

# GUIDELINES FOR DEVELOPING AN ON-THE-JOB TRAINING PROGRAM

## INTRODUCTION

Federal Regulation 23 CFR 230 Appendix B, "Training Special Provisions", is incorporated into your contract and you should read it carefully before preparing your training program. Three excerpts from this document that warrant close attention are given below:

- a. "As part of the contractor's equal employment opportunity affirmative action program training shall be provided as follows: The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classification involved."
- b. "Training and upgrading of minorities and women toward journey worker status is a primary objective of this Training Special Provision."
- c. "The State Highway Agency and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journey worker status in the classification concerned by the end of the training period."

Training programs are submitted to the CDOT OJT Coordinator for review and, if the program is found to be satisfactory, they are forwarded to FHWA for approval.

The contract must specify the OJT goal for the project. *If at any time throughout the project, the contractor develops concerns regarding the inability to meet the project goal, it is critical that you initiate communications with the Project Engineer or Regional Civil Rights Manager (RCRM) as soon as possible. Please see Provision #19 of the OJT Specification included in this packet.*

## **1. SELECTING AN OCCUPATION FOR THE TRAINEE OR APPRENTICE**

The first step in developing a program is to examine the project(s) and select the occupation(s) that lend themselves to training. The occupation selected must be a skilled trade in the construction crafts which has the following characteristics:

- a. It is customarily learned in a practical way through a structured systematic program of on-the-job supervised training.
- b. It is clearly identified and commonly recognized throughout an industry.
- c. It involves manual, mechanical and technical skills and knowledge that require a minimum of 2,000 hours of on-the-job work experience (in some occupations this minimum can be reduced).
- d. It requires related instruction to supplement the on-the-job training.

Training in the labor classification may be permitted provided that significant and meaningful training is provided and approved by the FHWA Division Office.

## **2. THE WRITTEN TRAINING PROGRAM PLAN**

The Written Plan will contain one section with general information that will apply to nearly all training programs, and a second section will contain a description of the unique features of the specific training.

### **SECTION I**

The topics included in this section are:

1. Introduction
2. Recruiting
3. Conditions of employment
4. Prior experience
5. Wage schedule
6. Monitoring and reporting progress
7. Complaint procedures
8. Certification of hours and graduation

### **SECTION II**

The second section of the written program plan will describe specific tasks required to train the employee for journey worker status. This part of the program is unique to your company and the projects.

This part of the plan should include the following three parts:

## **1. RATIO OF TRAINEE/APPRENTICES TO JOURNEY WORKERS**

The Training Program must include the allowable ratios, i.e., how many journey workers must be on the project before a trainee can be placed on the project and receive the required training with sufficient supervision. A trainee must always be supervised by no less than one journey worker. In accordance with Department of Labor regulations, it is recommended that ratios utilize whole numbers only. An acceptable ratio should be determined by consideration of the work to be performed and the normal work force of the contractor in the specific craft for which the training will be provided.

## **2. INSTRUCTIONAL AND SAFETY**

List training components and number of hours for each category. Include a statement about what your company expects the trainee to know at the completion of each of the training components. It may not be appropriate to comment about all the training components individually, but at a minimum, include a paragraph about the overall expectations.

## **3. WORK EXPERIENCE**

Develop a list of major categories of work for the occupation you have selected and then estimate the hour's necessary to become proficient in each. Keep in mind; you are going to use this list as the guide for training a novice to become a journey worker.

## ON THE JOB TRAINING

### NOTICE

This is a standard special provision that revises or modifies CDOT's *Standard Specifications for Road and Bridge Construction*. It has gone through a formal review and approval process and has been issued by CDOT's Project Development Branch with formal instructions regarding its use on CDOT construction projects. It is to be used as written without change. Do not use modified versions of this special provision on CDOT construction projects, and do not use this special provision on CDOT projects in a manner other than that specified in the instructions unless such use is first approved by the Standards and Specifications Unit of the Project Development Branch. The instructions for use on CDOT construction projects appear below.

