



**Planning Commission Work Session
Tuesday, February 20, 2024 at 6:00 PM
Buckham West, 19 Division St West**

AGENDA

- 1. Call to Order**
- 2. Items for Discussion**
 - A. Unified Development Ordinance Text Amendment to Clarify and Streamline Electric Vehicle Supply Equipment Installation
 - B. Initial Discussion on Allowing Ground-Floor Apartments and Deregulating Apartment Sizes in CBD Zoning within Downtown Faribault
- 3. Routine Business**
- 4. Future Discussion**
- 5. Adjournment**

Please contact the Departments of Community & Economic Development at 507-334-0100 if you need special accommodations to participate in this meeting.



Planning Commission Work Session Memorandum

TO: Planning Commission
THROUGH: Harry Davis, City Planner
FROM: Mathias Hughey, Community Development Coordinator
MEETING DATE: February 20, 2024
SUBJECT: Unified Development Ordinance Text Amendment to Clarify and Streamline Electric Vehicle Supply Equipment Installation

Background:

The City of Faribault participates in the Great Plains Institute (GPI) pilot program EV Smart, a voluntary program designed to assist municipalities prepare for the transition to widespread electric vehicle (EV) adoption.

In meeting with program staff, and reviewing the progress the City has made so far, city staff determined achieving a “Silver” designation is an appropriate goal for Faribault.

To achieve a silver designation, the City needs to address Electric Vehicle Supply Equipment (EVSE) in its policies and ordinances, thereby clarifying and streamlining the permitting process for incentivizing and installing EVSE. The following actions are identified as recommended goals for Faribault’s ordinance updates:

1. Allow all EVSE parking stalls to count towards minimum parking requirements.
2. Reduce minimum parking requirements by counting EVSE stalls as more than one space.
3. Define primary use standards for EVSE and enable such uses in designated zones.

Program staff worked with experts to develop a best practices document [included](#) here in Exhibit A – Electric Vehicle Ordinance Considerations. Staff also compiled a list of EVSE-related ordinances that have been adopted by municipalities across the country. Sample ordinances from Bloomington, Jackson, WY, Richfield, and Saint Louis Park are included in that order as Exhibit B – Sample EVSE Ordinances.

The Community Development Coordinator reviewed these documents and the identified goals to develop the attached ordinance changes. City staff

presented draft language to the Environmental Commission and the Development Review Committee for their feedback. The draft language as a part of this report includes changes based on their feedback.

Request

Review the proposed code language adding definitions and standards for electric vehicle chargers and come to a consensus on making any modifications to the proposal, forward the code changes to a regular meeting for recommendation to the City Council, or continue/table the discussion to the next work session.

Attachments:

1. Staff Memo Re EVSE Parking Revisions
2. UDO Changes proposed_EVSE
3. Exhibit A - Electric Vehicle Ordinance Considerations
4. Exhibit B - Sample EVSE Ordinances



Development Review Committee Memorandum

TO: Planning Commission
FROM: Mathias Hughey, Community Development Coordinator
MEETING DATE: February 19, 2024
SUBJECT: Unified Development Ordinance Text Amendment to Clarify and Streamline Electric Vehicle Supply Equipment Installation

Request

Review the proposed code language adding definitions and standards for electric vehicle chargers and come to a consensus on making any modifications to the proposal, forward the code changes to a regular meeting for recommendation to the City Council, or continue/table the discussion to the next work session.

Background

The City of Faribault participates in the Great Plains Institute (GPI) pilot program EV Smart, a voluntary program designed to assist municipalities prepare for the transition to widespread electric vehicle (EV) adoption.

In meeting with program staff, and reviewing the progress the City has made so far, city staff determined achieving a "Silver" designation is an appropriate goal for Faribault.

To achieve a silver designation, the City needs to address Electric Vehicle Supply Equipment (EVSE) in its policies and ordinances, thereby clarifying and streamlining the permitting process for incentivizing and installing EVSE. The following actions are identified as recommended goals for Faribault's ordinance updates:

1. Allow all EVSE parking stalls to count towards minimum parking requirements.
2. Reduce minimum parking requirements by counting EVSE stalls as more than one space.
3. Define primary use standards for EVSE and enable such uses in designated zones.

Program staff worked with experts to develop a best practices document included here at Exhibit A – Electric Vehicle Ordinance Considerations.

Staff also compiled a list of EVSE-related ordinances that have been adopted by municipalities across the country. Sample ordinances from Bloomington, Jackson, WY, Richfield, and Saint Louis Park are included in that order as Exhibit B – Sample EVSE Ordinances.

The Community Development Coordinator reviewed these documents, and the identified goals to develop the attached ordinance changes. City staff presented draft language to the Environmental Commission and the Development Review Committee for their feedback. The draft language as a part of this report includes changes based on their feedback.

Discussion

EVSE

EVSE is grouped into three “levels” based on the power supplied to the equipment. As levels increase the cost associated with the equipment increases exponentially, and the time required to charge a vehicle’s battery decreases exponentially.

A level-1 charger is equivalent to a typical home electrical outlet and can take 24 hours or more to fully charge an electric vehicle. However, because most drivers drive a limited amount each day, this will be sufficient in most cases, and any garage with power is either ready or can be economically outfitted to provide charging at this level.

A level-2 charger is equivalent to service to larger electrical home appliances (e.g. a clothes dryer or range) and can fully charge a vehicle over several hours. The cost of installing the appropriate equipment for level-2 charging may be prohibitive for some, but the speed of charging may balance the cost. Level-2 charging is common for commercial and residential applications.

A level-3 charger (also DC Fast Charger) exceeds the power supplied to the typical home and can charge a vehicle in 20 minutes. Level-3 chargers cost multiple tens of thousands of dollars to install. Due to the high cost, these are likely only to be used in commercial settings where fees can be collected to recoup the cost.

UDO Text Amendment

These changes are intended only to clarify, streamline, and alleviate some of the burden of installing EVSE within the City. The proposed ordinance

amendments do not include any requirements to install EVSE or provide “EVSE-ready” parking spaces. The regulations are also technology-neutral and do not require that EVSE meet any standards which may be burdensome. Below are major aspects of the proposed ordinance:

- *Use and Parking*

The proposed changes permit EVSE in all zoning districts as long as the vehicles being charged would already be present on site. Where EVSE is installed for retail charging, it shall be considered the same as a gas station, and subject to the same zoning constraints and development standards. Retail EVSE is exempted from the stacking requirements of gas stations since the time to charge is significantly longer than the time to refuel at a gas station. The ordinance clarifies that EVSE parking spaces count towards minimum parking requirements. There is no requirement that EVSE parking spaces be limited to use by EVs and owners of the EVSE may limit access to these spaces as they deem appropriate.

- *EVSE and ADA*

At least one EVSE space and equipment must be ADA accessible, which includes the standard eight (8) foot wide access aisle. This combined space must meet other applicable ADA requirements to be counted towards ADA space requirements.

- *EVSE in ROW*

EVSE may be permitted within the public right-of-way by special agreement. This is meant to address the provision of charging downtown or for lots where off-street parking is infeasible or impractical. Owners of EVSE are not allowed to place charging cables over sidewalks or pedestrian access aisles.

- *Retrofitting Existing Parking Lots*

To meet the requirement to count each EVSE space as more than one space, the proposed ordinance would allow an owner who reasonably loses parking spaces to accommodate the installation of electrical service equipment (transformers, switchgear, etc.), EVSE equipment, and ADA access aisles to reduce the total number of required spaces by an equivalent number of spaces. This modest accommodation offsets some of the additional costs and barriers that property owners may face if they want to install EVSE for their employees, customers, or the public.

The Environmental Commission (ENV) determined the proposed ordinance changes are an appropriate initial step in facilitating the transition to EVs. ENV discussed the possibility of limiting level 1 and 2 charging to single-family residential uses, pairing with on-site solar, smart-charging requirements, and multi-family charging. They ultimately decided that the limited scope of the proposed changes is a sufficient first step and additional considerations may be addressed with future revisions.

Development Review Committee.

The Development Review Committee (DRC) felt that ADA access aisles should be allocated either (8) feet, anticipating changes to federal and state regulations and that counting space lost for electrical equipment and ADA access was an appropriate accommodation.

The Comprehensive Plan.

The proposed changes meet 3 of the 5 core guiding principles of the Comprehensive plan including:

1. Remove or minimize barriers and create or strengthen opportunities for all individuals, businesses, industries, organizations, and services to succeed.
2. Encourage innovation, creativity, flexibility, and openness to new ideas and positive change in all sectors of the community.
3. Strive for excellence in all sectors of the community.

The Energy Action Plan

The proposed changes are consistent with the vision of the 2023 Faribault Energy Action Plan: "Faribault is a vibrant, diverse community with equitable access to clean, affordable energy for all residents, businesses, and institutions. We are reducing greenhouse gas emissions through energy efficiency and renewable energy and creating a sustainable future where all can thrive." The changes are also consistent with Strategy 2: Increase convenient charging availability under the Transportation section of the 2023 Energy Action Plan.

Criteria for Zoning Text Amendment.

The City Council is required to make each of the following findings before approving a request to amend the Unified Development Ordinance.

1. Whether the amendment is consistent with the applicable policies of the city's Land Use Plan.

Transportation Objective 1.2, Policy 1.2D: Develop and maintain the transportation system based on principles of sustainability.

Finding: The provision of EVSE can increase the adoption of EVs as an alternative to internal combustion engines. EVs do not produce tailpipe emissions, thereby reducing local air pollution and greenhouse gas emissions, which contribute to the destabilization of atmospheric weather patterns.

Economic Assets Objective 1.2 Policy 1.2.B: Encourage innovation, creativity, flexibility, and openness to new ideas and positive change in all sectors of the community.

Finding: Eliminating barriers to adopting EVs by clarifying where and how EVSE may be installed without placing additional restrictions on EVSE encourages property owners to confidently pursue the provision of EVSE where they feel it best suits their needs or those of their customers, employees, and residents.

2. Whether the amendment is in the public interest and is not solely for the benefit of a single property owner.

Finding: The proposed changes apply to all properties allowing property owners to take actions they deem most beneficial to them, and do not impose burdens or limits on other property owners.

3. Whether the existing uses of property and the zoning classification of property within the general area of the property in question are compatible with the proposed zoning classification, where the amendment is to change the zoning classification of a particular property.

Not Applicable

4. Whether there are reasonable uses of the property in question permitted under the existing zoning classification, where the amendment is to change the zoning classification of a particular property.

Not Applicable

5. Whether there has been a change in the character or trend of development in the general area of the property in question, which has taken place since such property was placed in its present zoning classification, where the amendment is to change the zoning classification of a particular property.

Not Applicable

Recommendation

Review proposed code language adding definitions and standards for electric vehicle chargers and come to a consensus on making any modifications to the proposal, forward the code changes to a regular meeting for recommendation to the City Council, or continue/table the discussion to the next work session.

Proposed EV Changes:

(ADD/AMEND) UDO Chapter 1 – Introductory Provisions; Sec. 1-120. - Definitions

Definitions (Edited)

Automobile convenience facility (or gas station). An establishment where the principal use is the sale of gasoline or other automobile engine fuel (stored only in underground tanks), electricity for charging electric vehicles, kerosene, motor oil, lubricants, grease or minor accessories, directly to the public on the premises. This use may also sell limited household and convenience items, food, or other miscellaneous retail goods commonly associated with similar facilities.

Definitions (Added)

Electric Vehicle. A motor vehicle that is able to be powered by an electric motor drawing current from rechargeable storage batteries, fuel cells, or other portable sources of electrical current, and meets or exceeds applicable regulations in Code of Federal Regulations, title 49, part 571, and successor requirements. Electric vehicles do not include Electric-assisted bicycles, Electric personal assistive mobility devices, micromobility devices or similar as defined in Minnesota Statutes 169.011.

Electric Vehicle Charging Space. A single publicly accessible automobile parking space where an electric vehicle may be parked while its battery is being recharged.

Electric Vehicle Charging Station. An electrical component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles and associated parking space(s).

- 1) Level 1 – considered slow charging. A standard 120-volt (or lower) outlet is used to charge EVs. This charging level does not require extra equipment or installation.
- 2) Level 2 – considered medium charging. An outlet supplying 120 – 240 volts is used to charge EVs. This charging level may require extra equipment to be installed.
- 3) Level 3 – considered fast or rapid charging. An outlet and associated equipment are required to supply more than 240 volts.

Electric Vehicle Supply Equipment. An electrical component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles.

(ADD/AMEND) UDO Chapter 8 – Off-Street Parking and Loading; Article 3. – Specific off-street parking requirements, Sec. 8-270. Electric Vehicle Charging Stations

The standards of this section apply to the provision of publicly accessible parking spaces dedicated to charging electric vehicles.

