management/leadership area follows:

Face-to-face seminars – Live, in-person instruction lasting two or three days.

Example: Leadership Development for the Engineer. Two day seminar held about six times per year at various locations around the US. 1.6 CEUs. \$1,225 for an ASCE member; \$1,445 for a

non-member. Topics: Leadership defined, Situational leadership (preferred leadership style evaluation, delegation), Motivating during change, Communications – men and women, Decision-making, Team building, Ethics & self-assessment.

Live Webinars – Live, interactive presentations lasting one or two hours. Mostly technical topics, but some management, such as

Project Management. Two parts, one hour each. 2 PDHs. \$498 for an ASCE member; \$598 for a non-member.

Quality Management in Design. 1 hour. 1 PDH. \$249 for an ASCE member; \$299 for a non-member.

On-demand Learning – Several formats are offered, all of which provide self-paced instruction. To earn CEUs, a participant must pass a test covering the course material. Modes of instruction include the following:

On-line courses – All course material provided on-line; log-in and password provided after course is purchased.

Example: Leadership Development. Same content as the face-to-face seminar listed above, same instructor. 9 hours. 0.9 CEUs. \$495 for an ASCE member; \$595 for a non-member.

Another example: Management and Leadership Online Course Set. Includes three courses – Leadership Development (just above), Financial Management for the Professional Engineer, and Perfect Your Negotiating Skills. 29 hours. 2.9 CEUs. \$1,195 for an ASCE member; \$1,420 for a non-member.

CD-ROMs – “Seminar on a CD”

Example: Ethics & Professionalism. 3 hours. 0.3 CEUs. \$150 for an individual ASCE member; \$477 for an organization.

DVDs – Nothing available on management/leadership except Engineering Economic Analysis (3 hours. 0.3 CEUs. \$150 for an individual ASCE member; \$477 for an organization)

On-demand Webinars – Recorded versions of previously presented live webinars.

Example: Release the Leader within You: The Seven Qualities of Highly Effective Leaders. 1.5 hours. 0.2 CEUs. Costs range from \$135 for an ASCE member to \$349 for a non-member’s organization.

Other topics related to management/leadership presented by the ASCE continuing education program include negotiation, contracts, strategic planning and construction. Two examples from construction are 1. Construction Contract Management (On-line; 11 hours; 1.1 CEU) and 2. Stories from the Field: What Engineers Need to Know about Construction (DVD; 3 hour panel discussion; 0.3 CEUs)

13. The American Council of Engineering Companies (ACEC, formerly American Consulting Engineers Council) conducts a Senior Executives Institute (SEI) (<http://www.acec.org/education/sei/index.cfm>) for emerging leaders to “learn about themselves, how they interrelate with and lead people and the importance of interacting and learning from their community and the world.” Each class begins once each year, is limited to 28 students, and consists of five sessions totaling 21 days over two years. The sessions are held in different (mostly warm!) locations and are face-to-face sessions that

include presentations by policymakers and industry leaders as well as group discussions, meetings with the private and public sectors, case studies, self evaluation, and individual work. Each session grants approximately 29 PDHs; the entire five-session series costs \$26,750 for an ACEC member and \$29,500 for a non-member.

A summary of program content is as follows:

<u>Session</u>	<u>Topics</u>	<u>Location</u>
1 (5 days)	Your Vision & The World <ul style="list-style-type: none"> <li>• The Changing Environment</li> <li>• Economic Trends</li> <li>• Public Policy</li> <li>• Global Practice</li> <li>• Leading a Living Company</li> </ul>	Washington DC
2 (4 days)	Your Personal Leadership Skills <ul style="list-style-type: none"> <li>• Relationships and Communication</li> <li>• Self-Awareness</li> <li>• Productive Conflict</li> <li>• Stress Management</li> <li>• Personal Mastery</li> </ul>	Santa Ana Pueblo, New Mexico
3 (4 days)	Situational Leadership, Strategy & Systems Thinking <ul style="list-style-type: none"> <li>• Situational Leadership &amp; Team Alignment</li> <li>• Forces of Change</li> <li>• Strategic Planning</li> <li>• Balanced Scorecard &amp; Strategy Mapping</li> <li>• Systems Thinking</li> <li>• Organizational Design &amp; Structure</li> </ul>	Boulder CO
4 (4 days)	Organizational Leadership Issues <ul style="list-style-type: none"> <li>• New Models for Professional Practice</li> <li>• Alternative Project Delivery Methodologies</li> <li>• Lean Thinking &amp; Sustainability</li> <li>• Transformative Work &amp; Profound Change</li> <li>• Team Learning &amp; Dialogue</li> <li>• Scenario Planning &amp; Information Technology</li> </ul>	San Francisco CA
5 (4 days)	Putting It All Together <ul style="list-style-type: none"> <li>• Creativity &amp; Innovation</li> <li>• Partnering &amp; Alliances</li> <li>• Power &amp; Politics</li> <li>• Coaching &amp; Mentoring</li> <li>• Transitioning from SEI to Practice</li> </ul>	Amelia Island FL

Teaching tools include Harvard case studies, self-assessments such as LSI (see below), human interaction and personality type models, books, articles, workbooks, videos, DVDs and CDs.

The Leadership Skills Inventory (LSI) is a self assessment administered by CRG Consulting Resource Group International Inc. (<http://www.crgleader.com/online-resources/online-leadership-skills-inventory-self-lsi-s.html> ). It allows individuals to rank 60 specific competencies, segmented in five

sections, each containing 12 skills. The five sections are: Self-Management Skills; Interpersonal Communication Skills; Coaching, Counseling, and Problem-Management Skills; Consulting Skills for Developing Teams and Organizations; and Organizational Development and Versatility Skills. Each assessment can be taken on-line at a cost of \$35.

An interview with a Fairbanks participant in the Senior Executives Institute (Miller, 2013) provided further insight and information. This high level manager in a local engineering design firm is partway through the two-year program, having attended two of five sessions. He takes annual leave to attend the sessions, and his company is footing the \$26,000+ total bill. He reports a very positive experience thus far. The program has been underway for 18 years and has been consistently rated highly. He is especially impressed by the caliber of the business consultants serving as instructors. During our interview, three books arrived at his office, representing only a portion of the assignment for the session to be held in two months. A typical multi-day session begins with dinner Friday evening and ends with dinner Tuesday evening, allowing him to be at work the following day. In addition to face-to-face instructional sessions and breakout sessions, time is spent alone in self reflection. The “assignment” would be: “take an hour, go for a walk, and think about how what we have talked about applies to you, your work, and your life.” Of particular value are the opportunities for networking and sharing experiences with “25 or so others who are just like me.”

14. The Leadership in Engineering Administration Program (LEAP) is a career development program designed for upwardly mobile young professionals working in Arizona’s consulting engineering industry (<http://acecaz.org/events1.php>). It is administered by the American Council of Engineering Companies of Arizona (ACEC AZ) and directed by former AK DOT&PF Northern Region Director Bill McMullen, P.E.

