



**Capital  
Development  
Board**  
Building a Better Illinois

**50**  
YEARS

**BOARD BOOK    MAY 9, 2023    11:00 A.M.**

**JB PRITZKER, GOVERNOR**

**CAPITAL DEVELOPMENT BOARD**

**WEBEX MEETING DUE TO**

**COVID-19 EMERGENCY**

**LOGIN: <https://illinois.webex.com>**

**MEETING (access code): 2457-735-1613**

**PASSWORD: CDB509**

**Jim Underwood, Executive Director**

**BOARD MEMBERS**

**Eileen Rhodes, Chair**

**Pam McDonough, Vice Chair**

**Saul Morse**

**Beverly Potts**

**Glyn Ramage**

**Hipolito (Paul) Roldan**

**David Sidney**



# CAPITAL DEVELOPMENT BOARD

May 9, 2023

The meeting of the Capital Development Board is being held by  
WebEx due to the COVID-19 crisis.

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Public questions for the Board can be submitted through WebEx at the time for Public Comment or submitted by email to [Sally.Finney@illinois.gov](mailto:Sally.Finney@illinois.gov)

Staff Contacts: Sally Finney 217-782-8726 and Heather Parks 217-782-8729

## CALL TO ORDER

1. Roll Call of Members
2. Confirmation of a Quorum

## PRELIMINARY ITEMS

3. Adoption of Agenda
4. Approval of April 11, 2023, Minutes..... 1-5

## BOARD ACTION

### Region 1 – Tim Patrick

5. Change Order – CMS – Michael A. Bilandic Building ..... 6-9
6. Change Order – CMD – Michael A. Bilandic Building..... 10-12
7. Change Order – DHS – Chicago Read Mental Health Center ..... 13-15
8. Change Order – ICCB – Olive Harvey College..... 16-18
9. Architecture/Engineering Selection Recommendation from PSB 298 ..... 19-25
10. Illinois Energy Conservation Code Rules (71 IAC 600) ..... 26-69
11. Public Comment for Illinois Energy Code Rules

## INFORMATIONAL ITEMS

12. Change Order for Board Authorized Proceed Order..... 70-71
13. Emergency Project Proceed Order/Change Order Report ..... 72
14. Single Bid Award ..... 73-75
15. Best Interest of the State Selection/Informational Item..... 76-78
16. Construction Update
17. FEP Update
18. Public Comment

## EXECUTIVE SESSION

19. Pending and Probable Litigation (5 ILCS 120/2(c)(11))

## Capital Development Board

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### **SUBJECT: Meeting minutes from the April 11, 2023**

The meeting of the Capital Development Board was held in person in Springfield and Chicago and by WebEx due to COVID-19 crisis.

The following Board members were present via WebEx:

Eileen Rhodes, Chair  
Saul Morse  
Paul Roldan

Pam McDonough, Vice Chair  
Beverly Potts  
David Sidney

The following were present in Springfield:

David Ealey, CDB  
Jim Underwood, CDB  
Lisa Hennigh, CDB  
Robert Coslow, CDB  
Sherri Sullivan, CDB

Jerry Bishoff, CDB  
Joel Meints, CDB  
Paul Wheeler, Farnsworth Group  
Sally Finney, CDB  
Tim Patrick, CDB

The following were present in Chicago:

Brent Lance, CDB  
Tamakia Edwards, CDB

Mark Jones, CDB

The following were present via WebEx:

Abigayle Dompke, CDB  
Alicia Kamischke, Prairie Engineers  
Amy Romano, CDB  
Andrew Caputo, Williams Architects  
Ann Tranter, Cordogan Clark & Assoc.  
Bill McHugh, CRCA  
Caroline Slota, BH  
Cheryl Scott, Mayors Caucus  
Chris Catino, WE O'Neill  
Darren Meyers, IEC Code  
Eric Luchetta, UIC  
Eric Wyszowski, Cannon Design  
Gerald Burlington, CPO  
Heather Oxley, CDB  
J. Yoon, MEPC, Inc.  
Javier Romero, RME  
Jennifer Boen, CDB  
Jesse Martinez, CDB

Amber Dooley, CDB  
Amber Evans, CDB  
Andres Padua, CDB  
Andy McCoy, PJ Hoerr  
Anthony LoBello, Woolpert  
Blanca Rivera, CDB  
Charla Travis, CDB  
Chris Bieser, RR Architects  
Chris Kleine, FW  
David Mann, Booth Hansen  
Eric Puls, Terracon  
George Patterson, BB Roof  
Greg Thorpe, Co Rock Island  
Heather Parks, CDB  
Jamie Booker, CDB  
Jeff Mang, JC Mang Consulting  
Jerry McNulty, O'Fallon  
Jill Deichmann, Primera

Joseph Briscar, SMXB  
Kathryn Martin, CDB  
Kenneth Watkins, CDB  
Kathryn Woznyj, Kroeschell  
Lauren Noll, CDB  
Marcy Joerger, CDB  
Maribel Acevedo, CDB  
Martha White, Southern Co.  
Michael Holmes, CSU  
Paul Kmett, CDB  
Paula Sorensen, CDB  
Robert Stowell, CDB  
Scott Rinkenberger, PJ Hoerr  
Tami Wright, Dewberry

Karla Springer, CDB  
Katrina Grzegorski, CDB DoIT  
Kristy Boggs, CDB DoIT  
Lauren Grenlund, CDB  
Linda Arnold, RTMEC  
Margaret Vaughn  
Mark Graham, NRCA  
Matthew Trewartha, CDB  
Michael Jividen, Booth Hansen  
Paul Stuckey, Stuckey Construction  
Rob O’Riordan, Mortenson  
Sam Bates, CDB  
T. Packman, TWM  
James Cockrell, CDB

The meeting was called to order at 11:00 a.m.

Sally Finney took roll call. Chair Rhodes and members Saul Morse, Beverly Potts, and David Sidney were present. Paul Roldan joined the meeting at 11:17 a.m.

Beverly Potts moved, and Saul Morse seconded a motion to approve the agenda. Chair Rhodes called for a vote, and the motion was approved unanimously.

Pam McDonough moved, and David Sidney seconded a motion to approve the March 14, 2023, minutes. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Patrick presented the following Change Order:

**Change Order – BHE - University of Illinois, Chicago**  
CDB Project No. 830-030-162  
Construct a Computer Learning Center  
W.E. O’Neil Construction Company  
Change Order.....\$164,149.21

Saul Morse moved, and Pam McDonough seconded a motion to approve the Change Order. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Patrick presented the following Modification:

**Modification – BHE – University of Illinois, Chicago**  
CDB Project No. 830-030-162  
Construct a Computer Learning Center  
Mortenson Construction  
Modification.....\$916,453

Pam McDonough moved, and Saul Morse seconded a motion to approve the Modification. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Patrick presented the following Proceed Orders:

**Proceed Order – BHE – University of Illinois, Chicago**

CDB Project No. 830-030-162

Construct a Computer Learning Center

W.E. O’Neil

Proceed Order.....\$328,204

Pam McDonough moved, and Beverly Potts seconded a motion to approve the Proceed Order. Chair Rhodes called for a vote, and the motion was approved unanimously.

**Proceed Order – DHS – Chicago Read Mental Health Center**

CDB Project No. 321-030-153

Upgrade Fire Alarm and Replace HVAC

Kroeschell Engineering

Proceed Order.....\$210,505.38

Pam McDonough moved, and Saul Morse seconded a motion to approve the Proceed Order. Chair Rhodes called for a vote, and the motion was approved unanimously.

**Proceed Oder – BHE – Chicago State University**

CDB Project No. 814-010-083

Repair HVAC and Pool – Jacoby Dickens Center

Stuckey Construction Company, Inc.

Proceed Order..... \$11,000,000

David Sidney moved, and Saul Morse seconded a motion to approve the Proceed Order. Chair Rhodes called for a vote and the motion was approved unanimously.

Mr. Cockrell presented the following Change Order:

**Change Order – BHE – Western Illinois University**

CDB Project No. 818-010-096

Construct Performing Arts Center

River City Construction

Change Order.....\$126,841.28

Pam McDonough moved, and David Sidney seconded a motion to approve the Change Order. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Cockrell presented the following Proceed Order:

**Proceed Order – DOC – Logan County Correctional Center**

CDB Project No. 120-135-069

Renovate Shower Rooms

PJ Hoerr

Proceed Order.....\$1,999,260

Saul Morse moved, and Pam McDonough seconded a motion to approve the Proceed Order. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Patrick presented the following Change Order:

**Change Order – CMS - Regional Office Building**

CDB Project No. 250-041-012

Replace HVAC System and Lighting

Schwartz Construction Group

Change Order.....\$113,708.03

Saul Morse moved, and David Sidney seconded a motion to approve the Change Order. Chair Rhodes called for a vote, and the motion was approved unanimously.

Ms. Sullivan presented the following A/E Selection from PSB 298:

1.	830-081-001	Illinois Board of Higher Education Renovation of the UIS Innovation Center University of Illinois – Downtown Springfield 1. Farnsworth Group 2. Cordogan, Clark & Assoc., Inc. 3. Solomon, Cordwell, Buenz & Associates, Inc.	Appropriation \$13,300,000 Project Cost: \$13,300,000
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Saul Morse moved, and David Sidney seconded a motion to approve the previous A/E Selection. Chair Rhodes called for a vote, and the motion was approved unanimously.

Ms. Hennigh present the Illinois Energy Conservation Code Rules (71 IAC 600)

Paul Roldan moved, and David Sidney seconded a motion to approve the Illinois Energy Conservation Code Rules. Chair Rhodes called for a vote, and the motion was denied, with 3 aye’s and 3 abstaining. Those abstaining from voting were, Pam McDonough, Beverly Potts, and David Sidney.

Mr. Patrick gave an update on Change Order for Board Authorized Proceed Order.

Mr. Lance gave an update on Emergency Selection/Information Items.

Mr. Patrick gave a Construction update.

Beverly Potts moved, and Saul Morse seconded a motion to adjourn. Chair Rhodes called for a vote, and the motion was approved unanimously.

The meeting was adjourned at 12:47 p.m.

**Project Number:** 250-020-044  
 Change Order G-29 – User Requested Change (103)

**Description:** Renovate the Bilandic Building  
 Michael A. Bilandic Building  
 160 N. LaSalle  
 Chicago, Cook County, IL

**Using Agency:** Central Management Services (CMS)

**Architect/Engineer:** CCJM  
 303 East Wacker, Suite 303  
 Chicago, IL 60601



**Total Project Budget:** \$27,000,000.00  
**Unobligated Funds:** \$19,144,460.91  
**Total Spent to Date:** \$ 7,855,539.09  
**Percent Complete:** 92%

**Project Manager:** Allison White

**Project History:** The scope of work for this project provides for renovating the Michael A. Bilandic Building. The work will include improvements to the security and life-safety systems in the building; including upgrading physical barriers on the ground level, public access areas, and outside the building; replacement of the fire alarm system; providing additional audio and visual alarm devices; and upgrading egress lighting and provisions for emergency power for critical life-safety devices. The work also includes mechanical and electrical upgrades, such as energy-efficient lighting throughout the facility and replacing fan drives for the ventilation system. Replacement of the roofing system and interior renovations to allow for new and reconfigured office space, including all associated HVAC, life-safety, plumbing, and security modifications are also included in the project.

There are two areas of work for this project with “Area 1” being the most urgent as required by CMS. This area is defined as portions of the basement, 1st, 5th, 6th, 7th and 10th floors, which is substantially completed. All remaining scope shall be included in Work Area 2, including the sub-basement with an original Substantial Completion date of March 31, 2023; however, the using agency has requested the addition of a new Hirsch Security System to the scope of work so the substantial completion date for Work Area 2 will be extended due to this request.

**Description of RFP Change:** CMS has requested the addition of a new Hirsch Security System in the Michael A Bilandic Building. This type of system is currently being used statewide in CMS State of Illinois Facilities and can be monitored centrally in Springfield, Illinois.

**Requested Action:** We are requesting board approval of change order G-29 in the amount of \$478,136.32 to provide the new Hirsch Security System as requested by the using agency.

Contractor	Trade	Change Order Amount	Original Contract	% Change
CCC JV	General	\$ 478,136.32	\$15,374,306.00	3.1%
Total All Change Orders	General	\$ 478,136.32	\$15,374,306.00	3.1%





**TO:** Tim Patrick, Construction Administrator  
**FROM:** Allison White, Project Manager  
**DATE:** April 17, 2023  
**RE:** #250-020-044 Phase 1  
Renovate Bilandic – Michael A. Bilandic Building  
Request for RFPCO G-29 for CCC Joint Venture (New Hirsch Security System)

=====

The project team is requesting RFPCO G-29 to be submitted to the Board for approval, on May 9, 2023.

RFPCO G-29: \$478,136.32

This RFPCO G-29 is a User Request for the installation of a *new* Hirsch Security System at the Bilandic Building consisting of :1) Access Control and Alarm Monitoring System and 2) Camera Upgrade. The advantage of this system will enable system monitoring of video and access control from the central office in Springfield.

The Access Control and Alarm Monitoring System consists of card readers, door controllers, software, and other devices for managing credentials and monitoring alarms.

The current design will require all existing Hirsch Panels, Enclosures, and internal board equipment to be removed and upgraded with NEW Hirsch panels, enclosures and board, and a network interface card (NIC), with no exceptions.

The new Hirsch Panels are to directly replace the existing systems current panels: a) Hirsch Mx Controller (8 door version), b) SNIB3 Communication Board, c) AEB8 Alarm and REB8 Relay Boards as needed.

New network drops to each New Panel are to be provided by the contractor. There will be new installs, infrastructure, and cabling from each panel to the IT closet on the respective floor. This connection will need to be coordinated and installed prior to taking down the old system panel per floor.

The existing camera system at the Bilandic Building is an analog Pelco system. The camera upgrade will consist of removing and replacing the old analog cameras with the NEW IP AXIS cameras. The cameras will all be POE (Power over Ethernet) provided by the Network Switches on each floor. For the 1st floor, the old Pelco Matrix and encoder equipment is to be removed. CMS currently has a ONNIS VMS system in Springfield that performs all monitoring and storage functions.

A new network switch, provided by the contractor, is to be installed in the Security Room on the first floor. Connection from the new network switch to the first floor IT room also to be provided by the contractor. All cameras on floor 1 to be provided POE (Power over Ethernet) from this. Contractor to remove old analog camera, remove old analog cabling and install new category 6 (CAT6), IP cables. All cable runs from cameras on first floor are to be to this Security Room location. Cameras to be a 1 for 1 swap and contractor to coordinate with building and CMS on removal schedule, installation, and programming of cameras. If new conduit runs are needed minimum of ¾" to be used.

Each floor, that will have cameras upgraded, will run cable to the floor's IT closet. The cameras will be put on the network via the network switches in these IT closets, on each floor. Contractor to coordinate schedule, installation, down time, and programming of these cameras with the building and CMS. Each new AXIS camera will require a camera license.

A/E coordinated the design and programming with all interested parties (DoIT, CMS, and CDB) including subcontractor input.

We urgently need the RFPCO G-29 approved to keep the project moving along. This security system work is the one of the last major portions of work that is required to be completed. The construction schedule has been extended approximately nine months due to this scope of work change.

State of Illinois  
CAPITAL DEVELOPMENT BOARD

# REQUEST FOR PROPOSAL & CHANGE ORDER

Date: 01.13.23 RFP Number: G-29

1. (Contractor's Name, Address, Telephone, Fax & Attention)

CCC Joint Venture  
18660 Graphics Drive, Suite 200  
Tinley Park, IL 60477  
(773)721-2500 Fax ( ) -  
Attn: Russell Loquist e-mail: rloquist@ccc-chicago.com

CDB Project #: 250-C20-044  
CDB Project Name: Renovate Bilandic  
& Location: Michael A. Bilandic Building  
  
CDB Contract #: 22050881  
Contract Work: General

2. REQUEST for change by: Using Agency

CDB contemplates making certain changes, additions and deletions to the work to be performed under the subject Contract. Unless otherwise indicated in the description of change, accompanying drawings and specifications, all work required shall conform to the contract documents. The Contractor is required to submit within 14 calendar days from the date herein a proposal and a detailed breakdown for this change. The proposal shall be submitted in accordance with CDB's format and the General Conditions.

3. REASON for change:

At the request of the Using Agency, the Security System is to be sole sourced to Hirsch. This will enable system monitoring of video and access control from the central office in Springfield.

4. DESCRIPTION of change including reference to drawings and specifications revised, new drawings and specifications issued.

Change the Access Control System to Hirsch as provided for in the attached security drawings and specifications. Specification Sections 02 05 00, 28 05 13, 28 13 00, and 28 03 00, along with drawings AD101, A101, A201, A400, TY-000 through TY-121, TY-200, TY-300 and TY-301, E-301, E-100, E-101, E-121, E-201, E-501, ED-101, Sole Source Letter, and RFIs 058 and 99 are attached.

