



# THE VIRGINIA ADULT LEARNING RESOURCE CENTER

V i r g i n i a C o m m o n w e a l t h U n i v e r s i t y

## **Plumbing Lesson Three: A Plumber's Career**

### **Facilitator Guide**

*Building Basics was paid for under an EL Civics grant from the U. S. Department of Education administered by the Virginia Department of Education. It was paid for under the Adult Education and Family Literacy Act of 1998; however, the opinions expressed herein do not necessarily represent the position or policy of the U. S. Department of Education, and no official endorsement by the U. S. Department of Education should be inferred. This document was designed and created by the Virginia Adult Learning Resource Center at Virginia Commonwealth University, 817 West Franklin Street, Suite 221, P.O. Box 842037, Richmond, VA 23284-2020. It may be reproduced for nonprofit, educational purposes only.*

## Plumbing A Plumber's Career



### Building Plan / Blue Prints / Specs (Getting Ready to Teach)

**Lifeskill Objective:** Learners will be able to identify and describe the steps and credentials required to become a licensed plumber.

**EFF Skills:** Speak So Others Can Understand, Work Together, Cooperate With Others, Convey Ideas in Writing, Read with Understanding, Listen Actively, Observe Critically, Solve Problems and Make Decisions, Take Responsibility for Learning

**SCANS Skills:**

- Resources (allocate facility and material resources; assess knowledge and skills necessary to become a licensed plumber)
- Interpersonal (participate as a member of a team; teach others; work with individuals from a variety of ethnic, social or educational backgrounds; work and communicate with co-workers; provide basic leadership and negotiation skills)
- Information (use computers to acquire, evaluate, organize, interpret and analyze the necessary training needed by a licensed plumber; this information is then interpreted and communicated through a variety of methods)
- Systems (provide basic understanding of systems)
- Technology (determine the procedures and tools needed to produce the desired results)

**Lesson Length:** 2-3 hours



### Tools

**Activity #1:** On His Way Up Handout

**Activity #2:** The First Steps Handout  
Plumbing Union Cards--cut up

**Activity #3:** Whiteboard or Flipchart Paper  
Blank Paper

**Activity #4:** Guest Speaker

**Guest Speaker:** An instructor in a community college or technical school plumbing program; a representative from the local professional union or organization

## Target Vocabulary

### Nouns:

advancement	apprentice	apprenticeship	association	benefits
earnings	journeyman	license	master plumber	promotion
raise	retirement plan	salary	trade	union
wage				

### Verbs:

earn	install	maintain	remodel	repair
------	---------	----------	---------	--------

### Adjectives:

challenging	residential	rewarding
-------------	-------------	-----------

## Laying the Foundation Warm-Up / Presentation



Actions	Materials
<p><b>Activity #1: Meet Dave Chin</b></p> <p>1. Ask the following questions to the whole group to find out what learners already know about how a person becomes a plumber.</p> <ul style="list-style-type: none"> <li>➤ Do you know anyone who is a plumber?</li> <li>➤ How long has s/he been working as a plumber?</li> <li>➤ Do you know what training s/he had to become a plumber?</li> <li>➤ Does s/he work for her/himself or for someone else?</li> </ul>	
<p>2. Give each learner the <b>On His Way Up Handout</b>. Ask the group to guess what information will be in the article by looking at the title and the picture. Ask each learner to scan the paragraphs quickly for words that they do not know and that they think are important. Write these words on the board and ask the group for volunteers to explain the meaning of the words.</p> <p>Then, ask learners with strong reading and speaking skills to take turns reading a few sentences each of the story to the group. With a partner, ask each learner to complete the career ladder on the bottom of the <b>On His Way Up Handout</b>.</p> <p>Tell the learners that today they will learn more about how to become a licensed plumber in their area. Inform them that they will have a guest speaker in the class that day.</p>	<p><b>On His Way Up Handout</b></p>

