



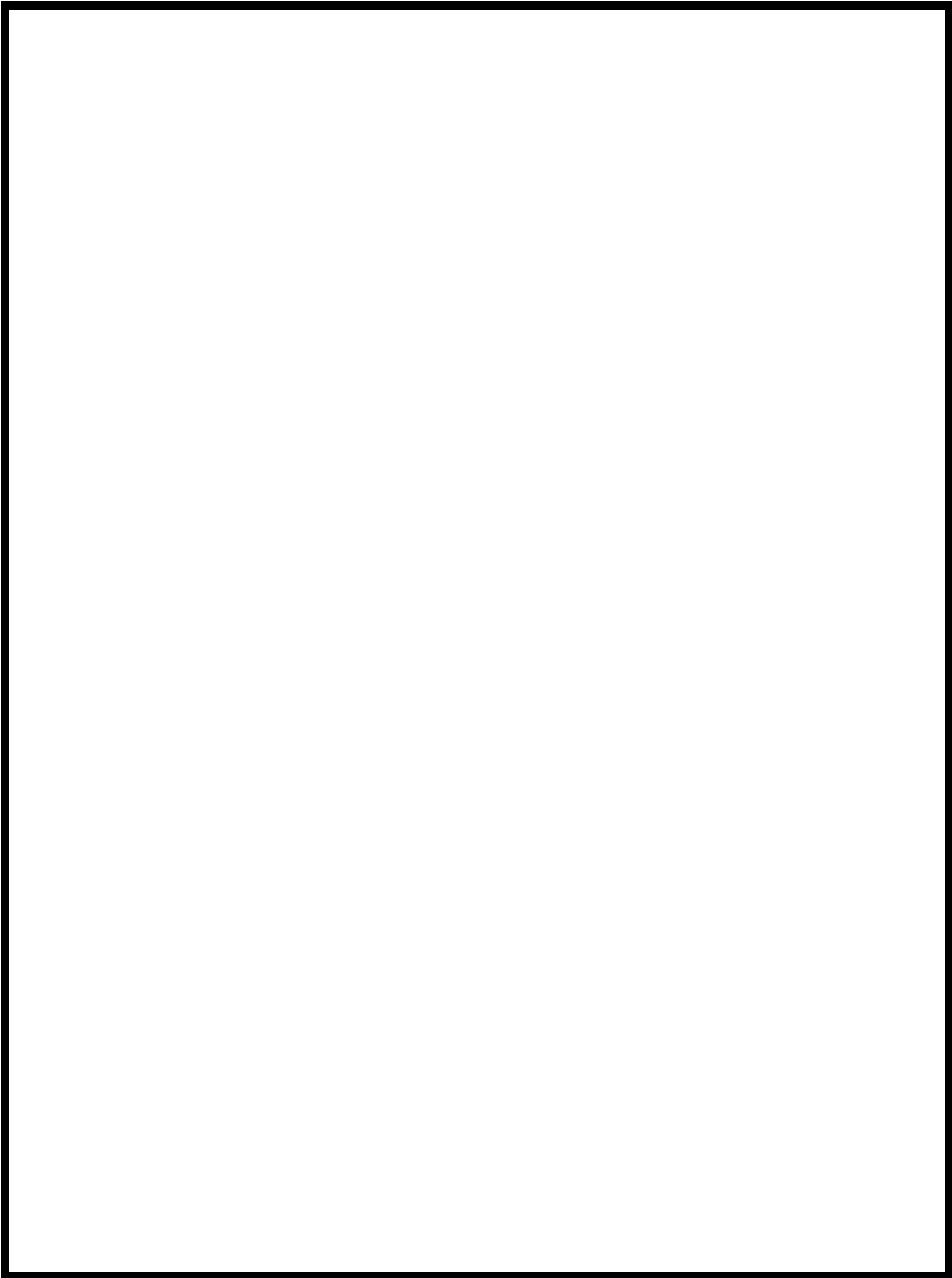
Certified Professional
NARI[®]

NARI
Certified Remodeler
Program Manual
and Application

**Use to prepare and apply for the CR, CRS, or CRA
Certifications**

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NATIONAL ASSOCIATION OF THE REMODELING INDUSTRY



NARI Certified Remodeler Program Guide

Welcome, and congratulations on taking the first step toward earning the Certified Remodeler (CR) designation [Certified Remodeler Association (CRA) or Certified Remodeler Specialist (CRS)]. The National Association of the Remodeling Industry (NARI) has established the Certified Remodeler (CR) designation to promote the highest standards of remodeling through credentialing of remodeling professionals. By choosing to review this handbook, you have taken the first step toward joining those who will distinguish themselves by earning the CR.

This handbook summarizes key aspects of the CR program, and is intended to help you understand the process of certification and recertification when the time comes. The handbook is a useful reference as you:

- Make your decision whether to pursue the CR
- Develop your course of study to meet the eligibility requirements of the CR
- Complete the CR application
- Seek to maintain (or provide yourself another opportunity to earn) the CR

The Certified Remodeler program reflects the current state of the industry and strives to be current with the existing Building Code (IRC and IBC), accepted business practices, and standard building practices. No single printed document can address every potential question, process, policy detail, or future change. You are encouraged to use this handbook as a supplement to the program information provided in the CR Study Guide as well as information provided by NARI's certification staff, who may be contacted at (847) 298-9200 or certification@nari.org.

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The NARI Certification Board

The NARI Certification Board, the certifying agency of the National Association of the Remodeling Industry, is responsible for the governance of the CR program, and all policy and standards related to the CR designation. This program is administered by the NARI staff, which implements the policies. This structure allows the NARI Certification Board to maintain integrity concerning policy matters related to certification.

The NARI Certification Board issues certifications to individuals who successfully meet its standards. These individuals may present themselves to the public as Certified Remodelers.

The 2010 to 2011 NARI Certification Board

Chair

Art Donnelly, CR, CKBR
Legacy Builders & Remodelers Corp.
Holbrook, NY

Kevin Anundson, CR, CKBR
The OAR Group
Elm Grove, WI

Diane Ausavich, CR
Carl Krueger Construction
Milwaukee, WI

H. Dale Contant, CR
Atlanta Design Build
Marietta, GA

Judy Mozen, CR
Handcrafted Homes, Inc.
Roswell, GA

Sonia Santos, CR
Don Van Cura Construction, Inc.
Chicago, IL

Anthony Tripp, CR, CKBR, CLC
Tripp Builders, Inc
Chicago, IL

What is the purpose of the CR designation?

