Code Compliance Research Report
CCRR-0208

Issue Date: 08-29-2014
Revision Date: 08-26-2024
Renewal Date: 08-31-2025

DIVISION: 05 00 00 – METALS
Section: 05 40 00 – Cold-Formed Metal Framing

REPORT HOLDER:
ClarkDietrich® Building Systems, LLC
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REPORT SUBJECT:
ClarkDietrich *FastClip™* Extended Slide Clip (FCEC)
ClarkDietrich *FastClip™* Slide Clip (FCSC)
ClarkDietrich *Universal Bypass Clip* (UBC)

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021, and 2018 *International Building Code®* (IBC)
- 2024, 2021, and 2018 *International Residential Code®* (IRC)
- 2023, 2020 *Florida Building Code - Building* (FBC-B) including High Velocity Hurricane Zone. (see Section 9)
- 2023, 2020 *Florida Building Code - Residential* (FBC-R) including High Velocity Hurricane Zone. (see Section 9)
- 2022 *California Building Code* (CBC) (see Section 9)
- 2022 *California Residential Code* (CRC) (see Section 9)
- 2023 *City of Los Angeles Building Code* (see Section 9)

NOTE: This report references 2024 Code sections with [2021, 2018, FBC and CBC] Code sections shown in brackets where they differ.

1.2 The FastClip™ and Universal Bypass Clip connectors have been evaluated for the following properties:

- Structural Performance

1.3 The FastClip™ and Universal Bypass Clip (deflection installation) connectors have been evaluated for use as cold-formed steel connectors that attach exterior curtain wall studs to the supporting structure while allowing vertical movement independent of the cold-formed steel framing.

1.4 The Universal Bypass Clip (rigid/fixed installation) connectors have been evaluated for use as cold-formed steel connectors that attach exterior curtain wall studs to the supporting structure, to transmit lateral and vertical loads of the curtainwall cladding and framing to the supporting structure.

2.0 STATEMENT OF COMPLIANCE

The FastClip™ and Universal Bypass Clip connectors comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

2.1 2024 IBC and IRC Evaluation Reports

The Intertek CCRR is an *Evaluation Report* for approval of an alternate material, design, or method of construction in accordance with Section 104.2.3.6.1 of the 2024 IBC and Section R104.2.2.6.1 of the 2024 IRC

3.0 DESCRIPTION

3.1 FCECs are fabricated from ASTM A1003 Type H, Grade 50 steel with a G90 galvanized coating per AISI S240. FCECs are available in four lengths (6”, 8”, 10” and 12”). See Figure 1.

3.2 FCSCs are fabricated from ASTM A1003 Type H, Grade 50 steel with a G90 galvanized coating per AISI S240. FCSCs are available in two lengths (3-1/2” and 5-1/2”). See Figure 2.

3.3 UBCs are fabricated from ASTM A1003 Type H, Grade 50 steel with a G90 galvanized coating per AISI S240. UBC’s are available in four lengths (6”, 8”, 10” and 12”). See Figure 3.

4.0 PERFORMANCE CHARACTERISTICS

4.1 FastClip™ and Universal Bypass Clip connectors' allowable design capacities are listed in Tables 1, 2, and 3 for attachment to cold-formed steel studs.

4.2 Design wind loads must be based on Section 1609 of the IBC, FBC or CBC, as applicable.

4.3 Load combinations must be in accordance with Section 1605.1 [1605.2 or 1605.3] of the IBC, FBC and CBC, as applicable.
4.3.1 When using the alternative basic load combinations that include wind or seismic loads in Section 1605.2 [1605.3.2 of the IBC, FBC], the ASD loads recognized in Table 2 are not permitted to be increased or load combinations reduced.

5.0 INSTALLATION

5.1 General:

The FastClip™ and Universal Bypass Clip connectors must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.2 Application:

5.2.1 FastClip™ and Universal Bypass Clip connectors are attached to cold-formed steel studs as specified in Tables 1 and 2.