Twenty to twenty-five participants are selected each year. They, or their companies, pay a total of \$3,000 for 11 day-long sessions that take place on Fridays or Saturdays between January and August. Preference is given to those with 5 to 10 years’ experience in the consulting or construction industry, who hold professional registration, and who are transitioning for primarily technical to supervisory and management responsibilities. Each face-to-face session features a different trainer. For 2013, the eleven sessions are entitled:

- Introduction & Icebreaker; Understanding Ourselves & Others
- Body Language & Its Power; Coach to Win the Leadership Game
- Communications Skills for Business Success; Value Creation in Consulting Engineering
- Perspectives on the Business; Student Presentations on Value Creation; Project Scope of Services
- Project Scoping; Planning & Control
- Managing Business Risk; Negotiating Project Terms
- Contracts that Manage Risk; Human Resources
- Managing Construction Phase Risk; Selling Consulting Engineering Services
- Winning Proposals & Persuasive Presentations
- AZ Board of Technical Registration; Professional Ethics; Marketing Team Winning Presentations
- Wrap-Up and Graduation

### Other unrelated, but possibly useful, leadership academy-type programs

1. Rotary International, through many of its district organizations, offers “District Leadership Academies” for members who aspire to leadership roles beyond the local club (<http://www.district5010leadershipacademy.org/>). Past club presidents are eligible to participate. Most if not all of a district’s academy is presented electronically through on-line courses. Testing is done on line. Six courses are required, spread over seven to nine months. Each participant completes a “skills inventory” prior to joining the program; the “skills” in this case are exclusively the various abilities required to participate in the program electronically and the computing equipment, software, and the like one has available.

Course content is clearly linked to the participant’s need to understand the Rotary organization and to serve its members. Most of the following does not apply to AK DOT&PF, but a few ideas should be noted. Here are the six courses, in the order in which they are made available –

- Communications – Overview of Rotary electronic communications at all levels
- Membership – Recruitment, retention, club extension
- The Rotary Foundation – fund raising, grant process
- Public Relations / Public Image – available resources, PR plan design
- New Generations – Exchange programs, programs, for youth and young adults, strategic planning for same
- Club, District and Rotary International Organization – Organizational structure, relationships among parts of the organization, club strategic planning

2. The U.S. railway, CSX, offers a Transportation Business Leadership Program. It is a custom program designed by the Executive Education section of the University of Maryland Robert H. Smith School of Business specifically to meet the needs of CSX leaders. The program is held over a 3-month period in which the participants are on campus for one week per month. (<https://events.rhsmith.umd.edu/RHSCalendar.nsf/0/68C10DD7059C089485257976003C547E> , Program Overview). The 2011 program was held for a total of 14 days – a five-day week in September, a five-day week in October, and a four-day week in November. Sessions are face-to-face, with industry and academic presenters. In addition, a series of Action Learning Projects, with presentations, is included, as well as a field trip to Gettysburg with a related discussion of “Battle-Tested Teams.” Included are the following topics, each dealt with in one-half or one day:

- Global Economic Environment
- Interactive Strategic Planning
- Supply Chain Management
- Customer Service
- Teamwork
- Operations Management
- Logistics and Transportation
- Financial Metrics
- Financial Decision Making
- Transformational IT
- Effective Communications
- Leadership (heavily oriented toward ethical issues)
- Negotiation

3. The Greater Fairbanks (Alaska) Chamber of Commerce offers a program called Leadership Fairbanks, designed for individuals “seeking to expand their existing leadership skills.” (Leadership Fairbanks) The program consists of three key components: leadership theory, community exploration and networking, and presentations by leaders. The 2012-13 edition includes a two-day retreat in September, followed by monthly one-day sessions held on the third Tuesday, October through May. A typical agenda for a one-day session includes morning guest speaker presentations and panel discussions on community and economic sectors and afternoon student presentations on leadership, group activities, and a debriefing. Among the “sectors” are small business, tourism & arts, government & non-profits, education & workforce development, natural resources & energy, healthcare, criminal justice, and quality of life. Emphasis is on “cultivating a pool of highly skilled and resourceful business leaders to invigorate the greater Fairbanks area and accelerate economic progress.” Tuition is \$1000 for Chamber members and \$1,250 for others. Topics highlighted in the nine sessions are listed below.

- Kick-off Retreat: Strengths & Leadership
- Vision & Proactivity
- Diversity & Teams
- Trust & Integrity
- Courage & Communication
- Culture & Values
- Passion & Productivity
- Accountability & Recognition
- Graduation: Development & Renewal

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ASCE American Society of Civil Engineers Continuing Education (<http://www.asce.org/knowledge-learning/continuing-education/>)



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Chapter 3 -- Summary and Analysis of the Different Modes of Leadership Training

**A preliminary taxonomy of continuing education delivery methods**

<u>Type</u>	<u>Examples</u>	<u>Comments</u>
<b>Real time</b>		"Synchronous"
<b>Traditional classroom</b>		
You come to me (in which "me" and "I" are the education provider)	AK DOT&PF Supervisor's Track Pilot Mgmt Training; Nevada DOT Leadership Academy; AASHTO annual Transportation Leadership Institute; AASHTO Nat'l Transp Mgmt Conferences (4 locations); APWA Emerging Leaders Academy (retreat & conference attendance); ACEC Senior Executives Institute; ACEC AZ LEAP (Leadership in Engrg Admin Program); CSX Railways Transportation Business Leadership Program; AK DOTPF Maintenance Leadership Academy; Leadership Fairbanks (Chamber of Commerce)	
I go to you	AK DOA Academy for Supervisors (ANC, FAI, JNU); T2 training (ANC, FAI, JNU); Montana DOT LEAD Program (2 locations); NHI Maintenance Leadership Academy (hosted by local & state agencies); NHI instructor-led courses (locally hosted); ASCE seminars (various US locations)	
<b>Technology-enhanced</b>		
Video conferencing	UAF CM Grad Cert; NHI monthly seminars	Overlap w/ on-line meeting
On-line meeting		Overlap w/ video conferencing
Audio only	APWA Emerging Leaders Academy (monthly conference calls); NHI Maintenance Leadership Academy (may also include video);	GoToMeeting (can also include video)
Video & audio	APWA Leadership & Management program Public Works Executive capstone project (Skype or other);	GoToMeeting (can be audio only); Google HangOut; Skype
Webinar	ASCE webinars (mostly technical but a few mgmt/leadership)	

Enhanced video conferencing

Some UAF courses

2 screens for viewers: 1. Presenter or other camera or computer 2. Tablet (doc, dwg, write-on) or larger SmartBoard (write on-only; can be captured for later on-demand viewing "Asynchronous"

## On-demand

### On-line

Fully on-line

ESM Proj Mgmt; CEE Envir Courses; Rotary Leadership Academy; Transp Leadership Grad Cert Program (NDState); NHI web-based courses; ASCE Leadership Development

View course outline; download mtl; submit assignments; receive critiques; async group discussions; testing; grading

Recorded video conference

UAF CM Grad Cert; NHI monthly seminars; Iowa Public Employees Leadership Institute (recorded live workshops)