The purpose of the CR certification program is to:

- Establish the body of knowledge for Certified Remodelers
- Assess the level of knowledge demonstrated by Certified Remodelers in a valid and reliable manner
- Encourage professional growth in the field of remodeling
- Formally recognize individuals who meet the requirements set by the NARI Certification Board
- Serve the public by encouraging quality remodeling practices

The NARI Certification Board, with assistance and advice from professionals in relevant fields, has developed a credential that will recognize an accepted level of expertise in the profession with the goal of improving professional standards in remodeling; however, no certification program can guarantee professional competence. In addition, given the frequent changes in recommended practice and technology, the NARI Certification Board cannot warrant that the test materials will at all times reflect the most current state of the art. The NARI Certification Board welcomes constructive comments and suggestions from the public and profession.

What are the benefits of certification?

<p>The benefits of certification for certified remodelers include:</p> <ul style="list-style-type: none">• Verification of your knowledge by an independent organization – a way to prove that you have the knowledge needed for the job• Professional growth and development• Enhanced job opportunities	<p>The benefits of certification for employers include:</p> <ul style="list-style-type: none">• Increased productivity• Less training time needed to bring employees “up to speed”• Competitive advantage in promoting services to clients
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GETTING READY FOR THE TEST

Who can take the test?

You are eligible to sit for the CR exam if you meet the following requirements:

- Be employed by or own a firm primarily engaged in remodeling.
- Adhere to NARI's Standards of Practice and Code of Ethics
- Have a minimum of five years continuous experience in the remodeling industry
- Completed 16 hours of continuing education
- Successfully completed a comprehensive application that details your background and experience
- Successfully complete a one-day written examination addressing knowledge areas related to general remodeling practices and business
- Submit all required application materials and fees

All experience and coursework must be completed at the time the application is submitted.

How much does it cost?

A fee (~~\$750 NARI members/\$1095 nonmembers~~) (\$599 or \$799 until through June 2011) must accompany the application. The CR application documents your qualifying experience, technical competence, professional development activities, and attestation to uphold NARI's Code of Ethics. All experience and coursework must be completed at the time the application is submitted, which is generally one month prior to the exam date.

A nonrefundable fee of \$125 is included in the application fee. This \$125 charge is incurred upon receipt of your application by NARI. If for some reason you fail to meet the eligibility requirements at the time of application, your application and documentation will be returned to you. Your fee will be refunded, less the \$125 nonrefundable portion. Once your application has been accepted no part of the certification fee may be refunded.

How do I apply?

You must complete the current Certified Remodeler application for the CR program. You should allow at least ten (10) days for delivery if using first class mail. Applications received less than 30 days before your scheduled exam will be rejected and your fee will be refunded less the \$125 nonrefundable portion.

When your application has been reviewed and accepted, you will receive an acknowledgement and your name will be entered on the roster of eligible

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candidates. Successful applicants are qualified to take the exam during the next 24 months. If unsuccessful on the first attempt, subsequent examinations taken within this 24-month window are subject to a retest fee of \$50 per test. If you are not successful at passing the exam within 24 months of your application date and wish to sit for the exam you will be required to resubmit a new application and required certification fee in effect at the time of reapplication.

When and where is the test given?

The CR exam is typically conducted at participating NARI Chapters. Chapters may charge a proctor fee to administer the exam. Please note that examination sites may be subject to the availability of facilities and minimum enrollment numbers.

How are special testing arrangements made?

The NARI Certification Board will make reasonable efforts to accommodate eligible candidates, who provide documented evidence of their disability or need for special arrangements, with auxiliary aids, and services that do not present an undue burden to the NARI Certification Board and do not fundamentally alter the measurement of the knowledge the exam is intended to test. If you require special testing arrangements, formal written requests and documentation are required. Documentation should be in the form of a letter on the official letterhead of a licensed or certified professional qualified to diagnose and treat special conditions. A description of the special accommodation(s) requested should be included. Your request, with the documentation, will be reviewed to determine if the accommodation will be granted. If approved, you and your exam proctor will be notified.

What is the format for the test?

The exam is offered in a single, four-hour session. The test will have 200 multiple-choice questions. Each question will have four options or choices, only **one** of which is the correct or best answer. You will be asked to select the correct or best answer from these options. You will take the exam in one 4-hour period.

Who is a Certified Remodeler?

A survey of NARI members found that the nature of the remodeling business and the remodelers that run them are as varied as they are individualistic. Some examples of remodelers follow:

- the owner of a general contracting firm
- the project manager at a kitchen and bath remodeling firm
- the sales staff and estimators at a design build company

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- the owner operator of an handy-man business
- the project manager at a roofing and siding installation company
- the owner of a window and door installation company
- the owner operator of a single person boutique remodeling firm
- a partner in a general remodeling firm

In addition the annual sales volume that remodeling businesses generate ranges from \$100,000 to over \$100 Million in sales. Remodelers are owners, supervisors, superintendents, carpenters, designers, sales staff, and estimators at all levels of these companies. Base on our study the one thing can be said is that there is not a typical remodeler.

What do remodelers have in common?

While remodelers do not fit any single mold there are some common traits in successful remodelers. Our survey indicated that a solid understanding in the following knowledge areas can be an indicator for success:

- Business operations and procedures
- Building Codes and Construction Law
- Project Existing Conditions and Jobsite Site Evaluation
- Remodeling Plans and Construction Specifications
- Remodeling Tools and Jobsite Safety
- Kitchen and Bath Remodeling
- Trade Contractors and Trade Related Building Systems

In addition to the above list, an area which is seen as an emerging requirement noted in this survey was the need for knowledge in the areas of green remodeling and building science processes. While not as universal as the traditional knowledge areas a solid foundation is expected to be a requirement for success in the near future.

It is with this understanding of the requirements for success in the remodeling industry that the Certified Remodeler (CR) exam was developed. The exam will evaluate your level of knowledge in the eight knowledge/skill domains listed. Within each domain is listed the set of tasks that, as a Certified Remodeler, you should be proficient in conducting. In addition, next to the domain number is listed the approximate percentage of the exam questions that will address this section.