5.2.2 FastClip™ and Universal Bypass Clip connector attachment to the supporting structure is outside the scope of this report and must be designed by a registered design professional.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 Where required by the building official, engineering calculations and details shall be provided by a registered design professional.

6.3 The FastClip™ and Universal Bypass Clip connectors are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Drawings and installation instructions submitted by ClarkDietrich Building Systems, LLC.

7.2 Reports of testing demonstrating compliance with the performance requirements of ICC-ES AC261, Acceptance Criteria for Connectors Used With Cold-Formed Steel Structural Members, approved February 2019.

7.3 Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

8.0 IDENTIFICATION

The FastClip™ and Universal Bypass Clip connectors are identified with the manufacturer's name (ClarkDietrich Building Systems, LLC), address and telephone number, the product name, the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0208).

CODE COMPLIANCE
Intertek
CCRR-0208

9.0 OTHER CODES

9.1 FLORIDA BUILDING CODE

9.1.1 Scope of Evaluation: The FastClip™ and Universal Bypass Clip connectors were evaluated for compliance with the *Florida Building Code – Building* and *Florida Building Code – Residential*.

9.1.2 Conclusion: The FastClip™ and Universal Bypass Clip connectors, described in Sections 2.0 through 7.0 of this Research Report, comply with the *Florida Building Code – Building* and *Florida Building Code – Residential*, including the High-Velocity Hurricane Zone provisions.

9.2 CALIFORNIA BUILDING CODE

9.2.1 Scope of Evaluation: The FastClip™ and Universal Bypass Clip connectors were evaluated for compliance with the *California Building Code* and *California Residential Code*.

9.2.2 Conclusion: The FastClip™ and Universal Bypass Clip connectors, described in Sections 2.0 through 7.0 of this Research Report, comply with the *California Building Code* and *California Residential Code*.

9.3 CITY OF LOS ANGELES BUILDING CODE

The FastClip™ and Universal Bypass Clip connectors, described in Sections 2.0 through 7.0 of this Research Report, complies with the *City of Los Angeles Building Code*, and *City of Los Angeles Residential Code* for the editions indicated in Section 1.1 of this report.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the https://bpdirectory.intertek.com is recommended to ascertain the current version and status of this report.

TABLE 1 – FASTENING SCHEDULE

ClarkDietrich Connectors		Connection to Exterior Curtain Wall Cold-Formed Steel Studs			Connection to Supporting Structure
		Qty.	Fastener Description	Fastener Location	
FCSC 3-1/2”	68 mil	2	*FastClip™* Deflection Screw (#14 x ¾” carbon steel, hex washer head, self-drilling screw)	Screws are installed through the slots of the long leg of the *FastClip™*	*FastClip™* Slide Clip and *FastClip™* Extended Clip attachment to the supporting structure is outside the scope of this report and must be designed by a registered design professional.
FCSC 5-1/2” FCEC 6” FCEC 8” FCEC 10” FCEC 12”	68 mil	3	*FastClip™* Deflection Screw (#14 x ¾” carbon steel, hex washer head, self-drilling screw)	Screws are installed through the slots of the long leg of the *FastClip™*	
UBC 6” Rigid/Fixed UBC 8” Rigid/Fixed UBC 10” Rigid/Fixed UBC 12” Rigid/Fixed	68 mil	6	#10-16 x 3/4" long, hex washer head, self-drilling screw	Screws are installed through each of the 6 holes of the long leg of the Universal Bypass Clips	Universal Bypass Clip attachment to the supporting structure is outside the scope of this report and must be designed by a registered design professional.
	97 mil	6	#10-16 x 7/8" long, hex washer head, self-drilling screw	Screws are installed through each of the 6 holes of the long leg of the Universal Bypass Clips	
UBC 6” Deflection UBC 8” Deflection UBC 10” Deflection UBC 12” Deflection	68 mil	3	*FastClip™* Deflection Screw, #14 x 3/4" long hex washer head, self-drilling screw	Screws are installed through each of the 3 slots of the long leg of the Universal Bypass Clips	
	97 mil	3	ClarkDietrich Proprietary Deflection Screw, #14 x 7/8" long hex washer head, self-drilling screw	Screws are installed through each of the 3 slots of the long leg of the Universal Bypass Clips	

