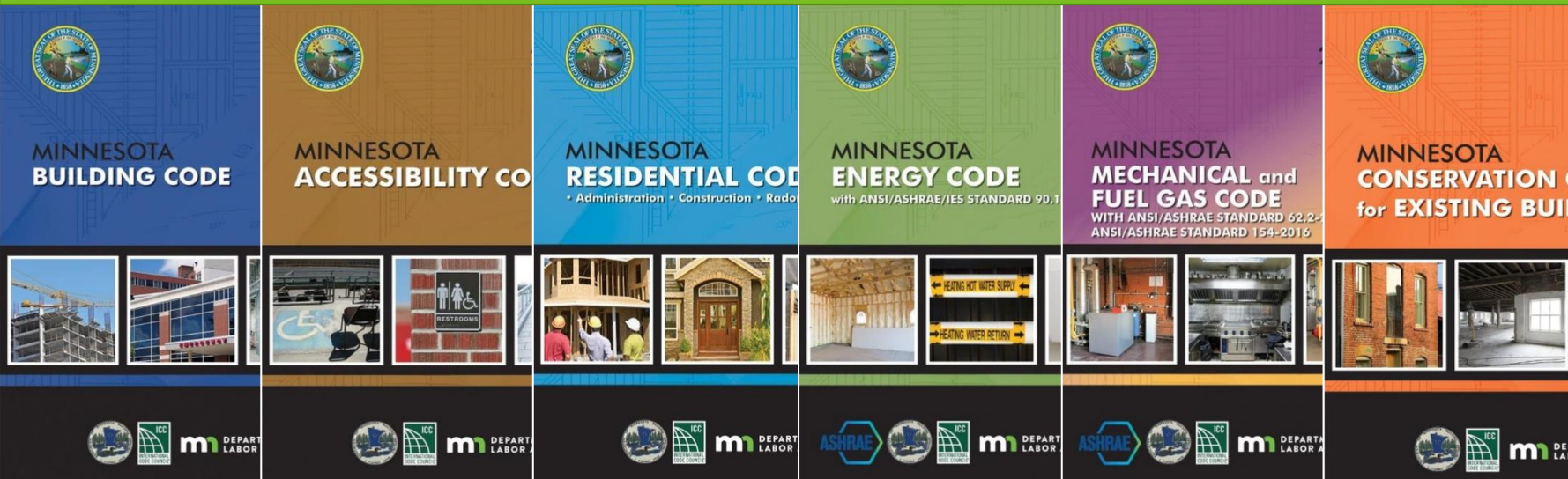


Construction Codes Advisory Council





New Business

- A. U.S. DOE energy code requirements for states – Scott McLellan, Suzanne Todnem
- B. Rulemaking for new commercial energy code – Scott McLellan
- C. Process for new residential energy code (2021 IECC) – Scott McLellan
- D. Legislation review and comment process – Scott McLellan
- E. TAG report on review of floodproofing code – Greg Metz
- F. TAG report on review of frost depth for Clay county (SF 1114; HF 1402) – Dan Kelsey
- G. Formation of two new TAGs – Scott McLellan
 - a. Window washing anchorage (SF 62; HF 165)
 - b. Building Code
 - i. Residential building permit fees (SF 801; HF 1085 as amended)
 - ii. Adult changing tables (SF 2536; HF 2135)
 - iii. Raising exemption on municipal report; codes adopted by law; ROI on residential energy code (SF 910); permit requirements (Rep. Elkins' Housing Affordability proposal 2SS-CG001-3)
- H. Approval of TAGs & members
 - a. Window Washing Anchors
 - b. Building Code

U.S. DOE energy code requirements for states – Scott McLellan

U.S. DOE energy code requirements for states

DOE Determination of Commercial & Residential Energy Codes

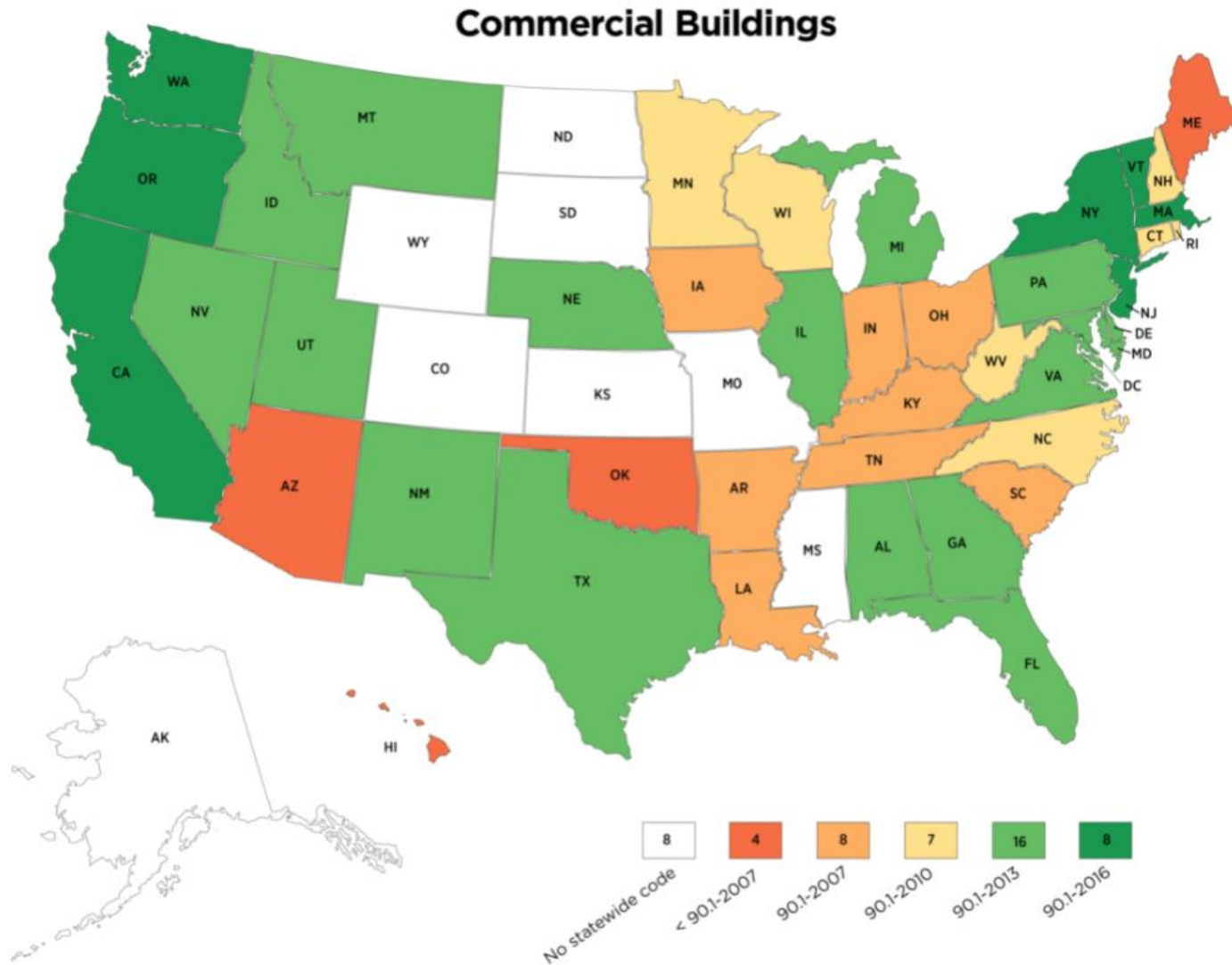
- The U.S. DOE is required to issue a determination as to whether the latest edition of the Commercial Energy Code (ASHRAE Standard 90.1) or the latest version of the Residential Energy Code (International Energy Conservation Code) will improve energy efficiency compared to their previous editions.
- DOE has one year to publish a determination in the Federal Register after each new edition of the standard/code is published.

U.S. DOE energy code requirements for states

State Certification – Commercial Energy Code

- Upon publication of an affirmative determination (that the new code is more energy efficient), States have 2 years to certify that they have reviewed the provisions of their commercial energy code and have updated their codes if necessary to meet or exceed the updated edition. [Mandatory]
- State certifications for ASHRAE Standard 90.1-2019 must be submitted by **July 28, 2023**. DOE estimates 4.7% site energy savings.