What is the format for the test?

The exam is offered in a single, 4-hour session. The test will have 200 multiple-choice questions. The test is closed book with the exception that you may bring a current IRC code manual. Calculators are allowed but programmable devices, cell phones, laptops are not permitted. Each question will have four options or choices, only **one** of which is the correct or best answer. You will be asked to

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select the correct or best answer from these options. You will take the exam in one 4-hour period.

What do I need to know for the test?

The exam content outline organizes the knowledge and tasks deemed essential to the remodeling industry into 8 categories or domains.

The composition of the exam is guided by research on the job tasks performed and knowledge needed by remodelers. This research was conducted via survey and peer review.

The following pages list the exam domains and the approximate percentage of the exam devoted to each one. They will also indicate the domain's applicability to the CRS and CRA certifications.

Domain 1

Business Operations (All)

35 to 40%

A. General Business Operations and Procedures

1. Conduct sales calls to include:
 - Write proposals for client approval
 - Present proposals to clients
 - Estimate project costs for inclusion in a contract
 - Create contracts based on an accepted proposal
 - Present contract to client for signature
2. Use sales tracking procedures/software
3. Contract with trade (sub) contractors
4. Supervise project design and construction with a focus on monitoring costs
5. Develop construction procedures
6. Develop and implement a business plan
7. Review and purchase the required insurance for the remodeling company
8. Develop a personnel manual including:
 - Develop and implement standards of jobsite behavior and dress
 - Develop an organizational chart
 - Develop Job descriptions
9. Conduct performance reviews of employees
10. Hire/fire trade employees

B. Financial Systems and Procedures

1. Develop a financial plan
2. Develop a company's annual budget
3. Develop a remodeling project's budget
4. Maintain accounting journals
5. Review a profit and loss statement
6. Review a balance sheet
7. Use job-cost reports
8. Develop a payment schedule for a remodeling project
9. Evaluate comprehensive general liability insurance policy for exclusion and adequacy of coverage
10. Use accounting software

C. Marketing systems and plans

1. Develop a marketing plan
2. Develop advertisements for placement in local media

D. Project management and operations

1. Develop project estimating methodologies
2. Develop a project schedule for a remodeling project
3. Locate the critical path to project completion on a project schedule
4. Update a project schedule for a remodeling project
5. Schedule and conduct preconstruction conference
6. Identify the areas of the home to be affected by the remodeling project and provide instruction to the homeowners.
7. Schedule the appropriate inspection for a remodeling project
8. Process project change orders
9. Develop work-a-rounds to address unforeseen problems
10. Work with homeowner to insure material selections are made in a timely manner in support of the schedule
11. Conduct a final inspection of remodeling project with homeowner
12. Use estimating software
13. Process client payments; including collection and recording

E. Business Ethics and Standards of Practice

1. Respond to and conduct corrective actions for customer complaints
2. Develop and supervise sales procedures
3. Sell projects in your client's home
4. Review contracts for compliance with local, state, and federal regulations
5. Develop print ads for use in newspaper or yellow pages
6. Market warranties or guaranties as part of product promotion
7. Promote sales of merchandise or projects at your business

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8. Provide owner's manual to client upon completion of project
9. Supervise point-of-sale operations

Domain 2: (All)

2 to 5%

Building Codes and Construction law

1. Develop drawing required in a contract
2. Obtain license as required
3. Ensure compliance with local, state and federal laws concerning licensing requirements
4. Resolve conflicts between your company and the client
5. Apply for building permits
6. Explain warranties to your client
7. Provide Lien Waivers

Domain 3: (CR and CRS)

6 to 10%

Project Existing Conditions and Jobsite Evaluation

1. Evaluate buildings for hazardous building products (asbestos, mold, and lead)
2. Identify failing roofing systems and specify corrective actions
3. Identify load bearing walls
4. Identify signs of insect infestation
5. Identify signs of moisture damage to structural and non-structural members
6. Identify structural changes that have been applied to the building
7. Identify stress in wood and analyze the causative factors
8. Identify substandard electrical service
9. Identify stick built roofing systems
10. Identify truss built roofing systems
11. Evaluate western framed or platform structures in preparation for remodeling.
12. Evaluate balloon framed structures in preparation for remodeling
13. Evaluate post and beam construction in preparation for remodeling
14. Identify the requirement and supervise the tasks associated with foundation or retaining wall Drainage piping installation and modification
15. Locate easements on a project site
16. Verify lot lines
17. Verify setbacks and zoning restrictions
18. Verify the required depth of footing or foundations for a project
19. Determine the nature of the soil on a project site

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20. Identify the requirement and supervise the tasks associated with concrete pads and walkways installation and modification
21. Identify the requirement and supervise the tasks associated with septic tank, gas piping, underground electric, oil tanks, and aboveground utilities installation and modification
22. Identify the requirement and supervise the tasks associated with shoring, underpinning, excavation support and protection, and erosion and sedimentation control
23. Identify the requirement and supervise the tasks associated with site demolition and site clearing
24. Use a check list when reviewing a site as a perspective project.
25. Verify ownership of the project site

Domain 4: (CR and CRS)

3 to 7%

Remodeling Plans and Construction Specifications

1. Select the required plans to support a remodeling project
2. Use plans and drawings while working on a remodeling project
3. Use elevation plans to properly position cabinets and fixtures
4. Use plans to identify items that must be removed and where new items are to be placed
5. Use project specifications while conducting a remodeling project

Domain 5: (All)

14 to 18%

Remodeling Tools and Jobsite Safety

1. Inspect and identify tools that require replacement or repair
2. Purchase power tools appropriate to the task at hand
3. Recognize an unsafe work environment
4. Prepare project specific safety and emergency information
5. Supervise for compliance to OSHA safety regulations
6. Explain the safety precautions required when using hand and power tools
7. Oversee/direct the safe use of power and hand tools
8. Conduct safety inspections of all power tools on the job site
9. Inspect job sites to insure compliance with safety regulations
10. Supervise the setup and use scaffolding properly when conducting a remodeling project
11. Take corrective actions on problems found during a safety inspection
12. Use ladders properly when conducting a remodeling project
13. Conduct or supervise excavations deeper than 2 feet as part of a remodeling project

