

# Construction Codes Advisory Council



SOUL CENTERED PHOTOGRAPHY  
Susanne von Schroeder

Department/Legislative updates  
Commissioner Robertson and Assistant Commissioner Perushek

# Division Updates

## Scott McLellan

# Division Updates

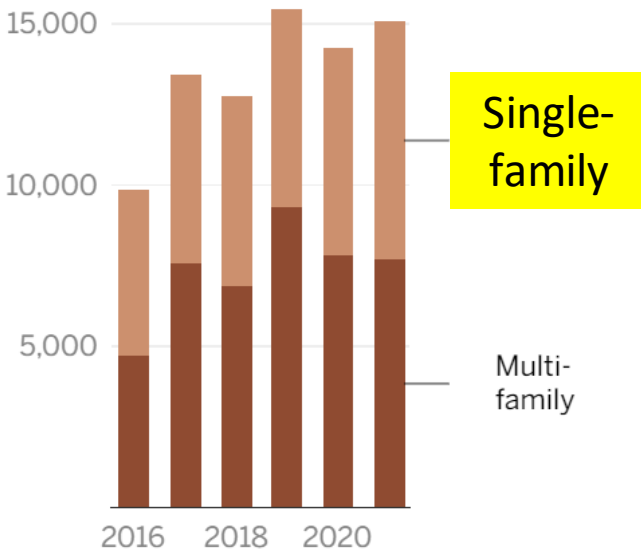
## Twin Cities residential construction permits

December	2021	2020	Chg.
Permits	659	713	-7.6%
Units	897	1,319	-32.0%
<b>Year-to-date</b>	<b>2021</b>	<b>2020</b>	<b>Chg.</b>
<b>Permits</b>	7,811	6,789	15%
Units	15,073	14,245	5.8%
Top activity: December	Permits	City	Permitted units
Maple Grove	67	Minneapolis	144
Lakeville	51	Maple Grove	73
Blaine	39	Blaine	63
2021 YTD	Permits	City	Permitted units
Lakeville	669	Minneapolis	2659
Woodbury	536	Lakeville	1313
Cottage Grove	485	Woodbury	929

Jim Foster, Star Tribune • Source: Housing First Minnesota

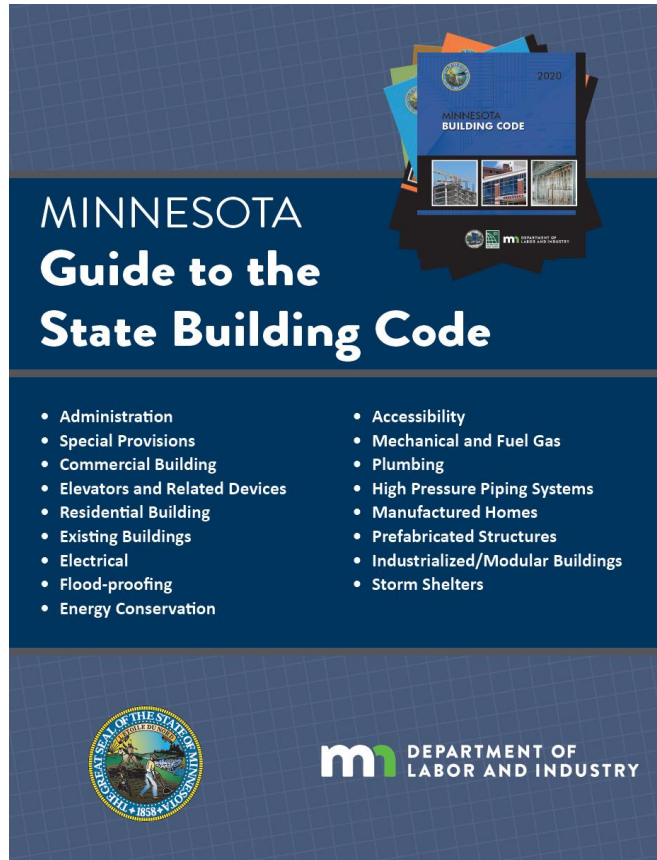
## Residential building construction

Total annual permitted housing units by construction type in the Twin Cities.

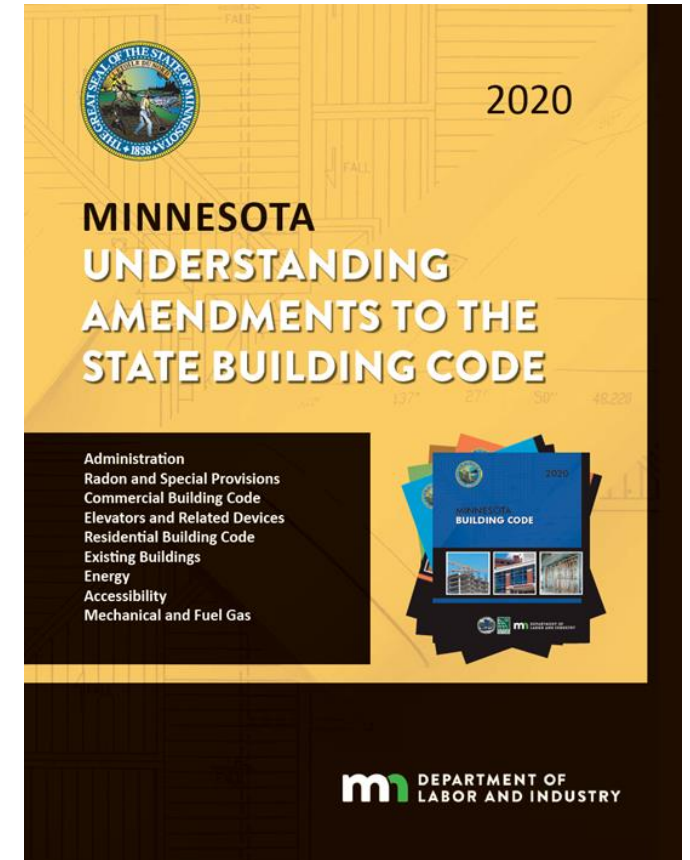


Jim Foster, Star Tribune • Source: Housing First Minnesota

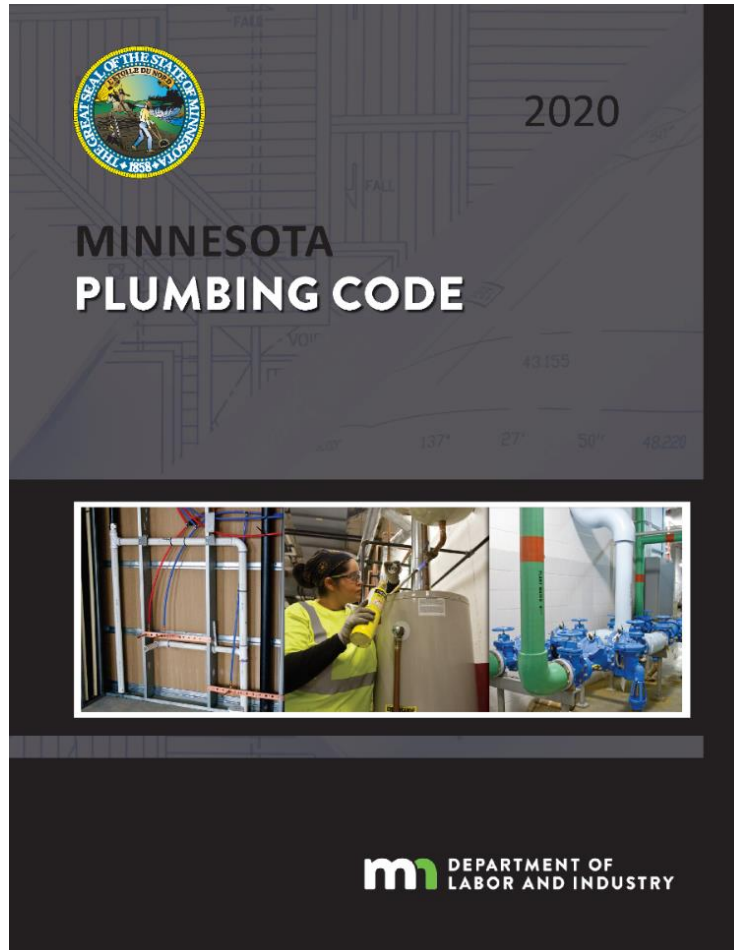
# Division Updates



**Publications now available**



<http://www.dli.mn.gov/business/codes-and-laws/2020-minnesota-state-building-codes>