TABLE 2 – *FASTCLIP™* DESIGN CAPACITIES

ClarkDietrich *FastClip™*	Cold-Formed Steel Stud [1]		Design Loads		
	Thickness (mils)	Yield Strength (ksi)	ASD (lbf)	LRFD (lbf)	1/8" Deflection Service Limit Load (lbf)
FCEC 6"	33	33	565	904	881
	43	33	776	1,241	968
	54	50	1,103	1,765	1,189
	68	50	1,030	1,649	1,158
	97	50	1,062	1,699	1,094
FCEC 8"	33	33	640	1,024	1,075
	43	33	852	1,364	1,179
	54	50	1,086	1,738	1,123
	68	50	1,005	1,609	1,196
	97	50	1,118	1,790	1,128
FCEC 10"	33	33	506	986	808
	43	33	819	1,328	1,093
	54	50	1,103	1,765	1,179
	68	50	1,053	1,686	1,078
	97	50	1,100	1,931	1,100
FCEC 12"	33	33	503	976	821
	43	33	791	1,267	943
	54	50	1,126	1,802	1,062
	68	50	1,061	1,715	1,061
	97	50	1,136	1,818	1,185
FCSC 3-1/2"	33	33	425	680	848
	43	33	544	871	1,079
	54	50	660	1,056	1,247
	68	50	696	1,114	1,195
	97	50	857	1,372	1,050
FCSC 5-1/2"	33	33	596	977	813
	43	33	784	1,255	920
	54	50	1,065	1,750	1,213
	68	50	1,065	1,705	1,310
	97	50	1,103	1,765	1,461

[1] Steel studs shall be fabricated from cold-formed steel complying with ASTM A1003/A1003M.

TABLE 3 – *UNIVERSAL BYPASS CLIP*, DESIGN CAPACITIES

Clip Designation	Cold-Formed Steel Stud [3]		Clip-to-Stud Connection Detail	In-Plane [F1] Load Direction (lbf)			Tension [F2(+)] Load Direction (lbf)			Compression [F3(-)] Test Loads (lbf)			Shear [F4] Test Loads (lbf)		
	Thickness (mils)	Yield Strength (ksi)		Nominal Capacity	ASD LOAD[1]	LRFD LOAD	Nominal Capacity	ASD LOAD[1]	LRFD LOAD	Nominal Capacity	ASD LOAD[1]	LRFD LOAD	Nominal Capacity	ASD LOAD[1]	LRFD LOAD
UBC 6"	68	50	Rigid/Fixed	770	255	420	5,105	1,450	1,450	4,620	1,590	2,540	3,090	1,065	1,700
			Deflection	805	255	440	3,715	1,280	1,345	4,155	1,430	2,290	--	--	--
	97	50	Rigid/Fixed	780	270	430	6,150	2,115	2,410	7,385	2,540	4,065	3,575	1,230	1,970
			Deflection	825	280	450	4,470	1,535	1,905	4,890	1,680	2,690	--	--	--
UBC 8"	68	50	Rigid/Fixed	650	220	355	4,870	1,450	1,450	4,090	1,405	2,255	2,330	800	1,280
			Deflection	555	190	305	3,715	1,235	1,235	3,895	1,340	2,145	--	--	--
	97	50	Rigid/Fixed	710	240	390	6,150	2,115	2,380	6,725	2,315	3,700	2,570	885	1,415
			Deflection	665	225	365	4,435	1,525	1,905	4,890	1,685	2,690	--	--	--
UBC 10"	68	50	Rigid/Fixed	555	190	305	4,870	1,450	1,450	4,025	1,385	2,215	1,845	635	940
			Deflection	445	150	245	3,715	1,190	1,190	3,860	1,325	2,125	--	--	--
	97	50	Rigid/Fixed	655	225	360	6,150	2,115	2,295	5,980	2,055	3,290	2,010	690	1,105
			Deflection	580	185	300	4,330	1,490	1,905	4,740	1,630	2,610	--	--	--
UBC 12"	68	50	Rigid/Fixed	480	160	255	4,870	1,430	1,430	3,745	1,290	2,060	1,530	525	670
			Deflection	445	150	245	3,715	1,190	1,190	3,785	1,300	2,085	--	--	--
	97	50	Rigid/Fixed	590	195	315	6,150	2,115	2,295	5,980	2,055	3,290	1,835	630	790
			Deflection	300	90	150	4,330	1,490	1,905	4,740	1,630	2,610	--	--	--

