

PSI Services LLC https://test-takers.psiexams.com/tncon

TENNESSEE BOARD FOR LICENSING CONTRACTORS



TENNESSEE CONTRACTORS CANDIDATE INFORMATION BULLETIN

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Be sure to review this entire Candidate Information Bulletin for complete information about the scheduling, testing and licensing processes. Please refer to our website to check for the most updated information at https://test-takers.psiexams.com/tncon.

EXAMINATIONS BY PSI

This Candidate Information Bulletin provides you with information about the examination and application process for a Limited Licensed Electrician (LLE) licensee in the State of Tennessee.

Tennessee State Laws stipulate that a person may not act as a contractor with the LLE license.

The Tennessee Board for Licensing Contractors, Limited Licensed Electrician Division, has contracted with PSI to conduct the examination program. PSI provides examinations through a network of computer examination centers in Tennessee. PSI works closely with the State to be certain that examinations meet local as well as national requirements in basic principles and examination development standards.

CONTACT INFORMATION

All questions and requests for information pertaining to the examination should be directed to PSI.

PSI (855) 868-1882 https://test-takers.psiexams.com/tncon

All questions and requests for information pertaining to **licensure** should be directed to the Tennessee Board for Licensing Contractors.

Tennessee Board for Licensing Contractors - LLE 500 James Robertson Parkway Nashville, TN 37243-1150 (615) 253-2144 or Fax (615) 532-2868 tn.gov/commerce/boards/contractors

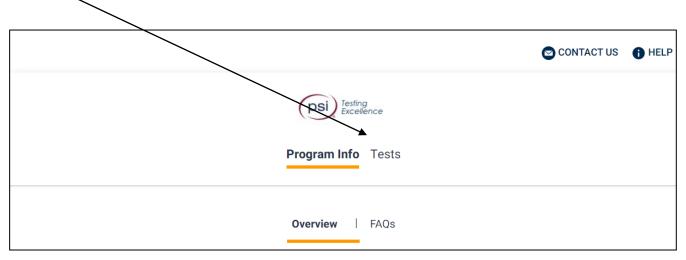
Examination	Fee
☐ Business & Law ONLY	\$57
BC - COMBINED - RESIDENTIAL/COMMERCIAL/INDUSTRIAL CONTRACTOR	
Trade Portion	\$57
☐ Business & Law	\$57
BC-A - RESIDENTIAL CONTRACTOR	
Trade Portion	\$57
☐ Business & Law	\$57
BC-B - COMMERCIAL CONTRACTOR	
Trade Portion	\$57
☐ Business & Law	\$57
BC-b - SMALL COMMERCIAL CONTRACTOR	
Trade Portion	\$57
☐ Business & Law	\$57
BC-C - INDUSTRIAL CONTRACTOR	
Trade Portion	\$57
☐ Business & Law	\$57
BC-A, B - COMBINED - RESIDENTIAL/COMMERCIAL CONTRACTOR	
☐ Trade Portion	\$57
☐ Business & Law	\$57
BC-A, b (sm) - COMBINED- RESIDENTIAL/SMALL COMMERCIAL CONTRACTOR	
☐ Trade Portion	\$57
☐ Business & Law	\$57
BC-B, C - COMBINED - COMMERCIAL/INDUSTRIAL CONTRACTOR	
☐ Trade Portion	\$57
☐ Business & Law	\$57
CE - ELECTRICAL CONTRACTOR	·
☐ Trade Portion	\$57
☐ Business & Law	\$57
CE-A, H - HIGH VOLTAGE ELECTRICAL CONTRACTOR	,
☐ Trade Portion	\$57
☐ Business & Law	\$57
*CMC - FULL MECHANICAL CONTRACTOR	·
☐ Trade Portion *Must have pre-approval	\$57
☐ Business & Law	\$57
*CMC-A - MECHANICAL PLUMBING CONTRACTOR	,
☐ Trade Portion *Must have pre-approval	\$57
☐ Business & Law	\$57
CMC-C - MECHANICAL - HVAC/REFRIGERATION CONTRACTOR	1.5
☐ Trade Portion	\$57
☐ Business & Law	\$57
CMC-D - MECHANICAL - FIRE SPRINKLERS AND FIRE PROTECTION CONTRACTOR	151
☐ Trade Portion	\$57
Business & Law	\$57
LMC - LICENSED MASONRY CONTRACTOR	7
☐ Trade Portion	\$57
Business & Law	\$57
NASCLA Commercial Building Contractor Examination	\$125
NASCLA Accredited Trade Examination for Electrical Contractors	\$125 \$125

NOTE: EXAMINATION FEES ARE NOT REFUNDABLE OR TRANSFERABLE. Your examination fee will be forfeited if you do not test within 1 year of the date your examination fee is received by PSI.

ONLINE (https://test-takers.psiexams.com/tncon)

For the fastest and most convenient examination scheduling process, register for your examinations online by accessing PSI's registration Website: Click Here or on the email confirmation you received from PSI.

1. Select **TESTS** to create an account.



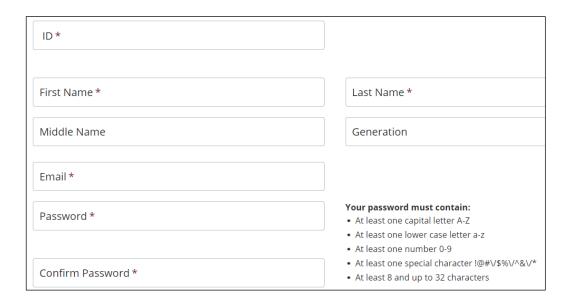
2. Select the examination and you are ready to create an account. Select LOGIN/REGISTER.

To continue the booking process and schedule your test, you must login or create an account.

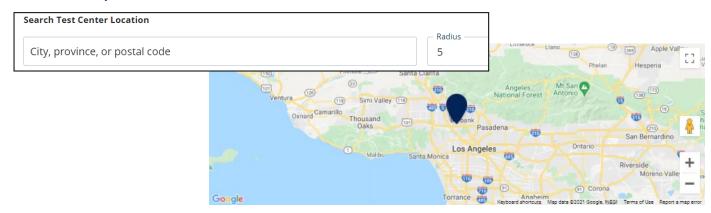
LOGIN/REGISTER

3. You will be prompted to **CREATE AN ACCOUNT** with PSI.

The first and last name must match exactly with your current, valid, government-issued ID.

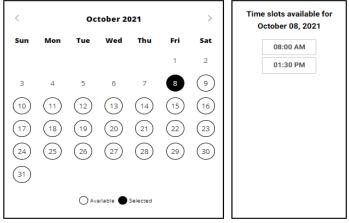


4. Enter the "City or Postal Code" and select FIND.

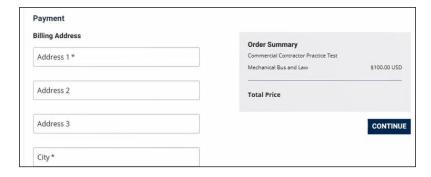


5. Select a date and time to book an appointment.





6. You are now ready to pay.



7. Once payment has been made you will receive a message confirming the test center, booked date, and booked time.



TELEPHONE REGISTRATION

For telephone registration, you will need a valid credit card (Visa, MasterCard, American Express or Discover).

