NEMO|etc.
Certificate of Authorization #32455
353 Christian Street, Unit #13
Oxford, CT 06478
(203) 262-9245

ENGINEER **EVALUATE** **TEST** **CONSULT**

P.E. EVALUATION REPORT (PEER)

GAF
1 Campus Drive
Parsippany, NJ 07054
(800) 766-3411

PEER-GAF-003.B
FL16733-R17 (HVHZ)
Date of Issuance: 12/18/2013
Revision 18: 06/20/2023

SCOPE:
This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C. Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The product described herein has been evaluated for compliance with the 7th Edition (2020) Florida Building Code, High Velocity Hurricane Zone (HVHZ) sections noted herein.

DESCRIPTION: GAF Conventional Built-Up Roof Systems for use in FBC HVHZ jurisdictions

LABELING: Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein.
CONTINUED COMPLIANCE: This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify NEMO ETC, LLC of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO ETC, LLC requires a complete review of its PEER relative to updated Code requirements with each Code Cycle.
ADVERTISEMENT: The Florida Product Approval Number (FL#) preceded by the words "NEMO P.E. Evaluated" may be displayed in advertising literature. If any portion of the PEER is displayed, then it shall be done in its entirety.
INSPECTION: Upon request, a copy of this entire PEER shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This PEER consists of pages 1 through 5, plus a 34-page Appendix.

Prepared by: Digitally signed by Robert Nieminen
Date: 2023.06.20 '08:51:38 -04'00

This item has been digitally signed and sealed by Robert Nieminen, P.E.
Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.
Robert Nieminen, Florida P.E. 59166, FBC ANE1983
NEMO ETC, LLC, Florida CA #32455

ROBERT NIEMINEN
LICENSE
NO. 59166
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

CERTIFICATION OF INDEPENDENCE:
1. NEMO ETC, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. NEMO ETC, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the PEERs are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

©2018, NEMO ETC, LLC

ROOFING SYSTEM EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Built-Up Roofing Systems
Product Approval Method: Method 1, Option D: Codified Material, Evaluation by Engineer
Compliance Statement: **GAF Conventional Built-Up Roof Systems**, as produced by **GAF**, have demonstrated compliance with the following sections of the **7th Edition (2020) Florida Building Code, HVHZ** through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations of Use set forth herein.

2. STANDARDS:

SECTION	PROPERTY	STANDARD	YEAR
TAS 110	Resistance to Foot Traffic	TAS 114, Section 8.9	2011
TAS 110	Wind resistance	TAS 114, Appendix C, D or J	2011
TAS 110	Susceptibility Hail Damage	TAS 114, Appendix F	2011
TAS 110	Susceptibility to Leakage	TAS 114, Appendix G	2011
TAS 110	Material standard	ASTM D2178	2015
TAS 110	Material standard	ASTM D3909	2014
TAS 110	Material standard	ASTM D4601	2012
TAS 110	Material standard	ASTM D4897	2009
TAS 110	Material standard	ASTM D6163	2015
TAS 110	Material standard	ASTM D6164	2011
TAS 110	Material standard	ASTM D6222	2011

3. REFERENCES:

ENTITY	EXAMINATION	REFERENCE	DATE	ENTITY	EXAMINATION	REFERENCE	DATE
ERD (TST6049)	ASTM D6163 (GA)	G40630.01.14-1	01/06/14	FM (TST1867)	FM 4470 / 4474	3043900	08/16/12
ERD (TST6049)	ASTM D6164 (GA)	G40630.01.14-2A	01/07/14	FM (TST1867)	FM 4470 / 4474	3046388	09/24/12
ERD (TST6049)	ASTM D6164 (GA)	G40630.01.14-2A-1-R1	01/07/14	FM (TST1867)	FM 4470 / 4474	3041769	09/27/12
ERD (TST6049)	ASTM D6222 (IN)	G43180.03.14	03/03/14	FM (TST1867)	FM 4470 / 4474	797-09636-267	07/24/14
ERD (TST6049)	ASTM D3909	SC6870.08.14	08/19/14	FM (TST1867)	FM 4470 / 4474	797-09662-267	07/24/14
ERD (TST6049)	ASTM D6163 (GA)	G46160.02.15-2D-1	02/09/16	FM (TST1867)	FM 4470 / 4474	797-09665-267	07/24/14
ERD (TST6049)	ASTM D6164 (GA)	GAF-SC13285.03.17-5	03/23/17	FM (TST1867)	FM 4470 / 4474	797-09934-267	10/23/14
ERD (TST6049)	ASTM D6164 (GA)	GAF-SC13105.03.17-R1	03/23/17	FM (TST1867)	FM 4470 / 4474	797-09972-267	10/27/14
NEMO (TST6049)	ASTM D2178 (GA)	4S-GAF-18-001.01.19-1	01/02/19	FM (TST1867)	FM 4470 / 4474	797-09973-267	10/27/14
NEMO (TST6049)	ASTM D6222 (IN)	4S-GAF-18-001.03.19.A	03/13/19	FM (TST1867)	FM 4470 / 4474	797-10025-267	11/12/14
NEMO (TST6049)	ASTM D6164 (AR)	4q-GAF-19-SSMBB-01A	04/08/19	FM (TST1867)	Criticality	3056207 (released)	02/09/16
NEMO (TST6049)	ASTM D6163 (AR)	4q-GAF-19-SSMBB-02A	04/08/19	FM (TST1867)	FM 4470 / 4474	3056933	07/19/18
NEMO (TST6049)	ASTM D3909	4q-GAF-20-SSMBB-01.A	03/04/21	FM (TST1867)	FM 4470 / 4474	3061784	07/25/18
NEMO (TST6049)	ASTM D4601 (AL)	4q-GAF-21-SSMBB-01.A	09/07/21	FM (TST1867)	FM 4470 / 4474	3055904	10/25/18
NEMO (TST6049)	ASTM D4897 (AL)	4q-GAF-21-SSMBB-01.B	09/07/21	FM (TST1867)	FM 4470 / 4474	RR215191-267	11/07/18
NEMO (TST6049)	ASTM D3909	4q-GAF-21-SSMBB-02.A	12/02/21	FM (TST1867)	Criticality	PR452971-R1	01/28/20
PRI (TST5878)	ASTM D2178 (AL)	MSA-039-02-02	09/27/17	FM (TST1867)	FM 4474	PR455417	12/23/20
PRI (TST5878)	ASTM D2178 (AL)	MSA-039-02-01	09/27/17	FM (TST1867)	FM 4474	PR458073	04/08/21
PRI (TST5878)	ASTM D6222 (CA-S)	376T0143	08/23/21	FM (TST1867)	FM 4470	RR227768	04/09/21
PRI (TST5878)	ASTM D6222 (CA-S)	376T0144	08/26/21	FM (TST1867)	FM 4474	PR457312	04/20/21
PRI (TST5878)	ASTM D4601 (GA)	376T0229	12/20/21	FM (TST1867)	FM 4470	PR459831	04/21/21
PRI (TST5878)	ASTM D4897 (GA)	376T0227	12/20/21	FM (TST1867)	FM 4474	PR456101	06/24/21
PRI (TST5878)	ASTM D4897 (GA)	376T0228	12/20/21	FM (TST1867)	FM 4474	PR460889	08/01/22
PRI (TST5878)	ASTM D4601 (GA)	376T0240	12/21/21	FM (TST1867)	FM 4474	PR460126	09/20/22
PRI (TST5878)	ASTM D2178 (CA-F)	376T0275	01/31/22	FM (TST1867)	FM 4474	PR464081	02/20/23
PRI (TST5878)	ASTM D3909 (GA)	376T0272	02/03/22	IRT (TST7408)	TAS 114	00001	04/05/00
PRI (TST5878)	ASTM D4601 (CA-F)	376T0276	02/03/22	IRT (TST7408)	TAS 114	00002	04/05/00
PRI (TST5878)	ASTM D6222 (GA)	376T0274	05/04/22	IRT (TST7408)	TAS 114	01-0136	12/18/01
PRI (TST5878)	ASTM D6222 (GA)	376T0273	08/29/22	IRT (TST7408)	TAS 114	02-005	01/18/02
ACRC (TST4671)	TAS 114	ACRC 11-048	08/10/11	IRT (TST7408)	TAS 114	02-011	02/26/02
ACRC (TST4671)	TAS 114	ACRC 11-049	08/10/11	IRT (TST7408)	TAS 114	02-014	03/22/02
ACRC (TST4671)	TAS 114	ACRC 11-053	08/12/11	IRT (TST7408)	TAS 114	02-015	03/26/02
ERD (TST6049)	TAS 114	01880.09.03	09/10/03	IRT (TST7408)	TAS 114	02-026	07/26/02
ERD (TST6049)	TAS 114	GAF-SC16825.12.17-1	12/31/17	IRT (TST7408)	TAS 114	04-009	01/26/04
FM (TST1867)	FM 4470 / 4450	2B8A4.AM	07/02/97	NEMO (TST6049)	TAS 114	4L-GAF-18-002.05.19.A	05/29/19