## Building on the Foundation Practicing the New Language



Actions	Materials
<p><b>Activity #2:      <i>Plumbing Apprenticeship Advertisement</i></b></p> <p>Ask learners, "If you wanted to get experience working in plumbing, where could you find information about job openings?" Write the title, <b><i>Ways to Find Jobs</i></b> on the board and underline it. Ask a volunteer for an example. Write the example on the board and then write the other learners' responses under the example. Then ask learners how many of them found their current or previous job through the ways listed on the board.</p> <p>Distribute <b>The First Steps Handout</b> to each learner. Tell the learners, "One place that has become popular to look for jobs is the internet. This advertisement came from an internet job site."</p> <p>Invite the learners to listen and read along as you read the ad to the class. Stop and check for general comprehension as you read.</p> <p>When you have finished reading the ad, ask the group to tell you words (adjectives and nouns) that the ad uses to describe how good this job is. Write the beginning of the sentence, <b><i>This job looks good because it...</i></b> Write an example on the board: e.g., is challenging. List these words as learners contribute them. For each word identified, ask the group for words that have a similar meaning and write those next to the original words. Check to be sure that all learners understand the meanings of the words.</p> <p>Ask learners to pull out the card given to them at the beginning of class. Have students form groups of 3 or 4 by finding other learners with cards exactly the same (member of the same union.)</p> <p>Once all of the learners have formed groups, direct them to look at the chart on the second page of the <b>The First Steps Handout</b>.</p>	<p><b><i>The First Steps Handout</i></b></p> <p><b><i>Plumbing Union Cards</i></b></p>

<b>Actions</b>	<b>Materials</b>
<p>Ask a different strong speaker to read the directions to the class. Do the example question together as a group. Make sure that learners fill out the other boxes in that row appropriately.</p> <p>Then invite each group to have one member read one question at a time to their group, round-robin style. As a group, they should look for the information and mark their answers in the chart. Circulate to clarify directions for any groups needing help.</p> <p>After groups have finished, ask for volunteers to read the questions and report their answers. Discuss any learner questions, comments, or interest in finding out more about apprenticeships in the area.</p>	<p><b>The First Steps Handout</b></p> <p><b>Plumbing Union Cards</b></p>
<p><b>Activity #3: K/W/L Activity</b></p> <p>Draw a table with three columns, labeled <b>KNOW</b>, <b>WANT TO KNOW</b>, <b>LEARNED</b>, respectively. Ask learners to draw the same chart on their own paper. Tell learners to write down information they know about becoming a licensed plumber in complete sentences. Write an example in the <b>KNOW</b> column on the board.</p> <p style="padding-left: 40px;">Example: A plumber must practice many hours.</p> <p>After individual learners have had time to write what they know on their charts, ask them to find three other partners and to sit down as a group.</p> <p>Have learners share what they wrote down with their other group members.</p> <p>Then ask each group to think of additional information they <b>WANT</b> to know about how to become a licensed plumber. Ask learners in each group to work together to write complete questions about the information they want to know in the <b>WANT</b> column. You may need to write prompting question words on the board to help learners get started. Example prompts are: <b>Where, When, How, How Long, How much, How many, Why, With whom, To whom.</b></p> <p>Have one member of each group read their questions. Write these questions on the board in the <b>WANT TO KNOW</b> column. Leave space between each question so that you can write similar versions of the same question that the different groups have written. Write these additional versions if they show learners another appropriate way of asking for the same information.</p>	<p><b>Whiteboard or Flipchart Paper</b></p> <p><b>Blank Paper for K/W/L Chart</b></p>

<b>Actions</b>	<b>Materials</b>
<p>After writing all of the questions on the board, ask learners to choose the five most important questions. Put a star next to these questions on the board. Model these questions for the group. Point out important phrasing, stress, and intonation patterns in each question, as necessary. Ask learners to practice repeating these questions to members of their group. Then, have each group choose one member to ask one of the five questions of the speaker.</p>	
<p><b>Activity #4:      <i>Expert Guest</i></b></p> <p>Welcome the guest and introduce him/her to the group. Tell the class that s/he will <b>first describe his/her professional experience and after that s/he will answer their questions.</b></p> <p>Have the guest talk about his/her experience in simple, clear language. Write key words on the board as he or she is talking.</p> <p>Then, have the selected learners ask their questions in turn. After the speaker has answered those questions, if time, give other learners the opportunity to ask additional questions.</p> <p>Ask the learners to return to their groups and discuss what they learned from the speaker. Tell them to write the information in the <b>LEARNED</b> column of their charts and give their charts to you before leaving class.</p>	<p><b><i>Guest Speaker</i></b></p> <p><b><i>K/W/L Chart</i></b></p>