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14. Conduct regular OSHA safety meetings
15. Conduct safety training for employees
16. Determine the type and number of fire extinguishers required on a remodeling project
17. Develop an Injury and Illness Prevention Plan (IIPP)
18. Review the companies IIPP
19. Identify unsafe materials on a remodeling project
20. Maintain Material Safety Data Sheets on the job site

Domain 6: (CR and CRS)

10 to 15%

Green Remodeling and Building Science Processes

1. Specify Energy Star or better appliances as part of a remodel project
2. Recycle jobsite waste
3. Specify and supervise the installation of high efficiency HVAC equipment
4. Specify sustainable products for use in remodeling projects
5. Use deconstruction techniques to precondition the home for a remodeling project
6. Use or specify low or no VOC adhesives, paints, and finishes

Domain 7: (CR)

3 to 7%

Kitchen and Bath Remodeling

1. Develop and provide estimate of bathroom and bathroom remodel costs to clients
2. Specify materials to be used in a kitchen and bathroom remodel
3. Conduct kitchen and bathroom remodels
4. Design kitchens and bathrooms
5. Supervise the installation of all materials in a kitchen and bathroom
6. Use accessibility standards in designing a kitchen and bathroom
7. Use NKBA design guidelines to help in kitchen and bathroom design

Domain 8: (CR and CRS as appropriate to specialty)

20 to 25%

Trade Contractors and Trade Related Building Systems

A. Carpentry Techniques and Processes

1) Rough Carpentry

1. Identify lumber and its appropriate uses
2. Estimate the lumber requirements of a remodeling project

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3. Inspect lumber for defects
4. Trim windows with siding materials
5. Frame a load bearing wall system
6. Specify the sheathing materials used to cover a roof or exterior wall
7. Use engineered lumber in the construction process
8. Use span tables in the code to determine appropriate sized floor joists
9. Set up an onsite lumber storage area
10. Apply sheathing to roof an/or exterior walls
11. Construct a roof and ceiling system
12. Construct a site built beam
13. Frame a non-load bearing wall system
14. Install a floor system over a basement or crawl space
15. Install beam and girders with supports
16. Install sill plates

2) Finish Carpentry

1. Estimate the amount of material required to trim and mold a remodeling project
2. Evaluate space for cabinet installation, walls plumb and square and floor level.
3. Inspect for proper cabinet installation
4. Specify materials for use as trim
5. Estimate the amount of materials required for a stairway project
6. Evaluate stairways for meeting the allowable dimensions for such components as stair width, riser height, tread length, and hand rail height.
7. Inspect stairway for proper installation techniques
8. Install wood trim around doors
9. Install wood trim around windows
10. Specify cabinets for use in remodeling projects
11. Specify materials for use as molding
12. Specify materials required for a stairway project
13. Design stairways and handrails
14. Install baseboard and base shoe molding
15. Install crown molding

3) Window and Door Installation

1. Specify exterior and interior doors
2. Specify windows for a remodeling project
3. Describe the advantage/disadvantage of various window coating to clients
4. Interpret the NFRC rating system to clients
5. Describe the various types of window construction to clients
6. Analyze a home for heat loss/gain through its current windows and recommend appropriate windows to improve home efficiency
7. Seal and insulate around a window
8. Consider building orientation, sun angle, and heat gain/loss when specifying windows
9. Identify the requirements and supervise the tasks associated with installing doors
10. Identify the requirements and supervise the tasks associated with installing replacement windows
11. Identify the requirements and supervise the tasks associated with installing windows into rough openings

B. Interior Finishing Procedures and Processes

1. Specify the appropriate drywall thickness for the application
2. Specify Moisture Resistant (M/R) Drywall as appropriate
3. Estimate the required number of drywall sheets for a remodeling project
4. Identify the requirements and supervise the tasks associated with installation of drywall
5. Estimate the amount of flooring product required for a remodeling project
6. Inspect plaster walls and/or ceilings for signs of failure
7. Specify the appropriate paint for a remodeling project
9. Estimate the amount of paint required for a remodeling project
10. Prepare surfaces to accept a painted finish
11. Specify flooring products
12. Identify the requirements and supervise the tasks associated with installing hardwood flooring
14. Prepare hardwood floors for a clear finish

C. Roofing and Siding Procedures and Processes

1. Identify various roofing materials
2. Inspect for proper attic ventilation.

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3. Inspect the roofing process to ensure proper application of materials
4. Apply flashing to required area to prevent moisture leaks
5. Flash a window into the building's envelope
6. Describe the cost/benefit of the various roofing materials to your client
7. Identify the cause and prevention of Ice Dams
8. Inspect for the presence of hazardous siding material in existing siding
9. Trim windows with siding materials

D. Insulation Requirements

1. Identify sources of heat loss in a home
2. Identify the insulating properties of building products
3. Describe the benefits, limitations, and drawbacks of each of the insulation types to clients.
4. Identify the different types of insulation in use today.
5. Specify insulation products to ensure compliance with local code
6. Determine the type and amount of insulation required in an attic and an exterior wall
7. Educate and inform homeowners on topics related to insulation and the infiltration of moisture.
8. Identify properly installed fiberglass batt insulation
9. Identify activities required to properly air seal a residence as part of a remodeling project

E. Electrical Systems

1. Identify electrical service that does not meet current code.
2. Identify aluminum wiring systems and specify corrective actions
3. Identify knob and tube wiring systems and correctly connect to modern system
4. Identify the various types of electrical cable used in remodeling and construction projects and where and how it is used
5. Inspect for proper clearance around electrical panels
6. Inspect or test GFCI breakers and outlets for proper installation
7. Specify AFCI's as required by code

F. Heating, Ventilation and Air Conditioning Systems (HVAC)

1. Instruct your client concerning the hazards of backdrafting
2. Identify and supervise the corrective action to prevent backdrafting

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3. Identify mold and mildew, locate the cause, and take corrective action
4. Analyze the results of a blower door test
5. Evaluate the existence and condition of static ventilators in the attic
6. Evaluate the need for an attic fan
7. Specify a properly sized forced air heating/cooling system or a hydronic heating system
8. Supervise the installation of a forced air heating/cooling system, a heat pump heating/cooling system, or a hydronic heating system

G. Plumbing Systems

1. Inspect existing water supply system and identify required modifications to support the remodeling project
2. Specify plumbing fixtures for a remodeling project
3. Inspect plumbing fixture installation to ensure compliance with code and manufacturer's instructions
4. Inspect plumbing rough-in to ensure compliance with project plans
5. Specify a water heater sized to meet the projected needs of the client
6. Use the local code to determine appropriate installation procedures to be used for plumbing fixtures
7. Verify the vent piping has been properly installed
8. Specify materials for use in a water supply system
9. Design a water supply system for a remodeling project
10. Inspect existing DWV system and identify required modifications to support the remodeling project
11. Inspect the water supply system to ensure compliance with design and local codes (IRC)
12. Specify on-demand or tankless water heaters
13. Supervise the installation of a water supply system, DWV system, and a gas supply system

H. Masonry and Concrete

1. Identify the precautions that must be taken when working with old bricks.
2. Identify the signs of moisture damage in masonry and concrete.