- (A) *Purpose.* This section is established to provide for the appropriate location and development of Electric Vehicle Supply Equipment to reduce the potential negative impacts of such facilities and maximize the use of resources including land.
- (B) *General standards.*

- 1) Electric vehicle supply equipment is permitted in every zoning district when accessory to the primary use and intended solely to charge vehicles that would otherwise be on site.
- 2) If electric vehicle supply equipment is installed or used for retail charging of electric vehicles that would not otherwise be on-site, then the use is considered an automobile convenience facility for zoning purposes and allowed only in zoning districts that permit automobile convenience facilities uses, and shall comply with the pertinent specific development standards applied to automobile convenience facilities (see Chap.7 Sec. 7-30).
- 3) Building permits are required for the installation of building-mounted and free-standing electric vehicle charging stations. All such systems shall be designed and installed in compliance with pertinent building codes and other applicable regulations.
- 4) Pedestrian access shall not be obstructed or crossed by cords, cables, or other components of electric vehicle supply equipment.

(C) Parking design and calculations.

- 1) Parking spaces dedicated to electric vehicle charging will count towards required automobile parking spaces.
- 2) Parking lots providing electric vehicle charging spaces are subject to the following regulations:
 - a) Where five (5) or more publicly accessible electric vehicle charging spaces are provided, at least two (2) must meet applicable state and federal ADA accessibility standards including an 8-foot wide access aisle between vehicles to access EVSE. Where four (4) or fewer publicly accessible electric vehicle charging spaces are provided, at least one (1) must meet applicable state and federal ADA accessibility standards including an 8-foot wide access aisle adjacent to the accessible space to access EVSE.
 - b) When calculating minimum parking requirements:
 1. Where parking spaces are lost to accommodate the electrical service required to install EVSE and associated equipment including switchgear, transformers, or similar, the property owner may receive credit for the equivalent number of spaces lost, rounded up to the nearest whole space.
 2. Where parking spaces are lost to accommodate accessibility requirements of this ordinance or other state or federal accessibility guidelines, the property owner may receive credit for the equivalent number of spaces lost, rounded up to the nearest whole space.
 - c) Stacking:
 1. Electric vehicle charging facilities are exempt from the stacking requirements identified for Automobile Convenience Facilities in Sec. 8-270.

(D) Private single-family home electric vehicle charging station standards. Electric vehicle charging stations located on properties used for single-family, or on properties with fewer than 6 multi-family units must meet the following standards:

- 1) Must be solely for the private use of the property owner, resident, or their guests;
- 2) Must be located in a garage, on the exterior wall of the home or garage, or freestanding pole with footing, adjacent to a parking space, and setback no less than ten (10) feet from the front or corner-side property line.
- 3) When not located indoors, electric vehicle charging stations must be rated for outdoor use.

- (E) Electric vehicle charging stations may be located on City property or within City rights-of-way on a case-by-case basis subject to approval by the Development Review Committee, and City Council.

Alternative Wording of the Bonus portion:

- (A) **Minimum recommendation Bonus.** Where parking spaces are lost to reasonably accommodate the additional equipment, infrastructure, or accessibility requirements associated with EVSE parking spaces, the total minimum parking required will be reduced by an equivalent number of spaces. *(ex. Where two EV charging spaces require an access aisle, transformer, and charging equipment that occupies a space equal to a third parking space, the minimum parking required is reduced by 1 space)*



**GREAT PLAINS
INSTITUTE**

ELECTRIC VEHICLE ORDINANCE CONSIDERATIONS

A guide for local governments

Updated March 2023



Table of Contents

Page 2 – [About this guide](#)

Page 4 – [Ordinance essentials](#)

Page 6 – [Ordinance recommendations](#)

Page 8 – [Additional recommendations](#)

Page 9 – [Resources](#)

About this guide

Author

This guide was authored by Rebecca Heisel, Communities program coordinator and Brian Ross, Renewable energy vice president at the Great Plains Institute, and originally published in September 2022 and updated in March 2023.

About Great Plains Institute

A nonpartisan, nonprofit organization, the Great Plains Institute (GPI) is transforming the energy system to benefit the economy and environment. Working across the US, GPI combines a unique consensus-building approach, expert knowledge, research and analysis, and local action to find and implement lasting solutions. Learn more at www.betterenergy.org.

About EV Smart

GPI's EV Smart program provides a suite of actions a community can take to become electric vehicle (EV) ready. The actions, ranging from simple to complex, are organized into six categories: planning, regulation, utility engagement, education and incentives, government operations, and shared mobility. This program gives communities guidance in forming transportation electrification priorities and choices for how they can pursue those priorities. Note: In this document, local governments—cities, townships, and counties—are often referred to as “communities.”

Purpose of the ordinance guide

This guide supports the regulation category of the EV Smart program. In this category communities are advised to write or amend their regulations to include electric vehicles. This document will guide you through considerations about what to include in your community's electric vehicle (EV) ordinance(s). When developing an ordinance for EVs and charging infrastructure, we find that being as broad and simple as possible is best. This allows the ordinance to be a tool that is flexible and remains relevant for longer. Depending on your community's code, EVs and charging infrastructure can be adequately addressed in just a few sentences.

Definitions

Direct current fast charger (DC fast charger): These charging stations can fully charge an EV in 30 minutes, and stations range from 50 kilowatts to 350 kilowatts of output. The higher the power output, the faster the charge. DC fast chargers are often located along highways.

EV-capable: A parking stall with electrical panel capacity with all necessary wiring installed, but lacks an outlet and charging station, but maintains the ability to install a station in the future.

EV-installed: At a minimum, a Level 2 charging station has been installed.

EV-ready: A parking stall with electrical panel capacity, all necessary wiring, and an outlet installed, but lacks a charging station but allows for charging via the outlet and maintains the ability to install a station in the future.

Electric vehicle supply equipment (EVSE): Charging infrastructure used to recharge EVs includes the station and its connection to the grid.

Level 1: A standard 120-volt outlet used to charge EVs slowly. This charging level does not require extra equipment or installation and provides two to five miles of vehicle range per hour of vehicle connection.

Level 2: A 240-volt outlet which, on average, provides 10 to 50 miles of range per hour of vehicle connection. This charging level does require extra equipment and can include the installation of a charging station.

Smart charger: A charging station equipped with the ability to require payment for use, track charging statistics, control charging patterns, connect to on-site renewable energy, and network with other charging stations.

Steps to drafting an EV ordinance

1. Identify where electric vehicle supply equipment (EVSE) will fit into your code.
2. Decide on the various considerations listed in this guide.
3. Draft the language for your ordinance.

Ordinance essentials

This section details aspects that should be addressed in every ordinance.

Accessory use

Use a broad statement that allows EVSE as a permitted accessory use (even if a fee is being charged) rather than a principal use.

- **Example language:** Level 1 and Level 2 chargers are a permitted accessory use in existing parking structures or parking lots in all districts.

Parking standards

Require Level 2 EV-ready and/or EV-installed installations in your parking standards.

- **Decision:** What percentage of stalls will be required to be EV-ready or EV-installed?
- **Best practices:**
 - EV-ready: We typically see a range from 5 to 25 percent, although some communities have significantly higher percentages.
 - EV-installed: We typically see a range of 5-10 percent.
 - If the local electric utility has a make-ready program, you may want to tie the percentages to that incentive.

Parking minimums

State whether EV spaces will or will not count toward the parking minimum.

- **Decision:** Does the EV space count toward the parking minimum?
 - If yes: Clarify how EV-designated stalls are included in the parking standards. It is best practice to include EV stalls rather than excluding them.
 - If no: Clarify that EV-designated stalls are in addition to the parking minimums.

Standards for charging access

Ensuring access to charging for different populations or use cases is important. While most charging will occur at home, non-home charging provides access for people without home charging. Developing standards for non-home charging provides access to charging opportunities for renters and other populations without home charging. ** Note: If allowed in your state, standards for charging access may be better placed in your building code as was done in the [City of Denver](#). However, not all cities can change the building code, and it must be added in other ways. **

- Single-family homes:

- **Example language:** Single-family homes must include a charging port in all parking structures or areas.
- Multi-unit dwellings:
 - **Best practice:** Require a higher percentage of EVSE in multi-unit dwellings (MUDs) than a commercial parking lot because most people charge overnight at home. Level 1 charging can play an important role in MUDs and, in most instances, can be adequate for charging an EV.
 - **Example language:** Multi-family buildings must have 50 percent of parking spaces with charging access, and 20 percent of EV chargers must be Level 2.
- Commercial buildings:
 - Employment centers or workplaces provide critical charging access for households that do not have access to home charging. Some cities choose to distinguish charging level requirements based on the type of commercial land use.
 - **Best Practice:**
 - Since commercial land uses have a lower percentage of parking stalls required to be EV-ready compared to housing land use, we typically see anywhere from 5-20 percent of parking stalls required to be EV-ready.
 - Very small parking areas (i.e., lots with less than ten spaces) may be exempt from requirements.

Accessibility

Accessibility features in compliance with ADA guidelines should always be incorporated into EV charging station stalls. The US Access Board's [*Design Recommendations for Accessible Electric Vehicle Charging Stations*](#) is an excellent resource to ensure charging stations are accessible to all.

- **Best practice:** At least one EV charging station stall per location should meet the Americans with Disabilities Act accessibility standards.
- **Example Language:** Battery charging station outlets and connector devices shall be mounted to comply with state code and must comply with all relevant Americans with Disabilities Act (ADA) requirements (City of St. Louis Park, §36-361).

Ordinance recommendations

This section covers additional considerations that could be included in your ordinance. While it is highly recommended to include these considerations, it is not necessary.

DC fast charging as separate land use

Consider classifying direct current fast charging (DCFC) as a separate land use from Level 1 or Level 2 charging. As EV adoption increases, DCFC stations may require attention to traffic circulation, so accounting for this ahead of time can future-proof installations.

- **Decision:** Should DCFC be denoted as a separate land use compared to Level 1 and Level 2 charging?
 - DCFC chargers can either be an accessory or principal use since this station type can be the charging equivalent of a gas station.
- **Example language:** “Level 1 and 2 electric vehicle charging stations are a permitted use in all zoning districts... Level 3 electric vehicle charging stations are a permitted use in the Warehouse and Industrial (WI), Highway Service Commercial (C-HS),..., zoning districts...” (City of Chelan, *Municipal Code* [§17.63.030](#))

Restricted parking

Limiting EV charging station parking stalls to only EV owners incentivizes transitioning to electric and ensures that the space will be available for charging. However, many communities find enforcement difficult or out of their jurisdiction.

- **Decision:** Do you want only EVs to be able to park in charging stalls? Or can any vehicle park in these locations?
- **Example language:** Each EV charging station and parking space for which any parking incentive was granted shall be reserved for use as an EV charging station or as electric reserved parking (City of Atlanta, *Code of Ordinances* [§16-28.017](#)).

Signage

Having signage at each charging station helps EV owners locate the charging stations. Having a standardized look for signage across the community can make the stations more recognizable.

- **Decision:** Do you have a standard (i.e., verbiage, iconography, or visual requirements) for the look of the signs advertising the spot as an EV charging station?
- **Example Language:** Information must be posted identifying voltage and amperage levels and any type of use, fees, or safety information related to the electric vehicle charging station (City of Kansas City, *Zoning and Development Code* [§1.8-23-2012](#)).

Aesthetics and design

Often communities want to regulate the aesthetics and design of charging installations; however, applying these standards uniquely to EV charging infrastructure could be deemed arbitrary.

- **Decision:** Should charging stations installed in your community have required aesthetic and design standards?
- **Best practice:** Charging stations should only be subject to aesthetic or landscaping standards where cities have established standards for surface parking lots.

Solar plus EVs

Allowing solar parking structures on surface lots better utilizes land, provides additional parking benefits (cover, shade, etc.), and allows easy synchronization of charging with clean energy production.

- **Best practice:** Permit solar and EV charging as a by-right use.
- **Example language:** Solar carports and associated EV charging equipment are a permitted accessory use on surface parking lots in all districts regardless of the existence of another building (State of Minnesota, *Model Solar Ordinance*).

Additional recommendations

Consider these additional recommendations while drafting language for your community's ordinance.

Technology-neutral language

Using technology-neutral language will future-proof the ordinance to any changes in terminology or advancements in EV technology.

- **Best Practice:** Require “EV-ready infrastructure” instead of explicitly listing models and brands of charging stations. Also, listing specific amp requirements is discouraged.