U.S. DOE energy code requirements for states



Status of State Commercial Energy Code Adoption

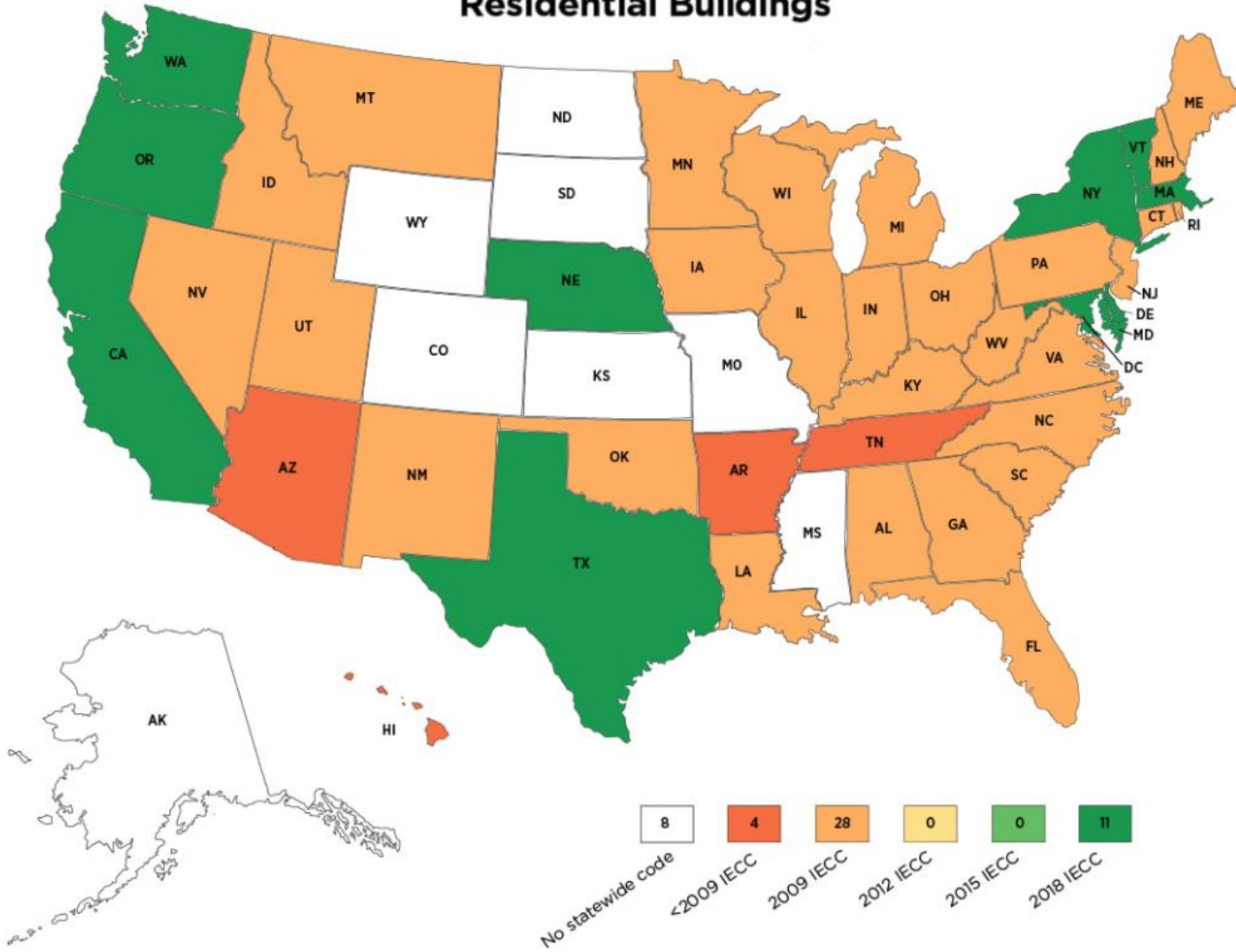
U.S. DOE energy code requirements for states

State Certification – Residential Energy Code

- Upon publication of an affirmative determination (that the new code is more energy efficient), States have 2 years to certify that they have reviewed the provisions of their residential energy code and made a determination whether it is appropriate for them to revise their code to meet or exceed the updated edition. [Not mandatory]
- State certifications for the 2021 IECC must be submitted by **July 28, 2023**. DOE estimates 9.38% site energy savings.

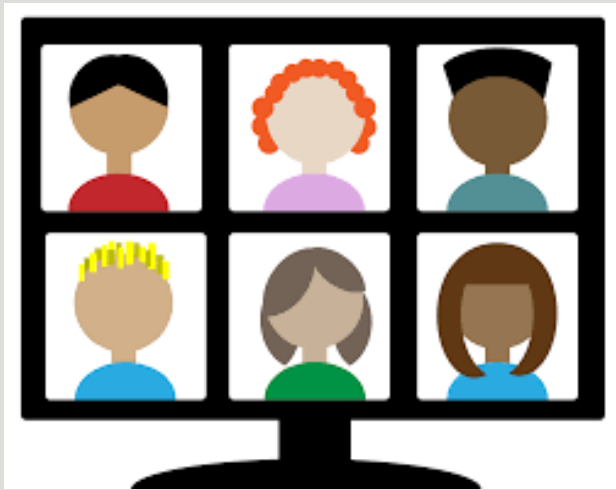
U.S. DOE energy code requirements for states

Residential Buildings



Status of State Residential Energy Code Adoption

Rulemaking for new commercial energy code – Scott McLellan



(7) Meetings

January 5
January 19
February 2
February 16
March 2
March 16
March 30

Barry Greive	Building Owners & Operators
Gerhard Guth	Architectural Design
Julianne Laue	Commercial Construction
Britt McAdamis	Municipal Code Enforcement
Greg Metz	DLI/CCLD Building Plan Review
Ben Rabe	Energy Conservation Advocacy
Chris Rosival	DLI/CCLD Mechanical & Refrigeration
John Smith	Building Systems Design & Engineering

Recommendations:

- **Redefining Model Code to ASHRAE 90.1**
- **Expanding Scoping to All Historic Bldgs**
- **Accepting changes from ASHRAE 90.1-2016 to 2019**
- **Amendments proposed**

1323 Technical Advisory Group (Commercial Energy)

Rulemaking for new commercial energy code

ASHRAE 90.1-2019

- On July 23, 2021, the Commercial Energy Code TAG review of ASHRAE 90.1-2019 became available for public review and comment at <http://www.dli.mn.gov/about-department/boards-and-councils/technical-advisory-groups>.
- The report linked above, details the TAG members' recommendation to adopt ASHRAE 90.1-2019 and proposed modifications to the standard.
- The Department has not received any public comment or feedback on the TAG members' recommendations.
- The Department recommends beginning Rulemaking to adopt ASHRAE 90.1-2019.
Motion required.

Process for residential energy code review – Scott McLellan

Process for residential energy code review

(42 U.S.C. 6833) (M.S. 326B.118)

- 1) **Public Hearing (Federal req's):** A State Determination whether to adopt the new Residential Energy Code must be made in writing after public notice & hearing; based upon findings & evidence provided at the hearing; made available to the public.
- 2) **Determination by the Commissioner:** The Commissioner of Labor & Industry reviews findings of the hearing and decides whether to explore and review the appropriateness of the new model energy code in consultation with the CCAC.
- 3) **CCAC appoints Technical Advisory Group:** Research & analysis must be conducted in cooperation with practitioners in residential construction and building science.
- 4) **Affirmative Recommendation by CCAC:** The Commissioner may not adopt new model energy codes without an affirmative recommendation by the CCAC.
- 5) **Rulemaking begins.**

Legislation review and comment process – Scott McLellan

Legislation review and comment process

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.**

CCAC FACT SHEET

CONSTRUCTION CODES ADVISORY COUNCIL

Minnesota Department of Labor and Industry

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REVIEWS NEW CODES

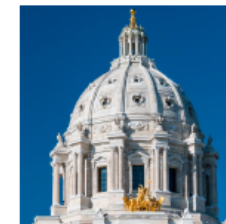
The council reviews all new construction codes to ensure health and safety protections are provided at the least possible cost consistent with recognized standards.



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.

Legislation review and comment process

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MORE INFORMATION

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Legislation review and comment process

- a) The CCAC will review legislation related to building construction when (1) legislation is proposed in both House and Senate, (2) at the request of a legislator, or (3) at the request of the Commissioner or Chair of a legislative committee with jurisdiction over building construction.
- b) Meetings will occur as needed but a minimum of four times a year with one scheduled in the second week of January and one in the second week of February. Meeting dates will be sent to bill authors in advance.
- c) The chair will recommend whether a bill or legislative inquiry can be evaluated by council members alone or whether a technical advisory group should be established. Due to the technical nature of most bills, a Technical Advisory Group, (TAG) will usually be necessary.
- d) Appointment of TAG members and their evaluation process will be in accordance with CCAC bylaws.