## Plumbing Code

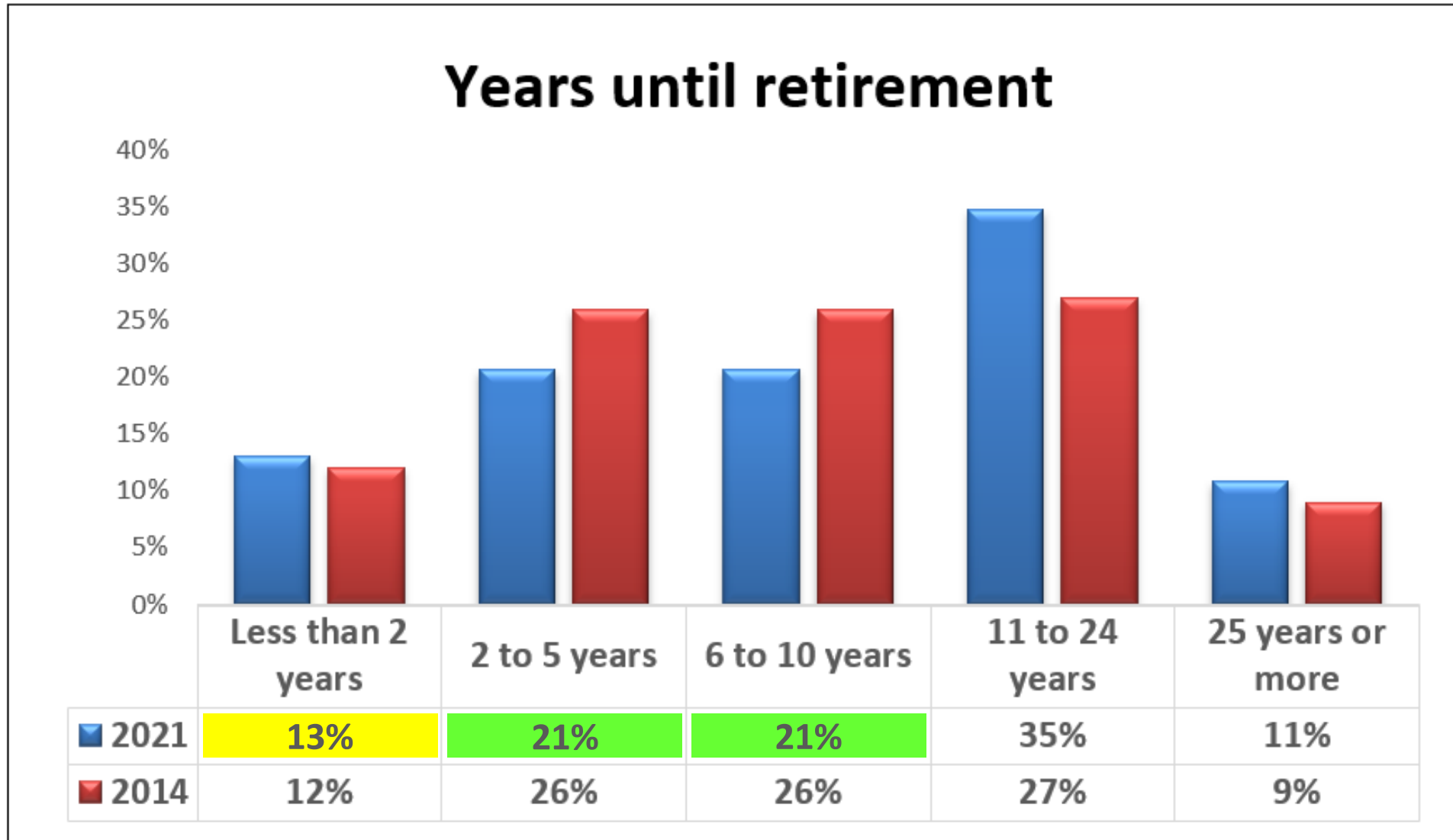
- The Minnesota Plumbing Board completed adoption of the 2020 Minnesota Plumbing Code, that incorporates by reference the 2018 Uniform Plumbing Code (UPC).
- **The effective date of the code is Dec. 17, 2021.**

<https://www.dli.mn.gov/business/plumbing-contractors/2015-minnesota-plumbing-code>

# Building Official Survey - Division Updates

- In 2014 CCLD conducted a statewide survey of building officials to better understand our industry including staffing trends and pathways for entering the profession. This fall we resurveyed them again to see what may have changed over the past seven years.
- There continues to be concern within our industry that not enough people are replacing those who are retiring. This is particularly challenging to the municipal building official as their roles and responsibilities continue to expand; from the increasing number and complexity of regulations to the added pressures to do more with less.

# Building Official Survey - Division Updates





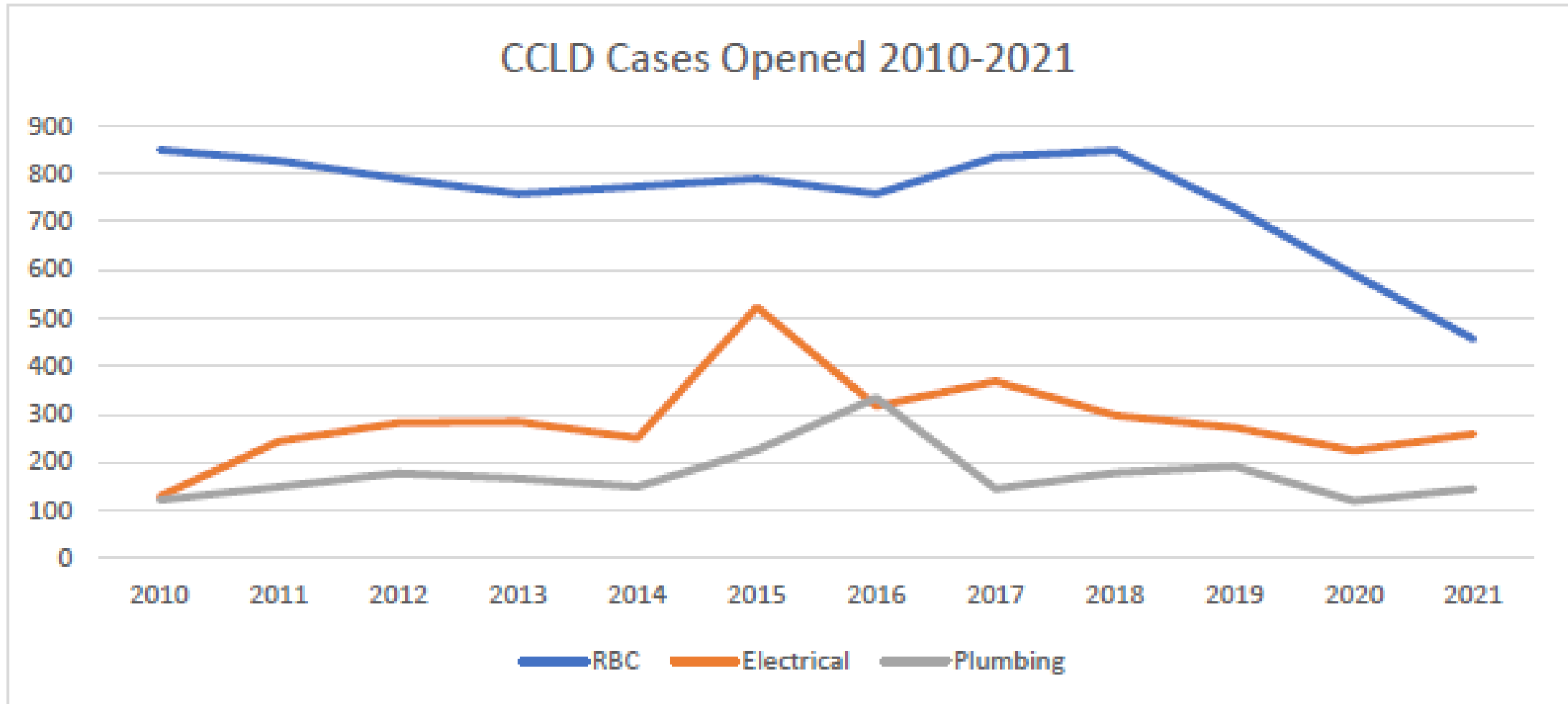
## Conclusions

1. Our industry will continue to see a steady decline in the number of code officials retiring over the next 10 yrs. (**13% in the next 2 yrs**)
2. **43%** of code officials have 7 or fewer yrs experience.
3. Code enforcement is a second career for most.
4. Most code officials would recommend the profession to others (**95%**).
5. Solid **people-skills** are nearly as important as construction experience.
6. Recommending this profession to others is what current code officials need to do to perpetuate their replacement.