5. OTHER CONTRACTS affected by this change. List Contractor's name, contract work, RFP number and amount.  
None

*RD 4-12-23* *R 4/12/22*

**IMPORTANT NOTICE**  
Disclosure of this information is mandatory in accordance with the Standard Documents for Construction. Failure to complete this will prevent payment for work completed and/or be a material breach of contract.

6. CONSIDERATION:

Work to be accomplished in 284 Calendar Days from Approval of RFPCO.

The Contract Sum is INCREASED by the total sum of.....\$

~~\$644,527.63~~

The revised completion date is 2/8/2024

\$478,136.32

7. The change described above and on accompanying drawings and specifications and the Contractor's proposal (if applicable) are hereby incorporated by reference and made a part hereof. Having reviewed the above and determining the amount to be fair and proper the undersigned:

RECOMMEND issuance of a change order

A/E Firm Name CCJM *Paul W. Soudan* signature  
BY \_\_\_\_\_

APPROVE as to form and content:

USING AGENCY name CMS *Steve [Signature]* 3/14/23 signature  
BY \_\_\_\_\_

COORDINATOR or CONSTRUCT. MANAGER  
BY *Russell Loquist* signature

CDB/PM APPROVE *Allison White* 3/15/23 signature  
BY \_\_\_\_\_

CONTRACTOR DATE **03/10/2023**  
BY **Russell Loquist** print name  
*Russell Loquist* signature  
**Senior Project Manager** title

CDB APPROVE change order DATE \_\_\_\_\_  
BY \_\_\_\_\_ print name  
\_\_\_\_\_  
signature  
\_\_\_\_\_  
title

8. FOR CDB USE ONLY	Type of Change	% Assess	Package No.	CO Date	CO No.	CO AMOUNT add (deduct)
						\$

Yes, the A/E reviewed this document.

**Project Number:** 250-020-044  
Change Order G-86 – Time Extension (107)

**Description:** Renovate the Bilandic Building  
Michael A. Bilandic Building  
160 N. LaSalle  
Chicago, Cook County, IL

**Using Agency:** Central Management Services (CMS)

**Architect/Engineer:** CCJM  
303 East Wacker, Suite 303  
Chicago, IL 60601



**Total Project Budget:** \$27,000,000.00  
**Unobligated Funds:** \$19,144,460.91  
**Total Spent to Date:** \$ 7,855,539.09  
**Percent Complete:** 92%

**Project Manager:** Allison White

**Project History:** The scope of work for this project provides for renovating the Michael A. Bilandic Building. The work will include improvements to the security and life-safety systems in the building; including upgrading physical barriers on the ground level, public access areas, and outside the building; replacement of the fire alarm system; providing additional audio and visual alarm devices; and upgrading egress lighting and provisions for emergency power for critical life-safety devices. The work also includes mechanical and electrical upgrades, such as energy-efficient lighting throughout the facility and replacing fan drives for the ventilation system. Replacement of the roofing system and interior renovations to allow for new and reconfigured office space, including all associated HVAC, life-safety, plumbing, and security modifications are also included in the project.

There are two areas of work for this project with “Area 1” being the most urgent as required by CMS. This area is defined as portions of the basement, 1st, 5th, 6th, 7th, and 10th floors, which is substantially completed. All remaining scope shall be included in Work Area 2, including the sub-basement with an original substantial completion date of March 31, 2023; however, the using agency has requested the addition of a new Hirsch Security System to the scope of work so the substantial completion date for Work Area 2 will be extended due to this request.

**Description of RFP Change:** Addition of the Hirsch Security System included in change order G-29 has resulted in delays in the schedule to complete the project. The schedule will need to be extended to allow time to complete this user requested additional scope.

**Requested Action:** We are requesting board approval of change order G-86 in the amount of \$305,881.15 to extend the project schedule and provide extended conditions to the contractor due to the longer, unexpected timeline to provide the new Hirsch Security System.

Contractor	Trade	Change Order Amount	Original Contract	% Change
CCC JV	General	\$ 305,881.15	\$15,374,306.00	2%
Total All Change Orders	General	\$ 305,881.15	\$15,374,306.00	2%



**TO:** Tim Patrick, Construction Administrator  
**FROM:** Allison White, Project Manager  
**DATE:** April 18, 2023  
**RE:** #250-020-044 Phase 1  
Renovate Bilandic – Michael A. Bilandic Building  
Request for RFPCO G-86 for CCC Joint Venture (Time Extension/Extended Conditions)

=====

The project team is requesting RFPCO G-86 to be submitted to the Board for approval, on May 9, 2023.

RFPCO G-86: \$305,881.15

This RFPCO G-86 Time Extension/Extended General Conditions is required to extend the schedule and provide CCC JV Extended General Conditions through February 2024 due to the length of time it took to create the new documents so as to provide a New Hirsch Security System.

The New Hirsch Security System was requested by the Using Agency after construction had started so the A/E had to thoroughly research the requirements of the system including many meetings with CMS, DoIT, CDB, and Construction Team. A/E coordinated the design and programming with all interested parties (DoIT, CMS, and CDB) including contractor/subcontractor input.

The Contractor, CCC JV, anticipates about nine months of continued work after approval of the CDB Board which will be predominately, if not the only, work that will remain going into 2024.

We urgently need the RFPCO G-86 approved to keep the project moving along. This security system work is the one of the last major portions of work that is required to be completed. The construction schedule needs to be extended approximately nine months due to this scope of work change.

# REQUEST FOR PROPOSAL & CHANGE ORDER

Date: 3.8.2023 RFP Number: G-86

1. (Contractor's Name, Address, Telephone, Fax & Attention)

CCC Joint Venture  
186660 Graphics Drive, Suite 200  
Tinley Park, IL 60477  
(773)721-2500 Fax ( ) -  
Attn: Russ Loquist e-mail: rloquist@ccc-chicago.com

CDB Project #: 250-020-044  
CDB Project Name: Renovate Bilandic  
& Location: Michael A, Bilandic Building  
  
CDB Contract #: 22050881  
Contract Work: General

2. REQUEST for change by: Contractor

CDB contemplates making certain changes, additions and deletions to the work to be performed under the subject Contract. Unless otherwise indicated in the description of change, accompanying drawings and specifications, all work required shall conform to the contract documents. The Contractor is required to submit within 14 calendar days from the date herein a proposal and a detailed breakdown for this change. The proposal shall be submitted in accordance with CDB's format and the General Conditions.

3. REASON for change:

Delays in schedule to complete the project. The schedule needs to be extended to accommodate time to complete User Requested additional scope including the Hirsch Security System (RFPCO G-29).

4. DESCRIPTION of change including reference to drawings and specifications revised, new drawings and specifications issued.

Change Substantial Completion date for Work Area 2 from April 30, 2023 to February 8, 2024, and Final Completion date from May 30, 2023 to March 8, 2024. Contract end date to be extended from May 24, 2024 to March 8, 2025. The Standard Business Terms and Conditions, dated July 2016, and the Standard Certifications, dated August 2015, are hereby incorporated into the contract.

5. OTHER CONTRACTS affected by this change. List Contractor's name, contract work, RFP number and amount.  
None

**IMPORTANT NOTICE**  
Disclosure of this information is mandatory in accordance with the Standard Documents for Construction. Failure to complete this will prevent payment for work completed and/or be a material breach of contract.

6. CONSIDERATION:

Work to be accomplished in 0 Calendar Days from Approval of RFPCO.

The Contract Sum is INCREASED by the total sum of.....\$ \$305,881.15

**NOTE: Unless specifically indicated above, this does not extend the contract time.**

7. The change described above and on accompanying drawings and specifications and the Contractor's proposal (if applicable) are hereby incorporated by reference and made a part hereof. Having reviewed the above and determining the amount to be fair and proper the undersigned:

RECOMMEND issuance of a change order

A/E Firm Name Boyd W. Sander  
BY \_\_\_\_\_ signature

APPROVE as to form and content:

USING AGENCY name \_\_\_\_\_  
BY Eric Sander 3/14/23 signature

COORDINATING C O N S T R U C T . M A N A G E R  
BY Russell Loquist signature

CDB/PM APPROVE Allison White 3/15/2023 signature

CONTRACTOR DATE 03/10/2023  
BY Russell Loquist print name  
Russell Loquist signature  
Senior Project Manager title

CDB APPROVE change order DATE \_\_\_\_\_  
BY \_\_\_\_\_ print name  
\_\_\_\_\_ signature  
\_\_\_\_\_ title

8. FOR CDB USE ONLY	Type of Change	% Assess	Package No.	CO Date	CO No.	CO AMOUNT add (deduct)
						\$ _____

Yes, the A/E has reviewed this document.

**Project Number:** 321-030-153  
Change Order G-10 – Architect/Engineer Error (101)

**Description:** Upgrade Fire Alarm System and Replace HVAC  
Chicago Read Mental Health Center  
Chicago, Cook County, IL

**Using Agency:** Department of Human Services (DHS)

**Architect/Engineer:** Primera Engineers  
100 S Wacker Dr  
Chicago, IL, 60606

**Total Project Budget:** \$ 30,936,300.00

**Unobligated Funds:** \$ 619,865.27

**Total Spent to Date:** \$ 9,016,911.52

**Percent Complete:** 30%



**Project Manager:** Emilija Zgonjanin

**Project History:** The Chicago Read Mental Health Center is a 314,410 square foot, 13-building facility established in 1965.

The scope of work provides for replacing the fire alarm systems throughout the entire campus and interface with the HVAC systems. Modifications will be made to the site and with door installations in accordance with the Americans with Disabilities Act (ADA). Work also includes the installation of new boilers, new air handling units (AHUs) with economizers, variable frequency drives (VFDs), and direct digital controls. Additionally, the scope provides for removing and replacing an outdated absorption chiller with a new water-cooled centrifugal chiller or other appropriate replacement; along with all piping modifications, controls, and electrical upgrades as necessary for the installation of the new chiller, and the architectural modifications required for boiler installation and fuel tank storage.

The contractor, Broadway Electric, recently prepared voltage drop calculations based on actual site conditions, actual proposed load manufacturing data, and actual distances between power panels and associated loads. The results were compared to the contract documents, and it was determined that the feeders (conduits and wiring) specified in the contract documents would need to be upsized and lengthened to accommodate the load requirements of the system.

**Description of RFP Change:** This change order will provide for the additional wiring and conduit necessary to allow for the change in distance between the power panels and associated loads.

After a detailed review between the sub-contractor and the architect/engineer (A/E), it was noted that several pieces of the existing equipment at the site were damaged, inoperative, or turned off when the A/E performed their initial calculations, and the A/E team was not able to see/calculate the actual distances necessary between equipment in their design.

Additionally, the original design for this project used service load data given to the using agency in 2019 by ComEd. This data indicated very low service loads given that much of the equipment was out of order and non-functional at the time that the data was captured.

Based on the actual field conditions in the tunnels, the distances between power panels and associated loads must be increased to accommodate the various obstacles discovered when the tunnels were opened. Disconnects in the tunnels will be relocated and an increase in cable length is necessary to reach the individual feeds. This additional length increases the voltage drop in the feeders and needs to be considered in the revised voltage drop calculations.

**Requested Action:** We are requesting board approval of change order G-10 in the amount of \$195,257.39 to provide for additional wiring and conduit necessary to provide uninterrupted operations to the facility.

<b>Contractor</b>	<b>Trade</b>	<b>Change Order Amount</b>	<b>Original Contract</b>	<b>% Change</b>
Kroeschell Engineering	General	\$195,257.39	\$27,958,102.00	.70%
Total All Change Orders		\$195,257.39	\$27,958,102.00	.70%



## MEMORANDUM

**TO:** Andrea Bauer, Regional Manager

**FROM:** Emilija Zgonjanin, Senior Project Manager

**DATE:** April 17<sup>th</sup>, 2023

**RE:** Request for RFP/CO G-10 Approval  
321-030-153 Upgrade Fire Alarm System and Replace HVAC  
Chicago-Read Mental Health Facility, Cook County

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Per the Chicago Electrical Code, Voltage Drop in branch feeders needs to be maintained under 3%. AE's initial calculations were able to achieve that requirement with most feeders having between 2.3% - 2.93% Voltage Drop. After detailed review and discussions between sub-contractor (electrical trade) Broadway Electric and AE team, Primera Engineers, was noted that multiple pieces of existing equipment at the site are/were either damaged, inoperative, or turned off when the initial calculations were performed by the AE, Primera Engineers in 2020. In addition to that, the original design voltage drop calculations were also based on ComEd service load data given to the AE by the using agency in 2019.

After re-review of the data received it is the AE's understanding that 2019 data indicated very low service loads given that the facility and multiple pieces of equipment on this site were out of order and non-functional at the time that data was captured. Therefore, the load information provided to AE, Primera Engineers by the using agency in 2019 is not valid. Since the AE has identified all the inoperative equipment, the actual new loads from new equipment being installed on the electrical system, and actual distances between equipment, the previous Voltage Drop calculations are being revised, and conduit and cable sizing is being revisited.

The distances between power panels and associated loads, based on the actual field conditions in the tunnels, in Building J and in the ceilings of Building H and E, (the actual runs) need to be rerouted and increased in length to accommodate various obstacles discovered when the tunnels were opened. During the design the AE team could not see/calculate the actual distances needed. Disconnects in the tunnels are being relocated and are adding additional length to the individual feeds. This additional length increases the Voltage Drop in the feeders and needs to be considered in the revised Voltage Drop calculations.

Based on the reasonings above and undiscovered site conditions, the upsizing of the wiring and conduits are required in order for the equipment and facility uninterrupted operations.



State of Illinois  
CAPITAL DEVELOPMENT BOARD

# REQUEST FOR PROPOSAL & CHANGE ORDER

Date: 03.31.23

RFP Number: G-10

1. (Contractor's Name, Address, Telephone, Fax & Attention)

Kroeschell Engineering Co.  
3222 N Kenicott Ave  
Arlington Heights, IL 60004  
(312)649-3694 Fax (312)337-1944  
Attn: Jeff Leise e-mail: Jeff.Leise@kroeschell.com

CDB Project #: ~~012-000-100~~ 321-030-153  
CDB Project Name: Fire Alarm Replacement & HVAC Upgrade  
& Location: Chicago Read Mental Health Facility  
  
CDB Contract #: 22055081  
Contract Work: General

2. REQUEST for change by: Contractor

CDB contemplates making certain changes, additions and deletions to the work to be performed under the subject Contract. Unless otherwise indicated in the description of change, accompanying drawings and specifications, all work required shall conform to the contract documents. The Contractor is required to submit within 14 calendar days from the date herein a proposal and a detailed breakdown for this change. The proposal shall be submitted in accordance with CDB's format and the General Conditions.

3. REASON for change:

It was brought to our attention that Broadway Electric recently prepared voltage drop calculations based on actual site conditions, actual proposed load manufacturing data, and actual distances between power panels and associated loads. They then compared their results with the contract documents. Per their calculations, they are recommending multiple feeders (conduits and wiring) be upsized.

4. DESCRIPTION of change including reference to drawings and specifications revised, new drawings and specifications issued.

The distances between power panels and associated loads, based on the actual field conditions in the tunnels, in Building J and in the ceilings of Building H and E, the actual runs need to be rerouted and increased in length to accommodate various obstacles discovered. Disconnects in the tunnels are being relocated and are adding additional length to the individual feeds. This additional length increases the Voltage Drop in the feeders and needs to be taken into account in the revised Voltage Drop calculations.

5. OTHER CONTRACTS affected by this change. List Contractor's name, contract work, RFP number and amount.

**IMPORTANT NOTICE**  
Disclosure of this information is mandatory in accordance with the Standard Documents for Construction. Failure to complete this will prevent payment for work completed and/or be a material breach of contract.

6. CONSIDERATION:

Work to be accomplished in \_\_\_\_\_ Calendar Days from Approval of RFP/CO.