Notes:

1. The 1/8-in Service Loads have been accounted for in ASD and LRFD capacities.
2. Safety factors for strength based allowable loads have been determined in accordance with AISI S100 Chapter K.
3. Steel studs shall be fabricated from cold-formed steel complying with ASTM A1003/A1003M.
4. See Figure 5 for loading directions.

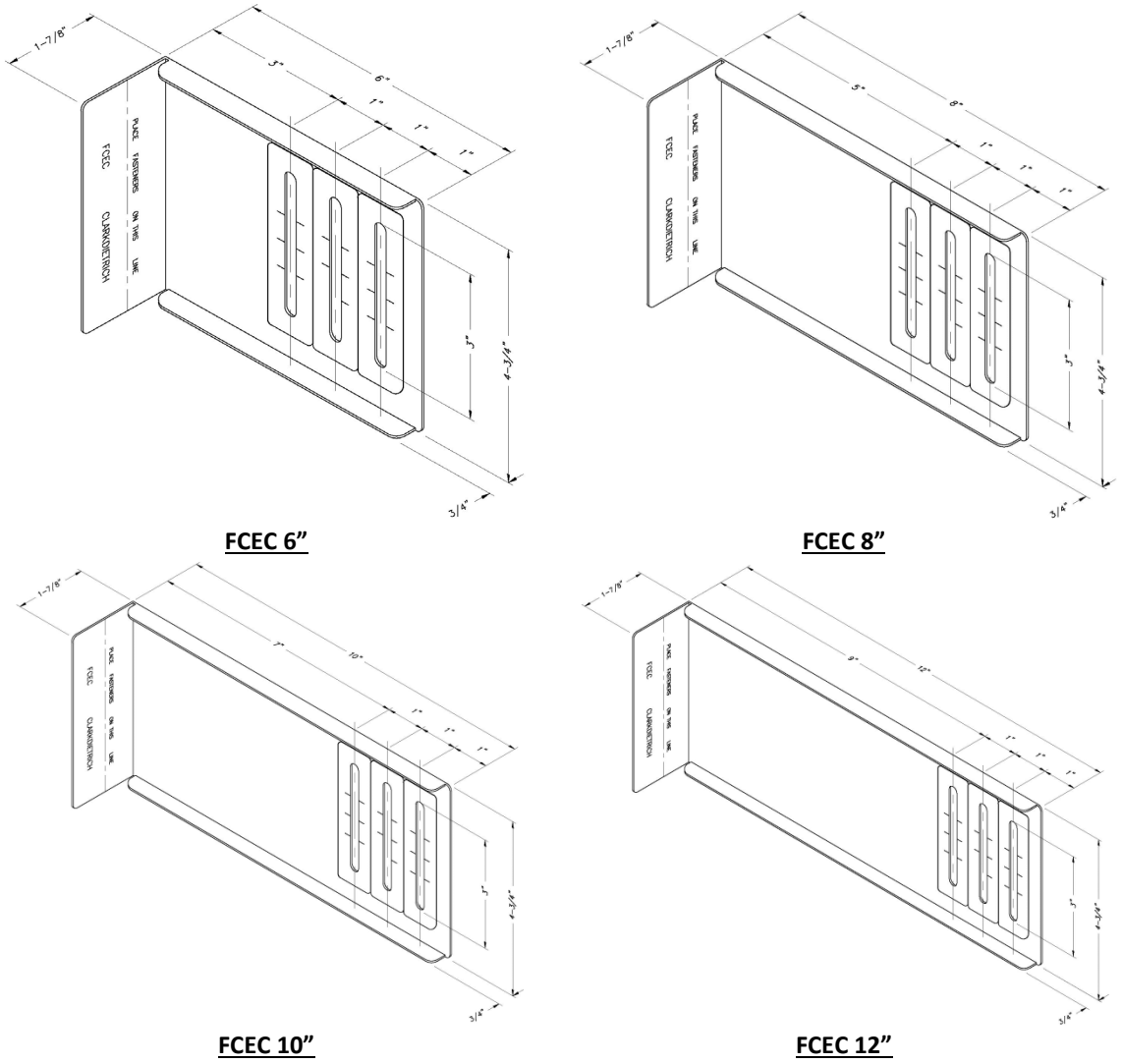
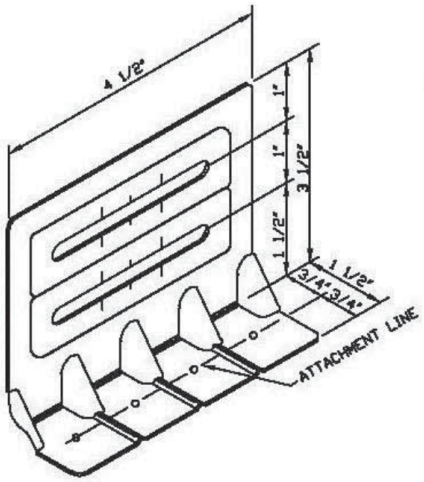
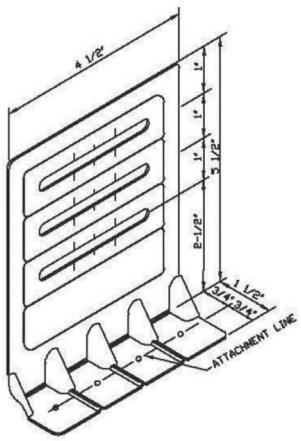