Entity	Examination	Reference	Date	Entity	Examination	Reference	Date
FM (TST1867)	FM 4470 / 4450	3B9Q1.AM	01/08/98	PRI (TST5878)	TAS 114	GAF-549-02-01	08/08/14
FM (TST1867)	FM 4470 / 4450	0Y9Q5.AM	04/01/98	PRI (TST5878)	TAS 114	GAF-549-02-02	08/08/14
FM (TST1867)	FM 4470 / 4450	0D0A8.AM	07/09/99	PRI (TST5878)	TAS 114	GAF-559-02-01	10/16/14
FM (TST1867)	FM 4470 / 4450	3011140	08/14/01	PRI (TST5878)	TAS 114	GAF-559-02-04	10/16/14
FM (TST1867)	FM 4470 / 4450	3014547	05/22/03	PRI (TST5878)	TAS 114	GAF-559-02-05	10/16/14
FM (TST1867)	FM 4470 / 4474	3017250	04/05/04	PRI (TST5878)	TAS 114	GAF-559-02-06	10/16/14
FM (TST1867)	FM 4470 / 4474	3020703	07/30/04	PRI (TST5878)	TAS 114	GAF-559-02-07	10/16/14
FM (TST1867)	FM 4470 / 4474	3025524	03/13/06	PRI (TST5878)	TAS 114	GAF-559-02-08	10/16/14
FM (TST1867)	FM 4470 / 4474	3023458	07/18/06	PRI (TST5878)	TAS 114	GAF-559-02-09	10/16/14
FM (TST1867)	FM 4470 / 4474	3028478	01/05/07	PRI (TST5878)	TAS 114	GAF-559-02-11	10/16/14
FM (TST1867)	FM 4470 / 4474	3029832	05/11/07	PRI (TST5878)	TAS 114	GAF-559-02-12	10/16/14
FM (TST1867)	FM 4470 / 4474	Approval Extension	05/07/08	PRI (TST5878)	TAS 114	GAF-559-02-13	10/16/14
FM (TST1867)	FM 4470 / 4474	797-05610-267	06/10/10	PRI (TST5878)	TAS 114	GAF-559-02-14	10/16/14
FM (TST1867)	FM 4470 / 4474	797-05695-267	07/15/10	PRI (TST5878)	TAS 114	GAF-559-02-18	10/16/14
FM (TST1867)	FM 4470 / 4474	797-05748-267	08/10/10	PRI (TST5878)	Criticality	376T0006-3	09/06/19
FM (TST1867)	FM 4470 / 4474	797-05970-267	10/25/10	PRI (TST5878)	Criticality	376T0006-1	01/18/21
FM (TST1867)	FM 4470 / 4474	797-05550-267	10/25/10	UL (QUA9625)	Quality Control	Service Confirm	07/12/22
				UL (QUA9625)	Quality Control	Florida BCIS	Current

4. Product Description:

This PEER covers **GAF Built-Up Roof Systems (BUR)** installed in accordance with **GAF** published installation instructions and the Limitations of Use herein.

Table 1: Evaluated Membranes

Type	Product	Material Standard		Plant(s)
		Reference	Type	
Base Sheet	GAFGLAS® #75 Base Sheet	ASTM D4601	II	Fontana, CA Savannah, GA Tuscaloosa, AL
	Tri-Ply® #75 Base Sheet	ASTM D4601	II	Fontana, CA Savannah, GA Tuscaloosa, AL
	GAFGLAS® #80 Ultima™ Base Sheet	ASTM D4601	II	Savannah, GA Tuscaloosa, AL
	GAFGLAS® Stratavent® Nailable Venting Base Sheet	ASTM D4897	II	Savannah, GA Tuscaloosa, AL
Venting Base Sheet	GAFGLAS® Stratavent® Perforated Venting Base Sheet	ASTM D4897	II	Savannah, GA Tuscaloosa, AL
Ply Sheet	GAFGLAS® Ply 4	ASTM D2178	IV	Fontana, CA Savannah, GA
	GAFGLAS® Ply 4 M	ASTM D2178	IV	Tuscaloosa, AL
	Tri-Ply® Ply 4 Ply Sheet	ASTM D2178	IV	Fontana, CA Savannah, GA
	GAFGLAS® FlexPly™ 6	ASTM D2178	VI	Savannah, GA
	GAFGLAS® FlexPly™ 6 M	ASTM D2178	VI	Tuscaloosa, AL
Ply Sheet, Modified Bitumen	Ruberoid® 20 Smooth	ASTM D6163	I	Arkadelphia, AR
	Ruberoid® Mop Smooth	ASTM D6164	I	Savannah, GA
	Ruberoid® Mop Smooth 1.5	ASTM D6164	I	Savannah, GA
Cap Sheet	GAFGLAS® Mineral-Surfaced Cap Sheet	ASTM D3909	N/A	Fontana, CA Savannah, GA Tuscaloosa, AL
	Tri-Ply® BUR Granule Cap Sheet	ASTM D3909	N/A	Fontana, CA Savannah, GA Tuscaloosa, AL
	GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet	ASTM D3909	N/A	Stockton, CA

TABLE 1: EVALUATED MEMBRANES				
TYPE	PRODUCT	MATERIAL STANDARD		PLANT(S)
		REFERENCE	TYPE	
VAPOR BARRIER MEMBRANES	Ruberoid® 20 Smooth	ASTM D6163	I	Arkadelphia, AR
	Ruberoid® HW 25 Smooth	ASTM D6163	I	Savannah, GA
	Ruberoid® 30 Granule	ASTM D6163	I	Savannah, GA
	Ruberoid® HW Smooth	ASTM D6164	I	Savannah, GA
	Ruberoid® Mop Smooth	ASTM D6164	I	Savannah, GA
	Ruberoid® Mop Smooth 1.5	ASTM D6164	I	Savannah, GA
	Liberty™ SBS Self-Adhering Cap Sheet	ASTM D6164	I	Arkadelphia, AR Mt. Vernon, IN Savannah, GA
	Ruberoid® Torch Smooth	ASTM D6222	I	Mt. Vernon, IN Savannah, GA Stockton, CA
	Ruberoid® Torch Granule	ASTM D6222	I	Mt. Vernon, IN Savannah, GA Stockton, CA

5. LIMITATIONS:

5.1 This is a Building Code Evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

5.2 This PEER is not for use in Non-High Velocity Hurricane Zone jurisdictions.

5.3 The evaluation herein pertains to above-deck roof components; deck-attachment details pertain to 'as-tested' conditions under **Testing Application Standard TAS 114, Appendix J**. Roof decks shall be in accordance with **FBC HVHZ** requirements to the satisfaction of the Authority Having Jurisdiction.

5.4 This PEER does not include evaluation of fire classification. Refer to **FBC HVHZ 1516** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.

5.5 This PEER does not include evaluation of roof edge termination. Refer to **Roofing Application Standard RAS 111** for requirements and limitations regarding edge securement for low-slope roofs.

5.6 Refer to **FBC HVHZ 1521** for requirements and limitations regarding recover installations.

5.6.1 For mechanically attached components over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with **Testing Application Standard TAS 105**.

5.6.2 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **Testing Application Standard TAS 124** shall be conducted on mock-ups of the proposed new roof assembly.

5.6.3 For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with **Testing Application Standard TAS 124**.

5.7 Refer to Appendix 1 for system attachment requirements for wind load resistance.

FBC HVHZ

5.7.1 "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per **Testing Application Standard** **TAS 114** has already been applied). Refer to **FBC HVHZ 1620** and **Roofing Application Standard** **RAS 128** for determination of design wind loads.

5.7.2 For mechanically attached components, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with **FBC HVHZ 1620** or **Roofing Application Standard** **RAS 128**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Analysis shall be in accordance with **Roofing Application Standard** **RAS 117** or **Roofing Application Standard** **RAS 137**. ***This extrapolation is not permitted for systems marked with an asterisk****.

5.7.3 For assemblies marked with an asterisk*, the maximum design pressure (MDP) limitation shall be applicable to all roof pressure zones. Rational analysis is not permitted.

5.8 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C.** **Rule 61G20-3**. Refer to the Product Approval of the component manufacturer for components listed in Appendix 1 that are produced by a Product Manufacturer other than the report holder on Page 1 of this PEER.

6. INSTALLATION:

GAF Conventional Built-Up Roof Systems shall be installed in accordance with **GAF** published installation instructions, subject to the Limitations of Use herein.

7. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction to properly evaluate the installation of this product.

8. MANUFACTURING PLANTS:

Contact the named QA entity for manufacturing facilities covered by **F.A.C.** **Rule 61G20-3** QA requirements. Refer to Section 4 herein for products and production locations having met codified material standards.

9. QUALITY ASSURANCE ENTITY:

UL (QUA9625): (360) 817-5512; bsai.inspections@ul.com

- THE 34-PAGES THAT FOLLOW FORM PART OF THIS PEER -

FBC HVHZ

Appendix 1: Attachment Requirements for Wind Uplift Resistance

Table	Deck	Application	Type	Description	Page
1A	Wood	New, Reroof (Tear-Off) or Recover	B-1	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	6
1B	Wood	New or Reroof (Tear-Off)	B-3	Mech. Attached Anchor Sheet (nails & caps), Bonded Insulation, Bonded Roof Cover	6
1C	Wood	New, Reroof (Tear-Off) or Recover	B-3	Mech. Attached Anchor Sheet (screws & plates), Bonded Insulation, Bonded Roof Cover	7
1D	Wood	New, Reroof (Tear-Off) or Recover	C-1	Mech. Attached Insulation, Bonded Roof Cover	9
1E	Wood	New, Reroof (Tear-Off) or Recover	D-2	Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	9
1F	Wood	New or Reroof (Tear-Off)	E-2	Non-Insulated, Mech. Attached Base Sheet (nails & caps), Bonded Roof Cover	10
1G	Wood	New, Reroof (Tear-Off) or Recover	E-2	Non-Insulated, Mech. Attached Base Sheet (screws & plates), Bonded Roof Cover	11
2A	Steel	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	12
2B	Steel or Structural Concrete	New, Reroof (Tear-Off) or Recover	B-1	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	12
2C	Steel or Structural concrete	New, Reroof (Tear-Off), Recover	B-2	Mech. Attached Thermal Barrier, Bonded Vapor Retarder, Bonded Insulation, Bonded Roof Cover	14
2D	Steel or Structural Concrete	New, Reroof (Tear-Off) or Recover	C-1	Mech. Attached Insulation, Bonded Roof Cover	15
2E	Steel or Structural Concrete	New, Reroof (Tear-Off) or Recover	D-2	Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	16
3A	Structural Concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	18
3B	Structural Concrete	New or Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	20
4A	Lightweight concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	21
4B	Lightweight concrete	New or Reroof (Tear-Off)	B-3	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	21
4C	Lightweight concrete	New, Reroof (Tear-Off) or Recover	D-2	Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	23
4D	Lightweight concrete	New or Reroof (Tear-Off)	E-2	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	24
4E	Lightweight concrete	New or Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	24
5A	Cementitious wood fiber	Reroof (Tear-Off) or Recover	B-1	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	25
5B	Cementitious wood fiber	Reroof (Tear-Off) or Recover	B-3	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	26
5C	Cementitious wood fiber	Reroof (Tear-Off) or Recover	C-1	Mech. Attached Insulation, Bonded Roof Cover	26
5D	Cementitious wood fiber	Reroof (Tear-Off) or Recover	D-2	Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	27
5E	Cementitious wood fiber	Reroof (Tear-Off) or Recover	E-2	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	27
6A	Existing gypsum	Reroof (Tear-Off)	B-1	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	28
6B	Existing gypsum	Reroof (Tear-Off)	B-3	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	29
6C	Existing gypsum	Reroof (Tear-Off)	C-1	Mech. Attached Insulation, Bonded Roof Cover	30
6D	Existing gypsum	Reroof (Tear-Off)	D-2	Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	31
6E	Existing gypsum	Reroof (Tear-Off)	E-2	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	31
7A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	32
7B	Various	Recover	F	Non-Insulated, Bonded Roof Cover	34

FBC HVHZ

The following notes apply to the systems outlined herein:

1 The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC HVHZ requirements to the satisfaction of the Authority Having Jurisdiction. Deck-attachment details pertain to 'as-tested' conditions under Testing Application Standard TAS 114, Appendix J.