Other agencies that use the *Standard Specifications for Road and Bridge Construction* to administer construction projects may use this special provision as appropriate and at their own risk.

#### **INSTRUCTIONS FOR USE ON CDOT CONSTRUCTION PROJECTS:**

Use this standard special provision in all Federal-aid projects.

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ON THE JOB TRAINING

This training special provision is an implementation of 23 U.S.C. 140 (a). The Contractor shall meet the requirements of the FHWA 1273 for all apprentices and trainees.

As part of the Contractor's Equal Employment Opportunity Affirmative Action Program, training shall be provided on projects as follows:

1. The Contractor shall provide on the job training aimed at developing full journey workers in the skilled craft identified in the approved training plan. The Contractor shall provide at a minimum, required training hours listed in the Project Special Provisions for each project.
2. The primary objective of this specification is to train and upgrade women and minority candidates to full journey worker status. The Contractor shall make every reasonable effort to enroll and train minority and women workers. This training commitment shall not be used to discriminate against any applicant for training whether or not the applicant is a woman or minority.
3. The Contractor may employ temporary workers from CDOT supportive services providers to meet OJT requirements. Information pertaining to supportive services providers may be obtained by calling the CDOT OJT Coordinator at the number shown on the link <http://www.coloradodot.info/business/equal-opportunity/training.html>
4. An employee shall not be employed or utilized as a trainee in a skilled craft in which the employee has achieved journey status.
5. The minimum length and type of training for each skilled craft shall be as established in the training program selected by the Contractor and approved by the Department and the Colorado Division of the Federal Highway Administration (FHWA), or the U. S Department of Labor (DOL), Office of Apprenticeship or recognized state apprenticeship agency. To obtain assistance or program approval contact:

CDOT Center for Equal Opportunity  
4201 East Arkansas Avenue  
Denver, CO 80222  
[eo@dot.state.co.us](mailto:eo@dot.state.co.us)  
1-800-925-3427

6. The Contractor shall pay the training program wage rates and the correct fringe benefits to each approved trainee employed on the project and enrolled in an approved program. The minimum trainee wage shall be no less than the wage for the Guardrail Laborer classification as indicated in the wage decision for the project.
7. The CDOT Regional Civil Rights Manager must approve all proposed apprentices and trainees for the participation to be counted toward the project goal and reimbursement. Approval must occur before training begins. Approval for the apprentice or trainee to begin work on a CDOT project will be based on:
  - A. Evidence of the registration of the trainee or apprentice into the approved training program.
  - B. The completed Form 838 for each trainee or apprentice as submitted to the Engineer.
8. Before training begins, the Contractor shall provide each trainee with a copy of the approved training program, pay scale, pension and retirement benefits, health and disability benefits, promotional opportunities, and company policies and complaint procedures.
9. Before training begins, the Contractor shall submit a copy of the approved training program and CDOT Form 1337 to the Engineer. Progress payments may be withheld until this is submitted and approved and may be withheld if the approved program is not followed.

