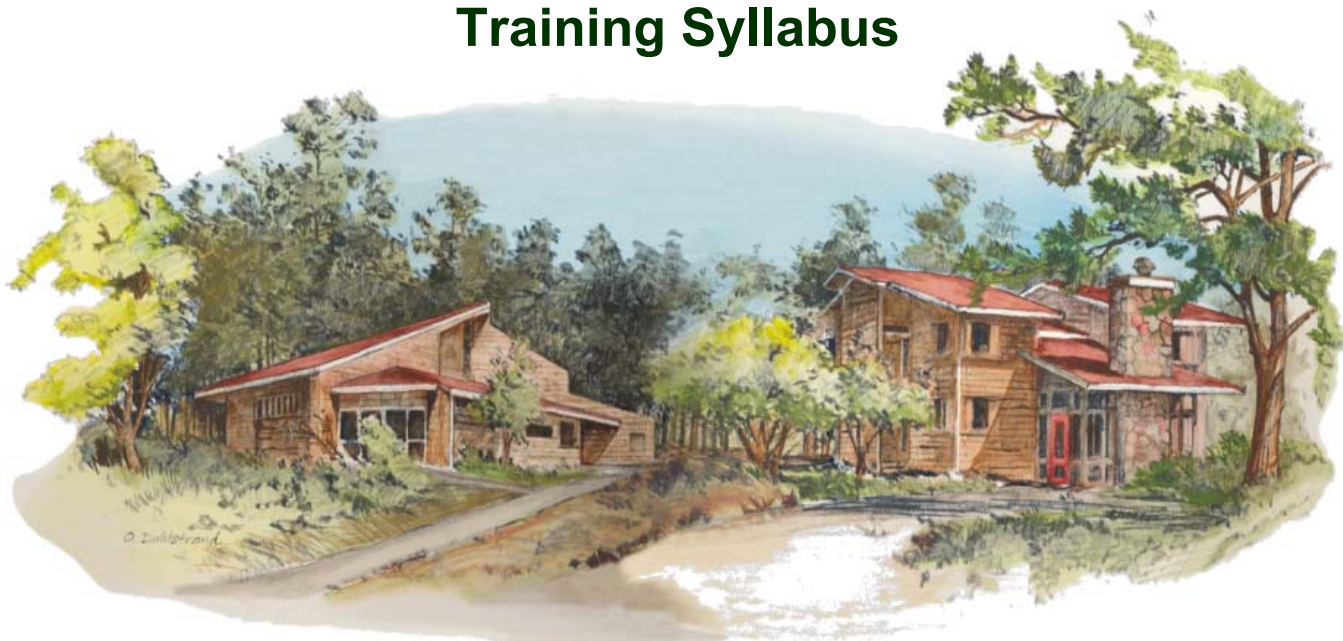


INTERMEDIATE ELECTRICAL SKILLS

November 17-22, 2019

Training Syllabus



William Penn Mott Jr. Training Center



Memorandum

Date: October 18, 2019
To: Supervisor
From: Debbie L. Fredricks, Chief
Training Section
California State Parks
Subject: Employee Attendance at Formal Training
Intermediate Electrical Skills Group 42

An employee from your office will soon be attending the formal training program described in the attachment. Please ensure that the employee is fully prepared to attend the session and that the groundwork is laid for the employee's implementation of the training upon returning to work. You can assist with capturing the full value of the training by taking the following steps:

Prior to Training

1. Make sure that **specific** employee needs are identified and, if necessary, called immediately to the attention of the Training Specialist.
2. Review with the employee the reason for the employee's attendance.
3. Review objectives and agenda with the employee.
4. Discuss objectives and performance expected after the training.

Immediately Following Attendance

1. Discuss what was learned and intended uses of the training.
2. Review the employee's assessment of the training program for its impact at the workplace.
3. Support the employee's use of the training at the work place.

Three Months Following Training

1. Supervisor evaluates the effectiveness of the training on the employee's job performance and meets with employee to discuss the evaluation.

Thank you for your assistance in seeing that the full benefit of training is realized.



