



**CHARGE
at HOME**

Charge at Home

Multifamily EV charging resources by Forth

www.chargeathome.org



Charge at Home

Forth's multifamily EV charging program



Charge at Home provides multifamily EV charging guidance, tools & support to decision makers, local governments and incentive providers.

- Multifamily EV charging project consultations and technical assistance
- Market-segmented multifamily EV installation toolkits
- Multifamily EV charging project builder tool
- Educational one-pagers
- MFH EV charging project case studies
- A comprehensive glossary of terms
- Resident empowerment resources

www.chargeathome.org

All resources above are hyperlinked





Accessible Electric Vehicle Charging at Multifamily Properties

Alan Hejl
Spark Access
Founder & Lead Consultant



Agenda

- Welcome & Introduction
- Disability Fundamentals
- Standards Salad: ADA, ABA, PROWAG, and more...
- Key Elements of Accessible EV Charging
- Common Conflicts and Challenges for MFH Scenarios
- Resources for Assistance
- Q&A



About Spark Access: Built on Lived Experience



ALAN HEJL

Disability Advocacy & Lived Experience

Self: Chronic Nerve Pain, ADHD, Running Injuries

Partner: SCI & Manual Wheelchair User

Accessibility Expertise



Spark Access is a Disability Owned Business Enterprise (DOBE)



CPACC, International Assoc. of Accessibility Professionals (IAAP)



UofM Disability Inclusion and Accessible Design Certificate



ADACC, ADA Coordinator Certification, Great Plain ADA Center

Industry Experience



Spark Access Founder, Accessibility Consultant



Built Accessibility Center of Excellence @ General Motors



5G/V2X Autonomous & Connected Vehicles @ Ford Motor Company

Government & Civic Volunteer



Detroit Disability Power



Michigan Disability Rights Coalition



FERNDALE

Ferndale Accessibility & Inclusion Advisory Commission

Industry Membership and Affiliations



International Association of Accessibility Professionals





Spark Access Mission:

Be a catalyst for accessibility and disability inclusion in the mobility industry to build a more inclusive future and sense of belonging for people with disabilities.





Disability Fundamentals

Disability Vocabulary

Disability: “Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which *in interaction with various barriers* may hinder their full and effective participation in society on an equal basis with others.” – United Nations, CRPD

Accessibility: “The term “accessibility” means the design, construction, development, and maintenance of facilities, information and communication technology, programs, and services so that all people, including people with disabilities, can fully and independently use them.” – POTUS, DEIA Announcement 2021

Say This ✓	Not This X
people with disabilities or disabled person	“differently abled”, “handicapped”, “special needs”
wheelchair user	“wheelchair bound”
accessible parking	handicapped parking
has a disability	“suffers from...”



People with Disabilities (PwD) are a Significant Underserved Community

- **28.7% of the US Population (CDC)**
 - 63+ million PwD
- **17% of the Global Population (WHO)**
 - 1.3+ Billion PwD
- **Aging Population Doubling**
 - Age 60+ ; **12% in 2020** to **22% of 2050 (WHO)**
- **+5.6% Annual Temporary Disabilities in US**

Disability comes in many forms:



Physical / Mobility



D/deaf & Hard of Hearing



Blind & Low Vision



Cognitive and Emotional Disabilities



Speech Disabilities

Accessible Housing (ERC)

- **5% or less of Housing is Accessible**
- **1% or less is barrier-free**
- **Fair Housing Act (FHA) only applies to 4+ multifamily properties**





Standards Salad

(ADA, ABA, FHA, IBC, and More....)

