

A quiet phenomenon has begun to take shape in computer-based test centers and Internet chat rooms across the United States: A small but growing number of candidates are willfully attempting to circumvent established guidelines surrounding exam security by disseminating test content. Candidates for the **Architect Registration Examination (ARE)** are no exception.

NCARB Looks at Exam Security

by Stephen Nutt, AIA

Inappropriate behavior among some ARE candidates, if left unchecked, will have both short- and long-term effects on the exam as well as the architecture profession in general. In order to address such activity, NCARB has identified five categories of suspect candidate behavior:

- unauthorized access to materials;
- presence of unauthorized devices in the testing room;
- unauthorized written materials;
- use of unauthorized devices or materials; and
- dissemination of exam content.

All five categories have been observed while candidates are taking exam divisions in Prometric test centers; all are identified as violating "Test Center Regulations," which are clearly described in the most recent edition of the *ARE Guidelines Version 3.0*. Candidates engaging in the sharing of exam content—a violation of the Confidentiality Agreement they must agree to prior to taking

a division—can be found in a number of ARE-related "chat rooms" that populate the Internet.

Once such behavior is identified and fully investigated, NCARB most likely will impose a sanction on the candidate. Sanctions may take the form of immediate dismissal from the test center to cancellation of the current test score to suspension of future test eligibilities. The more egregious the behavior, the more punitive the sanction. Candidates also may face disciplinary action at the state level that goes beyond that handed down by NCARB.

UNAUTHORIZED ACCESS TO MATERIALS

One of the more common security breaches observed in test centers are attempts to access personal notes, belongings, or other reference materials during unscheduled breaks.

Bringing any study materials to the test cen-

ter is, in and of itself, grounds for dismissal. The *ARE Guidelines Version 3.0* clearly states that “[n]o reference material may be brought into the testing room or accessed from your locker during the administration of your exam.”

These actions are flagrant violations of the established “Test Center Regulations” (see *sidebar*). Test center administrators are required to file a report of any infraction for review and action by Thomson Prometric and NCARB. If candidates are caught, they may be immediately dismissed from the test center, and their scores may be cancelled. No refunds are provided in these situations.

PRESENCE AND USE OF UNAUTHORIZED DEVICES

Candidates also have been observed bringing unsanctioned electronic devices—among them, cell phones, personal digital assistants (PDA’s), audio/video recording aides, and foreign language translators—into the testing room. Whether in an “on” or “off” position, such actions clearly violate “Test Center Regulations,” which state, “Communication devices, such as personal digital assistants, pagers, and cellular telephones, are not allowed in the testing room.”

A candidate should place their electronic items in a test center locker for the duration of the testing period. At no time should such devices be present in the testing room nor should they be accessed during breaks. Despite such rules, candidates take advantage of unscheduled breaks in order to access their lockers, place calls, and/or check voice-mail messages.

Once again, candidates caught with unauthorized electronic devices may be subject to a number of NCARB-related sanctions, including dismissal from the test center and cancellation of their scores. Items also may be inspected by test center personnel.

Inch-pound calculators also are making their way into the testing room in violation of the rule that only allows for non-programmable, non-communicating, non-printing calculators.

DIRECT CONNECTION

a pull-down menu—will be reintroduced into the exam in the future. At that point, no calculators will be allowed in the testing room.

PRESENCE AND USE OF UNAUTHORIZED WRITTEN MATERIALS

Less common is the discovery of actual notes or reference materials in the testing room. In such cases, candidates are caught with unauthorized materials in the test room while taking a division. This is not a matter of peeking at notes during a scheduled or unscheduled break; rather, it is any type of notes with specific details to aid or assist in completing the exam. In such situations, all unauthorized written materials found in the testing room will be collected and destroyed—no questions asked and no exceptions.

While rare, such incidents have occurred in the past with candidates providing interesting explanations for the presence of reference materials in the testing environment. One candidate explained that his “cheat sheet” attached itself to his shoe while he was attempting to complete some last-minute studying in the waiting room. He did not realize that the paper had slipped into his shoe while making his way into the test room.

All test centers utilize a closed-circuit audio/video recording system that captures all activity in the testing room. These tapes are reviewed if any irregularities or suspicious behavior is observed. Fortunately for this candidate, test center personnel did not observe him using the material. Instead, they found the “cheat sheet” on the floor during the exam and then removed it. Had the candidate been actively observed referring to the unauthorized material—or if the video monitoring system had recorded obvious use of the “cheat sheet”—he would have faced a much more severe sanction.