Debbie L. Fredricks
Training Section Chief

Attachment

cc: Participant

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Mission Statement Training Section

The mission of the Training Section is to provide knowledge, empowerment, and inspiration through collaboration, consulting, and the delivery of exceptional training programs.

TRAINING SECTION STAFF

Debbie L. Fredricks.....	Training Section Chief
Ann D. Slaughter	Mott Training Center Manager
Eric Marks.....	Leadership and Staff Development Manager
Jack Futoran	EMS and LFG Training Coordinator
Jeff Beach.....	Training Consultant
Tamara Busman	Training Consultant
Joel Dinnauer.....	Training Consultant
Ennio Rocca	Training Consultant
Sara M. Skinner	Training Consultant
Robert Waller.....	Training Consultant
Vernon Reyes	Instructional Designer
Jason Smith	Academy Coordinator
Jeremy Alling	Cadet Training Officer
Matt Cardinet	Cadet Training Officer
Jamie Stamps	Cadet Training Officer
Lisa Anthony	Program Coordinator
Edith Alhambra	Assistant Program Coordinator
Margaret Fowler.....	Assistant Program Coordinator
Samantha Guida.....	Assistant Program Coordinator
Ricky Roldan.....	Assistant Program Coordinator
Pamela Yaeger.....	Assistant Program Coordinator

THE MISSION

of the California Department of Parks and Recreation is to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high quality outdoor recreation.



FORMAL TRAINING GUIDELINES

Welcome to formal training, an essential component in your career development.

Since 1969, our Department has been providing a continuously changing number of diverse training programs at its main training facility, the William Penn Mott Jr. Training Center, and other locations including Marconi Conference Center. The Department strives to enhance your learning and job performance with formal training of the highest quality.

Our Department's dedication to training is only one aspect of its commitment to you and to the public. This commitment is costly and represents an important investment in you and your career. You and the Department realize a return on that investment by your positive participation in formal training itself and post training follow-through.

The program you will be participating in is described in this training syllabus, which outlines what you can expect from this training and what is expected of you. This syllabus details what you should do before you leave for training; what to do when you arrive; what you will be doing while in training; and, importantly, what you should be able to do when you return to your work site. Specifically:

1. **SYLLABUS:** The syllabus is now accessible on the Employee Training Management System (ETMS) and on the Parks and Recreation website under the Learning/Training Section. Your copy of this syllabus is an important part of your training experience and should be brought with you to training. Read it before you arrive and review it following the program along with material you received at training.
2. **PRE-TRAINING ASSIGNMENTS:** Your completion of pre-training assignments is essential to the success of your training. You are responsible for all reading assignments in preparation for classroom sessions. Time will be provided during working hours to accomplish any assignments which involve either individual or group efforts and resources.
3. **TRAVEL:** Arrange your travel to and from the training through your District or Office. (No reimbursement for travel expense - including per diem costs - will be approved for travel not specifically authorized in advance by the District Superintendent.) Individuals may claim reimbursement for incidental expenses

incurred as outlined in DAM 0410.6. The Mott Training Center does not have the capability to provide transportation to/from Monterey airport.

The cost of your travel (airfare, mileage, rental car, etc.) is paid by your District or Office **to** and **from** the location of the training.

4. **HOUSING:** Housing will be assigned to you on a shared-room basis and will be available from 3:00 p.m. on the date of arrival to 12:00 noon on the date of departure. The Department provides your room and board expenses at the Mott Training Center only. No per diem allowance will be authorized for living off-grounds. This does not preclude living off-grounds at your own expense. Advise the Department Training Specialist no later than two weeks before your scheduled arrival if you plan to live off-grounds. No animals are permitted in Asilomar housing. In the event of an emergency, staff must know your room assignment; therefore, you may not switch rooms without staff approval. Overnight guests are not allowed in the buildings unless registered beforehand at the front desk in Asilomar's Administration Building. Quiet hour for lodge living areas is 10:00 p.m.

Note: You may be assigned a room at a motel while attending training. If so you may be asked to present a valid credit or debit card while checking in to your room. Many motels require a credit card to cover charges incurred such as telephone calls, damages to rooms and/or furnishings, fees to clean rooms that have been smoked in that are not designated as smoking rooms, etc. Be prepared to handle this appropriately.