PSI registrars are available at (855) 868-1882, Monday through Friday between 6:30 am and 9:00 pm, and Saturday-Sunday between 8:00 am and 4:30 pm, Central Time, to receive your payment and schedule your appointment for the examination.

SCHEDULING AN APPOINTMENT TO TAKE THE EXAMINATION

You are responsible for contacting PSI to schedule an appointment to take the examination. PSI will make every effort to schedule the examination site location and time that is most convenient for you. To schedule with a PSI registrar, call (855) 868-1882, Monday through Friday between 6:30 am and 9:00 pm, or Saturday-Sunday between 8:00 am and 4:30 pm, Central Time. If space is available in the examination site of your choice, you may schedule an examination 1 day prior to the examination date of your choice, up to 6:00 p.m., Central Time. Please be prepared to offer alternate examination appointment choices.

REREGISTERING FOR AN EXAMINATION

It is not possible to make a new examination appointment on the same day you have taken an examination; this is due to processing and reporting scores. A candidate who tests unsuccessfully on a Monday can call the next day, Tuesday, and retest as soon as Wednesday, depending upon space availability. You may access a registration form at https://test-takers.psiexams.com/tncon. You may also call PSI at (855) 868-1882.

CANCELING AND RESCHEDULING AN EXAMINATION APPOINTMENT

You may cancel and reschedule an examination appointment without forfeiting your fee if your cancellation notice is received 2 days before the scheduled examination date. You may use the PSI Website or call PSI at (855) 868-1882, Monday through Friday, between 6:30 am and 7:00 pm or Saturday, between 10:00 am and 4:00 pm, Central Time.

Note: A voicemail message is not an acceptable form of cancellation. Please use the PSI Website or call PSI and speak to a Customer Service Representative.

MISSED APPOINTMENT OR LATE CANCELLATION

Your registration will be invalid, you will not be able to take the examination as scheduled, and you will forfeit your examination fee, if you:

- Do not cancel your appointment 2 days before the scheduled examination date:
- Do not appear for your examination appointment;
- Arrive after examination start time; or
- Do not present proper identification when you arrive for the examination.

EXAM ACCOMMODATIONS

All PSI examination centers are equipped to provide access in accordance with the Americans with Disabilities Act (ADA) of 1990, and exam accommodations will be made in meeting a candidate's needs. A candidate with a disability or a candidate who would otherwise have difficulty taking the examination should request for alternative arrangements by <u>Clicking Here</u>.

Candidates granted accommodation in accordance with the ADA, MUST schedule their examination by telephone and speak directly with a PSI registrar.

You will need to fill this out if requesting to test out of state.

EXAMINATION SITE CLOSING FOR AN EMERGENCY

In the event that severe weather or another emergency forces the closure of an examination site on a scheduled examination date, your examination will be rescheduled. PSI personnel will attempt to contact you in this situation. However, you may check the status of your examination schedule by calling (855) 868-1882. Every effort will be made to reschedule your examination at a convenient time as soon as possible.

SOCIAL SECURITY NUMBER CONFIDENTIALITY

PSI will use your Social Security Number only as an identification number in maintaining your records and reporting your examination scores to the state. A Federal law requires state agencies to collect and record the Social Security Numbers of all licensees of the professions licensed by the state. If you elect not to disclose your Social Security Number to PSI, please enclose a separate letter explaining this with your Examination Registration Form. However, you must provide it to the state.

EXAMINATION SITE LOCATIONS

The examinations are administered at the examination centers listed below:

Chattanooga

6918 Shallowford Rd, Suite 314 Chattanooga, TN 37421

Take I-24 thru Chattanooga. Merge onto I-75 N (toward Knoxville). Take Exit #5 - Shallowford Rd. Turn Left onto Shallowford. The office is on the left.

Jackson

368 North Parkway, #3 Jackson, TN 38305

From I-40, Exit 80A onto South 45 Bypass. Third Signal light is North Parkway. Go left onto North Parkway and then go right into the first driveway on your right.

From the South, take Bypass 45 North to North Parkway and go right onto North Parkway and right into first driveway on the right.

North Parkway is also known as Business Route 412. Coming from the east on 412, turn left into last driveway on the left. Coming from the West on North Parkway, turn right into the first driveway on the right, after crossing the 45 Bypass. PSI is

directly across the street (North Parkway) from the China Palace Buffet.

Johnson City 904 Sunset Drive, Ste 7A Johnson City, TN 37604

Take I-26 to Exit 19 (Old number 36). Go South on Highway 381 (North State of Franklin Road) approximately 2.2 miles. At the 4th light turn left (this is Sunset Drive), go approximately .7 tenths of a mile. There is a large building on the left hand side of the road. This is 904 Sunset Drive. Suite 7A is in the row of office spaces behind this building.

Knoxville

301 South Gallaher View Rd, Suite 114 Knoxville, TN 37919

Traveling I-40/I-75 East Bound, take exit #379 (Bridgewater Rd.) Turn right onto Bridgewater Rd. Turn left onto Kingston Pike. Turn right onto South Gallaher View Rd.

Traveling I-40 W/I75 S West Bound, take Gallaher View exit #379. Turn left at lights, go through Kingston Pike, pass Bearden High School, and down slight hill on right.

Arrive at Suburban Office Plaza and go to back of building to

Arrive at Suburban Office Plaza and go to back of building to Suite 114.

Memphis - Lab Four Professional Development Center 1255 Lynnfield Road, Suite 160 Memphis, TN 38119

A face mask will be required when coming in to take an exam. Lab Four is located in Building A. Suite 160 if the first door on the Right upon entering the building.

Nashville

The Oaks 1102 Kermit Drive, Suite 101 Nashville, TN 37217

From I-40 East: take exit onto I-24 (Exit 213-A). Take Murfreesboro Road at the first exit (Exit 52). Stay in the right lane on the ramp, as the exit appears while you are still in the curve. On Murfreesboro, stay in the left lane. You will pass Days Inn and Super Gigante grocery on your right. Turn left onto Kermit Drive when there is a McDonalds on your right. PSI is in the second building on your left. Suite 101 is on the northwest side of building 1102.

From I-40 West: take exit onto Briley Parkway, turn left onto Briley. Exit onto Murfreesboro Rd. Stay in the right lane. Turn right onto Kermit Drive. PSI is in the second building on your left. Suite 101 is on the northwest side of building 1102.

Additionally, PSI has examination centers in many other regions across the United States. You may take the written examination at any of these locations by following the instructions under Exam Accommodations on the previous page.

REPORTING TO THE EXAMINATION SITE

On the day of the examination, you should arrive at least 30 minutes prior to your scheduled appointment time. This allows time for the sign-in and identification verification procedure as well as providing time to familiarize yourself with the examination process. If you arrive late, you will not be admitted to the examination site and you will forfeit your examination registration fee.

REQUIRED IDENTIFICATION AT EXAMINATION SITE

You must provide 1 form of identification. The identification must match the name you scheduled with.

NOTE: ID must contain candidate's signature, photo, be valid and unexpired.

- State issued driver's license
- State issued identification card
- US Government Issued Passport
- US Government Issued Military Identification Card (not allowed for remote testing)
- US Government Issued Alien Registration Card
- Canadian Government Issued ID

Failure to bring the proper documentation invalidates your registration. You will not be able to take the examination as scheduled, and you will forfeit your examination fee.