The Contract Sum is INCREASED/DECREASED by the total sum of.....\$ 195,257.39

**NOTE: Unless specifically indicated above, this does not extend the contract time.**

7. The change described above and on accompanying drawings and specifications and the Contractor's proposal (if applicable) are hereby incorporated by reference and made a part hereof. Having reviewed the above and determining the amount to be fair and proper the undersigned:

RECOMMEND issuance of a change order

A/E Firm Name Primavera Engineers

BY [Signature] signature

APPROVE as to form and content:

USING AGENCY name

BY [Signature] signature

COORDINATING CONTRACTOR or CONSTRUCT. MANAGER

BY [Signature] signature

CDB/PM APPROVE

[Signature] 4/17/2023 signature

CONTRACTOR

DATE 4/3/23

BY JEFF LEISE print name

[Signature] signature

VICE PRESIDENT title

CDB APPROVE change order

DATE \_\_\_\_\_

BY \_\_\_\_\_ print name

\_\_\_\_\_ signature

\_\_\_\_\_ title

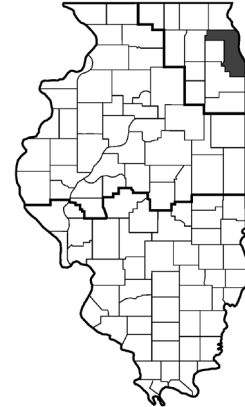
8. FOR CDB USE ONLY	Type of Change	% Assess	Package No.	CO Date	CO No.	CO AMOUNT add (deduct)
						\$ _____

**Project Number:** 810-018-006 Ph. 3  
Change Order G-3155 – Remobilization (118)

**Description:** Transportation, Distribution & Logistics (TDL) Center  
Olive Harvey College  
Chicago, Cook County, IL

**Using Agency:** Illinois Community College Board

**Architect/Engineer:** FGM Architects Inc  
550 West Van Buren, Suite 14  
Chicago, IL, 60607



**Total Project Budget:** \$ 55,392,432.00  
**Unobligated Funds:** \$ 1,760,033.33  
**Total Spent to Date:** \$ 53,012,207.36  
**Percent Complete:** 99%

**Project Manager:** Nicole Scott

**Project History:** The TDL Center is a new 105,000 square foot, three-story building with a mechanical penthouse on the existing campus of Olive Harvey college.

The scope of work for the third phase of the project includes aluminum and glass curtain walls, roofing, interior masonry wall construction, interior finishes, mechanical heating and temperature control systems, mechanical ventilation systems, plumbing systems, fire protection systems, electrical systems, and rough-in for technology systems. The project also includes exterior site improvements, concrete paving, and landscaping.

Contractors were directed by the State of Illinois to stop work associated with the project on June 30, 2015. On November 13, 2017, the State of Illinois rescinded the stop work order and directed each contractor to return to work. The project completion date was revised to October 31, 2018, but work continued past that date. The Phase 3 general contractor had additional costs related to general conditions for the period between November 1, 2018 and May 31, 2019 (7 months).

Due to the stop work, a large number of unforeseeable, post substantial completion, budget-impasse remediation change orders were necessary to complete the work on this new center. These change orders delayed the closeout process. This was at no fault of the general contractor. The general contractor is therefore requesting compensation for the extended general conditions during this extended timeframe.

**Description of RFP Change:** This change order will provide for additional general conditions for the period of November 1, 2018 through May 31, 2019 (7 months) and as outlined on the attached summary.

**Requested Action:** We are requesting board approval of change order G-3155 in the amount of \$383,196.10 to compensate the general contractor for the extended general conditions.

Contractor	Trade	Change Order Amount	Original Contract	% Change
Path Construction Company Inc	General	\$ 383,196.10	\$ 13,996,700.00	2.7%
Total All Change Orders	General	\$ 383,196.10	\$ 13,996,700.00	2.7%



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**MEMORANDUM**

TO: Tim Patrick Construction Administrator  
FROM: Nicole Y. Scott CDB Project Manager  
DATE: March 28, 2023  
RE: 810-018-006 Ph 3 G-3155 Extended General Conditions Path Construction

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Contractors were directed by the State of Illinois to stop work associated with the project on June 30, 2015. On November 13, 2017, the State of Illinois rescinded the stop work order and directed each contractor to return to work. The project completion date was revised to October 31, 2018 but work continued past that date. The Phase 3 General Contractor had additional costs related to General Conditions for the period between November 1, 2018 and May 31, 2019 (7 months).

On 6/6/2018, Path Construction was issued RFPCO G-3046 for *“time and material costs for project management/supervision associated with the restart of the project including attendance at meetings, preparation of proposals in response to RFPCO’s for restart activities, for the period starting November 13, 2017 through Substantial Completion.”* Detailed within the backup documentation of RFPCO G-3046, Path Construction estimated hours through the end of July 2018.

Time extension RFPCO G-3057 was approved 7/19/2018, setting a target substantial completion date of 10/31/2018. As evidenced by the numerous budget impasse remediation change orders dated well past the target substantial completion date, meeting this substantial completion date was an unrealistic goal no one could have anticipated. To no fault of the General Contractor, Substantial completion was not met by 10/31/2018 but was instead achieved 8/27/2019.

It is evident that Path Construction is due Extended General Conditions compensation as previously issued RFPCO G-3046 did not cover General Conditions between November 1, 2018 and May 31, 2019. Path Construction has provided documentation supporting a value of \$383,196.10.

cc:

State of Illinois  
CAPITAL DEVELOPMENT BOARD

# REQUEST FOR PROPOSAL & CHANGE ORDER

Date: **March 14, 2023** RFP Number: **G-3155**

<p>1. (Contractor's Name, Address, Telephone, Fax &amp; Attention)                  Path Construction Company, Inc.                  125E. Algonquin Road                  Arlington Heights, IL 60005                  Tel: (847) 398-7100 Fax: (847) 398-7101                  Attn: Ryan Tucker, Project Manager                  e-mail: rtucker@pathcc.com</p>	<p>CDB Project #: 810-018-006 – Phase 3                  CDB Project Name: Transportation, Distribution &amp; Logistics (TDL) Center                  &amp; Location: Olive-Harvey College                    CDB Contract #: 15-0416-81                  Contract Work: General</p>
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2. REQUEST for change by: Phase 3 General Contractor

CDB contemplates making certain changes, additions and deletions to the work to be performed under the subject Contract. Unless otherwise indicated in the description of change, accompanying drawings and specifications, all work required shall conform to the contract documents. The Contractor is required to submit within 14 calendar days from the date herein a proposal and a detailed breakdown for this change. The proposal shall be submitted in accordance with CDB's format and the General Conditions.

3. REASON for change:

Contractors were directed by the State of Illinois to stop work associated with the project on June 30, 2015. On November 13, 2017, the State of Illinois rescinded the stop work order and directed each contractor to return to work. The project completion date was revised to October 31, 2018 but work continued past that date. The Phase 3 General Contractor had additional costs related to General Conditions for the period between November 1, 2018 and May 31, 2019 (7 months).

4. DESCRIPTION of change including reference to drawings and specifications revised and/or new drawings and specifications issued:

The Phase 3 General Contractor shall provide additional work as outlined under General Conditions for the additional period of November 1, 2018 and May 31, 2019 (7 months) and as outlined on the attached summary.

5. OTHER CONTRACTS affected by this change. List Contractor's name, contract work, RFP number and amount.

**IMPORTANT NOTICE**  
 Disclosure of this information is mandatory in accordance with the Standard Documents for Construction. Failure to complete this will prevent payment for work completed and/or be a material breach of contract.

6. CONSIDERATION:

Work to be accomplished in zero (0) Calendar Days from Approval of RFPCO.

The Contract Sum is **INCREASED** / DECREASED

by the total sum of \$383,196.10

**NOTE: Unless specifically indicated above, this does not extend the contract time.**

7. The change described above and on accompanying drawings and specifications and the Contractor's proposal (if applicable) are hereby incorporated by reference and made a part hereof. Having reviewed the above and determining the amount to be fair and proper the undersigned:

RECOMMEND issuance of a Change Order

APPROVE as to form and content:

A/E Firm Name FGM Architects Inc.

USING AGENCY Name City Colleges of Chicago

BY [Signature] Signature

BY \_\_\_\_\_ Signature

COORDINATING CONTRACTOR or CONSTRUCTION MANAGER

CDB/PM APPROVE [Signature] **03/28/2023**

BY \_\_\_\_\_ Signature

BY [Signature] Signature

CONTRACTOR Date 3/15/23

CDB APPROVE Change Order Date \_\_\_\_\_

BY Ryan Tucker Print Name

BY \_\_\_\_\_ Print Name

[Signature] Signature

\_\_\_\_\_  
Signature

Project Manager Title

\_\_\_\_\_  
Title

8.	FOR CDB USE ONLY	Type of Change	% Assess	Package No.	CO Date	CO No.	CO AMOUNT add (deduct)
							\$

**SUBJECT: Staff Recommendations for Board Selection of Architect/Engineers**

Project Number	Firm/Job Description	Estimated Total Project Cost
120-007-019	Replace Domestic Water Heaters and Water Valves Department of Corrections Western Illinois Correctional Center - Mount Sterling, Brown County	\$3,004,800
	<p><i>RECOMMENDED FIRMS IN ALPHA ORDER:</i></p> EDM Incorporated Globetrotters Engineering Corporation Henneman Engineering Inc.	
120-175-150	Replace Piping and Hot Water Lines Department of Corrections Menard Correctional Center - Randolph County	\$11,038,100
	<p><i>RECOMMENDED FIRMS IN ALPHA ORDER:</i></p> RTM Engineering Consultants, LLC	
120-225-011	Renovate Water Tower Department of Corrections Taylorville Correctional Center - Christian County	\$1,804,000
	<p><i>RECOMMENDED FIRMS IN ALPHA ORDER:</i></p> IMEG Corp. Kuhn & Trello Consulting Engineers, LLC Poepping, Stone, Bach & Associates, Inc.	
120-255-031	Replace Boilers - Dietary Department of Corrections Shawnee Correctional Center - Johnson County	\$1,455,300
	<p><i>RECOMMENDED FIRMS IN ALPHA ORDER:</i></p> Marcum Engineering, LLC RTM Engineering Consultants, LLC Webb Engineering Services, Inc.	

**SUBJECT: *Staff Recommendations for Board Selection of Architect/Engineers***

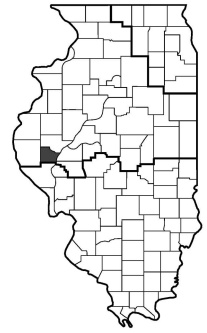
<b>Project Number</b>	<b>Firm/Job Description</b>	<b>Estimated Total Project Cost</b>
120-270-044	Replace Dietary and Housing Unit Water Heaters Department of Corrections Graham Correctional Center - Montgomery County	\$9,099,500

*RECOMMENDED FIRMS IN ALPHA ORDER:*

EDM Incorporated  
Prairie Engineers, P.C.  
RTM Engineering Consultants, LLC

# A/E SELECTION COMMITTEE RECOMMENDATIONS

5/9/2023



**CDB PROJECT NO:** 120-007-019  
**PROJECT DESCRIPTION:** Replace Domestic Water Heaters and Water Valves  
**PROJECT LOCATION:** Department of Corrections  
Western Illinois Correctional Center - Mount Sterling, Brown County  
**APPROPRIATION AMOUNT:** \$3,004,800  
**ESTIMATED TOTAL PROJECT COST:** \$3,004,800

## PROJECT SCOPE OF WORK:

The Boiler Building (C4530) is a 1,300 square foot, one -story building established in 1994. The Resident Units #1, #2 and #3 (C4501, C4502, C4503) are 43,300 square foot, 2-story buildings established in 1987. The Resident Unit #4 (C4532) is a 49,275 square foot, 2-story building established in 1995. The Res/Med/Adm/Seg (C4504) is a 52,818 square foot, 2-story building established in 1987.

The scope of work provides for removing and replacing two, 600MBH gas-fired water heaters in the Boiler Building and adding a third water heater, if warranted, along with any piping and venting modifications necessary to complete the installation. The scope shall include replacing all associated pumps and any other necessary accessories.

The scope also includes removing the Acorn Air-Trol timer valves on the lavatories in all housing unit cells and replacing them with new push button valves or another industry standard type valve to control the hot and cold water to the inmate lavatories.

The A/E will need to determine if any components of this project are eligible for a utility company or other energy grant/rebate and will be responsible for preparing and submitting the grant application if the project qualifies for the rebate.

A/E's are encouraged to include independent cost estimators on their teams to verify estimates are in line with current market conditions to avoid project bids that exceed the available funding for the project. A/E estimates should be updated and verified at each stage of the project in accordance with the Design and Construction Manual. Designers are reminded that their Professional Services Agreements make them responsible for providing a design that is within budget and they can be held responsible for redesign of the project should bids received exceed project funding.

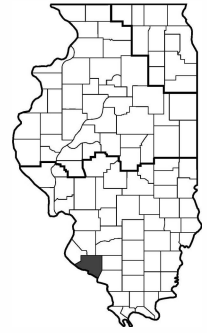
A combined MBE/WBE goal of 18 percent is applicable to the A/E team.

A VBE/PBE goal of 2 percent is applicable to the A/E team.

**PROFESSIONAL SERVICES BULLETIN VOLUME:** 299

## A/E SELECTION COMMITTEE RECOMMENDATIONS

5/9/2023



**CDB PROJECT NO:** 120-175-150  
**PROJECT DESCRIPTION:** Replace Piping and Hot Water Lines  
**PROJECT LOCATION:** Department of Corrections  
Menard Correctional Center - Randolph County  
**APPROPRIATION AMOUNT:** \$11,038,100  
**ESTIMATED TOTAL PROJECT COST:** \$11,038,100

### PROJECT SCOPE OF WORK:

The Menard Correctional Center is a 1,246,455 square foot, 134-building facility constructed in 1878.

The scope of work provides for replacing and reinsulating the elevated hot water supply and return piping, and any related or supporting work.

The A/E will need to determine if any components of this project are eligible for a utility company or other energy grant/rebate and will be responsible for preparing and submitting the grant application if the project qualifies for the rebate.

A/E's are encouraged to include independent cost estimators on their teams to verify estimates are in line with current market conditions to avoid project bids that exceed the available funding for the project. A/E estimates should be updated and verified at each stage of the project in accordance with the Design and Construction Manual. Designers are reminded that their Professional Services Agreements make them responsible for providing a design that is within budget and they can be held responsible for redesign of the project should bids received exceed project funding.

A combined MBE/WBE goal of 20 percent is applicable to the A/E team. Some level of participation from both MBE and WBE firms is required to satisfy this goal (this requires including one or more MBE AND one or more WBE firms on the team).

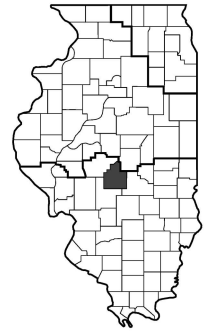
A VBE/PBE goal of 2 percent is applicable to the A/E team.

**PROFESSIONAL SERVICES BULLETIN VOLUME:** 299



# A/E SELECTION COMMITTEE RECOMMENDATIONS

5/9/2023



**CDB PROJECT NO:** 120-225-011  
**PROJECT DESCRIPTION:** Renovate Water Tower  
**PROJECT LOCATION:** Department of Corrections  
Taylorville Correctional Center - Christian County  
**APPROPRIATION AMOUNT:** \$1,804,000  
**ESTIMATED TOTAL PROJECT COST:** \$1,804,000

**PROJECT SCOPE OF WORK:**

The Water Tower (C3521) is a 150 square foot, one-story building established in 1990.

The scope of work provides for painting and repairing the spheroid elevated water tower to be fully compliant with IDPH, FAA, and OSHA requirements, including sand blasting the tower, priming and painting the entire tower inside and outside using appropriate paint. The outside shall have a FAA compliant paint scheme. Repairs include, but are not limited to, minor regrading and seeding, removing debris and general tank maintenance, making repairs to various areas of the tank for IDPH and OSHA compliance, including hatches, ladders and handrails, renovating the cathode protection system, replacing the insulation of the inside base and pipe systems to maintain systems above freezing, replacing grout at the base as necessary, replacing concrete slab expansion joints, and renovating areas surrounding the tank. The scope also includes making electrical changes for FAA approved beacon lighting, lightning protection, and transformer performance.

The A/E will need to determine if any components of this project are eligible for a utility company or other energy grant/rebate and will be responsible for preparing and submitting the grant application if the project qualifies for the rebate.

A/E's are encouraged to include independent cost estimators on their teams to verify estimates are in line with current market conditions to avoid project bids that exceed the available funding for the project. A/E estimates should be updated and verified at each stage of the project in accordance with the Design and Construction Manual. Designers are reminded that their Professional Services Agreements make them responsible for providing a design that is within budget and they can be held responsible for redesign of the project should bids received exceed project funding.

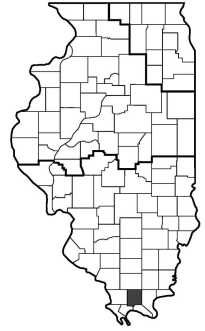
A combined MBE/WBE goal of 18 percent is applicable to the A/E team.

There are no VBE/PBE goals applied to the A/E team, but participation is encouraged.

**PROFESSIONAL SERVICES BULLETIN VOLUME:** 299

# A/E SELECTION COMMITTEE RECOMMENDATIONS

5/9/2023



**CDB PROJECT NO:** 120-255-031  
**PROJECT DESCRIPTION:** Replace Boilers - Dietary  
**PROJECT LOCATION:** Department of Corrections  
Shawnee Correctional Center - Johnson County  
**APPROPRIATION AMOUNT:** \$1,455,300  
**ESTIMATED TOTAL PROJECT COST:** \$1,455,300

**PROJECT SCOPE OF WORK:**

The Dietary/Warehouse (C1138) is a 54,660 square foot, 1-story building, established in 1984.