5. **ENROLLMENT OR HOUSING CANCELLATION POLICY:** To cancel participation in a course, the participant must have their District Superintendent or Section/Office Manager send an email to the Training Specialist assigned to the course requesting to remove the participant. If you do not need lodging or must change or cancel your reservation for lodging, you must contact the Mott Training Center or Training Specialist assigned to the course at least 2 weeks prior to your date of arrival. Lodging, registration, and associated fees will be charged to the employee's District or Section/Office if a training cancellation is received with less than two weeks' notice.

The Training Section is committed to ensuring that the reservation that has been made for you is accurate and needed.

6. **OFF-GROUNDS ACCOMMODATIONS:** When authorized to stay off-grounds by the Department Training Specialist, the Mott Training Center will absorb the cost of your room and meals at the current DPR Asilomar rate. If you stay off grounds and have meals on grounds, the Mott Training Center will authorize only what the Department pays Asilomar for lodging.

7. MEALS: Meals will be provided, semi-cafeteria style, from dinner on the date of arrival through lunch on the date of departure. Meals will be served at 7:15 a.m. for breakfast, 12:00 noon for lunch, and 6:00 p.m. for dinner. Hot or box lunches may be provided on some days. If you require a special diet, please contact the Training Specialist Jeff Beach to request the Asilomar Dietary Restriction form no later than two weeks prior to the course start date. The Training Specialist will forward the form to the appropriate Asilomar Conference Grounds staff.

In order to assist participants with limited mobility, Asilomar provides a shuttle to and from the dining hall. Contact either Asilomar staff upon check-in, or Mott Training Center staff upon your arrival, for instructions on arranging a transport.

8. CLOTHING: Field uniforms as found in "Description of Required Field Uniforms", DOM Chapter 2300, Uniform Handbooks, will be worn daily by all uniformed employees during formal training sessions **unless otherwise specified in the Program Attendance Checklist**. Non-uniformed employees shall wear apparel normally worn on the job. Appropriate attire includes apparel suitable for professional office dress. It does not include such items as shorts, t-shirts, tank tops, or sandals.

Because we are on the conference grounds with many other groups, and the image we project as State Park employees is important not only during working hours but off duty hours as well, your informal sportswear should be appropriate.

9. ROOM SAFES: Two safes have been installed in each of the lodge rooms used by the Mott Training Center (Live Oak, Tree Tops, and Deer Lodge). These safes are a type that allows the user to input their own combination of numbers to facilitate opening and closing. The Mott Training Center has a master key for emergency entry. Safes are to be left in the open position when checking out of your room.
10. ALCOHOLIC BEVERAGES: Participants shall not possess or consume alcoholic beverages in common areas (living room) while on the Asilomar Conference Grounds unless provided and hosted by Concessionaire ARAMARK.
11. SMOKING: Smoking is not permitted in the Mott Training Center or in any lodge or guest room on the Asilomar Conference Grounds.
12. TRAINING CENTER: The Mott Training Center is located on Asilomar Conference Grounds, part of Asilomar State Beach. The Conference Grounds are operated for our Department by a concessionaire, and all lodging and food services are provided to us by employees of the concessionaire. Constant efforts are made to maintain a sound, harmonious working relationship between the Department and concessionaire. None of us can expect preferential treatment for any reason and, as a departmental employee you will be expected to join in our continuing effort toward an effective relationship with each Asilomar concession staff member. On

occasion, non-departmental groups may be staying in the same lodges. It is imperative that you represent the Department well on and off duty.