Smart or networked charging

Encourage the installation of smart charging and networked charging, particularly for public or commercial uses. Smart or networked chargers, while more expensive, enable charging management that can reduce electricity costs and synchronize with renewable energy production (either on-site production or grid production). Many utility EVSE rebate programs require smart chargers to allow the utility to balance system loads.

- **Best practice:** Encourage or incentivize smart chargers rather than require them. While smart charging benefits the community and site owner, the nexus with regulatory authority is indirect.

Resources

For additional information and real-life examples of codes addressing EV charging infrastructure, refer to GPI's [Summary of Best Practices in Electric Vehicle Ordinances](#). The [Climate Ordinance Database](#) for planners provides additional model ordinances and example language from ordinances across the country.

Example ordinances

Use the [Electric Vehicle Ordinance Database](#) to view more examples of how EVs have been incorporated into city zoning ordinances nationwide. The Southwest Energy Efficiency Project's [EV Infrastructure Building Codes: Adoption Toolkit](#) also contains a list of example ordinances.

If you know of EV ordinances from your state that could be used as examples for other communities, please send them to Rebecca Heisel at rheisel@gpisd.net to be included in our ordinance database.

§ 21.302.14 ELECTRIC VEHICLE CHARGING STANDARDS.

(a) *Purpose.* To accommodate and promote electric vehicle charging throughout the city promoting the health, safety and general welfare of the community and preventing adverse impacts in the installation and use of electric vehicle chargers.

(b) *Permitted locations.*

(1) Electric vehicle chargers are permitted in every zoning district, when accessory to the primary use and intended solely to charge vehicles that would otherwise be on site.

(2) If the primary use of the electric vehicle chargers is the retail charging of electric vehicles that would not otherwise be on site, then the use is considered a convenience facility with fuel sales for zoning purposes and allowed only in zoning districts that permit convenience facilities with fuel sales uses.

(c) *Electric vehicle charger standards.* Electric vehicle chargers must meet the following standards:

(1) *Design.* Parking must meet standards set in §21.301.06, Parking and Loading

(2) *Minimum off-street required parking.* Parking spaces with electric vehicle chargers count toward satisfying the minimum off-street parking requirements of § 21.301.06(d) provided:

(A) The spaces are open for use by non-electric vehicles if over five percent of the parking spaces on site; and

(B) The electric vehicle chargers are non-proprietary if over five percent of the parking spaces on site.

(3) *Private single family home electric vehicle charger standards.* Electric vehicle chargers located on properties used for single family or two family homes must meet the following standards:

(A) Must be solely for private use of the property owner, resident, or their non-paying guests;

(B) Must be located in a garage, on the exterior wall of the home or garage, or freestanding pole with footing, adjacent to a parking space subject to principal building setbacks; and

(C) When located outside of garage, must be rated for outdoor use.

ORDINANCE 1339

AN ORDINANCE AMENDING AND REENACTING SECTION 1 OF TOWN OF JACKSON ORDINANCE NOS. 1196 AND 1277; SECTION 2 OF TOWN OF JACKSON ORDINANCE NO. 1074 (PART); AND SECTIONS 6.2.2.F AND 9.5 OF THE TOWN OF JACKSON LAND DEVELOPMENT REGULATIONS REGARDING ELECTRIC VEHICLE SUPPLY EQUIPMENT AND PROVIDING FOR AN EFFECTIVE DATE.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF JACKSON, WYOMING, IN REGULAR SESSION DULY ASSEMBLED THAT:

SECTION I.

Section 1 of town of Jackson Ordinance Nos. 1196 and 1277; Section 2 of Town of Jackson Ordinance No. 1074 (PART); and sections 6.2.2.F and 9.5 of the Town of Jackson Land Development Regulations are hereby amended and reenacted to read as follows:

[See Next Page]

LDR Section 6.2.2. Required Parking and Loading

F. Required Electric Vehicle Supply Equipment .

All new and expanded uses that generate off street parking shall provide infrastructure for electric vehicle supply equipment (EVSE) unless otherwise exempt by this subsection.

1. **Amount of Off-Street Infrastructure.** The table below specifies the minimum additional off-street parking spaces that shall include EVSE. See subsection E.5 for EVSE standards.

EVSE Requirement (per Dwelling Unit (DU) or as % of off-street parking spaces provided for new or expanded use)		
Use	EVSE Capable	EVSE Installed (E.1.b)
Detached Dwelling Unit	1 per DU	NA
Accessory Residential Unit	1 per DU	NA
Other Residential (Example: Attached Dwelling Unit or Apartment)	30%	5%
Lodging	30%	5%
Other Nonresidential (Example: Retail or Office)	30%	5%

- a. An EVSE Installed space may count toward the EVSE Capable space requirement.

b. The EVSE Installed requirement only applies to parking lots of 10 or more spaces.

c. The EVSE Installed requirement is waived when all spaces are EVSE Capable.
2. **Counts Toward Required Parking.** Those parking spaces required for EVSE by this subsection shall count toward fulfilling the total parking requirement of this Division.
3. **Posted.** EVSE installed spaces shall be posted with clear signage designating them as intended for electric vehicles.
4. **Location.** Above ground EVSE components taller than 4’ in height and less than 8’ in height, such as charging stands, shall be subject to the parking setbacks of the applicable zone, unless permanently affixed to a building or structure.
5. **EVSE Standards.**
- a. EVSE Capable – A parking spaces is EVSE Capable if it is provided with conduit sized for a minimum 40-amp, 208/240-volt dedicated branch circuit from an electrical panelboard with sufficient physical space to accommodate a minimum 40-amp, dual-pol circuit breaker.

b. EVSE Installed – A parking spaces is EVSE Installed equipped with a Level 2 charging station networked with hardware that uses the Open Charge Point Protocol (OCCP) version 1.6 or higher.
6. **Exemptions.**
- a. The standards of this section shall not apply to Temporary Uses or Accessory Uses other than Accessory Residential Units.

b. The Planning Director may exempt or lessen the EVSE requirement if it is determined the requirement is infeasible, burdensome, or unnecessary due to use, geography, or changes in technology.

LDR Division 9.5 Defined Terms

Electric Vehicle Supply Equipment (EVSE). Any equipment or electrical component used in charging electric vehicles at a specific location. EVSE does not include equipment located on the electric vehicles themselves.

SECTION II.

All ordinances and parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

SECTION III.

If any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct and independent provision and such holding shall not affect the validity of the remaining portions of the ordinance.

SECTION VI.

This Ordinance shall become effective after its passage, approval and publication.

PASSED 1ST READING THE 19 DAY OF DECEMBER , 2022.
PASSED 2ND READING THE 9 DAY OF JANUARY , 2023.
PASSED AND APPROVED THE 17 DAY OF JANUARY , 2023.

TOWN OF JACKSON

BY: _____
Hailey Morton Levinson, Mayor

ATTEST:

BY: _____
Riley Taylor, Town Clerk

ATTESTATION OF TOWN CLERK

STATE OF WYOMING)
) ss.
COUNTY OF TETON)

I hereby certify that the foregoing Ordinance No. was duly published in the Jackson Hole News and Guide, a newspaper of general circulation published in the Town of Jackson, Wyoming, on the 18 day of January, 2023.

I further certify that the foregoing Ordinance was duly recorded on page _____ of Book _____ of Ordinances of the Town of Jackson, Wyoming.

Riley Taylor, Town Clerk

BILL NO. _____

**AN ORDINANCE AMENDMENT ESTABLISHING REGULATIONS
FOR ELECTRIC VEHICLE CHARGERS**

THE CITY OF RICHFIELD DOES ORDAIN:

Section 1 Subsection 509.25, Subdivision 7 of the Richfield Zoning Code is amended to read as follows:

Subd. 7. Nonconforming site improvements. This subsection is primarily aimed at upgrading nonconforming site improvements that affect the appearance and impacts of a site. It is not intended to require extensive changes that would be extremely impractical such as moving or lowering buildings.

- a) Nonconforming Parking. Alteration, addition or expansion which results in an increased need for off-street parking shall provide additional parking according to the following guidelines:
 - i. Where modifications result in an increase in the applicable unit of measurement (dwelling unit, floor area, capacity, number or seats, etc.) which is 50 percent or less of the original total, additional parking shall be required only for this new or modified part of the development;
 - ii. Where modifications result in an increase in the applicable unit of measurement which is over 50 percent of the original total, sufficient off-street parking shall be provided to bring the entire development into conformance with the requirements of this ordinance.
- b) Nonconforming Landscaping and Screening. Alternative landscaping or screening may be approved by the Director, where, due to existing structure placement, lot dimensions, parking requirements, or other improvements, it is not possible to provide the landscaping or screening required by this ordinance, according to the following rules:
 - i. The alternative landscaping or screening will not be detrimental to adjacent properties; and
 - ii. The alternative landscaping or screening complies with the purpose and intent of standards dictated by this ordinance.
- c) Additional Nonconforming Site Improvements. In addition to the requirements of a) and b) above, the following nonconforming site improvements must be made conforming if a structure or use

associated with the nonconforming site improvement is enlarged or expanded.

- i. Impervious surface coverage as required by applicable zoning district standards;
 - ii. Irrigation as required by Subsection 544.03, Subd. 4(h);
 - iii. Screening of refuse collection and utilitarian items in accordance with Subsection 544.05;
 - iv. Pedestrian circulation as required by Subsection 544.15;
 - v. Bicycle parking in accordance with Subsection 544.17; and
 - vi. For enlargement or expansion of non-conforming off-street parking or loading areas, the enlarged or expanded area of such off-street parking or loading areas must comply with the minimum requirements for electric vehicle (EV) chargers and EV-ready spaces in accordance with Subsection 544.13, Subd. 7.
 - ~~vi.~~ vii. Underground utilities when renovation costs exceed 50 percent of the value of the structure, in accordance with Subsection 544.19.
- d) The Director may modify or waive any of the provisions above based on a written finding that the proposal:
- i. Would not be detrimental to adjacent properties; and
 - ii. The proposal complies with the purpose and intent of standards dictated by this ordinance. (Amended: 9-17-2010)

(Amended, Bill No. 2014-4)

Section 2

Subsection 512.03 of the Richfield Zoning Code is amended to read as follows:

Except as otherwise noted, the following uses shall be construed to be permitted in all zoning districts within the City:

- a) Public streets and highways;
- b) Underground public utilities;
- c) Municipally-owned parks and related accessory facilities;
- d) Solar equipment as an accessory use;
- e) Horticulture/community gardens as an accessory to an established institutional use (school, church, park), provided that plants and related materials are maintained in a clean and orderly manner and that waste is disposed of appropriately; and

- f) Beekeeping subject to the inspection and licensing requirements and limitations outlined in Section 906.
- g) Electric vehicle chargers and related equipment as an accessory use subject to the requirements and limitations outlined in Subsection 544.13.

Section 3 Subsection 544.13 of the Richfield Zoning Code is amended to add a new Subdivision 7 as follows, renumbering all subsequent subdivisions:

Subd. 7. Electric Vehicle Charger Requirements

- a) Purpose. Ensuring that electric vehicle (EV) charging serves both short and long-term parking needs throughout the city, while limiting adverse impacts of electric vehicle chargers, to reduce emissions and improve environmental health outcomes in our community.
- b) Level descriptions:
 - i. Level-1 (or “L1”) is considered slow charging and includes a range from zero (0) volts to one hundred twenty (120) volts.
 - ii. Level-2 (or “L2”) is considered medium charging and includes a range from one hundred twenty (120) volts to two hundred forty (240) volts.
 - iii. Level-3 (or “L3”) is considered fast or rapid charging and includes a range of greater than two hundred forty (240) volts.
- c) EV-ready spaces and EV parking space standards:
 - i. EV-ready spaces shall require appropriate electrical capacity and conduits to support future EV chargers, but shall not require an installed charger unit. Adequate electrical service is required to allow for future simultaneous charging of all future installed chargers.
 - ii. EV charger installation in excess of any minimum requirements may be substituted for up to five (5) percent of minimum off-street parking requirements. One (1) L2 or L3 charger is equivalent to one (1) parking space. This reduction may not be applied in addition to the parking reduction for excess bicycle parking spaces, as described in subsection 544.17 of the Richfield Zoning Code.
 - iii. EV charger locations and standards:
 - 1) EV chargers must be located in a parking island, mounted to an adjacent pedestal or similar structure, or protected by bollards, structures, or curb if located in a parking lot.
 - 2) EV chargers shall be set back at least three (3) feet from any lot line abutting another parcel. However, upon written request from the property owner, the Director may reduce or rescind this

setback requirement for shared access agreements or pursuant to a finding of necessity and public convenience.