Disability in Policy: Federal to Local

Americans with Disabilities Act (ADA) = **Civil Rights**

Federal Policies & Technical Standards

Architecture Barriers Act (ABA)

Fair Housing Act

Rehabilitation Act of 1973 (504/508)

Digital Accessibility (WCAG 2.1 AA)

State Policies

Housing

DOT/Energy

ICC/IBC Building Code

Local Policies

ADA Transition Plans

Zoning & Ordinances



EV Charging Types That Accessibility Requirements Apply To:

- Public EV Charging
- Fleet EV Charging
- **Multifamily Home EV Charging**
- Curbside Charging
- Workplace Charging
- 💰 Charging Installations receiving Federal, State, or Local Government Funds (CFI, NEVI, etc)



Fair Housing Act

- **Fair Housing Act (FHA) of 1968**
 - Fair Housing Amendment Act in 1988 added Disability as a protected class
 - Fair Housing Design Manual published in 1998
- **Key Elements for EV Charging:**
 - Requirement 2: “Accessible Common and Public Use Areas”
 - 2% of any parking types (Covered & Uncovered)
 - Applies to any unique parking format, such as EV Charging
 - **Reasonable Accommodations**



International Building Code

- 2021 Updates include Accessibility in EV Charging (1107):
 - At least **5% of EV Charging Spaces** in a site must be **accessible**, and **not fewer than one**
 - Accessible vehicle spaces must be van accessible, requiring a **minimum width of 132"** and an adjoining access aisle that is a **minimum of 60" wide**
 - EV Charging must meet accessibility requirements similar to those for **"fuel dispensing systems"**



INTERNATIONAL
CODE
COUNCIL®

Local and State Policies

ZONE FERDALE

ARTICLE 7
PARKING, ACCESS, AND MOBILITY
CITY OF FERDALE, MI 48033 CODE

95

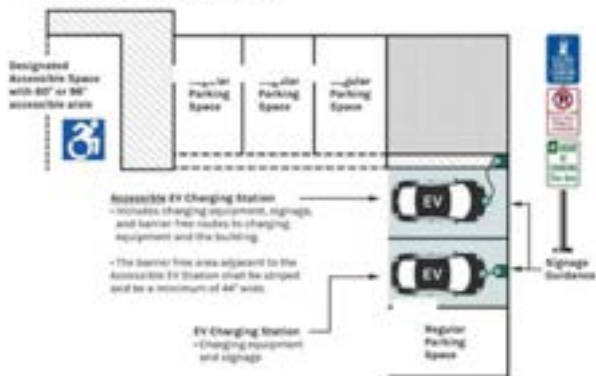
Section 7.06 Barrier Free Electric Vehicle Parking

A. **Required Parking Spaces.** Where EVSE is provided in parking lots or parking garages (excluding one- and two-unit dwellings), barrier free EV charging stations must be provided as follows:

Number of EVSE Parking Spaces	Minimum Accessible EV Charging Stations
1-25	1
26-50	2
51-100	3
101 and up	4%

B. **Design.** Accessible electric vehicle charging stations must meet the recommendations and regulations outlined in the [United States Access Board Technical Assistance Document: Electric Vehicles](#).

C. **Location of Parking Spaces.** Accessible EVSE should be located in close proximity to the building or facility entrance and must be connected to a barrier-free accessible route of travel. It is not necessary to designate the accessible electric vehicle charging station exclusively for the use of disabled persons. See option below for providing accessible EVSE.



Second Regular Session / 79th General Assembly
Colorado General Assembly

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HB24-1161

Motor Vehicle Access Individuals with Disabilities

TYPE [Bill](#)

SESSION [2024 Regular Session](#)

SUBJECTS [Transportation & Motor Vehicle](#)

Concerning basic access for individuals with disabilities using motor vehicles.

[Access Bill \(PDF\)](#) [Access Fiscal Note \(PDF\)](#)

BILL SUMMARY:

The act requires a car sharing program operating in the state, on and after January 1, 2025, to indicate a car's accessibility modifications for each shared car available through the program. A car sharing program that makes a reasonable effort to obtain accurate information from the shared car owner regarding any modification for accessibility is not liable for incorrect or false information provided by the shared car owner.

The energy code board must include in its model low energy and carbon code accessibility requirements related to electric vehicle that consider design recommendations from the United States access board (access board) and any applicable federal regulations.

For an electric vehicle charging station constructed or replaced on and after January 1, 2025, the act specifies that no fewer than 75% of any vehicle charging space should incorporate the standards from the access board until applicable regulations are issued by the federal department of justice or the federal department of transportation.