Originates as live real time video conference

Recorded enhanced video conference

Some UAF classes

Originates as live real time enhanced video conference

Recorded webinar

ASCE webinar on Release the Leader within You

Originates as live real time webinar

Just download study materials

### Media-based

CD/DVD

ASCE Ethics & Professionalism Seminar

May originate as live real time seminar or other type presentation

### Combination real time and on-demand

Flip classroom

Lean Construction course experiment March 2013

1. Students watch video prepared in advance by instructor on "on-demand" basis (the "lecture") 2. In class ("real time") – problem solving, group work, questions/ answers, discussion of material from lecture

## Chapter 4 – Curricular Content

What topics are important for emerging leaders? Let's look back at the table in Chapter 1 that suggested characteristics of employees at three stages of their management careers. Consider the following (completely hypothetical) situation and personnel: A short section of new highway is being designed with a short but reasonable deadline for PSE review. The needed geotechnical report is two months behind schedule. Here is what might be important for three (remember that number is arbitrary) levels of leader:

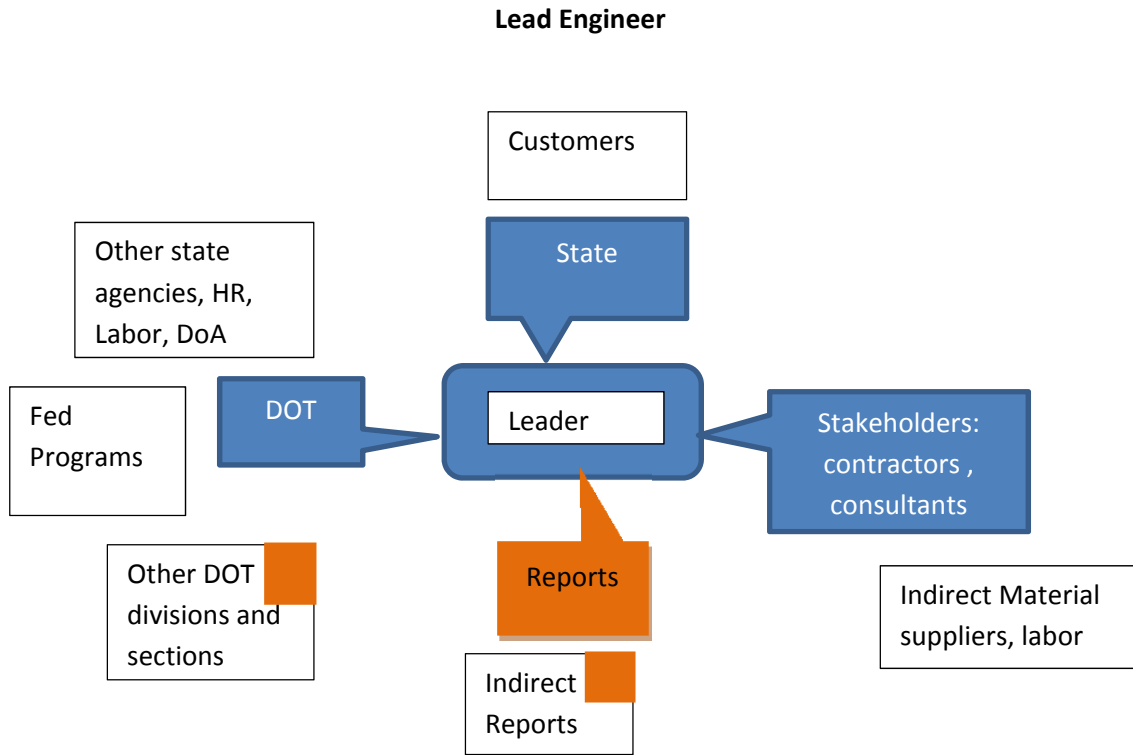
**Lead Engineer:** What other tasks can I assign my engineers so they can keep busy? How far can I go without the soils report? Can I start work with an outline of the alternates based on my judgment about what the report might tell me? When do I need to warn my boss the PSE could be delayed, and what should I tell her?

**Projects Engineer:** The former chief geotech has retired; the new chief does not seem to manage his people well. Is this likely to improve with time? How do I discuss this with the new geotech manager? Do I discuss with my boss? Can I shift the geotech by deferring some of my other projects? Can we delay some projects - which? Do I discuss that with the lead engineers on those projects? Does FHWA need to know?

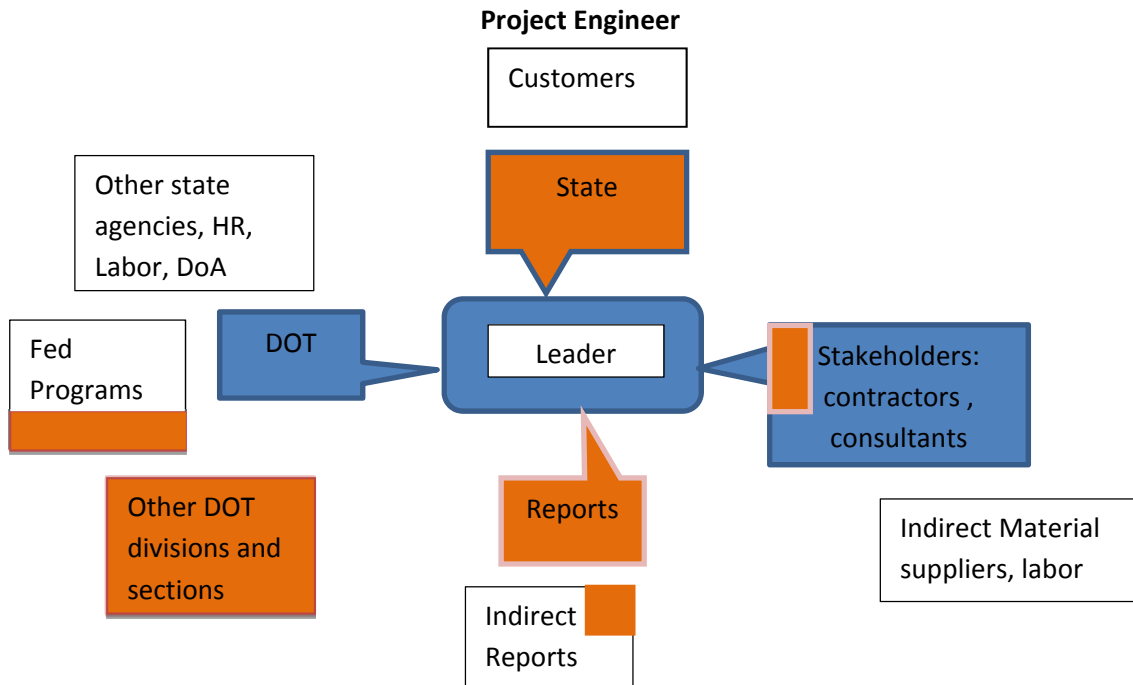
**Area Manager:** This is a recurring problem. Can I get permission to contract out investigations- cost, budget? Does that take new procedures? How does that fit with the State's policy? Are there HR or labor issues if we contract out? What are the other regions doing? How about other states? Is there new technology that might help? Do I need to discuss with my boss? Legislative liaison? Should I develop a team/working group – who should be on it?