- 3) EV chargers located along an alley, or located adjacent to a right-of-way which contains a public sidewalk, shall be set back at least three (3) feet from the nearest edge of such alley or sidewalk. When adjacent to the right-of-way, the location must be approved by the Director of Public Works. EV chargers may be located in the right-of-way, with permission from the Director of Public Works. EV chargers mounted on pedestals, light posts, bollards, or other devices for on-street charging stations shall be designed and located as to not impede pedestrian travel or create hazards within the right-of-way.
- 4) EV chargers shall be set back at least twenty-four (24) inches from the face of any adjacent curb.
- 5) EV chargers shall be mounted in a manner that allows for any cords to be retractable or hung sufficiently above any pedestrian surface.
- 6) EV chargers must be installed per manufacturer specification and must comply with all applicable building codes and relevant Americans with Disabilities Act (ADA) requirements.
- 7) When an EV charging station is not operational for thirty (30) consecutive days, it shall be considered to have been removed from service.
- 8) EV chargers must be operational during the normal business hours of the use(s) served. EV chargers may be de-energized or otherwise restricted after normal business hours of the use(s) served.

d) Minimum number of electric vehicle chargers required by land use are as follows:

<u>USE</u>	<u>INSTALLED EV CHARGING STATIONS*</u>	<u>EV-READY SPACES*</u>	<u>ADDITIONAL REQUIREMENTS</u>
<u>Residential uses with up to 3 units</u>	<u>At least one (1) enclosed space shall support L1 charging.</u>		
<u>Residential uses with 4 to 14 units</u>	<u>Ten (10) percent of enclosed parking spaces shall support L1</u>	<u>Two (2) spaces capable of L2 or L3 charging. All remaining enclosed spaces capable of L1</u>	

	<u>charging.</u>	<u>charging.</u>	
<u>Residential uses with 15 units or more</u>	<u>Ten (10) percent of parking spaces shall support L2 charging.</u>	<u>Twenty (20) percent of spaces capable of L2 or L3 charging. All remaining enclosed spaces capable of L1 charging.</u>	<u>At least one ADA parking space shall have access to an installed EV charger.</u>
<u>Non-residential uses with up to twenty (20) spaces</u>	<u>One (1) space shall support L2 or L3 charging</u>	<u>Ten (10) percent of spaces capable of L2 or L3 charging.</u>	
<u>Non-residential uses with twenty-one (21) or more off-street parking spaces</u>	<u>Five (5) percent of parking spaces shall support L2 or L3 charging.</u>	<u>Twenty (20) percent of spaces capable of L2 charging. At least 1 space capable of L3 charging.</u>	<u>At least one ADA parking space shall have access to an EV charger.</u>

*If calculation results in a fraction, the next higher whole number shall be used.

e) This number may be reduced by the Director if proof can be provided that such spaces will not be used:

Section 4. Subsection 544.13, Subdivision 10 of the Richfield Zoning Code is amended and renumbered as follows:

Subd. ~~10~~ 11. Calculating space for a compound use. Should a structure contain two (2) or more types of uses, the total off-street and minimum EV parking spaces required for each use shall be calculated separately unless requirements for joint parking arrangements can be applied as regulated by Subd. ~~11-12~~ 11 of this s-Subsection.

Section 5 This Ordinance is effective in accordance with Section 3.09 of the Richfield City Charter.

Passed by the City Council of the City of Richfield, Minnesota this 8th day of March, 2022.

Maria Regan Gonzalez, Mayor

ATTEST:

Kari Sinning, City Clerk

(2) Number of Required Electric Vehicle Charging Stations.

- a. All new or reconstructed parking structures or lots with 14 or fewer parking spaces shall be allowed, but not required, to install EVSE.
- b. All new or reconstructed parking structures or lots with at least 15 but no more than 49 spaces, or expanded parking structures or lots that result in a parking lot with 15 to 49 parking spaces, shall install EVSE as required below.
 1. Multiple-family residential land uses shall have 5% of required parking as Level 1 stations for resident parking. At least one handicapped accessible parking space shall have access to an EVCS.
 2. Non-residential land uses with parking spaces available for use by the general public shall have one Level 2 station. At least one handicapped accessible parking space shall have access to an EVCS.
- c. All new or reconstructed parking structures or lots with at least 50 parking spaces, or expanded parking structures or lots that result in a parking lot with 50 or more parking spaces, shall install EVSE as required below.
 1. Multiple-family residential land uses shall have 10% of required parking as Level 1 stations for resident parking, and one Level 2 station for guest parking. At least one handicapped accessible parking space shall have access to an EVCS.
 2. Non-residential land uses with parking spaces available for use by the general public shall have at least 1% of required parking as Level 2 stations with a minimum of two spaces served by Level 2 charging, with at least one station adjacent to an accessible parking space. In non-residential zoned districts, DC charging stations may be installed to satisfy the EVCS requirements described above on a one-for-one basis.
- d. Notwithstanding the requirements of subsections a above, all new or reconstructed motor fuel stations as defined in Section 36-142(d)(20) shall be required to install at least one additional Level 2 charging station. A DC charging station may be installed to meet this requirement.
- e. In addition to the number of required EVCSs, the following accommodations shall be required for the anticipated future growth in market demand for electric vehicles:
 1. Multiple-Family Residential Land Uses: all new, expanded and reconstructed parking areas shall provide the electrical capacity necessary to accommodate the future hardwire installation of Level 2 EVCSs for a minimum of 10% of required parking spaces.
 2. Non-Residential Land Uses: all new, expanded and reconstructed parking areas shall provide the electrical capacity necessary to accommodate the future hardwire installation of Level 2 or DC EVCSs for a minimum of 10% of required parking spaces.
- f. These requirements may be revised upward or downward by the City Council as part of an application for a conditional use permit or planned unit development based on verifiable information pertaining to parking.



Planning Commission Work Session Memorandum

TO: Planning Commission
THROUGH: David Wanberg, Community & Economic Development Director
FROM: Harry Davis, City Planner
MEETING DATE: February 20, 2024
SUBJECT: Initial Discussion on Allowing Ground-Floor Apartments and Deregulating Apartment Sizes in CBD Zoning within Downtown Faribault

Background:

In January 2024, a CUP for converting an existing building into primarily multi-family in CBD passed Council with one dissenting vote. This CUP sparked conversation about apartments in Downtown Faribault, but more specifically about apartments on the ground floor, how much of the ground floor could be apartments, and where should a façade along streets be primarily non-residential versus a mix of uses versus primarily residential.

Staff receives inquiries regularly from building owners and operators downtown asking for ground-floor apartments. Some of the reasons we hear are related to “cash flow” of buildings and how some of the existing retail/non-residential storefront spaces are too big or too expensive to rent. As a result, some building owners have to raise rents on upper-floor tenants to subsidize the unused retail spaces below them. Raised rents are likely to cause displacement for those seeking affordable housing because older buildings typically have a lower market value and are likely to be naturally-occurring affordable housing (NOAH). NOAH is different from affordable housing, which uses public assistance to lower costs.

The City Planner and Community & Economic Development staff acknowledge both the public and private sectors struggling with uses, buildings, and the numbers behind developing, running a business, or living downtown. The city turns this acknowledgment into a call to action for meaningful steps towards regulating uses and structures where it matters most and not hindering properties and livelihoods where it matters least.

City staff recommend the Planning Commission review and consider:

- Lowering the minimum size for an apartment in CBD.
- Utilize a facade-to-use ratio for buildings along Central Avenue with the goal of retaining non-residential uses on the ground floor.

- Utilize a minimum amount of storefront space for non-residential uses for retaining non-residential uses at smaller, more-suitable space sizes.
- Allow ground-floor apartments on the back of buildings.
- Continue, taper-down, or not adopt facade-to-use restrictions on facades not on Central Avenue.

Additional information is found in the attached staff report and resources.

Attachments:

1. Staff Report Apartments in CBD



Staff Report to the Planning Commission

TO: Planning Commission
THROUGH: David Wanberg, Community & Economic Development Director
FROM: Harry Davis, City Planner
MEETING DATE: February 20, 2024
SUBJECT: Apartments in CBD and Mixed-Use Buildings

Request:

Review the following information and come to a consensus on next steps.

Background:

In January 2024, a CUP for converting an existing building into primarily multi-family in CBD passed Council with one dissenting vote. This CUP sparked conversation about apartments in Downtown Faribault, but more specifically about apartments on the ground floor, how much of the ground floor could be apartments, and where should a façade along streets be primarily non-residential versus a mix of uses versus primarily residential.

Staff receives inquiries regularly from building owners and operators downtown asking for ground-floor apartments. Some of the reasons we hear are related to “cash flow” of buildings and how some of the existing retail/non-residential storefront spaces are too big or too expensive to rent. As a result, some building owners have to raise rents on upper-floor tenants to subsidize the unused retail spaces below them. Raised rents are likely to cause displacement for those seeking affordable housing because older buildings typically have a lower market value and are likely to be naturally-occurring affordable housing (NOAH). NOAH is different from affordable housing, which uses public assistance to lower costs.

How is affordable housing created?



Dedicated affordable housing are income-restricted units that are created through public assistance or market-based programs.



Naturally occurring affordable housing (NOAH) are units that may rent or sell at affordable levels, but do not have legally binding affordability requirements.

Source: City of Denver

The City Planner and Community & Economic Development staff acknowledge both the public and private sectors struggling with uses, buildings, and the numbers behind developing, running a business, or living downtown. The city turns this acknowledgment into a call to action for meaningful steps towards regulating uses and structures where it matters most and not hindering properties and livelihoods where it matters least.

Zoning Administration of Uses

Staff acknowledged in reports to the DRC, PC, and Council that the aforementioned CUP required a zoning determination by the City Planner and supported by the DRC stating the building is primarily residential in use with a small portion of floor area for commercial. Coming to that determination was not easy. Below is an excerpt from the DRC memo regarding the determination:

"Specifically, the City Planner requests the DRC comment on and conclude regarding the following items:

1. Does the DRC agree with the City Planner that the proposal is a CUP for multi-family or dwellings as a part of a mixed-use structure in the CBD district?
 - The City Planner determined the proposed CUP is for multi-family because the proposed layout will be primarily multi-family on the ground floor and throughout the property, with only 1/3 to 1/4 of the property used for commercial. Additionally, a CUP provides public review and transparency to the process and ensures official approval prior to a building permit or change of use.

The UDO has specific CUP requirements for a "Dwelling as part of a mixed use structure, CBD District" (Sec 7-30), which requires the following summarized criteria:

- (1) parking for each unit within 400 feet;
- (2) certain unit sizes dependent on the number of bedrooms; and
- (3) "the residential use is secondary to the ground floor commercial use".

Reasons why the City Planner determined that the proposed CUP is not for a dwelling in a mixed-use structure within the CBD district are as follows:

- (1) The majority of the ground floor and overall property is residential with the commercial area becoming secondary to the use of the property. A secondary use to the property could, in some cases, require additional approvals (think a Home Occupation), but commercial is allowed by-right in CBD and does not require further

- approvals. In this case, the primary use of the property, multi-family, requires a CUP.
- (2) Having the residential go through a public hearing and process, including approval from City Council, ensures that the use was reviewed and approved through the correct legal process and by the city's highest officials. The CUP is still beholden to meet typical CUP criteria for approval."

Although city staff made the determination, there are issues. In the DRC memo, staff acknowledged the following:

"Additionally, the UDO spells out requirements for residential uses in the CBD district (Sec 11-430) requiring the following:

- (1) "Residential uses are permitted in the Central Business District, secondary to ground floor commercial uses...";
 - a. "area of the building divided by one thousand two hundred (1,200), times the number of floors in the building above ground-floor" equals the maximum number of units
 - b. certain unit sizes dependent on the number of bedrooms
- (2) The number of units allowed may be increased by CUP.

