#### AGENDA

### UNIFORM BUILDING CODE COMMISSION ELECTRICAL ADVISORY COMMITTEE

March 10, 2022 3:00

#### MEETING

#### This agenda is subject to change up to 24 hours prior to the meeting.

Join with Google Meet meet.google.com/jrk-bhom-dmd

# <u>Join by phone</u> (US) +1 617-675-4444 PIN: 520 999 418 3128#

- 1. Roll call
- 2. Approve the minutes from the December 9, 2021 meeting
- 3. Review of the electrical portion of the 2021 IRC
- 4. Review proposed amendments to 2021 IRC E3601.8
  E3606.5, E3606.5.1, E3606.5.2, E3606.5.3
  E3900
  E3902.1 through E3902.12
  E3902.3

Next Scheduled Meeting: as needed

Please call Sharon at 801-530-6163 or email ssmalley@utah.gov if you do not plan on attending this meeting.



In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Dave Taylor, ADA Coordinator, at least three working days prior to the meeting. Division of Occupational and Professional Licensing, 160 East 300 South, Salt Lake City UT 84115, Phone 530-6628 or toll-free in Utah only 866-275-3675.

# **Determination to Hold Meeting Without an Anchor Location**

Public Body:

**UBCC Electrical Advisory Committee** 

Chair Name:

Joseph Taft, acting chair

Public Meeting date or date range:

March 10, 2022

The public meeting(s) scheduled for the date(s) above will be conducted electronically and without an anchor location. I have determined meeting with an anchor location presents a substantial risk to the health and safety of those who may be present at the anchor location.

# This determination was based on the following facts/information:

The public monitoring and participation requirements in Utah Code Title 52, Ch. 4, Open and Public Meetings Act, would gather the participants and interested persons in this public meeting in a single, confined location, where the risks of further transmission of COVID-19 are greater. At the time that this meeting is being scheduled, Salt Lake County is currently in the "Moderate Level of Transmission" phase, according to the Utah COVID-19 Transmission Index.

#### MINUTES

### UNIFORM BUILDING CODE COMMISSION ELECTRICAL ADVISORY COMMITTEE

#### Meeting

#### December 9, 2021 3:00 pm

Convened: 3:01 pm

Adjourned: 3:28 pm

STAFF Stephen Duncombe, Bureau Manager Sharon Smalley, Board Secretary

#### ELECTRICAL ADVISORY COMMITTEE MEMBERS

Jason VanAusdal Joseph Taft David Winger Bryan Romney (absent) Art Anderson, Commission, Liaison (absent) Rhett Butler Steve Woodman (excused) Willie Chidester

VISITORS David Smith, Eaton

MINUTES

FINAL REVIEW OF THE ELECTRICAL PORTION OF THE 2021 IRC A motion was made by Rhett Butler to approve the minutes from the October 14, 2021 meeting as written. The motion was seconded by Joseph Taft and passed unanimously.

The committee reviewed their recommendations for the electrical portion of the 2021 IRC and the excel spreadsheet with comparisons from the 2015 to the 2018 and the 2018 to the 2021 IRC. The spreadsheet included the cost for changes. The majority of the changes in the codes were for clarification. Joseph Taft recommended that on the spread sheet for 2015 to 2018 the cost be changed to "\$100 for initial tool". No further recommendations were made for changes or new amendments. A motion was made by Rhett Butler to approve the recommendations as modified in the spreadsheet. The motion was Page 2 of 2 Minutes Uniform Building Code Commission Electrical Advisory Committee October 14. 2021

# MAKE A RECOMMENDATION TO THE UBC COMMISSION FOR THE ELECTRICAL PORTION OF THE 2021 IRC

seconded by David Winger and passed unanimously.

A motion was made by Rhett Butler to approve the recommendation for the amendments to the electrical portion of the IRC. The motion was seconded by Dave Winger and passed unanimously.

A motion was made by Rhett Butler to make a recommendation to the UBC Commission to approve the electrical portion of the 2021 IRC along the amendments as presented. The motion was seconded by David Winger and passed unanimously.