2 Unless otherwise noted, fasteners and stress plates shall be as follows. Fastener shall be of sufficient length for the following engagements:

Fastener/Plate Options			
Deck Type	**By**	**Parts**	**Minimum Engagement**
Wood	GAF	Drill-Tec #12 Fastener, Drill-Tec #12 DP Fastener, Drill-Tec #12 DPH Fastener, Drill-Tec #14 Fastener or Drill-Tec #14 HD Fastener with Drill-Tec 3" Standard Steel Plate, Drill-Tec 3" Steel Plate or Drill-Tec AccuTrac Flat Plate, Drill-Tec AccuTrac Recessed Plate (insulation only), Drill-Tec 3" Flat Steel Plate or Drill-Tec 3" Recessed Steel Plate; Drill-Tec ASAP 3S; Drill-Tec Heavy Duty ASAP Roofing Fastener Assembled with a 3" Metal Plate; Drill-Tec 3" ASAP Flat or Drill-Tec 3" ASAP Recessed	Minimum ¾-inch plywood penetration or minimum 1-inch wood plank embedment
Steel	GAF	Drill-Tec #12 Fastener, Drill-Tec #12 DP Fastener, Drill-Tec #12 DPH Fastener, Drill-Tec #14 Fastener, Drill-Tec #14 HD Fastener, Drill-Tec XHD Fastener or Drill-Tec #15 EHD Fastener with Drill-Tec 3" Standard Steel Plate, Drill-Tec 3" Steel Plate or Drill-Tec AccuTrac Flat Plate or Drill-Tec AccuTrac Recessed Plate (insulation only), Drill-Tec 3" Flat Steel Plate or Drill-Tec 3" Recessed Steel Plate; Drill-Tec ASAP 3S; Drill-Tec Heavy Duty ASAP Roofing Fastener Assembled with a 3" Metal Plate; Drill-Tec Extra Heavy Duty ASAP Roofing Fastener – Insulation; ; Drill-Tec 3" ASAP Flat or Drill-Tec 3" ASAP Recessed	Minimum ¾-inch steel penetration and engage the top flute of the steel deck
	Note:	Unless otherwise noted, Drill Tec #12 DF Fastener or Drill Tec #14 DF Fastener with Drill Tec 3" DF Steel Insulation Plate may be used in place of Drill-Tec #12 Fastener or Drill-Tec #14 Fastener with Drill-Tec 3" Standard Steel Plate when used to secure DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Ultralight Coated Glass-Mat Roof Board to steel deck, up to a maximum allowable design pressure (MDP) of -120.0 psf.	
	Note:	Unless otherwise noted, Drill Tec #12 DF Fastener or Drill Tec #14 DF Fastener with Drill Tec 3" DF Steel Insulation Plate may be used in place of Drill-Tec #12 Fastener or Drill-Tec #14 Fastener with Drill-Tec 3" Standard Steel Plate when used to secure min. 0.5-inch thick Structodek High Density Fiberboard Roof Insulation, 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or min. 1.5-inch EnergyGuard POLYISO INSULATION or EnergyGuard Ultra Polyiso Insulation to steel deck.	
	Note:	Unless otherwise noted, Drill Tec #12 DF Fastener or Drill Tec #14 DF Fastener with Drill Tec 3" DF Steel Insulation Plate may be used in place of Drill-Tec #12 Fastener or Drill-Tec #14 Fastener with Drill-Tec 3" Standard Steel Plate when used to secure GAFGLAS #75 Base Sheet to steel deck	
Structural Concrete	GAF	Drill-Tec #14 Fastener, Drill-Tec #14 HD Fastener or Drill-Tec CD-10 with Drill-Tec 3" Standard Steel Plate, Drill-Tec 3" Steel Plate or Drill-Tec AccuTrac Flat Plate or Drill-Tec AccuTrac Recessed Plate (insulation only), Drill-Tec 3" Flat Steel Plate or Drill-Tec 3" Recessed Steel Plate; Drill-Tec Heavy Duty ASAP Roofing Fastener Assembled with a 3" Metal Plate or Drill-Tec 3" ASAP Flat (#14 only)	Minimum 1.25-inch embedment. Fastener installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions
	Note:	Unless otherwise noted, Drill Tec #14 DF Fastener with Drill Tec 3" DF Steel Insulation Plate may be used in place of Drill-Tec #14 Fastener with Drill-Tec 3" Standard Steel Plate when used to secure DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Ultralight Coated Glass-Mat Roof Board to structural concrete deck, up to a maximum allowable design pressure (MDP) of -120.0 psf.	
	Note:	Unless otherwise noted, Drill Tec #14 DF Fastener with Drill Tec 3" DF Steel Insulation Plate may be used in place of Drill-Tec #14 Fastener with Drill-Tec 3" Standard Steel Plate when used to secure min. 0.5-inch thick Structodek High Density Fiberboard Roof Insulation, 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or min. 1.5-inch EnergyGuard POLYISO INSULATION or EnergyGuard Ultra Polyiso Insulation to structural concrete deck.	

3 Unless otherwise noted, insulation may be any one layer or combination of FBC Approved (Local or Statewide) board(s) that meet FBC HVHZ 1516 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.

4 Minimum 200 psi, minimum 2-inch thick FBC HVHZ Approved lightweight insulating concrete may be substituted for, or installed below, rigid insulation board for System Types B-1, C-1, C-2, D-1 or D-2, whereby fasteners are installed through the lightweight insulating concrete to engage the structural deck. The structural deck shall be of equal or greater type, thickness and strength to the steel and structural concrete deck listings. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. This is a wind uplift resistance allowance and does not purport to address non-wind-uplift-related issues, such as deck venting or moisture levels within the LWIC and the potential effect on overlying components. If mechanical attachment to the structural deck through lightweight insulating concrete is proposed, field withdrawal resistance testing shall be performed to confirm equivalent or determine enhanced fastening patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137. Calculations shall be prepared, signed and sealed by a qualified design professional.

5 Preliminary insulation attachment for System Type D: Minimum four fasteners per 4 x 8 ft board or minimum two fasteners per 4 x 4 ft board.

6 Unless otherwise noted, insulation adhesive application rates are as follows.
Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, board joints shall be staggered.
The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.

Insulation Adhesive References				
By	Adhesive	Reference	FBC File or NOA	Minimum Rate
GAF	GAF LRF Adhesive M	'LRF-M'	NOA 18-0521.05	Continuous 0.75 to 1-inch ribbons, 12-inch o.c.
GAF	GAF LRF Adhesive M Canister	'LRF-M Canister'	N/A	Continuous 1 to 1.5-inch ribbons, 12-inch o.c.
GAF	GAF LRF Adhesive XF	'LRF-XF'	N/A	Continuous 0.75 to 1-inch ribbons, 12-inch o.c.
H.B. Fuller Company	Millennium One Step Foamable Adhesive	'M-OSFA'	NOA 18-1109.02	Continuous 0.25 to 0.5-inch wide ribbons, 12-inch o.c.
OMG, Inc.	OlyBond 500 Adhesive Fastener	'OB500'	NOA 22-0519.04	Continuous 0.75-inch wide ribbons, 12-inch o.c. (PaceCart, SpotShot or Canister)
Generic, ASTM D312, Type IV	hot asphalt	N/A	N/A	Full coverage at 25-30 lbs/square

7 Unless otherwise noted, all insulations are flat-stock or taper board of the minimum thickness noted. Tapered polyisocyanurate at the following thickness limitations may be substituted with the following Maximum Design Pressure (MDP) limitations. In no case shall these values be used to 'increase' the MDP listings in the tables; rather if MDP listing below meets or exceeds that listed for a particular system in the tables, then the thinner board listed below may be used as a drop-in for the equivalent thicker material listed in the table.

MDP Limitations for Tapered Polyisocyanurate Insulations				
Adhesive	Insulation		Min. Tapered Thickness (in)	MDP (psf)
	Listed Product	FBC File or NOA		
LRF-M	EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation	NOA 22-1202.06	0.5	-232.5
LRF-XF	EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation	NOA 22-1202.06	0.5	-292.5
LRF-XF	EnergyGuard RA	NOA 23-0130.03	0.5	-487.5
M-OSFA	Any EnergyGuard polyisocyanurate listed with adhesive herein	various	0.5	-157.5
OB500	EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation	NOA 22-1202.06	0.5	-292.5
OB500	EnergyGuard RH	NOA 19-1017.09	0.5	-315.0
OB500	EnergyGuard RN	NOA 18-1126.10	0.5	-315.0
OB500	EnergyGuard RA	NOA 23-0130.03	0.5	-487.5
Hot asphalt	Any EnergyGuard polyisocyanurate listed with adhesive herein	Various	0.5	-240.0

8 Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.

9 For mechanically attached components, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with FBC HVHZ 1620 or Roofing Application Standard RAS 128. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria in accordance with Roofing Application Standard RAS 117 or Roofing Application Standard RAS 137. *This extrapolation is not permitted for systems marked with an asterisk*

10 For assemblies marked with an asterisk*, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems.

11 For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance in accordance with Testing Application Standard TAS 105. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Should the fastener resistance be less than that required, a revised fastener spacing – prepared, signed and sealed by a qualified design professional in accordance with Roofing Application Standard RAS 117 or Roofing Application Standard RAS 137 – may be submitted to the Building Official for review and acceptance.

12 Refer to FBC HVHZ 1521 for requirements and limitations regarding recover installations. For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing shall be conducted on mock-ups of the proposed new roof assembly. For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with Testing Application Standard TAS 124.