13. **REGISTRATION:** When you arrive at Asilomar Conference Grounds, proceed directly to the front desk at the Asilomar Administration Building for your room key and dining room ticket. If you require vegetarian meals, notify the front desk representative and your meal ticket will be marked accordingly.
14. **COURSE LEADERS:** The formal training you will attend is developed and, for the most part, conducted by experienced State Park employees in field and staff positions. Some courses will be conducted by qualified instructors from other agencies and educational institutions. Your course leaders have proven their ability and knowledge in their profession, and provide a level of expertise difficult to match.
15. **TRAINING SECTION STAFF:** Jeff Beach is your Training Specialist and has been assigned the responsibility for your training group. That staff member usually serves as a Course Leader as well as a Coordinator. During the program, you may be asked to assist Training Section Staff in the logistics of your training program (organizing field trip transportation, supervising classroom breaks, etc.). Training Section Staff will do all within their power to make your training experience pleasant and meaningful.
16. **TRAINING MATERIALS:** May be made available to you at both your unit and the Mott Training Center. Handout materials issued at your unit should be brought to training for possible use. A conference binder or notebook will be issued to you at the training session for note taking and convenience in handling materials. Bring your own pens and pencils.
17. **ATTENDANCE:** Regular attendance is a critical course requirement and your participation is important to the success of this training. An absence of more than 10% of the course hours constitutes grounds for dropping a participant from the course. The Department Training Specialist may modify this requirement based upon participant knowledge level and/or the portion of the course missed. All absences, except those of an emergency nature, must be approved in advance by the Training Specialist.
18. **VEHICLES:** All vehicles should be parked in the lots adjacent to the Mott Training Center. Any questions regarding use of a State vehicle while at the Mott Training Center should be discussed with your supervisor prior to your departure for training, or with your Program Coordinator while at the Mott Training Center.
19. **BICYCLES:** If you bring your bicycle, please store it in the bicycle shed next to the Mott Training Center (acquire combo from the staff). Bicycles shall not be brought into any building nor chained to lamp posts, trees, etc.

20. MAIL: Mail forwarded to you during your time at the Center should be addressed to you in care of:

Department of Parks and Recreation
WILLIAM PENN MOTT JR. TRAINING CENTER
PO Box 699, Pacific Grove, CA 93950

21. CELL PHONES: As a courtesy to your fellow participants and course leaders ensure that your cell phone is turned off during classes. Participants should not be receiving or making cell phone calls during class time. Limit those calls to your breaks.
22. FAX: The Mott Training Center's FAX number is (831) 649-2824.
23. TELEPHONE: Limit phone calls during classroom hours to urgent business or emergencies. Anyone wishing to contact you by telephone during working hours should call the Center at (831) 649-2954. Calls after 5:00 p.m. or during weekends should be made to (831) 372-8016, Asilomar Conference Grounds, and the caller should tell the switchboard operator you are with a California State Parks training group. **Note: There are no longer pay telephones outside of the Mott Training Center. There are pay telephones located at the Asilomar Administration Building.**
24. LAUNDRY AND DRY CLEANING: May be taken care of by you at one of several local establishments.
25. RECREATION: Facilities available on grounds include a heated swimming pool, pool tables, and a volleyball court. The Monterey area offers horseback riding, golf, tennis, racquetball, deep sea fishing, and many historical landmarks and scenic sights to explore.
26. POST-TRAINING ASSIGNMENTS: In connection with formal training are to be completed under the direction of your supervisor.
27. COFFEE BREAK REFRESHMENTS: Will be available throughout each session. You will be asked to contribute to the "Hospitality Fund" to defray expenses. Bring your own coffee cup.

PROGRAM ATTENDANCE CHECKLIST

To assist you in your preparation for formal training session at the William Penn Mott Jr. Training Center the following list is provided:

- _____ 1. Read and understand the Intermediate Electrical Skills Program Syllabus prior to your arrival at the Training Center.
- _____ 2. Complete the following pre-training assignment.
 - Complete the Intermediate Electrical Skills Pre-Training Assignment attached to this syllabus and record your answers in BOTH the Pre-Training Assignment and answer sheet.
 - Discuss the Electrical Skills Program with your supervisor. What specific changes in your abilities and performance are expected to result from you attending this training? List these expectations along with your own under "Expectations" on the back of the "Equipment Check Sheet".
 - Review the Post-Training Assignment form on page 7 of the syllabus with your supervisor. Discuss the projects you will be assigned in the next twelve months, which will utilize the skills developed during the training program.
 - Make arrangements with your supervisor to demonstrate your ability to safely use the items listed on the Equipment Check Sheet. All items must be initialed by your supervisor, or your supervisor's representative, and signed by your District Maintenance Chief for you to participate in the practical portion of the training program.