NCARB’s Board of Directors, in conjunction with the Committees on Examination and Professional Conduct, is formulating disciplinary responses for such situations, including immediate dismissal from the test center, cancelled scores, and an extended testing suspension.

Test Center Regulations

To ensure that all ARE divisions are administered under comparable conditions to that of other candidates and that the results represent a fair and accurate measurement, it is necessary to maintain a standardized testing environment.

ARE candidates must adhere to the following regulations when sitting for the exam:

- Communication devices, such as personal digital assistants, pagers, and cellular telephones, are not allowed in the testing room.
- Eating, drinking, or use of tobacco is not allowed in the test center.
- Papers, books, food, or purses are not allowed in the testing room.
- ONLY non-programmable, non-communicating, non-printing calculators are allowed. The test center administrator reserves the right to refuse the use of any other calculators and is not responsible for providing a replacement calculator.
- You may not leave the testing room without the test center administrator’s permission.
- You must present your identification each time you enter the testing room.
- No reference material may be brought into the testing room or accessed from your locker during the administration of your exam. On-screen reference material is accessible during the General Structures division and the Mechanical & Electrical Systems division.

When Is Sharing Information About the ARE Acceptable?

ARE-related online forums are legitimate resources for candidates, and in no way does NCARB wish to terminate these communities. However, problems arise when such forums become the vehicle through which exam content is relayed. NCARB is not trying to eliminate friendly discourse among exam candidates. A potential strength of Internet-based conversations is their ability to build communities among parties who wish to help one another.

Candidates are encouraged to share ideas and strategies for completing all ARE divisions, including which division to take first or last; which study materials are most helpful; which test centers are most amenable; and how frequently to test.

Other acceptable suggestions include:

- “Be sure to answer all questions.”
- “Skip over and return to questions that are taking too much time.”

DISSEMINATION OF EXAM CONTENT

Of the five types of suspect behavior identified by NCARB, the knowing dissemination of exam content is the most serious and most damaging. In such situations, candidates write down as many partial questions and answers as they can remember shortly after taking a multiple-choice division. An electronic version of this “brain dumping” is then posted onto an ARE-related online forum, where fellow candidates can anonymously download the file and pass it onto other willing parties.

Unfortunately, two instances of this extreme lack of judgment on the part of candidates were discovered in 2005. Both situations were swiftly and successfully dealt with through the cooperation of NCARB staff, legal counsel, and NCARB’s test development consultant, Thomson Prometric. Based on decisions made by the Council’s Board of Directors, both individuals had their respective scores cancelled. They also have been suspended for three years from taking any ARE divisions.

NCARB’s interest in protecting exam content is expressly covered by the Confidentiality Agreement. While all candidates pledge to abide by the agreement prior to taking an ARE division, it seems to be of little significance to those who share such details and to those who partake in its availability.

Perhaps a “disconnect” of sorts is evident in such cases. For some, sharing exam content within a close group of friends or via the Internet may not be considered to be cheating. After all, it is not a “traditional” means of cheating such as hidden notes or the use of unauthorized devices.

However, such actions have far-reaching consequences. Not only does the intentional dissemination of exam content violate NCARB’s Confidentiality Agreement, it also violates federal statutes protecting copyrighted material. There is no acceptable way of sharing ARE questions and/or answers, be they remembered word-for-word or paraphrased.

Web hosts on whose forums such information appears also are violating the Digital Millennium Copyright Act (DMCA) and expose themselves to penalty in federal court if content is not removed. Two web sites already have complied with NCARB’s request to remove specific exam content from their forums.

Candidates who knowingly exchange exam content create an unfair advantage over their peers who do not participate in such forums—or who choose not to take part in such activities. Likewise, there is the possibility that such information is not wholly accurate. Candidates should be leery of suspect advice and content. In fact, NCARB staff has found examples of a candidate promoting wrong answers. It’s that old caveat, updated for the electronic age: Everything you read on *the Internet* is not necessarily true.

A Brief History of the ARE

Some ARE candidates question the validity and need for any type of examination process for architects. They disagree in principle with the idea that architects should be tested prior to qualifying for registration. After all, these same candidates usually hold an accredited degree and have completed the Intern Development Program (IDP).

NCARB in and of itself, did not originally establish the exam qualification. In fact, individual state boards of architecture were the first to identify the need to examine candidates for architectural licensing (or registration). This effort is firmly grounded in the U.S. Constitution, which empowers states to protect public health, safety, and welfare.