It is clear the intent from both code sections that buildings in CBD proposed to include residential should have a primarily commercial ground floor and residential above. What both code sections above fail to address are multi-family buildings that are primarily or completely residential in use. Recent additions to downtown in the last 5 years that fit this category are:

- (1) Riverchase – Multi-family only
- (2) Straight River – Multi-family only
- (3) Hillside – Multi-family only

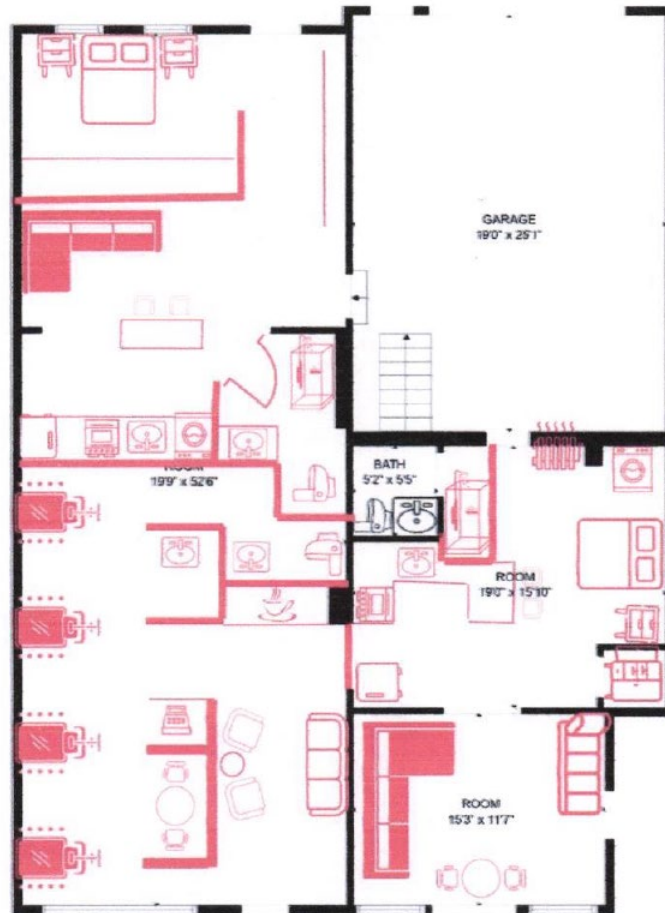
These developments were permitted as multi-family structures, which are allowed by CUP in CBD zoning, but were not required to have commercial on the ground floor as required by Sec 11-430 or adhere to any additional requirements. If a developer proposed an apartment complex with a small coffee shop as an amenity to the residents and city, would it make sense for the city to require more commercial than residential on the ground floor of the building because it includes commercial, as required by Sec 11-430 and 7-30?"

Additional problems arise considering existing or proposed buildings with multiple floors. Is a three-story building with 1/3 non-residential and 2/3 residential uses a multi-family building and not a mixed-use building?

It is clear to both the City Planner and DRC that the UDO needs an update to clarify the above issues and make it easier to administer for city and comply for developers and designers. Additionally, the CBD district currently waives all requirements for parking, which is contrary to Sec 7-30 requiring parking for each unit.

Limitations on Apartment Sizes

In the aforementioned CUP are three apartments above 550 sq ft, which is the minimum sq ft allowed for an efficiency (or studio) unit.



Floor plan from CUP

Section 11-430 regulates residential uses within CBD zoning:

"Sec. 11-430. - Residential uses.

- A. Residential uses are permitted in the Central Business District, secondary to ground floor commercial uses with the maximum number of units based on the lesser of the calculations shown below, except as may be modified by Section 11-430 (B):
 - 1. The area of the building divided by one thousand two hundred (1,200), times the number of floors in the building above ground-floor; or

2. The number of residential units that have a minimum floor area, exclusive of outdoor patios, decks, public hallways, and other common areas, as follows:
 - a. Efficiency or studio, 550 square feet.
 - b. One-bedroom unit, 650 square feet.
 - c. Two-bedroom unit, 900 square feet.
 - d. Three-bedroom unit and above, 1,100 square feet.
- B. The number of residential units allowed by Section 11-430 (A) (1), may be increased with the approval of a conditional use permit. The minimum floor area outlined in Section 11-430 (A) (2) may be reduced with the approval of a conditional use permit.
 1. Approval of the conditional use permit shall be subject to the standards identified in Sections 2-260 through 2-340.
 2. As per Section 2-310, the City Council may establish any reasonable conditions of approval that are deemed necessary to mitigate adverse impacts associated with the conditional use, to protect neighboring properties, and to achieve the objectives identified elsewhere in this ordinance."

Section 11-430(A)(1) above operates as the density cap for the number of apartments allowed in a building, while (2) sets the minimum bar for allowed apartment sizes.

Looking at various websites and data aggregate/analysis reports, sizes for apartments vary significantly with studios somewhere between 300-600 square feet, 1-bedroom units between 500-1,000 square feet, 2-bedroom between 800-1,200 sq ft, and 3-bedrooms units at 1,200 sq ft or more. From 2008 to 2016, the average new apartment size in the US decreased ~8% to 934 sq ft. The average apartment size in Minnesota is around 892 sq ft, which is slightly above the US average across all apartments at 882 sq ft.

Recent Residential Construction in CBD

Straight River Apartments

- Mix of 1-, 2-, and 3-bedroom units
 - o 1-bedroom between ~638 sq ft and ~731 sq ft
 - o 2-bedroom between ~815 sq ft and ~983 sq ft
 - o 3-bedroom between ~1,200 sq ft and ~1,255 sq ft

Hillside Apartments

- Mix of Studio, 1-, and 2-bedroom units
 - o Studio between ~519 sq ft and ~521 sq ft
 - o 1-bedroom between ~641 sq ft and ~788 sq ft
 - o 2-bedroom between ~937 sq ft and ~1,064 sq ft

Masonic Temple Apartments

- Mix of 2-, 3-, and 4-bedroom units
 - o 2-bedroom (w/o loft) between ~708 sq ft and ~911 sq ft

- 2-bedroom (w/ loft) at ~1166 sq ft
- 3-bedroom at ~895 sq ft
- 4-bedroom (w/ loft) between ~1,473 sq ft to ~1,732 sq ft

Riverchase Apartments

- Mix of 1- and 2-bedroom units
 - 1-bedroom between ~699 sq ft and ~828 sq ft
 - 2-bedroom between ~873 sq ft and ~1,256 sq ft

Based on the list above, some apartments built within the last 5 years in CBD and downtown do not meet the minimum for square footage. This is not meant to point fingers, and should not be used in that way, as the size of these apartments can't change now and the success of these buildings is testament to why the zoning minimums are out of sync with the market.

Building Code

The City's Building Official, John Rued, shared with the City Planner building code limitations on residential, habitable spaces. A habitable space, including a bedroom, kitchen, or living room, must be at least 70 sq ft (or a 7-foot by 10-foot room). As a note, bathrooms, hallways, and spaces not used for habitation operate on a different standard. For a studio apartment, this would be incredibly small and likely unsuitable to most people in Faribault. Another part of the building code regulates something called 'tiny homes' which are dwellings constructed on-site and at least 400 sq ft. A 400 sq ft tiny home will accommodate living spaces, a bathroom, and bedroom loft in a small space in the same way an apartment is organized. The Building Official recommended to the City Planner that 400 square feet is an adequate minimum size for any apartment.

Non-residential Use Space Requirements

Many business owners need a certain amount of square footage to make their café, clothing boutique, law office, or other business work based on the number of patrons or clients, staff, product inventory, etc. Calculating one encompassing standard is challenging, but there are some general planning and urban design ideas when it comes to building bulk models:

- Retail minimum space is 20-feet wide and 60-feet deep, or 1,200 sq ft.
- Office minimum space is 30-feet by 30-feet, or 900 sq ft.

These dimensions are not a catch-all for all businesses, but various websites geared towards marketing and leasing commercial spaces recommend a square-shaped space for retail, but rectangle-shaped spaces are most common and perfectly acceptable at around 20-foot wide. Some market research completed in Northeast US compiled a range of average store sizes for various businesses:

- Convenience Stores 1,400 – 2,900 sq ft
- Eye Care 500-3,700 sq ft

- Wireless Stores 1,200-2,900 sq ft
- Coffee/Donuts 800-2,200 sq ft
- Pizza 1,200-3,100 sq ft
- Fast Casual 2,200 – 2,400 sq ft
- Mexican/Burrito 1,500 – 2,500 sq ft
- Quick Serve Sandwiches 800-4,500 sq ft
- Quick Serve Burgers 1,800-3,600 sq ft
- Ice Cream and Yogurt 600-2,600 sq ft
- Dry Cleaners 1,200-3,600 sq ft
- Nail Salons 900-1,600 sq ft
- Hair Salons/Hair Cutters 800-2,200 sq ft
- Health & Fitness Services (small format operators) 1,200-4,500 sq ft
- Wine/Liquor 2,000 – 17,000 sq ft

Many of the businesses above, on the lower end of their ranges, would fit within 1,200 sq ft, lending credibility to an approximate 20-foot by 60-foot space being suitable. Additional research, specifically for office uses, shows that a smaller space is suitable, ranging from 150-350 sq ft per private office to 60-110 sq ft per open-plan workspace. The average office space per employee has decreased from 225 sq ft in 2011 to 195 sq ft in 2020, indicating a trend toward more flexible workspace solutions. A small law office, similar to an eye care office above, may only need 500 sq ft.

Discussion:

Apartment Sizes

Based on the data collected and presented in this report, staff recommends shifting a minimum size for apartments to 400 sq ft. This brings into compliance many of the recently-built, and likely many nonconforming or existing, units into zoning compliance and leaves apartment layouts and sizes to the market and each developer or building owner. This also tracks well with national trends regarding apartment sizes, which fluctuate wildly but are generally decreasing over time. For renters, smaller units will drive down owner costs, which in turn should positively impact rental rates. When you couple variable unit sizes with older structures, there is a strong possibility of NOAH units becoming more readily available. In addition, Faribault is experiencing a housing shortage, and the more housing available will drive down costs due to competition.

Residential and Non-residential Mix on the Ground Floor

Staff looked at various properties within downtown both on and off Central Avenue. Many properties along Central Avenue have buildings that are approximately 22-feet wide, or some multiple of that measurement (44, 66), with a wide array of lengths/depths between approximately 80 feet and 141. There are likely some outliers at either end of the spectrum, but the block of Central Avenue between 2nd and 3rd streets provides a reasonable snapshot:



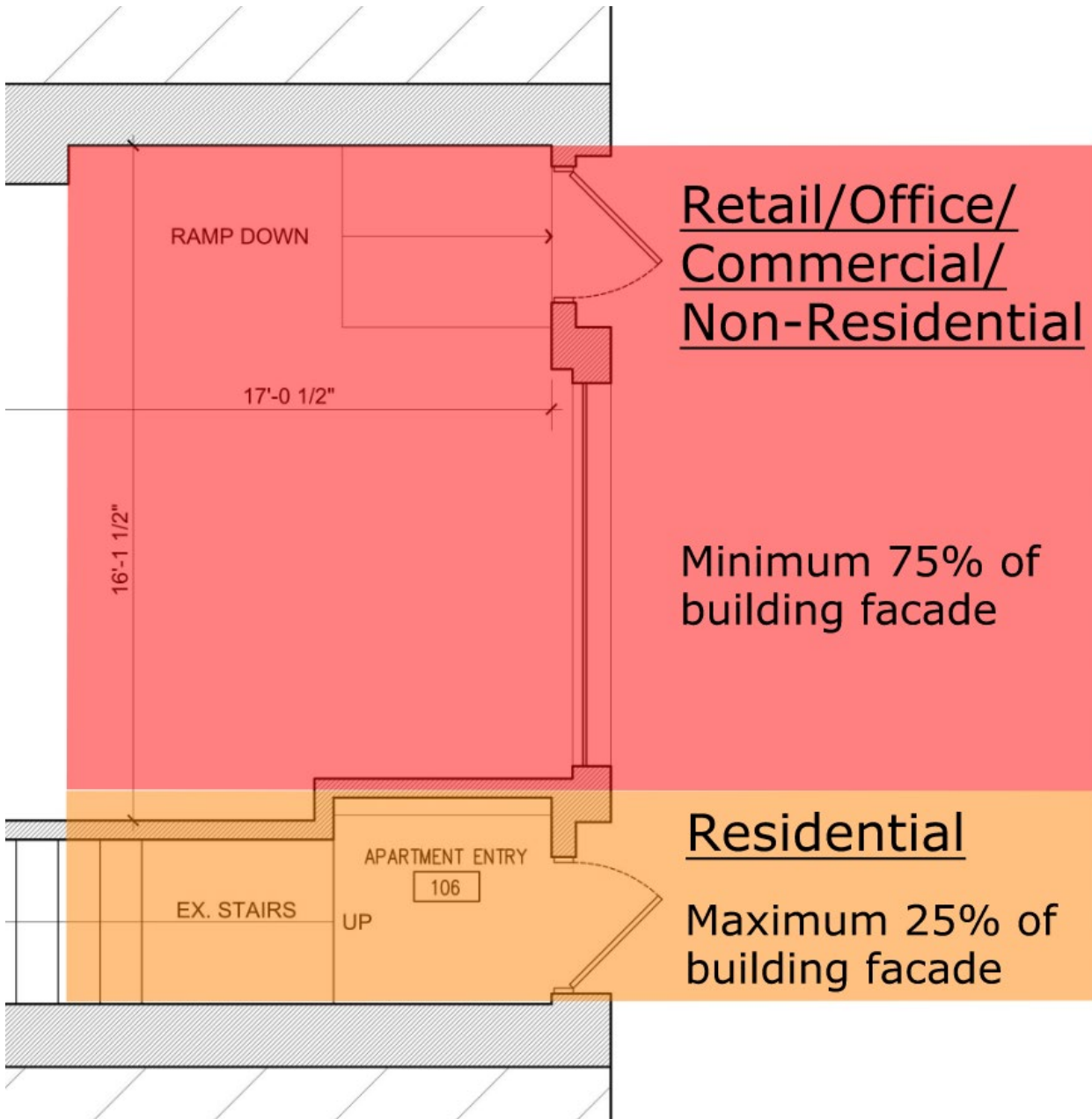
Rice County Beacon GIS aerial image with measurements based on imagery

Most buildings off of Central Avenue have little to no consistency in size or footprint.