SECURITY PROCEDURES

The following security procedures will apply during the examination:

- Only non-programmable calculators that are silent, battery operated, do not have paper tape printing capabilities, and do not have a keyboard containing the alphabet will be allowed in the examination site.
- Candidates may take only approved items into the examination room.
- All personal belongings of candidates should be placed in the secure storage provided at each site prior to entering the examination room. Personal belongings include, but are not limited to, the following items:
 - Electronic devices of any type, including cellular / mobile phones, recording devices, electronic watches, cameras, pagers, laptop computers, tablet computers (e.g., iPads), music players (e.g., iPods), smart watches, radios, or electronic games.
 - Bulky or loose clothing or coats that could be used to conceal recording devices or notes. For security purposes outerwear such as, but not limited to: open sweaters, cardigans, shawls, scarves, hoodies, vests, jackets and coats are not permitted in the testing room. In the event you are asked to remove the outerwear, appropriate attire, such as a shirt or blouse should be worn underneath.
 - Hats or headgear not worn for religious reasons or as religious apparel, including hats, baseball caps, or visors.
 - Other personal items, including purses, notebooks, reference or reading material, briefcases, backpacks, wallets, pens, pencils, other writing devices, food, drinks, and good luck items.
- Although secure storage for personal items is provided at the examination site for your convenience, PSI is not responsible for any damage, loss, or theft of any personal belongings or prohibited items brought to, stored at, or left behind at the examination site. PSI assumes no duty of care with respect to such items and makes no representation that the secure storage provided will be effective in protecting such items. If you leave any items at the examination site after your examination and

- do not claim them within 30 days, they will be disposed of or donated, at PSI's sole discretion.
- Person(s) accompanying an examination candidate may not wait in the examination center, inside the building or on the building's property. This applies to guests of any nature, including drivers, children, friends, family, colleagues or instructors.
- No smoking, eating, or drinking is allowed in the examination center.
- During the check in process, all candidates will be asked if they possess any prohibited items. Candidates may also be asked to empty their pockets and turn them out for the proctor to ensure they are empty. The proctor may also ask candidates to lift up the ends of their sleeves and the bottoms of their pant legs to ensure that notes or recording devices are not being hidden there.
- Proctors will also carefully inspect eyeglass frames, tie tacks, or any other apparel that could be used to harbor a recording device. Proctors will ask to inspect any such items in candidates' pockets.
- If prohibited items are found during check-in, candidates shall put them in the provided secure storage or return these items to their vehicle. PSI will not be responsible for the security of any personal belongings or prohibited items.
- Any candidate possessing prohibited items in the examination room shall immediately have his or her test results invalidated, and PSI shall notify the examination sponsor of the occurrence.
- Any candidate seen giving or receiving assistance on an examination, found with unauthorized materials, or who violates any security regulations will be asked to surrender all examination materials and to leave the examination center. All such instances will be reported to the examination sponsor.
- Copying or communicating examination content is violation of a candidate's contract with PSI, and federal and state law. Either may result in the disqualification of examination results and may lead to legal action.
- Once candidates have been seated and the examination begins, they may leave the examination room only to use the restroom, and only after obtaining permission from the proctor. Candidate will not receive extra time to complete the examination.

TAKING THE EXAMINATION BY COMPUTER

The examination will be administered via computer. You will be using a mouse and computer keyboard.

TUTORIAL

Before you start your examination, an introductory tutorial is provided on the computer screen. The time you spend on this tutorial, up to 15 minutes, DOES NOT count as part of your examination time. Sample questions are included following the tutorial so that you may practice answering questions and reviewing your answers.

TEST QUESTION SCREEN

One question appears on the screen at a time. During the examination, minutes remaining will be displayed at the top of the screen and updated as you record your answers.

IMPORTANT: After you have entered your responses, you will later be able to return to any question(s) and change your response, provided the examination time has not run out.

SCORE REPORTING

Your score will be displayed on screen at the end of the examination and a score report will be emailed to you. If you fail, the emailed score report will include the diagnostic report indicating your strengths and weaknesses by examination type.

You may request a duplicate score report after your examination by emailing score-eport@psionline.com.

EXPERIMENTAL QUESTIONS

In addition to the number of questions per examination, a small number of "experimental" questions may be administered to candidates during the examinations. These questions will not be scored and the time taken to answer them will not count against examination time. The administration of such non-scored experimental questions is an essential step in developing future licensing examinations.

DESCRIPTION OF EXAMINATION

If a test question answer could differ because of conflicting information in test reference sources, a legal requirement such as a code, law, or regulation overrides any other reference. If two legal requirements appear to conflict, the state-specific code, law, or regulation overrides the national one. Information from sources on the test reference list override information from other sources or persons.

BUSINESS AND LAW MANAGEMENT EXAMINATION

# of Questions	% Required to Pass	Time Allowed
50	73% (37 items)	140 minutes

CONTENT OUTLINE

Subject Area	# of Items
Licensing Requirements	5
Estimating and Bidding	7
Business Organization and Financial Management	7
Tax Laws	5
Labor Laws	5
Project Management and Lien Law	6
Contracts	6
Risk Management	4
Environmental and Safety	5

REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference material <u>is</u> allowed in the examination center:

 Contractors' Guide to Business, Law and Project Management - Tennessee Edition, 4th Edition, National Association of State Contractor Licensing Agencies (NASCLA), (623) 587-9519, Fax (623) 587-9625, www.nascla.org, www.psionlinestore.com.

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

Many of these reference materials are available for purchase at www.psionlinestore.com or by calling the PSI Online Store, toll-free, at (866) 589-3088.

CMC-A - MECHANICAL PLUMBING

IMPORTANT

Effective May 24, 2007, Senate Bill 0786 and HB 2122 requires plumbers to be pre-approved prior to taking CMCA (plumbing exam) and must show evidence of three (3) years' experience. You must complete the "Exam Approval Request" form found on the Boards website: tn.gov/commerce/boards/contractors and send to the Board office. Upon receipt, after the experience is confirmed, your information will be electronically submitted to PSI, and you can then schedule for the examination.