Legislation review and comment process

- e) The Review and Comment process will be summarized in a format that identifies the subject, bill numbers if applicable, proposed bill language, whether a TAG was formed, TAG members, TAG comments and any recommendations, Criteria addressed (see (f) below), and CCAC comments, and any recommendations. Findings and recommendations will be provided to the commissioner, bill authors, and chairs of the relevant committees.

CCAC Review and Comment

Legislative and/or Code Information	
Bill number(s) description (if applicable) – Attach Bill language	
Subject/Building Code Section(s)	
Technical Advisory Group (TAG)	
TAG Formed <input type="checkbox"/> Yes <input type="checkbox"/> No	Title of TAG:
TAG Members	Affiliations/Representing
TAG Meeting Date(s)	
TAG Comments/Recommendations – Attachment <input type="checkbox"/> Yes <input type="checkbox"/> No	
Criteria Addressed (check all that apply) <input type="checkbox"/> Eliminating inconsistencies <input type="checkbox"/> Promoting coordination & consistency <input type="checkbox"/> Making rules easier to understand & apply <input 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:	
Prepared by/Name & Title	Date

Legislation review and comment process

- f) Criteria for the Review and Comment shall include eliminating inconsistencies, streamlining construction regulation, promoting coordination and consistency, making rules easier to understand and apply. Other criteria may be included as requested by a legislator, the commissioner, or chair.
- g) CCAC will not review content under the statutory authority of a board such as for high pressure piping, electrical or plumbing. Legislators seeking review of such proposals may contact the boards directly.

CCAC Review and Comment

Legislative and/or Code Information	
Bill number(s) description (if applicable) – Attach Bill language	
Subject/Building Code Section(s)	
Technical Advisory Group (TAG)	
TAG Formed <input type="checkbox"/> Yes <input type="checkbox"/> No	Title of TAG:
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TAG Meeting Date(s)	
TAG Comments/Recommendations – Attachment <input type="checkbox"/> Yes <input type="checkbox"/> No	
Criteria Addressed (check all that apply) <input type="checkbox"/> Eliminating inconsistencies <input type="checkbox"/> Promoting coordination & consistency <input type="checkbox"/> Making rules easier to understand & apply <input 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:	
Prepared by/Name & Title	Date

TAG report on review of floodproofing code – Scott McLellan



Proposed Flood Resistant Design Code Highlights

Greg Metz | DLI/CCLD Plan Review Manager



(5) Meetings

June 22

July 6

July 20

August 3

August 17

Andrea Crabtree	Moorhead Floodplain & 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 & Refrigeration
Ceil Strauss	MN DNR Floodplain Manager & National Flood Insurance Coordinator

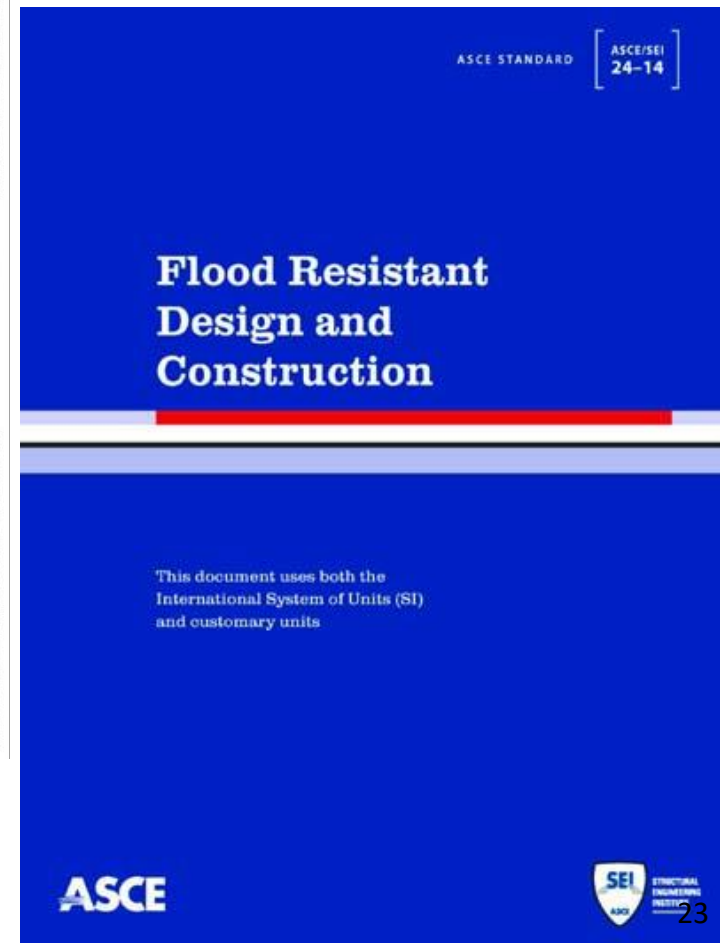
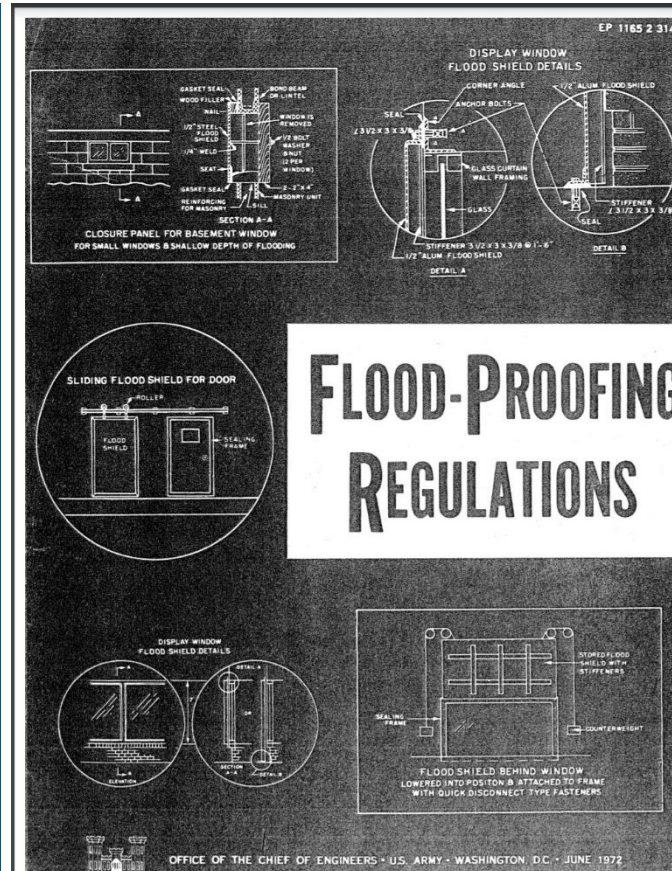
TAG Recommendations:

- **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” & “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

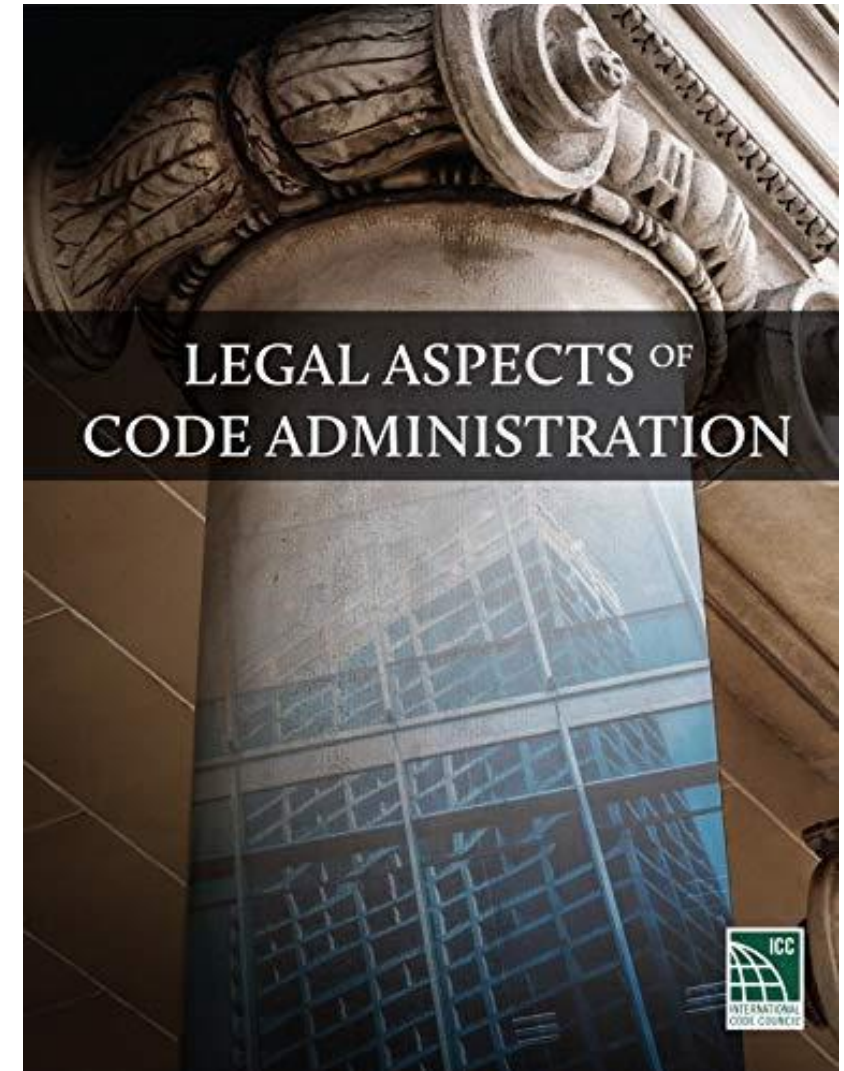
Change Model Code to ASCE 24-14

- 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)