## Finishing Work Extension or Out-of-Class Practice



<b>Actions</b>	<b>Materials</b>
<ol style="list-style-type: none"><li>1. Invite learners to visit the local mechanical and plumbing union or association and bring informational brochures to class to tell other learners what they learned.</li><li>2. Encourage learners to look on the internet for online training that prepares them for the plumbing exam.</li><li>3. If a plumbing training program is available at a local community college or technical school, have learners search the school's website for information on program courses, length, admission requirements, etc.</li></ol>	<b><i>Informational Brochures</i></b>



## **Plumbing**

### **Lesson Three: A Plumbing Career**

### **Facilitator Materials**

*Building Basics was paid for under an EL Civics grant from the U. S. Department of Education administered by the Virginia Department of Education. It was paid for under the Adult Education and Family Literacy Act of 1998; however, the opinions expressed herein do not necessarily represent the position or policy of the U. S. Department of Education, and no official endorsement by the U. S. Department of Education should be inferred. This document was designed and created by the Virginia Adult Learning Resource Center at Virginia Commonwealth University, 817 West Franklin Street, Suite 221, P.O. Box 842037, Richmond, VA 23284-2020. It may be reproduced for nonprofit, educational purposes only.*

## Activity #1: Meet Dave Chin

### On His Way Up



**Dave and his boss**

Dave Chin is a **plumber's helper or apprentice**. He is learning about plumbing "on the job." For the last 3 years, Dave has worked with his boss, Edgar Morales. Mr. Morales is a **licensed plumber** and a **contractor**. He has his own company, called Quality Plumbing.

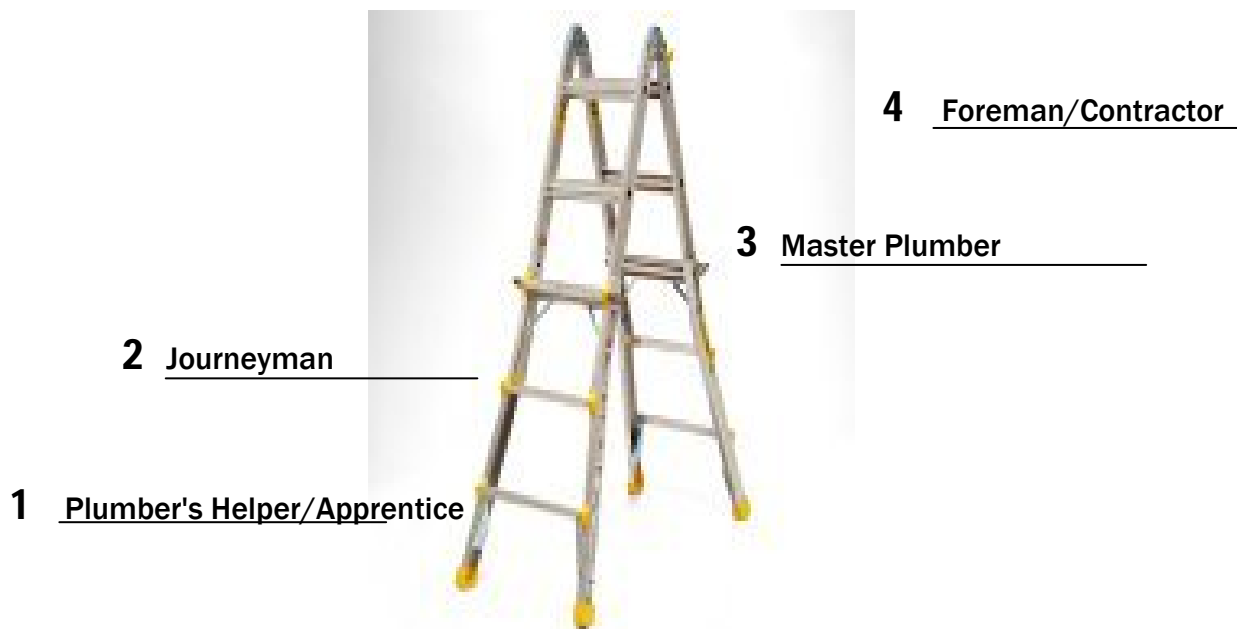
When Dave first started working for Quality Plumbing, he had to learn the many types and sizes of pipes and fittings. He also learned how to use plumbing tools, such as a pipe wrench or a snake.