# of Questions	% Required to Pass	Time Allowed
110	73% (81 items)	295 minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Math	14
General Requirements (not including Gas) - Administrative, Structural, Backflow, Materials and Supports, Joints and Connections, Storm Drains, Testing	10
Water Supply and Distribution	10
Fixtures, including Water Heaters	6
Drain, Waste, and Vent Systems, including Indirect and Special Waste	28
Traps, Cleanouts, and Interceptors	6
Isometric Analysis	20
Gas Appliances and Piping	12
OSHA Safety	4

REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- International Plumbing Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- International Fuel Gas Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- Mathematics for Plumbers and Pipefitters, Lee Smith, 8th Edition, 2013, www.cengage.com
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or https://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1926
 OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, https://test-takers.psiexams.com/tncon

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be

tabbed/indexed with permanent tabs only. <u>Temporary tabs</u>, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

BC - COMBINED RESIDENTIAL/COMMERCIAL/INDUSTRIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	300 minutes

CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	15
Masonry	10
Carpentry	6
Metals	10
Roofing	6
Associated Trades	10
General Code, Plan Reading, and Estimating	27
OSHA Safety	6

REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center. Candidates may also use a construction calculator.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- International Building Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- International Residential Code for One- and Two-Family Dwellings, 2018, International Code Council, (800) 786-4452, www.iccsafe.org.
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or https://www.osha.gov/pls/oshaweb/owastand.display_st_andard_group?p_toc_level=1&p_part_number=1926
 OR

- Code of Federal Regulations 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, https://test-takers.psiexams.com/tncon
- Carpentry and Building Construction, 2010 or 2016 (Student Edition), John L. Feirer and Mark D. Feirer, McGraw-Hill, www.mheducation.com
- Roofing Construction and Estimating, Daniel Atcheson, 1995, Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products
- Modern Masonry Brick, Block, Stone, Clois E.
 Kicklighter, 8th edition (2015). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com.
- Pipe and Excavation Contracting, Dave Roberts, 2011, Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products
- Gypsum Construction Handbook, 7th edition, 2014, United States Gypsum Company (USG), RS Means Publishing, 700 Longwater Drive, Norwell, MA 02061, 800-334-3509, Fax: 800-632-6732, http://rsmeans.reedconstructiondata.com
- Technical Digest No. 9 Handling and Erection of Steel Joists and Joist Girders, 3rd Edition, 2008, Steel Joint Institute, 234 W. Cheves Street, Florence, SC 29501, Phone: (843) 407-4091, Fax (843) 407-4044, www.steeljoist.org
- SDI Manual of Construction with Steel Deck, 2016, 3rd Edition, Steel Deck Institute, (847) 458-4647, http://www.sdi.org/manuals.htm
- Placing Reinforcing Bars, 2011, 9th Edition, Concrete Reinforcing Steel Institute, (800) 328-6306, www.crsi.org
- Design and Control of Concrete Mixtures, Steven H. Kosmatka and William C. Panarese, 16th Edition, 2016, Portland Cement Association, (847) 966-6200, www.cement.org
- Training and Certification of Field Personnel for Unbonded Post-Tensioning - Level 1 Field Fundamentals, 2003, 3rd Edition, Post-Tensioning Institute, (602) 870-7540, http://post-tensioning.org/index.php
- Erectors' Manual Standards and Guidelines for the Erection of PreCast Concrete Products, 1999, 2nd Edition, Precast/Prestressed Concrete Institute (PCI), (312) 786-0300, www.pci.org
- ACI 530/530.1-11 or ACI 530/530.1-13 (2011 or 2013): Building Code Requirements and Specification for Masonry Structures and Companion Commentaries, American Concrete Institute, (248) 848-3700, www.concrete.org
- ACI 318-11 or ACI 318-14 (2011 or 2014): Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute, (248) 848-3700, www.concrete.org

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their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

BC-A - RESIDENTIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	300 minutes

CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	10
Masonry	7
Carpentry	20
Roofing	10
Estimating, Plan Reading, and Gen Residential Code Requirements	20
Associated Trades	15
OSHA Safety	8

REFERENCE LIST

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This examination is OPEN BOOK.

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- International Residential Code for One- and Two-Family Dwellings, 2018, International Code Council, (800) 786-4452, www.iccsafe.org.
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or https://www.osha.gov/pls/oshaweb/owastand.display_st_andard_group?p_toc_level=1&p_part_number=1926
 OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, https://test-takers.psiexams.com/tncon

- Carpentry and Building Construction, 2010 or 2016 (Student Edition), John L. Feirer and Mark D. Feirer, McGraw-Hill, www.mheducation.com
- The Contractor's Guide to Quality Concrete Construction, 2018, 4th Edition, American Concrete Institute, (248) 848-3700, www.aci-int.org
- Roofing Construction and Estimating, Daniel Atcheson, 1995, Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products
- Modern Masonry Brick, Block, Stone, Clois E.
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- Pipe and Excavation Contracting, Dave Roberts, 2011, Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products
- Gypsum Construction Handbook, 7th edition, 2014, United States Gypsum Company (USG), RS Means Publishing, 700 Longwater Drive, Norwell, MA 02061, 800-334-3509, Fax: 800-632-6732, http://rsmeans.reedconstructiondata.com

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BC-B - COMMERCIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	300 minutes

CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	15
Masonry	10
Metals	10
Carpentry	6
OSHA Safety	6
General Code, Plan Reading, and Estimating	27
Associated Trades	10
Roofing	6

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- Placing Reinforcing Bars, 2011, 9th Edition, Concrete Reinforcing Steel Institute, (800) 328-6306, www.crsi.org
- Design and Control of Concrete Mixtures, Steven H. Kosmatka and William C. Panarese, 16th Edition, 2016, Portland Cement Association, (847) 966-6200, www.cement.org

- Training and Certification of Field Personnel for Unbonded Post-Tensioning - Level 1 Field Fundamentals, 2003, 3rd Edition, Post-Tensioning Institute, (602) 870-7540, http://post-tensioning.org/index.php
- Erectors' Manual Standards and Guidelines for the Erection of PreCast Concrete Products, 1999, 2nd Edition, Precast/Prestressed Concrete Institute (PCI), (312) 786-0300, www.pci.org
- ACI 530/530.1-11 or ACI 530/530.1-13 (2011 or 2013):
 Building Code Requirements and Specification for Masonry Structures and Companion Commentaries, American Concrete Institute, (248) 848-3700, www.concrete.org
- ACI 318-11 or ACI 318-14 (2011 or 2014): Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute, (248) 848-3700, www.concrete.org

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BC-b - SMALL COMMERCIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
70	73% (52 items)	200 minutes

CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	6
Concrete and Concrete Reinforcement	8
Masonry	6
Metals	12
Carpentry	6
Roofing	7
Associated Construction Trades	5
OSHA Safety	5
General Code, Plan Reading, and Estimating	15

REFERENCE LIST

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This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- International Building Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- The Contractor's Guide to Quality Concrete Construction, 2018, 4th Edition, American Concrete Institute, (248) 848-3700, www.aci-int.org
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Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, https://test-takers.psiexams.com/tncon

- Roofing Construction and Estimating, Daniel Atcheson, 1995, Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products
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- Gypsum Construction Handbook, 7th edition, 2014, United States Gypsum Company (USG), RS Means Publishing, 700 Longwater Drive, Norwell, MA 02061, 800-334-3509, Fax: 800-632-6732, rsmeans.reedconstructiondata.com
- Technical Digest No. 9 Handling and Erection of Steel Joists and Joist Girders, 3rd Edition, 2008, Steel Joint Institute, 234 W. Cheves Street, Florence, SC 29501, Phone: (843) 407-4091, Fax (843) 407-4044, www.steeljoist.org.
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BC-C - INDUSTRIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed	
72	73% (53 items)	210 minutes	

CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	5
Concrete and Concrete Reinforcement	18
Masonry	6
Carpentry	4
Metals	13
Roofing	4
Associated Trades	4
OSHA Safety	5
General Code, Plan Reading, and Estimating	13

REFERENCE LIST

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This examination is OPEN BOOK.