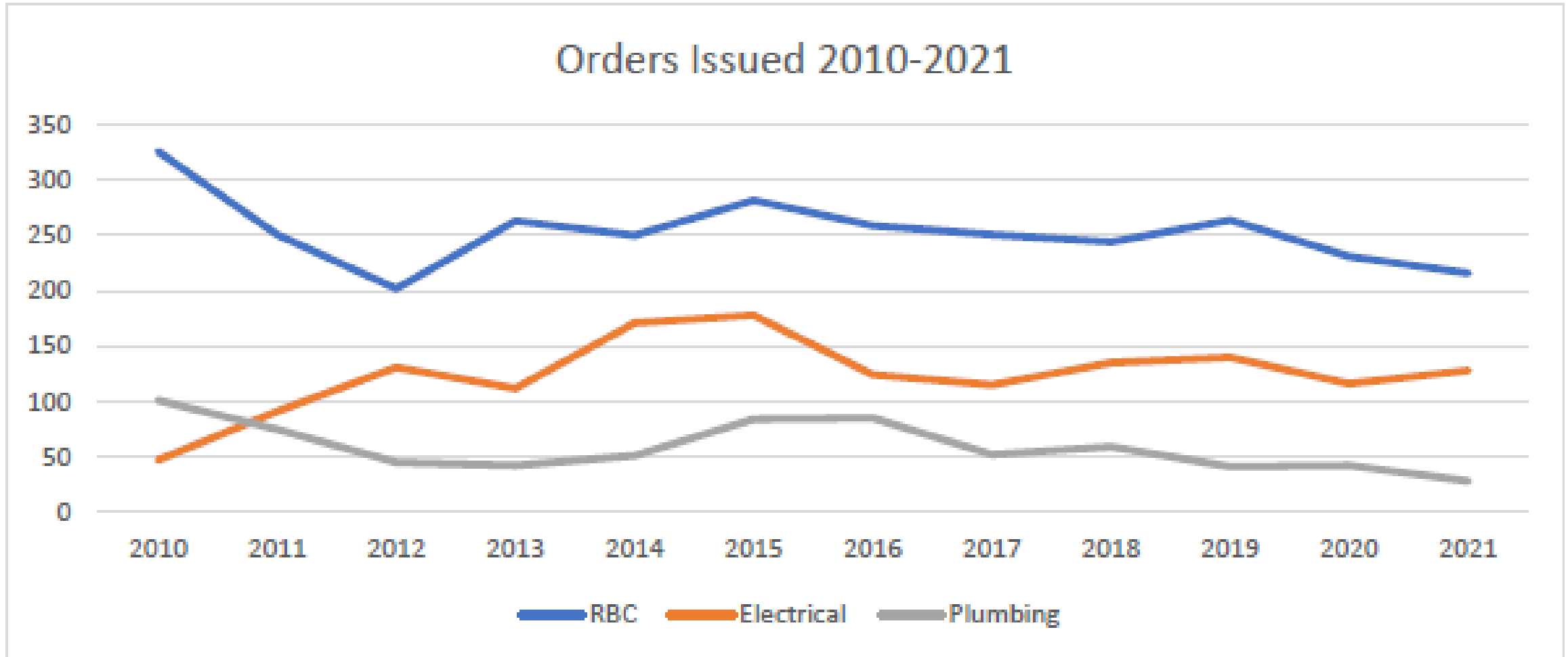
# Enforcement and Licensing

## Charlie Durenberger

# CCLD Enforcement Cases Opened by Year 2010-2021



# CCLD Enforcement Orders Issued by Year 2010-2021



# New Business



## New Business

- A. Rulemaking for new Floodproofing Code – Scott McLellan
- B. TAG report about window cleaning equipment anchors – Greg Metz
- C. TAG report on Building Code Series 1 – Scott McKown
  - a. raising exemption on Municipal Report
  - b. adult-sized changing facilities
  - c. codes adopted by law; return on investment for Residential Energy Code
  - d. residential building permit fees
- D. New fact sheets – Scott McLellan
  - a. frost protected foundations
  - b. places of public accommodations
  - c. Construction Codes Advisory Council
- E. Member recognition – Scott McLellan

# Rulemaking for new Floodproofing Code

## Scott McLellan



### Meetings

June 22

July 6

July 20

Aug. 3

Aug. 17

Andrea Crabtree	Moorhead Floodplain and CRS Manager
Vince DiGiorno	Architectural Design, KOMA A&E
Christian Faste	Building Official- Burnsville
Dan Korf	Construction Engineer, Houston Eng.
Greg Metz	DLI/CCLD Building Plan Review (Leader)
Chris Rosival	DLI/CCLD Mechanical and Refrigeration
Ceil Strauss	MN DNR Floodplain Manager and National Flood Insurance Coordinator

### TAG Recommendations:

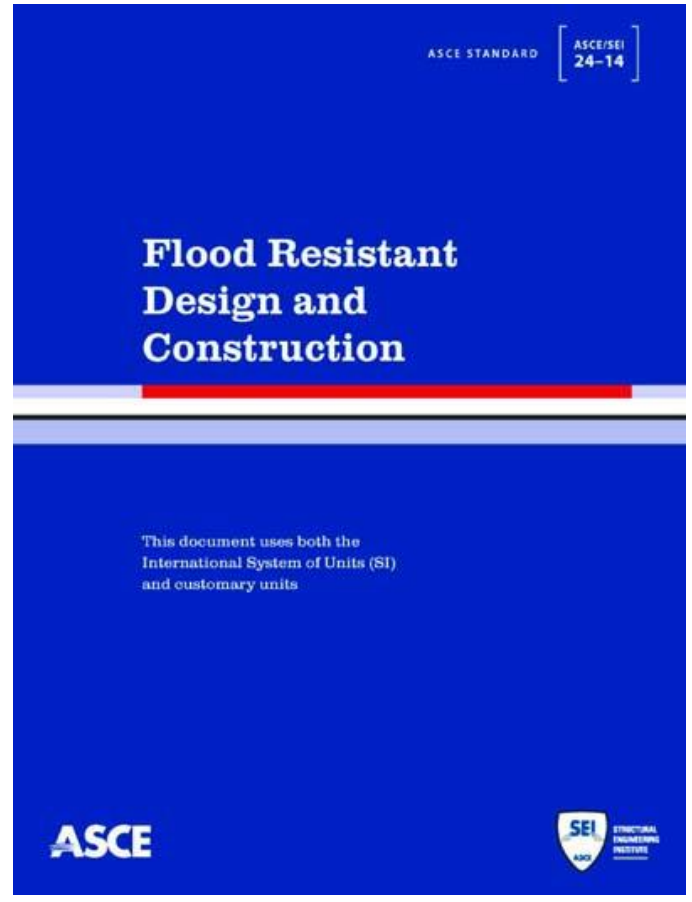
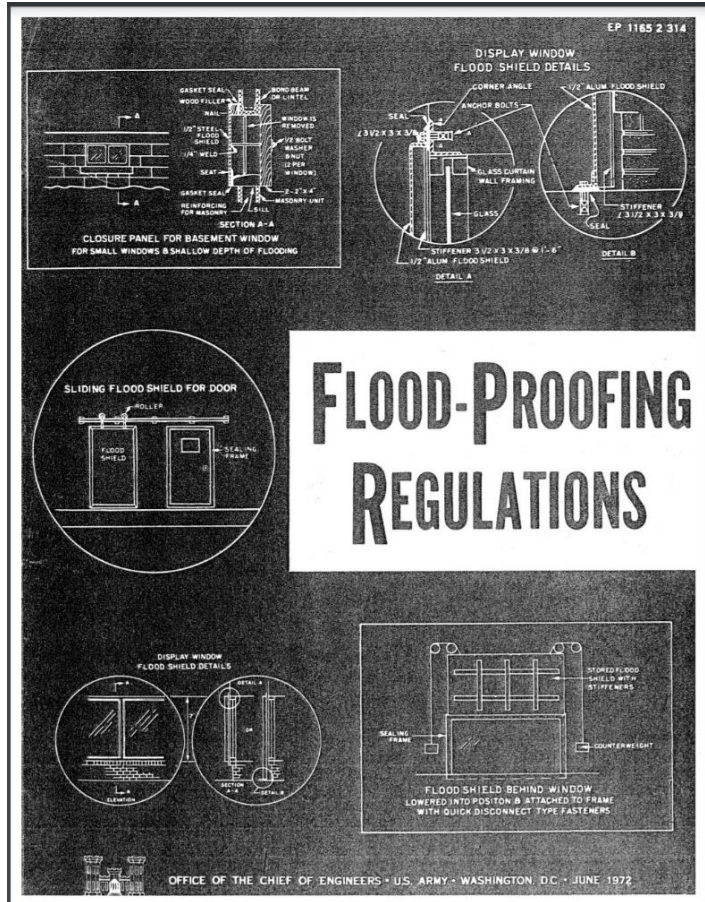
- **Redefine model code from the 1972 US Army “Chief of Engineers- Floodproofing Regulations” to ASCE Standard 24-14 Flood Resistant Design and Construction**
- **Create a “floodplain administrator”**
- **Modify existing non-conforming use**
- **Redefine substantial damage and substantial improvement**
- **Allow “dry floodproofing” and “waterproofing” for buildings in compliance FEMA Tech Bulletin 10-01.**
- **Modify language to not require fill.**
- **Allow “contingency plans” to prevent flooding of municipal systems.**

# Floodproofing Technical Advisory Group



## Proposed new Floodproofing Code

- Update Model Code for Flood Resistant Design to the latest national standard for construction.
- Referenced from the 2018 International Building Code, (model code for Minnesota Rule 1305)



# TAG Recommendations

1. Redefine the model code from the 1972 US Army "Chief of Engineers – Floodproofing Regulations" to ASCE Standard 24-14 Flood Resistant Design and Construction.
2. Modify parameters for existing non-conforming use to be more consistent with common practice.
3. Redefine substantial damage and substantial improvement to prevent the current practice of improvement daisy-chaining to avoid compliance criteria and reducing the highly restrictive limits established in the model code.
4. Make accommodations for "dry floodproofing" and "waterproofing" where in compliance with FEMA Tech Bulletin 10-01.