The scope of work provides for replacing the existing boilers, controls, pumps, selected piping, insulation, and accessories, as well as any other related or supporting work.

The A/E will need to determine if any components of this project are eligible for a utility company or other energy grant/rebate and will be responsible for preparing and submitting the grant application if the project qualifies for the rebate.

A/E's are encouraged to include independent cost estimators on their teams to verify estimates are in line with current market conditions to avoid project bids that exceed the available funding for the project. A/E estimates should be updated and verified at each stage of the project in accordance with the Design and Construction Manual. Designers are reminded that their Professional Services Agreements make them responsible for providing a design that is within budget and they can be held responsible for redesign of the project should bids received exceed project funding.

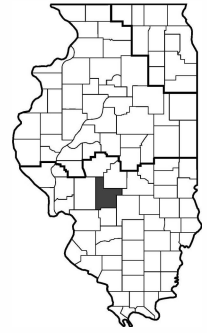
A combined MBE/WBE goal of 18 percent is applicable to the A/E team.

There are no VBE/PBE goals applied to the A/E team, but participation is encouraged.

**PROFESSIONAL SERVICES BULLETIN VOLUME:** 299

## A/E SELECTION COMMITTEE RECOMMENDATIONS

5/9/2023



**CDB PROJECT NO:** 120-270-044

**PROJECT DESCRIPTION:** Replace Dietary and Housing Unit Water Heaters

**PROJECT LOCATION:** Department of Corrections  
Graham Correctional Center - Montgomery County

**APPROPRIATION AMOUNT:** \$9,099,500

**ESTIMATED TOTAL PROJECT COST:** \$9,099,500

### PROJECT SCOPE OF WORK:

Graham Correctional Center is a 60-building facility established in 1981.

The scope of work provides for replacing the electric domestic water heater at each housing unit, removing the Dietary Warehouse Building 400-gallon electric domestic water heater, replacing the two Dietary Warehouse Building 2,000-gallon electric domestic water heaters, and replacing associated pumps, piping and flues. The existing electric domestic water heater at each housing unit (C3110 through C3125) cannot meet the demand. The existing electric domestic water heaters in the Dietary Warehouse Building cannot provide enough hot water to the kitchen area.

The A/E will need to determine if any components of this project are eligible for a utility company or other energy grant/rebate and will be responsible for preparing and submitting the grant application if the project qualifies for the rebate.

A/E's are encouraged to include independent cost estimators on their teams to verify estimates are in line with current market conditions to avoid project bids that exceed the available funding for the project. A/E estimates should be updated and verified at each stage of the project in accordance with the Design and Construction Manual. Designers are reminded that their Professional Services Agreements make them responsible for providing a design that is within budget and they can be held responsible for redesign of the project should bids received exceed project funding.

A combined MBE/WBE goal of 20 percent is applicable to the A/E team. Some level of participation from both MBE and WBE firms is required to satisfy this goal (this requires including one or more MBE AND one or more WBE firms on the team).

A VBE/PBE goal of 2 percent is applicable to the A/E team.

**PROFESSIONAL SERVICES BULLETIN VOLUME:** 299



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**M E M O R A N D U M**

**TO: Capital Development Board**

**FROM: Lisa Hennigh, P.E., Deputy Director of Construction**

**DATE: April 22, 2023**

**RE: Illinois Energy Conservation Code Rules (71 IAC 600)**

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The Capital Development Board (“CDB”) is proposing amended administrative rules. Pursuant to 2 Ill. Adm. Code 1650.410, CDB is requesting Board approval for the revised rules summarized below:

Per the Energy Efficient Building Act (20 ILCS 3125/), CDB is required to adopt an energy conservation code for the state based on the most recently published version of the International Energy Conservation Code (IECC) for both commercial and residential buildings and may appropriately adapt the IECC to apply to the particular economy, population distribution, geography, and climate of the State and construction therein. Energy standards were first instituted in 2003 for State buildings, 2004 for commercial buildings and 2009 for residential buildings.

These rules were presented to the Board in May 2022. They were retracted from the Joint Committee on Administrative Rules process in January of 2023 and revised to align with Governor Pritzker’s climate change initiatives and statewide energy conservation goals. The rules were presented at the April 2023 Board Meeting at which six Board Members were present. Three Board Members voted in favor of approving the amended Rules. No Board Members voted against approving the amended Rules. Three Board Members abstained from voting. After consideration and review, particularly of Section 10.130 of the Capital Development Board’s Rules on Board Action (71 Ill. Adm. Code 10.130), it was determined that the amended rules did not receive sufficient affirmative votes for approval. CDB is resubmitting the rules for consideration by the Board.

The rules are still written to update the Illinois Energy Conservation Code from the 2018 IECC to the 2021 IECC but were amended so that the State of Illinois will adopt the 2021 International Energy Conservation Code (IECC), without energy efficiency-reducing amendments. All amendments to the Illinois Code past, current, and proposed were reviewed by the Pacific Northwest National Laboratory (PNNL). Based on their analysis, any amendments found to be less stringent than the 2021 IECC were removed. This change impacts building energy codes for residential and commercial buildings, and all State construction.

The U.S. Department of Energy (U.S. DOE) has determined the 2021 International Energy Conservation Code would improve energy efficiency in buildings over the 2018 IECC. DOE analysis indicates that buildings meeting the 2021 IECC result in state-specific energy savings of 9.8 percent. This will not be achieved if the energy reducing amendments remain. Per U.S. DOE Office of Energy Efficiency and Renewable Energy, the State of Illinois’ current code, the 2018 IECC with Illinois amendments, has a code equivalency of the 2009 IECC.

In addition to aligning the rules with Governor's Pritzker's climate change and energy efficiency goals it will also provide the following benefits:

- Energy and utility bill reduction for residents and businesses
- Installing efficiency at the most cost-effective time (the time of initial construction)
- Adoption of the most up-to-date model code, which is developed through a rigorous stakeholder engagement process of multiple industries
- Increased potential to receive part of the \$1B in federal funds through the Inflation Reduction Act.

The rules include adding five new members to the Illinois Energy Conservation Advisory Council based on Public Act 102-662. Some sections were also rearranged or reworded to make the rules more consistent with statute and the 2021 IECC. Amendments that increased or did not alter energy efficiency were retained.

CDB is requesting that the Board approve this rulemaking to be published in the Illinois Register for public notice.

ILLINOIS REGISTER

CAPITAL DEVELOPMENT BOARD

NOTICE OF PROPOSED AMENDMENTS

TITLE 71: PUBLIC BUILDINGS, FACILITIES, AND REAL PROPERTY  
CHAPTER I: CAPITAL DEVELOPMENT BOARD  
SUBCHAPTER d: ENERGY CODES

PART 600  
ILLINOIS ENERGY CONSERVATION CODE

SUBPART A: GENERAL

Section	
600.100	Definitions
600.110	Adoption and Modification of the Code
600.120	Illinois Energy Conservation Advisory Council
600.130	Revisions to the Code

SUBPART B: STATE FUNDED FACILITIES

Section	
600.200	Standards for State Funded Facilities
600.210	Exemptions
600.220	Compliance

SUBPART C: PRIVATELY FUNDED COMMERCIAL FACILITIES

Section	
600.300	Standards for Privately Funded Commercial Facilities
600.310	Exemptions
600.320	Local Jurisdiction
600.330	Compliance
600.340	Application to Home Rule Units

SUBPART D: RESIDENTIAL BUILDINGS

Section	
600.400	Standards for Residential Buildings
600.410	Exemptions
600.420	Local Jurisdiction
600.430	Compliance
600.440	Application to Home Rule Units

ILLINOIS REGISTER

CAPITAL DEVELOPMENT BOARD

NOTICE OF PROPOSED AMENDMENTS

600.APPENDIX A Supplanted and Additional ~~2021~~2018 International Energy Conservation Code Sections

AUTHORITY: Implementing and authorized by the Capital Development Board Act [20 ILCS 3105] and the Energy Efficient Building Act [20 ILCS 3125].

SOURCE: Adopted by emergency rulemaking at 28 Ill. Reg. 11355, effective July 26, 2004, for a maximum of 150 days; emergency rules expired December 22, 2004; adopted at 29 Ill. Reg. 777, effective January 1, 2005; new Part adopted by emergency rulemaking at 29 Ill. Reg. 5736, effective April 8, 2005, for a maximum of 150 days; emergency expired September 4, 2005; emergency rulemaking repealed at 29 Ill. Reg. 6093, effective April 18, 2005, for a maximum of 150 days; emergency expired September 14, 2005; old Part repealed at 29 Ill. Reg. 16414 and new Part adopted at 29 Ill. Reg. 14790, effective April 8, 2006; amended at 31 Ill. Reg. 14422, effective October 9, 2007; emergency amendment at 33 Ill. Reg. 12407, effective August 18, 2009, for a maximum of 150 days; amended at 33 Ill. Reg. 16702, effective November 23, 2009; emergency rulemaking at 34 Ill. Reg. 2582, effective January 29, 2010, for a maximum of 150 days; emergency expired June 27, 2010; amended at 34 Ill. Reg. 11398, effective July 26, 2010; amended at 37 Ill. Reg. 789, effective January 11, 2013; amended at 37 Ill. Reg. 12822, effective July 23, 2013; amended at 40 Ill. Reg. 2754, effective January 20, 2016; amended at 43 Ill. Reg. 8707, effective August 5, 2019; amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

SUBPART A: GENERAL

**Section 600.100 Definitions**

Definitions of terms in the International Energy Conservation Code, incorporated by reference in Subpart C of this Part, apply, as do the following definitions:

"Act" means the Capital Development Board Act [20 ILCS 3105].

"Authority Having Jurisdiction" or "AHJ" means the organization, office or individual responsible for approving equipment, materials, an installation or procedure.

"CDB" or "Board" means the Illinois Capital Development Board.

"Commercial Facility" means any building except a building that is ~~classified as~~ a residential building as defined in the EEB Act. [20 ILCS 3125/10]

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"Council" means the Illinois Energy Conservation Advisory Council appointed under Subpart B of this Part and whose purpose it is to recommend modifications to the *Illinois Energy Conservation Code*.

"EEB Act" means the Energy Efficient Building Act [20 ILCS 3125].

"IECC" means the International Energy Conservation Code.

"Illinois Energy Conservation Code" or "Code" means:

With respect to the State facilities covered by Subpart B:

This Part, all additional requirements incorporated within Subpart B (including the ~~2021~~2018 International Energy Conservation Code that encompasses ASHRAE 90.1, including all published errata but excluding published supplements) and any statutorily authorized adaptations to the incorporated standards adopted by CDB;

With respect to the privately funded commercial facilities covered by Subpart C:

This Part, all additional requirements incorporated within Subpart C (including the ~~2021~~2018 International Energy Conservation Code that encompasses ASHRAE 90.1, including all published errata but excluding published supplements, and any statutorily authorized adaptations to the incorporated standards adopted by CDB; and

With respect to the residential buildings covered by Subpart D:

This Part, all additional requirements incorporated within Subpart D (including the ~~2021~~2018 International Energy Conservation Code, including all published errata but excluding published supplements) and any statutorily authorized adaptations to the incorporated standards adopted by CDB.

"Municipality" means any city, village or incorporated town. [20 ILCS 3125/10]



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*"Residential Building" means a detached one-family or 2-family dwelling or any building that is 3 stories or less in height above grade that contains multiple dwelling units, in which the occupants reside on a primarily permanent basis, such as a townhouse, a row house, an apartment house, a convent, a monastery, a rectory, a fraternity or sorority house, a dormitory, and a rooming house; provided, however, that when applied to a building located within the boundaries of a municipality having a population of 1,000,000 or more, the term "residential building" means a building containing one or more dwelling units, not exceeding 4 stories above grade, where occupants are primarily permanent. [20 ILCS 3125/10]*

*"State Funded Building" means and includes buildings under the jurisdiction of each officer, department, board, commission, institution and body politic and corporate of the State, including the Illinois Building Authority, and any other person expending or encumbering State or federal funds by virtue of an appropriation or other authorization by the General Assembly or federal authorization or grant. This includes State funded housing, hospitals, penitentiaries, laboratories, educational facilities, administrative facilities, recreational facilities, environmental equipment and parking facilities [20 ILCS 3105/4.01].*

(Source: Amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 600.110 Adoption and Modification of the Code**

- a) The purpose of the Illinois Energy Conservation Code is to implement Section 15 of the Energy Efficient Building Act [20 ILCS 3125] that requires CDB to officially adopt, as a minimum requirement for State and commercial structures and as a minimum and maximum requirement for residential buildings, the ~~2021~~2018 International Energy Conservation Code, including all published errata but excluding any published supplements, to apply that Code to all commercial and residential structures in Illinois, and to assist local code officials with enforcing the requirements of the Code. The ~~2021~~2018 Illinois Energy Conservation Code will become effective on adoption of this rulemaking ~~July 1, 2019~~.
- b) This Code as described in Subpart B (State facilities) is effective July 26, 2004. This Code as described in Subpart C (privately-funded commercial facilities) is

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effective April 8, 2007. The Code as described in Subpart D (residential buildings) is effective January 29, 2010.

- c) Application of the Code
  - 1) State Facilities. The Code as described in Subpart B of this Part applies to all State facilities for which money has been appropriated or authorized by the General Assembly.
  - 2) Privately Funded Commercial Facilities and Residential Buildings. The Code as described in Subparts C and D of this Part applies *to any new building or structure in this State for which a building permit application is received by a municipality or county.* [20 ILCS 3125/20]
    - A) *Additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of the Code as they relate to new construction without requiring the unaltered portion of the existing building or building system to comply with the Code.* [20 ILCS 3125/20(c)]
    - B) All exceptions listed in the Code related to additions, alterations, renovations or repairs to an existing building are acceptable provided the energy use of the building is not increased.
- d) This Code, together with the standards incorporated by reference in this Part, has the force of a building code and is administrative law applicable in the State of Illinois.

(Source: Amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 600.120 Illinois Energy Conservation Advisory Council**

- a) The Executive Director of the Capital Development Board shall appoint an Advisory Council. The Council shall be composed of the Executive Director or his or her authorized representative, who shall serve as Chairman ex-officio, and ~~16~~ additional members appointed by the Executive Director. The appointed members shall consist of 1 person representing the Illinois Environmental Protection Agency; 2 persons representing the residential construction contracting industry; 2 licensed architects; 1 licensed mechanical engineer; 1 licensed

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electrical engineer; 2 persons representing local code officials; and 2 persons representing the construction contracting industry; 1 representative from a group that represents environmental justice; 1 representative of a nonprofit or professional association advocating for the environment; 1 energy-efficiency advocate with technical expertise in single-family residential buildings; 1 energy-efficiency advocate with technical expertise in commercial buildings; and 1 energy-efficiency advocate with technical expertise in multifamily buildings, such as an affordable housing developer. Members of the Council shall be appointed for 4 year terms. The members appointed by the Executive Director shall serve for the term of their appointments and may be reappointed upon expiration of the term. Any member appointed to fill a vacancy occurring prior to the expiration of the term for which his or her predecessor was appointed shall be appointed for a full term.

- b) Nine ~~Seven~~ members of the Council shall constitute a quorum. The Chairman shall only vote to break a tie or when necessary to establish a quorum.
- c) The purpose of the Council shall be to recommend modifications to the Illinois Energy Conservation Code.
- d) Members of the Council shall serve without compensation but shall be reimbursed for reasonable travel expenses necessarily incurred in the performance of their duties.

(Source: Amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART B: STATE FUNDED FACILITIES

**Section 600.200 Standards for State Funded Facilities**

- a) The ~~2021~~ ~~2018~~ IECC, including published errata but excluding published supplements, available from the International Code Council at 500 New Jersey Avenue NW, 6<sup>th</sup> Floor, Washington DC 20001, phone: 1-888-ICC-SAFE (422-7233), [www.iccsafe.org](http://www.iccsafe.org), is hereby incorporated into the Illinois Energy Conservation Code, as described in this Subpart as applicable to State funded facilities, with the modifications outlined in subsection (c).

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- b) All incorporations by reference in this Section are of the cited standards as they existed on the date specified. These incorporations include no later editions or amendments.
- c) **Modifications to IECC**  
Under Section 15 of the EEB Act, when applying the Code to State funded facilities, CDB may modify the incorporated standards to respond to the unique economy, population distribution, geography and climate of Illinois, as long as the objectives of the EEB Act are maintained. Modifications, additions or omissions to IECC are specified in Appendix A and are rules of the CDB and are not requirements of the IECC.