How do I prepare for the test?

The NARI Certification Board offers the following suggestions for preparing for the test:

Review the test content outline and ask yourself the following questions:

- Do I have a good understanding of the content area?
- Do I use knowledge from this area regularly at work?

Plan your studying based on your answers to these questions. For example, for content areas where you have a good understanding and use every day, you may only need to do a quick review to prepare for the test, whereas for areas with which you are less familiar, you may decide that you need more in-depth study or training before taking the test.

When planning your studying, you should also think about what percentage of the test questions will cover each major content area. If you are not very familiar with content area that will comprise a significant proportion of the exam, you probably should spend some additional time studying that area.

Decide which resources will better help you prepare for the test. The references listed in the authoritative literature below may be helpful when you are reviewing the content areas included on the test.

You may choose to study on your own or you may decide to join a study group at your local chapter or a virtual study group online to gain a better understanding of one or more content areas.

The CR Authoritative Literature

The following is a list of references that may be helpful in review for the test. The list is intended for use as a study aid only. The NARI Certification Board does not intend the list to imply endorsement of these specific references, **nor are the test questions necessarily limited to these sources**. The NARI Certification Board reviews the Authoritative Literature on a biannual basis. This list was updated in July 2009.

Smart Business for Contractors, by Jim Kramon, Taunton Press, Inc., Newtown, CT, 2001.

Run Your Business So It Doesn't Run You, by Linda Leigh Frances, Borah Press, Redwood Valley, CA, 2000.

International Residential Code for One- and Two- Family Dwellings (IRC) Current edition

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Modern Carpentry, the current edition by Willis Wagner, Goodheart-Willcox, Tinley Park, IL

Residential Energy by John Krigger and Chris Dorsi, Saturn Resource Management Inc. Helena, Montana

Mastering the Business of Remodeling by Linda Case and Victoria Downing, Remodelers Advantage, Laurel, MD

Certified Remodeler Study Guide by NARI, Des Plaines, IL

Certified Remodeler (CR) References by Knowledge Area

Domain 1

Business Operations

A. General Business Operations and Procedures

Run Your Business so it Doesn't Run You Chapters 1 through 3, and 8 through 12

Smart Business for Contractors Chapters 2, 3, 4,
Mastering the Business of Remodeling Parts 3 and 11

B. Financial Systems and Procedures

Run Your Business so it Doesn't Run You Chapters 4, 5, 6

Smart Business for Contractors Chapters 1, 5, 6, 7, 8, 12
Mastering the Business of Remodeling Parts 4 and 5

C. Marketing systems and plans

Mastering the Business of Remodeling Parts 7, 8, and 9
Certified Remodeler Study Guide module 1, chapter 1

D. Project management and operations

Mastering the Business of Remodeling Parts 12, 13, and 14

E. Business Ethics and Standards of Practice

NARI Code of Ethics and Standards of Practice

Domain 2

Building Codes and Construction law

IRC Chapter 1 to 11

Domain 3:

Project Existing Conditions and Jobsite Evaluation

Modern Carpentry Unit 25

IRC Appendix J

Domain 4:

Remodeling Plans and Construction Specifications

Modern Carpentry Unit 6

IRC Chapter 3

Domain 5

Remodeling Tools and Jobsite Safety

Modern Carpentry Unit 2, 3, 4, and 29

Domain 6:

Green Remodeling and Building Science Processes

Modern Carpentry Unit 24, 25

IRC Chapter 11, 23

Residential Energy Chapters 1, 2, and 10

Domain 7:

Kitchen and Bath Remodeling

IRC Chapter 3

NKBA Kitchen and Bathroom Design Guidelines

Domain 8:

Trade Contractors and Trade Related Building Systems

A. Carpentry Techniques and Processes

1) Rough Carpentry

Modern Carpentry Unit 1, 8, 9, 15, and 25

IRC Chapter 5, 6

2) Finish Carpentry

Modern Carpentry Unit 17, 18

3) Window and Door Installation

Modern Carpentry Unit 12

Residential Energy Chapter 5

B. Interior Finishing Procedures and Processes

Modern Carpentry Unit 15, 20

IRC Chapter 7

C. Roofing and Siding Procedures and Processes

Modern Carpentry Unit 10, 11

IRC Chapter 8, 9

D. Insulation Requirements

Modern Carpentry Unit 14
Residential Energy Chapters 3 and 4

E. Electrical Systems

Modern Carpentry Unit 26
IRC Chapters 33 through 40
Residential Energy Chapter 7

F. Heating, Ventilation and Air Conditioning Systems (HVAC)

Modern Carpentry Unit 28
IRC Chapters 12 through 21
Residential Energy Chapters 6 and 8

G. Plumbing Systems

Modern Carpentry Unit 27
IRC Chapters 25 through 32
Residential Energy Chapter 9

H. Masonry and Concrete

Modern Carpentry Unit 7
IRC Chapters 4 and 10
Certified Remodeler Study Guide module 9

TAKING THE TEST

What are the requirements during the test?

You should arrive at the testing site approximately thirty (30) minutes to one (1) hour prior to the test to allow sufficient time for you to check-in and locate your seat. Late arrivals cannot be admitted to the test. Be prepared to provide a photo ID to the test administrator as part of the registration process.

You may not use devices with memory capabilities. Audible beepers, cellular phones, books, or papers will not be allowed in the testing room. The only book allowed in the test room will be an official IRC code manual. Note taking is prohibited during the test. Paper for conducting calculations will be provided by the test administrator and will be collected at the completion of the exam period.