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10. On a monthly basis, the Contractor shall provide to the Engineer a completed On the Job Training Progress Report (Form 832) for each approved trainee or apprentice on the project. The Form 832 will be reviewed and approved by the Engineer before reimbursement will be made. The Contractor will be reimbursed for no more than the OJT Force Account budget. At the discretion of the Engineer and if funds are available, the Engineer may increase the force account budget and the number of reimbursable training hours through a Change Order. The request to increase the force account must be approved by the Engineer prior to the training.
11. Upon completion of training, transfer to another project, termination of the trainee or notification of final acceptance of the project, the Contractor shall submit to the Engineer a "final" completed Form 832 for each approved apprentice or trainee.
12. All forms are available from the CDOT Center for Equal Opportunity, through the CDOT Regional Civil Rights Manager, or on CDOT's website at <http://www.coloradodot.info/business/bidding/Bidding%20Forms/Bid%20Winner%20Forms>
13. Forms 838 and 832 shall be completed in full by the Contractor. Reimbursement for training is based on the number of hours of on the job training documented on the Form 832 and approved by the Engineer. The Contractor shall explain discrepancies between the hours documented on Form 832 and the corresponding certified payrolls.
14. The OJT goal (# of training hours required) for the project will be included in the Project Special Provisions and will be determined by the Regional Civil Rights Manager after considering:
  - A. Availability of minorities, women, and disadvantaged for training;
  - B. The potential for effective training;
  - C. Duration of the Contract;
  - D. Dollar value of the Contract;
  - E. Total normal work force that the average bidder could be expected to use;
  - F. Geographic location;
  - G. Type of work; and
  - H. The need for additional journey workers in the area
  - I. The general guidelines for minimum total training hours are as follows:

Contract dollar value	Minimum total training hours to be provided on the project
Up to 1 million	0
>1 - 2 million	320
>2 - 4 million	640
>4 - 6 million	1280
>6 - 8 million	1600
>8 - 12 million	1920
>12 - 16 million	2240
>16 - 20 million	2560
For each increment of \$5 million, over \$20 million	1280

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15. The number of training hours for the trainees to be employed on the project shall be as shown in the Contract. The trainees or apprentices employed under the Contract shall be registered with the Department using Form 838, and must be approved by the Regional Civil Rights Manager before training begins for the participation to be counted toward the OJT project goal. The goal will be met by an approved trainee or apprentice working on that project; or, if a Contractor's apprentice is enrolled in a DOL approved apprenticeship program and registered with CDOT using Form 838 and working for the Contractor on a non-CDOT project. The hours worked on the non-CDOT project may be counted toward the project goal with approved documentation on Form 832. Training hours will be counted toward one project goal.
16. Subcontractor trainees who are enrolled in an approved Program may be used by the Contractor to satisfy the requirements of this specification.
17. The Contractor will be reimbursed \$2.00 per hour worked for each apprentice or trainee working on a CDOT project and whose participation toward the OJT project goal has been approved.
18. The Contractor shall have fulfilled its responsibilities under this specification if the CDOT Regional Civil Rights Manager has determined that it has provided acceptable number of training hours.
19. Failure to provide the required training will result in the following disincentives: A sum representing the number of training hours specified in the Contract, minus the number of training hours worked as certified on Form 832, multiplied by the journey worker hourly wages plus fringe benefits  $[(A \text{ hours} - B \text{ hours worked}) \times (C \text{ dollar per hour} + D \text{ fringe benefits})] = \text{Disincentives Assessed}$ . Wage rate will be determined by averaging the wages for the crafts listed on Form 1337. The Engineer will provide the Contractor with a written notice at Final Acceptance of the project informing the Contractor of the noncompliance with this specification which will include a calculation of the disincentives to be assessed.

## OJT PROGRAM LETTER & CHECKLIST

Dear Contractor,

Here you will find additional information on how to proceed with developing your OJT Program. This coincides with the Equipment Operator Plan template; which can be adjusted to fit any piece of construction equipment, or multiple pieces. Below is a checklist to help you get started, identify common pit-falls, and to help you envision what your final product should look like.