FIGURE 1 – CLARKDIETRICH *FASTCLIP™* EXTENDED CLIPS (FCEC)



FCSC 3-1/2”



FCSC 5-1/2”

FIGURE 2 – CLARKDIETRICH *FASTCLIP™* SLIDE CLIPS (FCSC)

UBC 6”

UBC 8”

UBC 10”

UBC 12”

FIGURE 3 – CLARKDIETRICH *UNIVERSAL BYPASS* CLIPS (UBC)

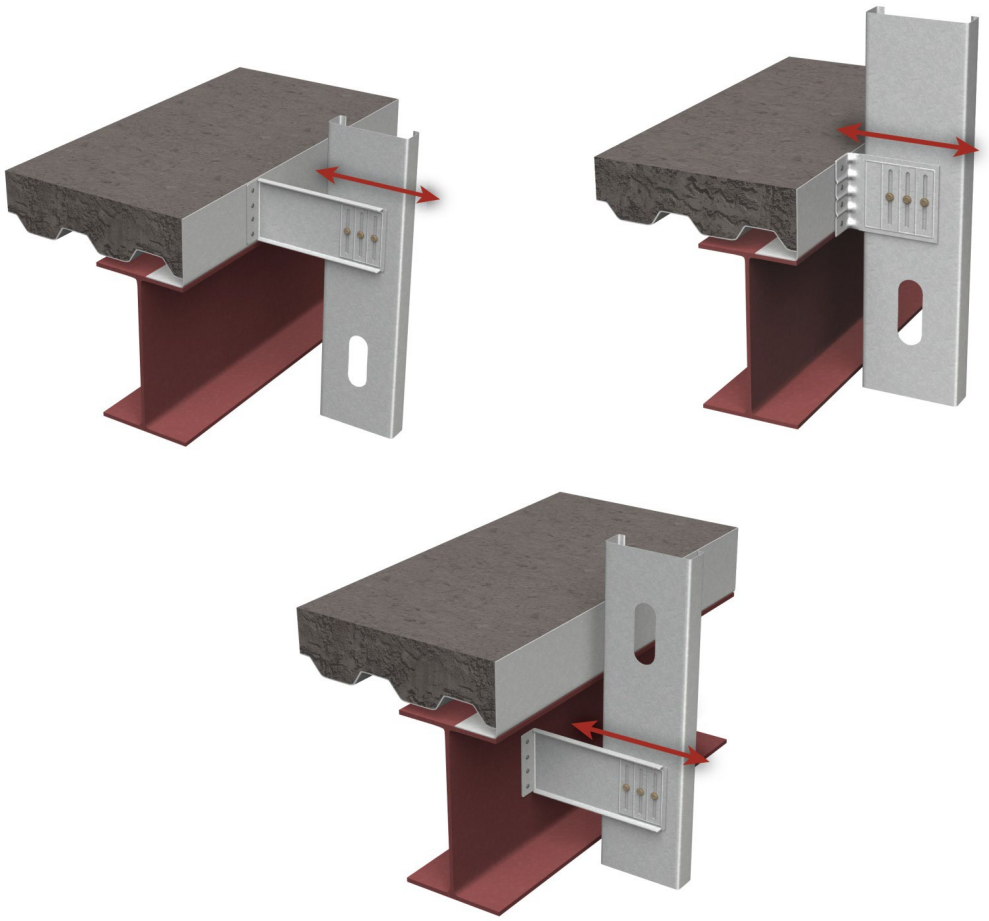
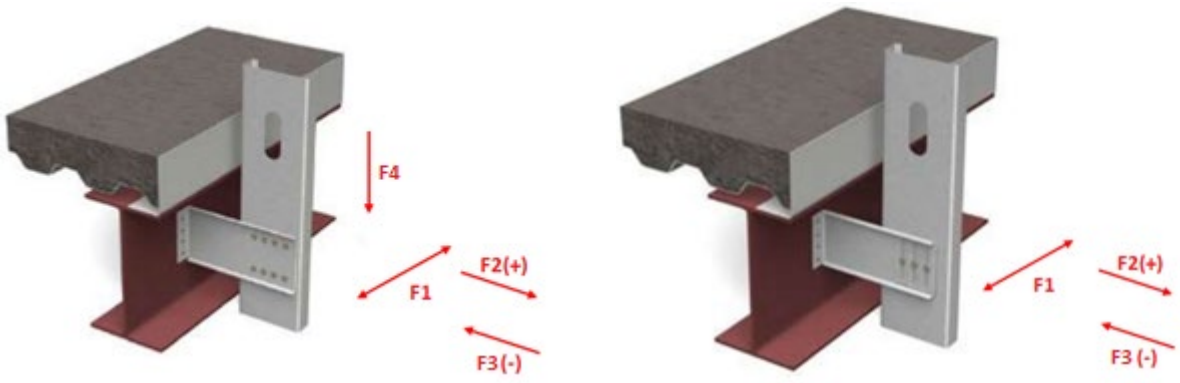


FIGURE 4 – FCSC AND FCEC TYPICAL INSTALLATION AND LOAD DIRECTION



Fixed/Rigid **Deflection**

FIGURE 5 – UBC TYPICAL INSTALLATION AND LOAD DIRECTION