The meeting adjourned at 3:28.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

Currant 2020	NEC Amendment	Section Reads			
Section	Amendment	2020 NEC			2021 IRC Amendment Proposed
In NEC, Section 210.8(A)	the words "through 250-volt" are deleted.	<i>volt</i> receptacles installed in the locations specified in 210.8(A)(1) through (A) (11) and supplied by a single phase branch circuits rated 150 volts or less to ground shall have ground-fault circuit-interrupter protection for personnel.	require 125-volt, single-phase, 15- and 20-ampere receptacles required to be GFCI protected.	volt, through 250-volt receptacles supplied by a signle pahse branch ciruit rated 150 volts or less to ground are to be GFCI protected.	None proposed by Electrical committee.
In NEC, Section 210.8(A)(5),	the word "Basements" is deleted and replaced with "Unfinished portions or areas of the basement not intended as habitable rooms."	the basement not intended as habitable rooms. Exception to (5): A receptacle supplying only a permanently installed fire alarm or burglar alarm system shall not be required to have ground-fault circuit- interrupter protection. Informational Note: See 760.41(B) and 760.121(B) for power supply requirements for fire alarm systems.	125-volt, single-phase, 15- and 20-ampere receptacles installed in unfinished basements shall have ground-fault circuit-interrupter protection for personnel. For purposes of this section, unfinished basements are defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and similar areas. [210.8(A)(5)] <i>Exception: A receptacle supplying only a</i> <i>permanently installed fire alarm or burglar alarm</i> <i>system.Receptacles installed in accordance with this</i> <i>exception shall not be considered as meeting the</i>	E3902.5 Basement receptacles. 125-volt, through 250-volt receptacles installed in basements and supplied by single-phase branch circuits rated 150 volts or less to ground shall have ground-fault circuit-interrupter protection for personnel. [210.8(A)(5)] Exception: A receptacle supplying only a permanently installed fire alarm or burglar alarm system. A receptacle installed in accordance with this exception shall not be considered as meeting the requirement of Section E3901.9. Receptacles installed in accordance with this exception shall not be considered as meeting the requirement of Section E3901.9. [210.8(A)(5) Exception]	None proposed by Electrical committee.
In NEC, Section 210.8(F)	is deleted.	All outdoor outlets for dwellings, other than those covered in 210.8 (A) (3), Exeption to (3), that are supplied by single phase branch circuits rated 150 volts to ground or less, 50 amperes or less, shall have ground- fault circuit-interrupter protection for personnal. <i>Exception: Ground-fault circuit-interrupter protection</i> <i>shall not be required on lighting outlets other than</i> <i>those covered in 210.8 (C).</i>	[210.8(A)(3)] Exception: Receptacles as covered in Section E4101.7. [210.8(A)(3) Exception]	single-phase branch circuits rated 150 volts or less to ground shall have ground-fault circuit-interrupter protection for personnel. [210.8(A) (3)] <i>Exception: Receptacles as covered in Section E4101.7.</i> [210.8(A)(3) Exception]	None proposed by Electrical committee.
NEC, Section 210.65	is deleted.	210.65 Meeting Rooms	N/A	N/A	