## CCAC Review and Comment

Legislative and/or Code Information	
Bill number(s) description (if applicable) – Attach Bill language na	
Subject/Building Code Section(s) Adoption of a new Floodproofing Code - Minnesota Rule 1335 Flood Resistant Design and Construction	
Technical Advisory Group (TAG)	
TAG Formed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Title of TAG: Minnesota Rule 1335 Flood Resistant Design TAG
TAG Members Andrea Crabtree Vince DiGiorno Christian Faste Dan Korf Greg Metz Chris Rosival Ceil Strauss	Affiliations/Representing Moorhead Floodplain & CRS Manager Architectural Design, KOMA Architects & Engineers Building Official- City of Burnsville Construction Engineer, Houston Engineering DLI/CCLD Building Plan Review, Supervisor DLI/CCLD Mechanical & Refrigeration Specialist MN DNR Floodplain Manager & National Flood Insurance Coordinator
TAG Meeting Date(s) 2021: June 22, July 6, July 20, August 3, August 17	
TAG Comments/Recommendations – Attachment <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 1. Redefine the Model Code from the 1972 US Army "Chief of Engineers- Floodproofing Regulations" to ASCE Standard 24-14 Flood Resistant Design and Construction. 2. Modify parameters for Existing Non-conforming Use to be more consistent with common practice. 3. Redefine Substantial Damage and Substantial Improvement to prevent the current practice of improvement daisy-chaining to avoid compliance criteria, and reducing the highly restrictive limits established in the model code. 4. Make accommodations for "Dry Floodproofing" and "Waterproofing" where in compliance with FEMA Tech Bulletin 10-01.	
Criteria Addressed (check all that apply) <input checked="" type="checkbox"/> Eliminating inconsistencies <input checked="" type="checkbox"/> Promoting coordination & consistency <input checked="" type="checkbox"/> Making rules easier to understand & apply <input checked="" type="checkbox"/> Streamlining construction regulation & construction procedures <input type="checkbox"/> Improving procedures within and among jurisdictions <input type="checkbox"/> Other:	
CCAC Comments & Recommendations	
Date of CCAC Meeting: September 23, 2021	
Prepared by/Name & Title	Date

# Motion to recommend adoption of a new Floodproofing Code

# TAG Report on Window Cleaning Equipment Anchors

## Greg Metz

# TAG Report – Window Cleaning Equipment Anchors

## Legislative and/or Code Information

Bill number(s) description (if applicable) – Attach Bill language

SF 62 Window Cleaning Safety; and

HF 165 Window Cleaning Safety

*(m) Window cleaning safety. The code must require the installation of dedicated anchorages for the purpose of suspended window cleaning on (1) new buildings four stories or greater; and (2) buildings four stories or greater, only on those areas undergoing reconstruction, alteration, or repair that includes the exposure of primary structural components of the roof.*

*The commissioner may waive all or a portion of the requirements of this paragraph related add words, etc. to reconstruction, alteration, or repair if the installation of dedicated anchorages would not result in significant safety improvements due to limits on the size of the project, or other factors as determined by the commissioner.*

Initially proposed new additional language:

*Dedicated anchorages are not required for new buildings that are six stories or less if the roof has a slope steeper than four units vertical by 12 units horizontal.*

Subject/Building Code Section(s)

Minnesota Rule Chapter 1305, Section 3114 Window Cleaning Anchors

# TAG Report – Window Cleaning Equipment Anchors

## Technical Advisory Group (TAG)

TAG Formed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Title of TAG: Window Washing Anchors TAG
<p>TAG Members</p> <p>Kyle Berndt</p> <p>Eric Crone</p> <p>Larry Farris</p> <p>Ken Hines (CCAC Member)</p> <p>Dan Kelsey</p> <p>Greg Metz (TAG Leader)</p> <p>Wendy Rannenber</p> <p>Nancy Zentgraf</p> <p>Robert Balsavich (Alternate)</p>	<p>Affiliations/Representing</p> <p>MN Multi-Housing Assn. Mid/High rise housing developers</p> <p>SEIU Local 26; Columbia Building Services. Professional Window Cleaners.</p> <p>BKV Group Architects &amp; Engineers; Multi-family and Mid/High rise commercial design</p> <p>CBS Construction Services; Contractors/ Professional installers</p> <p>MN DLI/CCLD; State structural engineer for plan review</p> <p>MN DLI/CCLD; State administrative manager for plan review</p> <p>City of Duluth Building Official; Municipal plan review and code enforcement</p> <p>DLI/MnOSHA; Worker safety rules and regulations</p> <p>DLI/MnOSHA; Worker safety rules and regulations</p>
<p>TAG Meeting Date(s)</p> <p>11/4/2021; 11/18/2021</p>	

# TAG Report – Window Cleaning Equipment Anchors

## TAG Comments/Recommendations

1. Modify statutory language to acknowledge window cleaning safety methods other than anchors that are recognized by the national standard. Craft language to adopt the national window cleaning safety standards by rule to leverage the flexibility of the rulemaking process. Rulemaking will allow for further clarification of window cleaning safety standard requirements and allow building officials to approve alternative methods in accordance with Minnesota Rules, part 1300.0110, subpart 13. TAG members unanimously agreed with this recommendation.
2. The TAG members discussed that building maintenance features, processes and procedures are beyond the typical scope of the Minnesota Building Code and that worker safety items are more appropriately addressed in MNOSHA rules and statutes so item (m) could be deleted from Minnesota Statutes, chapter 326B. A viewpoint strongly expressed during the meetings is that equipment maintenance and window cleaning training needs to be addressed but these concerns are outside the scope of the Minnesota State Building Code.

# TAG Report – Window Cleaning Equipment Anchors

## **TAG Comments/Recommendations**

3. The TAG recommended that the legislature consider granting exempt rulemaking authority with a 30-day public notice and comment period after the final rule language is drafted. This will accelerate implementation of the revised rule, and the public comment period will ensure that interested parties have ample opportunity to provide input before final implementation. This recommendation was unanimous. Legal review of this proposal after the TAG meeting determined that an accelerated rule process with a notice and comment period would refer to the expediated rulemaking process rather than the exempt rulemaking process.



# TAG Report – Window Cleaning Equipment Anchors

## **Suggested language as follows:**

### [326B.106, Subd. 4 \(m\) Window cleaning equipment anchors](#)

**Window Cleaning Safety.** The commissioner shall adopt rules requiring window cleaning safety features as part of the State Building Code. Window cleaning safety features shall be provided for all windows on (1) new buildings where determined by the code, and (2) existing buildings undergoing alterations where both of the following conditions are met: a) where windows don't currently have safe window cleaning features and b) the proposed work area being altered can include provisions for safe window cleaning. The rules shall require compliance with a nationally recognized standard for window cleaning.

***Rulemaking authority language:*** The commissioner of the Department of Labor and Industry shall adopt rules, using the expedited rulemaking process in Minnesota Statutes, section 14.389, that set forth window cleaning safety features to conform with the changes to Minnesota Statutes, Chapter 326B.106, subd. 4, subsection (m), under this act.

Motion to approve  
TAG report on Window Cleaning Equipment Anchors

# TAG Report for Building Code Series 1 Raising Exemption on Municipal Report – Scott McKown

# TAG Report from Building Code Series 1 Raising Exemption on Municipal Report

## Legislative and/or Code Information

Bill number(s) description (if applicable) – Attach Bill language

2SS-CG001-3, Article 12 Annual Report

### 326B.145 ANNUAL REPORT

(a) Each municipality shall annually report by June 30 to the department, in a format prescribed by the department, all construction and development-related fees collected by the municipality from developers, builders, and subcontractors if the cumulative fees collected exceeded ~~\$5,000~~ \$7,000 in the reporting year, ~~except that, for reports due June 30, 2009, to June 30, 2013, the reporting threshold is \$10,000.~~

(b) The report must include:

(1) the number and valuation of units for which fees were paid;

(2) the amount of building permit fees, plan review fees, administrative fees, engineering fees, infrastructure fees, and other construction and development-related fees; and

(3) the expenses associated with the municipal activities for which fees were collected, including a separate listing of costs associated with conducting inspections for each of the following categories:

# TAG Report from Building Code Series 1 Raising Exemption on Municipal Report

## Bill number: 2SS-CG001-3, Article 12 Annual Report

(i) labor;

(ii) transportation;

(iv) any other expenses incurred by the municipality as a result of conducting inspections.