- “Mark answers that you are not quite certain of.”
- “Be prepared to remember this formula . . .”
- “Study these contract documents . . .”
- “I found this zoom tool very helpful—and the sketch tools are great to layout guidelines.”
- “Know the Practice Program inside and out.”
- “Pay attention to the passing and failing solutions and commentary in NCARB’s

- ARE Study Guides Version 3.0.”*
- “Take General Structures and Lateral Forces concurrently.”
 - “Pace yourself while studying and testing.”
 - “Establish a testing schedule and stick to it.”
 - “Set-up a study group with co-workers, former classmates, and/or fellow candidates.”

- General descriptions of exam content: “There were more code questions than I expected.” (No specific exam content is revealed. Paraphrasing exam content is **never** acceptable.)

Candidates must be willing to “police” their own. Otherwise, NCARB will be forced to actively monitor, challenge, and remove offending content from online forums.

WHY SUSPECT CANDIDATE BEHAVIOR IS AN ISSUE

If candidates continue to circumvent the established guidelines protecting ARE content, at least three long-term effects most likely will occur:

- continued delivery of ARE divisions will be interrupted,
- the integrity of the exam will be undermined, and
- the protection of public health, safety, and welfare will be compromised.

Cheating’s Effect on Exam Development and Delivery

If candidate cheating behaviors continue, the administration of the ARE will be negatively affected. For example, the delivery of divisions that have been breached may be terminated until new content can be developed and introduced. In turn, committing resources to such efforts will lead to higher exam fees.

There also is a possibility that the model of a computerized exam will have to be rethought should incidents continue. That is, suspect candidate behavior threatens NCARB’s ability to offer the ARE at the convenience of candidates. On-demand testing seemingly is a no-brainer in our technologically advanced times. Yet, when it leads to compromising behavior among some candidates, a new model and/or new administration methods may have to be considered. For example, limited testing windows for each division may have to be introduced, severely curtailing the flexibility now enjoyed by all candidates.

Cheating’s Effect on Exam Integrity

More broadly, cheating undermines the validity of the ARE and compromises the registration process. If a division is breached, state registration boards can no longer rely on the ARE as a true measure of competence or level of knowledge. This clearly would result in the potential licensing of architects who may be ill-equipped for their professional responsibilities. As NCARB’s legal counsel has noted, “People who in fact accurately

publicize ARE questions not only violate copyright laws and risk severe sanctions from NCARB and its member boards, but also demean their profession by helping unqualified persons pass the ARE.”

Cheating’s Effect on the Core Mission of NCARB

It is well known that NCARB and its member boards count as one of their primary responsibilities the protection of the public health, safety, and welfare. By establishing a set of standards all architects are asked to meet, NCARB member boards essentially are trying to guarantee the qualifications of architects who practice in their jurisdictions. Because the ARE plays an integral role in determining such standards, any efforts to undermine its ability to fairly gauge a candidate’s knowledge and skills will prove to be detrimental both to the profession and to the public.

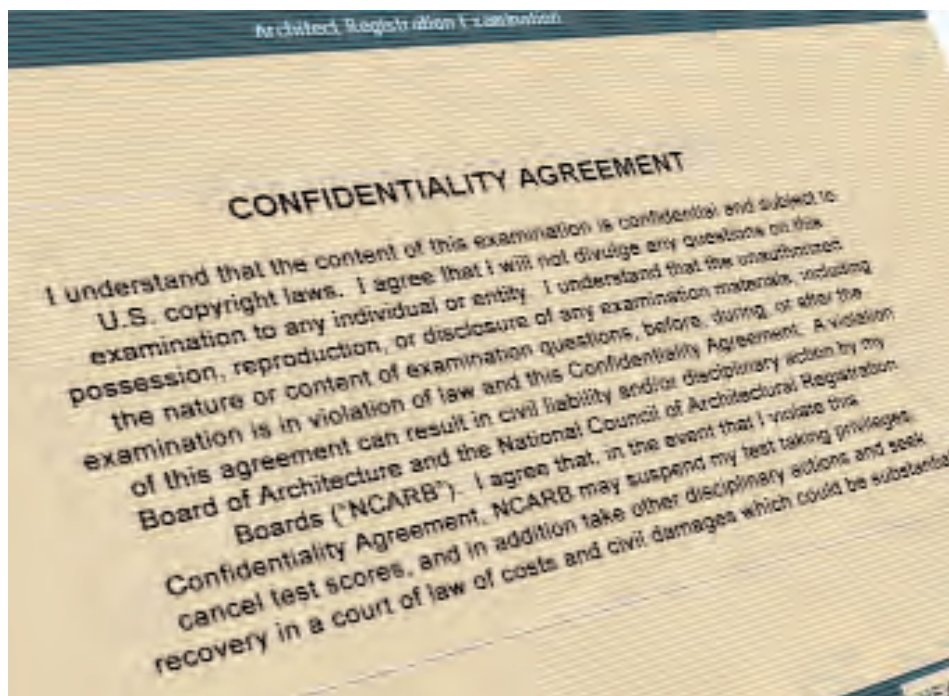
At first, the hodgepodge of state-level exams—with their respective specifications, questions, and passing standards—seriously imperiled uniformity among the boards; negatively affected the likelihood of an effective reciprocity system (needed to encourage interstate practice, a hallmark of architecture); and provided little equal public protection nationwide.