The act clarifies that an individual that, not least, reasonable access to internet parking, curb ramps, scenic views, or accessible routes by any means. A peace officer or parking enforcement officer is required to investigate a complaint that accessible parking has been located within a reasonable time.

APPROVED by Governor June 1, 2024

EFFECTIVE June 1, 2024

(Note: This summary applies to this bill as enacted.)

Prime Sponsors



Representative
David Ortiz



Senator
Nick Hinrichsen

Committees

House

[Transportation, Housing & Local Government](#)

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Senate

[Transportation & Energy](#)



Key Elements of Accessible Charging

Disability & EV Charging

- Electric Vehicles provide **independence** and **liberation** of fossil-fuel powered vehicle infrastructure
- Focus on “**how will people with disabilities use this?**”
- Use standards as a **Minimum Framework**



US Access Board EV Charging Summary

Key Elements	US Access Board EVCS Technical Guidelines	ADA Standards for Accessible Design	Other Standards
Accessible Mobility Features			
Accessible Route	Proximity to station and host site amenities Slope < 1:20 36" x 48" (91.4 x 122cm) Minimum dimension paths with 60" (152.4cm) turn radius	(§402)	ICC ABA
Barrier Free Approach	30" x 48" (76.2 x 122cm) forward or side approach	(§302)(§305)	ICC ABA
Operable Parts	5lbs of force 15-48" (38.1 - 122cm) Unobstructed Reach (Max 10"/ 25.4cm obstruction)	(§308)(§309)	ICC ABA
Access Aisle and Accessible Parking Density	60" (152.4cm) grid aisle 11'x20' (3.4 x 6m) van accessible space At least 5% of EVCS parking with "use last" signage	(§502)(§703)	ICC ABA
Accessible Communication Features			
Signage, User Interface, & Payment	Discernable tactile interactions Audible and visual indicators Time allowance Visible screen from 40" w/sans serif font & adjustable text size		Section 508
Web & App Interface	Web/Android/iOS accessibility		Section 508 WCAG 2.1
Customer Service	Call centers must be TTY/RTT (text) Compatible		Section 508