(c) A municipality that collects \$7,000 or less in a reporting year from all construction and development-related fees shall report that the municipality collected \$7,000 or less in the reporting year by indicating as such on a form provided by the department.

(d) In developing the form for reporting, the department must include a list of common definitions for all categories of construction and development-related fees collected by municipalities. A municipality that collects a fee not included in the common list of definitions must report the fee as "other" and provide an explanation of the fee.

(e) A municipality that fails to report to the department in accordance with this section is subject to the remedies provided by section 326B.082.

### **Subject/Building Code Section(s)**

Building Code Administration, Minnesota Statute 326B.145

# TAG Report from Building Code Series 1 Raising Exemption on Municipal Report

## Technical Advisory Group (TAG)

TAG Formed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Title of TAG: Building Code Series 1 TAG
<p>TAG Members</p> <p>Scott McKown</p> <p>Irene Kao</p> <p>Charlie Vander Aarde</p> <p>Nick Erickson</p> <p>Brian Hoffman</p> <p>Kurt Welker</p> <p>Karen Gridley</p> <p>Barry Greive</p> <p>Simona Fischer</p> <p>John Smith</p> <p>Ken Hinz</p>	<p>Affiliations/Representing</p> <p>MN DLI/CCLD; Assistant Director</p> <p>League of Minnesota Cities</p> <p>Metro Cities</p> <p>Housing First Minnesota</p> <p>City of St. Louis Park; Association of MN Building Officials</p> <p>Welker Custom Homes; Builders Association of MN</p> <p>MN DLI/CCLD; Accessibility Specialist</p> <p>Target Corporation; Building Owners</p> <p>MSR Design; MN American Institute of Architects</p> <p>Michaud Cooley Erickson; Building Systems Design and Engineering Practices</p> <p>CBS Construction Services, Inc; Contractors</p>
<p>TAG Meeting Date(s)</p> <p>11/9/2021; 11/23/2021; 12/7/2021; 12/21/21</p>	

# TAG Report from Building Code Series 1 Raising Exemption on Municipal Report

## **TAG Comments/Recommendations**

1. The TAG members support raising the reporting fee threshold to \$7,000.
2. The proposed reporting requirements are similar to those in the current annual report form which requires municipalities to report expenses for employee salaries and benefits, transportation, office space, supplies and equipment, and administrative overhead associated with building code enforcement. TAG consensus is that the proposed language will result in municipalities reporting the same information as they do currently and as such, is not needed.
3. Some TAG members and legislators had concerns that the current annual report form does not provide for sufficient breakdown of fees and expenditures for infrastructure and park dedication. Additional detail is needed related to amounts collected and expended on trail dedication, streets and sewers. The form can be revised administratively to include additional detail without any changes to statutory language. DLI and the League of Minnesota Cities will continue to work with stakeholders to capture this additional information.

# TAG Report from Building Code Series 1

## Raising Exemption on Municipal Report

### **Suggested language as follows:**

#### **[326B.145 ANNUAL REPORT.](#)**

Each municipality shall annually report by June 30 to the department, in a format prescribed by the department, all construction and development-related fees collected by the municipality from developers, builders, and subcontractors if the cumulative fees collected exceeded ~~\$5,000~~ \$7,000 in the reporting year; ~~except that, for reports due June 30, 2009, to June 30, 2013, the reporting threshold is \$10,000.~~ The report must include:

- 1) the number and valuation of units for which fees were paid;
- 2) the amount of building permit fees, plan review fees, administrative fees, engineering fees, infrastructure fees, and other construction and development-related fees; and
- 3) the expenses associated with the municipal activities for which fees were collected.

A municipality that fails to report to the department in accordance with this section is subject to the remedies provided by section [326B.082.](#)



# Motion to approve Raising Exemption on Municipal Report

# TAG Report for Building Code Series 1 Adult-sized Changing Facilities – Scott McKown

# TAG Report from Building Code Series 1

## Adult-sized Changing Facilities

### Legislative and/or Code Information

Bill number(s) description (if applicable) – Attach Bill language

[SF 2536/HF 2135](#) Adult-Size Changing Facilities

(n) **Adult-size changing facilities.** (1) The code must require the installation of adult-size changing facilities on each floor where there is a restroom accessible to the public. This requirement is met by providing adult-size changing facilities in either a unisex restroom or in both a men's restroom and a women's restroom. Adult-size changing facilities consist of:

- (i) an adult-size changing table in a private location;
- (ii) a supply of paper table liners and disinfectant wipes;
- (iii) an appropriately sized waste container for used supplies;
- (iv) nonslip flooring;
- (v) wall-mounted hooks and a shelf for a user's personal supplies;
- (vi) a chair for the user's attendant or caregiver; and
- (vii) signage indicating the presence of the adult-size changing facilities.

# TAG Report from Building Code Series 1

## Adult-sized Changing Facilities

Bill number(s): [SF 2536/HF 2135 Adult-Size Changing Facilities](#)

(2) Adult-size changing tables must have a changing surface that:

(i) is a minimum of 24 inches wide and 71 inches long;

(ii) either sits at or is capable of being adjusted to a height of between 18 and 28 inches above the floor;

(iii) is weight-bearing to a minimum of 350 pounds; and

(iv) has both a safety rail and restraint straps available.

### **Subject/Building Code Section(s)**

Minnesota Rules, chapter 1341, Minnesota Accessibility Code

Proposed Minnesota Statutes 326B.106 Subd. 4 (n)

# TAG Report from Building Code Series 1 Adult-sized Changing Facilities

## Technical Advisory Group (TAG)

TAG Formed  Yes  No

Title of TAG: Building Code Series 1 TAG

### TAG Members

Scott McKown

Irene Kao

Charlie Vander Aarde

Nick Erickson

Brian Hoffman

Kurt Welker

Karen Gridley

Barry Greive

Simona Fischer

John Smith

Ken Hinz

### Affiliations/Representing

MN DLI/CCLD; Assistant Director

League of Minnesota Cities

Metro Cities

Housing First Minnesota

City of St. Louis Park; Association of MN Building Officials

Welker Custom Homes; Builders Association of MN

MN DLI/CCLD; Accessibility Specialist

Target Corporation; Building Owners

MSR Design; MN American Institute of Architects

Michaud Cooley Erickson; Building Systems Design and Engineering Practices

CBS Construction Services, Inc; Contractors

# TAG Report from Building Code Series 1 Adult-sized Changing Facilities

## TAG Meeting Date(s)

11/9/2021; 11/23/2021; 12/7/2021; 12/21/21

TAG Comments/Recommendations – Attachment  Yes  No

1. TAG members support adoption of national model code requirements for adult changing tables through the rulemaking process that will adopt the 2024 “I” codes in lieu of the proposed statutory requirements.
2. Placing technical requirements in statute limits the ability of designers, builders and building officials from proposing and approving alternative designs.
3. The bill language conflicts with the intent of the State Building Code that buildings be designed to accommodate all persons with disabilities. The addition of a requirement for adult changing tables without any increase in the size of the restroom, will create barriers for other members of the disability community who use wheelchairs or other mobility devices.
4. Adopting the national model code language reduces costs by only requiring adult changing tables in key locations and using existing requirements for family- and assisted-use restrooms.
5. Accessibility advocates and subject-matter experts recommend regulating adult changing tables in the building code rather than through legislation to prevent inconsistency with the national standard. It is anticipated that the 2024 IBC will contain appropriate provisions for adult changing tables.
6. TAG members do not recommend these proposed legislative changes. However, if the proposed bills move forward, they should be modified to include an effective date that allows 18-months for implementation and a sunset date, so the statute expires when the new building code with criteria for adult changing stations becomes effective.

# Motion to approve Adult-sized Changing Facilities

# TAG Report for Building Code Series 1 Codes Adopted by Law; Energy Code – Return on Investment Scott McKown



# TAG Report from Building Code Series 1

## Codes Adopted by Law; Energy Code – Return on Investment

### Legislative and/or Code Information

Bill number(s) description (if applicable) – Attach Bill language

SF 910; 2SS-CG001-3, Codes must be adopted by law if prior to 2026; ROI period on Residential Energy Code Adoption (2 SS-CG001-3 changes that are different from SF 910 are in parentheses).