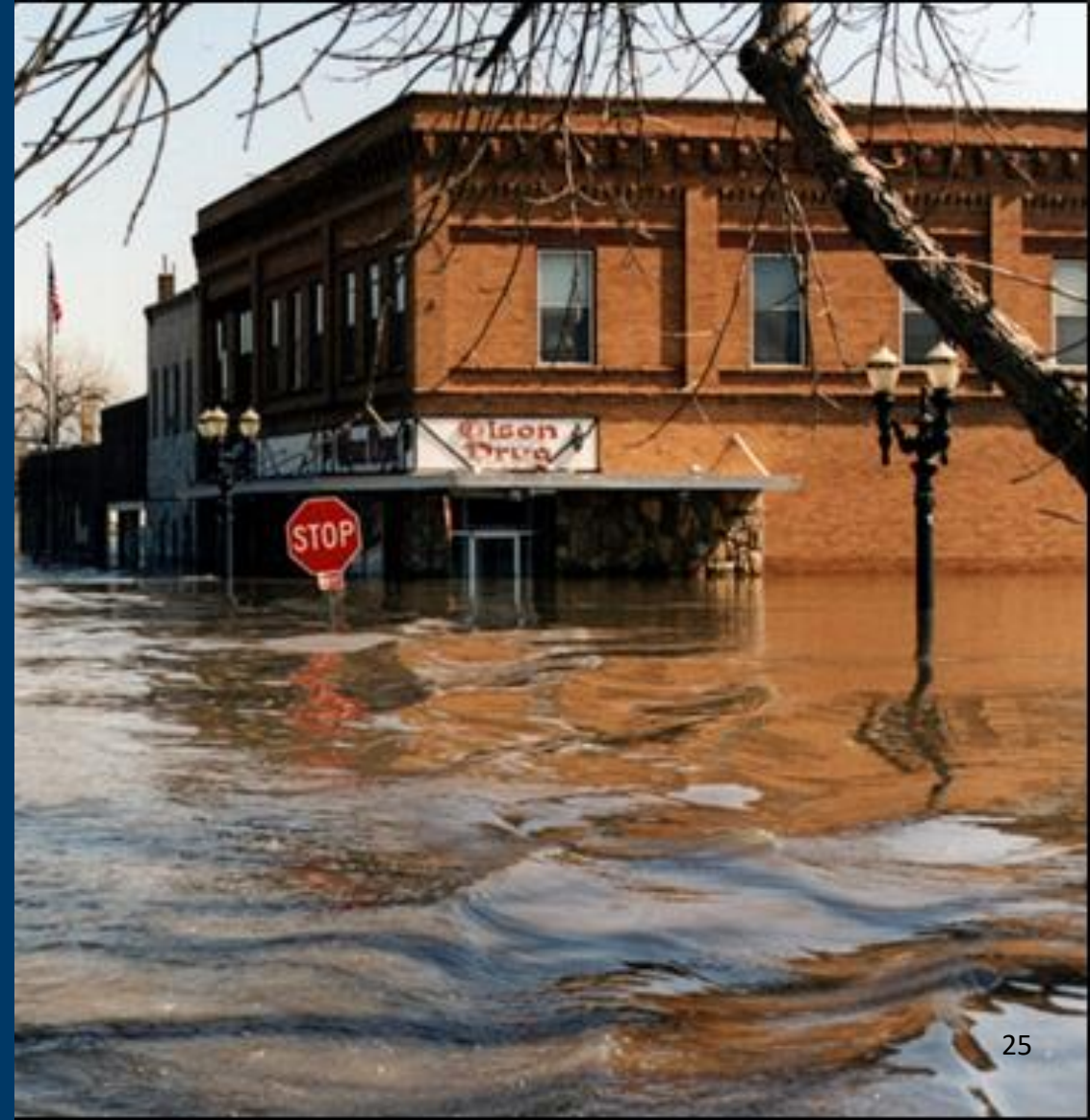
Floodplain Administrator

- Equates the duties and powers of the Floodplain Administrator to those of the Building Official with respect to administrative enforcement of MR 1335.
- Building Officials are defacto Floodplain Administrators
- Allows direct use of MR 1300 for administrative provisions.



Non-conforming Uses

- No increases to Non-conformity
- Additions must comply
- Substantial additions will necessitate upgrades to the existing non-conforming to comply.
- Discontinued use for 12 months negates the non-conformity allowance.
- Nuisances shall not be entitled to continue non-conforming use.



Substantial Damage

Substantial Damage: Any damage the cost of which to repair equals or exceeds 50% of the market value of the structure at the time just before the damage occurred.

- One-for-one equipment replacement, if the total work would NOT be defined as substantial damage unless including the cost to relocate the equipment to a complaint location.



Substantial Improvement

Substantial Improvement: Any work the cost of which when considered in conjunction with other work that has occurred within the past 5 years equals or exceeds 50% of the current market value of the structure.

- Historic buildings are exempt.
- New work is not exempt.



Dry Floodproofing & Waterproofing

- Dry floodproofing of the lowest floor in residential buildings per ASCE 24 is permissible when a building is constructed per FEMA Tech Bulletin 10-01 or is in a jurisdiction with a FEMA basement exception.
- Dry Floodproofing allows up to 4 inches of water accumulation in 24 hours.
- Waterproofing criteria added to allow construction for accumulation of less than 3 pounds of water per 1000 square feet in 24 hours (6 cups of water).



Fill & Contingency Plans

- Fill is no longer required but will be one of several other flood resistant design strategies.
- Municipalities may institute contingency plans involving human intervention as a means to provide supplemental protection to municipal systems.



Photo by Steven Martin, Copyright 2016
Creative Commons License

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

Questions/Comments

Greg Metz

Greg.Metz@state.mn.us

651-284-5884

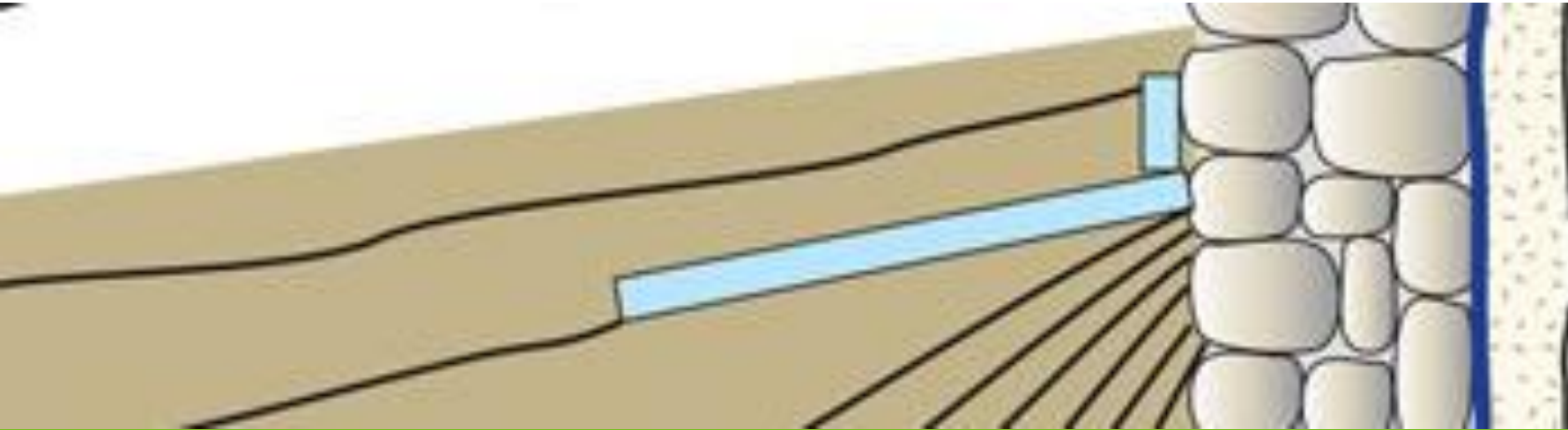
TAG report on review of frost depth for Clay county – Scott McLellan