(Source: Amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART C: PRIVATELY FUNDED COMMERCIAL FACILITIES

**Section 600.300 Standards for Privately Funded Commercial Facilities**

- a) The ~~2021~~~~2018~~ IECC, including published errata but excluding published supplements, available from the International Code Council at 500 New Jersey Avenue NW, 6<sup>th</sup> Floor, Washington DC 20001, phone: 1-888-ICC-SAFE (422-7233), [www.iccsafe.org](http://www.iccsafe.org), is hereby incorporated into the Illinois Energy Conservation Code, as described in this Subpart as applicable to privately funded commercial facilities, with the modifications outlined in subsection (c).
- b) All incorporations by reference in this Section are of the cited standards as they existed on the date specified. These incorporations include no later editions or amendments.
- c) **Modifications to IECC**  
Under Section 15 of the EEB Act, when applying the Code to privately funded commercial facilities, CDB may modify the incorporated standards to respond to the unique economy, population distribution, geography and climate of Illinois, as long as the objectives of the EEB Act are maintained. Modifications, additions or omissions to IECC are specified in Appendix A and are rules of the CDB and are not requirements of the IECC.

(Source: Amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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**Section 600.340 Application to Home Rule Units**

*This Section is a denial and limitation of home rule powers and functions under subsection (i) of Section 6 of Article VII of the Illinois Constitution on the concurrent exercise by home rule units of powers and functions exercised by the State. Nothing in this Section, however, prevents a unit of local government from adopting an energy efficiency code or standards for commercial buildings that are more stringent than the Code under this Act. [20 ILCS 3125/45(d)]*

*No unit of local government, including any home rule unit, may apply energy efficient building standards to privately funded commercial facilities in a manner that is less stringent than the Code as described in this Subpart C. However, nothing in the EEB Act or this Subpart prevents a unit of local government from adopting an energy efficiency code or standards for commercial buildings that are more stringent than this Code. [20 ILCS 3125/45(a)]*

(Source: Amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART D: RESIDENTIAL BUILDINGS

**Section 600.400 Standards for Residential Buildings**

- a) The ~~2021~~2018 IECC, including published errata but excluding published supplements, available from the International Code Council at 500 New Jersey Avenue NW, 6<sup>th</sup> Floor, Washington DC 20001, phone: 1-888-ICC-SAFE (422-7233), www.iccsafe.org, is hereby incorporated into the Illinois Energy Conservation Code, as described in this Subpart as applicable to residential buildings, with the modifications outlined in subsection (c).
- b) All incorporations by reference in this Section are of the cited standards as they existed on the date specified. These incorporations include no later editions or amendments.
- c) **Modifications to IECC**  
Under Section 15 of the EEB Act, when applying the Code to residential buildings, CDB may modify the incorporated standards to respond to the unique economy, population distribution, geography and climate of Illinois, as long as the objectives of the Act are maintained pursuant to that statutory authority. Modifications, additions or omissions to IECC are specified in Appendix A and are rules of the CDB and are not requirements of the IECC.

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(Source: Amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 600.420 Local Jurisdiction**

- a) Construction projects involving residential buildings and for which a municipality or county requires a building permit must comply with the Illinois Energy Conservation Code if the project involves new construction, addition, alteration, renovation or repair. *In the case of any addition, alteration, renovation or repair to an existing residential [...] structure, the Code as described by this Subpart D applies only to the portions of that structure that are being added, altered, renovated or repaired. [20 ILCS 3125/20(a)]*
- b) The local authority having jurisdiction (AHJ) shall establish its own procedures for enforcement of the Code.
- c) *A unit of local government that does not regulate energy efficient building standards is not required to adopt, enforce or administer the Code; however, any energy efficient building standards adopted by a unit of local government must comply with the Act. If a unit of local government does not regulate energy efficient building standards, any construction, renovation or addition to buildings or structures is still subject to the provisions contained in the Act. [20 ILCS 3125/20(d)].*

(Source: Amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 600.440 Application to Home Rule Units**

- a) *No unit of local government, including any home rule unit, may regulate energy efficient building standards for residential buildings in a manner that is either less or more stringent than the standards established in this Subpart D.*
- b) *The following entities may regulate energy efficient building standards for residential buildings in a manner that is more stringent than the provisions contained in this Subpart D:*
  - 1) *a unit of local government, including a home rule unit, that has, on or before May 15, 2009, adopted or incorporated by reference energy*

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*efficient building standards for residential buildings that are equivalent to or more stringent than the 2006 IECC;*

- 2) *a unit of local government, including a home rule unit, that has, on or before May 15, 2009, provided to the Capital Development Board, as required by Section 10.18 of the Capital Development Board Act [20 ILCS 3105], an identification of an energy efficient building code or amendment that is equivalent to or more stringent than the 2006 IECC; [.....]-and*
- 3) *a municipality with a population of 1,000,000 or more. [20 ILCS 3125/45(b)]*
- c) *No unit of local government, including any home rule unit or unit of local government that is subject to State regulation under the Code as provided in Section 15 of the EEB may enact any annexation ordinance or resolution, or require or enter into any annexation agreement, that imposes energy efficient building standards for residential buildings that are either less or more stringent than the energy efficiency standards in effect, at the time of construction, throughout the unit of local government.... [20 ILCS 3125/45(c)]*

(Source: Amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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**Section 600.APPENDIX A Supplanted and Additional ~~20212018~~ International Energy Conservation Code Sections**

The following Code sections shall be referenced in place of the corresponding ~~20212018~~ IECC sections.

**CHAPTER 1 [CE]  
SCOPE AND ADMINISTRATION**

**SECTION C101  
SCOPE AND GENERAL REQUIREMENTS**

**C101.1 Title.** This Code shall be known as the Illinois Energy Conservation Code or Code and shall mean:

With respect to the State facilities covered by 71 Ill. Adm. Code 600.Subpart B:

This Part, all additional requirements incorporated within Subpart B (including the ~~20212018~~ International Energy Conservation Code, including all published errata but excluding published supplements that encompass ASHRAE 90.1-~~20192016~~), and any statutorily authorized adaptations to the incorporated standards adopted by CDB, are effective upon adoption July 1, 2019.

With respect to the privately funded commercial facilities covered by 71 Ill. Adm. Code 600.Subpart C:

This Part, all additional requirements incorporated within Subpart C (including the ~~20212018~~ International Energy Conservation Code, including all published errata and excluding published supplements that encompass ASHRAE 90.1-~~20192016~~), and any statutorily authorized adaptations to the incorporated standards adopted by CDB, are effective upon adoption July 1, 2019.

**C101.1.2 Adoption.** The Board shall adopt amendments to this Code within 12 months after publication of changes to the International Energy Conservation Code. Any such update in this Code shall take effect within 6 months after it is adopted by the Board and shall apply to any new building or structure in this State for which a building permit application is received by a municipality or county, except as otherwise provided by the EEB Act.



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**C101.1.3 Adaptation.** The Board may appropriately adapt the International Energy Conservation Code to apply to the particular economy, population distribution, geography and climate of the State and construction within the State, consistent with the public policy objectives of the EEB Act.

**C101.5 Compliance.** Commercial buildings shall meet the provisions of the Illinois Energy Conservation Code covered by 71 Ill. Adm. Code 600.Subpart C. The local authority having jurisdiction (AHJ) shall establish its own procedures for enforcement of the Illinois Energy Conservation Code. Minimum compliance shall be demonstrated by submission of:

1. Compliance forms published in the ASHRAE 90.1 User's Manual; or
2. Compliance Certificates generated by the U.S. Department of Energy's COMcheck™ Code compliance tool; or
3. Other comparable compliance materials that meet or exceed, as determined by the AHJ, the compliance forms published in the ASHRAE 90.1 User's Manual or the U.S. Department of Energy's COMcheck™ code compliance tool; or
4. The seal of the architect/engineer as required by Section 14 of the Illinois Architectural Practice Act [225 ILCS 305], Section 12 of the Structural Engineering Licensing Act [225 ILCS 340] and Section 14 of the Illinois Professional Engineering Practice Act [225 ILCS 325].

**C102.1.1 Above Code Programs.** No unit of local government, including any home rule unit, may apply energy efficient building standards to privately funded commercial facilities in a manner that is less stringent than this Code as described in 71 Ill. Adm. Code 600.Subpart C. However, nothing in the EEB Act or Subpart C prevents a unit of local government from adopting an energy efficiency code or standards that are more stringent than this Code. The requirements identified as "~~mandatory~~" in ~~Table C407.2 shall be met. Chapter 4 shall be met.~~

**SECTION ~~C110~~~~C109~~  
BOARD OF APPEALS**

**~~C110.1~~~~C109.1~~ General.** In order to hear and decide appeals of orders, decisions or determinations made by the code official relative to the application and interpretation of this Code, there may be created a board of appeals. The code official shall be an ex officio member of the board of appeals but shall not have a vote on any matter before the board. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board

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shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the code official.

**C109.3 Qualifications.** The board of appeals shall consist of members who are qualified by experience and training.

**CHAPTER 2 [CE]  
DEFINITIONS**

**SECTION C202  
GENERAL DEFINITIONS**

**Authority Having Jurisdiction or AHJ** – means the organization, officer or individual responsible for approving equipment, materials, an installation or procedure.

**Board** – means the Illinois Capital Development Board.

**Council** – means the Illinois Energy Conservation Advisory Council whose purpose is to recommend modifications to the Illinois Energy Conservation Code.

**Demand Response Signal** - means a signal that indicates a price or a request to modify electricity consumption for a limited time period.

**Demand Responsive Control** – means a control capable of receiving and automatically responding to a demand response signal.

**EEB Act** – means the Energy Efficient Building Act [20 ILCS 3125].

**Photosynthetic Photon Efficacy (PPE)** – means a photosynthetic photon flux divided by input electric power in units of micromoles per second per watt, or micromoles per joule as defined by ANSI/ASABE S640.

**~~Roof Membrane Peel and Replacement~~**—~~When an existing weather resisting roof membrane alone is removed, exposing insulation or sheathing and only a new weather resisting roof membrane is installed.~~

**CHAPTER 4 [CE]**

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COMMERCIAL ENERGY EFFICIENCY

SECTION C402  
BUILDING ENVELOPE REQUIREMENTS

**C402.4.1.3 Fenestration Orientation**

The vertical fenestration shall comply with equation either (a) or (b)

a.  $AW \leq (AT)/4$  and  $AE \leq (AT)/4$

b.  $AW \times SHGCW \leq (AT \times SHGCC)/5$  and  $AE \times SHGCE \leq (AT \times SHGCC)/5$

where

$A_w$  = west-oriented vertical fenestration area (oriented within 45 degrees of true west to the south and within 22.5 degrees of true west to the north in the northern hemisphere)

$A_e$  = east-oriented vertical fenestration area (oriented within 45 degrees of true east to the south and within 22.5 degrees of true east to the north in the northern hemisphere)

$AT$  = total vertical fenestration area

$SHGCC$  =  $SHGC$  criteria in Table C402.4

$SHGCE$  =  $SHGC$  for east-oriented fenestration

$SHGCW$  =  $SHGC$  for west-oriented fenestration

**Exceptions:**

1. Buildings with shade on 75% of the east- and west-oriented vertical fenestration areas from permanent projections, existing buildings, existing permanent infrastructure, or topography at 9 a.m. and 3 p.m., respectively, on the summer solstice (June 21).

2. Alterations and additions with no increase in vertical fenestration area.

3. Buildings where the west-oriented and east-oriented vertical fenestration area does not exceed 20% of the gross wall area for each of those façades, and  $SHGC$  on those facades is no greater than 90% of the criteria in Table C402.4.

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**C402.5.1 Air Barriers.** A continuous air barrier shall be provided throughout the building thermal envelope. The air barriers shall be permitted to be located on the inside or outside of the building envelope, located within the assemblies composing the envelope, or any combination thereof. The air barrier shall comply with Sections C402.5.1.1 and C402.5.1.2. For roof air barriers on existing buildings, refer to Section C503.1 or C504.2.

**Exception:** Air barriers are not required in buildings located in Climate Zone 2B.

**C402.5.1.1 Air Barrier Construction.** The continuous air barrier shall be constructed to comply with the following:

1. The air barrier shall be continuous for all assemblies that are the thermal envelope of the building and across the joints and assemblies.
2. Air barrier joints and seams shall be sealed, including sealing transitions at joints between dissimilar materials. The joints and seals shall be securely installed in or on the joint for its entire length so as not to dislodge, loosen or otherwise impair its ability to resist positive and negative pressure from wind, stack effect and mechanical ventilation.
3. Penetrations of the air barrier shall be caulked, gasketed or otherwise sealed in a manner compatible with the construction materials and location. Sealings shall allow for expansion, contraction and mechanical vibration. Paths for air leakage from the building to the space between the roof deck and roof covering used air barrier shall be caulked, gasketed or otherwise covered with a moisture vapor-permeable material. Joints and seams associated with penetrations shall be sealed in the same manner or taped. Sealing materials shall be securely installed around the penetration so as not to dislodge, loosen or otherwise impair the penetrations' ability to resist positive and negative pressure from wind, stack effect and mechanical ventilation. Sealing of concealed fire sprinklers, where required, shall be in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.
4. Recessed lighting fixtures shall comply with Section C402.5.8. Where similar objects are installed that penetrate the air barrier, provisions shall be made to maintain the integrity of the air barrier.

**SECTION C405  
ELECTRICAL POWER AND LIGHTING SYSTEMS**

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~~**C405.1 General (Mandatory).** This section covers lighting system controls, the maximum lighting power for interior and exterior applications and electrical energy consumption.~~

~~No less than 90% of the permanently installed lighting serving dwelling units shall be provided by lamps with an efficacy of not less than 65 lm/W or light fixtures with an efficacy of not less than 55 lm/W, or with Sections C405.2.4 and C405.3. Sleeping units shall comply with Section C405.2.4 and Section R404.1 or C405.3. Lighting installed in walk-in coolers, walk-in freezers, refrigerated warehouse coolers and refrigerated warehouse freezers shall comply with the lighting requirements of Section C403.10.1 or C403.10.2.~~

**C405.4 Lighting for plant growth and maintenance.** All permanently installed luminaires used for plant growth and maintenance shall have a *photosynthetic photon efficacy* as defined in accordance with ANSI/ASABE S640 of not less than 1.7  $\mu\text{mol}/\text{J}$  for *greenhouses* and not less than 2.2  $\mu\text{mol}/\text{J}$  for all other indoor growing spaces.

**Exception:** The following buildings are exempt:

1. Buildings with no more than 40kW of aggregate horticultural lighting load.
2. Cannabis facilities subject to 410 ILCS 705/10-45- the Cannabis Regulation and Tax Act.

**SECTION C406**  
**ADDITIONAL EFFICIENCY REQUIREMENTS**

**C406.1 Additional energy efficiency credit requirements.** New buildings shall achieve a total of 10 credits from Tables C406.1(1) through C406.1(5) where the table is selected based on the use group of the building and from credit calculations as specified in relevant subsections of Section C406. Where a building contains multiple-use groups, credits from each use group shall be weighted by floor area of each group to determine the weighted average building credit. Credits from the tables or calculation shall be achieved where a building complies with one or more of the following:

1. More efficient HVAC performance in accordance with Section C406.2.
2. Reduced lighting power in accordance with Section C406.3.
3. Enhanced lighting controls in accordance with Section C406.4.

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- 4. On-site supply of renewable energy in accordance with Section C406.5.
- 5. Provision of a dedicated outdoor air system for certain HVAC equipment in accordance with Section C406.6.
- 6. High-efficiency service water heating in accordance with Section C406.7.
- 7. Enhanced envelope performance in accordance with Section C406.8.
- 8. Reduced air infiltration in accordance with Section C406.9
- 9. Where not required by Section C405.12, include an energy monitoring system in accordance with Section C406.10.
- 10. Where not required by Section C403.2.3, include a fault detection and diagnostics (FDD) system in accordance with Section C406.11.
- 11. Efficient kitchen equipment in accordance with Section C406.12.
- 12. HVAC demand responsive controls and more efficient HVAC performance in accordance with Section C406.2 and Section C406.13.
- 13. Water heating demand responsive controls and high-efficiency service water heating in accordance with Section C406.7 and Section C406.14.