13 For Structural Concrete Deck or Recover Applications using System Type C-1 the base insulation layer is optional and for System Type C-2, D-1 or D-2, the insulation is optional. Alternatively, an FBC HVHZ Approved insulation board or coverboard may be used as a separation layer. Board products shall be preliminarily attached prior to roof cover installation (**Note 5**). The separator component shall be documented as meeting FBC HVHZ 1516 and, for foam plastic, FBC Chapter 26, when installed with the roof cover in Recover applications.

14 Lightweight insulating concrete (LWIC) shall be cast in accordance with FBC Section 1917 to the satisfaction of the Authority Having Jurisdiction. For systems where specific LWIC is referenced, refer to current LWIC FBC HVHZ Product Approval for specific deck construction and limitations. Unless otherwise noted, for systems where specific LWIC is not referenced, the minimum design mix shall be 300 psi. In all cases, the minimum top-coat thickness is 2-inches. For LWIC over structural concrete, reference is made to FBC Section 1917.4.1, Point 1. For "pre-existent" LWIC references, listings were established through testing over lightweight concrete cast using only foaming agent (ASTM C896), water and Portland cement (ASTM C150), with no proprietary additives, in accordance with procedures adopted by Miami-Dade BCCO (FBC CER1592). Use of these listings in new construction or re-roof (tear-off) applications is at the discretion of the Designer or Record and Authority Having Jurisdiction.

15 For bonded membrane applications, unless otherwise noted, refer to the following.

Membrane / Adhesive Combinations		
Reference	**Type**	**Application**
Base Sheet (BS)	Optional base sheet of GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet or GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M	Hot asphalt
Venting Base Sheet (V-BS)	GAFGLAS Stratavent Perforated Venting Base Sheet	Loose-laid
Ply Sheet (PS)	Two or more plies of GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet or GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M	Hot asphalt
Ply Sheet, Modified Bitumen (PS-MB)	One or two plies of GAFGLAS #80 Ultima Base Sheet, Ruberoid 20 Smooth, Ruberoid Mop Smooth or Ruberoid Mop Smooth 1.5	Hot asphalt
Cap Sheet (CS)	Optional cap sheet of GAFGLAS Mineral-Surfaced Cap Sheet, Tri-Ply BUR Granule Cap Sheet or GAFGLAS EnergyCap Mineral-Surfaced Cap Sheet	Hot asphalt

Note: Systems without a cap sheet shall be surfaced in accordance with GAF requirements, meeting the fire resistance requirements of FBC Section 1516, and in accordance with FBC Section 1519.12.

16 Vapor barrier options for use over **structural concrete deck** followed by bonded insulation carry the following Maximum Design Pressure (MDP) limitations. The lesser of the MDP listings below vs. that for the selected assembly applies.

Vapor Barrier Options; Structural Concrete Deck; Followed by Adhesive-Applied Insulation					
Option #	**Primer**	**Vapor Barrier (Note 15)**		**Insulation Adhesive per Table 3A**	**MDP (psf)**
		Type	**Application**		
C-VB-1.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	Ruberoid Torch Granule	Torch-applied	Hot asphalt	-225.0
C-VB-2.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	BP-AA	Hot asphalt applied	Hot asphalt	-360.0
C-VB-3.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	One or two plies, GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6 or GAFGLAS FlexPly 6 M or SBS-AA	Hot asphalt applied	Hot asphalt	-495.0
C-VB-4.	None	GAF SA Vapor Retarder XL	Self-adhering	LRF-M, 12-inch o.c.	-112.5
C-VB-5.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	SBS-TA	Torch-applied	LRF-M, 12-inch o.c.	-180.0
C-VB-6.	GAF SA Primer	GAF SA Vapor Retarder	Self-adhering	LRF-M, 12-inch o.c.	-202.5
C-VB-7.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	BP-AA or one or two plies GAFGLAS Ply 4, GAFGLAS Ply 4 M, GAFGLAS FlexPly 6 or GAFGLAS Flex Ply 6 M or SBS-AA	Hot asphalt applied	LRF-M, 12-inch o.c.	-495.0
C-VB-8.	None	GAF SA Vapor Retarder XL	Self-adhering	LRF-XF 12-inch o.c.	-112.5
C-VB-9.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	Ruberoid Torch Granule	Torch-applied	LRF-XF, 12-inch o.c.	-169.0
C-VB-10.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	SBS-TA	Torch-applied	LRF-XF, 12-inch o.c.	-180.0

Vapor Barrier Options; Structural Concrete Deck; Followed by Adhesive-Applied Insulation					
Option #	Primer	Vapor Barrier (Note 15)		Insulation Adhesive per Table 3a	MDP (psf)
		Type	Application		
C-VB-11.	GAF SA Primer	GAF SA Vapor Retarder	Self-adhering	LRF-XF, 12-inch o.c.	-202.5
C-VB-12.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	SBS-SA	Self-adhering	LRF-XF, 12-inch o.c.	-250.0
C-VB-13.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	BP-AA or one or two plies GAFGLAS Ply 4, GAFGLAS Ply 4 M, GAFGLAS FlexPly 6 or GAFGLAS Flex Ply 6 M or SBS-AA	Hot asphalt applied	LRF-XF, 12-inch o.c.	-262.5
C-VB-14.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	Ruberoid 30	Hot asphalt applied	LRF-XF, 12-inch o.c.	-270.0
C-VB-15.	None	GAF SA Vapor Retarder XL	Self-adhering	OlyBond 500, 12-inch o.c.	-127.5
C-VB-16.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	Ruberoid Torch Smooth	Torch-applied	OB500, 12-inch o.c.	-165.0
C-VB-17.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	Ruberoid HW 25 Smooth	Torch-applied	OB500, 12-inch o.c.	-180.0
C-VB-18.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	SBS-SA	Self-adhering	OB500, 12-inch o.c.	-187.5
C-VB-19.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	Ruberoid 20 Smooth	Matrix 102 SBS Membrane Adhesive at 1.5 gal/square	OB500, 12-inch o.c.	-202.5
C-VB-20.	GAF SA Primer	GAF SA Vapor Retarder	Self-adhering	OB500, 12-inch o.c.	-202.5
C-VB-21.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	Ruberoid Torch Granule	Torch-applied	OB500, 12-inch o.c.	-225.0
C-VB-22.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	Ruberoid HW Smooth	Torch-applied	OB500, 12-inch o.c.	-232.5
C-VB-23.	Matrix 307 Premium Asphalt Primer or ASTM D41 primer	BP-AA or one or two plies GAFGLAS Ply 4, GAFGLAS Ply 4 M, GAFGLAS FlexPly 6 or GAFGLAS Flex Ply 6 M or SBS-AA	Hot asphalt applied	OB500, 12-inch o.c.	-352.5

17 Fire barriers of FireOut™ Fire Barrier Coating, VersaShield® Solo™ Fire-Resistant Slip Sheet, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Glass-Mat Roof Board are optional in all wood deck assemblies where overlying components are mechanically fastened.

18 For System Types B-1, B-2, C-1, C-2, D-1 or Type D-2, GAF SA Vapor Retarder or GAF SA Vapor Retarder XL may be installed atop the roof deck, or to a loose-laid thermal barrier of DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, prior to installation of the insulation and roof cover. When adhering GAF SA Vapor Retarder to structural concrete, the substrate shall be primed with GAF SA Primer. When adhering GAF SA Vapor Retarder to DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, the substrate shall be primed with GAF SA Primer or Matrix 307 Premium Asphalt Primer. Refer to FM Loss Prevention Data Sheet 1-29 for design and installation limitations.

19 The following products are interchangeable within the scope of this Evaluation Report:

Acceptable Alternates				
Sub-Category	Manufacturer	FBC File or NOA	Listed Product Herein	Alternate
Roofing Insulation	GAF	NOA 22-1202.06	EnergyGuard Polyiso Insulation	EnergyGuard NH Polyiso Insulation
			EnergyGuard Ultra Polyiso Insulation	EnergyGuard NH Ultra Polyiso Insulation
	Georgia-Pacific Gypsum, LLC	NOA 21-1229.05	DensDeck Prime	DensDeck StormX Prime Roof Board
Vapor Barrier	GAF	N/A	GAF SA Vapor Retarder XL	GAF SA Vapor Retarder XL40

20 "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC (HVHZ) 1620 and Roofing Application Standard RAS 128 for determination of design wind loads. (Notes 9 and 10)

FBC HVHZ

TABLE 1A: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION LAYER, BONDED ROOF COVER								
System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)		
W-1.	Min. 19/32-inch plywood or wood plank	One or more layers Min. 1.3-inch EnergyGuard RA or RN	Note 2	1 per 3.0 ft²	Optional one or more layers min. 1.3-inch EnergyGuard RA or RN followed by min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	hot asphalt	GAF BUR. Note 15.	-45.0*
W-2.	Min. 19/32-inch plywood or wood plank	One or more layers Min. 1.5-inch EnergyGuard Composite	Note 2	1 per 3.0 ft²	Optional one or more layers min. 1.3-inch EnergyGuard RA or RN followed by min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	hot asphalt	GAF BUR. Note 15.	-45.0*
W-3.	Min. 19/32-inch plywood or wood plank	One or more layers Min. 1-inch Structodek High Density Fiberboard Roof Insulation	Note 2	1 per 4.0 ft²	Optional one or more layers min. 1.3-inch EnergyGuard RA or RN followed by min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	hot asphalt	GAF BUR. Note 15.	-45.0*

TABLE 1B: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET (NAILS & CAPS), BONDED INSULATION, BONDED ROOF COVER								
System No.	Deck (Note 1)	Anchor Sheet			Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)		
CONVENTIONAL SYSTEMS:								
W-4.	Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, Ruberoid 20 Smooth	32 ga., 1-5/8-inch diameter tin caps with 11 ga. annular ring shank nails	9-inch o.c. at the 4-inch lap and 12-inch o.c. in two staggered center rows	One or more layers, any combination: Min. 1-inch EnergyGuard RA or RN, Min. 1.5-inch EnergyGuard Composite, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	GAF BUR. Note 15.	-45.0
W-5.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	32 ga., 1-5/8-inch diameter tin caps with 12 ga. annular ring shank nails	8-inch o.c. at the 4-inch lap and 8-inch o.c. in two staggered center rows	Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso followed by Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	GAF BUR. Note 15.	-52.5