~~c) Beginning with the 2018 edition of the model building codes and in 2026 and every six years thereafter, the commissioner shall review the new model building codes and adopt the model codes as amended for use in Minnesota, within two years of the published edition date. The commissioner may not adopt new model building codes or amendments to the building codes prior to the adoption of the new building codes to advance construction methods, technology, or materials, or, where necessary to protect the health, safety, and welfare of the public, or to improve the efficiency or the use of a building 2026, unless approved by law.~~

(d) Notwithstanding paragraph (c), the commissioner shall act on each new model residential energy code and the new model commercial energy code in accordance with federal law for which the United States Department of Energy has issued an affirmative determination in compliance with United States Code, title 42, section 6833. The commissioner may not adopt new energy codes or amendments prior to adoption of to the new energy codes, as amended for use in Minnesota, to advance construction methods, technology, or materials, or, where necessary to protect the health, safety, and welfare of the public, or to improve the efficiency or use of a building unless the commissioner has determined that any cost to residential construction or remodeling per unit due to implementation of the proposed changes to the energy codes will be offset within five years by savings resulting from the change (no more than the net present value of the projected energy savings over thirty years due to the proposed changes).

(e) The limitations on adoption of new or amended codes under paragraphs (c) and (d) do not apply to new or amended code changes necessary to protect the immediate health, safety, and welfare of the public.

# TAG Report from Building Code Series 1 Codes Adopted by Law; Energy Code – Return on Investment

Subject/Building Code Section(s) Minnesota Statute 326B.106 Subd. 1 Minnesota Residential Energy Code; code adoption	
<b>Technical Advisory Group (TAG)</b>	
TAG Formed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Title of TAG: Building Code Series 1 TAG
<b>TAG Members</b> Scott McKown Irene Kao Charlie Vander Aarde Nick Erickson Brian Hoffman Kurt Welker Karen Gridley Barry Greive Simona Fischer John Smith Ken Hinz	<b>Affiliations/Representing</b> MN DLI/CCLD; Assistant Director League of Minnesota Cities Metro Cities Housing First Minnesota City of St. Louis Park; Association of MN Building Officials Welker Custom Homes; Builders Association of MN MN DLI/CCLD; Accessibility Specialist Target Corporation; Building Owners MSR Design; MN American Institute of Architects Michaud Cooley Erickson; Building Systems Design and Engineering Practices CBS Construction Services, Inc; Contractors

# TAG Report from Building Code Series 1

## Codes Adopted by Law; Energy Code – Return on Investment

### TAG Meeting Date(s)

11/9/2021; 11/23/2021; 12/7/2021; 12/21/21

TAG Comments/Recommendations – Attachment  Yes  No

1. The TAG consensus is that the review and adoption of model codes should continue to be on a six-year cycle with the next adoption referencing the 2024 editions. The adoption of I-codes on a six-year cycle gives the construction industry the opportunity to take advantage of new methods, materials, and technologies that can reduce the cost of construction. TAG members recommend that DLI maintain the six-year code adoption cycle under current law.
2. Some TAG members thought changes to the statutory language are necessary to ensure the residential energy code is the adopted on the same six-year cycle as the other I-codes. However, under current law, the commissioner is required to *adopt* new model commercial energy codes and *evaluate* new residential energy codes if they are shown by the US DOE to produce energy savings over previous editions. This process is established for all states by federal law as currently referenced in subpart (d). As model energy codes are revised and updated every three years, it is necessary that our statute not conflict. However, Minnesota has not adopted a model residential code since the 2012 edition of the model code. The model code review process in Minnesota is robust and a consideration of costs is mandated by statute and the rulemaking process. Prior to the adoption of a model residential energy code, the Department must perform a study, that in part addresses costs, in cooperation with practitioners in residential construction and building science.

# TAG Report from Building Code Series 1

## Codes Adopted by Law; Energy Code – Return on Investment

3. TAG members were unable to find consensus regarding return on investment and its calculation. Multiple factors and various viewpoints were discussed including whether the payback period should be dependent upon the length of time between energy code adoptions. Others thought a longer period was more appropriate to reflect the average period of a mortgage or expected building life cycle. Another reflected the complexity of return-on-investment calculations and the difficulty quantifying some benefits of the energy code such as improved human comfort. Others thought a return-on-investment period is not needed given current multiple statutory requirements to consider cost benefit. There was general agreement that return on investment is difficult to calculate because it varies based on the methodology used, energy type and costs, building type, and geographic region. There were also concerns about differences in cost calculations between builders and energy conservation advocates.

Motion to approve  
Codes Adopted by Law; Energy Code – Return on Investment

# TAG Report for Building Code Series 1 Residential Building Permit Fees – Scott McKown

# TAG Report from Building Code Series 1 Residential Building Permit Fees

## Legislative and/or Code Information

Bill number(s) description (if applicable) – Attach Bill language

SF 801/HF 1085; 2SS-CG001-3, Article 10 Municipalities basing of construction permit fees on a cost per square foot requirement

**Subd. 1a. Building permit fees; municipalities.** Beginning January 1, 2022, building permit fees for new one- and two-family dwellings and townhouses, including any inspection fees, adopted by a municipality must be based on a cost per square foot. All permit and inspection fees must be made available publicly through one or more of the following: (1) posting on the website of the municipality; (2) providing a copy by mail, if requested; or (3) keeping a copy for review at the city hall building of a municipality.

2SS-CG001-3, Article 10 Building Permit Fees

**Subd. 1b. Building permit fees; municipalities.** Beginning January 1, 2022, fees for building permits, including any inspection fees, adopted by a municipality must be based on a cost per square foot. All permit and inspection fees must be made available publicly through one or more of the following: (1) posting on the website of the municipality; (2) providing a copy by mail, if requested; or (3) keeping a copy for review at the city hall building of a municipality.

# TAG Report from Building Code Series 1 Residential Building Permit Fees

<b>Subject/Building Code Section(s)</b> Building Code Administration Proposed Minnesota Statute 326B.153 Subd. 1a and 1b	
<b>Technical Advisory Group (TAG)</b>	
<b>TAG Formed</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Title of TAG:</b> Building Code Series 1 TAG
<b>TAG Members</b> Scott McKown Irene Kao Charlie Vander Aarde Nick Erickson Brian Hoffman Kurt Welker Karen Gridley Barry Greive Simona Fischer John Smith Ken Hinz	<b>Affiliations/Representing</b> MN DLI/CCLD; Assistant Director League of Minnesota Cities Metro Cities Housing First Minnesota City of St. Louis Park; Association of MN Building Officials Welker Custom Homes; Builders Association of MN MN DLI/CCLD; Accessibility Specialist Target Corporation; Building Owners MSR Design; MN American Institute of Architects Michaud Cooley Erickson; Building Systems Design and Engineering Practices CBS Construction Services, Inc; Contractors



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## TAG Meeting Date(s)

11/9/2021; 11/23/2021; 12/7/2021; 12/21/21

TAG Comments/Recommendations – Attachment  Yes  No

1. There was no consensus regarding changing the calculation of permit fees, but if there are any changes to the permit fee structure, they should be limited to new one- and two-family dwellings and townhouses. Permit fees for commercial construction and residential remodels should continue to be assessed based on valuation because the variations in project complexity are more closely tied to valuation and generally reflect the complexity of services provided.
2. TAG members representing municipalities and building officials expressed concerns about assessing permit fees based on square footage because new residential construction has varying degrees of complexity. A more complex project of the same square footage may require additional inspection services. Municipalities will have to update their permit calculation systems for two different methods of assessing permit fees.
3. TAG members expressed concerns on how the state surcharge is to be calculated on permits that are not based on valuation.
4. TAG members expressed concerns about current inconsistent valuation assessments for new home construction between and within municipalities.

# TAG Report from Building Code Series 1

## Residential Building Permit Fees

5. Some TAG members were uncertain if calculating permit fees based on square footage would improve housing affordability.
6. A viewpoint expressed was that homeowners are being overcharged for permit fees for new construction resulting in municipalities generating permit revenue that exceeds the cost of the service provided. However, because municipalities are not required to report permit fees collected specifically for new one- and two-family dwellings and townhouses, it is unclear if residential construction alone is generating excessive permit revenue.
7. Other TAG members described how permit fee revenue fluctuates depending on annual building permit volume. Excess revenue collected one year may offset department expenses in leaner years.
8. Some TAG members agreed that valuating construction on an established uniform cost-per-square-foot basis for new one- and two- family dwellings and townhouses provides municipalities with a simplified method of determining the valuation of residential buildings that does not rely on the permit applicant or code official to determine.
9. TAG members discussed the potential of establishing a statewide fee schedule for consistency. However, because construction costs, labor and municipal program costs vary throughout the state, a single uniform fee schedule would not be practical.
10. The TAG consensus is that because municipalities currently make their fee schedules publicly available, the proposed posting requirements are unnecessary.