Modify Table C406.1(1) as follows:

**Table C406.1(1) Additional Energy Efficiency Credits for Group B Occupants**

<b><u>Climate Zone:</u></b>	<b><u>4A</u></b>	<b><u>5A</u></b>
<u>C406.13 HVAC demand responsive controls</u>	<u>2</u>	<u>2</u>
<u>C406.14 Water heating demand responsive controls</u>	<u>1</u>	<u>1</u>

Modify Table C406.1(2) as follows:

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**Table C406.1(2) Additional Energy Efficiency Credits for Group R and I Occupancies**

<b>Climate Zone:</b>	<b>4A</b>	<b>5A</b>
<u>C406.13 HVAC demand responsive controls</u>	<u>4</u>	<u>3</u>
<u>C406.14 Water heating demand responsive controls</u>	<u>1</u>	<u>1</u>

Modify Table C406.1(3) as follows:

**Table C406.1(3) Additional Energy Efficiency Credits for Group E Occupancies**

<b>Climate Zone:</b>	<b>4A</b>	<b>5A</b>
<u>C406.13 HVAC demand responsive controls</u>	<u>4</u>	<u>4</u>
<u>C406.14 Water heating demand responsive controls</u>	<u>1</u>	<u>1</u>

Modify Table C406.1(4) as follows:

**Table C406.1(4) Additional Energy Efficiency Credits for Group M Occupancies**

<b>Climate Zone:</b>	<b>4A</b>	<b>5A</b>
<u>C406.13 HVAC demand responsive controls</u>	<u>4</u>	<u>3</u>
<u>C406.14 Water heating demand responsive controls</u>	<u>x</u>	<u>x</u>

Modify Table C406.1(5) as follows:

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**Table C406.1(5) Additional Energy Efficiency Credits for Other\* Occupancies**

<b><u>Climate Zone:</u></b>	<b><u>4A</u></b>	<b><u>5A</u></b>
<b><u>C406.13 HVAC demand responsive controls</u></b>	<b><u>3</u></b>	<b><u>3</u></b>
<b><u>C406.14 Water heating demand responsive controls</u></b>	<b><u>2</u></b>	<b><u>2</u></b>

**C406.1.1 Tenant spaces.** Tenant spaces shall comply with sufficient options from Tables C406.1(1) through C406.1(5) to achieve a minimum number of 5 credits, where credits are selected from Section C406.2, C406.3, C406.4, C406.6, C406.7 or C406.10. Where the entire building complies using credits from Section C406.5, C406.8, C406.9, or C406.13 tenant spaces shall be deemed to comply with this section.

**C406.13 HVAC demand responsive controls.** Buildings shall be provided with demand responsive controls capable of executing the following actions in response to a demand response signal:

1. Automatically increasing the zone operating cooling set point by the following values: 1°F (0.5°C), 2°F (1°C), 3°F (1.5°C), and 4°F (2°C).
2. Automatically decreasing the zone operating heating set point by the following values: 1°F (0.5°C), 2°F (1°C), 3°F (1.5°C), and 4°F (2°C).

Where a demand response signal is not available the heating and cooling system controls shall be capable of performing all other functions. Where thermostats are controlled by direct digital control including, but not limited to, an energy management system, the system shall be capable of demand responsive control and capable of adjusting all thermal setpoints to comply. The demand responsive controls shall comply with either Section C406.13.1 or Section C406.13.2

**C406.13.1 Air conditioners and heat pumps with two or more stages of control and cooling capacity of less than 65,000 Btu/h.** Thermostats for air conditioners and heat pumps with two or more stages of control and a cooling capacity less than 65,000 Btu/h (19 kW) shall be provided with a demand responsive control that complies with the communication and performance requirements of AHRI 1380.

**C406.13.2 All other HVAC systems.** Thermostats for HVAC systems shall be provided with a demand responsive control that complies with one of the following:



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1. Certified OpenADR 2.0a VEN, as specified under Clause 11, Conformance
2. Certified OpenADR 2.0b VEN, as specified under Clause 11, Conformance
3. Certified by the manufacturer as being capable of responding to a demand response signal from a certified OpenADR 2.0b VEN by automatically implementing the control functions requested by the VEN for the equipment it controls
4. IEC 62746-10-1
5. The communication protocol required by a controlling entity, such as a utility or service provider, to participate in an automated demand response program
6. The physical configuration and communication protocol of CTA 2045-A or CTA 2045-B.

**C406.14 Water heating demand responsive controls.** Electric storage water heaters with a rated water storage volume of 40 gallons (150L) to 120 gallons (450L) and a nameplate input rating equal to or less than 12kW shall be provided with demand responsive controls in accordance with Table C406.14 or another equivalent approved standard.

**TABLE C406.14**  
**DEMAND RESPONSIVE CONTROLS FOR WATER HEATING**

<u>Equipment Type</u>	<u>Controls</u>	
<u>Electric storage water heaters</u>	<u>Manufactured before 7/1/2025</u>	<u>Manufactured on or after 7/1/2025</u>
	<u>ANSI/CTA-2045-B Level 1 and also capable of initiating water heating to meet the temperature set point in response to a demand response signal.</u>	<u>ANSI/CTA-2045-B Level 2, except “Price Stream Communication” functionality as defined in the standard.</u>

**SECTION C407**  
**TOTAL BUILDING PERFORMANCE**

Modify Table C407.2 as follows:

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**TABLE C407.2**  
**REQUIREMENTS FOR TOTAL BUILDING PERFORMANCE**

<u>SECTION<sup>a</sup></u>	<u>TITLE</u>
	<u>Envelope</u>
<u>C402.4.1.3</u>	<u>Fenestration Orientation</u>

Modify Table C407.4.1(1) as follows:

**TABLE C407.4.1(1)**  
**SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS**

<u>Vertical fenestration other than opaque doors</u>	<u>Area</u> <u>1. The proposed vertical fenestration area; where the proposed vertical fenestration area is less than 40 percent of the above-grade wall area.</u> <u>2. 40 percent of above grade wall area; where the proposed vertical fenestration area is 40 percent or more of the above grade wall area</u> <u>3. Fenestration orientation shall comply with C402.4.1.3</u>	<u>As proposed</u>
	<u>U-factor: as specified in Table C402.4</u>	<u>As proposed</u>
	<u>1. SHGC: as specified in Table C402.4 except that for climates with no requirement (NR) SHGC = 0.40 shall be used.</u> <u>2. Fenestration SHGC shall comply with C402.4.1.3</u>	<u>As proposed</u>
	<u>External shading and PF: none</u>	<u>As proposed</u>

**CHAPTER 5 [CE]**  
**EXISTING BUILDINGS**

**SECTION C503**  
**ALTERATIONS**

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~~**C503.1 General.** Alterations to any building or structure shall comply with the requirements of this Code for new construction. Alterations shall be such that the existing building or structure is no less conforming to the provisions of this Code than the existing building or structure was prior to the alteration. Alterations to an existing building, building system or portion thereof shall conform to the provisions of this Code as those provisions relate to new construction without requiring the unaltered portions of the existing building or building system to comply with this Code. Alterations shall not create an unsafe or hazardous condition or overload existing building systems.~~

~~Alterations complying with ANSI/ASHRAE/IESNA 90.1 need not comply with Sections C402, C403, C404 and C405.~~

~~**Exceptions:** The following alterations need not comply with the requirements for new construction, provided the energy use of the building is not increased:~~

- ~~1. Storm windows installed over existing fenestration.~~
- ~~2. Surface applied window film installed on existing single pane fenestration assemblies reducing solar heat gain, provided the Code does not require the glazing or fenestration to be replaced.~~
- ~~3. Existing ceiling, wall or floor cavities exposed during construction, provided that these cavities are filled with insulation.~~
- ~~4. Construction in which the existing roof, wall or floor cavity is not exposed.~~
- ~~5. Roof recover.~~
- ~~6. Roof membrane peel and replacement.~~
- ~~7. Air barriers shall not be required for roof recover and roof replacement when the alterations or renovations to the building do not include alterations, renovations or repairs to the remainder of the building envelope.~~
- ~~8. Roof replacements for roof systems 2:12 slope or less shall comply with the low slope roof insulation requirements unless the installation of insulation above the structural roof deck, and necessary to achieve the code required *R* value, is deemed infeasible by the code official to accommodate the added thickness of insulation above the roof deck.~~

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~~Conditions of infeasibility due to flashing height limitations presented by existing rooftop conditions include, but are not limited to, HVAC or skylight curb, low door or glazing, parapet, weep holes, drainage patterns, or cricket or saddle construction. These conditions are subject to manufacturer's specifications, manufacturer's installation instructions, and code official approval.~~

**Chapter 6 [CE]**  
**Referenced Standards**

**ASME**

ASME  
Two Park Avenue  
New York, NY 10016-5990

BPVC                      Boiler and Pressure Vessel Code

**AHRI**

Air-Conditioning, Heating, & Refrigeration Institute  
2111 Wilson Blvd, Suite 500  
Arlington, VA 22201

1380-2019                      Demand Response through Variable Capacity HVAC Systems in Residential and Small Commercial Applications

**ANSI**

American National Standards Institute  
25 West 43rd Street, 4th Floor  
New York, NY 10036

ANSI/CTA-2045-A-2018      Modular Communications Interface for Energy Management

ANSI/CTA-2045-B-2019      Modular Communications Interface for Energy Management

**CTA**

Consumer Technology Association  
1919 S. Eads Street  
Arlington, VA 22202

ANSI/CTA-2045-B              Modular Communications Interface for Energy Management C404.11

**IEC**

IEC Regional Centre for North America  
IEC International Electrotechnical Commission  
446 Main Street 16th Floor  
Worcester, MA 016808

IEC 62746-10-1 - 2018      Systems interface between customer energy management system and the power management system – Part 10-1: Open automated demand response

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**CHAPTER 1 [RE]  
SCOPE AND ADMINISTRATION**

**SECTION R101  
SCOPE AND GENERAL REQUIREMENTS**

**R101.1 Title.** This Code shall be known as the Illinois Energy Conservation Code or this Code, and shall mean:

With respect to the residential buildings covered by 71 Ill. Adm. Code 600.Subpart D:

This Part, all additional requirements incorporated within Subpart D (including the ~~2021~~~~2018~~ International Energy Conservation Code, including all published errata but excluding published supplements) and any statutorily authorized adaptations to the incorporated standards adopted by CDB are effective upon adoption July 1, 2019.

**R101.1.2 Adoption.** The Board shall adopt amendments to this Code within 12 months after publication of changes to the International Energy Conservation Code. Any such update in this Code shall take effect within 6 months after it is adopted by the Board and shall apply to any new building or structure in this State for which a building permit application is received by a municipality or county, except as otherwise provided by the EEB Act.

**R101.1.3 Adaptation.** The Board may appropriately adapt the International Energy Conservation Code to apply to the particular economy, population distribution, geography and climate of the State and construction within the State, consistent with the public policy objectives of the EEB Act.

**R101.5 Compliance.** Residential buildings shall meet the provisions of the Illinois Energy Conservation Code covered by 71 Ill. Adm. Code 600.Subpart D. The local authority having jurisdiction (AHJ) shall establish its own procedures for enforcement of the Illinois Energy Conservation Code. Minimum compliance shall be demonstrated by submission of:

1. Compliance Certificates generated by the U.S. Department of Energy's REScheck<sup>TM</sup> Code compliance tool; or

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2. Other comparable compliance materials that meet or exceed, as determined by the AHJ, U.S. Department of Energy's REScheck™ Code compliance tool; or
3. The seal of the architect/engineer as required by Section 14 of the Illinois Architectural Practice Act [225 ILCS 305], Section 12 of the Structural Engineering Licensing Act [225 ILCS 340] and Section 14 of the Illinois Professional Engineering Practice Act [225 ILCS 325].

**SECTION R102**  
**ALTERNATIVE MATERIALS DESIGN AND METHODS**  
**OF CONSTRUCTION AND EQUIPMENT**

**R102.1.1 Above Code Programs.** No unit of local government, including any home rule unit, may regulate energy efficient building standards for residential building in a manner that is either less or more stringent than the standards established pursuant to this Code. Buildings shall be considered to be in compliance with this code where such buildings also meet the requirements identified in Table R405.2 and the building thermal envelope is greater than or equal to levels of efficiency and solar heat gain coefficients (SHGC) in Tables 402.1.1 and 402.1.3 of the 2009 International Energy Conservation Code as "mandatory" in Chapter 4 shall be met.

However, the following entities may regulate energy efficient building standards for residential buildings in a manner that is more stringent than the provisions contained in this Code:

- i) A unit of local government, including a home rule unit, that has, on or before May 15, 2009, adopted or incorporated by reference energy efficient building standards for residential buildings that are equivalent to or more stringent than the 2006 International Energy Conservation Code;
- ii) A unit of local government, including a home rule unit, that has, on or before May 15, 2009, provided to the Capital Development Board, as required by Section 10.18 of the Capital Development Board Act, an identification of an energy efficient building code or amendment that is equivalent to or more stringent than the 2006 International Energy Conservation Code; and
- iii) A municipality with a population of 1,000,000 or more.

**SECTION ~~R110~~R109**  
**MEANS BOARD OF APPEALS**

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**~~R110.1~~~~R109.1~~ General.** In order to hear and decide appeals of orders, decisions or determinations made by the code official relative to the application and interpretation of this Code, there may be created a board of appeals. The code official shall be an ex officio member of the board of appeals but shall not have a vote on any matter before the board. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the code official.

**~~R110.3~~~~R109.3~~ Qualifications.** The board of appeals shall consist of members who are qualified by experience and training.

**CHAPTER 2 [RE]  
DEFINITIONS**

**SECTION R202  
GENERAL DEFINITIONS**

**Authority Having Jurisdiction or AHJ** – means the organization, officer or individual responsible for approving equipment, materials, an installation or procedure.

**Board** – means the Illinois Capital Development Board.

**Council** – means the Illinois Energy Conservation Advisory Council whose purpose is to recommend modifications to the Illinois Energy Conservation Code.

**EEB Act** – means the Energy Efficient Building Act [20 ILCS 3125].

~~**High-Efficacy Lamps** – means compact fluorescent lamps, light emitting diode (LED) lamps, T-8 or smaller diameter linear fluorescent lamps, or other lamps with an efficacy of not less than 65 lm/W or light fixtures of not less than 55 lm/W.~~

**Local Exhaust** – means an exhaust system that uses one or more fans to exhaust air from a specific room or rooms within a dwelling.

**Residential Building** – means a detached one-family or 2-family dwelling or any building that is 3 stories or less in height above grade that contains multiple dwelling units, in which the occupants reside on a primarily permanent basis, such as a townhouse, a row house, an apartment house, a convent, a monastery, a rectory, a fraternity or sorority house, a dormitory and a

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rooming house; provided, however, that when applied to a building located within the boundaries of a municipality having a population of 1,000,000 or more, the term "residential building" means a building containing one or more dwelling units, not exceeding 4 stories above grade, where occupants are primarily permanent.

~~**Roof Membrane Peel and Replacement** — means When an existing weather resisting roof membrane alone is removed, exposing insulation or sheathing, and only a new weather resisting roof membrane is installed.~~

**Whole House Mechanical Ventilation System** – means an exhaust system, supply system or combination thereof that is designed in accordance with Section R403.6 to mechanically exchange indoor air with outdoor air when operating continuously or through a programmed intermittent schedule to satisfy the whole house ventilation rates. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

**CHAPTER 4 [RE]  
RESIDENTIAL ENERGY EFFICIENCY**

**SECTION R401  
GENERAL**

**R401.2 Application.** Residential buildings shall comply with Section R401.2.6 and either Sections R401.2.1, R401.2.2, R401.2.3, R401.2.4 or R401.2.5.

**Exception:** Additions, alterations, repairs and changes of occupancy to existing buildings complying with Chapter 5.

**R401.2.5 Phius Alternative Compliance Option.** The Phius Alternative Compliance Option requires compliance with Section R409.

**R401.2.6 Additional energy efficiency.** This section establishes additional requirements applicable to all compliance approaches to achieve additional energy efficiency.

1. For buildings complying with Section R401.2.1, one of the additional efficiency package options shall be installed according to Section R408.2.
2. For buildings complying with Section R401.2.2, the building shall meet one of the following:



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2.1. One of the additional efficiency package options in Section R408.2 shall be installed without including such measures in the proposed design under Section R405; or

2.2. The proposed design of the building under Section R405.3 shall have an annual energy cost that is less than or equal to 95 percent of the annual energy cost of the standard reference design.

3. For buildings complying with the Energy Rating Index alternative Section R401.2.3, the Energy Rating Index value shall be at least 5 percent less than the Energy Rating Index target specified in Table R406.5.

The option selected for compliance shall be identified in the certificate required by Section R401.3.