Note how the focus changes for each level. While the Lead Engineer might solve her problems in the cube farm in one afternoon, the Area Manager may need years, travel, and meetings. The lower level requires little "politics" other than basic human relations skills, while the higher levels need extensive coordination and a sense of where their department and activities fit into a bigger picture, both of the region and the state. Timing may be all important.

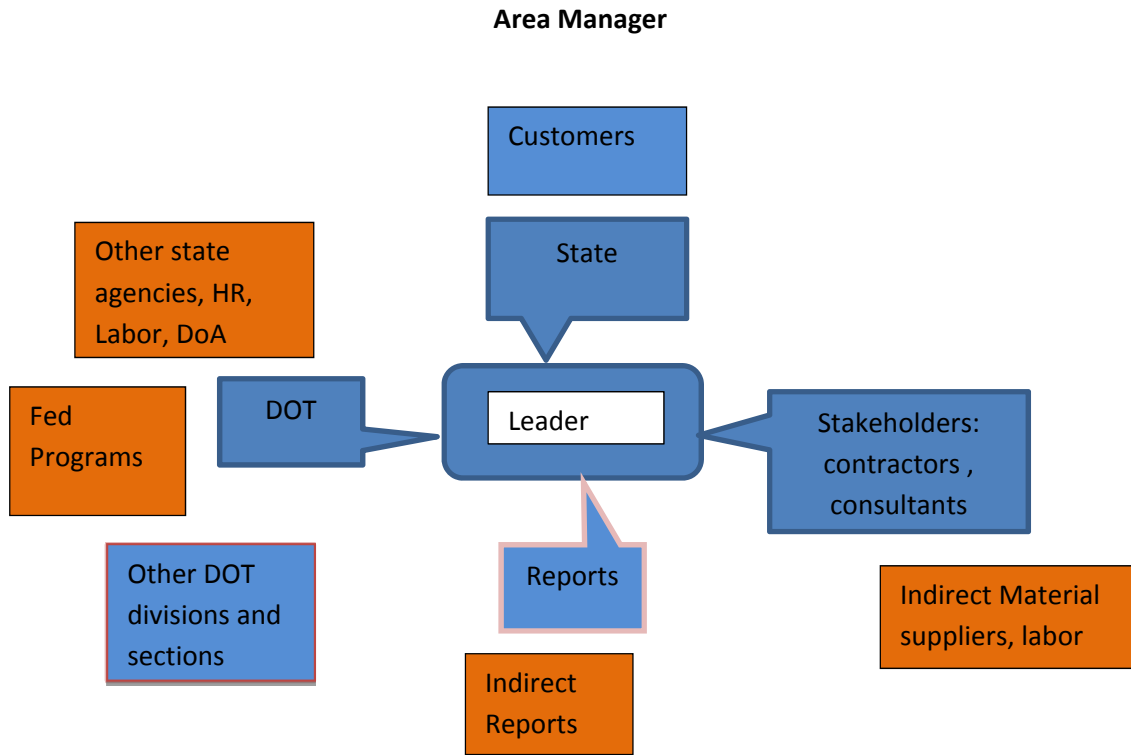
Here's a diagram of some of the people and organizations involved in interactions. The likely interactions are highlighted in orange, the less likely, but occasional, in blue.



The project engineer needs to interact with more people and organizations.



The Area Manager may need to interact with all of those entities and will certainly need to work with many of them and must be cognizant of all of them.



Given the kinds of interactions shown for each of the three responsibility levels, the tables that follow suggest skills that should probably be required for success at each level. The goal of Level I of Leadership is to review basic management skills and make sure the employee has a firm foundation. That is, they are able to handle communications and issues related to the first diagram. This is obtained by testing and reviews during classroom work. Then the employee is introduced to the “leadership ladder” with skills needed, and an overview IDP that they would need to advance – courses and vendors, etc. for the next three to five years.

Skills	Example from CSX
Communications and Presentations: Necessary Skill at All Levels. (Distinguish from interpersonal and such for now, but clearly they are interrelated.) See CSX below for outline. Oral and Written.	<u>General Overview of Communications Course.</u>
Interpersonal Skills: Conflict resolution, negotiation (maybe), motivation, Team building, Goal setting, others.	Students will learn to improve their ability to generate positive reactions in day-to-day business situations, especially representing CSX to clients and with other staff. Students will learn to tailor each communication to the person or people with whom they are speaking and learn to position themselves and their message in a consistently positive manner. The goal is to present a message with professionalism, grace and style and capture and keep the attention of the listener.
Understanding the AK DOT&PF organization: Departments, Regions, Customers, Chain of Command, Staff – who does what. Funding basics.	Learning Objectives:
Human resources management – Recruitment, hiring, performance evaluation, discipline, etc. (might be covered in basic Supervisor Training.)	The course will cover communications skills that are essential in business including:
Basic Management Skills Supervisory Techniques and Skills, Delegation, decision making.	<ul style="list-style-type: none"> <li>• the impact on the “receiver” of what you say and how you say it</li> </ul>
Ethics and state laws.	<ul style="list-style-type: none"> <li>• the power of predictability in designing and delivering a message</li> </ul>
Extra: Creativity & innovation, Defining leadership, Quality, Vision, Trust building, others.	<ul style="list-style-type: none"> <li>• developing and improving your personal speaking style</li> </ul>
Start Leadership: Personality type and leadership skills inventories/self assessment, Individual growth plan.	<ul style="list-style-type: none"> <li>• using persuasive language to communicate recommendations</li> </ul>
	<ul style="list-style-type: none"> <li>• techniques to overcome nervousness and increase speaking confidence</li> </ul>
	<ul style="list-style-type: none"> <li>• listening with all of the senses</li> </ul>
	<ul style="list-style-type: none"> <li>• delivering “difficult” messages</li> </ul>
	<ul style="list-style-type: none"> <li>• practical suggestions for everyday office communication</li> </ul>
	<ul style="list-style-type: none"> <li>• building a presentation that is meaningful, memorable and actionable</li> </ul>
	<ul style="list-style-type: none"> <li>• avoiding gender and cross-cultural misunderstandings</li> </ul>





Leadership III	
Skills	Example from CSX
The goal of Leadership III is make sure the employee can interact successfully with all the groups in the diagram and also plan for change and invoke changes as needed.	Your Vision & The World
Professional ethics/integrity, Integrity & Honesty	· The Changing Environment
Strategic planning	· Economic Trends
Self management/personal wellness (Same as Level II)	· Public Policy
Fundamentals of Government, Legal issues.	· Global Practice
Stakeholders: transportation industry, customer service, Identifying Customers and Managing Conflicting Needs	· Leading a Living Company
Strategic Planning, Thinking, Evaluation	Your Personal Leadership Skills
Financial Management, Budgeting	· Relationships and Communication
Negotiation, conflicting needs.	· Self-Awareness
Critical Issues in Transportation	· Productive Conflict
Leading change	· Stress Management
Hiring, Developing and Coaching People	· Personal Mastery
Leadership, see CSX	Situational Leadership, Strategy &
Extra: creative thinking	Systems Thinking
	· Situational Leadership & Team Alignment
	· Forces of Change
	· Strategic Planning
	· Balanced Scorecard &
	Strategy Mapping
	· Systems Thinking
	· Organizational Design &
	Structure
	Putting It All Together
	· Creativity & Innovation
	· Partnering & Alliances
	· Power & Politics
	· Coaching & Mentoring
	· Transitioning from SEI to
	Practice

## Chapter 5 -- Suggestions for AK DOT&PF

So we've spent four chapters reviewing what others have done or are doing; now what do we think the AK DOT & PF should do?