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- International Building Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government

Printing Office, (866) 512-1800 or https://www.osha.gov/pls/oshaweb/owastand.display_st andard_group?p_toc_level=1&p_part_number=1926 OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, https://test-takers.psiexams.com/tncon

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BC-A, B - COMBINED - RESIDENTIAL/COMMERCIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed	
100	73% (73 items)	300 minutes	

CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	15
Masonry	10
Carpentry	6
Metals	10
Roofing	6
Associated Trades	10
General Code, Plan Reading, and Estimating	27
OSHA Safety	6

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BC-A, b (sm) - COMBINED-RESIDENTIAL/SMALL COMMERCIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed	
100	73% (73 items)	300 minutes	

CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	10
Metals	6
Masonry	7
Carpentry	17
Roofing	10
Estimating, Plan Reading, and Gen Residential Code Requirements	20
Associated Trades	12
OSHA Safety	8

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BC-B, C - COMBINED - COMMERCIAL/INDUSTRIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed	
100	73% (73 items)	300 minutes	

CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	15
Metals	10
Masonry	10
Carpentry	6
OSHA Safety	6
General Code, Plan Reading, and Estimating	27
Associated Trades	10
Roofing	6

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- ACI 530/530.1-11 or ACI 530/530.1-13 (2011 or 2013): Building Code Requirements and Specification for Masonry Structures and Companion Commentaries, American Concrete Institute, (248) 848-3700, www.concrete.org
- ACI 318-11 or ACI 318-14 (2011 or 2014): Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute, (248) 848-3700, www.concrete.org

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

CE - ELECTRICAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed	
100	73% (73 items)	260 minutes	

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Electrical Installation Requirements	14
Building Code Requirements	5
Services, Feeders, and Branch Circuits	10
Overcurrent Protection	4
Grounding and Bonding	10
Conductors and Cables	8

Raceways and Boxes	8
Hazardous Locations, Special Occupancies, and Special Equipment	12
Low Voltage, Alarms, Signaling Systems, and Communications	7
Lighting, Signs and General Use Equipment	6
OSHA and NFPA 70E Safety	6
Motors, Transformers, and Generators	10

REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- NFPA 70 National Electrical Code, 2017, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org.
- National Electrical Code (NEC) Handbook, 2017, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org.
- NFPA 70E Standard for Electrical Safety in the Workplace, 2012, National Fire Protection Association (NFPA), (800) 344-3555, <u>www.nfpa.org</u>.
- NFPA 70E Handbook for Electrical Safety in the Workplace, 2012, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org.
- International Building Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or https://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&tp_part_number=1926
 OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, https://test-takers.psiexams.com/tncon

 Ugly's Electrical References, George V. Hart, 2008, 2011, 2014 or 2020, Jones and Bartlett, (800) 832-0034, www.uglys.net Starting 2/1/2021 the 2008 version will no longer be used.

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to

the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

*CMC - FULL MECHANICAL CONTRACTOR

IMPORTANT

Effective May 24, 2007, Senate Bill 0786 and HB 2122 requires plumbers to be pre-approved prior to taking CMC (plumbing exam) and must show evidence of three (3) years experience. You must complete the "Exam Approval Request" form found on the Boards website: tn.gov/commerce/boards/contractors, and send to the Board office. Upon receipt, after the experience is confirmed, your information will be electronically submitted to PSI, and you can then schedule for the examination.

# of Questions	% Required to Pass	Time Allowed
120	73% (88 items)	325 minutes

CONTENT OUTLINE

Subject Area	# of Items
Electrical Knowledge, Motors, and Controls	8
Piping - Refrigeration, Hydronic, Steam, and Process	10
Heating and Cooling Principles and Theory	5
Heating and Cooling Equipment and Components	10
Refrigerants and Refrigeration	10
Fuel and LP Gas	10
Combustion Air, Chimneys, Flues, and Vents	10
Ducts, Ventilation, and Exhaust	10
Plumbing	20
Load Calculation	5
Safety, Fire and Smoke Protection	12
Fire Sprinkler	10

REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- International Mechanical Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- International Fuel Gas Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- International Plumbing Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- NFPA 13 Installation of Sprinkler Systems, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org.
- Pipefitters Handbook, Forrest R. Lindsey, 1967, 3rd Edition, Industrial Press, (888) 528-7852, www.industrialpress.com
- Modern Refrigeration and Air Conditioning, Althouse, Turnquist, Bracciano, 20th or 21st edition, Goodheart-Willcox, www.g-w.com
- An air duct sizing calculator wheel, slide, or similar device
- HVAC Duct Construction Standards, Metal and Flexible, 2005, 3rd edition, Sheet Metal and Air Conditioning Contractors' National Association, Inc., (703) 803-2980, www.smacna.org
- Ugly's Electrical References, George V. Hart, 2011, 2014 or 2020, Jones and Bartlett, (800) 832-0034, www.uglys.net
- Carrier System Design Manual Part 3 Piping Design, Carrier Air Conditioning Company, (800) 227-7437, www.training.carrier.com
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or https://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1926
 OR
 - Code of Federal Regulations 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, https://test-takers.psiexams.com/tncon
- Manual N Commercial Load Calculation for Small Commercial Buildings, 5th Edition, 2008, Air Conditioning Contractors of America (ACCA), (703) 575-4477, www.acca.org
- Manual J Residential Load Calcs, reprinted 2016, Eighth Full Edition, Air Conditioning Contractors of America (ACCA), 2800 Shirlington Road, Suite 300. Arlington, VA 22206, (703) 575-4477, www.acca.org

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations.

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CMC-C - MECHANICAL - HVAC/REFRIGERATION CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	260 minutes

CONTENT OUTLINE

Subject Area	# of Items
Electrical Knowledge, Motors, and Controls	7
Piping - Refrigeration, Hydronic, Steam and Process	14
Heating and Cooling Principles and Theory	10
Heating and Cooling Equipment and Components	10
Refrigerants and Refrigeration	10
Fuel and LP Gas	10
Combustion Air, Chimneys, Flues and Vents	10
Ducts, Ventilation and Exhaust	14
Load Calculation	5
Safety, Fire and Smoke Protection	10

REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- International Mechanical Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- Manual J Residential Load Calcs, reprinted 2016, Eighth Full Edition, Air Conditioning Contractors of America (ACCA), 2800 Shirlington Road, Suite 300. Arlington, VA 22206, (703) 575-4477, www.acca.org
- International Fuel Gas Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- Pipefitters Handbook, Forrest R. Lindsey, 1967, 3rd Edition, Industrial Press, (888) 528-7852, www.industrialpress.com

- Modern Refrigeration and Air Conditioning, Althouse, Turnquist, Bracciano, 20th, or 21st edition, Goodheart-Willcox, www.g-w.com
- An air duct sizing calculator wheel, slide or similar device
- HVAC Duct Construction Standards, Metal and Flexible, 2005, 3rd edition, Sheet Metal and Air Conditioning Contractors' National Association, Inc., (703) 803-2980, www.smacna.org
- Ugly's Electrical References, George V. Hart, 2011, 2014 or 2020, Jones and Bartlett, (800) 832-0034, www.uglys.net
- Carrier System Design Manual Part 3 Piping Design, Carrier Air Conditioning Company, (800) 227-7437, www.training.carrier.com
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or https://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1926

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, https://test-takers.psiexams.com/tncon