Unauthorized visitors will not be allowed at the test site. Observers approved by the NARI Certification Board may, however, be present during the testing session.

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Only water will be allowed in the testing room. All other materials, food, and beverages are prohibited.

Before you take the exam, you will be asked to sign the following statement: "Due to the confidential nature of this test, I agree that I will not copy or retain test questions or transmit them in any form to any other person or organization." If you do not sign this statement, you will be dismissed from the testing center or your test results may be invalidated. The theft or attempted theft of the test or copying or disclosure of test questions is punishable by law.

Sample Examination Questions

The CR examination is a knowledge-based, paper-and-pencil examination consisting of 200 multiple-choice questions administered in a single 4 hour session. The following questions have been selected for inclusion in candidate materials as sample questions. While these sample questions are intended to give candidates a better sense of the CR questions, the actual examination may include these and other similar types of questions in varying proportions. The answers to these sample questions are given on the last page of this handbook.

1. Overhead is the _____.
 - A. entire cost of doing business
 - B. cost of doing business over and above the Cost of Labor
 - C. cost of doing business over and above the Cost of Materials
 - D. cost of doing business over and above the Cost of Sales

2. Accumulated earnings that a business keeps are best described by which term?
 - A. Net earnings
 - B. Profit
 - C. Return on investment
 - D. Retained earnings

3. The building code becomes effective when _____.
 - A. it is published by the code developer
 - B. more than 50% of the builders agree to use it
 - C. the federal government accept it
 - D. the governing body in your jurisdiction adopts the code

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4. In residential construction, separate plumbing plans:
1. Are seldom included because residential plumbing is fairly simple, and the plumber does not need a separate plan to know what to do.
 2. Are seldom included because plumbing must be installed according to local code, therefore most of the required detailed information is found in the local plumbing code.
 3. Are usually included in order to explain how all of the various branches are to be connected together.
 4. Are usually included only if there is something unusual about the layout.
- A. 3
B. 4
C. 1, 2, 3
D. 1, 4
5. In balloon framing, the floor joists for the second floor rest on:
- A. the top plate of the first floor walls
 - B. the double top plate of the first floor walls
 - C. a horizontal ledger strip let into the studs
 - D. 4 x 4 posts, spaced 48" o.c.
6. The circular saw blade that produces the smoothest cuts is called a ____.
- A. ripping blade
 - B. combination blade
 - C. paneling blade
 - D. crosscut blade
7. What is the minimum length portable ladder that can be used to provide safe access to a flat roof whose edge is 20 feet above the ground?
- A. 20 feet
 - B. 24 feet
 - C. 28 feet
 - D. 30 feet
8. The determination of use and density of a site is called _____.
- A. zoning
 - B. easements
 - C. setback
 - D. floor area ratio

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9. Which soil type is very poor as a foundation material?
- A. gravel-sand
 - B. silt
 - C. silty clay
 - D. organic soil
10. A survey of the owner's property will help determine:
- A. Type of soil
 - B. Municipal sewer or septic location
 - C. Location of electric power lines
 - D. Size of lot
11. Which of the following flashing materials may NOT be suitable for use in brick walls?
- A. Copper
 - B. Bituminous
 - C. Zinc
 - D. Aluminum
12. What is used between the foundation to support the floor joists or floor trusses?
- A. steel plate
 - B. sill plate
 - C. cap plate
 - D. top plate
13. When using sheathing panels to cover a roof, the panels should be laid with the long dimension _____.
- A. at right angles to the roof frame
 - B. parallel to the framing
 - C. at a slight angle to the framing
 - D. suiting the spacing of the framing
14. What is the minimum recommended head room for a finished main staircase?
- A. 6'-0"
 - B. 6'-8"
 - C. 6'-10"
 - D. 7'-0"

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15. Upper cabinets should always be _____ to the wall.
- A. nailed
 - B. screwed
 - C. glued
 - D. nailed and glued
16. Sawn wood shingles should not be used on slopes below _____.
- A. 2/12
 - B. 3/12
 - C. 4/12
 - D. 5/12
17. Which siding material moves the most with changes in temperature?
- A. wood
 - B. steel
 - C. aluminum
 - D. vinyl
18. By using “low-e” glass and argon gas in double-glazed windows, a maximum R-value of over _____ is attainable.
- A. 12.5
 - B. 9.0
 - C. 4.5
 - D. 3.2
19. The amount of heat in a BTU is about equal to _____.
- A. the heat given off by burning a wood kitchen match
 - B. one calorie
 - C. one horsepower
 - D. the amount of heat required to raise pound of water 1 degree F
20. Compressing a fiberglass insulation product has what effect on its rated R-value?
- A. reduces the R-value
 - B. increases the R-value
 - C. has no effect on the R-value

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21. The gas valve for an appliance must be located in the same room and not more than ____ from the appliance.
- A. 2'
 - B. 3'
 - C. 4'
 - D. 6'
22. All service panels must have 3' of working clearance in front for a width of ____, and the panel doors should be able to open at least _____.
- A. 2', 90°
 - B. 30", 90°
 - C. 3', 45°
 - D. 3', 180°
23. The total of the three legs of the primary work triangle should not exceed ____.
- A. 20'
 - B. 24'
 - C. 26'
 - D. 28'
24. A landing space of at least ____ is desired on the latch side of a refrigerator.
- A. 12"
 - B. 15"
 - C. 18"
 - D. 21"
25. Insurance is the most common way to _____.
- A. control risk
 - B. assume risk
 - C. avoid risk
 - D. transfer risk
26. The way to control indoor mold growth is _____.
- A. pour bleach on it
 - B. paint over it
 - C. control moisture
 - D. sand it off

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27. Homes built as recently as _____ may contain lead paint.
- A. 1960
 - B. 1975
 - C. 1978
 - D. 1985
28. The term "bearing wall" refers to a wall:
- A. supported by a steel beam
 - B. supporting an earth backfill
 - C. supported by a trimmer arch
 - D. supporting loads above it
- 29 Citations for sloppy housekeeping are among the _____ violations issued against building contractors.
- A. most agitating
 - B. most serious
 - C. most common
 - D. least common

What information will I receive about my score?