First, we believe a leadership development program is appropriate for the Alaska Department of Transportation and Public Facilities. We emphasize the need for a program which embodies a policy that is embraced by the current leaders of the AK DOT&PF. Second, we should not get hung up on the difference between "management" and "leadership." We do need to keep the distinction between those two, which are common between departments, and "technical skills," which vary quite a bit between departments.

The skills needed to be an effective leader vary somewhat, depending on one's job level and responsibilities, but the training needed varies quite a bit, depending on the individual's current capabilities. Thus, some process of assessment of individual training needs is required.

A tiered approach with, say, three tiers, is appropriate, with each tier designed to mirror the employee's career progression with regard to experience to date and current and expected future job responsibilities. Achievement levels to be met must be established for each level, and a set of required and selected courses and other activities must be established.

The system must be flexible enough to permit variation in individuals' and departmental schedules and commitments, but must be rigid enough to become a definite priority for both.

The training must be useful to both the department and the individual.

The system must require some individual effort, beyond normal day-to-day work effort. Thus, individuals who are not interested in eventual leadership roles might opt out of the system. But, some judgment is needed in this regard – the "reluctant leader" syndrome argues for including all potential leaders in the system.

The program should include assessments (mentioned above) of individuals' interests, competencies and leadership potential; a clear but flexible development program for each individual that will serve, among other purposes, as a means of tracking progress; and the mentoring of each participant by a more senior person on the same, or similar, career track.

Thus we suggest a system of sessions offered each (or almost each) year in rotating locations. The training would have three levels. The individuals would participate every three to five years in successively higher levels. Each session would have a core of definite skills trainings that are most likely common to all individuals, with a progression from more management-type skills in the lower levels toward more leadership-type development activities in the upper levels. However the final part of each session would include an assessment and mentoring of each individual. A "leadership IDP" would be formulated for each individual as an attachment to their standard HR IDP. The skills training offered at the session would feature interactive-type learning and presentations, while learning that can be attained by individuals on their own might be deferred for the time between sessions.

As an example of how these notions might apply to a specific individual, consider an engineer who graduated ten years ago, has been with AK DOT&PF for eight years, and who is likely to be named a project engineer within the next six months. She thus would be eligible to enter the second level of the leadership development program. [Note that, when the program is first launched, we will need to decide how to handle prerequisites for those leaders ready for second-level development who have not been part of this program (because it did not exist).] This example assumes the program has been underway for a sufficient amount of time that this employee has successfully completed the program's first level.

Let's assume that this employee has demonstrated especially fine people skills, that her previous assessment indicated the same, that she has a keen interest in and understanding of rural Alaska, and that her mentor is a person with rural experience who has encouraged her to exploit her people skills and rural interests. Her Leadership Individual Development Plan was prepared, with the assistance of her mentor, when she was involved with level one development, but it has not been kept up to date. Prior to her involvement in the level one program, she completed the Entry Supervisor Training given by the Alaska Department of Administration.

If we assume the program includes formal classroom training, out-of-class individualized development experiences, assessments of skills and interests, mentoring, and a Leadership Individual Development Plan, a plan for her level-two program could include the following:

- 1) Continue involvement with her mentor to design her plan and to meet with him monthly as the plan unfolds.
- 2) Repeat the skills and interest assessments completed five years earlier, especially to note any important changes.
- 3) Attend formal level-two training and include courses in
  - Critical issues in transportation nationwide and in Alaska
  - Negotiation techniques for project team leaders
  - Public relations, media relations, and working with the public
  - Self management and personal wellness

These might be packaged into two one-week sessions spaced three or four months apart.

- 4) After or during activity 3 above, take on-line courses and/or participate in similar subject courses through T2 training or other sources; participate in appropriate related activities.
  - Complete University of Alaska Design and Construction Certificate Program course in Alaska Rural Projects
  - Complete University of Alaska graduate course in Rural Alaska Politics
  - Complete ASCE's 9 hour on-line course in Leadership Development
  - With a few colleagues, take an on-line course on effective communication through active listening
  - Visit to Juneau to
    - Visit AK DOT&PF Headquarters
    - View legislative committees and full session in action

- Attend Senate Committee on the Capital Budget teleconference when considering rural capital project requests
- 5) Update her Leadership Individual Development Plan to include commitments to 1 through 4 above, with assistance by and concurrence of her mentor, and use the plan to monitor progress.

## Appendix I

### Best Practices in Leadership Development in State DOTs

#### Notes from Seminar of 17 April 2013 and White Paper

Dr. Robert A. Perkins, PE

A conference was held using an Internet video chat format (Google Hangout) on 17 April 2013. The participants were:

Alaska DOT: Clint Adler and Dave Waldo

Montana DOT: Renae Johansen and Kathryn Overton

Washington DOT: Matt Cronk

Wyoming DOT: James Boyd

University of Alaska Fairbanks: Larry Bennett and Bob Perkins

Chris Miller, a senior manager for an Alaskan A/E firm, gave a presentation on his experiences with the Senior Executives Institute, a leadership program put on by the American Council of Engineering Companies. That program consists of five sessions for a total of 21 days over a 24-month period – each session at a different location.

The DOT participants either had active leadership development programs, or were developing such programs. The UAF participants have an active research program about leadership development. After a presentation by UAF of a recent review of DOT Leadership Programs, which includes some industry and non-profit leadership programs, the participants reviewed their state's program. Following that, the group broke into two sections in separate hangouts and reviewed the similarity and difference of the programs. Three overarching findings were:

- 1) All the states have a similar situation with a rapidly aging senior workforce – with many leaders eligible for retirement soon.
- 2) At the level of the implementers (trainers and HR) there was no clear demarcation between “management” topics and “leadership” topics. But rather there was a gradient of skills needed. All four recognized the difference between “technical” training and “manager/leader” training. A variation might be the basic supervisor training, which all four require, but there is some difference if this is technical training or the beginning of the management/leader training.
- 3) All noted the Soft Skills were most needed for management and leadership.

**Levels of Training**

The Alaska program is still in developmental stage, although there have been similar programs in the past. Regarding selection we note a difference in approach between that taken by Montana and Wyoming, and that taken by Washington.