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CMC-D - MECHANICAL - FIRE SPRINKLERS AND FIRE PROTECTION CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
77	73% (57 items)	195 minutes

CONTENT OUTLINE

Subject Area	# of Items
Miscellaneous Systems	10
NFPA 13-D	4
NFPA 13-R	6
NFPA 13	30
NFPA 14	5
NFPA 20	7
NFPA 24	5

NFPA 25	6
NFPA 101	4

REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- NFPA 11 Standard for Low-, Medium-, and High-Expansion Foam, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 12 Standard on Carbon Dioxide Extinguishing Systems, 2011, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 15 Standard for Water Spray Fixed Systems for Fire Protection, 2012, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 16 Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems, 2011, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 22 Standard for Water Tanks for Private Fire Protection, 2008, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 2001 Standard for Clean Agent Fire Extinguishing Systems, 2008, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 13R Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 13 Installation of Sprinkler Systems, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 14 Installation of Standpipe, Private Hydrant, and Hose Systems, 2010, National Fire Protection Association (NFPA), (800) 344-3555, <u>www.nfpa.org</u>
- NFPA 20 Standard for the Installation of Stationary Pumps for Fire Protection, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 24 Standard for the Installation of Private Fire Service Mains and Their Appurtenances, 2010, National Fire Protection Association (NFPA), (800)

344-3555, <u>www.nfpa.org</u>

- NFPA 25 Inspection, Testing and Maintenance of
 - Water-Based Fire Protection Systems, 2011, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 101 Life Safety Code, 2012, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org

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CE-A, H - HIGH VOLTAGE ELECTRICAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
60	73% (44 items)	160 minutes

CONTENT OUTLINE

Subject Area	# of Items
Safety	10
Tools, Equipment, and Transportation	10
Structures	5
Transformers, Breakers, Vaults	5
Conductors	4
Distribution, Transmission, and Substations	16
General Electrical Knowledge	10

REFERENCE LIST

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Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- NFPA 70 National Electrical Code, 2017, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org.
- National Electrical Code, NEC Handbook, 2017, National Fire Protection Association, (800) 344-3555, www.nfpa.org.
- National Electrical Safety Code, 2012, Institute of Electrical and Electronics Engineers, Inc., (732) 981-1721, www.ieee.org.
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800, https://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1926

OF

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, https://test-takers.psiexams.com/tncon

- Ugly's Electrical References, George V. Hart, 2011, 2014 or 2020, Jones and Bartlett, (800) 832-0034, www.uglys.net
- American Electricians' Handbook, Croft, Hartwell, and Summers, 17th Edition, 2021, McGraw-Hill, (800) 262-4729, shop.mcgraw-hill.com
- Lineman's and Cableman's Handbook, Shoemaker and Mack, 14th Edition, McGraw Hill, (800) 262-4729, shop.mcgraw-hill.com

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LMC - LICENSED MASONRY CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
70	73% (51 items)	200 minutes

CONTENT OUTLINE

Subject Area	# of Items
Estimating and Plan Reading	7
Unit Masonry	10
Mortar and Grout	10
Accessories and Specialties	10
Stone	5
Tools	4

Restoration and Cleaning	4
Reinforced Masonry	6
Quality Assurance	6
Safety	8

REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- International Building Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org
- ACI-530-08: Building Code Requirements and Specification for Masonry Structures and Related Commentaries, 2013, American Concrete Institute/American Society of Civil Engineers, http://www.concrete.org/general/home.asp
- Modern Masonry Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2015). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com.
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or https://www.osha.gov/pls/oshaweb/owastand.display_st_andard_group?p_toc_level=1&p_part_number=1926
 OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, https://test-takers.psiexams.com/tncon

- ASTM Masonry Standards for the Building Industry, 2008, 6th edition, ASTM International, www.astm.org
- Indiana Limestone Handbook, 22nd edition, 2010, Indiana Limestone Institute of America, Bedford, IN 47421, http://www.iliai.com/index.php?pageld=41
- Repointing Mortar Joints in Historic Masonry Buildings, Robert C. Mack, and John P. Speweik, October 1998, Technical Preservation Services, National Parks Service, U.S. Department of the Interior, 2 Preservation Briefs, http://www.nps.gov/hps/tps/briefs/brief02.htm
- Cleaning Brickwork, June 2006, BIA Technical Notes on Brick Construction, Vol. 20, The Brick Industry Association, 1850 Centennial Park Drive, Reston, VA 20191, http://www.gobrick.com/html/frmset_thnt.htm

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with

their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

NASCLA-ACCREDITED EXAMINATION -COMMERCIAL GENERAL BUILDING CONTRACTOR

The NASCLA Accredited Examination Program was designed to assist contractors who wish to be licensed in multiple jurisdictions by offering a streamlined test taking option for the trade portion of the contractor examination. The NASCLA Accredited Examination for Commercial General Building Contractors was designed to assist candidates applying within individual state agencies for the general commercial building contractor classification or similar to.

Candidates who take and pass the NASCLA Accredited Examination can access NASCLA's National Examination Database (NED) located on https://ned.nascla.org to electronically send their transcripts to jurisdictions that accept the examination in lieu of their state specific trade portion, thereby reducing redundant licensing requirements. Candidates are expected to follow individual state agency applications to become licensed, in addition to taking a business and law examination, etc. If you are unsure if this examination will meet your specific license requirements in a participating state agency, please contact the state agency directly to confirm. A complete list of participating state agencies can be found on NASCLA's website by visiting: www.nascla.org/page/ParticipatingStateAg

Licensees under this classification may perform ancillary work, including grading, associated with the building or structure which the licensee has been engaged to construct. However, if a project includes work performed under a Mechanical Contractor sub-classification or any of these license subclassifications, the licensee must have a license in the appropriate license classification or subclassification to perform the work: Swimming Pools, Bridges, Boring and Tunneling, Water and Sewer Lines, Pipe Lines, Railroad Lines, Specialty Roofing, Marine, Water and Sewer Plants, and Asphalt Paving.

For questions regarding the examination, please contact NASCLA via email to info@nascla.org or by phone at (623) 587-9354.

There are 115 questions in this examination. You will need to answer 81 questions correctly in order to pass. You are allowed 330 minutes to complete this examination.

- 1. General Requirements (25 items)
- 2. Site Construction (15 items)
- 3. Concrete (6 items)
- 4. Masonry (4 items)
- 5. Metals (6 items)
- 6. Wood (5 items)
- 7. Thermal and Moisture Protection (5 items)
- 8. Doors, Windows, and Glazing (4 items)
- 9. Finishes (5 items)

- 10. Mechanical and Plumbing Systems (6 items)
- 11. Electrical Systems (3 items)
- 12. Procurement and Contracting Requirements (31 items)

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials \underline{are} allowed in the examination center.