In NEC, Section 230.67	is deleted.	<ul> <li>(A) Surge Protective Device. All services suppling dwelling units shall be provide with a surge perotective device(SPD).</li> <li>(B) Location. The SPD shal be an intergral part of the service equipmentor shall be located immediantly adjacent thereto.</li> <li><i>Exception:</i> The SPD shall not be required to be located in the service equipment as required by (B) if located at each next level distribution equipment downstream tpward the load.</li> <li>(C) Type. The SPD shall be a Type 1 or Type 2 SPD.</li> <li>(D) Replacement. Where service equipment is replaced, all of the requirements of this section shall apply.</li> </ul>		surge-protective device (SPD) installed in accordance with Sections E3606.5.1 through E3606.5.3. E3606.5.1 Location. The SPD shall be an integral part of the service equipment or shall be located immediately adjacent thereto. Exception: The SPD shall not be required to be located in the service equipment if located at each next- level distribution equipment downstream toward the load. E3606.5.2 Type. The SPD shall be a Type 1 or Type 2 SPD. E3606.5.3 Replacement. Where service equipment is replaced, all of the requirements of this section shall apply. [230.67]	committee.
In NEC, Section 314.27(C)	is deleted and replaced with the following: "314.27(C) Boxes at Ceiling-Suspended (Paddle) Fan Outlets. Outlet boxes or outlet box systems used as the sole support of a ceiling-suspended (paddle) fan shall be listed, shall be marked by their manufacturer as suitable for this purpose, and shall not support ceiling- suspended (paddle) fans that weigh more than 32 kg (70 lb). For outlet boxes or outlet box systems designed to support ceiling-suspended (paddle) fans that weigh more than 16 kg (35 lb), the required marking shall include the maximum weight to be supported."	Out-let boxes or outlet box systems used as the sole support of a ceiling-suspended (paddle) fan shall be listed, shall be marked by their manufacturer as suitable for this purpose, and shall not support ceiling-suspended (paddle) fans that weigh more than 32 kg (70 lb). For outlet boxes or outlet box systems designed to support ceiling-suspended (paddle) fans that weigh more than 16 kg (35 lb), the required marking shall include the maximum weight to be supported. Outlet boxes mounted in the ceiling of habitable rooms of dwelling occupancies in a location acceptable for the installation of a ceiling-suspended (paddle) fan shall	Outlet boxes and outlet box systems used as the sole support of ceiling-suspended fans (paddle) shall be marked by their manufacturer as suitable for this purpose and shall not support ceiling-suspended fans (paddle) that weigh more than 70 pounds (31.8 kg). For outlet boxes and outlet box systems designed to support ceiling-suspended fans (paddle) that weigh more than 35 pounds (15.9 kg), the required marking shall include the maximum weight to be supported. Where spare, separately switched, ungrounded conductors are provided to a ceiling-mounted outlet box and such box is in a location acceptable for a	box systems used as the sole support of ceiling- suspended fans (paddle) shall be marked by their manufacturer as suitable for this purpose and shall not	None proposed by Electrical committee. There is no current amendment to the 2015 IRC Section 3905.8. This is due to the first portion of the section being used to create the 2020 NEC amendment.

		406.9 Receptacles in Damp or Wet Locations.	E4002.11 Bathtub and shower space. A receptacle	E4002.11 Bathtub and shower space. Receptacles	None proposed by Electrical
		(C) Bathtub and Shower Space.	shall not be installed within or directly over a	shall not be installed within a zone measured 3 feet (90	committee.
	is deleted and replaced with	Receptacles shall not be installed a zone measured 900	bathtub or shower stall. [406.9(C)]	mm) horizontally and 8 feet (2438 mm) vertically from	
	the following: "406.9(C)	mm (3 ft) horizontally and 2.5 m (8 ft) vertically from		the top of the bathtub rim or shower stall threshold. The	
	Bathtub and Shower Space.	the top of the bathtub rim or shower stall threshold. The		identified zone is all-encompassing and shall include	
In NEC, Section 406.9(C)	Receptacles shall not be	identified zone is all-encompassing and shall include the	The first of the star of the second sec	the space directly over the tub or shower stall.	
	installed within or directly	space above the tub or shower stall.		Exception: In bathrooms with less than the required	
	over a bathtub or shower	Exception: in bathrooms with less than the required		zone, the receptacle(s) shall be permitted to be	
	stall."	zone the receptacle(s) shall be permitted to be installed		installed opposite the bathtub rim or shower stall	
		opposite the bathtub rim or shower stall threshold on the		threshold on the farthest wall in the room. [406.9(C)]	
		farthest wall within the room.			