The test is designed to distinguish those who have the basic level of knowledge from those who do not. There is no evidence that someone who receives a very high score on the test will perform significantly better on the job than someone whose score falls exactly at the passing point. Therefore, if you pass the test, you will be informed only that you have successfully completed the credentialing process. You will NOT be notified of your actual score.

If you do not achieve a passing score, you will be notified of your score and the minimum score required to pass, and will receive a diagnostic report showing your performance in each content area. This information is provided to assist you in deciding whether to retake the test and how to plan your study efforts for future tests.

When will I receive my test results?

CR test results will be mailed approximately four (4) weeks after the exam. You may elect to receive notification via e-mail by completing the appropriate form at the time you take the exam. To protect the confidentiality of your test score, no results will be given over the telephone. Results will not be released to any third party without your specific written permission. Forms will be available on the day of the exam.

Request for hand scoring

If you do not achieve a passing score on the exam, you may ask that your test be rescored to verify the reported score. Request must be in writing and must be accompanied by a payment in the amount of \$50, made payable to NARI. Request for rescoring can be honored only up to 30 days after distribution of the results.

Retaking the test

There is a limit of two times that you may apply for and re-take the test and the final retake must be within two years of your initial application date. If you do not succeed in passing the test by the second anniversary of your application date you will be required to submit a new application form, fees, and meet all eligibility requirements in effect at the time of the application. There is a \$50 fee each time you retake the CR exam.

Appeals

Within 20 business days after announcement of the results of the CR examination, unsuccessful candidates may file an appeal of their score with the NARI Certification Board on the basis of alleged inappropriate exam administration procedures, testing conditions severe enough to cause a major disruption of the examination process, or the content of the exam. No one other than the candidate may make the appeal. The NARI Certification Board shall respond to the candidate within 60 days of receiving the appeal.

Nondiscrimination policy

The NARI Certification Board does not discriminate against any person on the basis of age, gender, sexual orientation, race, religion, national origin, medical condition, physical disability, or marital status.

Answers to sample questions

1. D Run Your Business so it Doesn't run you page 172
2. D Mastering the Business of Remodeling page 124
3. D IRC Preface
4. B Modern Carpentry page 689
5. C Modern Carpentry page 180 and 183
6. C Modern Carpentry page 78
7. C Modern Carpentry page 725
8. A Construction Dictionary
9. D Modern Carpentry page 149
10. D Modern Carpentry page 101
11. D Modern Carpentry page 378
12. B Modern Carpentry page 186 - 187
13. C Modern Carpentry page 263 to 268 and IRC section R803
14. B RC section 311.5 and Modern Carpentry page
15. B Modern Carpentry page 534
16. B IRC section 905.7.2
17. D Modern Carpentry pages 374 to 377
18. C Modern Carpentry page 322
19. D Modern Carpentry page 395
20. A Residential Energy page 103
21. C IRC section G2420.5
22. B IRC section 3305
23. C NKBA Kitchen Guideline No. 3
24. B NKBA Kitchen Guideline No. 16
25. D Smart Business for Contractors pages 141 to 159
26. C
27. C www.epa.gov/lead
28. D Modern Carpentry pages 773 and 215
29. C

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**NARI
CERTIFIED REMODELER
APPLICATION**

**Certified Remodeler Certification Now at a
Discounted Price!**

For a limited time only the CR certification is available to members for \$599 and \$799 for non-members. This price is available from July 1, 2009 to June 30, 2011.

Questions please contact dtaddei@nari.org or call 800-611-6274.



NARI CERTIFIED REMODELER APPLICATION

This application is the first step in earning the Certified Remodeler (CR) designation. Please read and complete each section fully and accurately in clear, legible handwriting or type. You may submit your application anytime during the year; however, all qualifying remodeling experience and continuing education must be completed at the time the application is submitted. A complete application must be received by the NARI Headquarters office 10 business days prior to the start of your study group.

Please initial each page and mail or FAX your completed application to:

MAIL: NARI
780 Lee St., Ste 200
Des Plaines, IL 60016

FAX: (847) 298-9225

***Receipt of your application will be acknowledged within two weeks*

There is not a membership requirement to apply for the CR exam. Both NARI members and non-members will be evaluated equally on the application and subsequent examination. The CR Program does not discriminate on any basis including race, sex, age, religion, national origin, sexual orientation, or disability. Additional information on program requirements, policies, and procedures are available in the NARI Certification Policy Manual. For further assistance contact NARI Certification staff at (847) 298-9200 or Certification@nari.org

APPLICATION CHECKLIST

- I intend to sit the CR exam within the next 24 months
- Section 1: Applicant Information** - I have completed all applicant information and have noted where I would like CR correspondence sent.
- Section 2: Payment** - I have included payment information with this application.
- Section 3: Job Responsibilities, Education, and Continuing Education** - I have at least 16 hours of education in the field of Remodeling.
- Section 4: Professional Experience** - I am currently employed by a qualifying organization and have completed the required years of professional experience.
- Section 5: Code of Ethics and Application Attestation** - I pledge to adhere to the NARI Code of Ethics and have signed the Application Attestation to fulfill the program requirements.



NARI CERTIFIED REMODELER APPLICATION

Definition of Certified Remodeler: A remodeling professional who provides full service remodeling projects to their clients in a professional, ethical, and timely manner.

How the Certification Process Works: Candidates must complete and submit this application for consideration by the NARI Certification Board. In addition to completing and submitting an application to qualify for the CR certification exam, candidates must have been in the remodeling industry **full time** for a minimum of **5 consecutive years**. Candidates must also have completed a minimum of **16 hours** of formal or continuing education within the last 5 years.

Certification Renewal: Certifications are renewed annually. Renewals currently require the attainment of 10 hours of industry related continuing education and participation in chapter/community service projects and the submission of the required and appropriate fees.

SECTION 1 – APPLICANT INFORMATION

Date: _____

1. Candidate's Name: _____

Home Mailing Address: _____

Street _____

City _____ State _____ Zip _____

Home Phone Number: _____

Email address _____

2. Employer/Company Name _____

Address: _____

Street _____ Suite# _____

City _____ State _____ Zip _____

Phone Number: _____ Fax Number: _____

Email address _____

Do you have a learning or physical disability for which you will require special accommodations in taking the certification exam? Yes No

Current Job Title: _____

Current NARI Certifications: _____

3. Number of years in the remodeling industry _____

Exam Date _____

Exam Location _____

Exam Proctor _____



NARI CERTIFIED REMODELER APPLICATION

This application can be used to apply for CR, CRS, and CRA examinations. Please select the specific exam you wish to sit for based on the list below.