Working through NCARB, member boards standardized their various exam approaches. After several iterations, the computer-based ARE was introduced in 1997; it has been a 40-year long odyssey to reach this milestone. (See page 10 for more information about the 40th anniversary of NCARB exams.)

Grounds for Dismissal From a Test Center

An ARE candidate who engages in misconduct and/or does not heed the test center administrator's warning to discontinue inappropriate behavior may be dismissed from the test center or have examination results voided. Examples of misconduct include:

- Failing to follow the instructions of the test center administrator.
- Violating the test center regulations.
- Creating a disturbance of any kind.
- Giving or receiving assistance of any kind.
- Using any unauthorized references or aides.
- Removing or attempting to remove examination questions and/or responses (in any format) or notes about the examination from the testing room.
- Removing or attempting to remove scratch paper from the test center.
- Attempting to take the examination for someone else.
- Tampering with the operation of the computer or attempting to use it for any function other than taking the examination.
- Leaving the testing room without permission.
- Using electronic communications equipment such as personal digital assistants, cellular telephones, pagers, etc.
- Bringing any study materials (e.g., textbooks, classroom notes, crib sheets) to the testing center. The test center administrator may report anyone who brings study materials to the testing center for appropriate action.



RESPONDING TO SUSPECT CANDIDATE BEHAVIOR

As previously mentioned, NCARB can respond to suspect candidate behavior in a number of different ways. Sanctions vary depending on the type of infraction and may include:

- Immediate dismissal from the test center
- Cancellation of current test score(s)
- Voiding of previous test scores(s)
- Suspension of future test eligibilities (up to three years)
- Delayed or denied registration
- Delayed or denied certification

Two ARE candidates already have experienced the cancellation of test scores, the extended suspension of all testing privileges (three years), and possible fines—not to mention the reimbursement of legal fees required to respond to the cheating incidents. Additional disciplinary actions by their state boards have yet to be determined.

If a candidate is disciplined and their testing eligibilities are suspended, the new **ARE Five Year Rolling Clock**—set to debut January 1, 2006—will remain in effect. Basically, the clock keeps ticking, which may have a detrimental effect on a candidate found to be in violation of the Confidentiality Agreement late

in their eligibility period. Regardless of the length of disciplinary action, a candidate would lose credit for any previously passed division(s) if a security-breach suspension keeps them from completing the ARE within a five-year period.

The Council also is considering a series of changes that could be implemented on the test center level. For example, one possible change would eliminate candidate access to lockers. NCARB already has decided to ban personal calculators beginning as early as 2007. Instead, candidates will use a mouse-driven, on-screen calculator. This is one means to cut down on the possibility of cheating.

HONESTY RULES

In spite of the focus of this article, the majority of ARE candidates **DO NOT** cheat. They, in fact, take measures to avoid the appearance of misconduct by following some simple rules when taking exam divisions, including

- Leave exam- and work-related materials at home.
- Do not take any personal articles to the test center.
- Empty all pockets and place items in the locker.
- Do not return to the locker until the exam has been completed.

- Return all scratch paper to test center personnel.

MOVING FORWARD

Computer-savvy, headstrong, and perhaps feeling just a bit entitled, the small group of ARE candidates who knowingly break the rules have created a phenomenon with both short- and long-term effects for everyone. Short-term effects include NCARB's potential inability to deliver specific portions of the ARE—a factor that delays registration and advancement for all, and most likely would lead to an increase in exam fees. Additionally, one long-term effect on the profession is clear: Continuing security breaches will undermine the validity of the exam and ultimately compromise the registration process.