There are some options available (and likely others after Planning Commission input) using a hierarchical system of facades on Central Ave, facades a block from central, and all other facades:

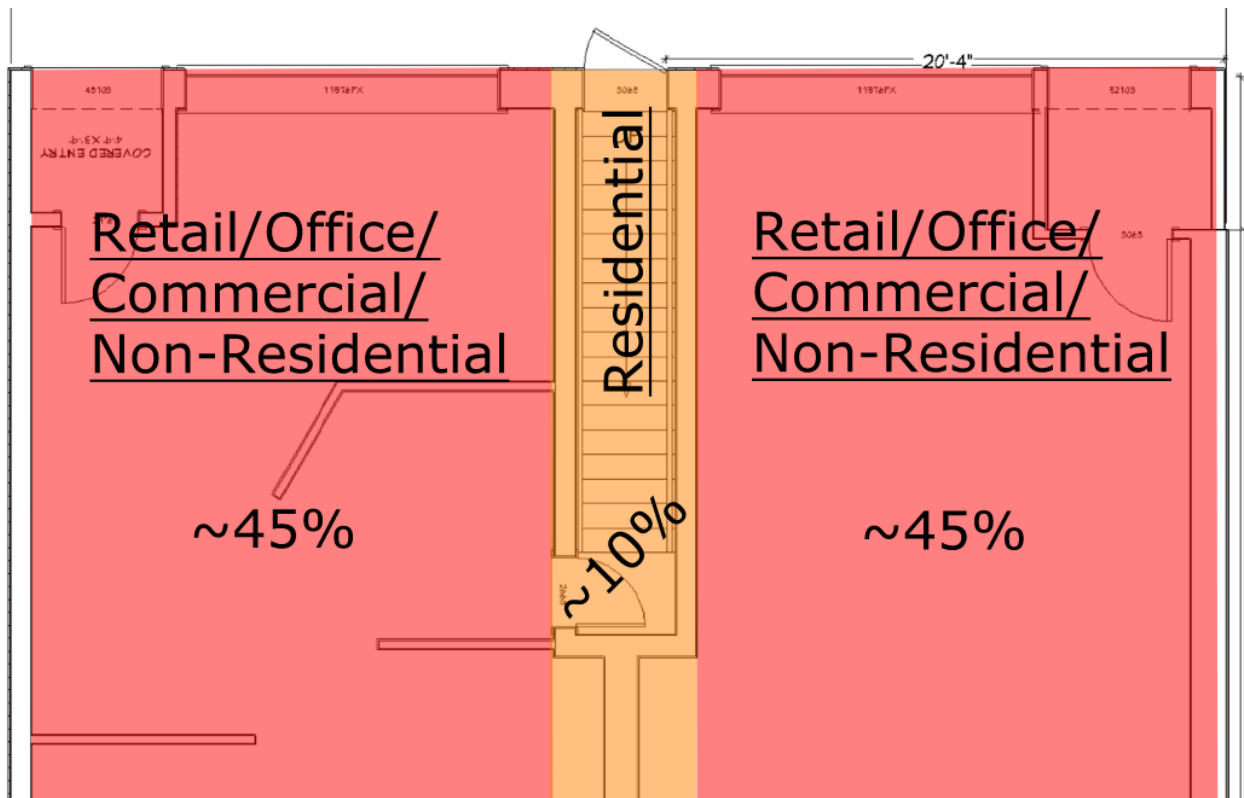
- *Full Restriction of Ground-level Uses for Facades Facing Central Ave*
Based on the character of buildings, historic uses, and size/layout along Central Avenue, staff recommends encouraging through regulation the retention of non-residential spaces and uses along Central Avenue building facades. However, some existing buildings have access doors and hallways or stairways to residential within the building, and staff sees great value in continuing to allow residential access along Central Avenue: passive surveillance through constant

activity at all parts of the day of people entering and leaving buildings or walking along the street. Staff recommends the ratio shown in the following diagram:



Ratio diagram using 206 Central Avenue as-built drawings (~22 ft wide building)

A larger building along Central Avenue than the example above will be able to accommodate the requirement for a minimum of 75% of the façade be used by non-residential uses:



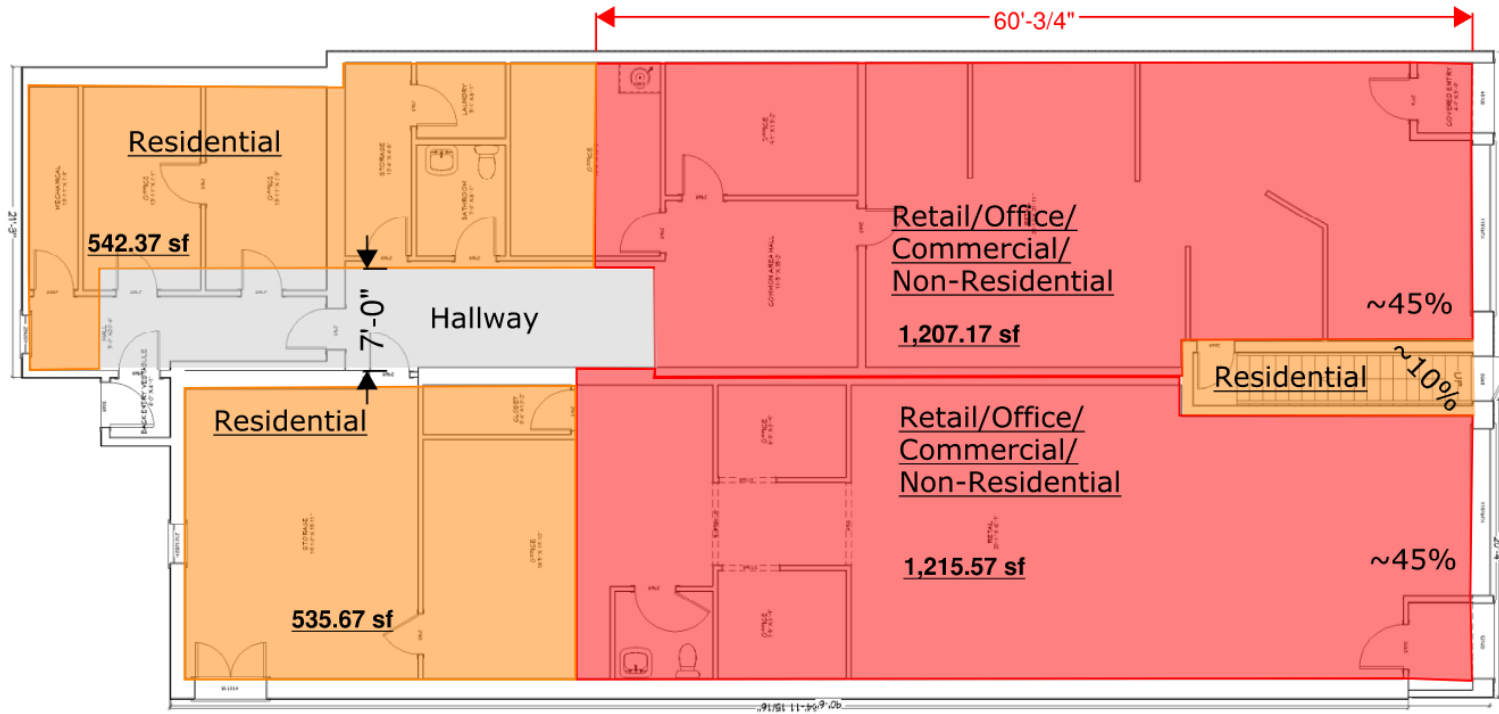
Ratio diagram using 204 Central Ave, a larger building, as-built drawings (~44 ft wide building)

In initial conversations with Planning Commission and City Council, maintaining a commercial front to the buildings along Central Avenue is desirable and the ratio above accomplishes that. However, a ratio for the façade isn't enough. To establish a safeguard against creating unusable non-residential spaces, staff recommends establishing a minimum size for non-residential uses along Central Avenue. Using data from the background section of this report, staff recommends utilizing a combination of a minimum 75% of the façade be used for non-residential uses and a minimum of 1,200 sq ft and 30-foot deep space.

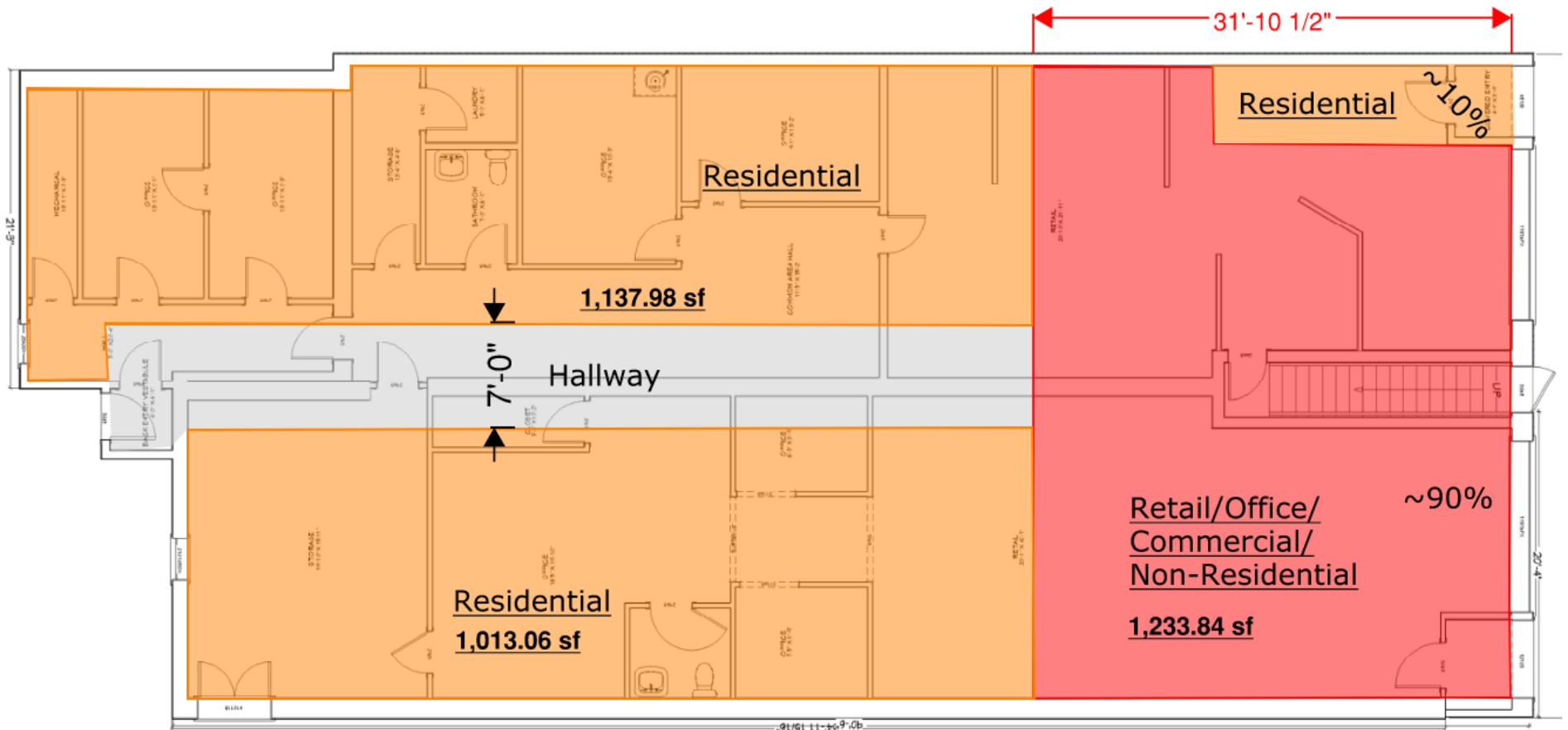
For apartments on the ground floor in these buildings, staff recommends allowing them only in rear parts of the building, with the exception of access hallways and stairways as noted above. There are a few options on how this setup looks:



Ratio diagram using 206 Central Avenue as-built drawings (~22 ft wide building)



Ratio diagram using 204 Central Ave, a larger building, as-built drawings (~44 ft wide building)



Ratio diagram using 204 Central Ave, a larger building, as-built drawings (~44 ft wide building)

It's critical to remember that not very long ago, the idea that someone lived behind a business along a main street wasn't a strange concept. Many historic buildings in downtowns and on main streets were live-work structures with a business owner conducting business out of the front or ground floor of their building and living on the back or upstairs. The rise of zoning in the early 1920s started to remove many of these layouts by making them illegal or nonconforming. We know more now than we did in 1920, and the issues we were concerned with back then are not issues anymore.