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11. There was no TAG consensus on either of the legislative proposals.
12. Many TAG members did not think changes to the permit fees calculation are necessary. However, if the Legislature feels that it is an issue that must be addressed, then an approach that requires DLI to establish a statewide standard valuation on a cost-per-square-foot basis is acceptable. There are several benefits of this approach: (a) the valuation factor would be uniform statewide, thus eliminating the subjective valuation process; (b) the municipality retains control over the actual fee schedule and cost of permits; (c) transparency is increased as the only variables are the size of the building and the municipality's fee schedule; (d) there would be no conflict with calculating the state surcharge based upon valuation as required.

**Potential language could be similar to the following:**

326B.153 Subd. 1a

The commissioner of labor and industry shall adopt rules to establish a uniform statewide valuation based on a square foot construction cost for new one- and two- family dwellings and townhouses. The commissioner may use the expedited rulemaking procedures under Minnesota Statutes, section 14.389.

# Motion to approve Residential Building Permit Fees

New Fact Sheets  
Scott McLellan

# FROST PROTECTED FOUNDATIONS FOR NORTHERN MINNESOTA

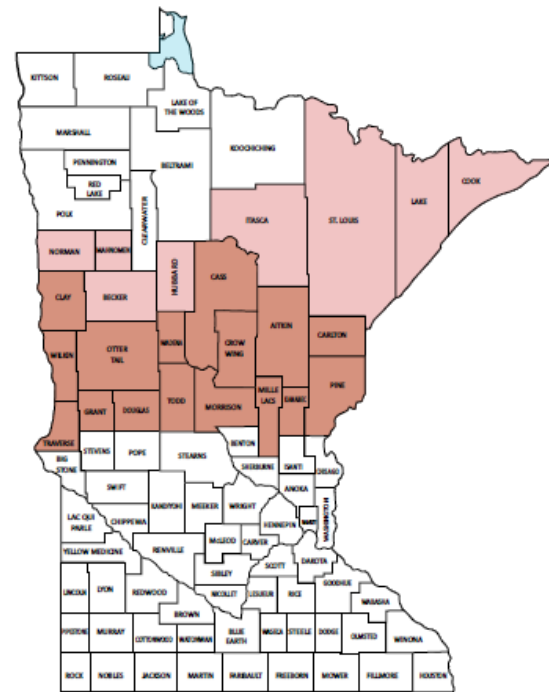
Minnesota Department of Labor and Industry

## Minimum foundation depth requirements in Minnesota

Required foundation depths for frost protection are the same today as they were 40 years ago. However, since the early 1980s, at least two relevant factors have changed; increased foundation insulation requirements and a slight increase in the average outdoor temperature. As a result, the Minnesota Department of Labor and Industry and the Construction Codes Advisory Council have re-examined current foundation depth requirements for northern Minnesota. The purpose of this fact sheet is to highlight another code-complying method for protecting foundations based upon a standard referenced in the Minnesota State Building Code.

## Frost Protected Shallow Foundations

The Minnesota Residential Code and the Minnesota Building Code both recognize and allow a less traditional method of reducing the required foundation depth in accordance with ASCE 32 - *Standard for Frost Protected Shallow Foundations*. This method saves construction costs by reducing the excavation depth, the amount of concrete, and size of foundation forms.



≤ 3750 Counties with AFI ≤ 3750

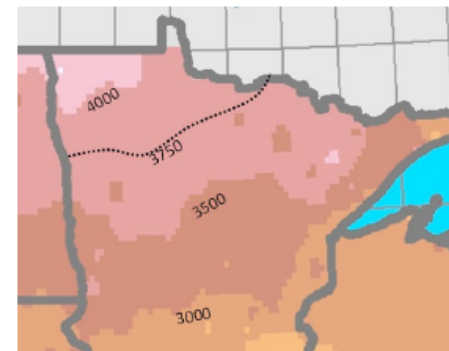
≤ 3500 Counties with AFI ≤ 3500

## Air Freezing Index (AFI)

The ASCE Standard 32 uses an AFI to determine where frost protected shallow foundations may be used in the state. The AFI measures the magnitude and duration of below-freezing temperatures, including estimating ground frost penetration. The most recent data collected from the National Oceanic and Atmospheric Association shows a general decrease in freezing severity in some northern Minnesota counties. These changes are reflected in the adjacent map.

## Applying AFI to other areas

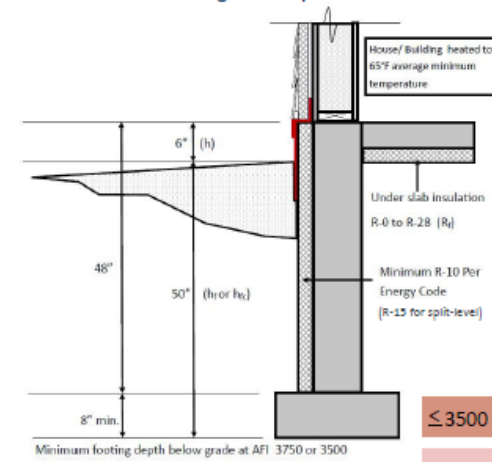
As determined by the authority having jurisdiction (AHJ), the 3500 AFI can apply where shown on the map below to portions of St. Louis, Lake and Cook counties.



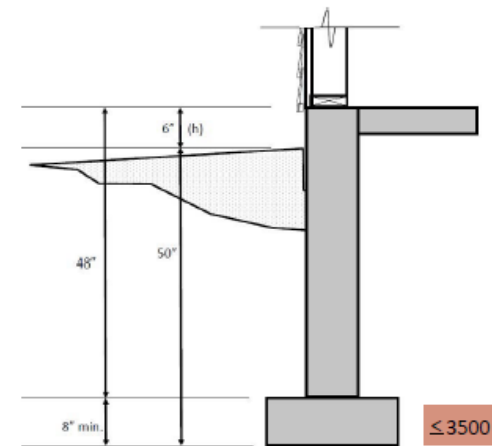
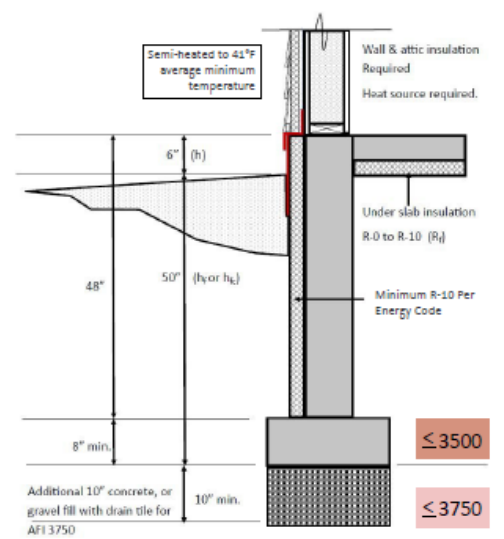
## Complying foundation designs

The following foundation designs comply with the Minnesota Residential Code and Minnesota Building Code. Variations from these details must be based on justifying site-specific factors. If to be constructed in a code-enforced municipality, variations must be approved by the building official as an "alternate method."

### Heated building foundation (slab-on-grade or split-level)



### Semi-heated attached-garage foundation



### Unheated attached-garage foundation

50-inch deep foundation is permitted if each of the following conditions are met:

- AFI is 3500 or less
- Ground water table is 60 inches below grade
- Soils beneath the foundation are crystalline bedrock, sedimentary and foliated rock, sandy gravel and/or gravel, sand, or other soil that provides equivalent protection from frost.

## FACT SHEET

# PLACES OF PUBLIC ACCOMMODATION

Minnesota Department of Labor and Industry

### State inspection of places of public accommodation in non-code areas

Minnesota law requires state inspection of new construction, change of use, alterations or additions to a place of public accommodation (PPA) designed for 100 or more people. As of July 1, 2017, application must be made to the Minnesota Department of Labor and Industry for building code review, permit and inspection before construction can begin on these public buildings that will be constructed in non-code enforced areas of the state.

### What is a PPA?

A publicly or privately owned facility with an occupant load of 100 or more people and is a sports or entertainment arena, stadium, theater, community or convention hall, special event center, indoor amusement facility or water park or indoor swimming pool.



**Occupant load:** The calculated number of people for which the means of egress system is designed. This number is based on the number of square feet that the building code assigns to each occupant to ensure means-of-egress safety requirements.

**Fire area:** A building or portion of a building bounded by exterior walls, fire walls or fire barrier walls constructed per the Minnesota State Building Code.

**Agricultural buildings:** Buildings located on land assessed as agricultural which are designed, constructed and used to house farm implements, livestock or agricultural products and used by the owner, lessee and members of their immediate family, employees and persons engaged in the pickup or delivery of agricultural products.

### Where to get permits for places of public accommodation

**Land use permits and grading permits:** County or Local municipality, if required.

**Building permits and mechanical permits:** If the property is within a municipality having local enforcement of the State Building Code, the local building department has jurisdiction. If there is no local code enforcement, the Construction Codes and Licensing Division (CCLD) at the Minnesota Department of Labor and Industry has jurisdiction for projects with an occupant load over 100 persons.