Cheating on the ARE—in whatever form a candidate chooses—ultimately endangers the very public architects are intended to protect. It's that simple. When self-interest trumps personal ethics, as described by Patricia Keefe, a blogger on the *Information Week* web site, serious ramifications will result.¹

Currently, the ARE represents the profession's best and most comprehensive effort to assess a candidate's knowledge, skills, and abilities to provide independently the various services required in the practice of architecture. It is an evolving resource whose value is constantly sustained by the volunteer efforts of practicing architects from across the United States and Canada. The ARE represents a tremendous effort of the Council and its members.

No amount of hand-wringing, however, will reverse the phenomenon of candidate cheating until candidates themselves decide to make a change. In a recent article about the rise in cheating, published in Penn State University's *The Penn Stater*, Management Professor Linda Klebe Trevino explains, ". . . [P]eople have to buy into the idea that they want to be in an environment of integrity and trust, and understand that you only get

to live in that kind of environment if everybody takes responsibility for it."² DC

Guidelines for Suspect Candidate Behavior

Level 1: Unauthorized Access to Materials

Personal effects and materials placed in lockers ONLY can be accessed during a **SCHEDULED** break. A report will be filed identifying any candidate caught accessing a locker during an **UNSCHEDULED** break. The consequences are:

- Completion of report by test center administrator.
- Candidate is warned and instructed to return immediately to the testing room to complete test.
- Letter of misconduct is sent to candidate notifying him/her of inappropriate behavior.
- Copy of letter is provided to candidate's registration board.

Level 2: Presence of Unauthorized Devices in Testing Room

Discovery in the testing room of any unauthorized device, whether in the "on" or "off" position. Except for persons testing under specific conditions related to a disability and scientific, non-programmable, non-communicating, non-printing calculators (which may be used in the testing room), *no other devices are permitted to be in the testing room*. This includes but is not limited to items such as cellular phones, pagers, personal digital assistants, audio/video recording devices, language translators, etc. The consequences are:

- Inspection of device by test center administrator.
- Immediate dismissal from the test center.
- Cancellation of score for the division.
- Following a review of the matter by staff, suspension of test eligibility for all divisions for **SIX MONTHS** from date of test administration.
- Notification of action by the Council will be sent to the candidate's registration board for further independent disciplinary action, if any, as determined by the candidate's board.

Level 3: Written Material

Discovery of written material in the testing room, including material in electronic devices. This includes but is not limited to items such as answer keys, notes, and formulae; *no written material is permitted in the testing room whether or not related to the ARE*. The consequences are:

- Confiscation of non-electronic material by test center administrator.
- Immediate dismissal from the test center.
- Cancellation of score for the division.
- Following a review of the matter by NCARB's Committee on Professional Conduct, suspension of test eligibility for all divisions for **ONE YEAR** from date of test administration.
- Notification of action by the Council will be sent to the candidate's registration board for further independent disciplinary action, if any, as determined by the candidate's board.

Level 4: Use of Unauthorized Devices or Materials

Observation of the use of any unauthorized devices or materials in the testing room will conclusively be presumed to be for purposes of assistance on the test. The consequences are:

- Cancellation of score for the division.
- Immediate dismissal from the test center.
- Following a review of the matter by NCARB's Committee on Professional Conduct, suspension of test eligibility for all divisions for up to **THREE YEARS** from date of test administration or such longer period as may be warranted in exceptional circumstances.
- Notification of action by the Council will be sent to the candidate's registration board for further independent disciplinary action, if any, as determined by the candidate's board.

Level 5: Dissemination of Content

Distribution by the Internet or otherwise to any other person of any test question and/or alleged answer. This includes attempted recording in the testing room of test content by any camera or audio device or any attempted dissemination following the test including by paraphrasing any question from memory. The consequences are:

- Cancellation of score(s) for the division(s) disseminated and any subsequent division(s) taken prior to the end of any period of test eligibility suspension.
- Following a review of the matter by NCARB's Committee on Professional Conduct, suspension of test eligibility for all divisions for up to **THREE YEARS** from date of discovery of dissemination or such longer period as may be warranted in exceptional circumstances.
- Notification of action by the Council will be sent to the candidate's registration board for further independent disciplinary action, if any, as determined by the candidate's board.
- Where NCARB pursues legal action, candidate will be responsible for all of NCARB's costs and damages.

1. Keefe, Patricia. "Editor's Note: Into the Ethical Breach." *Information Week* (www.informationweek.com).
2. Saulnier, Beth. "So Tempting." *The Penn Stater* (March/April 2005): 49.