Another reason to allow apartments on the ground floor is for ADA accessibility and "live in place" concepts. For those with chronic conditions impairing mobility or aging out of their second-floor apartment, having a ground-floor unit within the same building or attached to a business they own can dramatically impact quality of life.

- *Partial Restriction of Uses Along Façade for Approximately One Block Adjacent to Central Avenue*

For facades along a street that crosses Central Avenue *and* on the same block that touches Central Avenue, façade requirements can go a few different directions:

- *No restrictions*

This assumes a stance that preserving commercial and non-residential uses on Central Avenue is paramount and other street facades are free to shift uses along with market forces.

- *Continued restrictions from facades along Central Ave*

This assumes a stance that facades that connect or lead to facades on Central Avenue are just as important in design and use as those on Central Avenue.

- *Reduction of façade ratios and space size/depth*

Some potential ideas include:

- Reduction of ratios to a minimum 75% of the façade be used for non-residential uses and a minimum of 900 sq ft and 30-foot deep space
- Reduction of ratios to a minimum 75% of the façade be used for non-residential uses and 30-foot deep space
- Reduction of ratios to a minimum 50% of the façade be used for non-residential uses and 30-foot deep space

There are benefits and drawbacks to each of the approaches, which the Planning Commission should discuss using the diagrams above.

- *Minor Restriction of Uses for All Other Street Facades*

For facades along any other street, façade requirements can go a few different directions:

- *No restrictions*

This assumes a stance that preserving commercial and non-residential uses on Central Avenue is paramount and other street facades are free to shift uses along with market forces.

- *Reduction of façade ratios and space size/depth*

Some potential ideas include:

- Reduction of ratios to a minimum 75% of the façade be used for non-residential uses and a minimum of 900 sq ft and 30-foot deep space
- Reduction of ratios to a minimum 75% of the façade be used for non-residential uses and 30-foot deep space
- Reduction of ratios to a minimum 50% of the façade be used for non-residential uses and 30-foot deep space

- *No restrictions on uses, some restrictions on space sizes*

This option would not require spaces along street facades be reserved for non-residential uses, but it would require construction of those spaces to be flexible, meaning possible conversion from residential to non-residential. This concept is called 'adaptive reuse' and has roots in converting offices or commercial spaces into housing. Developers are taking the concept and applying it to new construction, where a space might be used in the near term for one use, but is constructed for easy (or easier) remodeling in the future for a different use.

How this would work is that the front space could be required to be a minimum 900 sq ft or 1,200 sq ft space that can be converted from office or retail to residential and vice versa.

Again, there are benefits and drawbacks to each of the approaches, which the Planning Commission should discuss using the diagrams above.

Recommendation:

The City Planner requests the Planning Commission discuss the above information and options and provide staff with direction and answer the following questions:

1. What additional information would be helpful to know prior to staff creating draft ordinance language?
2. Should the city begin a public engagement campaign to ask for input? Is there a particular group of stakeholders?
3. Would Commissioners want to engage the Heritage Planning Commission for feedback and ideas?

Attachments:

- List of Resources Used in this Report
- Building Code Sections on Habitable Space and Tiny Homes

Apartment Size and Trends Resources

ExtraSpace Storage Resource Blog:

<https://www.extraspace.com/blog/moving/buying-selling-renting/apartment-size-guide-how-many-square-feet-do-you-need/>

ExtraSpace Storage operates self-storage facilities.

Flexible Finance (flex.) Education Blog: <https://getflex.com/blog/average-apartment-size/>

flex. is a rent payment platform for renters and property managers.

RentCafe Blog: <https://www.rentcafe.com/blog/rental-market/average-apartment-size-in-the-us-by-state/>

RentCafe uses market intelligence sources ranging from Yardi Matrix, Census data, Labor statistics, HUD, and other sources to write monthly apartment market reports. Their data and analysis is featured in everything from the NY Times and Architectural Digest to Business Insider.

(Note: Yardi Matrix is a business development and asset management tool for brokers, sponsors, banks and equity sources underwriting investments in the multifamily, office, industrial and self-storage sectors)

Commercial Space Sizes Resources

BusinessLink:

<https://businesslink.ca/leasing-right-size-and-shape-commercial-space/>

Linear Retail:

<https://linearretail.com/how-much-reail-space-should-l-lease/>

Yarooms:

<https://www.yarooms.com/blog/average-office-size-how-much-office-space-do-you-need#:~:text=US%20standards%20suggest%20a%20range,per%20person%20for%20meeting%20rooms>

Adaptive Reuse Resources

https://assets.ctfassets.net/z78475or6i3d/6ZYLFdxJyrl4ICG1HkZodn/47373a3c14c7865b95afa4a6826f8d52/Adaptive_Reuse_Urban_Reprograming_Omgivning_1.pdf

Chad Fisher Construction

<https://www.cfisherconstruction.com/what-is-the-difference-between-adaptive-reuse-and-mixed-use-construction/>

SECTION R303

LIGHT, VENTILATION AND HEATING

R303.1 Habitable rooms.

Habitable rooms shall have an aggregate glazing area of not less than 8 percent of the floor area of such rooms. Natural *ventilation* shall be through windows, skylights, doors, louvers or other *approved* openings to the outdoor air. Such openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants. The openable area to the outdoors shall be not less than 4 percent of the floor area being ventilated.

Exceptions:

1. The glazed areas need not be openable where the opening is not required by Section R310 and a whole-house mechanical *ventilation* system is installed in accordance with Section M1505.
2. The glazed areas need not be installed in rooms where Exception 1 is satisfied and artificial light is provided that is capable of producing an average illumination of 6 footcandles (65 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level.
3. Use of sunroom and patio covers, as defined in Section R202, shall be permitted for natural *ventilation* if in excess of 40 percent of the exterior sunroom walls are open, or are enclosed only by insect screening.

R303.2 Adjoining rooms.

For the purpose of determining light and *ventilation* requirements, rooms shall be considered to be a portion of an adjoining room where not less than one-half of the area of the common wall is open and unobstructed and provides an opening of not less than one-tenth of the floor area of the interior room and not less than 25 square feet (2.3 m²).

Exception: Openings required for light or *ventilation* shall be permitted to open into a sunroom with thermal isolation or a patio cover, provided that there is an openable area between the adjoining room and the sunroom or patio cover of not less than one-tenth of the floor area of the interior room and not less than 20 square feet (2 m²). The minimum openable area to the outdoors shall be based on the total floor area being ventilated.

R303.3 Bathrooms.

Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet (0.3 m²), one-half of which shall be openable.

Exception: The glazed areas shall not be required where artificial light and a local exhaust system are provided. The minimum local exhaust rates shall be determined in accordance with Section M1505. Exhaust air from the space shall be exhausted directly to the outdoors.

R303.4 Mechanical ventilation.

P

Mechanical ventilation of a dwelling unit shall comply with either Minnesota Rules, Chapter 1322 or 1346 – MN Energy Codes.

R303.5 Opening location.

Outdoor intake and exhaust openings shall be located in accordance with Sections R303.5.1 and R303.5.2.

R303.5.1 Intake openings.

Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet (3048 mm) from any hazardous or noxious contaminant, such as vents, chimneys, plumbing vents, streets, alleys, parking lots and loading docks.

For the purpose of this section, the exhaust from *dwelling* unit toilet rooms, bathrooms and kitchens shall not be considered as hazardous or noxious.

Exceptions:

1. The 10-foot (3048 mm) separation is not required where the intake opening is located 3 feet (914 mm) or greater below the contaminant source.
2. Vents and chimneys serving fuel-burning appliances shall be terminated in accordance with the applicable provisions of Chapters 18 and 24.
3. Clothes dryer exhaust ducts shall be terminated in accordance with Section M1502.3.

R303.5.2 Exhaust openings.

Exhaust air shall not be directed onto walkways.

R303.6 Outside opening protection.

Air exhaust and intake openings that terminate outdoors shall be protected with corrosion-resistant screens, louvers or grilles having an opening size of not less than 1/4 inch (6 mm) and a maximum opening size of 1/2 inch (13 mm), in any dimension. Openings shall be protected against local weather conditions. Outdoor air exhaust and intake openings shall meet the provisions for *exterior wall* opening protectives in accordance with this code.

SECTION R304

MINIMUM ROOM AREAS

R304.1 Minimum area.

Habitable rooms shall have a floor area of not less than 70 square feet (6.5 m²).

Exception: Kitchens.

R304.2 Minimum dimensions.

Habitable rooms shall be not less than 7 feet (2134 mm) in any horizontal dimension.

Exception: Kitchens.

R304.3 Height effect on room area.

Portions of a room with a sloping ceiling measuring less than 5 feet (1524 mm) or a furred ceiling measuring less than 7 feet (2134 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required habitable area for that room.

SECTION R305

CEILING HEIGHT

R305.1 Minimum height, new buildings.

Habitable space, hallways, bathrooms, toilet rooms, laundry rooms, and portions of basements containing these spaces shall have a ceiling height of not less than 7 feet (2134 mm). The required height shall be measured from the finish floor to the lowest projection from the ceiling.

Exceptions:

1. For rooms with sloped ceilings, at least 50 percent of the required floor area of the room shall have a ceiling height of at least 7 feet (2134 mm) and no portion of the required floor area may have a ceiling height of less than 5 feet (1524 mm).
2. Bathrooms shall have a minimum ceiling height of 6 feet 8 inches (2032 mm) at the center of the front clearance area for water closets, bidets, or sinks. The ceiling height above fixtures shall be such that the fixture is capable of being used for its intended purpose. A shower or tub equipped with a showerhead shall have a minimum ceiling height of 6 feet 8 inches (2032 mm) above a minimum area 30 inches (762 mm) by 30 inches (762 mm) at the showerhead.

R305.1.1 Basements, new buildings.

Portions of basements that do not contain habitable space, hallways, bathrooms, toilet rooms, and laundry rooms shall have a ceiling height of not less than 6 feet 8 inches (2032 mm).

Exception: Beams, girders, ducts, or other obstructions may project to within 6 feet 4 inches (1931 mm) of the finished floor.

R305.2 Alterations to existing building basements.

Alterations to portions of existing basements shall comply with the provisions of this section.

R305.2.1 Minimum ceiling height, existing buildings.

Alterations to existing basements or portions thereof shall have a ceiling height of not less than 6 feet 4 inches (1931 mm), including beams, girders, ducts, or other obstructions.

R305.2.1.1 Bathroom plumbing fixture clearance.

Bathrooms shall have a minimum ceiling height of 6 feet 4 inches (1931 mm) at the center of the front clearance area for water closets, bidets, or sinks. A shower or tub equipped with a showerhead shall have a minimum ceiling height of 6 feet 4 inches (1931 mm) above a minimum area 30 inches (762 mm) by 30 inches (762 mm) at the wall where the showerhead is placed. The ceiling may have slopes or soffits that do not infringe on the height required for the plumbing fixture.

R305.2.2 Minimum stairway headroom, existing buildings.

Alterations to existing basement stairways shall have a minimum headroom in all parts of the stairway not less than 6 feet 4 inches (1931 mm) measured vertically from the sloped line adjoining the tread nosing or from the floor surface of the landing or platform on that portion of the stairway.

Exception: Where the nosings of treads at the side of a flight extend under the edge of a floor opening through which the stair passes, the floor opening shall be allowed to project horizontally into the required headroom a maximum of 4³/₄ inches (121 mm).

SECTION R306

SANITATION

R306.1 Toilet facilities.

Every *dwelling* unit shall be provided with a water closet, lavatory, and a bathtub or shower.

R306.2 Kitchen.

Each *dwelling* unit shall be provided with a kitchen area and every kitchen area shall be provided with a sink.

R306.3 Sewage disposal.

Plumbing fixtures shall be connected to a sanitary sewer or to an *approved* private sewage disposal system.

R306.4 Water supply to fixtures.

Plumbing fixtures shall be connected to an *approved* water supply. Kitchen sinks, lavatories, bathtubs, showers, bidets, laundry tubs and washing machine outlets shall be provided with hot and cold water.