NOTE: The Pre-Training Assignment (Workbook Answer Sheet, Equipment Check Sheet and Expectations) will be collected during the program orientation. Completion of the Pre-Training Assignment and bringing the proper personal protective equipment is mandatory. If you have questions or need help, call the Program Coordinator, Jeff Beach, at (831) 901-5864 or e-mail Jeffrey.Beach@parks.ca.gov.

- _____ 3. Remember to bring the following with you to training:
 - Program syllabus and workbook.
 - Personal safety equipment (eye, ear, head, and **leather** gloves).
 - Proper field uniform (see Formal Training Guideline #8), rain gear, coveralls and/or appropriate work clothing.
 - Coffee cup, alarm clock, pens, pencils, calculator, etc

If you have an interesting electrical problem/solution, we can discuss it.

POST-TRAINING ASSIGNMENT

Prior to ninety days after the completion of this program, the employee and his/her supervisor should discuss the impact and assess the effectiveness this program has had on the employee.

The post-training evaluation process is intended to provide a bridge between classroom instruction and the on-the-job application of training. The information obtained through this process will assist the employee, supervisor, and Training Section in providing a return on the training investment to the Department.

INTERMEDIATE ELECTRICAL SKILLS GROUP 42 – A G E N D A
November 17-22, 2019

Lead Instructor: Lawrence “Sparky” Ross
Assistant Program Coordinators: Angel Alba, Ernie Rivas, Orvel Black,
and Graham Payne

Special Notice: This program will be conducted at the Mott Training Center Shop Annex, 2211 Garden Road, Building C, Monterey, California. Vans are available to transport you to and from the Shop Annex and will leave the Mott Training Center promptly at 0800 daily and return by 1700.

Sunday
November 17

1500-	<u>Registration:</u> <i>Check in at the Asilomar Administration Building for participants staying here.</i>	All
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Monday
November 18

0800-0830	Vanpool to Annex	
0830-0900	Orientation/Expectations	Beach
0900-1000	Electrical Review & The NEC	Ross
1000-1100	Generators and Transfer Switches	Ross
1100-1200	Power Quality	Ross
1200-1300	Lunch	
1300-1500	Induction: Transformer and Motor Applications	All
1500-1630	Electrical Distribution	Ross
1630-1700	Vanpool to Mott Training Center	All

Tuesday
November 19

0800-0830	Vanpool to Annex	
0830-0900	Troubleshooting Review	All
0900-1000	Project and Shop Application Review/THA	Ross
1000-1200	Project Safety	Black
1200-1300	Lunch	
1300-1600	Shop Applications	All
1600-1630	Troubleshooting Review	All
1630-1700	Vanpool to Mott Training Center	

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Wednesday
November 20

0800-0830	Vanpool to Annex	
0830-0900	Troubleshooting Review	All
0900-1200	Shop Applications	All
1200-1300	Lunch - Field	
1300-1600	Shop Applications	All
1600-1630	Troubleshooting Review	All
1630-1700	Vanpool to Mott Training Center	All

Thursday
November 21

0800-0830	Vanpool to Annex	
0830-0900	Troubleshooting Review	All
0900-1200	Shop Applications	All
1200-1300	Lunch - Field	
1300-1600	Shop Applications	All
1600-1630	Test Review and Open Discussions	All
1630-1700	Vanpool to Mott Training Center	All

Friday
November 22

0800-0830	Travel to Annex	All
0830-0915	Test Review and Open Discussions	Ross
0915-1000	Project Clean-Up, Material Handling and Storage	All
1000-1130	Exam and Exam Review	Ross
1130-1200	Program Summary, Evaluation and Post-Training Assignments	Ross/Beach

INTERMEDIATE ELECTRICAL SKILLS GROUP 42

36 HOURS

<u>PROGRAM OUTLINE</u>	HOURS
Program Orientation and Overview	0.5
Electrical System Review	2.0
Blueprints and Schematics.....	1.5
Electrical Codes	1.0
Electrical Distribution.....	2.0
Electrical Safety	2.0
Troubleshooting	4.0
Sustainability.....	6.5
Shop and Field Applications.....	11.0
Tests and Practical Performance Evaluations.....	4.5
Program Summary and Evaluation	<u>1.0</u>
	Total Hours 36.0

INTERMEDIATE ELECTRICAL SKILLS GROUP 42

PROGRAM ORIENTATION

Purpose: Participants will meet one another and the program coordinator and instructor. The group will share expectations for the training program. In addition, program content will be reviewed and registration completed.