TABLE 1B: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET (NAILS & CAPS), BONDED INSULATION, BONDED ROOF COVER								
System No.	Deck (Note 1)	Anchor Sheet			Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)		
W-6.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	FBC (HVHZ) approved 1.25-inch annular ring shank nails and inverted Drill-Tec 3-inch Galvalume Plate	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two staggered center rows	One or more layers, any combination: Min. 1-inch EnergyGuard RA or RN, Min. 1.5-inch EnergyGuard Composite, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	GAF BUR. Note 15.	-60.0
VENTING SYSTEMS:								
W-7.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	32 ga., 1-5/8-inch diameter tin caps with 12 ga. annular ring shank nails	8-inch o.c. at the 4-inch lap and 8-inch o.c. in two staggered center rows	Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso	hot asphalt	V-BS followed by GAF BUR Note 15.	-52.5

TABLE 1C: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET (SCREWS & PLATES), BONDED INSULATION, BONDED ROOF COVER								
System No.	Deck (Note 1)	Anchor Sheet			Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)		
CONVENTIONAL SYSTEMS:								
W-8.	Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, Ruberoid 20 Smooth	Note 2	12-inch o.c. at the 2-inch lap and 12-inch o.c. in two center staggered center rows	One or more layers, any combination: Min. 1-inch EnergyGuard RA or RN, Min. 1.5-inch EnergyGuard Composite, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	GAF BUR. Note 15.	-45.0
W-9.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2 (#14 ONLY)	16-inch o.c. at the min. 4-inch lap and 16-inch o.c. in two, equally spaced, staggered center rows	Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso followed by Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	GAF BUR. Note 15.	-52.5

TABLE 1C: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET (SCREWS & PLATES), BONDED INSULATION, BONDED ROOF COVER								
System No.	Deck (Note 1)	Anchor Sheet			Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)		
W-10.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2 (#14 ONLY)	12-inch o.c. at the min. 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso followed by Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	GAF BUR. Note 15.	-60.0
W-11.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2	12-inch o.c. at the 2-inch lap and 12-inch o.c. in three staggered center rows	One or more layers, any combination: Min. 1-inch EnergyGuard RA or RN, Min. 1.5-inch EnergyGuard Composite, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	GAF BUR. Note 15.	-60.0
W-12.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2 (#14 ONLY)	8-inch o.c. at the 4-inch lap and 8-inch o.c. in three staggered center rows	Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso followed by Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	GAF BUR. Note 15.	-75.0*
VENTING SYSTEMS:								
W-13.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2 (#14 ONLY)	16-inch o.c. at the min. 4-inch lap and 16-inch o.c. in two, equally spaced, staggered center rows	Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso	hot asphalt	V-BS followed by GAF BUR Note 15.	-52.5
W-14.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2 (#14 ONLY)	12-inch o.c. at the min. 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso	hot asphalt	V-BS followed by GAF BUR Note 15.	-60.0
W-15.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2 (#14 ONLY)	8-inch o.c. at the 4-inch lap and 8-inch o.c. in three staggered center rows	Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso	hot asphalt	V-BS followed by GAF BUR Note 15.	-82.5*

TABLE 1D: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER									
System No.	Deck (Note 1)	Base Insulation Layer (Note 13)	Top Insulation Layer			Roof Cover (Note 15)			MDP (psf)
			Type	Fastener (Note 11)	Attach	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:									
W-16.	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose-laid	One or more layers Min. 1.5-inch EnergyGuard Composite (wood fiber)	Note 2	1 per 3.0 ft²	BS	GAF BUR. Note 15.		-45.0*
W-17.	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose-laid	One or more layers Min. 1.5-inch EnergyGuard Composite (perlite)	Note 2	1 per 3.0 ft²	BS	GAF BUR. Note 15.		-45.0*
W-18.	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose-laid	One or more layers min. 1-inch Structodek High Density Fiberboard Roof Insulation	Note 2	1 per 4.0 ft²	BS	GAF BUR. Note 15.		-45.0*
W-19.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	(Optional) One or more layers, any combination, loose-laid	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	Note 2 (#14 only)	1 per 1.8 ft²	BS	GAF BUR. Note 15.		-60.0
VENTING BASE SYSTEMS:									
W-20.	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose-laid	One or more layers Min. 1.5-inch EnergyGuard Composite (wood fiber)	Note 2	1 per 3.0 ft²	V-BS	GAF BUR. Note 15.		-45.0*
W-21.	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose-laid	One or more layers Min. 1-inch Structodek High Density Fiberboard Roof Insulation	Note 2	1 per 4.0 ft²	V-BS	GAF BUR. Note 15.		-45.0*
W-22.	Min. 15/32-inch plywood at max. 24-inch span	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra	Note 2	1 per 1.3 ft²	V-BS	GAF BUR Note 15.		-60.0*

TABLE 1E: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER								
System No.	Deck (Note 1)	Insulation Layer(s) (Note 13)		Base Sheet			Roof Cover (Note 15)	MDP (psf)
		Type	Attach	Base	Fastener (Note 11)	Attach		
W-23.	Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c.	One or more layers, any combination	Loose Laid	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2	12-inch o.c. at the 2-inch lap and 12-inch o.c. in two equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)	-45.0
W-24.	Min. 23/32-inch plywood to supports spaced max. 24-inch o.c.; 24" span, 8d ring shank nails 6" o.c.	One or more layers, any combination	Loose Laid	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2 (#14 only)	9-inch o.c. at the 2-inch lap and 9-inch o.c. in three equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)	-52.5
W-25.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	One or more layers, any combination	Loose Laid	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2	12-inch o.c. at the 2-inch lap and 12-inch o.c. in three equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)	-60.0
W-26.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	One or more layers, any combination	Loose Laid	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2	8-inch o.c. at the 2-inch lap and 8-inch o.c. in three equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)	-75.0

PROPOSED

TABLE 1F: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET (NAILS & CAPS), BONDED ROOF COVER						
System No.	Deck (Note 1)	Base Sheet			Roof Cover (Note 15)	MDP (psf)
		Type	Fastener (Note 11)	Attach		
W-27.	Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at min. 4-inch laps and 8-inch o.c. in two, equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)	-45.0
W-28.	Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c.	GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Eliminator Nailable Venting Base Sheet, Ruberoid 20 Smooth, Ruberoid Mop Smooth, Ruberoid Mop Smooth 1.5	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. at the 4-inch lap and 12-inch o.c. in two staggered center rows	GAF BUR. Note 15. (No V-BS)	-45.0
W-29.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, Ruberoid 20 Smooth	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two staggered center rows	GAF BUR. Note 15. (No V-BS)	-52.5
W-30.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	FBC (HVHZ) approved 1.25-inch annular ring shank nails and inverted Drill-Tec 3-inch Galvalume Plate	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two staggered center rows	GAF BUR. Note 15. (No V-BS)	-60.0
W-31.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #80 Ultima Base Sheet	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	7-inch o.c. at min. 4-inch laps and 7-inch o.c. in three, equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)	-82.5
W-32.	Min. 19/32-inch plywood at max. 24-inch span; 8d ring shank nails, 3" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	4-inch o.c. at min. 2-inch laps and 4-inch o.c. in four (4), equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)	-97.5

FBC HVHZ

TABLE 1G: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET (SCREWS & PLATES), BONDED ROOF COVER						
System No.	Deck (Note 1)	Base Sheet			Roof Cover (Note 15)	MDP (psf)
		Type	Fastener (Note 11)	Attach		
W-33.	Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, Ruberoid 20 Smooth	Note 2	12-inch o.c. at the 2-inch lap and 12-inch o.c. in two center staggered center rows	GAF BUR. Note 15. (No V-BS)	-45.0
W-34.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2 (#14 ONLY)	16-inch o.c. at 4-inch laps and 16-inch o.c. in two, equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)	-52.5
W-35.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2 (#14 ONLY)	12-inch o.c. at 4-inch laps and 12-inch o.c. in two, equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)	-60.0
W-36.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2	12-inch o.c. at the 2-inch lap and 12-inch o.c. in three staggered center rows	GAF BUR. Note 15. (No V-BS)	-60.0
W-37.	Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth	Note 2	8-inch o.c. at the 2-inch lap and 8-inch o.c. in three staggered center rows	GAF BUR. Note 15. (No V-BS)	-75.0

FBC HVHZ

TABLE 2A: STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER									
System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base Ply	Ply	Cap Ply	
CONVENTIONAL SYSTEMS:									
S-1.	Min. 22 ga., type B, Grade 40 steel; 6 ft span, 5/8" puddle welds, 6" o.c.	Min. 1.5-inch EnergyGuard Polyiso Insulation	LRF-M or OB500, 6-inch o.c.	Optional additional layer(s) min. 1.5-inch thick EnergyGuard Polyiso Insulation or EnergyGuard Ultra Polyiso Insulation followed by Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	LRF-M or OB500	GAF BUR. Note 15. (No V-BS)			-60.0

TABLE 2B: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER										
System No.	Deck α (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
		Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:										
S-2.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Note 2	1 per 3.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	BS	GAF BUR. Note 15.		-45.0*
S-3.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Note 2	1 per 3.0 ft^2	Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite)	hot asphalt	BS	GAF BUR. Note 15.		-45.0*
S-4.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Note 2	1 per 2.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	BS	GAF BUR. Note 15.		-45.0*
S-5.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Note 2	1 per 2.0 ft^2	Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite)	hot asphalt	BS	GAF BUR. Note 15.		-45.0*
S-6.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch EnergyGuard Polyiso Insulation	Note 2	1 per 2.7 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.75-inch EnergyGuard Perlite Roof Insulation	hot asphalt	BS	GAF BUR. Note 15.		-45.0*
S-7.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch EnergyGuard Polyiso Insulation	Note 2	1 per 4.0 ft^2	Min. 0.5-inch EnergyGuard Perlite Recover Board or min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime	hot asphalt	BS	GAF BUR. Note 15.		-45.0*

FBC HVHZ

TABLE 2B: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER										
System No.	Deck α (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
		Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
S-8.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch EnergyGuard Polyiso Insulation	Note 2	1 per 4.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.75-inch EnergyGuard Perlite Roof Insulation	hot asphalt	BS	GAF BUR. Note 15.		-45.0*
S-9.	Min. 22 ga. type B, Grade 33 steel; 6 ft span, two (2) #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete	Min. 2-inch EnergyGuard RA or RN or EnergyGuard Polyiso Insulation	Note 2 (#14 only for steel deck)	1 per 1.3 ft^2	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	hot asphalt	BS	GAF BUR. Note 15.		-90.0
S-10.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch EnergyGuard RA or RN	Note 2	1 per 2.0 ft^2	Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	OB500	BS	GAF BUR. Note 15.		-45.0*
S-11.	Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete	Min. 2-inch EnergyGuard RA or RN	Note 2	1 per 1.6 ft^2	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	BS	GAF BUR. Note 15.		-60.0
S-12.	Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete	Min. 2-inch EnergyGuard RA	Note 2	1 per 1.6 ft^2	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	LRF-XF	BS	GAF BUR. Note 15.		-60.0
VENTING BASE SYSTEMS:										
S-13.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Note 2	1 per 3.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*
S-14.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Note 2	1 per 2.0 ft^2	Min. 1.0-inch EnergyGuard RA or RN	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*
S-15.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Max. 48 x 48-inch x min. 1.5-inch EnergyGuard Polyiso Insulation	Note 2	1 per 4.0 ft^2	Min. 1.5-inch EnergyGuard Polyiso Insulation	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*
S-16.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Note 2	1 per 2.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*

α As-tested steel deck performance under Testing Application Standard TAS 114, Appendix J indicates steel deck at max. 6 ft span attached with 5/8" diameter puddle welds spaced 6" o.c. may be substituted for #12 HWH Teks 5 in the Table 2B assemblies to a maximum design pressure of -82.5 psf. Note 1.