1. Select your classification (must be a skilled craft).
2. This template has been test driven through FHWA so I recommend that you try and keep the format as close to the original format and wording as possible.
3. Your company's pertinent information should be inserted throughout the document where it is applicable.
4. Change the information to fit the description of activities that your trainee will be performing throughout the long-term training period. (This information can be found on USDOL O\*Net Online at: <http://www.onetonline.org/link/summary/53-3032.00>.)
5. The program must be built on quality training activities and focused on safety.
6. Please address the narratives below each training component.
7. Your program should be designed to move the trainee through multiple jobs/projects to complete the full scale of training hours proposed and approved in the program's training plan.
8. The objective is to provide the trainee/apprentice with enough quality training experience to produce a bona-fide and fully qualified journey worker who can work independently and safely in the industry.
9. You may count training credit hours beyond CDOT projects.
10. You will only be reimbursed for training hours performed on CDOT projects.
11. **Date your document, and also refresh the date each time** you remit a newly revised version. (This will help us properly identify which version we are working on at any given time as we move through the development process.)
12. Each time you submit a newly revised version, **please be sure to mark all prior submittals as DRAFT documents** (before you move on to begin new modifications.) This is important because you can easily confuse your file and yourself by accidentally resubmitting a previously submitted version.
13. It is important to **proofread your document prior to your first submittal, as well as each newly revised submittal prior to resubmitting.**
14. Three things usually result from the contractor overlooking items 11, 12 and/or 13. They are:
  1. frustration develops because you are increasing the number of times you are going to be resubmitting,
  2. time wasted, and
  3. unnecessary extra work.
15. Insert a header with your company logo and **contact information.**
16. Please do not remove the EOE insignia.
17. Include page numbers throughout the document.
18. The language in the Evaluation Tool must align with the training activities.
19. It's not unusual for me to receive 3-4 submittals as we iron out the wrinkles and fine tune the package.
20. I encourage you to embrace that old cliché "dot your eyes and cross your tees." FHWA will approve nothing less than a fully polished product.



21. CDOT strives for a 4-5 week exchange process (the shorter the better) from first submittal to final revisions, prior to submittal to FHWA for their review/approval.

My role as the CDOT OJT Coordinator is to:

1. Guide you in the development of your program
2. Help you smooth out all the wrinkles and kinks before first submittal to FHWA
3. Forward an easily comprehensive, smooth flowing, crisp and professionally polished document to FHWA with a letter of recommendation for approval.
4. If you and I have missed something at the CDOT level, FHWA may have questions, or make recommendations. I will then follow-up with you and request the changes be made based upon their recommendations. (Please understand in advance that the document must be adjusted to their satisfaction or they will not approve your program.)

I strongly encourage you to contact me when you have questions. No question is too small and it is better to be safe than sorry so we don't have so many corrections to make later.

Thanks,

*WyVonne Johnson*  
*Civil Rights Specialist*  
*Colorado Department of Transportation*  
*HQ, Civil Rights & Business Resource Center*  
*4201 E. Arkansas Ave.*  
*Denver, CO 80222*  
*Email: [WyVonne.Johnson@state.co.us](mailto:WyVonne.Johnson@state.co.us)*  
*Phone: 303-757-9072*  
*Fax: 303-757-9019*

# OJT PLAN FOR ROLLER OPERATOR TEMPLATE

(Insert Company Name, Contact Info and Logo)

## ON THE JOB TRAINING PROGRAM PLAN

### SECTION 1

#### Introduction

This program has been designed according to the regulations in 23 CFR, Part 230 to bring a novice employee to full journeyman status as a **Roller Operator**.

Usually, the minimum number of training hours for any OJT Program shall be 2,000 hours. The specific program described in this document is **2225** hours, which includes **2165** hours of supervised work experience and **60** hours of technical and safety instruction. It is **(company name)** goal to implement this competency-based program to improve the work force of our construction industry. Every effort will be made to provide permanent employment for the trainee once the program is complete.

#### Recruiting

Applicants for the trainee slots will be recruited from within the company or from outside sources. In either case, every effort will be made to enroll qualified applicants who are females or members of ethnic or racial minority groups. Recruiting from public and private sources likely to yield minority and women applicants will be done.

#### Conditions of employment

Each new trainee will be given the date of the start of training, a copy of the training program and an orientation about safety and company operating procedures. The trainee will be on probation for a period of **\_\_\_\_\_** weeks. At regular intervals during the probationary period the **immediate supervisor, and the Secretary/Controller, or the President** of the company will meet with the employee to evaluate progress. At the end of the probationary period a decision to continue or not to continue the employment will be made. A written report outlining the discussion and actions taken at each meeting will be kept.