**SECTION R402  
BUILDING THERMAL ENVELOPE**

**TABLE R402.1.2  
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT<sup>a</sup>**

CLIMATE ZONE	FENESTRATION U-FACTOR <sup>b</sup>	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC <sup>b,e</sup>	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE <sup>i</sup>	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB <sup>d</sup> R-VALUE & DEPTH	CRAWL SPACE <sup>e</sup> WALL R-VALUE
1	NR	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
3	0.32	0.55	0.25	38	20 of 13+5 <sup>h</sup>	8/13	19	5/13 <sup>f</sup>	0	5/13
4 except	0.32	0.55	0.40	49	20 of 13+5 <sup>h</sup>	8/13	19	10/13	10, 2 ft	10/13

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5 and Marine 4	0.30	0.55	NR	49	20 of 13+5 <sup>h</sup>	13/17	30 <sup>g</sup>	10/13	10, 2 ft	15/19
6	0.30	0.55	NR	49	20+5 of 13+10 <sup>h</sup>	15/20	30 <sup>g</sup>	15/19	10, 4 ft	15/19
7 and 8	0.30	0.55	NR	49	20+5 of 13+10 <sup>h</sup>	19/21	38 <sup>g</sup>	15/19	10, 4 ft	15/19

NR = Not Required

For SI: 1 foot = 304.8 mm

<sup>a</sup>—~~R values are minimums. U factors and SHGC are maximums. When insulation is installed in a cavity that is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table.~~

<sup>b</sup>—~~The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: In Climate Zones 1 through 3, skylights shall be permitted to be excluded from glazed fenestration SHGC requirements, provided that the SHGC for skylights does not exceed 0.30.~~

<sup>e</sup>—~~"10/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation on the interior of the basement wall. "15/19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. Alternatively, compliance with "15/19" shall be R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home.~~

<sup>d</sup>—~~R-5 shall be provided under the full slab area of a heated slab in addition to the required slab edge R-value for slabs, as indicated in the table. The slab edge insulation for heated slabs shall not be required to extend below the slab.~~

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~~<sup>e</sup>—There are no SHGC requirements in the Marine Zone.~~

~~<sup>f</sup>—Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1 (of the IECC).~~

~~<sup>g</sup>—Alternatively, insulation sufficient to fill the framing cavity and providing not less than an R-value of R-19.~~

~~<sup>h</sup>—The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example, "13+5" means R-13 cavity insulation plus R-5 continuous insulation.~~

~~<sup>i</sup>—Mass walls shall be in accordance with Section R402.2.5. The second R-value applies when more than half the insulation is on the interior of the mass wall.~~

Modify Table R402.1.2 as follows:

**TABLE R402.1.4  
EQUIVALENT U-FACTORS**

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR		CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRAWL SPACE WALL U-FACTOR
5 and Marine-4	0.30	0.55		0.026	0.060	0.082	0.033	0.059	0.055

**R402.2.1 Roof/Ceilings with attic spaces.** Where Section R402.1.3 requires R-49 insulation in the ceiling or attic, installing R-38 over 100 percent of the ceiling or attic area requiring insulation shall satisfy the requirement for R-49 insulation wherever the full height of uncompressed R-38 insulation extends over the wall top plate at the eaves. Where Section R402.1.3 requires R-60 insulation in the ceiling, installing R-49 over 100 percent of the ceiling

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area requiring insulation shall satisfy the requirement for R-60 insulation wherever the full height of uncompressed R-49 insulation extends over the wall top plate at the eaves. This reduction shall not apply to the insulation and fenestration criteria in Section R402.1.2 and the Total UA alternative in Section R402.1.5.

**R402.2.2 Roof/Ceilings Without Attic Spaces.** When Section R402.1.~~32~~ requires insulation R-values greater than R-30 in the interstitial space above a ceiling and below the structural roof deck, and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation R-value for those roof/ceiling assemblies shall be R-30. Insulation shall extend over the top of the wall plate to the outer edge of the plate and shall not be compressed. This reduction of insulation from the requirements of Section R402.1.~~32~~ shall be limited to 500 square feet (46 m<sup>2</sup>) or 20 percent of the total insulated ceiling area, whichever is less. This reduction shall not apply to ~~the U-factor alternative approach in Section R402.1.4 and~~ the Total UA alternative in Section R402.1.5.

~~**Exception:** For roofs on existing buildings with slope less than 2 units vertical in 12 units horizontal, refer to Section R503.1.1.~~

~~**R402.2.9 Basement Walls.** Walls associated with conditioned basements shall be insulated from the top of the basement wall down to 10 feet (3048 mm) below grade or to within 6 inches (152 mm) of the basement floor, whichever is less. Walls associated with unconditioned basements shall comply with this requirement except when the floor overhead is insulated in accordance with Sections R402.1.2 and R402.2.2.8.~~

~~**R402.2.8.1 Basement wall insulation installation.** Where basement walls are insulated, the insulation shall be installed from the top of the basement wall down to 10 feet (3048 mm) below grade or to within 6 inches (152 mm) of the basement floor, whichever is less.~~

~~**Exception:** Walls associated with conditioned basements may be insulated from the top of the basement wall down to 4 feet (1219 mm) below grade when the basement wall R-value is at least 15/19, (basement wall U Factor of 0.050).~~

~~**R402.4.1.2 Testing.** The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding 4 air changes per hour (ACH) in Climate Zones 4 and 5. The building or dwelling unit shall be provided with a whole-house mechanical ventilation system as designed in accordance with Section R403.6. Testing shall be conducted in accordance with RESNET/ICC 380, ASTM E779 or ASTM E1827 and reported at a pressure of 0.2 inches w.g.~~

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~~(50 Pascals). When required by the code official, testing shall be conducted by an approved third party. A written report of the results of the test, indicating the ACH, shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after all penetrations of the building thermal envelope have been sealed.~~

**Exceptions:**

- ~~1. For additions, alterations, renovations or repairs to existing buildings, building envelope tightness and insulation installation shall be considered acceptable when the items in Table R402.4.1.1, applicable to the method of construction, are field verified. When required by the code official, an approved third party independent from the installer shall inspect both air barrier and insulation installation criteria.~~
- ~~2. For heated attached private garages and heated detached private garages accessory to 1- and 2- family dwellings and townhouses not more than 3 stories above grade plane in height, building envelope tightness and insulation installation shall be considered acceptable when the items in Table R402.4.1.1, applicable to the method of construction, are field verified. When required by the code official, an approved third party independent from the installer shall inspect both air barrier and insulation installation criteria. Heated attached private garage space and heated detached private garage space shall be thermally isolated from all other habitable, conditioned spaces.~~
- ~~3. For low rise multifamily buildings, dwelling units shall be tested and verified as having a leakage rate of not exceeding 0.25 cubic feet per minute (CFM) per square foot of enclosure area (all 6 sides of the dwelling unit) in Climate Zones 1 through 8. Testing shall be conducted with an unguarded blower door at a pressure of 0.2 inches w.g. (50 Pascal). If guarded blower door testing (a test with one or more adjacent units pressurized that should eliminate any leakage between units) is being performed, this exception is not allowed and the standard testing requirement of Section 402.4.1.2 apply. When required by the code official, testing shall be conducted by an approved third party. For buildings with more than 7 units, a sampling protocol is allowed by an approved third party. The sampling protocol requires the first 7 units to be tested without any failures. Upon successful testing of those initial 7 units, remaining units can be sampled at a rate of 1 in 7. If any sampled unit fails compliance with the maximum allowable air leakage rate, 2 additional units in the same sample set must be tested. If additional failures occur, all units in the sample set must be tested. In addition, all units in the next sample set must be tested for compliance before sampling of further units can be continued.~~

During testing:

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- ~~1. Exterior windows and doors and fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.~~
- ~~2. Dampers, including exhaust, intake, makeup air, backdraft and flue dampers, shall be closed, but not sealed beyond intended infiltration control measures.~~
- ~~3. Interior doors, if installed at the time of the test, shall be open.~~
- ~~4. Exterior or interior terminations for continuous ventilation systems shall be closed and sealed.~~
- ~~5. Heating and cooling systems, if installed at the time of the test, shall be turned off.~~
- ~~6. Supply and return registers, if installed at the time of the test, shall be fully open.~~

~~**R402.4.4 Rooms Containing Fuel-burning Appliances. This section has been deleted. It is not required in Illinois.**~~

**SECTION R403  
SYSTEMS**

**R403.3 Ducts.** Ducts and air handlers shall be insulated, sealed, tested and installed in accordance with Sections R403.3.1 through R403.3.7. When required by the code official, duct testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official.

**R403.3.53 Duct testing (Mandatory).**

Ducts shall be pressure tested in accordance with ANSI/RESNET/ICC 380 or ASTM E1554 to determine air leakage by one of the following methods:

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure if installed at the time of the test. Registers shall be taped or otherwise sealed during the test.

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2. Postconstruction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. Registers shall be taped or otherwise sealed during the test.

**Exceptions:**

- ~~1. A duct air leakage test shall not be required when the ducts and air handlers are located entirely within the building thermal envelope.~~
- ~~2. A duct air leakage test shall not be required for ducts serving heat or energy recovery ventilators that are not integrated with ducts serving heating or cooling systems.~~

Exception: A duct air-leakage test shall not be required for ducts serving ventilation systems that are not integrated with ducts serving heating or cooling systems.

**R403.3.6 Duct Leakage.**

The total leakage of the ducts, where measured in accordance with Section R403.3.5, shall be as follows:

1. Rough-in test: The total leakage shall be less than or equal to 4.0 cubic feet per minute (113.3 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area where the air handler is installed at the time of the test. Where the air handler is not installed at the time of the test, the total leakage shall be less than or equal to 3.0 cubic feet per minute (85 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area.

Exception: If the HVAC duct system is serving less than or equal to 1,500 square feet of conditioned floor area, the allowable duct leakage with the air-handler installed shall be 60 cubic feet per minute or less.

2. Postconstruction test: Total leakage shall be less than or equal to 4.0 cubic feet per minute (113.3 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area.

Exception: If the HVAC duct system is serving less than or equal to 1,500 square feet of conditioned floor area, the allowable duct leakage shall be 60 cubic feet per minute or less.

3. Test for ducts within thermal envelope: Where all ducts and air handlers are located entirely within the building thermal envelope, total leakage shall be less than or equal to 8.0 cubic feet per minute (226.6 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area.

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Exception: If the HVAC duct system is serving less than or equal to 750 square feet of conditioned floor area, the allowable duct leakage with the air-handler installed shall be 60 cubic feet per minute or less.

**R403.6 Mechanical Ventilation (~~Mandatory~~).** The building or dwelling unit complying with Section R402.4.1 shall be provided with ventilation that complies with the requirements of this section or the International Mechanical Code, as applicable, or with other approved means of ventilation. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

**R403.6.42 Recirculation of Air.** Exhaust air from bathrooms and toilet rooms shall not be recirculated within a residence or circulated to another dwelling unit and shall be exhausted directly to the outdoors. Exhaust air from bathrooms, toilet rooms and kitchens shall not discharge into an attic, crawl space or other areas inside the building. This section shall not prohibit the installation of ductless range hoods in accordance with the exception to Section R403.6.5

**R403.6.53 Exhaust equipment.** Exhaust fans and whole-house ventilation fans equipment serving single dwelling units shall be listed and labeled as providing the minimum required airflow in accordance with ANSI/AMCA 210-ANSI/ASHRAE 51.

**R403.6.64 Whole-house Mechanical Ventilation System.** Whole-house mechanical ventilation systems shall be designed in accordance with Sections R403.6.64.1 through R403.6.64.4.

**R403.6.64.1 System Design.** The whole-house ventilation system shall consist of one or more supply or exhaust fans, or a combination of such, and associated ducts and controls. Local exhaust or supply fans are permitted to serve as such a system. Outdoor air ducts connected to the return side of an air handler shall be considered to provide supply ventilation.

**R403.6.64.2 System Controls.** The whole-house mechanical ventilation system shall be provided with controls that enable manual override. Controls shall include text or a symbol indicating their function.

**R403.6.64.3 Mechanical Ventilation Rate.** The whole house mechanical ventilation system shall provide outdoor air at a continuous rate of not less than that determined in accordance with Table R403.6.64.3(1) or Equation 4-01.



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Ventilation rate in cubic feet per minute = (0.01 x total square foot area of house) + [7.5 x (number of bedrooms +1)] Equation 4-0

**Exceptions:**

1. Ventilation rate credit. The minimum mechanical ventilation rate determined in accordance with Table R403.6.6.3(1) or Equation 4-0 shall be reduced by 30 percent, provided that both of the following conditions apply:

1.1 A ducted system supplies ventilation air directly to each bedroom and to one or more of the following rooms:

1.1.1. Living room.

1.1.2 Dining room.

1.1.3 Kitchen.

1.2 The whole-house ventilation system is a balanced ventilation system.

2. Programmed intermittent operation. The whole-house mechanical ventilation system is permitted to operate intermittently where the system has controls that enable operation for not less than 25 percent of each 4-hour segment and the ventilation rate in Table R403.6.6.3(1), by Equation 4-0 or by Exception 1 is multiplied by the factor determined in accordance with Table R403.6.6.3(2)

~~1. The whole house mechanical ventilation system is permitted to operate intermittently when the system has controls that enable operation for not less than 25 percent of each 4-hour segment and the ventilation rate prescribed in Table R403.6.4.3(1) is multiplied by the factor determined in accordance with Table R403.6.4.3(2).~~

~~2. The total required outdoor air ventilation rate ( $Q_{tot}$ ) shall be as specified in Table 403.6.4.3(1) or calculated in accordance with Equation 4-1.~~

~~Equation 4-1:~~

$$~~CFM_{total} = 0.01CFA + 7.5(Nbr + 1)~~$$

~~Where:~~

$$~~CFM_{total} = \text{total required ventilation rate, (cfm)}~~$$

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~~CFA~~ = ~~conditioned floor area of residence, (ft<sup>2</sup>)~~  
~~Nbr~~ = ~~number of bedrooms (not to be less than 1)~~

**R403.6.64.3.1 Different Occupant Density.** Table R403.6.64.3(1) assumes 2 persons in a dwelling unit and an additional person for each additional bedroom. When higher occupant densities are known, the airflow rate shall be increased by 7.5 cfm (3.5 L/s) for each additional person. When approved by the authority having jurisdiction, lower occupant densities may be used.

**R403.6.64.3.2 Airflow Measurement.** The airflow rate required is the quantity of outdoor ventilation air supplied and/or indoor air exhausted by the whole-house mechanical ventilation system installed, and shall be measured using a flow hood, flow grid, or other airflow measuring device. Ventilation airflow of systems with multiple operating modes shall be tested in all modes designed to meet Section R403.6.64.3. When required by the *code official*, testing shall be conducted by an *approved* third party. A written report of the results of the test, indicating the verified airflow rate, shall be signed by the party conducting the test and provided to the *code official*.

**R403.6.64.4 Local Exhaust Rates.** Local exhaust systems shall be designed to have the capacity to exhaust the minimum air flow rate determined in accordance with Table R403.6.64.4.

**TABLE R403.6.64.3(1)  
 CONTINUOUS WHOLE-HOUSE MECHANICAL  
 VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS**

DWELLING UNIT FLOOR AREA (square feet)	NUMBER OF BEDROOMS				
	0 - 1	2 - 3	4 - 5	6 - 7	> 7
	Airflow in CFM				
< 1,500	30	45	60	75	90
1,501 - 3,000	45	60	75	90	105
3,001 - 4,500	60	75	90	105	120
4,501 - 6,000	75	90	105	120	135
6,001 - 7,500	90	105	120	135	150
> 7,500	105	120	135	150	165

For SI: 1 square foot = 0.0929 m<sup>2</sup>, 1 cubic foot per minute = 0.0004719 m<sup>3</sup>/s.

**TABLE R403.6.64.3(2)**

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**INTERMITTENT WHOLE-HOUSE MECHANICAL  
VENTILATION RATE FACTORS<sup>a, b</sup>**

<b>RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT</b>	<b>25%</b>	<b>33%</b>	<b>50%</b>	<b>66%</b>	<b>75%</b>	<b>100%</b>
Factor <sup>a</sup>	4	3	2	1.5	1.3	1.0

<sup>a</sup> For ventilation system run time values between those given, the factors are permitted to be determined by interpolation.

<sup>b</sup> Extrapolation beyond the table is prohibited.

**TABLE R403.6.64.4  
MINIMUM REQUIRED LOCAL EXHAUST RATES FOR  
ONE- AND TWO-FAMILY DWELLINGS**

<b>AREA TO BE EXHAUSTED</b>	<b>EXHAUST RATES<sup>a</sup></b>
Kitchens	100 cfm intermittent or 25 cfm continuous
Bathrooms-Toilet Rooms	Mechanical exhaust capacity of 50 cfm intermittent or 20 cfm continuous

For SI: 1 cubic foot per minute = 0.0004719 m<sup>3</sup>/s.