There was a difference in approaches between Montana and Wyoming that have clear definitions of levels of training, and Washington that treats skill levels as a continuum.

Here is an outline comparison between Montana’s – Highway to the Future Program with five levels, and Wyoming’s DOT University’s Supervisory/Management Tiers that has four levels.

Montana	Wyoming
Core Skills Development. Three non-consecutive days of training for those not interested in management. Enrollment by supervisor’s recommendation.	
Technical Skills Development. Encompasses a wide variety of technical skills, from mechanic/operator to engineering via many different instruction media. Enrollment by Supervisor’s recommendation.	
Management Development Program (MDP) A course for entry-level supervisors. Enrollment by supervisor and division or district administrator.	Tier I, for New Supervisors. Complete New Supervisor Orientation prior to entering Tier I.
Leadership Enhancement and Development Program (LEAD) to develop current supervisors. Encouraged for all supervisors and requires applications and recommendation or approval of supervisor and division or distinct administrator.	Tier II, Experienced Supervisor  Tier III, Intermediate Leader/Manger
Senior Leadership Development Program (SLDP). Developed for upper management. Needs recommendation of administrator and selection by executive team.	Tier IV, Executive

The WYDOT University Program has an important note: “Despite the tiered structure, the emphasis of WYDOT University is on acquiring needed skills. If a skill is needed now or soon, no matter what tier you are in or what tier the skill is listed in, seek the training that will lead to learning that skill.”

The Washington DOT program does not have levels, as such, but rather lists traits and notes: “The mission of the Supervisor and Manager Development Program is to facilitate the growth of our agency’s supervisors to ever increasing levels of maturity in their leadership knowledge, skills, abilities and character.” Further it implies outcomes based on traits, for example:

### **“Tolerant of Ambiguity**

Works effectively in an unstructured environment

Makes appropriate decisions under pressure even with incomplete information”

Whereas Wyoming and Montana have definite recommendations, down to the books used in particular courses, Washington uses batteries of tests to determine specific skill needs.

In all cases, once training needs are established, they will be translated into an Individual Development Plan (IDP) for the individual employee.

### **Entry into Training**

In Washington, the promotion to “supervisor” triggers an HR/training sequence that relies on evaluative tests to determine training needs or, perhaps better put, training priorities. The program then follows up with annual evaluations. This system is currently being used in several departments of the DOT.

In the other three states, there is no clear trigger to examine the needs, rather either the employees self-identify or their supervisors must initiate the evaluations. One state has an incentive - granting credit for leadership education toward advancement (reducing minimum time in grade for advancement if a certain number of credits are completed).

### **Alignment**

All four states agree that the training must align to the strategic direction of their DOT, but there is a difficulty with program assessment to assure that. All noted the manager’s dilemma - stress between “project delivery” and “people development.”

### **Instruction Method**

All four agencies use a variety of instructional modalities: face-to-face usually being the most expensive in direct instructional cost and employee time. Various on-line and video modalities are also used. Often contract instructors are used. This leads to the situation where an instructor is scheduled to give a class at a district location and thus employees at that location are more likely to participate in the class, as opposed to a course they may need more, but is offered at a different location.

### **Breakout Group One**

One breakout group focused on general comments on programs and their place in the organization. Here are their comments:

1. It is important to develop an individualized plan that connects the need to the offering, as opposed to running people through a program. (Of course administrating a program may be simpler.) But, say an individual had 50 deficiencies, you would pick the 2 or 4 that are most important to the individuals or the organizations and start with those, rather than just running people through a list of courses.
2. One told of historical programs that started but then died out (“never reached escape velocity’). New programs have risk and are more work than the status quo. Programs must be marketed internally - focus on early adopters and opinion makers – marketing to people who are respected, the implementers, and then leverage successes upwards. Focus on “points of pain” such as stress management, communications, and conflict resolution. Put success on display.
3. A detailed all-knowing assessment would indicate all of us have deficiencies. Often supervisors have definite deficiencies. So supervisors must be given a “skill amnesty” to develop while they do their job. A good tool is a three way assessment, which consists of a self assessment, supervisor’s evaluation, and the direct report’s evaluation, “360 degree evaluation.” All three should be part of performance management program.
4. Of course the individual must do the work, the supervisor is the coach.
5. Ideally, we need to develop a culture that values learning and sees developing employees as a vital supervisory skill. Ideally, a culture that values the integration of employee / workforce development in project delivery practices – a “Leadership Development Process” for lifelong learners.

## **Breakout Group Two**

Breakout Group Two gave comments on specific topics often mentioned for leadership training:

Government and the DOT:

- Need to have fundamentals understood ahead early in career

Self-management:

- Assessment of alignment between self and agency

Personal awareness and accountability

- Delegation
- Interpersonal skills
  - A key employee development tool

Communication

- Nonverbal component and emotional intelligence
- Conflict management and crucial conversations (question behind the question)

Negotiation – more dealing with project management

- Creating organizational alignment
- Need for legislative approach
- Need to clarify difference between leadership and management
- Kotter – 8 steps for change management (Change management as part of leadership)

Ethics

- Professional ethics
- Engineer’s role in society
- Trust – lead by example

Project management



- Include systems approaches
- Include big picture
- Team building

#### Planning & Visioning

- Encompasses both leadership & management
- Risk – both policy (strategic) and management
- Approach must be collaborative

#### Skills

- Motivation
- Need to be able to discern aptitude
- Decision making is a sub-topic

#### Emotional intelligence as a separate topic

- Needs to be emphasized

#### Other topics

- How to collaborate with others

#### Mentoring & Coaching

- Experiential program with leadership in MT stressed need for both mentor and executive coach. This was very effective and important. It does depend upon administration – must be balanced. Can be difficult.
- Individual Development Plans are very important.
- Fosters accountability
- Demonstrates commitment to employee
- Needs to be flexible

### **Similarities and Differences between Programs**

After the groups reported out, all the participants were asked to comment on the similarities and differences between their programs. The similarities were they were all at an early stage of a leadership development SOP. The topics were likewise similar. The differences were more of degree than kind. All were resource stressed, but to different degrees. All relied on some Internet or such non-classroom training, but to different degrees. Some had definite program assessments, others not. As noted above, a key difference was the selection of candidates for more advanced training. Some were more or less self-selecting with “let the cream rise to the top” mantra, while others used an assessment system - of course supervisor approval as present in all systems.

### **Strengths and Weaknesses**

They were also asked to list the strengths and weaknesses. All agreed strength was they in fact had a program and the activities were linked to the strategic goals of the agency. The weaknesses were perhaps striking:

- Little incentive for “reluctant leaders” to participate.
- Top leadership is appointed and rewards are for doing the status quo well, rather than innovate.
- Cultural and political barriers hinder effective leadership implementation.

### **Opportunities and Threats**

When asked to examine opportunities or advantages, they noted that there are many resources available: TRB, AASHTO, NCHRP leadership initiative, as well as collaboration with NTTD. Professional societies and organizations also have programs and information available. They need to build trust, especially with Legislatures. Finally pain may lead to benefits of better leadership development. Among the threats to programs, they noted that resources are likely to get only tighter, and the old thinking and culture are ingrained. Poor K12 education is a threat to most endeavors, but technical suffer most.