#### Prior Experience

This program is written to train a novice but can easily be adapted for training an employee with previous experience, so long as the trainee has not regularly performed journey level duties in the job classification for which he/she will be trained. The prior experience of a trainee will be evaluated based on an interview and written information

provided from the previous employer. The part of the training program that the trainee needs to complete in order to progress toward graduation will be implemented.

### Wage Schedule

We do not feel it is fair to reduce the trainee wages because of the trainee position. Even though the trainee is new to the position the utmost level of performance will be expected at all times. Full wages will be paid throughout the training period.

**NOTE: A formula exists that allows for payment of less than the Davis –Bacon journey wage when the trainee does not have journey worker status, but is being trained with the intent to enable the trainee to achieve journey worker status.**

### Monitoring and reporting progress

The trainee, the immediate supervisor, and the Secretary/Controller, or the President of the company will meet at least once a month to evaluate the trainee progress. A file for each trainee will be created and the minutes of these progress meetings will be filed and a copy given to the trainee. The trainee's file will also contain a record of the hours of training complete at regular intervals. The files will be retained for (3) three years following the end of training. The CDOT Project manager will be provided with a monthly record of trainee hours.

### Complaint Procedure

Each trainee will be given a copy of the company's procedures for resolving complaints during the orientation. Complaint Procedures will be explained to the trainee at that time.

### Certification of Hours and Graduation

If the trainee does not graduate to full journey worker status before the project is complete, a written certification of hours and training completed will be provided to the trainee/apprentice. A certificate of graduation will be provided to the trainee/apprentice and a copy sent to the Colorado Department of Transportation upon completion of the training program. The company pledges to hire the graduate at full journey worker wages if there is work available and an opening on the staff.

## SECTION II

### Ratios

The trainee shall always be supervised on a 2 to 1 ratio on a daily basis by journeyman in the field of training. Supervision shall always be adequate to properly train the individual for tasks at hand.

INSTRUCTIONAL and SAFETY

DESCRIPTION: **ROLLER OPERATOR**

DUTIES: Operates a diesel or gasoline self-propelled roller. Roller can be either a double steel wheel, pneumatic, or soil compactor. Rollers are used to compact a variety of soils, aggregate bases, and asphaltic pavements.

TRAINING REQUIRED: **2225** Hours

TRAINEE NAME: \_\_\_\_\_

WEEK ENDING DATE \_\_\_\_\_

1. ORIENTATION, SAFETY, OBSERVATIONS:	<u>Required</u>	<u>This Week</u>	<u>To date</u>
	25	_____	_____

A. Orientation

1. Company Policy
2. Work Schedule
3. Time Cards
4. Time and Attendance policy
5. Understand Drug and Alcohol Policy

Employee will be familiar with company policies including payroll time cards, review of attendance and tardiness policies, review the company safety policy, company EEO policy, drug and alcohol policy, first aid and emergency policies and general overall method of operation.

B. Proper Safety procedures	150	_____	_____
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1. Understand safety Policy
2. Demonstrate ability to work safely
3. Demonstrate ability to keep equipment clean
4. Demonstrate ability to operate fire equipment

Employee will be familiar with company safety policy and how it applies to the procedures for which they are being trained.

C. Observation	150	_____	_____
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1. Understand Method of Operations
2. Understand Company Chain of Command.
3. Understand work force

Trainee will be familiar with general method of operations of the company.

2. CARE and MAINTENANCE 300 \_\_\_\_\_

A. Check list

1. Check equipment daily
2. Check fuel gauge
3. Check Oil gauge
4. Check water level
5. Check electrical equipment
6. Understand the limitations of the equipment
7. Report major equipment problems to mechanics

Trainee will daily check their equipment for fuel and lube levels. The trainee will also note any defects on the equipment and report them to the mechanics. Trainee will also learn the limits and proper uses of the equipment being used.