TABLE 2c: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) SYSTEM TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED VAPOR RETARDER, BONDED TOP INSULATION, BONDED ROOF COVER											
System No.	Deck (Note 1)	Thermal Barrier			Vapor Retarder	Insulation Layer(s)		Roof Cover (Note 15)			MDP (psf)
		Type	Fastener (Note 11)	Attach		Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:											
S-17.	Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c.	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	Note 2	1 per 2.0 ft^2	GAF SA Vapor Retarder XL, self-adhering	Base Layer: Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra; Mid Layer(s): (Optional) Additional layer(s) base insulation, min. 1.5-inch thick; Coverboard: Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-M, LRF-XF or OB500	GAF BUR. Note 15			-67.5
S-18.	Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c.	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	Note 2	1 per 2.0 ft^2	Primer: GAF SA Primer Vapor Retarder: GAF SA Vapor Retarder, self-adhering	Base Layer: Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra; Mid Layer(s): (Optional) Additional layer(s) base insulation, min. 1.5-inch thick; Coverboard: Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-M, LRF-XF or OB500	GAF BUR. Note 15			-67.5
VENTING SYSTEMS:											
S-19.	Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c.	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	Note 2	1 per 2.0 ft^2	Primer: GAF SA Primer Vapor Retarder: GAF SA Vapor Retarder, self-adhering	Base Layer: Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra; Top Layer(s): (Optional) Additional layer(s) base insulation, min. 1.5-inch thick	LRF-M, LRF-XF or OB500	V-BS	GAF BUR. Note 15		-45.0*
S-20.	Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c.	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	Note 2	1 per 2.0 ft^2	GAF SA Vapor Retarder XL, self-adhering	Base Layer: Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra; Top Layer(s): (Optional) Additional layer(s) base insulation, min. 1.5-inch thick Coverboard (Optional): Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-M, LRF-XF or OB500	V-BS	GAF BUR. Note 15		-45.0*
S-21.	Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c.	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	Note 2	1 per 2.0 ft^2	Primer: GAF SA Primer Vapor Retarder: GAF SA Vapor Retarder, self-adhering	Base Layer: Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra; Top Layer(s): (Optional) Additional layer(s) base insulation, min. 1.5-inch thick; Coverboard: Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-M, LRF-XF or OB500	V-BS	GAF BUR. Note 15		-67.5

FBC HVHZ

TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER									
System No.	Deck α (Note 1)	Base Insulation Layer (Note 13)	Top Insulation Layer			Roof Cover (Note 15)			MDP (psf)
			Type	Fastener (Note 11)	Attach	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:									
S-22.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 1.5-inch EnergyGuard Composite (iso side down)	Note 2	1 per 4.0 ft^2	BS	GAF BUR. Note 15.		-45.0*
S-23.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 1-inch Structodek High Density Fiberboard Roof Insulation	Note 2	1 per 4.0 ft^2	BS	GAF BUR. Note 15.		-45.0*
S-24.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	Note 2	1 per 3.0 ft^2	BS	GAF BUR. Note 15.		-45.0*
S-25.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Note 2	1 per 2.0 ft^2	BS	GAF BUR. Note 15.		-45.0*
S-26.	Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.8 ft^2	BS	GAF BUR. Note 15.		-60.0
VENTING BASE SYSTEMS:									
S-27.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 1.5-inch EnergyGuard RA or RN	Note 2	1 per 3.0 ft^2	V-BS	GAF BUR. Note 15		-45.0*
S-28.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 2-inch EnergyGuard Ultra	Note 2 (no Drill-Tec 3" Flat Steel Plate or Drill-Tec 3" Recesssed Steel Plate)	1 per 4.0 ft^2	V-BS	GAR BUR. Note 15.		-45.0*
S-29.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 1.5-inch EnergyGuard RA or RN	Note 2	1 per 3.0 ft^2	V-BS	GAF BUR. Note 15		-45.0*
S-30.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 2-inch EnergyGuard RH	Note 2	1 per 2.9 ft^2	V-BS	GAR BUR. Note 15.		-45.0*
S-31.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Max. 48 x 48-inch x min. 2-inch EnergyGuard Polyiso Insulation	Note 2	1 per 3.2 ft^2	V-BS	GAR BUR. Note 15.		-45.0*
S-32.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 1.5-inch EnergyGuard Polyiso Insulation	Note 2	1 per 2.0 ft^2	V-BS	GAR BUR. Note 15.		-45.0*
S-33.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 2-inch EnergyGuard RA or RN, EnergyGuard Polyiso Insulation or EnergyGuard RA Composite (iso side up)	Note 2	1 per 1.45 ft^2	V-BS	GAF BUR. Note 15		-60.0
S-34.	Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 1.5-inch EnergyGuard RA or RN	Note 2	1 per 1.45 ft^2	V-BS	PS-MB	CS	-60.0
S-35.	Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 2-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Note 2	1 per 1.45 ft^2	V-BS	GAF BUR. Note 15		-60.0
S-36.	Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 2-inch EnergyGuard Ultra	Note 2 (no Drill-Tec 3" Flat Steel Plate or Drill-Tec 3" Recesssed Steel Plate)	1 per 1.45 ft^2	V-BS	PS-MB	CS	-75.0

FBC HVHZ

TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER									
System No.	Deck α (Note 1)	Base Insulation Layer (Note 13)	Top Insulation Layer			Roof Cover (Note 15)			MDP (psf)
			Type	Fastener (Note 11)	Attach	Base	Ply	Cap	
S-37.	Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Polyiso Insulation	Min. 0.25-inch Dens Deck	Note 2	1 per 1.0 ft^2	V-BS	PS or PS-MB	CS	-82.5
S-38.	Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination	Min. 3-inch EnergyGuard Polyiso Insulation	Note 2	1 per 1.6 ft^2	V-BS	GAF BUR. Note 15		-82.5

α As-tested steel deck performance under Testing Application Standard TAS 114, Appendix J indicates steel deck at max. 6 ft span attached with 5/8" diameter puddle welds spaced 6" o.c. may be substituted for #12 HWH Teks 5 in the Table 2D assemblies to a maximum design pressure of -82.5 psf. Note 1.

TABLE 2E: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER								
System No.	Deck α (Note 1)	Insulation Layer(s) (Note 13)	Base Sheet			Roof Cover (Note 15)		MDP (psf)
			Base	Fastener (Note 11)	Attach	Ply	Cap	
S-39.	Min. 22 ga. type B, Grade 33 steel	One or more layers, any combination	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2	18-inch o.c. at the 2-inch lap and 18-inch o.c. in three equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0*
S-40.	Min. 2,500 psi structural concrete	One or more layers, any combination	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2 (Drill-Tec #14 only)	18-inch o.c. at the 2-inch lap and 18-inch o.c. in three equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0*
S-41.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structrual concrete	One or more layers, any combination	GAFGLAS #80 Ultima Base Sheet	Drill-Tec #12 DF Fastener (steel only) or Drill-Tec #14 DF Fastener with Drill-Tec 3" DF Steel Insulation Plate	18-inch o.c. at min. 2-inch laps and 18-inch o.c. in three, equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0*
S-42.	Min. 22 ga. type B, Grade 33 steel	One or more layers, any combination	Ruberoid Mop Smooth 1.5	Note 2	24-inch o.c. at the 3-inch lap and 24-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0*
S-43.	Min. 2,500 psi structural concrete	One or more layers, any combination	Ruberoid Mop Smooth 1.5	Note 2 (Drill-Tec #14 only)	24-inch o.c. at the 3-inch lap and 24-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0*
S-44.	Min. 2,500 psi structural concrete	One or more layers, any combination	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2 (Drill-Tec #14 only)	9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0
S-45.	Min. 2,500 psi structural concrete	One or more layers, any combination	GAFGLAS #80 Ultima Base Sheet	Drill-Tec #14 DF Fastener with Drill-Tec 3" DF Steel Insulation Plate	9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0

FBC TVZ

TABLE 2E: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER								
System No.	Deck α (Note 1)	Insulation Layer(s) (Note 13)	Base Sheet			Roof Cover (Note 15)		MDP (psf)
			Base	Fastener (Note 11)	Attach	Ply	Cap	
S-46.	Min. 22 ga. type B, Grade 33 steel; 6 ft spans; 6" o.c. with TRAXX/5 screws	One or more layers, any combination	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2	6-inch o.c. at the 3-inch lap and 6-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)		-75.0
S-47.	Min. 2,500 psi structural concrete	One or more layers, any combination	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2 (Drill-Tec #14 only)	7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)		-75.0
S-48.	Min. 2,500 psi structural concrete	One or more layers, any combination	GAFGLAS #80 Ultima Base Sheet	Drill-Tec #14 DF Fastener with Drill-Tec 3" DF Steel Insulation Plate	7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)		-75.0

α As-tested steel deck performance under Testing Application Standard TAS 114, Appendix J indicates steel deck at max. 6 ft span attached with 5/8" diameter puddle welds spaced 6" o.c. may be substituted for #12 HWH Teks 5 in the Table 2E assemblies to a maximum design pressure of -82.5 psf. Note 1.