Currant 2015	IRC Amendments	Currant 2015 IRC Wording	Currant 2021 IRC Wording	2021 IRC Amendment Proposed
	a new exception is added as follows: "Exception: An occupant of an accessory dwelling unit is not required to have access to the disconnect serving the dwelling unit in which they reside."	<b>E3601.6.2 Service disconnect location.</b> The service disconnecting means shall be installed at a readily accessible location either outside of a building or inside nearest the point of entrance of the service conductors. Service disconnecting means shall not be installed in bathrooms. Each occupant shall have access to the disconnect serving the dwelling unit in which they reside. [230.70(A)(1), 230.72(C)] <i>Exception: An occupant of an accessory dwelling unit is not required to have access to the disconnect serving the dwelling unit in which they reside.</i>	building or inside nearest the point of entrance of the service conductors. Service disconnecting means shall not be installed in bathrooms. Each occupant	
In IRC, Section E3705.4.5	the following words are added after the word "assemblies": "with ungrounded conductors 10 AWG and smaller"	<b>E3705.4.5 Conductors of Type SE cable.</b> Where used as a branch circuit or feeder wiring method within the interior of a building and installed in thermal insulation, the ampacity of the conductors in Type SE cable assemblies with ungrounded conductors 10 AWG and smaller shall be in accordance with the 60°C (140°F) conductor temperature rating. The maximum conductor temperature rating shall be permitted to be used for ampacity adjustment and correction purposes, provided that the final derated ampacity does not exceed that for a 60°C (140°F) rated conductor. [338.10(B)(4)(a)]	<b>E3705.4.5 Conductors of Type SE cable.</b> Where used as a branch circuit or feeder wiring method within the interior of a building and installed in thermal insulation, the ampacity of the conductors in Type SE cable assemblies with ungrounded conductor sizes 10 AWG and smaller shall be in accordance with the 60°C (140°F) conductor temperature rating. The maximum conductor temperature rating shall be permitted to be used for ampacity adjustment and correction purposes, provided that the final derated ampacity does not exceed that for a 60°C (140°F) rated conductor.	

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		E3901.4.5 Receptacle outlet location.	E3901.4.3 Receptacle outlet location.	None proposed by Electrical committee.
		Receptacle outlets shall be located not more than 20	Receptacle outlets rendered not readily accessible by	
		inches (508 mm) above the countertop. Receptacle	appliances fastened in place, appliance garages,	
		outlet assemblies installed in countertops shall be listed	sinks, or rangetops as covered in the exception to	
		for the application. Receptacle outlets shall not be	Section E3901.4.1, or appliances occupying assigned	
		installed in a face-up position in the work surfaces or	spaces shall not be considered as these required	
		countertops. Receptacle outlets rendered not readily	outlets. Required receptacle outlets shall be located	
		accessible by appliances fastened in place, appliance	in one or more of the following:	
	the last sentence in the	garages, sinks or rangetops as addressed in the	1. On or above, but not more than 20 inches (508	
	exception is deleted and	exception to Section E3901.4.1, or appliances	mm) above, the countertop or work surface.	
	replaced with the following:	occupying dedicated space shall not be considered as	2. Receptacle outlet assemblies listed for the use in	
	"Receptacles mounted below	these required outlets. [210.52(C)(5)]	countertops or work surfaces shall be permitted to be	
	the countertop in accordance	Exception: Receptacle outlets shall be permitted to be	installed in countertops or work surfaces.	and the provide states and the second se
In IRC, Section E3901.4.5	with this exception shall not	mounted not more than 12 inches (305 mm) below the	3 Not more than 12 inches (305 mm) below the	
	be located more than 14	countertop in construction designed for the physically	countertop or work surface. Receptacles installed	1 A second se
	inches from the bottom	impaired and for island and peninsular countertops	below a countertop or work surface shall not be	
	leading edge of the	where the countertop is flat across its entire surface and	located where the countertop or work surface extends	and the second
	countertop."	there are no means to mount a receptacle within 20	more than 6 inches (152 mm) beyond its support	
		inches (508 mm) above the countertop, such as in an	base. [210.52(C)(3)]	
		overhead cabinet. Receptacles mounted below the		
		countertop in accordance with this exception shall not	Second to a company of the second of	
		be located where the countertop extends more than 6-	beau care being provident in	
		inches (152 mm) beyond its support base.	provides that of each range of them	
		Receptacles mounted below the countertop in		
		accordance with this exception shall not be located more		
		than 14 inches from the bottom leading edge of the		
		E3901.9 Basements, garages and accessory	E3901.9 Basements, garages and accessory	
		buildings.	buildings.	
		Not less than one receptacle outlet, in addition to any	Not less than one receptacle outlet, in addition to any	
	the following exception is	provided for specific equipment, shall be installed in	provided for specific equipment, shall be installed in	
	added:	each separate unfinished portion of a basement, in each	each separate unfinished portion of a basement; in	
	"Exception: Receptacles or	attached garage, and in each detached garage or	each vehicle bay not more than 5.5 feet (1676 mm)	
	other outlets adjacent to the	accessory building that is provided with electrical	above the floor in attached garages; in each vehicle	
	exterior walls of the garage,		bay not more than 5.5 feet (1676 mm) above the	9
	outlets adjacent to an exterior	a garage shall not supply outlets outside of the garage	floor in detached garages that are provided with	
In nee, Section 15701.9	wall of the garage, or outlets	and not less than one receptacle outlet shall be installed	electric power and in accessory buildings that are	
	in a storage room with entry	for each motor vehicle space. $[210.52(G)(1), (2), and$	provided with electric power. [210.52(G)(1), (2), and	
	from the garage may be	(3)]	(3)]	
	connected to the garage	<i>Exception:</i> Receptacles or other outlets adjacent to the		
	branch circuit."	exterior walls of the garage, outlets adjacent to an		
	oranen encurt.	exterior walls of the garage, or outlets in a storage		
		room with entry from the garage may be connected to		15.
		the garage branch circuit.		