TAG report on review of frost depth for Clay county

Purpose of Frost Depth Study TAG

Evaluate the current minimum allowable footing depth due to freezing contained in the State Building Code for Clay county. The Technical Advisory Group shall evaluate at minimum:

- a. Whether the current required minimum depth below grade of five feet is necessary to protect foundations and supporting structures from the damaging effects of freezing soil located both beneath and adjacent to foundations;
- b. Whether a lesser frost depth requirement would reduce the structural integrity or otherwise negatively affect the foundation or supporting structure and if not, what lesser depth could be recommended;
- c. Whether a lesser frost depth requirement could extend beyond Clay county and if so to what extent;
- d. Whether the minimum required frost depth requirement for residential housing should or can be regulated differently from other building types;



2021 Frost Depth Study TAG

Dan Kelsey, P.E. | DLI/CCLD Plan Review



(2) Meetings

August 4

September 1

TAG Recommendations:

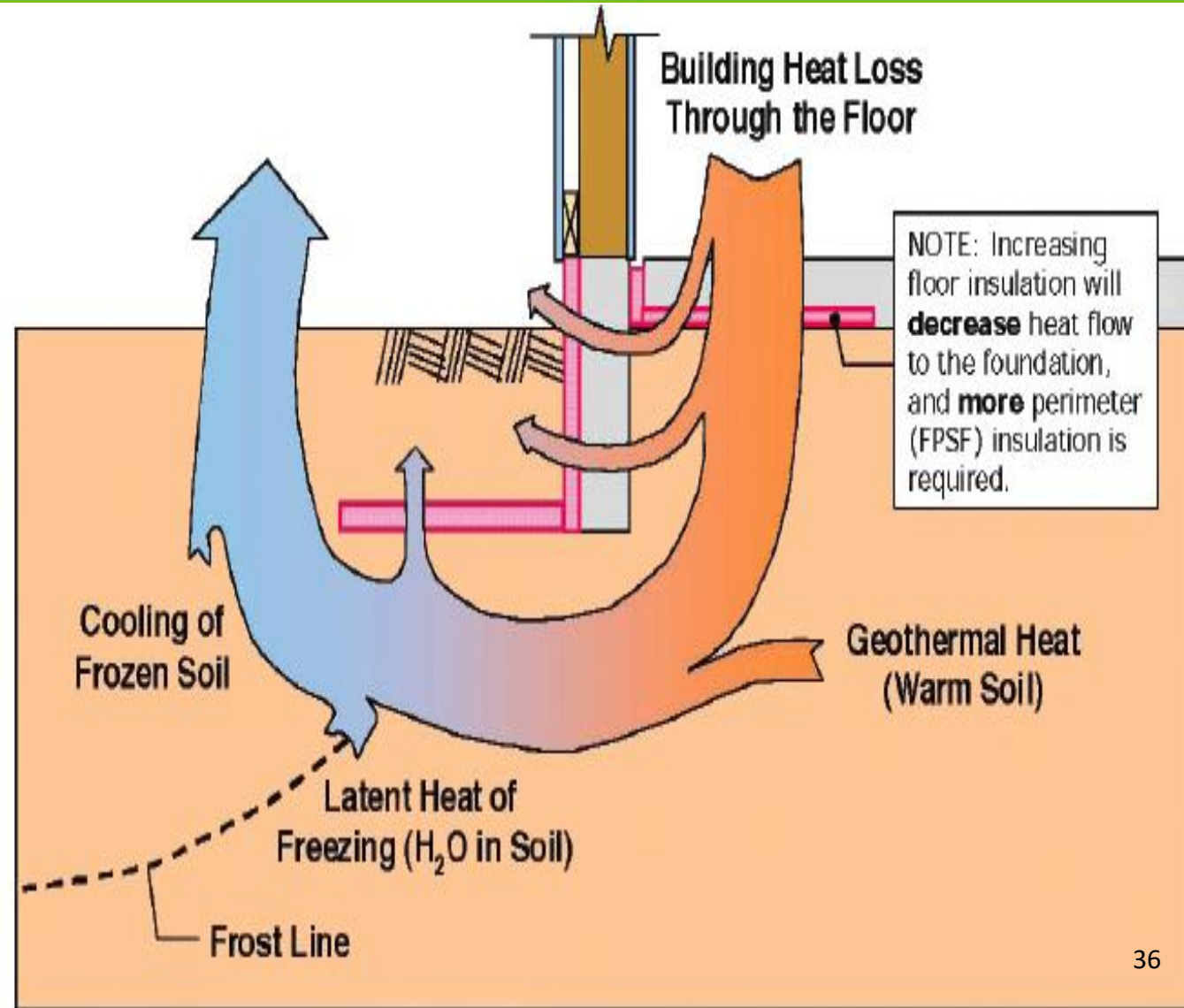
- **Revise footing depth requirements when an updated edition of ASCE/SEI 32 is published.**
- **Recognize that there is a current compliance path for 50" footing depth per ASCE 32.**
- **Clarify that foundations designed per ASCE 32 are permitted by revising MR 1303.1600 during the 2024 code cycle to provide a direct reference to ASCE 32.**

Ezra Balliger	Braun Intertech, Geotechnical Engineer
Don Dabbert	Dabbert Custom Homes
Mark Hallan	Widseth Architecture & Engineering
Dan Kelsey	DLI/CCLD Structural Engineer (Leader)
Greg Metz	DLI/CCLD Plan Review Manager
Jack Nyberg	Moorhead Building Official
Mitch Okeson	Sandman Structural Engineers
Kurt Welker	Welker Custom Homes

Clay County Frost Depth Technical Advisory Group

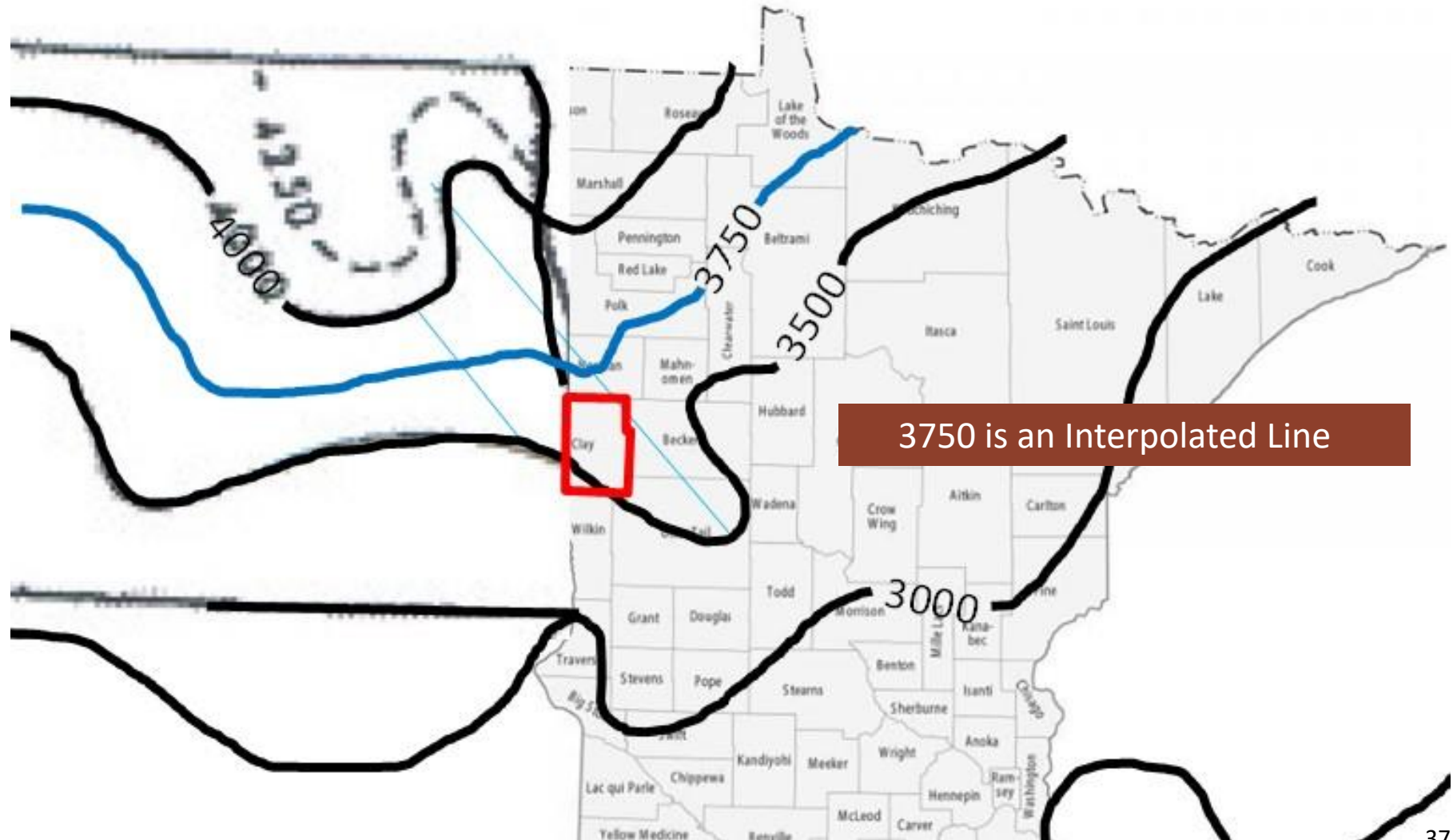
Why ASCE 32 Frost Protected Shallow Foundations?