FBC HVHZ

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER SEE NOTE 16 FOR VAPOR BARRIER OPTIONS										
System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:										
C-1.	Min. 2,500 psi structural concrete	ASTM D41	Min. 1.5-inch EnergyGuard RA or RN	hot asphalt	Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	hot asphalt or OB500	BS	GAF BUR. Note 15.		-45.0*
C-2.	Min. 2,500 psi structural concrete	ASTM D41	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	None	N/A	BS	GAF BUR. Note 15.		-137.0*
C-3.	Min. 2,500 psi structural concrete	ASTM D41	Min. 1.5-inch EnergyGuard Composite	hot asphalt	None	N/A	BS	GAF BUR. Note 15.		-140.0*
C-4.	Min. 2,500 psi structural concrete	ASTM D41	Min. 0.5-inch EnergyGuard Polyiso Insulation	hot asphalt	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board, Dens Deck, Dens Deck Prime	hot asphalt	BS	GAF BUR. Note 15.		-150.0*
C-5.	Min. 2,500 psi structural concrete	ASTM D41	Min. 1.3-inch EnergyGuard RA or RN or Min. 1.5-inch EnergyGuard Composite	hot asphalt	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	BS	GAF BUR. Note 15.		-157.0*
C-6.	Min. 2,500 psi structural concrete	ASTM D41	Min. 1.3-inch EnergyGuard RA or RN or Min. 1.5-inch EnergyGuard Composite	hot asphalt	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	N/A	BS	GAF BUR. Note 15.		-162.0*
C-7.	Min. 2,500 psi structural concrete	ASTM D41	Min. 1-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	hot asphalt	None	N/A	BS	GAF BUR. Note 15.		-270.0*
C-8.	Min. 2,500 psi structural concrete	ASTM D41	Min. 1.5-inch EnergyGuard RA or RN	hot asphalt	Min. 1.5-inch EnergyGuard Composite	hot asphalt	BS	GAF BUR. Note 15.		-270.0*
C-9.	Min. 2,500 psi structural concrete	ASTM D41	Min. 2-inch EnergyGuard RA or RN	hot asphalt	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	BS	GAF BUR. Note 15.		-322.5*
C-10.	Min. 2,500 psi structural concrete	ASTM D41	Min. 1.5-inch EnergyGuard RA or RN	hot asphalt	Min. 0.5-inch EnergyGuard Perlite Recover Board	hot asphalt	BS	GAF BUR. Note 15.		-360.0*
C-11.	Min. 2,500 psi structural concrete	None	Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra	LRF-M	Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-M	BS	GAF BUR. Note 15.		-202.5*

FBC HVHZ

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER SEE Note 16 FOR VAPOR BARRIER OPTIONS										
System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
C-12.	Min. 2,500 psi structural concrete	None	Min. 1.5-inch EnergyGuard Polyiso Insulation	LRF-M Canister	Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-M Canister	BS	GAF BUR. Note 15.		-202.5*
C-13.	Min. 2,500 psi structural concrete	None	Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra	LRF-XF	Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-XF	BS	GAF BUR. Note 15.		-202.5*
C-14.	Min. 2,500 psi structural concrete	None	(Optional) Min. 1.5-inch EnergyGuard RA	LRF-XF	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-XF	BS	GAF BUR. Note 15.		-240.0*
C-15.	Min. 2,500 psi structural concrete	None	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	OB500	None	N/A	BS	GAF BUR. Note 15.		-165.0*
C-16.	Min. 2,500 psi structural concrete	None	Min. 1.5-inch EnergyGuard RA or RN	OB500	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	OB500	BS	GAF BUR. Note 15.		-165.0*
C-17.	Min. 2,500 psi structural concrete	None	Min. 1.5-inch EnergyGuard RA or RN	OB500	Min. 0.25-inch Dens Deck or Dens Deck Prime	OB500	BS	GAF BUR. Note 15.		-150.0*
C-18.	Min. 2,500 psi structural concrete	None	Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra	OB500	Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500	BS	GAF BUR. Note 15.		-202.5*
C-19.	Min. 2,500 psi structural concrete	None	Min. 1.5-inch EnergyGuard RA or RN	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	BS	GAF BUR. Note 15.		-225.0*
VENTING BASE SYSTEMS:										
C-20.	Min. 2,500 psi structural concrete	ASTM D41	Min. 0.5-inch EnergyGuard Polyiso Insulation	hot asphalt	(Optional) Additional layer(s) base insulation	hot asphalt	V-BS	GAF BUR. Note 15.		-150.0*
C-21.	Min. 2,500 psi structural concrete	ASTM D41	Min. 1-inch EnergyGuard RN	hot asphalt	(Optional) Additional layers base insulation	hot asphalt	V-BS	GAF BUR. Note 15.		-292.5*
C-22.	Min. 2,500 psi structural concrete	None	Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra	LRF-M	Insulation: (Optional) Additional layer(s) base insulation.	LRF-M	V-BS	GAF BUR. Note 15.		-150.0*
C-23.	Min. 2,500 psi structural concrete	None	Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra	LRF-M	Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-M	V-BS	GAF BUR. Note 15.		-202.5*

FBC HVHZ

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER SEE Note 16 FOR VAPOR BARRIER OPTIONS											
System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
C-24.	Min. 2,500 psi structural concrete	None	Min. 1.5-inch EnergyGuard Polyiso Insulation	LRF-M Canister	Insulation: (Optional) Additional layer(s) base insulation.	LRF-M Canister	V-BS	GAF BUR. Note 15.		-150.0*
C-25.	Min. 2,500 psi structural concrete	None	Min. 1.5-inch EnergyGuard Polyiso Insulation	LRF-M Canister	Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-M Canister	V-BS	GAF BUR. Note 15.		-202.5*
C-26.	Min. 2,500 psi structural concrete	None	Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra	LRF-XF	Insulation: (Optional) Additional layer(s) base insulation.	LRF-XF	V-BS	GAF BUR. Note 15.		-150.0*
C-27.	Min. 2,500 psi structural concrete	None	Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra	LRF-XF	Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-XF	V-BS	GAF BUR. Note 15.		-202.5*
C-28.	Min. 2,500 psi structural concrete	None	Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra	OB500	Insulation: (Optional) Additional layer(s) base insulation.	OB500	V-BS	GAF BUR. Note 15.		-150.0*
C-29.	Min. 2,500 psi structural concrete	None	Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra	OB500	Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500	V-BS	GAF BUR. Note 15.		-202.5*

TABLE 3B: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER						
System No.	Deck (Note 1)	Primer	Roof Cover (Note 15)			MDP (psf)
			Base	Ply	Cap	
C-30.	Min. 2,500 psi structural concrete	ASTM D41	V-BS	GAF BUR. Note 15.		-90.0*
C-31.	Min. 2,500 psi structural concrete	Matrix 307 Premium Asphalt Primer	V-BS	GAF BUR. Note 15.		-185.0*
C-32.	Min. 2,500 psi structural concrete	ASTM D41	BS	GAF BUR. Note 15.		-457.5*

FB HVHZ

TABLE 4A: LIGHTWEIGHT INSULATING CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER										
System No.	Deck (Note 1)	LWC (Note 14)	Base Insulation Layer		Coverboard		Roof Cover (Note 15)			MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
CELCORE, NOA 18-0717.05:										
LWC-1.	Min. 2,500 psi structural concrete	Min. 300 psi Celcore Cellular Concrete	Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RA Polyiso, EnergyGuard RH Polyiso, EnergyGuard RN Polyiso	OB500	Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500	GAF BUR. Note 15.			-150.0
ELASTIZELL, NOA 18-0208.03:										
LWC-2.	Min. 2,500 psi structural concrete	Min. 300 psi Elastizell Lightweight Insulating Concrete	Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RA Polyiso, EnergyGuard RH Polyiso, EnergyGuard RN Polyiso	OB500	Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500	GAF BUR. Note 15.			-150.0
MEARLCRETE, NOA 19-0729.03:										
LWC-3.	Min. 2,500 psi structural concrete	Min. 300 psi Mearlcrete	Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RA Polyiso, EnergyGuard RH Polyiso, EnergyGuard RN Polyiso	OB500	Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500	GAF BUR. Note 15.			-150.0

TABLE 4B: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER											
System No.	Deck (Note 1)α	LWC (Note 14)	Anchor Sheet			Insulation		Roof Cover (Note 15)			MDP (psf)
			Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
PRE-EXISTENT LIGHTWEIGHT CONCRETE (Note 14):											
CONVENTIONAL SYSTEMS:											
LWC-4.	Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete	Min. 250 psi pre-existent cellular or aggregate LWIC.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 70 lbf)	9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced, staggered center rows	One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	hot asphalt	BS	GAF BUR. Note 15.		-45.0

FBC HVHZ

TABLE 4B: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER											
System No.	Deck (Note 1)α	LWC (Note 14)	Anchor Sheet			Insulation		Roof Cover (Note 15)			MDP (psf)
			Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
LWC-5.	Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete	Min. 250 psi pre-existent cellular or aggregate LWIC.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 56 lbf)	12-inch o.c. at the 2-inch lap and 9-inch o.c. in three equally spaced, staggered center rows	One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	hot asphalt	BS	GAF BUR. Note 15.		-45.0
LWC-6.	Min. 22 ga., Type B, grade 33 vented steel; 5 ft span or struct concrete	Min. 300 psi pre-existent cellular LWIC.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet	Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 88 lbf)	7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced, staggered center rows	One or more layers, any combination, Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso, followed by Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	hot asphalt	BS	GAF BUR. Note 15.		-75.0
VENTING BASE SYSTEMS:											
LWC-7.	Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete	Min. 250 psi pre-existent cellular or aggregate LWIC.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 70 lbf)	9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced, staggered center rows	One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (fiberboard), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	hot asphalt	V-BS	GAF BUR. Note 15.		-45.0
LWC-8.	Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete	Min. 250 psi pre-existent cellular or aggregate LWIC.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 56 lbf)	12-inch o.c. at the 2-inch lap and 9-inch o.c. in three equally spaced, staggered center rows	One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (fiberboard), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	hot asphalt	V-BS	GAF BUR. Note 15.		-45.0
LWC-9.	Min. 22 ga., Type B, grade 33 vented steel; 5 ft span or struct concrete	Min. 300 psi pre-existent cellular LWIC.	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet	Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 88 lbf)	7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced, staggered center rows	One or more layers, any combination, Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	hot asphalt	V-BS	GAF BUR. Note 15.		-75.0

α For steel deck application where specific deck attachment is not referenced, 'as-tested' attachment was not less than 5/8" puddle welds with weld-washers or #12 HWH Teks 5 spaced 6" o.c. Note 1.