Mechanical and Electrical Systems for Construction Managers, 4th Edition, 2023, American Technical Publishers, 10100 Orland Parkway, Suite 200 Orland Park, IL 60467-5756; 800-323-3471

https://www.atplearning.com/product/2317/mechanical-andelectrical-systems-for-construction-managers (New reference will be used effective 9/1/24)

ICC A117.1-2017 Standard for Accessible and Usable Buildings and Facilities; International Code Council; 500 New Jersey Avenue, NW 6th Floor, Washington, DC 20001; [P] 888-ICC-SAFE (888-422-7233); [F] (202) 783-2348; International: (202) 370-1800; https://shop.iccsafe.org/icc-a117-1-2017-standard-and-commentary-accessible-and-usable-buildings-and-facilities-1.html

BCSI: Guide to Good Practice for Handling, Installing, Restraining, and Bracing of Metal Plate Connected Wood Trusses, 2018 (Updated March 2020), Structural Building Components Association and Truss Plate Institute, (608) 274-4849, https://www.sbcindustry.com/building-component-safety-information-bcsi

Carpentry and Building Construction, 2016 edition, John L. Feirer and Mark D. Feirer, Publisher: McGraw-Hill, http://www.contractorsseminars.com, 828-277-3999

Code of Federal Regulations - 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or https://www.osha.gov/laws-regs/regulations/standardnumber/1926

-OR- Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, www.psionlinestore.com (See order form at the end of the Candidate Information Bulletin).

Construction Jobsite Management, 4th Edition, 2017, William R. Mincks, Hal Johnston, Delmar/Thomson Learning, PO Box 6904, Florence, KY 41022-6904, Phone (800) 347-7707, Fax (800) 487-8488, https://www.amazon.com/Construction-Jobsite-Management-William-Mincks/dp/130508179X

Construction Project Management, 2014, 4th Edition, Frederick Gould, Nancy Joyce, Pearson Education, Inc. publishing as Prentice Hall, One Lake Street, Upper Saddle River NJ, 07458, 800-848-9500,

https://www.amazon.com/Construction-Project-Management-Frederick-Gould/dp/0132877244

NASCLA Contractors Guide to Business, Law and Project Management, Basic 14th Edition, National Association of State Contractors Licensing Agencies (NASCLA), Telephone: (623) 587-9354, www.nascla.org

Erectors' Manual - Standards and Guidelines for the Erection of Pre-Cast Concrete Products, 1999, 2nd Edition, Publisher- Precast/Prestressed Concrete Institute (PCI), 209 W. Jackson Blvd, Chicago, IL 60606-6938, Phone (312) 786-0300, https://www.amazon.com/Erectors-manual-Standards-guidelines-erection/dp/0937040568

Green Building Fundamentals, Michael Montoya, 2011, 2nd edition, Pearson Education Publishing, IBSN-10: 0-13-511108-0, Pearson Publishing, https://www.amazon.com/Green-Building-Fundamentals-Mike-Montoya/dp/0135111080

Gypsum Construction Handbook, 7th edition, 2014, United States Gypsum Company (USG), RS Means Publishing, 700 Longwater Drive, Norwell, MA 02061, 800-334-3509, Fax: 800-632-6732,

https://www.rsmeans.com/products/books/reference-books/commercial-construction/the-gypsum-construction-handbook-7th-

<u>edition.aspx?gclid=EAlalQobChMlh5Pn_byG6AlVlONkCh1TzgUQE</u> AQYBCABEgLAbvD_BwE

Technical Digest No. 9 - Handling and Erection of Steel Joists and Joist Girders, 3rd Edition, 2008, Steel Joint Institute, 234 W. Cheves Street, Florence, SC 29501, Phone: (843) 407-4091, Fax (843) 407-4044, www.steeljoist.org

International Building Code, 2018 or 2021 Edition, International Code Council, (800) 786-4452, www.iccsafe.org

ACI 318-14 (2014): Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute, (248) 848-3700, https://www.concrete.org/store/productdetail.aspx?ItemID=3 18U14&Language=English

Training and Certification of Field Personnel for Unbonded Post-Tensioning - Level 1 Field Fundamentals, 2003, 3rd Edition, Post-Tensioning Institute, 1717 W. Northern Avenue, Suite 114, Phoenix, AZ 85021, Phone (602) 870-7540, Fax (602) 870-7541, www.post-tensioning.org

Modern Masonry - Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2015). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com

Pipe and Excavation Contracting, 2011, Dave Roberts, Craftsman Book Company, P.O. Box 6500, Carlsbad, CA 92018, Phone (800) 829-8123, Fax (631) 924-6580, www.craftsman-book.com.

Principles and Practices of Commercial Construction, the 2019 10th Edition thru November 4, 2020. Cameron K. Andres and Ronald C. Smith, Pearson Education, Inc., One Lake Street, Upper Saddle River, NJ 07458, Phone (201) 236-7000 https://www.amazon.com/Principles-Practices-Commercial-Construction-

Technology/dp/0134704665/ref=sr_1_1?crid=PXVLRERQS7AE&d child=1&keywords=principles+and+practices+of+commercial+co

<u>nstruction%2C+10th+edition&qid=1600246909&sprefix=principle</u> s+and+practices+of+commer%2Caps%2C216&sr=8-1

Roofing Construction and Estimating, Daniel Atcheson, 1995, (Reprinted 2022), Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products

Placing Reinforcing Bars, Recommended Practices, 2011 or later printing, 9th edition, Concrete Reinforcing Steel Institute, Publisher- Concrete Reinforcing Steel Institute, 933 North Plum Grove Rd, Schaumburg, IL 60173, Phone (800) 328-6306, http://www.crsi.org/

SDI (Steel Deck Institute) Manual of Construction with Steel Deck, 2016, 3rd Edition, Publisher-Steel Deck Institute, PO Box 25, Fox River Grove, IL 60021, Phone (847) 458-4647, Fax (847) 458-4648, https://www.sdi.org/publications-2/publications/

The Contractor's Guide to Quality Concrete Construction, 2018, 4th Edition, American Concrete Institute, (248) 848-3700, https://www.amazon.com/Contractors-Guide-Quality-Concrete-Construction/dp/1641950471

Developing Your Stormwater Pollution Prevention Plan - A Guide for Construction Sites, United States Environmental Protection Agency, 2007; EPA Document number 833R06004; EPA National Service Center for Environmental Publications, PO Box 42419 Cincinnati, OH 45242-3408; 800-490-9198 This document can be downloaded as a pdf for free or it can be ordered as a hard copy through the EPA for free.

To order online for free, do a Google search for the EPA document number 833R06004. Enter into the search bar ONLY the document number 833R06004 and no other characters.

Then select the website option: nepis.epa.gov, then scroll down and choose the document title Developing Your Stormwater Pollution Prevention Plan - A Guide for Construction Sites, then choose the USPS icon and fill out the form with name and address.

ANSI/EIMA 99-A-2017: Standard for Exterior Insulation and Finish Systems (EIFS) and EIFS with Drainage, 2017, ANSI/EIMA,

https://www.mycontractorslicense.com/ANSI-EIMA-99-A-2017-p/ansi-eima-1book.htm

NASCLA-ACCREDITED TRADE EXAMINATION FOR ELECTRICAL CONTRACTOR

There are 100 questions in this examination. You will need to answer 75 questions correctly in order to pass. You are allowed 270 minutes to complete this examination.