- Allowed by prescription per Minnesota Rules, part 1309.0403, subpart 1, and part 1305.1809.



Why ASCE 32 Frost Protected Shallow Foundations?

- Merging of Maps in Figure A1 allow for interpolation of an Air Freezing Index Line at 3750°F-days.



A.4 FOUNDATION INSULATION DESIGN

Max Insulation below the Floor Slab

Max Exposed Foundation above grade

Min. R-Value of Vertical Insulation

TABLE A4. Minimum Thermal Resistance of Vertical Wall Insulation R_v (hr-ft²-°F/Btu)

F_{100} (°F-days)	$R_f \leq 6.0$		$R_f = 15.0$		$R_f = 28.0$	
	$h \leq 12$ in	$h = 24$ in	$h \leq 12$ in	$h = 24$ in	$h \leq 12$ in	$h = 24$ in
375 or fewer	0.0	3.0	4.5	5.7	5.7	8.5
750	3.0	4.6	5.7	5.7	8.5	11.4
1,500	4.5	5.7	5.7	5.7	8.5	11.4
2,250	5.7	5.7	5.7	7.4	8.5	14.2
3,000	5.7	5.7	6.8	8.5	9.7	15.3
3,750	5.7	6.8	8.0	9.7	11.4	17.0
4,500	6.8	8.0	10.2	11.9	13.6	19.3

Interpolation shall be permitted.

Energy Code Requires Minimum R-10,
so always exceed minimums.

TABLE A5. Minimum Foundation Depths Without Wing Insulation or with Wing Insulation at Corners Only

F_{100} (°F-days)	Foundation Depth Along Walls with No Wing Insulation	Foundation Depth at Corners with No Wing Insulation		Foundation Depth at Corners with $R = 5.7$ Wing Insulation at Corners Only		
	h_f (in)	L_c (in)	h_{fc} (in)	L_c (in)	h_{fc} (in)	D_{bc} (in)
1,500 or fewer	12	—	12	—	12	—
2,250	14	—	14	—	14	—
2,625	16	40	24	40	16	20
3,000	20	40	32	—	—	—
3,375	24	60	40	—	—	—
3,750	30	60	51	60	30	24
4,125	36	60	63	60	36	32
4,500	43	80	71	80	43	32

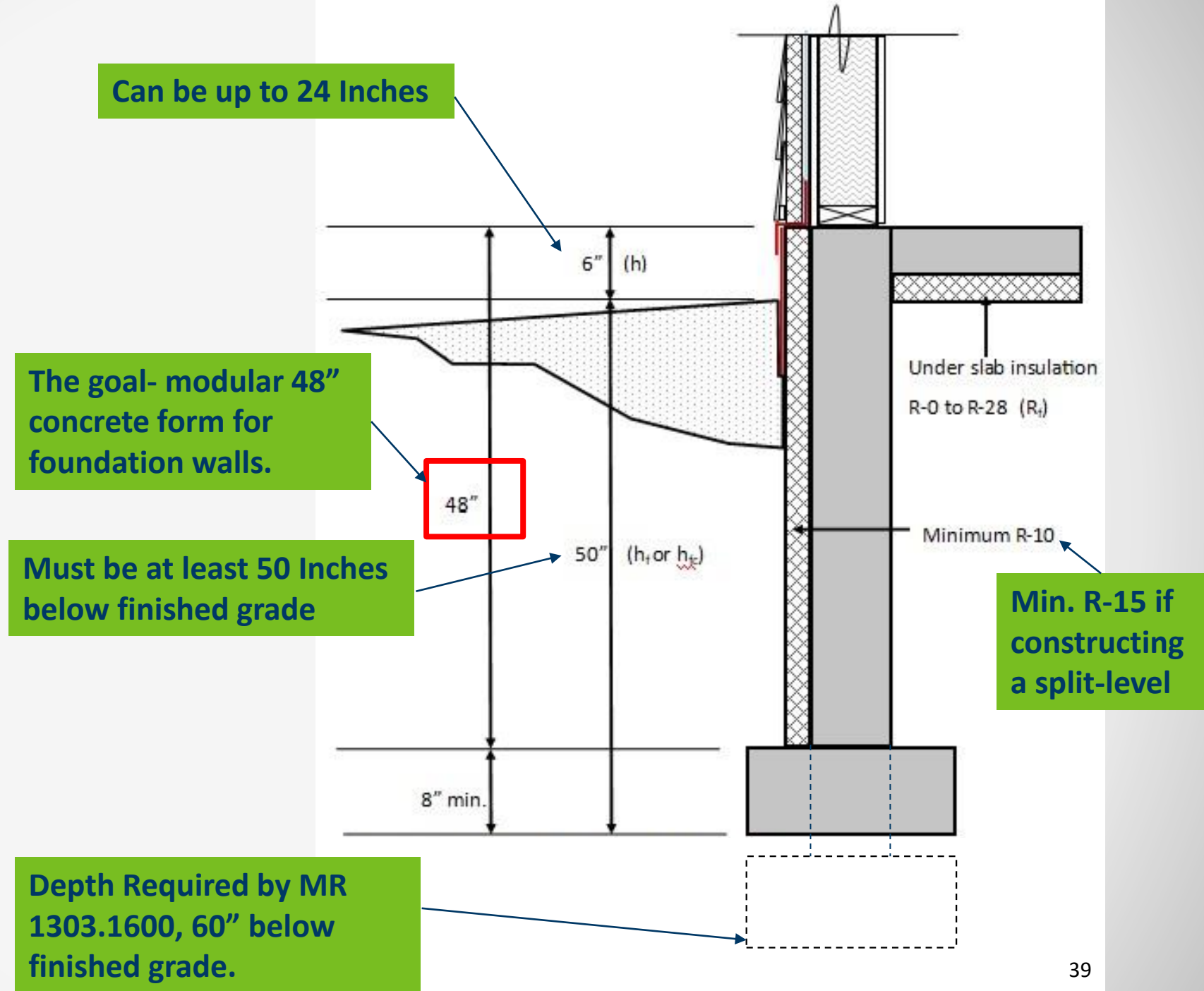
Interpolation shall be permitted.

Depth of Footing at Corners

- Per ASCE 32, Appendix A, Frost protected shallow foundations do not mandate horizontal insulation.