Required      This Week      To date

3. EQUIPMENT OPERATION

A. Safe operating Procedures 100 \_\_\_\_\_

1. Instructions on equipment
2. Care and maintenance procedures

Trainee will learn the safe operating procedures of each kind of roller that the trainee will be using

B. Steel Wheel Roller 500 \_\_\_\_\_

1. Receiving and following instructions
2. Mounting equipment
3. Make sure brake is secure
4. Start equipment wait 10 minutes for warm up
5. Care and maintenance procedures
6. Rolling direction and technique
7. Perform heavy side first
8. When rolling edge make sure that roller will not tip over
9. Turn on roller check brake
10. Dismounting equipment

Trainee will receive instruction on how to start roller, how to turn roller, maneuvering the roller and the proper techniques of when to use this roller.

C. Pneumatic Rollers 500 \_\_\_\_\_

1. Receiving and following instructions
2. Mounting equipment
3. Make sure brake is secure
4. Start equipment wait 10 minutes for warm up
5. Care and maintenance procedures
6. Rolling direction and technique
7. Perform heavy side first
8. When rolling edge make sure that roller will not tip over
9. Turn on roller check brake
10. Dismounting equipment

Trainee will receive instruction on how to start roller, how to turn roller, maneuvering the roller and the proper techniques of when to use this roller.

D. Compactors 500 \_\_\_\_\_

1. Receiving and following instructions
2. Mounting equipment
3. Make sure brake is secure
4. Start equipment wait 10 minutes for warm up
5. Care and maintenance procedures
6. Rolling direction and technique
7. Perform heavy side first
8. When rolling edge make sure that roller will not tip over
9. Turn on roller check brake
10. Dismounting equipment

Trainee will receive instruction on how to start roller, how to turn roller, maneuvering the roller and the proper techniques of when to use this roller

TOTAL HOURS 2225 \_\_\_\_\_

EMPLOYEE\_\_\_\_\_

SUPERVISOR\_\_\_\_\_

## EVALUATION

Directions: Evaluate trainee using the rating scale below. Circle number to indicate their degree of competency.

1. No exposure or instruction in the area.
2. No skill or knowledge in this area
3. Limited skill, required instruction and close supervision
4. Moderate skill, can perform job completely with limited supervision
5. Skilled, can work independently with no supervision

### 1. ORIENTATION, SAFETY, OBSERVATIONS

#### A. Orientation

- |           |                                       |
|-----------|---------------------------------------|
| 1 2 3 4 5 | 1. Company Policy                     |
| 1 2 3 4 5 | 2. Work Schedule                      |
| 1 2 3 4 5 | 3. Time Cards                         |
| 1 2 3 4 5 | 4. Time and Attendance policy         |
| 1 2 3 4 5 | 5. Understand Drug and Alcohol Policy |

#### B. Proper Safety Procedures

- |           |  |
|-----------|--|
| 1 2 3 4 5 | 1. Understand safety Policy                      |
| 1 2 3 4 5 | 2. Demonstrate ability to work safely            |
| 1 2 3 4 5 | 3. Demonstrate ability to keep equipment clean   |
| 1 2 3 4 5 | 4. Demonstrate ability to operate fire equipment |

#### C. Observations

- |           |   |
|-----------|---|
| 1 2 3 4 5 | 1. Understand Method of Operations      |
| 1 2 3 4 5 | 2. Understand Company Chain of Command. |
| 1 2 3 4 5 | 3. Understand work force                |

## EVALUATION

### 2. CARE and MAINTENANCE

#### A. Check List

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 1. Check equipment daily                        |
| 1 | 2 | 3 | 4 | 5 | 2. Check fuel gauge                             |
| 1 | 2 | 3 | 4 | 5 | 3. Check Oil gauge                              |
| 1 | 2 | 3 | 4 | 5 | 4. Check water level                            |
| 1 | 2 | 3 | 4 | 5 | 5. Check electrical equipment                   |
| 1 | 2 | 3 | 4 | 5 | 6. Understand the limitations of the equipment  |
| 1 | 2 | 3 | 4 | 5 | 7. Report major equipment problems to mechanics |