Attendee’s Contact Info

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Montana DOT	Rena Johansen	rjohansen@mt.gov	renae_lj@live.com
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Wyoming DOT	James Boyd	james.boyd@wyo.gov	(same)
Washington DOT	Matthew Cronk	cronkma@wsdot.wa.gov	macronk03@gmail.com
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Univ. of AK Fairbanks	Bob Perkins	raperkins@alaska.edu	(same)
Univ. of AK Fairbanks	Larry Bennett	benco@alaska.net	lbennett947@gmail.com

Attachments:

1. UAF:
  - a. Best Practices in Leadership Training, PowerPoint
  - b. Topics covered in some leadership academy-type programs
  - c. Matrix of Leadership Academy-type programs
2. Montana DOT:
  - a. MDT – Highway to the Future Programs – 2010-2011
  - b. MDT – Management Development Program
  - c. MDT LEAD Program (Leadership Enhancement And Development Program)
3. Wyoming DOT
  - a. WyDOT University
  - b. WyDOT IDP
4. Washington DOT
  - a. Supervisor/Manager Development Program

## Appendix II

### Leadership Academy-type Programs -- Summary of a Sampling

<u>Program Name</u>	<u>Sponsor</u>	<u>Target Audience</u>	<u>Topics/Contents</u>	<u>Delivery Method(s)</u>	<u>Cost</u>	<u>Comments</u>
<b><u>Provided by State of Alaska agencies</u></b>						
<b>Academy for Supervisors</b>	Alaska Dept of Admin	Newly-appointed & more experienced supervisors	Communication, dialogue skills, goal setting, assigning, delegating, coaching, interviewing, hiring, performance mgmt, discipline et al	Real time traditional classroom; I go to you	\$0 to participant (?)	ANC, FAI, JNU
<b>Supervisor's Track Pilot Management Training Program</b>	Alaska DOT&PF	Supervisors		Real time classroom; you come to me; + "web-based" (= on-demand, on-line, fully on-line)	\$0 to participant (?)	Pilot in 2000; 38 completed
<b>T2 Training (various)</b>	Alaska DOT&PF	Various	Claims, Scheduling, Planning & Project Development (in Mgmt area)	Real time traditional classroom; I go to you	\$0 to participant (?)	ANC, FAI, JNU

<b>Alaska Maintenance Leadership Academy</b>	Alaska DOT&PF	Current and future leaders of the DOTP Div of Maintenance	DOTPF Mission, Goals, etc; Leadership; Personnel Mgmt; Safety; Budgeting; MS's (e.g. Material); Equipment; Environmental/Hazmat; Communication; Team Bldg/ Collaboration; "A Day in the Life"	4 days (Mon PM -- Fri AM); Real time classroom; you come to me; all in 1 location; internal M&O + outside speakers; interactive sessions; networking @ breaks & meals	\$0 to participant	Planning 4.5 days in future; group 30±; 2-3 times/yr until need met; then once / yr; vest, lapel pin, certificate; DOA does AfS separate from this; all modules stress core values: integrity, excellence, respect; (see backup papers)
<b>Construction Mgmt Grad Certificate Program</b>	UAF Civil & Envir Engrg	BS + construction experience; current or rising manager	(General categories) Project mgmt, human relations & communications, tech aspects of construction; other ...	Real time technology-enhanced video conferencing; + on-demand on-line recorded video conference	(ask Bob P); DOTPF & employee each contribute time off	

**Provided by or for other transportation agencies**

<b>Leadership Enhancement &amp; Development Program (L.E.A.D.)</b>	Montana Dept of Transportation	Existing supervisors and managers	Myers-Briggs 2- day program, Leadership, Problem Solving, Conflict & Change Mgmt, Discipline, Performance Mgmt, Team Building, Delegation, Recruitment, Selection	Real time traditional classroom; combination you come to me and I go to you (currently 2 locations); MDOT instructors	No cost to participant, incl 3 books	20 per session; 9 sessions over 6 mos
<b>Transportation Leadership Graduate Certificate Program</b>	North Dakota State University	Transportation & logistics professionals with some industry experience	Traffic safety & engineering; transportation, policy, mgmt, planning, systems & industry; supply chain	On-line	3 credits: \$2,196 to \$3,846 (depends on which university)	4 semester long grad courses (12 credits total)

<b>Leadership Academy</b>	Nevada Dept of Transportation	Not necessarily in leadership position; expected to manage or supervise; show potential for advancement	Vision, teamwork, self mgmt, creative thinking, partnering, organizational awareness, strategic plnng, time mgmt, interpersonal skills, motivation, integrity, decision making, communication, negotiation, conflict mgmt, finance, customer service	Real time traditional classroom; you come to me (Carson City & Las Vegas)	\$0 to participant (?)	approx 40 per year
<b>Transportation Leadership Institute</b>	AASHTO	BS, 10 years experience, demonstrated leadership potential	Organizational conflict & change, effective communication, quality culture et al; personal wellness	Real time traditional classroom; you come to me (Kansas City) + visual aids	\$3,495	
<b>National Transportation Management Conferences</b>	AASHTO	Mid-level managers	Critical issues in transp, leading change, customers, managing conflicting needs, proj mgmt, communication, managing multiple priorities, teamwork, ethics, performance measurement, hiring, coaching, developing people, motivation, individual growth plan	Real time traditional classroom; you come to me (4 location across US)	\$1,495	3.0 CEUs
<b>Maintenance Leadership Academy</b>	National Highway Institute (NHI)	State, district and county maintenance supervisors	Personnel mgmt, materials selection, equipment use, methods for problems in bridges , roadways, budgeting & planning	Real time traditional classroom; I go to you (hosted by local agencies); + Web conferences	\$3,500	10.5 CEUs
<b>Web-based courses</b>	National Highway Institute (NHI)		Strategic Highway Safety Plan; Value Engineering; Change Orders, Claims & Dispute Resolution	On-demand on-line; fully on-line	\$0	0 to 0.4 CEUs
<b>Instructor-led courses</b>	National Highway Institute (NHI)		Claims; Alternative Contracting; Partnering	Real-time classroom; I go to you (locally hosted)	\$350 - \$450	1.5 to 2.5 days; 1.2 to 1.5 CEUs

<b>Monthly seminars</b>	National Highway Institute (NHI)		CPM; design-build case study; performance contracting	Real time video conferencing; recorded video conference for later on-demand use	\$0
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<b>Project Management Professional Development Program</b>	Virginia Department of Transportation	(later)			
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**Provided by allied organizations**