Min R-10 and R-15 foundation

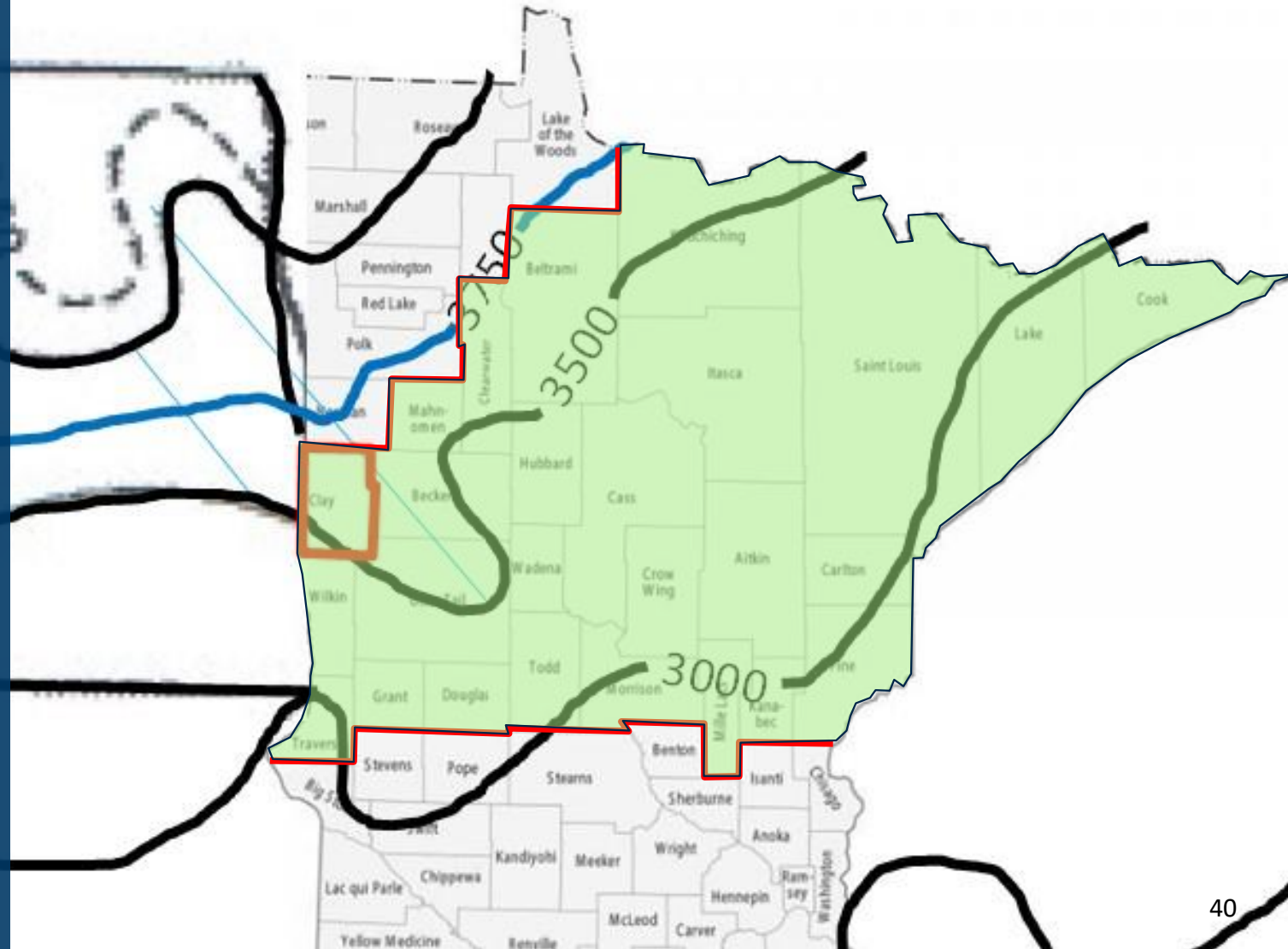
- Min R-10 foundation insulation for slab-on-grade
- Min R-15 foundation insulation for split-level.



Counties able to leverage the Alternate Compliance Path

Affected Counties:

- Aitkin
- Becker
- Beltrami
- Carlton
- Cass
- Clearwater
- Cook
- Crow Wing
- Douglas
- Grant
- Hubbard
- Itasca
- Kanabec
- Koochiching
- Lake
- Mahnomen
- Mille Lacs
- Morrison
- Otter Tail
- Pine
- St. Louis
- Todd
- Traverse
- Wadena
- Wilkin



Conclusions

Deep investigation of Frost Protected Shallow Foundations uncovered a previously unknown prescriptive compliance path.

Required:

- Merging of two Air Freezing Index [AFI] Maps
- Interpolation of the maps to determine AFI 3750 line
- Exploration of appendices to discover opportunities without horizontal insulation

Recommendations:

- Monitor ASCE 32 Standard for changes in the nationally accepted Air Freezing Index
- Recognize that there is a current compliance path that does NOT require engineering
- At the next code cycle, add Subpart 3 to MR 1303.1600 to clarify that Frost Protected Shallow Foundations is a viable compliance path per the rule as well as model code (transparency)

TAG recommendations

1. Consider revising footing depth requirements when an updated edition of ASCE/SEI 32 is published showing changes to the Air Freezing Index contour lines used to establish frost penetration for Frost Protected Shallow Foundations.
2. Recognize that there is a current compliance path for 50" footing depth in Clay County per ASCE 32 without the need for an Engineered design.
3. Clarify that foundations designed per ASCE 32 are permissible by revising [Minnesota Rule 1303.1600](#) during the 2024 code cycle to add subpart 3 in order to provide a direct reference to ASCE 32.

CCAC Review and Comment

Legislative and/or Code Information	
Bill number(s) description (if applicable) – Attach Bill language SF 1114 ; HF 1402 A qualifying "border municipality" may by ordinance reduce the frost depth requirement of the State Building Code	
Subject/Building Code Section(s) Footing Depth for Frost Protection, Minnesota Rule 1303.1600, subpart 1	
Technical Advisory Group (TAG)	
TAG Formed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Title of TAG: Clay County Frost Depth
TAG Members Ezra Balliger Dan Dabbert Mark Hallan Dan Kelsey Greg Metz Jack Nyberg Mitch Okeson Kurt Welker	Affiliations/Representing Braun Intertech, Geotechnical Engineer Dabbert Custom Homes Widseth Architecture and Engineering DLI/CCLD Structural Engineer (TAG Leader) DLI/CCLD Plan Review Manager Moorhead Building Official Sandman Structural Engineers Welker Custom Homes
TAG Meeting Date(s) August 4, 2021 and September 1, 2021	
TAG Comments/Recommendations – Attachment <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 1. Consider revising footing depth requirements when an updated edition of ASCE/SEI 32 is published showing changes to the Air Freezing Index contour lines used to establish frost penetration for Frost Protected Shallow Foundations. 2. Recognize that there is a current compliance path for 50" footing depth in Clay County per ASCE 32 without the need for an Engineered design. 3. Clarify that foundations designed per ASCE 32 are permissible by revising Minnesota Rule 1303.1600 during the 2024 code cycle to add subpart 3 in order to provide a direct reference to ASCE 32.	
Criteria Addressed (check all that apply) <input 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 checked="" 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

Questions/Comments

Dan Kelsey

Dan.Kelsey@state.mn.us

651-284-5852

Motion to approve TAG recommendations

1. Consider revising footing depth requirements when an updated edition of ASCE/SEI 32 is published showing changes to the Air Freezing Index contour lines used to establish frost penetration for Frost Protected Shallow Foundations.
2. Recognize that there is a current compliance path for 50" footing depth in Clay County per ASCE 32 without the need for an Engineered design.
3. Clarify that foundations designed per ASCE 32 are permissible by revising [Minnesota Rule 1303.1600](#) during the 2024 code cycle to add subpart 3 in order to provide a direct reference to ASCE 32.

CCAC Review and Comment	
Legislative and/or Code Information	
Bill number(s) description (if applicable) – Attach Bill language SF 1114 ; HF 1402 A qualifying "border municipality" may by ordinance reduce the frost depth requirement of the State Building Code	
Subject/Building Code Section(s) Footing Depth for Frost Protection, Minnesota Rule 1303.1600, subpart 1	
Technical Advisory Group (TAG)	
TAG Formed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Title of TAG: Clay County Frost Depth
TAG Members Ezra Balliger Dan Dabbert Mark Hallan Dan Kelsey Greg Metz Jack Nyberg Mitch Okeson Kurt Welker	Affiliations/Representing Braun Intertech, Geotechnical Engineer Dabbert Custom Homes Widseth Architecture and Engineering DLI/CCLD Structural Engineer (TAG Leader) DLI/CCLD Plan Review Manager Moorhead Building Official Sandman Structural Engineers Welker Custom Homes
TAG Meeting Date(s) August 4, 2021 and September 1, 2021	
TAG Comments/Recommendations – Attachment <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 1. Consider revising footing depth requirements when an updated edition of ASCE/SEI 32 is published showing changes to the Air Freezing Index contour lines used to establish frost penetration for Frost Protected Shallow Foundations. 2. Recognize that there is a current compliance path for 50" footing depth in Clay County per ASCE 32 without the need for an Engineered design. 3. Clarify that foundations designed per ASCE 32 are permissible by revising Minnesota Rule 1303.1600 during the 2024 code cycle to add subpart 3 in order to provide a direct reference to ASCE 32.	
Criteria Addressed (check all that apply) <input 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 checked="" 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	

Formation of two new TAGs – Scott McLellan

Proposed window washing anchorage TAG

(Existing M.S. 326B.106): 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 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.

(Proposed 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.