SECTION R307

TOILET, BATH AND SHOWER SPACES

R307.1 Space required.

Plumbing fixtures shall be installed in accordance with Minnesota Rules, Chapter 4714, Minnesota Plumbing Code.

R307.2 Bathtub and shower spaces.

Bathtub and shower floors and walls above bathtubs with installed shower heads and in shower compartments shall be finished with a nonabsorbent surface. Such wall surfaces shall extend to a height of not less than 6 feet (1829 mm) above the floor.

SECTION R308

GLAZING

R308.1 Identification.

Except as indicated in Section R308.1.1 each pane of glazing installed in hazardous locations as defined in Section R308.4 shall be provided with a manufacturer's designation specifying who applied the designation, the type of glass and the safety glazing standard with which it complies, and that is visible in the final installation. The designation shall be acid etched, sandblasted, ceramic-fired, laser etched, embossed, or be of a type that once applied cannot be removed without being destroyed. A *label* shall be permitted in lieu of the manufacturer's designation.

Exceptions:

1. For other than tempered glass, manufacturer's designations are not required provided that the *building official* approves the use of a certificate, affidavit or other evidence confirming compliance with this code.
2. Tempered spandrel glass is permitted to be identified by the manufacturer with a removable paper designation.

R308.1.1 Identification of multiple assemblies.

Multi-pane assemblies having individual panes not exceeding 1 square foot (0.09 m²) in exposed area shall have not less than one pane in the assembly identified in accordance with Section R308.1. Other panes in the assembly shall be *labeled* "CPSC 16 CFR 1201" or "ANSI Z97.1" as appropriate.

R308.2 Louvered windows or жалousies.

Regular, float, wired or patterned glass in жалousies and louvered windows shall be not less than nominal $\frac{3}{16}$ inch (5 mm) thick and not more than 48 inches (1219 mm) in length. Exposed glass edges shall be smooth.

R308.2.1 Wired glass prohibited.

Wired glass with wire exposed on longitudinal edges shall not be used in жалousies or louvered windows.

R308.3 Human impact loads.

Individual glazed areas, including glass mirrors in hazardous locations such as those indicated as defined in Section R308.4, shall pass the test requirements of Section R308.3.1.

Exceptions:

1. 1.Louvered windows and jalousies shall comply with Section R308.2.
2. 2.Mirrors and other glass panels mounted or hung on a surface that provides a continuous backing support.
3. 3.Glass unit masonry complying with Section R607.

R308.3.1 Impact test.

Where required by other sections of the code, glazing shall be tested in accordance with CPSC 16 CFR 1201. Glazing shall comply with the test criteria for Category II unless otherwise indicated in Table R308.3.1(1).

Exception: Glazing not in doors or enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers shall be permitted to be tested in accordance with ANSI Z97.1. Glazing shall comply with the test criteria for Class A unless otherwise indicated in Table R308.3.1(2).

SECTION R310 EMERGENCY ESCAPE AND RESCUE OPENINGS

P

Premium Code Insights :

Minnesota Sonar

R310.1 Emergency escape and rescue opening required.

P

Basements, habitable attics, and every sleeping room shall have not less than one operable emergency escape and rescue opening. Where *basements* contain one or more sleeping rooms, an emergency egress and rescue opening shall be required in each sleeping room, but not be required in adjoining areas of the basement. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court that opens to a public way.

Exceptions:

1. 1.Storm shelters and *basements* used only to house mechanical *equipment* not exceeding a total floor area of 200 square feet (18.58 m²).
2. 2.Basements or basement bedrooms when the building is protected with an automatic sprinkler system installed in accordance with IRC Section P2904 or NFPA 13D.
3. 3.Basements or basement bedrooms where the entire basement area, including all portions of the means of egress to the level of exit discharge, and all areas on the level of exit discharge that are open to the means of egress is protected with an automatic sprinkler system in accordance with IRC Section P2904 or NFPA 13D.

Premium Code Insights :

Minnesota Sonar

R310.1.1 Operational constraints and opening control devices.

P

Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys, tools or special knowledge. Window opening control devices on windows serving as a required emergency escape and rescue opening shall comply with ASTM F2090.

Premium Code Insights :

R310.2 Emergency escape and rescue openings.

P

Emergency escape and rescue openings shall have minimum dimensions as specified in this section.

Premium Code Insights :

R310.2.1 Minimum opening area.

Emergency and escape rescue openings shall have a net clear opening of not less than 5.7 square feet (0.530 m²). The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. The net clear height of the opening shall be not less than 24 inches (610 mm) and the net clear width shall be not less than 20 inches (508 mm).

Exception: *Grade floor openings* or *below-grade openings* shall have a net clear opening area of not less than 5 square feet (0.465 m²).

R310.2.2 Window sill height.

Where a window is provided as the emergency escape and rescue opening, it shall have a sill height of not more than 44 inches (1118 mm) above the floor; where the sill height is below *grade*, it shall be provided with a window well in accordance with Section R310.2.3.

R310.2.3 Window wells.

The horizontal area of the window well shall be not less than 9 square feet (0.9 m²), with a horizontal projection and width of not less than 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

Exception: The ladder or steps required by Section R310.2.3.1 shall be permitted to encroach not more than 6 inches (152 mm) into the required dimensions of the window well.

R310.2.3.1 Ladder and steps.

Window wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or steps required by this section shall not be required to comply with Section R311.7. Ladders or rungs shall have an inside width of not less than 12 inches (305 mm), shall project not less than 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center vertically for the full height of the window well.

R310.2.3.2 Drainage.

Window wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section R405.1 or by an approved alternative method.

Exception: A drainage system for window wells is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group I Soils, as detailed in Table R405.1.

R310.2.4 Emergency escape and rescue openings under decks and porches.

Emergency escape and rescue openings installed under decks and porches shall be fully openable and provide a path not less than 36 inches (914 mm) in height to a *yard* or court.

R310.2.5 Replacement windows.

Replacement windows installed in buildings meeting the scope of this code shall be exempt from the maximum sill height requirements of Section R310.2.2 and the requirements of Section R310.2.1, provided that the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window is of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. The replacement window is not part of a change of occupancy.

R310.2.5.1 Licensed facilities.

P

Windows in rooms used for foster care or day care licensed or registered by the state of Minnesota shall comply with the provisions of Section R310.2.5, or all of the following conditions, whichever is more restrictive:

1. Minimum of 20 inches (508 mm) in clear opening width;
2. Minimum of 20 inches (508 mm) in clear opening height;
3. Minimum of 648 square inches (4.5 square feet) clear opening; and
4. Maximum of 48 inches (1219 mm) from the floor to the sill height.

Premium Code Insights :

Minnesota Sonar

R310.3 Emergency escape and rescue doors.

Where a door is provided as the required emergency escape and rescue opening, it shall be a side-hinged door or a slider. Where the opening is below the adjacent grade, it shall be provided with an area well.

R310.3.1 Minimum door opening size.

The minimum net clear height opening for any door that serves as an emergency and escape rescue opening shall be in accordance with Section R310.2.1.

APPENDIX Q TINY HOUSES

This provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

User note:

About this appendix: Appendix Q relaxes various requirements in the body of the code as they apply to houses that are 400 square feet in area or less. Attention is specifically paid to features such as compact stairs, including stair handrails and headroom, ladders, reduced ceiling heights in lofts and guard and emergency escape and rescue opening requirements at lofts.

SECTION AQ101

GENERAL

AQ101.1 Scope.

This appendix shall be applicable to *tiny houses* used as single *dwelling units*. *Tiny houses* shall comply with this code except as otherwise stated in this appendix.

SECTION AQ102

DEFINITIONS

AQ102.1 General.

The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

EGRESS ROOF ACCESS WINDOW. A *skylight* or roof window designed and installed to satisfy the emergency escape and rescue opening requirements of Section R310.2.

LANDING PLATFORM. A landing provided as the top step of a stairway accessing a *loft*.

LOFT. A floor level located more than 30 inches (762 mm) above the main floor, open to the main floor on one or more sides with a ceiling height of less than 6 feet 8 inches (2032 mm) and used as a living or sleeping space.

TINY HOUSE. A *dwelling* that is 400 square feet (37 m²) or less in floor area excluding *lofts*.

SECTION AQ103

CEILING HEIGHT

AQ103.1 Minimum ceiling height.

Habitable space and hallways in *tiny houses* shall have a ceiling height of not less than 6 feet 8 inches (2032 mm). Bathrooms, toilet rooms and kitchens shall have a ceiling height of not less than 6 feet 4 inches (1930 mm). Obstructions including, but not limited to, beams, girders, ducts and lighting, shall not extend below these minimum ceiling heights.

Exception: Ceiling heights in *lofts* are permitted to be less than 6 feet 8 inches (2032 mm).

SECTION AQ104

LOFTS

AQ104.1 Minimum loft area and dimensions.

Lofts used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections AQ104.1.1 through AQ104.1.3.

AQ104.1.1 Minimum area.

Lofts shall have a floor area of not less than 35 square feet (3.25 m²).

AQ104.1.2 Minimum dimensions.

Lofts shall be not less than 5 feet (1524 mm) in any horizontal dimension.

AQ104.1.3 Height effect on loft area.

Portions of a *loft* with a sloped ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

Exception: Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50-percent slope), portions of a *loft* with a sloped ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the *loft*.

AQ104.2 Loft access.

The access to and primary egress from *lofts* shall be of any type described in Sections AQ104.2.1 through AQ104.2.4.

AQ104.2.1 Stairways.

Stairways accessing *lofts* shall comply with this code or with Sections AQ104.2.1.1 through AQ104.2.1.5.

AQ104.2.1.1 Width.

Stairways accessing a *loft* shall not be less than 17 inches (432 mm) in clear width at or above the handrail. The width below the handrail shall be not less than 20 inches (508 mm).

AQ104.2.1.2 Headroom.

The headroom in stairways accessing a *loft* shall be not less than 6 feet 2 inches (1880 mm), as measured vertically, from a sloped line connecting the tread or landing platform nosings in the middle of their width.

AQ104.2.1.3 Treads and risers.

Risers for stairs accessing a *loft* shall be not less than 7 inches (178 mm) and not more than 12 inches (305 mm) in height. Tread depth and riser height shall be calculated in accordance with one of the following formulas:

1. The tread depth shall be 20 inches (508 mm) minus four-thirds of the riser height.
2. The riser height shall be 15 inches (381 mm) minus three-fourths of the tread depth.

AQ104.2.1.4 Landing platforms.

The top tread and riser of stairways accessing *lofts* shall be constructed as a *landing platform* where the *loft* ceiling height is less than 6 feet 2 inches (1880 mm) where the stairway meets the *loft*. The *landing platform* shall be 18 inches to 22 inches (457 to 559 mm) in depth measured from the nosing of the landing platform to the edge of the *loft*, and 16 to 18 inches (406 to 457 mm) in height measured from the *landing platform* to the *loft* floor.

AQ104.2.1.5 Handrails.

Handrails shall comply with Section R311.7.8.

AQ104.2.1.6 Stairway guards.

Guards at open sides of stairways shall comply with Section R312.1.

AQ104.2.2 Ladders.

Ladders accessing *lofts* shall comply with Sections AQ104.2.1 and AQ104.2.2.

AQ104.2.2.1 Size and capacity.

Ladders accessing *lofts* shall have a rung width of not less than 12 inches (305 mm), and 10-inch (254 mm) to 14-inch (356 mm) spacing between rungs. Ladders shall be capable of supporting a 200-pound (75 kg) load on any rung. Rung spacing shall be uniform within $\frac{3}{8}$ inch (9.5 mm).

AQ104.2.2.2 Incline.

Ladders shall be installed at 70 to 80 degrees from horizontal.

AQ104.2.3 Alternating tread devices.

Alternating tread devices accessing *lofts* shall comply with Sections R311.7.11.1 and R311.7.11.2. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

AQ104.2.4 Ships ladders.

Ships ladders accessing *lofts* shall comply with Sections R311.7.12.1 and R311.7.12.2. The clear width at and below handrails shall be not less than 20 inches (508 mm).

AQ104.2.5 Loft Guards.

Loft guards shall be located along the open side of *lofts*. *Loft* guards shall be not less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less.

SECTION AQ105

EMERGENCY ESCAPE AND RESCUE OPENINGS

AQ105.1 General.

Tiny houses shall meet the requirements of Section R310 for emergency escape and rescue openings.

Exception: *Egress roof access windows* in *lofts* used as sleeping rooms shall be deemed to meet the requirements of Section R310 where installed such that the bottom of the opening is not more than 44 inches (1118 mm) above the *loft* floor, provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1.