The NASCLA Accredited Examination Program was designed to assist contractors and tradesmen who wish to be licensed in multiple jurisdictions by offering a streamlined test taking option for the trade portion of the examination. Candidates who take and pass the NASCLA Accredited Examination can access NASCLA's National Examination Database (NED) located on https://ned.nascla.org to electronically send their transcripts to jurisdictions that accept the examination in lieu of their state specific trade portion, thereby reducing redundant licensing requirements. Candidates are expected to follow individual state agency applications to become licensed, in addition to taking a business and law examination, etc. If

you are unsure if this examination will meet your specific license requirements in a participating state agency, please contact the state agency directly to confirm. A complete list of participating state agencies can be found on NASCLA's website by visiting: www.nascla.org.

NOTE: All Unlimited Building Contractor candidates are required to pass the Business Management and Law for Contractors Examination and the Unlimited Building Contractor Examination.

NASCLA-Accredited Trade Examination For Electrical Contractor Examination Content

- 1. Project Design & Management (8 Items)
- 2. Safety (9 Items)
- 3. Electrical Theory and Principles (11 Items)
- 4. General Code Requirements (17 Items)
- 5. Wiring and Protection (17 Items)
- 6. Wiring Methods & Materials (16 Items)
- 7. General Equipment Use (13 Items)
- 8. Special Occupancies, Special Equipment, and Special Conditions (8 Items)
- 9. Communication Systems (1 Item)

NASCLA-Accredited Trade Examination For Electrical Contractor Examination Content Reference Books

National Electrical Code or National Electrical Code Handbook, 2017 or 2020, National Fire Protection Assoc, (617) 770-3000, www.nfpa.org, 2014: ISBN-13 978-1455906727 or ISBN-10 1455906727, 2017: ISBN-13 978-1455912773 or ISBN-10 1455912778.

Code of Federal Regulations - 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or https://www.osha.gov/laws-regs/regulations/standardnumber/1926

-OR- Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, www.psionlinestore.com (See order form at the end of the Candidate Information Bulletin).

A Guide to the Project Management Body of Knowledge, Project Management Institute, 2000

ANSI/ASHRAE/IES Standard 90.1, 2016, U.S. Department of Energy, https://www.energycodes.gov/resource-center/training-courses/ansiashraeies-standard-901-2016

2018 International Residential Code with SC modifications; or 2018 South Carolina Residential Code, International Code Council, 800-786-4452, www.iccsafe.org,

NASCLA Contractors Guide to Business, Law and Project Management, Basic 14th Edition, National Association of State Contractors Licensing Agencies (NASCLA), Telephone: (623) 587-9354, www.nascla.org

NFPA 101- Standard for Life Safety Code, 2015, NFPA, 1 Batterymarch, Quincy, MA 02269.

NFPA 70E - Standard for Electrical Safety in the Workplace, 2024.

OSHA 3071 - Job Hazard Analysis Guide, 2002, https://www.osha.gov/pls/publications/publication.athruz?p Type=Industry&pID=116.

Soares Book on Grounding and Bonding, 14th Edition, 2020 NEC (M2801), International Association of Electrical Inspectors (IAEI) www.iaei.org.

Ugly's Electrical References, George V. Hart, 2020 or 2023 Edition, Jones and Bartlett, (800) 832-0034, www.uglys.net

NFPA 72 - National Fire Alarm and Signaling Code, 2016 Edition, National Fire Protection Assn, 1 Batterymarch, Quincy, MA 02269, (617) 770-3000, www.nfpa.org ISBN-13: 9781455911646 or ISBN-10: 145591164X.

Optional References

Ferm's Fast Finder Index, Independent Alliance of the Electrical Industry (IAEI), https://www.iaei.org/store/ListProducts.aspx?catid=785688

Key Word Index by Tom Henry, Based on the National Electrical Code (2017, 2020 Editions)

PSI ONLINE BOOK STORE

- **\u00e4** Order online at https://test-takers.psiexams.com/tncon.
- Call the PSI Online store toll-free at (866) 589-3088

Tennessee Plumbing Exam Pre-Approval Request



Please return to the <u>Board for Licensing</u> <u>Contractors</u>. Include "Plumbing Exam Pre-Approval" as the subject, and send by email or fax:

Email: Contractor.App@tn.gov

FAX: (615) 532-2868

BOARD FOR LICENSING CONTRACTORS

500 JAMES ROBERTSON PARKWAY, DAVY CROCKETT TOWER, 4TH FLOOR, NASHVILLE, TN 37243-1150 (615) 253-5741 / Website: https://tn.gov/commerce/section/contractors-home-improvement

Pre-Approval is required by the Tennessee Board for Licensing Contractors in order to take the Tennessee Mechanical Plumbing for <u>CMC-A</u> or <u>CMC</u>. Must provide verification of at least three (3) years plumbing work experience.

Prior to registering for exam with PSI, please return completed form and any applicable attachments to the Tennessee Board for Licensing Contractors by email, fax or may also send by mail to the above address. Once approved, the board will notify PSI by e-mail within 3 days.

Exam Reg	uested								
	A (Plumbing) (Mechanical & Plu	mbing)							
Name:				_ Jr., Sr.,	III, IV /	SSN:			
Address: _						City		State	Zip Code
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-	If yes, Name	of Contracto	ng contractor? r:						e in lieu of page 3
3. Do you	•		ee in the Plumb umentation in lie	•				es	
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	Notary Public	Signature							

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☐ Page 2 - Required (☐ *Page 2 - Not Applic			pplicable <i>(Plumbing</i>	license attached)
		attach copies of W-2's fo Dlumbing license from and		years from employment with a government agency.
Verific		ng Work Experie Plumbing Exam Pre-A		ocal License
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Verification: It is my opinion, to t amount and type of p	•	•	ed plumbing exam	applicant has the following
Experience:	☐ 0 – 12 months	☐ More than 1 year	☐ 3 years or mor	·e
Type of Plumbing:	□Sewage □Fixtures □Water Piping	□Backflow □Water Heater □Gas Piping	☐Connection to ☐Installation of ☐ Sprinkler/Fire	Appliances Protection
Other:			☐Irrigation/Lawr	горинкіега
Print Na	ame	Signature		Title

Note: Applicants requesting exam pre-approval may \underline{not} sign **Section B** for themselves; must be signed by the appropriate person verifying plumbing work experience for the applicant.

Plumbing Work Experience Tennessee Plumbing Exam Pre-Approval Request								
	bing work demonstrating a toled). May attach a resume that				e (may c	opy and	l attach	
1. Employed as:	☐ Contractor/Plumber	☐ Subcontractor	☐ Employee of Contractor					
Name of Employer; or Customer:		Date:		/	to	/	/	
Address:								
Telephone:()	Email:							
Type of Work Performed:_								
2. Employed as:	☐ Contractor/Plumber	☐ Subcontractor	☐ Employee of Contractor					
Name of Employer; or Customer:		Date:	/	/	to	/_	/	
Address:								
Telephone:()	Email:							
Type of Work Performed:_								
3. Employed as:	☐ Contractor/Plumber	☐ Subcontractor	☐ Employee of Contractor					
Name of Employer; or Customer:		Date:	/	/	to	/	/	
Address:								
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Type of Work Performed:_								
4. Employed as:	☐ Contractor/Plumber	□ Subcontractor	☐ Employee of Contractor					
Name of Employer; or Customer:		Date:	/	/	to	/	/	
Address:								
Telephone:()	Email:							

□ *Page 3/Experience - Not Required (W-2's Attached)

☐ Page 3/Experience - Required (W-2's not attached)