IRC, Section E3902.16	is deleted.	be protected by any of the following: [210.12(A)]	rooms or areas shall be protected by any of the following: [210.12(A)]	
In Section E3902.17:	<ul> <li>(a) following the word "Exception" the number "1." is added; and</li> <li>(b) at the end of the section, the following sentences are added:</li> <li>"2. This section does not apply for a simple move or an extension of a branch circuit or an outlet which does not significantly increase the existing electrical load. This exception does not include changes involving remodeling or additions to a residence</li> </ul>	<ul> <li>branch circuit.</li> <li>2. An outlet branch-circuit type AFCI located at the first receptacle outlet of the existing branch circuit.</li> <li>[210.12(B)]</li> <li>Exceptions: <ol> <li>AFCI protection shall not be required where the extension of the existing conductors is not more than 6 feet (1.8 m) in length and does not include any additional outlets or devices. [210.12(B) Exception]</li> <li>This section does not apply for a simple move or an extension of a branch circuit or an outlet which does not</li> </ol> </li> </ul>	for branch circuit extensions or modifications. Where branch-circuit wiring is modified, replaced, or extended in any of the areas specified in Section E3902.17, the branch circuit shall be protected by one of the following: 1. A combination-type AFCI located at the origin of the branch circuit.	None proposed by Electrical committee.
IRC, Chapter 44	is amended by adding the following reference standard:			
"Standard reference				
number	Title	Referenced in code section number		

USC-FCCCHR 10th Edition Manual of Cross Connection Control	Foundation for Cross- Connection Control and Hydraulic Research University of Southern California Kaprielian Hall 300 Los Angeles CA 90089-2531	Table P2902.3"	
In IRC, Chapter 44	is amended by adding the following reference standard: "UL 9540-20: Energy Storage Systems and Equipment; R327.1, R327.2 and R327.6."		
N			
(0) 0	(a) When passive radon controls or portions thereof are voluntarily installed, the	26	
(9)?	voluntary installation shall comply with Appendix F of the IRC.	-	
	(b) An additional inspection of		8.2
	a voluntary installation		
	described in Subsection (9)(a)		Yile R
	is not required.		

# REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:02/10/2022				
Street Address:38 W 13775 S suite 120					
City, State, Zip Draper Utah 84020					
Contact Person: Ross Ford Phone:801-352-					
Code to be Amended: 2021 IRC (Include edition)					
Section: E3601.8					
Section Emergency Disconnects					

### AMENDMENT:

Strike E3601.8

The intent of this change is to allow firefighters to quickly shut off power from the electrical service before entering a house to fight a fire. In Utah this is already common practice. This requirement is not necessary.

It is also important to note that activating the disconnect will not shut off all power in every case. Some systems, such as photovoltaic and backup generators, will still provide power even after power from the electrical utility is disconnected.