CCAC Review and Comment	
Legislative and/or Code Information	
Bill number(s) description (if applicable) – Attach Bill language SF 62 ; HF 165 Dedicated anchors for window cleaning - exempting buildings with pitched roofs	
Subject/Building Code Section(s) Window Cleaning Anchors: Section 3114 of the (Commercial Building Code)	
Technical Advisory Group (TAG)	
TAG Formed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Title of TAG: Window Cleaning Anchors
TAG Members	Affiliations/Representing
TAG Meeting Date(s)	
TAG Comments/Recommendations – Attachment <input type="checkbox"/> Yes <input type="checkbox"/> No	
Criteria Addressed (check all that apply) <input type="checkbox"/> Eliminating inconsistencies <input type="checkbox"/> Promoting coordination & consistency <input type="checkbox"/> Making rules easier to understand & apply <input 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:	
Prepared by/Name & Title	Date

Proposed building code series 1 TAG

- SF 2536; HF 2135 – Adult Changing Tables required in code;
- SF 801; HF 1085 – Building permit fees calculated on cost-per-square foot for new residential construction
- SF 910 – Codes must be adopted by law if prior to 2026; 5-year ROI on Residential Energy Code adoption;
- 2SS-CG001-3 – Rep. Elkins' Housing Affordability proposal - Raises exemption on municipal fee report to \$7,000 & requires additional detail on reporting form; 30-year ROI on residential energy code adoption; 60-day limit to act on building permit applications; Building permit fees calculated on cost-per-square foot by Jan 1, 2022; Codes must be adopted by law if prior to 2026

CCAC Review and Comment

Legislative and/or Code Information	
Bill number(s) description (if applicable) – Attach Bill language SF 2536 ; HF 2135 - Adult Changing Tables required in code; SF 801 ; HF 1085 - Building permit fees calculated on cost-per-square foot for new residential construction SF 910 - Codes must be adopted by law if prior to 2026; 5 year ROI on Residential Energy Code adoption; 2SS-CG001-3 - Rep. Elkins' Housing Affordability proposal - Raises exemption on municipal fee report to \$7,000 & requires additional detail on reporting form; 30 year ROI on residential energy code adoption; 60-day limit to act on building permit applications; Building permit fees calculated on cost-per-square foot by Jan 1, 2022; Codes must be adopted by law if prior to 2026 & retroactive to Jan 1, 2021;	
Subject/Building Code Section(s) Permit Fees must be calculated according to valuation according to MR 1300.0160 Subp. 4	
Technical Advisory Group (TAG)	
TAG Formed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Title of TAG: Building Code 1
TAG Members	Affiliations/Representing
TAG Meeting Date(s)	
TAG Comments/Recommendations – Attachment <input type="checkbox"/> Yes <input type="checkbox"/> No	
Criteria Addressed (check all that apply) <input type="checkbox"/> Eliminating inconsistencies <input type="checkbox"/> Promoting coordination & consistency <input type="checkbox"/> Making rules easier to understand & apply <input 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:	
Prepared by/Name & Title	Date

Approval of TAGs & members – Scott McLellan

Proposed TAG members for window washing anchorage

Name	Role	Organization	Representing
Kyle Berndt	Lobbyist	MN Multi-Housing Association	Mid/High Rise housing developers
Eric Crone	End user/ Stakeholder	Columbia Building Services & SEIU Local 26	Professional Window Cleaners
Larry Farris	Construction Codes Consultant	BKV Group Architects & Engineers	Multi-Family and Mid/High Rise Commercial Design
Dan Kelsey	Structural Engineer	MN DLI/CCLD	State Structural Plan Review
Greg Metz	Plan Review Manager (TAG Leader)	MN DLI/CCLD	State Construction Code Plan Review & Enforcement
Wendy Rannenberg	Building Official	City of Duluth	Municipal Plan Review and Code Enforcement
Nancy Zentgraf	Worker Safety Training & Outreach	DLI/ MNOSHA	MN Worker Safety Rules and Regulations

TAG member qualifications for window washing anchorage

Greg Metz, TAG Leader

Greg has six years with the Minnesota Department of Labor and Industry Construction Codes and Licensing Division, and he currently manages plan review. He has 31 years of experience as a commercial architect and 10 years in code enforcement. Greg has previously led five Technical Advisory Groups.

Kyle Berndt

Lobbyist for Minnesota Multi-Housing Association. Formerly worked for MN Senate and MN House for MHA. Deep knowledge in the development and writing of statutes and rules. Four years in the State Senate as committee administrator for housing committee.

Eric Crone

Eric has been a professional window cleaner for 12 years. He has worked at both union and non-union companies as a window cleaner. He is currently the union steward while working for Columbia Building Services and serves as the window cleaning delegate on the executive board for SEIU Local 26.

Larry Farris

Larry has more than 30 years in municipal code enforcement and a background in commercial construction. For the past eight years he has served as the lead construction codes expert for BKV Group, an architectural/engineering firm specializing in mid- and high-rise construction and based out of Minneapolis, Chicago, Washington DC, and Dallas.

Daniel Kelsey, P.E.

Dan has been a licensed engineer for 30 years. He has an Architectural Engineering degree with specialties in building structural systems and building mechanical systems. He has been with DLI/CCLD for 21 years as a structural specialist. Prior to DLI/CCLD he worked 13 years as a structural engineer with the last position being the Structural Department Head with a national firm.

Wendy Rannenberg

Wendy currently serves as the Building Official/Manager of Construction Services and Inspections for the City of Duluth. She has an architectural background and over 30 years of experience in the construction industry serving 20 years in municipal construction codes enforcement.

Nancy Zentgraf

Director of Training & Outreach for Minnesota OSHA. Nancy has worked with MNOSHA for over 25 years and has worked as a safety professional for over 30 years.

Proposed TAG members for building code series 1

Name	Role	Organization	Representing
Scott McKown	Assistant Director, Leader	MN DLI/CCLD	Department of Labor and Industry
Irene Kao	Intergovernmental Relations Counsel	League of MN Cities	League of MN Cities
Charlie Vander Aarde	Government Relations Specialist	Metro Cities	Metro Cities
Nick Erickson	Regulatory Advocacy and Research	Housing First Minnesota	Housing First Minnesota
Brian Hoffman	Director of Building & Energy	City of St Louis Park	Association of MN Building Officials (AMBO)
Kurt Welker	Homebuilder	Welker Custom Homes	Builders Association of MN
Karen Gridley	Accessibility Specialist	MN DLI/CCLD	Department of Labor and Industry
Barry Greive	Building Regulatory and Strategy Lead	Target Corporation	Building Owners
Dana Murdoch	Design Project Mgr/Capital Projects Mgmt	University of Minnesota	MN American Institute of Architects (AIA)

TAG member qualifications for building code series 1

Scott McKown – TAG Leader

Assistant Director, CCLD, DLI, for 8 years; graduate of Bethel University & North Hennepin Community College, MN certified building official and has multiple ICC certifications – over 25 years in building code industry.

Irene Kao

Serves as the Intergovernmental Relations Counsel at the League of Minnesota Cities – land use and zoning, building codes, data practices, Open Meeting Law, procurement, and civil liability.

Charlie Vander Aarde

Government Relations Specialist at Metro Cities (organization that represents cities in the seven-county metro area at the Legislature, Executive Branch and Metropolitan Council). Areas of focus: housing, economic development and metropolitan government. Previously served as legislative staff in both the Minnesota House and Senate.

Nick Erickson

Helped form the Housing Affordability Institute, a 501c3 housing research group, serving as the lead author on its research initiatives; contributing writer to *Housing Industry News*; frequent testifier at the MN Legislature on housing policy issues; Business Communications Degree (St. Thomas) and previous Policy Fellow at the U of M's Humphrey School of Public Affairs.

Brian Hoffman

City of St. Louis Park for over 22 years, current Director of the Building & Energy Dept. Brian is the legislative rep for the Association of MN Building Officials.

Kurt Welker

Graduated from Iowa State with a Bachelor of Science in Construction Engineering and is a MN Limited Building Official. He founded Welker Custom Homes in 2001 and builds homes in Owatonna and the surrounding area. Kurt is the past president of the Builders Association of Minnesota and currently the Minnesota State Representative to the National Association Of Homebuilders and on their board of directors.

Karen Gridley

Accessibility Specialist with the Building Plan Review unit, CCLD, DLI. U of M degree, and 25 years of experience implementing accessibility codes/regulations (federal & state).

Barry Greive

Building Regulatory & Strategy Lead for Target Corporation; 20+ years enforcing MN Building Code; Certified MN Building Official; multiple ICC Certifications; participates in NFPA and ICC code development.

Dana Murdoch

University of Minnesota Design project manager for capital projects. Dana is both an architect and MN accessibility specialist. She has been active with the accessibility code for many years working for a large architecture firm prior to coming to the U of M.

Motion to approve TAGs & members

Proposed TAG & members for window washing anchorage

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Proposed TAG & members for building code series 1

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A copy of this presentation and today's hand-outs can be found on the CCAC's webpage

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