<b>Emerging Leaders Academy</b>	American Public Works Assn (APWA)	Working in public works for seven years <u>or less</u> ; interest in advancing career	Intro to APWA; defining leadership; ethics; proactive thinking; negotiation; presentation pointers; leading change; time mgmt; media relations	Real time traditional classroom retreat; real time audio conferencing; real time audio/video conference	A major component is a class project.
<b>Leadership &amp; Management Program</b>	American Public Works Assn (APWA)	4 levels -- supervisor, manager, executive, leadership fellow	For Public Works Executive (PWE) -- professional development plan based on APWA core competencies; capstone project related to leadership, management, sustainability, environmental issues or public works infrastructure	Capstone defense presented via audio/video conference (Skype or other)	

<b>Public Employees Leadership Institute</b>	Iowa Local Technical Assistance Program (IOWA LTAP)	Current first line public works supervisors	Supervisory techniques & skills, teams development, communication skills, leadership skills, community service/customer service, legal understanding, fundamentals of government, finance, resource mgmt, operations & mgmt, basic mgmt, emergency mgmt, project mgmt, winter maintenance mgmt	On-demand on-line recorded workshop	\$75 per course	Each course initially recorded as a live workshop
<b>Face-to-face seminars</b>	American Society of Civil Engineers (ASCE)		Example: Leadership Development for the Engineer (leadership defined, situational leadership, motivating during change, communications, decision-making, team building, ethics, self-assessment)	Real time classroom seminar; I go to you (several US locations )	\$1,225 ASCE member 2 days	1.6 CEUs; offered about 6 times per year
<b>Live webinars</b>	American Society of Civil Engineers (ASCE)		(Mostly technical), but also Project Management; Quality Mgmt in Design	Live Webinar	\$249 ASCE member for 1 hr webinar; \$498 for 2 hr	1 or 2 PDH
<b>On-demand on-line courses</b>	American Society of Civil Engineers (ASCE)		Leadership Development (9 hrs; 0.9 CEUs); three-course set on Management & Leadership (29 hrs 2.9 CEUs)	On-demand; on-line; fully on-line	\$495 ASCE member; \$1,195 ASCE member	All mtls provided on line; log-in & password provided after fee payment
<b>On-demand CDs &amp; DVDs</b>	American Society of Civil Engineers (ASCE)		Example: Ethics & Professionalism	On-demand; media-based (CD)	\$150 individual; \$477 organization	3 hrs; 0.3 CEUs; "Seminar on a CD"

<b>On-demand webinars</b>	American Society of Civil Engineers (ASCE)		Example: Release the Leader within You: 7 Qualities of Highly Effective Leaders	On-demand on-line recorded webinar	\$135 individual; \$349 organization	1.5 hrs; 0.2 CEUs
<b>Senior Executives Institute</b>	American Council of Engineering Companies	"Emerging leaders"	The changing environment, economic trends, public policy, global practice, leading a living company, relationships & communication, self-awareness, productive conflict, stress management, personal mastery, situational leadership, team alignment, forces of change, balanced scorecard, strategy mapping, systems thinking, organizational design & structure, alternative project delivery, lean thinking, IT, creativity & innovation, partnering & alliances, power & politics, coaching & mentoring; self assessment (LSI)	Real time traditional classroom; you come to me. + visual aids	\$26,750 ACEC member	5 sessions totaling 21 days over 2 years; 28 max per class; new class starts every year; 29 PDHs
<b>Leadership in Engineering Administration Program (LEAP)</b>	American Council of Engineering Companies of Arizona (ACEC AZ)	Upwardly mobile young professionals in AZ consulting engineering; 5-10 yrs experience; PE registration; transitioning from technical to supervisory/mgmt	Understanding ourselves & others, body language, coaching, communications skills, value creation in consulting, project scope, planning & control, managing risk, negotiating, human resources, selling services, persuasive presentations, ethics, marketing	Real time traditional classroom; you come to me	\$3,000	11 day-long sessions; 20-25 participants per years



**Provided by unrelated, unallied organizations**

<b>District Leadership Academies</b>	Rotary International	Past club presidents who aspire to leadership roles beyond local club	Communications, membership, Rotary Foundation, public relations, youth & young adult programs, organization structure & relationships, strategic planning	On-demand; on-line; fully on-line		6 courses spread over 7 to 9 months
<b>Transportation Business Leadership Program</b>	CSX Railways	"to meet the needs of CSX leaders"	Global economic environment, strategic planning, supply chain mgmt, customer service, teamwork, operations mgmt, logistics & transportation, finance, IT, effective communications, leadership (incl lots of ethics), negotiation	Real time traditional classroom; you come to me; + field trip to Gettysburg ("Battle Tested Teams" discussion) + Action Learning Projects		14 days in 3 weeks, one week per month for three consecutive weeks
<b>Leadership Fairbanks</b>	Greater Fairbanks (Alaska) Chamber of Commerce	individuals "seeking to expand their existing leadership skills."	Strengths & leadership; vision & proactivity; diversity & teams; trust & integrity; courage & communication; culture & values; passion & productivity; accountability & recognition	Real time traditional classroom; you come to me; guest speakers; panel discussions; student presentations; group activities	\$1000 Chamber member; \$1250 others	9 sessions spread over 9 months, mostly one full day each

**Appendix III**

**LEAD 2013**

**CALENDAR**

<b>DATE</b>	<b>SESSION</b>	<b>TOPIC</b>	<b>TRAINERS</b>
Oct. 10, 2012	Helena	Myers-Briggs Day 1	Murphy, Overton, McElroy
Oct. 11, 2012	Helena	Myers-Briggs Day 2	Murphy, Overton, McElroy
Oct. 23, 2012	Billings	Myers-Briggs Day 1	Murphy, Overton, McElroy
Oct. 24, 2012	Billings	Myers-Briggs Day 2	Murphy, Overton, McElroy
Nov. 8, 2012	Helena	Leadership	McElroy, Overton
Nov. 9, 2012	Helena	Problem Solving	McElroy, Overton
Nov.14, 2012	Billings	Leadership	McElroy, Overton
Nov.15, 2012	Billings	Problem Solving	McElroy, Overton
Dec. 5, 2012	Helena	Conflict & Change	Overton, McElroy
Dec. 6, 2012	Helena	Discipline	McElroy, Overton
Dec. 12, 2012	Billings	Conflict & Change	Overton, McElroy
Dec. 13 2012	Billings	Discipline	McElroy, Overton
Jan. 10, 2013	Helena	Performance Management <i>(Action Plan Workshop)</i>	Overton, McElroy
Jan. 15, 2013	Billings	Performance Management <i>(Action Plan Workshop)</i>	Overton, McElroy
Feb. 6, 2013	Helena	Team Building & Delegation	McElroy, Overton
Feb. 7, 2013	Helena	Recruitment & Selection	Worthy, Overton, McElroy
Feb. 12, 2013	Billings	Team Building & Delegation	McElroy, Overton
Feb. 13, 2013	Billings	Recruitment & Selection	Worthy, Overton, McElroy
Mar. 12, 2013	Helena	Action Plan Presentation & Graduation	McElroy, Overton
Mar. 13, 2013	Helena	Alumni Class	
Mar. 19, 2013	Billings	Action Plan Presentation & Graduation	McElroy, Overton
Mar. 20, 2013	Billings	Alumni Class	