Cost or Savings Impact of Amendment:

This would have a cost savings of \$86 per home

Compliance Costs for Affected Persons (APerson<sup>@</sup> means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):

This amendment will have no cost impact for compliance

Signature:

Date:

#### For Division Use:

Date Received:	
Committee Action:Approved△ DeniedApproved with revisionsReferred to:Tabled	UBC Commission Decision for Hearing: Approved for hearing △ Denied Approved with revisions Referred to: Tabled
Date Filed:	Public Hearing Date:
UBC Commission Decision for Adoption:ApprovedΔ DeniedApproved with revisionsReferred to:Tabled	Effective Date:

# REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:02/10/2022				
Street Address:38 W 13775 S suite 120					
City, State, Zip Draper Utah 84020					
Contact Person: Ross Ford	Phone:801-352-8266				
Code to be Amended: 2021 IRC (Include edition)					
Section: E3606.5, E3606.5.1,E3606.5.2,E3606.5.3					
Section Serge protection					

#### AMENDMENT:

Strike E3606.5, E3606.5.1, E3606.5.2, E3606.5.3

The code-making panel did not provide adequate substantiation to clearly identify a risk to equipment or safety concern to warrant this new requirement. Surge protection is currently permitted by the code and can provide a value to the end user, but it should remain up to the consumer as to whether the benefit is worth the investment. There are also potential issues with mandating currently available surge-protection products in all cases. The new language does not specify which conductors are to be protected or what the minimum short circuit current rating, the minimum nominal discharge current rating or the voltage protection rating should be. Market pressures will dictate that the lowest level of protection is installed in most cases, severely limiting the effectiveness of the devices. There is also no guarantee that the devices remain in service, further negating any possible advantages of this new mandate. During the code development process, the code making panel rejected several public comments to expand the surge-protection requirement to all occupancies and multiple levels of protection because they lacked substantiation. Yet the committee did not provide technical data in their statement showing a problem existed that required this change.

Cost or Savings Impact of Amendment:

This would have a cost savings of \$246 per home

Compliance Costs for Affected Persons (APerson@ means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):

This amendment will have no cost impact for compliance

Signature:	Date:

#### For Division Use:

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Committee Action:         Approved       △ Denied         Approved with revisions         Referred to:         Tabled	UBC Commission Decision for Hearing: Approved for hearing △ Denied Approved with revisions Referred to: Tabled
Date Filed:	Public Hearing Date:
UBC Commission Decision for Adoption:         Approved       △ Denied         Approved with revisions         Referred to:	Effective Date:

Tabled	
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# REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:02/10/2022
Street Address:38 W 13775 S suite 120	
City, State, Zip Draper Utah 84020	
Contact Person: Ross Ford	Phone:801-352-8266
Code to be Amended: 2021 IRC (Include edition)	
Section: E3900	
Section Title: Ground Fault and Arc Fault Circurit interuptions	

#### AMENDMENT:

# 15A-3-206 Amendments to Chapters 37,39, and 44 and appendix F of IRC

15A-3-206(3) In IRC, section <u>E3901.4.5</u> <u>E3901.4.3</u> 15A-3-206(5) In IRC, section <u>E3902.16</u> <u>E3902.17</u> 15A-3-206(6) In section <u>E3902.17</u> <u>E3902.18</u>

The 2021 IRC numbers are different from the 2015. This changes the numbering to match the title.

Cost or Savings Impact of Amendment:

No change in cost. Just renumbering existing amendments

Compliance Costs for Affected Persons (APerson<sup>®</sup> means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):

This amendment will have no cost impact for compliance

Signature:	
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Date:

# For Division Use:

Date Received:	
Committee Action: Approved 3-10-22 Δ Denied Approved with revisions Referred to: Tabled	UBC Commission Decision for Hearing: Approved for hearing △ Denied Approved with revisions Referred to: Tabled
Date Filed:	Public Hearing Date:
<b>UBC Commission Decision for Adoption:</b> Approved       △ Denied         Approved with revisions       Referred to:         Tabled	Effective Date:

### REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:2/09/2022
Street Address:38 W 13775 S suite 120	
City, State, Zip Draper Utah 84020	
Contact Person: Ross Ford	Phone:801-352-8266
Code to be Amended: 2021 IRC (Include edition)	
Section: E3902.1 through E3902.12	
Section Title: Ground-Fault and Arc Fault circuit interrupter prote	ection

#### AMENDMENT:

**E3902.1 Bathroom Receptacles.** 125-volt <u>single phase 15 and 20 ampere</u> Through 250 volt receptacles installed in bathrooms and supplied by single phase branch circuits rated 150 volts or less to ground shall have ground fault circuit interrupter protection for personnel.