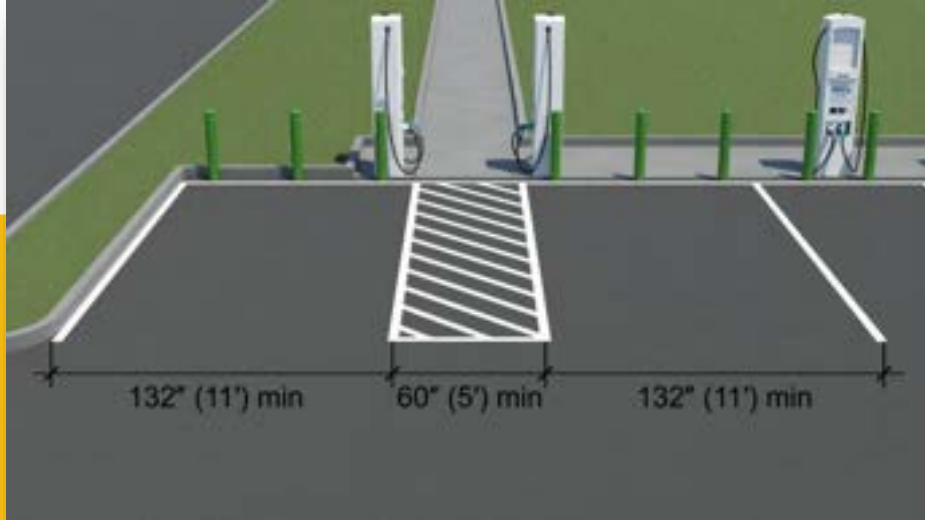
Accessible Spaces & Accessible Routes

- **Accessible EV Parking**

- 11 ft Wide x 20 ft Long
- Adjacent to a 60" Access Aisle

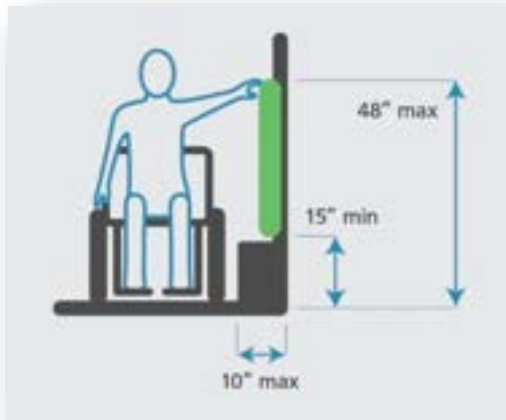
- **Accessible Routes**

- Shortest path of travel of at least 36" width to entrance
- Minimum Slope of 1:20

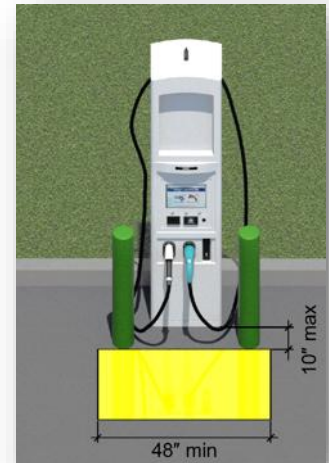


Operable Parts & “Clear Floor or Ground Area”

- Unobstructed Reach
 - 15”-48” range
 - 10” max inset



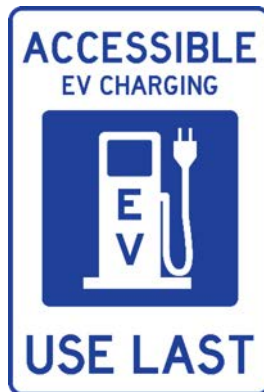
- Clear Floor Ground Area
 - 36" x 48" minimum area
 - 10" max inset



EV Charging Accessibility Signage

- EV Signage Goal: Provide helpful reminders, and remove conflict of “blue line” accessible **VS** “green line” EV spaces
- “Use Last” signage preferred

Note: Avoid using the International Symbol of Accessibility (ISA) unless the space is dedicated for accessibility and state licensed use of a plate or placard and not exclusive to EV charging





Common Conflicts in MFH Charging

Common Conflicts

1. Parking Garages
2. Accessible Routes
3. Multiple EV Charger sites at a property
4. Digital Accessibility
5. Retrofits of Existing Properties
6. Accommodation Requests and Assigned Parking





Strategy & Resources for Assistance

How to Make an Accessibility Impact



Caption: April 2023, EVgo and General Motors hosting a demonstration in Los Angeles with United Spinal, Rancho Los Amigos Rehab Hospital, and Los Angeles Department of Disability

Local Community Engagement

- **Resident Advocacy**
- **Center for Independent Living (CIL)**
 - <https://ncil.org/about/find-your-cil-list/>
- **City ADA Coordinator**
- **City or State Office or Commission of Disability**
- **Local Disability-Centered CBO's (Community Based Organization)**



City of Detroit, Office of Disability Affairs hosting Disability Pride Month in July 2025



Thank You!

Q&A

US Access Board Technical Assistance
ta@access-board.gov

Fair Housing Accessibility First
FairHousingFirst@hud.gov

Connect with Spark Access for accessibility training, program policies, or technical advisory:



alan@sparkaccess.io



231.360.3291



[Spark Access](#)



[Sparkaccess.io](#)



Detroit, Michigan, USA

 **FORTH ROADMAP**
CONFERENCE

JOIN US

At The Nation's Premier Electric
Transportation Conference

September 13-15, 2026
Seattle, WA

roadmapforth.org



Register at: www.roadmapforth.org

Questions about Charge at Home?

Contact us at info@chargeathome.org

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www.chargeathome.org





Link References

- Fair Housing Design Manual
- US Access Board Design Recommendations for EV Charging
- LinkedIn for Alan:
 - <https://www.linkedin.com/in/alanhejl>