**Sprinkler permits:** Minnesota Department of Public Safety, State Fire Marshal's Division.

**Electrical, plumbing and elevator permits:** CCLD, except where the department has specific agreements with local building departments.

### Where to start when planning

Without exception, all PPA require design and certification by an architect or engineer licensed in Minnesota. Start by

assembling the design team: architect, structural engineer, mechanical engineer (if including any heating and/or air conditioning), master plumber, electrical engineer or master electrician. Licensed professionals are listed at <https://mn.gov/aelslagid/roster.html>.

### I have an existing building that I would like to convert to a PPA

**Conversion of commercial and residential buildings:** Existing commercial buildings may use the Minnesota Conservation Code for Existing Buildings. Changes in occupancy will typically result in requirements to comply with the current construction codes.

**Conversion of agricultural buildings:** Minnesota Statute 326B.121 exempts agricultural buildings from the building code. However, conversion of an agricultural building to a PPA requires demonstration that the building complies with all of the requirements of the current construction codes. A barn used for another purpose is no longer exempt.

### What are some typical areas of concern?

**Building structure:** Buildings must meet current gravity load criteria (dead load + live load + snow load) and current lateral (wind) load criteria. Must demonstrate with certified calculations.

**Accessibility:** Must demonstrate and provide accessible parking, an accessible route to an accessible entrance, an accessible route within to every primary function area and public space, and accessible toilets. If primary functions are not on the accessible level, provide an elevator.

**Toileting:** Provide the number of water closets, lavatories, sinks and drinking fountains required by Minnesota Building Code, Chapter 29. Portable toilets are not acceptable except for outdoor stadiums.

**Means of egress:** Provide means of egress compliant with Chapter 10 of the Minnesota Building Code. Panic hardware is required on doors. Exit signage and emergency power for egress lighting is required.

**HVAC:** If providing heating or air conditioning and spaces were not previously conditioned or if the building was an agricultural building, the thermal envelope of the conditioned space and HVAC equipment must comply with the current Minnesota Energy Code. If no HVAC, the architect must provide calculations for natural ventilation compliance.

**Fire sprinkler systems:** PPA require sprinkling under the following conditions:

1. when the occupant load of the fire area containing the PPA is 300 or more persons (MS 326B.108), or
2. when the building code requires other occupancies within the fire area containing the PPA to be sprinkled and there is not a rated occupancy separation between those other occupancies and the PPA (MBC 508.4.1), or
3. when the building code requires the entire building to be sprinkled in order to comply with allowable building height (MBC 504) and allowable building area (MBC 506).



# CONSTRUCTION CODES ADVISORY COUNCIL

Minnesota Department of Labor and Industry

The council is charged by Minnesota Statute 326B.07 to review laws, codes, rules, standards and licensing requirements relating to building construction and may:

1. recommend ways to eliminate inconsistencies, to streamline construction regulation and construction procedures, and to improve procedures within and among jurisdictions;
2. review and comment on current and proposed laws and rules to promote coordination and consistency;
3. advise agencies about possible changes in rules to make them easier to understand and apply;
4. promote the coordination, within each jurisdiction, of the administration and enforcement of codes; and
5. advise the commissioner about adoption of the State Building Code and Residential Model Energy Code.

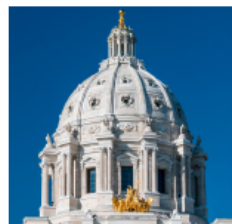
## REVIEWS NEW CODES

The council reviews all new construction codes to ensure health and safety protections are provided at the least possible cost consistent with recognized standards.

## CCAC EXPERTISE

Council members possess technical expertise in the following areas of the construction industry:

- boilers
- licensed architects and engineers
- heating and ventilation
- manufactured housing
- licensed residential building
- commercial building
- public utility suppliers
- local units of government
- energy conservation
- building accessibility
- state building official
- State Fire Marshal Division
- fire chiefs or fire marshals
- certified building officials
- commercial building owners and managers
- Minnesota Building and Construction Trades Council
- Boards of Plumbing, Electricity and High Pressure Piping Systems



## REVIEWS PROPOSED LEGISLATION

Consistent with its statutory duties, the council reviews and comments on legislation relating to building construction.

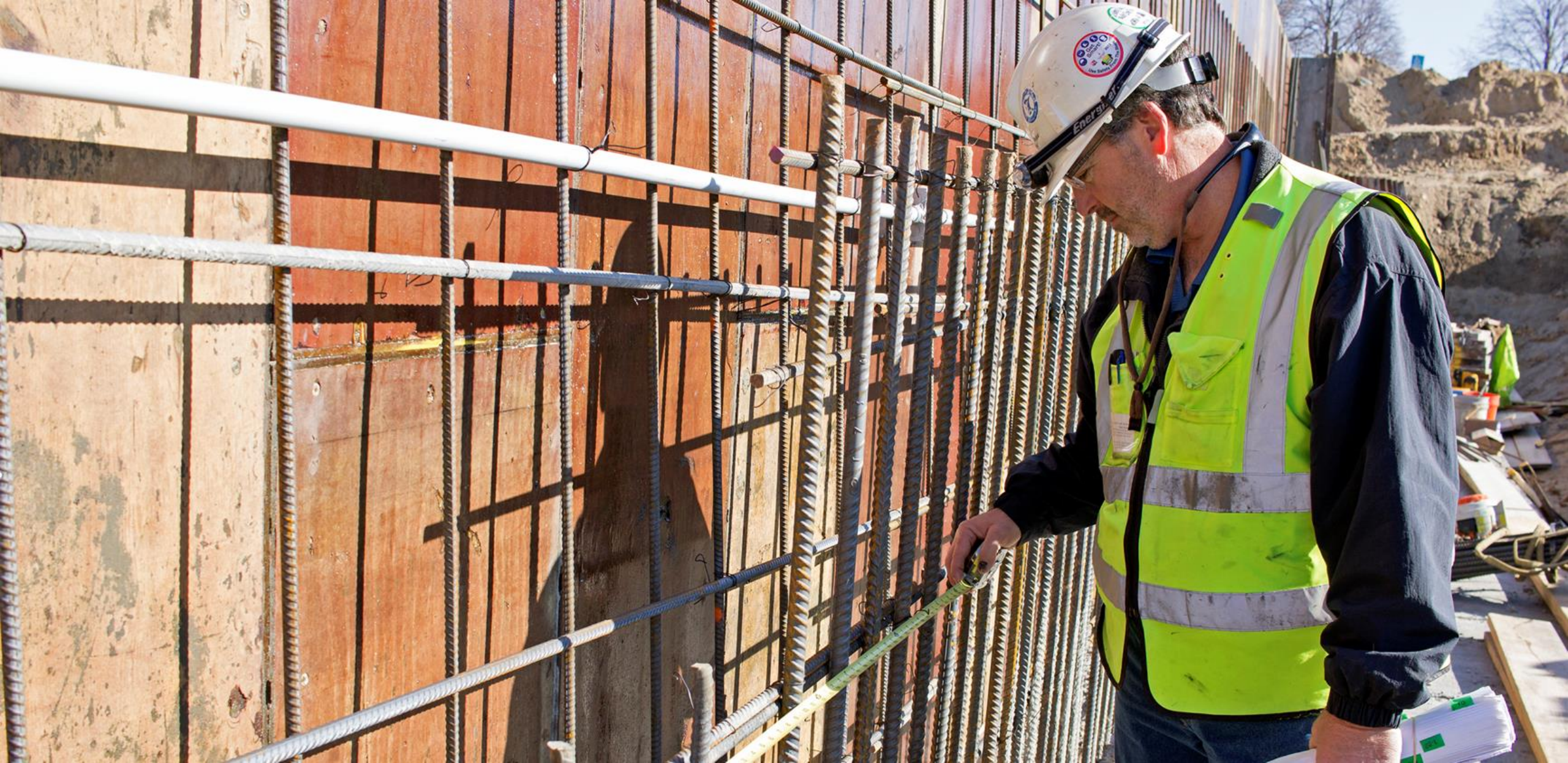
## MORE INFORMATION

View more about the Construction Codes Advisory Council at [www.dli.mn.gov/about-department/boards-and-councils/construction-codes-advisory-council](http://www.dli.mn.gov/about-department/boards-and-councils/construction-codes-advisory-council).



# Member Recognition

## Scott McLellan



**Paul Heimkes, Sept. 12, 1963 – Dec. 27, 2019**

# 2022 Award Presentation

This year's winner of the  
Paul Heimkes Award for Excellence



**Gerhard  
Guth**



A copy of this presentation can be found on  
the CCAC's webpage

<http://www.dli.mn.gov/about-department/boards-and-councils/construction-codes-advisory-council>