(Make the same changes to the first sentence of E3902.2, E3902.4, E3902.5, E3902.6, E3902.7, E3902.8, E3902.9, E3902.10, E3902.11, E3902.12,)

The unfortunate event used as the sole substantiation for the change involved an older stove with both an appliance manufacturing error as well as an installation error. This change goes beyond requiring belt and suspenders safety provisions. Those were already in place, and it took both to fail for the incident to occur.

The proposed requirement of GFCI protection for all 250-volt receptacles is too broad and not supported by the committee's substantiation. According to the NFPA article used to support the change, the appliance in question was "an older installation, one predating today's requirement to install an equipment grounding conductor in the branch circuit to the range". It sounds like the tragedy was only possible with older wiring. This is another example that shows new construction and updated electrical systems do not constitute the same dangers as those in older homes.

The committee contends that 250-volt receptacles present similar hazards as 125-volt convenience receptacles and this is not true. 250-volt receptacles are installed behind the range or dryer without being readily accessible to the consumer. 250-volt appliances are plugged in and left for the operation of the appliance, but 125-volt receptacles are generally accessible to the consumer chose to, they could use a convenience receptacle for extension cords or other appliance use, whereas a 250-volt receptacle is specific to that appliance.

Cost or Savings Impact of Amendment:

This amendment will reduce costs by around \$300 per home.

Compliance Costs for Affected Persons (APerson<sup>@</sup> means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):

This amendment will have no cost impact for compliance

Signature:

Date:

#### For Division Use:

Date Received:

 Committee Action:

 Approved
 △ Denied

 Approved with revisions

#### **UBC Commission Decision for Hearing:** Approved for hearing $\Delta$ Denied Approved with revisions

Referred to: Tabled	Referred to: Tabled
Date Filed:	Public Hearing Date:
UBC Commission Decision for Adoption:         Approved       △ Denied         Approved with revisions         Referred to:         Tabled	Effective Date:

## REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:2/09/2022
Street Address:38 W 13775 S suite 120	
City, State, Zip Draper Utah 84020	
Contact Person: Ross Ford	Phone:801-352-8266
Code to be Amended: 2021 IRC (Include edition)	
Section: E3902.3	
Section Title: Ground-Fault and Arc Fault circuit interrupter prote	ection

#### AMENDMENT:

**E3902.3 Outdoor Receptacles.** 125-volt <u>single phase 15 and 20 ampere</u> Through 250-volt receptacles installed outdoors and supplied by single phase branch circuits rated 150 volts or less to ground shall have ground fault circuit interrupter protection for personnel.

GFCIs are shown to be effective where a corded product is plugged into a standard "convenience" receptacle in a wet or damp location. However, this requirement is for condenser units, which are hardwired. Data was not provided to supports expanding the use of GFCI protection on these circuits. The event used as substantiation was a result of an unqualified individual performing an electrical installation they never should have attempted. The NEC should not mandate GFCI protection for all outdoor outlets based on very specific unfortunate circumstances. This requirement is extremely broad and will result in many unintended consequences. For example, it has not been determined if all A/C condenser units will operate on a GFCI protected circuit as sufficient testing has not been conducted. If the condenser unit is affected by high humidity and trips the GFCI, it could result in unhealthy conditions and property damage inside the home due to heat, humidity and mold growth, especially where the home is unoccupied for an extended period. There is also the potential for unwanted tripping and compatibility issues with heat pumps. Branch circuit extensions or modifications would require the addition of GFCI protection for old condenser units, and it is not known whether the existing equipment is compatible with GFCI This requirement also applies to hardwired connections for effluent pumps and other types of lift station pumps with outdoor connections.

Cost or Savings Impact of Amendment:

This amendment will reduce costs by around \$136 per home.

Compliance Costs for Affected Persons (APerson<sup>@</sup> means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):

This amendment will have no cost impact for compliance

Signature:

Date:

#### For Division Use:

Committee Action:         Approved       △ Denied         Approved with revisions         Referred to:         Tabled	<ul> <li>UBC Commission Decision for Hearing:</li> <li>Approved for hearing △ Denied</li> <li>Approved with revisions</li> <li>Referred to:</li> <li>Tabled</li> </ul>
Date Filed:	Public Hearing Date:

Approved $\Delta$ Denied		
Approved with revisions Referred to: Tabled	Effective Date:	