Because of his work experience with Edgar, Dave now knows how to install new plumbing systems, maintain plumbing-related appliances and fixtures, and repair old ones. Most of Dave's work is at commercial sites. Sometimes he also goes out on service calls to smaller residential jobs. After one more year of work experience, Dave can apply for his **Journeyman's license**.

These days, when he is not at work, Dave is studying about the plumbing trade online. Last year he took a few classes at the local community college, but his work schedule was very busy. It was too hard for him to go to class every week. The internet classes are better for him because he can study any time of the day or night. The best part is that he doesn't even have to leave his house.

When he has finished his studies, Dave is planning to take the local plumbing exam. If he passes the exam, he will get his license to be a **Journeyman**. In the future, after a few more years of experience, Dave wants to be a **Master Plumber** like his boss, Edgar. Some day Dave hopes to be a **foreman** for a large mechanical company or a **plumbing contractor** with his own plumbing business.

Using information from the paragraph, write the steps Dave plans to follow in his plumbing career.



## Activity #2: The First Steps

Listen and read along as your instructor reads the advertisement below.

### **Earn While You Learn: Begin a Rewarding Career as a Plumber**

Would you like to be getting a good wage and benefits while learning a skill? Are you interested in a career that provides challenging work, excellent rewards and the opportunity to be your own boss?

Become an apprentice plumber. United Association Local 250 is accepting applications for next year's apprentice class.

As an apprentice you receive:

- A good wage while you learn, with automatic raises.
- Comprehensive benefits--healthcare and retirement plan.
- Training in mechanical and computer skills that prepare you to become a journeyman.
- Possible future earnings of over \$35 an hour, plus outstanding benefits.
- Work year-round indoors and outdoors new construction, remodeling; residential and commercial.
- No student loans – you are paid while you learn!
- Prepare for a career that can include advancement to foreman, estimator, safety director, and inspector.
- Learn a trade that will enable you to own your own business.

Applicants must be 18 years old and have a high school diploma, or a G.E.D. certificate, and a valid driver's license. Good grades in science and math are desirable. If your application is accepted, you will need to take an aptitude test and have a face-to-face interview.

For more information, log on to <http://www.ualocal250.org/Basicreq.htm>.

## Activity #2: The First Steps

Read the questions chart below. If the answer for each question is in the ad, check **yes**. If the information in the question is not in the ad, check **no**. If you learn some specific information about the topic, write the information in the **Notes**.

### Did you read about . . .

	yes	no	Notes
where to find out more about this job?	✓		go to website at <a href="http://www.ualocal250.org">http://www.ualocal250.org</a>
1. the benefits that workers get in this position?	✓		healthcare and retirement plan
2. the level of education required for the job?	✓		high school diploma or G.E.D. certificate
3. the starting salary?		✓	
4. the type of position that is offered?	✓		apprentice plumber
5. where to call for more information?		✓	
6. the steps in the application process?	✓		application; aptitude test; interview
7. the organization that is offering the job?	✓		United Association Local 250
8. how to start your own plumbing business?		✓	
9. the grades that an applicant must have in math and science to apply for the job?	✓		"good"
10. the minimum age required to apply?	✓		18

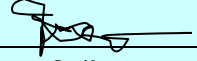
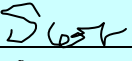
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 405  
MEMBERSHIP CARD 60471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ **VA**

STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

 \_\_\_\_\_   
President Secretary

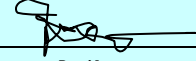
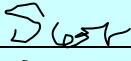
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 405  
MEMBERSHIP CARD 60471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ **VA**

STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

 \_\_\_\_\_   
President Secretary


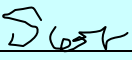
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 405  
MEMBERSHIP CARD 60471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ **VA**

STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

 \_\_\_\_\_   
President Secretary


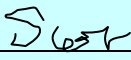
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 405  
MEMBERSHIP CARD 60471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ **VA**

STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

 \_\_\_\_\_   
President Secretary


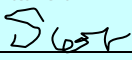
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 405  
MEMBERSHIP CARD 60471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ **VA**

STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

 \_\_\_\_\_   
President Secretary


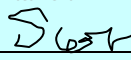
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 405  
MEMBERSHIP CARD 60471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ **VA**

STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

 \_\_\_\_\_   
President Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 410  
MEMBERSHIP CARD 50473**

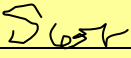
MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 410 of the International Fellowship  
of Plumbers,



President



Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 410  
MEMBERSHIP CARD 50473**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 410 of the International Fellowship  
of Plumbers,



President



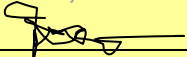
Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 410  
MEMBERSHIP CARD 50473**

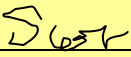
MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 410 of the International Fellowship  
of Plumbers,



President



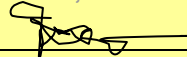
Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 410  
MEMBERSHIP CARD 50473**

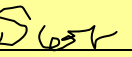
MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 410 of the International Fellowship  
of Plumbers,



President



Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 410  
MEMBERSHIP CARD 50473**

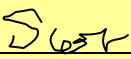
MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 410 of the International Fellowship  
of Plumbers,



President



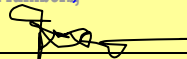
Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 410  
MEMBERSHIP CARD 50473**

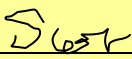
MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 410 of the International Fellowship  
of Plumbers,



President



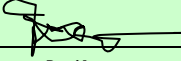
Secretary

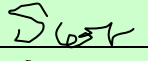
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 315  
MEMBERSHIP CARD 40471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President

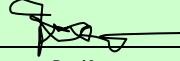
  
\_\_\_\_\_  
Secretary

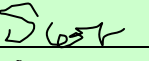
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 315  
MEMBERSHIP CARD 40471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President

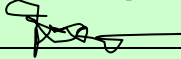
  
\_\_\_\_\_  
Secretary

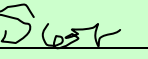
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 315  
MEMBERSHIP CARD 40471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President


  
\_\_\_\_\_  
Secretary

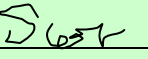
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 315  
MEMBERSHIP CARD 40471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President


  
\_\_\_\_\_  
Secretary

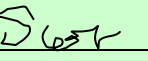
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 315  
MEMBERSHIP CARD 40471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President


  
\_\_\_\_\_  
Secretary

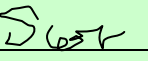
**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 315  
MEMBERSHIP CARD 40471**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 405 of the International Fellowship  
of Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President


  
\_\_\_\_\_  
Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 676  
MEMBERSHIP CARD 30474**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 676 the International Fellowship of  
Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President


  
\_\_\_\_\_  
Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 676  
MEMBERSHIP CARD 30474**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 676 the International Fellowship of  
Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President


  
\_\_\_\_\_  
Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 676  
MEMBERSHIP CARD 30474**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 676 the International Fellowship of  
Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President


  
\_\_\_\_\_  
Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 676  
MEMBERSHIP CARD 30474**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 676 the International Fellowship of  
Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President


  
\_\_\_\_\_  
Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 676  
MEMBERSHIP CARD 30474**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 676 the International Fellowship of  
Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President


  
\_\_\_\_\_  
Secretary

**UNITED BROTHERHOOD OF PLUMBERS  
LOCAL 676  
MEMBERSHIP CARD 30474**

MEMBER SIGNATURE

Issued to \_\_\_\_\_  
By \_\_\_\_\_ VA  
STATE

Local Union No. 676 the International Fellowship of  
Plumbers, Pipe Fitters and HVAC Installers.

  
\_\_\_\_\_  
President

  
\_\_\_\_\_  
Secretary