## EVALUATION

### 3. EQUIPMENT OPERATION

#### A. Safe Operating Procedures

- |   |   |   |   |   |                                    |
|---|---|---|---|---|------------------------------------|
| 1 | 2 | 3 | 4 | 5 | 1. Instructions on equipment       |
| 1 | 2 | 3 | 4 | 5 | 2. Care and maintenance procedures |

#### B. Steel wheel roller

- |   |   |   |   |   |  |
|---|---|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 | 1. Receiving and following instructions                      |
| 1 | 2 | 3 | 4 | 5 | 2. Mounting equipment  |
| 1 | 2 | 3 | 4 | 5 | 3. Make sure brake is secure                                 |
| 1 | 2 | 3 | 4 | 5 | 4. Start equipment wait 10 minutes for warm up               |
| 1 | 2 | 3 | 4 | 5 | 5. Care and maintenance procedures                           |
| 1 | 2 | 3 | 4 | 5 | 6. Rolling direction and technique                           |
| 1 | 2 | 3 | 4 | 5 | 7. Do heavy side first                                       |
| 1 | 2 | 3 | 4 | 5 | 8. When rolling edge make sure that roller will not tip over |
| 1 | 2 | 3 | 4 | 5 | 9. Turn on roller check brake                                |
| 1 | 2 | 3 | 4 | 5 | 10. Dismounting equipment                                    |



### C. Pneumatic roller

- |   |   |   |   |   |  |
|---|---|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 | 1. Receiving and following instructions                      |
| 1 | 2 | 3 | 4 | 5 | 2. Mounting equipment  |
| 1 | 2 | 3 | 4 | 5 | 3. Make sure brake is secure                                 |
| 1 | 2 | 3 | 4 | 5 | 4. Start equipment wait 10 minutes for warm up               |
| 1 | 2 | 3 | 4 | 5 | 5. Care and maintenance procedures                           |
| 1 | 2 | 3 | 4 | 5 | 6. Rolling direction and technique                           |
| 1 | 2 | 3 | 4 | 5 | 7. Do heavy side first                                       |
| 1 | 2 | 3 | 4 | 5 | 8. When rolling edge make sure that roller will not tip over |
| 1 | 2 | 3 | 4 | 5 | 9. Turn on roller check brake                                |
| 1 | 2 | 3 | 4 | 5 | 10. Dismounting equipment                                    |

### D. Compactor

- |   |   |   |   |   |  |
|---|---|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 | 1. Receiving and following instructions                      |
| 1 | 2 | 3 | 4 | 5 | 2. Mounting equipment  |
| 1 | 2 | 3 | 4 | 5 | 3. Make sure brake is secure                                 |
| 1 | 2 | 3 | 4 | 5 | 4. Start equipment wait 10 minutes for warm up               |
| 1 | 2 | 3 | 4 | 5 | 5. Care and maintenance procedures                           |
| 1 | 2 | 3 | 4 | 5 | 6. Rolling direction and technique                           |
| 1 | 2 | 3 | 4 | 5 | 7. Do heavy side first                                       |
| 1 | 2 | 3 | 4 | 5 | 8. When rolling edge make sure that roller will not tip over |
| 1 | 2 | 3 | 4 | 5 | 9. Turn on roller check brake                                |
| 1 | 2 | 3 | 4 | 5 | 10. Dismounting equipment                                    |

Upon completion of these hands on training, the trainee shall be able to safely and adequately compact materials ranging from earthwork, aggregate base course and asphaltic pavement to the required densities.

Trainee shall be able to implement roller patterns combing with proper amplitude and frequency to achieve the desired compaction with the least amount of effort.