[a. The listed exhaust rate for bathrooms-toilet rooms shall equal or exceed the exhaust rate at a minimum static pressure of 0.25 inch water column in accordance with Section R403.6.5.](#)

**SECTION R405  
SIMULATED PERFORMANCE ALTERNATIVE (PERFORMANCE)**

**TABLE R405.5.2(1)  
SPECIFICATIONS FOR THE STANDARD  
REFERENCE AND PROPOSED DESIGNS**

<b>BUILDING COMPONENT</b>	<b>STANDARD REFERENCE DESIGN</b>	<b>PROPOSED DESIGN</b>
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<p>Air Exchange Rate</p>	<p><del>The air leakage rate at a pressure of 0.2 inch w.g. (50 Pa) shall be</del></p> <p><del>Climate Zone 4 and 5: 4 air changes per hour</del></p> <p><del>The mechanical ventilation rate shall be in addition to the air leakage rate and shall be the same as in the proposed design, but no greater than <math>0.01 \times CFA + 7.5 \times (N_{br} + 1)</math></del></p> <p><del>where:</del></p> <p><del><math>CFA</math> = conditioned floor area, ft<sup>2</sup></del></p> <p><del><math>N_{br}</math> = number of bedrooms</del></p> <p><del>Energy recovery shall not be assumed for mechanical ventilation.</del></p>	<p><del>The measured air exchange rate.<sup>a</sup></del></p> <p><del>The mechanical ventilation rate<sup>b</sup> shall be in addition to the air leakage rate and shall be as proposed.</del></p>
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**SECTION R409**

**PHIUS ALTERNATIVE COMPLIANCE OPTION**

**R409.1 Scope.** This section establishes criteria for compliance via the Phius 2021 Standard.

**R409.2 Phius Standard compliance.** Compliance based on the Phius 2021 Standard will include its United States Department of Energy (USDOE) Energy Star and Zero Energy Ready Home co-requisites, and either performance calculations by Phius-approved software or through the use of the Phius 2021 Prescriptive Path.

**R409.2.1 Phius documentation.** Prior to the issuance of a building permit, the following items must be provided to the code official:

1. A list of compliance features.
2. A Phius precertification letter.

**R409.2.2 Project certificate.** Prior to the issuance of a certificate of occupancy, the following item must be provided to the code official:

1. A Phius 2021 (or later) project certificate.

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**CHAPTER 5 [RE]  
EXISTING BUILDINGS**

**SECTION R502  
ADDITIONS**

~~**R502.1.1.2 Heating and Cooling Systems.** New heating, cooling and duct systems that are part of the addition shall comply with Section 403.~~

~~**Exception:** When ducts from an existing heating and cooling system are extended to an addition, the new and existing duct systems shall not be required to be tested in accordance with Section R403.3.3. New duct systems shall be sealed in accordance with Section R403.3.2.~~

**SECTION R503  
ALTERATIONS**

~~**R503.1.1 Building Envelope.** Building envelope assemblies that are part of the alteration shall comply with Section R402.1.3 or R402.1.4, Sections R402.2.1 through R402.2.1.3, R402.3.1, R402.3.2, R402.4.3 and R402.4.5.~~

~~**Exception:** The following alterations are not required to comply with the requirements for new construction provided the energy use of the building is not increased:~~

- ~~1. Storm windows installed over existing fenestration.~~
- ~~2. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.~~
- ~~3. Construction in which the existing roof, wall or floor cavity is not exposed.~~
- ~~4. Roof recover.~~
- ~~5. Roof membrane peel and replacement.~~
- ~~6. \_\_\_\_\_~~
- ~~6. Roofs without insulation in the cavity and when the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.~~

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- ~~7. For roof replacement on existing buildings with a roof slope of less than 2" in 12", and when the roof covering is removed and insulation remains, and when the required R-value cannot be provided due to thickness limitations presented by existing rooftop conditions, (including heating, ventilating and air conditioning equipment, low door or glazing heights, parapet heights, weep holes, and roof flashing heights not meeting the manufacturer's specifications), the maximum thickness of insulation compatible with the available space and existing uses shall be installed. Insulation used shall be minimum R-3.5 per inch. In areas where flashing may be terminated a minimum of 8" above the roof covering (including required insulation), insulation shall be a minimum of R-20.~~
- ~~8. R-value for roof assemblies with tapered insulation above deck with slope greater than 1/8" in 12" shall average R-20.~~
- ~~9. Surface applied window film installed on existing single pane fenestration assemblies to reduce solar heat gain provided the Code does not require the glazing or fenestration assembly to be replaced.~~

~~**R503.1.2 Heating and Cooling Systems.** New heating, cooling and duct systems that are part of the alteration shall comply with Section R403.~~

~~**Exception:** When ducts from an existing heating and cooling system are extended, the new and existing duct systems shall not be required to be tested in accordance with Section R403.3.3. Altered duct systems shall be sealed in accordance with Section R403.3.2.~~

**SECTION R504  
REPAIRS**

~~**R504.2 Application.** For the purposes of this Code, the following shall be considered repairs:~~

- ~~1. Glass only replacements in an existing sash and frame.~~
- ~~2. Roof repairs.~~

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- ~~3. — Insulation with new roof covering for roof slopes less than 2 in 12 inches only in areas where the tapered insulation is used above an existing roof covering to create slope between drains or upslope from obstructions to water flow.~~
- ~~4. — Repairs in which only the bulb, ballast or both within the existing luminaires in a space are replaced, provided that the replacement does not increase the installed interior lighting power.~~

(Source: Amended at 46 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**CHANGE ORDER FOR BOARD AUTHORIZED PROCEED ORDER**

Project Number	Project Description	Proceed Order or Change Order Number	Total Amount of Proceed Order	Board Date Approved	Total Amount of Associated Change Order(s) & Date Executed	Value of Change Order Work Completed
250-100-010	Department of Central Management Services – State Police Central Headquarters – Repair Exterior – South Building – Springfield, Sangamon County, IL	G-2	\$400,000.00	2/8/2022	G-2A \$38,740.57 4/12/2022  G-2B \$54,017.49 5/23/2022  G-2C \$50,732.34 6/6/2022  G-2D \$68,279.15 7/11/2022  G-2E \$90,134.61 8/15/2022  G-2F \$20,370.87 9/7/2022  G-2G \$62,336.90 4/18/2023  <b>TOTAL TO DATE: \$384,611.93</b>	9.7%  13.5%  12.7%  17.1%  22.5%  5.09%  15.58%  <b>96.15%</b>
291-221-018	Illinois State Police – State Police Training Academy – Upgrade HVAC System and Install Generator – Springfield, Sangamon County, IL	G-4	\$415,000.00	5/10/2022	G-4A \$99,299.87 10/12/2022  G-4B \$169,482.35 11/16/2022  G-4C \$40,730.13 2/22/2023  G-4D \$71,295.80 4/2/2023  <b>TOTAL to DATE: \$380,808.15</b>	23.93%  40.84%  9.81%  17.18%  <b>91.76%</b>



**CHANGE ORDER FOR BOARD AUTHORIZED PROCEED ORDER CONTINUED**

<b>Project Number</b>	<b>Project Description</b>	<b>Proceed Order or Change Order Number</b>	<b>Total Amount of Proceed Order</b>	<b>Board Date Approved</b>	<b>Total Amount of Associated Change Order(s) &amp; Date Executed</b>	<b>Value of Change Order Work Completed</b>
830-030-162	University of Illinois Chicago - Construct Computer Design Research and Learning Center – Chicago, Cook County IL	G-43	\$3,683,199.43	9/14/2022	G-43.2 \$62,974.16 2/1/2023	1.71%
					G-43.5 \$10,043.56 3/7/2023	.27%
					G-43.7 \$19,949.88 3/10/2023	.54%
					G-43.8 \$170,821.50 4/24/2023	4.64%
					<b>TOTAL to DATE: \$263,789.10</b>	<b>7.16%</b>

**EMERGENCY PROJECT PROCEED ORDER/CHANGE ORDER REPORT**

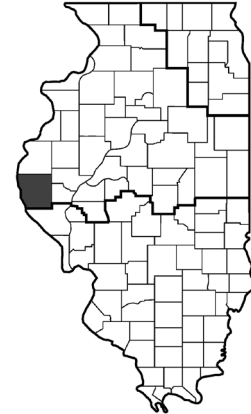
Project Number	Project Description	Proceed Order, RFP or Mod Number	Total Amount of this Proceed Order, RFP or Mod & Date Executed	Total Amount of Associated RFPs/Mods & Date Executed	Percentage of RFP/Mod Work Completed
039-060-058	Department of Agriculture – DuQuoin State Fairgrounds – Emergency Fire Alarm System Replacement – DuQuoin, IL, Perry County	CO FP-9	\$176,592.45 4/7/2023	N/A	0%

CDB Project No. 810-100-020

Repair Parking Lot – Main Campus  
John Wood Community College  
Quincy, Adams County, IL

CDB Project Manager: Stetzen Fleming

Subject: Single Bid Award



**Project History:**

The scope of work for this project provides for variable depth pavement removal and hot-mix asphalt (HMA) resurfacing of designated existing HMA pavement areas; selective full depth patching and subbase repairs in designated areas; and pavement striping and restriping of parking lot and access drive lanes.

**Requested Action:**

Bids were received on February 15, 2023, and a single bid was received for the general trade. Six plan rooms and four contractors held drawings for the project. In addition, the CDB project manager and design firm reached out to eight additional contractors in the region in an effort to foster a competitive bid environment.

Architect/Engineer: Klinger & Associates P.C.  
616 North 24<sup>th</sup> Street  
Quincy, IL 62305  
217.223.3670

<u>TRADE</u>	<u>BASE BID + ALT 1 &amp; ALT 2</u>	<u>ESTIMATE</u>	<u>% DIFFERENCE</u>
General	\$395,006.00	\$523,248.00	-24.51%

Both the A/E and the CDB Staff recommend that the award be made to:

Diamond Construction Company  
2000 North 18<sup>th</sup> Street  
Quincy, IL 62301

General Work: \$395,006.00

# CDB #810-100-020 Repair Parking Lot - Main Campus John Wood Community College

## Plan Holders

Date	Company	Contact
2/2/23 2:05 pm	<b>ConstructConnect</b> 3825 Edwards Rd Suite 100 Cincinnati, OH 45209	<b>Morgan Stinson</b> Tel: 8003642059 Fax: 866-570-8187 <a href="mailto:content@constructconnect.com">content@constructconnect.com</a>
12/13/22 12:34 pm	<b>D&amp;L Excavating</b> 1958 Hwy 104 Liberty, IL 62347	<b>Alex Rakers</b> Tel: 217-645-3701 Fax: 217-645-3692 <a href="mailto:dlexcavatinginc@yahoo.com">dlexcavatinginc@yahoo.com</a>
12/29/22 10:09 am	<b>Diamond Construction Company</b> PO Box 3486 2000 North 18th Quincy, IL 62305	<b>Chad Keppner</b> President Tel: 217-222-3532 Fax: 217-222-3080 <a href="mailto:office@diamond1946.com">office@diamond1946.com</a>
12/15/22 4:32 am	<b>Dodge Data &amp; Analytics</b> 4300 Beltway Place, Ste# 180 Arlington, TX 76018	<b>Darlene Baker-Mann</b> Document Coordinator Tel: 844-326-3826 x9246 Fax: 609-336-2767 <a href="mailto:darlene.baker-mann@construction.com">darlene.baker-mann@construction.com</a>
12/13/22 11:50 am	<b>IBEW Local 34</b> 1900 harrison Quincy, IL 62301	<b>Steve Marold</b> Business representative Tel: 3096454903 Fax: 2172289414 <a href="mailto:smarold@ibew34.org">smarold@ibew34.org</a>
12/13/22 8:34 am	<b>Klingner &amp; Associates</b> 616 N 24th Street Quincy, IL 62301	<b>Amanda Springer</b> Administrative Assistant Tel: 2172233670 Fax: 2172233603 <a href="mailto:aspringer@klingner.com">aspringer@klingner.com</a>
12/13/22 3:00 pm	<b>Laverdiere Construction, Inc</b> 4055 W Jackson Street Macomb, IL 61455	<b>Nickee Scott</b> Admin Assist Tel: 309-837-1258 Fax: 309-833-4993 <a href="mailto:nscott@lavconinc.com">nscott@lavconinc.com</a>

Date	Company	Contact
<b>12/14/22 6:57 am</b>	<b>Laverdiere Construction, Inc</b> 4055 W Jackson Street Macomb, IL 61455	<b>Teresa Coulter</b> <b>PM Assistant</b> Tel: 3098371258 Fax: 3098334993 <a href="mailto:tcoulter@lavconinc.com">tcoulter@lavconinc.com</a>
<b>12/15/22 10:22 am</b>	<b>meglio and associates</b> 14220 ladue rd chesterfield, MO 63017	<b>matt miller</b> <b>spec sales</b> Tel: 314-524-4424 Fax: 314-524-4424 <a href="mailto:mmiller@meglio.com">mmiller@meglio.com</a>
<b>12/13/22 11:01 am</b>	<b>Rees Construction Co</b> 517 Kentucky Quincy, IL 62301	<b>Paul Rees</b> Tel: 217-222-0748 Fax: 217-222-2613 <a href="mailto:info@reesconstructionco.com">info@reesconstructionco.com</a>
<b>1/9/23 10:51 am</b>	<b>Strata Contractors</b> 405 W. Superior Chicago, IL 60654	<b>Jovonda Jackson</b> <b>General Contractor</b> Tel: 7736213474 Fax: 7736213474 <a href="mailto:jovonda_jackson@yahoo.com">jovonda_jackson@yahoo.com</a>
<b>2/6/23 1:43 pm</b>	<b>Strata Contractors</b> 405 W. Superior Chicago, IL 60654	<b>Will Hussey</b> Tel: 7085279869 Fax: 8155579312 <a href="mailto:whussey@stratacontractors.com">whussey@stratacontractors.com</a>
<b>12/13/22 11:18 am</b>	<b>VEYA Inc.</b> 601 S. Country Fair Dr. Champaign, IL 61821	<b>Patrick Thompson</b> Tel: 217-607-1500 <a href="mailto:patrick@veyainc.com">patrick@veyainc.com</a>

**SUBJECT: *Best Interest of the State Selection / Informational Item***

<b>Project Number</b>	<b>Firm/Job Description</b>	<b>Estimated Total Project Cost</b>
040-020-077	Install Automatic Flush Valves and Mixing Valves Department of Veterans' Affairs Illinois Veterans' Home at Manteno - Kankakee County  <i>SELECTED FIRM:</i>  Nest Builders, Inc.	\$2,500,000
250-000-020	Construct Central Computing Facility Department of Central Management Services Statewide Program  <i>SELECTED FIRM:</i>  Exp U.S. Services Inc.	\$80,500,000

**CDB PROJECT NO:** 040-020-077

**PROJECT DESCRIPTION:** Install Automatic Flush Valves and Mixing Valves

**PROJECT LOCATION:** Department of Veterans' Affairs  
Illinois Veterans' Home at Manteno - Kankakee County

**PROJECT AMOUNT:** \$2,500,000

**PROJECT SCOPE OF WORK:**

The Illinois Veteran's Home in Manteno is a 38-building facility established in 1930.

The scope of work is to complete the installation of the building automation system, install emergency cut off at all the buildings and install the flush hydrants with associated piping.

**ARCHITECT/ENGINEER:** Nest Builders, Inc. (29590)  
Chicago, IL 60654

**CDB PROJECT NO:** 250-000-020

**PROJECT DESCRIPTION:** Construct Central Computing Facility

**PROJECT LOCATION:** Department of Central Management Services  
Statewide Program

**PROJECT AMOUNT:** \$80,500,000

**PROJECT SCOPE OF WORK:**

The scope of work includes preparing program statement/scope development package followed by the bridging documents for the Design-Build project.

Elements of the project will include the construction of a Tier III Central Computer Facility to be located in the Springfield area. A minimum of LEED Silver Certification will be required.

**Design Considerations:**

Evaluate transition of existing building and data equipment for potential reuse at the new facility. Evaluate available property, including state-owned property and propose a site. Give consideration to the application of renewable energy sources, including but not limited to, the use of solar energy.

**Site Development**

The bridging documents will include, but are not limited to:

- Project Intent
- Preliminary Site Plan
- Program Elements
- Conceptual Designs
- Required Infrastructure Expansion or Modification
- Preliminary Specifications to Establish Basis of Design

The A/E will develop a comprehensive bridging document, including all of the mentioned elements, in addition to all other miscellaneous criteria as required to provide clearly defined design guidance as a precursor for the follow-on Design-Build contract. The bridging documents will be developed in accordance with CDB's Guidelines for Bridging Documents (available for download on the CDB Reference Library) as appropriate to the project's specific scope of work.

The successful firm will need to demonstrate their experience and expertise with similar building type and use.

The A/E will need to determine if any components of this project are eligible for a utility company or other energy grant/rebate and will be responsible for preparing and submitting the grant application if the project qualifies for the rebate.

A combined MBE/WBE goal of 18 percent is applicable to the A/E team.

A VBE goal of 3 percent is applicable to the A/E team.

**ARCHITECT/ENGINEER:** Exp U.S. Services Inc. (32109)  
Chicago, IL 60601



## FY23 CDB BOARD MEETING SCHEDULE

<b>DATE</b>	<b>TIME</b>	<b>LOCATION</b>
July 12, 2022	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
August 9 2022	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
September 13, 2022	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
October 11, 2022	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
November 15, 2022	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
December 13, 2022	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
January 10, 2023	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
February 14, 2023	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
March 14, 2023	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
April 11, 2023	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
May 9, 2023	11:00 a.m.	Chicago, Springfield & Collinsville Video conference
June 13, 2023	11:00 a.m.	Chicago, Springfield & Collinsville Video conference