Performance Objectives: By the close of the session the participant will

1. Review program content, procedure and evaluation processes.
2. Share and record expectations with group members.
3. Complete registration materials.
4. Adhere to all Training Center guidelines.

ELECTRICAL SYSTEM REVIEW

Purpose: To review the Electrical Skills Pre-Training Assignment.

Performance Objectives: By the close of the session the participant will

1. Answer questions from the pre-training study quiz.
2. Review general safety items to be considered when working with electricity.
3. Identify the basic wiring techniques commonly used in constructing residential electrical circuits.

BLUEPRINTS AND SCHEMATICS

Purpose: To introduce the participant to electrical symbols, lines and scale.

Performance Objectives: By the close of the session the participant will

1. Recognize common electric symbols.
2. Identify basic residential electric system design.
3. Develop the ability to use construction drawings for troubleshooting and repair of residential electrical circuits.

INTRODUCTION TO CODES

Purpose: To introduce the participant to the codes, laws and policies which apply to electrical wiring of State owned facilities.

Performance Objectives: By the close of the session the participant will

1. Identify how to use the National Electric Codebook.
2. Review selected sections of the National Electric Code.
3. Recognize that wiring State facilities to meet code is mandatory.

ELECTRICAL DISTRIBUTION SYSTEMS

Purpose: To introduce the participant to the function and configuration of meter/main panels and loadcenters

Performance Objectives: By the close of the session the participant will

1. Demonstrate an understanding of the function of main panels, load centers, grounding and their component parts.
2. Distinguish between single phase and three phase load centers.
3. Demonstrate the ability to safely replace circuit breakers.
4. Demonstrate the ability to safely install and maintain components and connections in a single phase load center.

PERSONAL SAFETY

Purpose: To provide information on special safety considerations and special personal safety equipment.

Performance Objectives: By the close of the session the participant will

1. Recognize the precautionary steps that must be taken before attempting to work on electrical systems.
2. Acquire the knowledge and ability to select the proper safety procedure used in each electrical system failure repair.

3. Develop the necessary skills for properly using electrical safety and testing equipment.
4. Discuss the specific safety considerations, which must be observed while participating in the Electrical Skills training program.

ELECTRICAL SKILLS - SHOP APPLICATIONS

Purpose: To provide the Maintenance Worker with an opportunity to observe, practice and demonstrate practical application of electrical skills.

Performance Objectives: By the close of the session the participant will

1. Observe instructor demonstrations of installing a load center, running wire, wiring devices and loads.
2. Practice laying out and testing electrical circuits, using tools and test equipment, running wire, and wiring electrical devices and loads.
3. Demonstrate knowledge and ability to accurately assess, plan and construct the electrical circuits commonly found in commercial and residential construction.

ELECTRICAL HARDWARE DEMONSTRATIONS

Purpose: To provide information on how to select the proper materials for making repairs and upgrading existing park facility electrical systems and when planning new installations for new facilities.

Performance Objectives: By the close of the session the participant will

1. Recognize the proper size and type of wire when making repairs to electrical systems.
2. Identify the various types and application of electrical conduit.
3. Review the application of transformer systems used in park facilities.

TROUBLESHOOTING

Purpose: To develop the ability in the Maintenance Worker to inspect, test and correct deficiencies in electrical systems.

Performance Objectives: By the close of the session the participant will

1. Perform a routine inspection of an electrical system.
2. Use test equipment to identify system failures and recommend corrective action.

GENERATORS AND TRANSFER SWITCHES

Purpose: To develop the ability in the Maintenance Worker to assess, install, inspect, test and repair common generator systems.

Performance Objectives: By the close of the session the participant will

1. Recognize common generator types and applications.
2. Demonstrate the ability to size and choose the best generator for any given application.
3. Recognize the basic differences in each Transfer Switch option.