	Certified Remodeler
	Certified Remodeler Specialist Windows and Doors
	Certified Remodeler Specialist Plumbing
	Certified Remodeler Specialist Interior Finishes
	Certified Remodeler Specialist Electrical
	Certified Remodeler Specialist Masonry and concrete
	Certified Remodeler Specialist Mechanical Systems
	Certified Remodeler Specialist Insulation
	Certified Remodeler Specialist Roofing and Siding

	Certified Remodeler Associate Accounting
	Certified Remodeler Associate Architect
	Certified Remodeler Associate Educator
	Certified Remodeler Associate Insurance
	Certified Remodeler Associate Sales
	Certified Remodeler Associate Office Manager
	Certified Remodeler Associate Association Management
	Certified Remodeler Associate Finance
	Certified Remodeler Associate Other Specialty

SECTION 2 - PAYMENT

All fees must accompany this application. The certification fee is ~~\$750~~ 599 for members and ~~\$1,085~~ 799 for non-members. This application fee includes a \$125 non-refundable process fee. The certification fee, less the non-refundable processing fee, will be refunded only if your application does not meet the eligibility requirements for CR candidacy. The certification fee includes the cost to take the initial examination once within the next 24 months. Subsequent examinations are subject to additional re-test fees. (Limit of two re-tests within 2 years of original examination date).

NARI Member ~~\$750~~ 599 Non-Member ~~\$1085~~ 799

Payment Type: Check Visa Master Card American Express

Cardholder Name: _____

Credit Card Account #: _____

Expiration Date: _____

Zip Code of Billing Address: _____

Total Payment Included: _____

Please Send Receipt: Yes No

Signature: _____



NARI CERTIFIED REMODELER APPLICATION

SECTION 3 – JOB RESPONSIBILITIES, EDUCATION, AND CONTINUING EDUCATION

A. JOB RESPONSIBILITIES: Please describe your current job responsibilities. Describe the tasks you conduct that relate to general remodeling. Please be as clear and concise as possible. Attach a separate sheet of paper if necessary.

B. EDUCATION: You are required to have at least 16 hours of formal or continuing education earned within the past 5 years. These can take place as part of college courses, chapter or local association programs, online or teleseminar programs, or programs taken at trade shows

Remodeling Related Vocational or Technical School				Credits/Degree
<u>Dates</u>	<u>School</u>	<u>Major & Degrees</u>	<u>Semester Hours</u>	<u>Earned</u>

Undergraduate/Graduate Courses Include a copy of your diploma				Credits/Degree
<u>Dates</u>	<u>School</u>	<u>Major & Degrees</u>	<u>Semester Hours</u>	<u>Earned</u>



**NARI
CERTIFIED REMODELER
APPLICATION**

C. CONTINUING EDUCATION: Please list classes and workshops attended within the last 5 years

<u>Program Title</u>	<u>Dates</u>	<u>Hours</u>
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D. OTHER CERTIFICATIONS IN THE REMODELING FIELD: Includes NARI and others.

<u>Association</u>	<u>Certification</u>	<u>Date Attained</u>	<u>Current Through</u>
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NARI CERTIFIED REMODELER APPLICATION

SECTION 4 – PROFESSIONAL EXPERIENCE: List at least 5 years of employment history. Include tasks associated with general remodeling. Attach a separate sheet of paper if necessary. This information must document your required 5 years consecutive, fulltime employment in the remodeling industry.

Current Employer _____ Position _____ Dates _____

Description of duties:

Previous Employer _____ Position _____ Dates _____

Description of duties:

Previous Employer _____ Position _____ Dates _____

Description of duties:



NARI CERTIFIED REMODELER APPLICATION

SECTION 5 - CODE OF ETHICS AND APPLICATION AFFIDAVIT

NARI CODE OF ETHICS

I pledge to observe high standards of honesty, integrity and responsibility in the conduct of business:

- By promoting in good faith only those products and services which are known to be functionally and economically sound, and which are known to be consistent with objective standards of health and safety;
- By making all advertising and sales promotion factually accurate, avoiding those practices which tend to mislead or deceive the customer.
- By writing all contracts and warranties such that they comply with federal, state, and local laws.
- By promptly acknowledging and taking appropriate action on all customer complaints.
- By refraining from any act intended to restrain trade or suppress competition.
- By attaining and retaining insurance as required by federal, state, and local authorities.
- By attaining and retaining licensing and/or registration as required by federal, state, and local authorities.

NARI STANDARDS OF PRACTICE

The NARI Standards of Practice are maintained as a separate document and may be downloaded from the NARI website at www.nari.org/pdf/standardsofpractice.pdf or requested from NARI Staff at info@nari.org

APPLICATION AFFIDAVIT

In making this application, I fully understand that it is an application only and does not guarantee certification. I agree to submit to a comprehensive examination and supply further information as determined by the NARI Certification Board. I further understand, and by my signature, attest that I now, and will in the future, adhere to the NARI Code of Ethics and Standards of Practice. I further understand that any false statement or misrepresentation that I may make in the course of these proceedings and application may result in the revocation of this application and the issuance of a complaint of violation of said Ethics. Failure to adhere by these Standards of Practices and Code of Ethics is grounds for removal of my certification.

I understand that NARI reserves the right to update this application, the Code of Ethics, and Standards of Practice, and that it is my responsibility to be aware of NARI's current requirements. I further understand that I am obligated to inform NARI of changed circumstances that may materially affect my application. I further understand that it is my responsibility to provide NARI with any requested documentation in connection with this application.

I understand and agree that if I am certified following acceptance of this application and successful completion of the examination, such certification does not constitute NARI's warranty or guarantee of my fitness or competency to practices as a Remodeling Professional. If I am certified, I authorize NARI to include my name in a list of certified individuals and agree to use the CR designation and related NARI trade names, trademarks, and logos only as permitted by NARI policies. I understand and agree that NARI may also use anonymous and aggregate application and examination data for statistical and research purposes.

Applicant Signature: _____

Date: _____