PRELIMINARY

TABLE 4C: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER									
System No.	Deck (Note 1)	LWC (Note 14)	Insulation Layer(s)		Base Sheet			Roof Cover (Note 15)	MDP (psf)
			Type	Attach	Base	Fastener (Note 11)	Attach		
LWC-10.	Min. 22 ga. type B, Grade 33 steel	FBC HVHZ approved cellular lightweight concrete	One or more layers, any combination	Prelim attach	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2	Fastened through to engage structural deck 18-inch o.c. at the 2-inch lap and 18-inch o.c. in three equally spaced staggered center rows	GAF BUR. Note 15.	-45.0*
LWC-11.	Min. 2,500 psi structural concrete	FBC HVHZ approved cellular lightweight concrete	One or more layers, any combination	Prelim attach	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2 (Drill-Tec #14 only)	Fastened through to engage structural deck 18-inch o.c. at the 2-inch lap and 18-inch o.c. in three equally spaced staggered center rows	GAF BUR. Note 15.	-45.0*
LWC-12.	Min. 22 ga. type B, Grade 33 steel	FBC HVHZ approved cellular lightweight concrete	One or more layers, any combination	Prelim attach	Ruberoid Mop Smooth 1.5	Note 2	Fastened through to engage structural deck 24-inch o.c. at the 3-inch lap and 24-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15.	-45.0*
LWC-13.	Min. 2,500 psi structural concrete	FBC HVHZ approved cellular lightweight concrete	One or more layers, any combination	Prelim attach	Ruberoid Mop Smooth 1.5	Note 2 (Drill-Tec #14 only)	Fastened through to engage structural deck 24-inch o.c. at the 3-inch lap and 24-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15.	-45.0*
LWC-14.	Min. 2,500 psi structural concrete	FBC HVHZ approved cellular lightweight concrete	One or more layers, any combination	Prelim attach	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2 (Drill-Tec #14 only)	Fastened through to engage structural deck 9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15.	-45.0
LWC-15.	Min. 22 ga. type B, Grade 33 steel; 6 ft spans; 6" o.c. with TRAXX/5 screws	FBC HVHZ approved cellular lightweight concrete	One or more layers, any combination	Prelim attach	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2	Fastened through to engage structural deck 6-inch o.c. at the 3-inch lap and 6-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15.	-75.0
LWC-16.	Min. 2,500 psi structural concrete	FBC HVHZ approved cellular lightweight concrete	One or more layers, any combination	Prelim attach	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Note 2 (Drill-Tec #14 only)	Fastened through to engage structural deck 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15.	-75.0

FBC HVHZ

TABLE 4D: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER								
System No.	Deck (Note 1) α	LWC (Note 14)	Base Sheet			Roof Cover (Note 15)		MDP (psf)
			Type	Fastener (Note 11)	Attach	Ply	Cap	
PRE-EXISTENT LIGHTWEIGHT CONCRETE (Note 14):								
LWC-17.	Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete	Min. 250 psi pre-existent cellular LWIC	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet or GAFGLAS Stratavent Nailable Venting Base Sheet	Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 70 lbf)	9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0
LWC-18.	Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete	Min. 250 psi pre-existent cellular LWIC	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet or GAFGLAS Stratavent Nailable Venting Base Sheet	Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 56 lbf)	12-inch o.c. at the 2-inch lap and 9-inch o.c. in three equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0
LWC-19.	Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete	Min. 300 psi pre-existent cellular LWIC	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet or GAFGLAS Stratavent Nailable Venting Base Sheet	Drill-Tec Locking Impact Nail (1.8-inch) (MCRF ≥ 88 lbf)	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)		-60.0
LWC-20.	Min. 22 ga., Type B, grade 33 vented steel; 5 ft span or struct concrete	Min. 300 psi pre-existent cellular LWIC	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet or GAFGLAS Stratavent Nailable Venting Base Sheet	Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 88 lbf)	7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)		-75.0
ELASTIZELL, NOA 18-0208.03:								
LWC-21.	Min. 22 ga., Type B, grade 33 vented steel; 5 ft span or struct concrete	Min. 300 psi Elastizell Lightweight Insulating Concrete	GAFGLAS #80 Ultima Base Sheet	Drill-Tec Base Sheet Fastener (1.7 in.)	7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced, staggered center rows	PS-MB with optional additional layer(s) PS	CS	-82.5
LWC-22.	Min. 22 ga., Type B, grade 33 vented steel; 5 ft span or struct concrete	Min. 300 psi Elastizell Lightweight Insulating Concrete	Ruberoid Mop Smooth, Ruberoid Mop Granule, Ruberoid HW Smooth or Ruberoid HW Granule (granule side down)	Note 2 (fastening to structural deck)	Through LWC to engage structural deck: 12-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows	PS-MB with optional additional layer(s) PS	CS	-97.5

α For steel deck application where specific deck attachment is not referenced, 'as-tested' attachment was not less than 5/8" puddle welds with weld-washers or #12 HWH Teks 5 spaced 6" o.c. Note 1.

TABLE 4E: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER								
System No.	Deck (Note 1)	LWC (Note 14)		Primer	Roof Cover (Note 15)			MDP (psf)
		Type	Treatment		Base	Ply	Cap	
ELASTIZELL, NOA 18-0208.03:								
LWC-23.	Min. 22 ga., type BV, Grade 33, G90 steel at max. 5 ft spans; 5/8" puddle welds with weld-washers, 6" o.c. Side laps stitched with Tek/1 screws, three (3) equally spaced between supports.	Min. 350 psi Elastizell Cellular/Hybird LWIC with Zell-crete Fibers cast at 54 pcf wet-cast density with min. 1-inch thick Holey Board and min. 2-inch thick top coat	Elastizell Zell-erator Sealer at 200 ft^2/gal.	ASTM D41	V-BS	GAF BUR. Note 15.		-112.5

©NEMO ETC, LLC

TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS – REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER										
System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
		Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:										
CWF-1.	Existing Tectum	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 3.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	BS	GAF BUR. Note 15		-45.0*
CWF-2.	Existing Tectum	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 3.0 ft^2	Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite)	hot asphalt	BS	GAF BUR. Note 15		-45.0*
CWF-3.	Existing Tectum	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 2.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	BS	GAF BUR. Note 15		-45.0*
CWF-4.	Existing Tectum	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 2.0 ft^2	Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite)	hot asphalt	BS	GAF BUR. Note 15		-45.0*
VENTING BASE SYSTEMS:										
CWF-5.	Existing Tectum	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 3.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*
CWF-6.	Existing Tectum	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 2.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*
CWF-7.	Existing Tectum	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 2.0 ft^2	Min. 1.0-inch EnergyGuard RA or RN	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*

FBC HVHZ

TABLE 5B: CEMENTITIOUS WOOD FIBER DECKS – REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-3: MECHANICALLY FASTENED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER											
System No.	Deck (Note 1)	Anchor Sheet			Insulation			Roof Cover (Note 15)			MDP (psf)
		Type	Fastener (Note 11)	Attach	Base	Top	Attach (Notes 6,7,8)	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:											
CWF-8.	Existing Tectum	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Polymer Gyptec Fastener and Drill-Tec 3" Gyptec Plate	6-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows	(Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN	Min. 1.5-inch EnergyGuard Composite (wood fiber), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 0.25-inch Dens Deck, Dens Deck Prime	hot asphalt	BS	GAF BUR. Note 15		-45.0*
CWF-9.	Existing Tectum	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Polymer Gyptec Fastener and Drill-Tec 3" Gyptec Plate	6-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows	(Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN	Min. 1.5-inch EnergyGuard Composite (perlite), Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	hot asphalt	BS	GAF BUR. Note 15		-45.0*
VENTING BASE SYSTEMS:											
CWF-10.	Existing Tectum	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Polymer Gyptec Fastener and Drill-Tec 3" Gyptec Plate	6-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows	(Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN	Min. 1.5-inch EnergyGuard RA or RN	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*
CWF-11.	Existing Tectum	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Polymer Gyptec Fastener and Drill-Tec 3" Gyptec Plate	6-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows	(Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN	Min. 1.5-inch EnergyGuard Composite (wood fiber), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 0.25-inch Dens Deck, Dens Deck Prime	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*

TABLE 5C: CEMENTITIOUS WOOD FIBER DECKS –REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER										
System No.	Deck (Note 1)	Base Insulation Layer (Note 13)		Top Insulation Layer			Roof Cover (Note 15)			MDP (psf)
		Type	Attach	Type	Fastener (Note 11)	Attach	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:										
CWF-12.	Existing Tectum	(Optional) One or more layers, any combination	Loose laid	Min. 1.5-inch EnergyGuard Composite (iso side down)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 4.0 ft^2	BS	GAF BUR. Note 15		-45.0*

TABLE 5C: CEMENTITIOUS WOOD FIBER DECKS –REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER										
System No.	Deck (Note 1)	Base Insulation Layer (Note 13)		Top Insulation Layer			Roof Cover (Note 15)			MDP (psf)
		Type	Attach	Type	Fastener (Note 11)	Attach	Base	Ply	Cap	
CWF-13.	Existing Tectum	(Optional) One or more layers, any combination	Loose laid	Min. 1-inch Structodek High Density Fiberboard Roof Insulation	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 4.0 ft^2	BS	GAF BUR. Note 15		-45.0*
CWF-14.	Existing Tectum	(Optional) One or more layers, any combination	Loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 3.0 ft^2	BS	GAF BUR. Note 15		-45.0*
CWF-15.	Existing Tectum	(Optional) One or more layers, any combination	Loose laid	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 2.0 ft^2	BS	GAF BUR. Note 15		-45.0*
VENTING BASE SYSTEMS:										
CWF-16.	Existing Tectum	(Optional) One or more layers, any combination	Loose laid	Min. 1.5-inch EnergyGuard RA or RN	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate	1 per 3.0 ft^2	V-BS	GAF BUR. Note 15		-45.0*

TABLE 5D: CEMENTITIOUS WOOD FIBER DECKS – REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER									
System No.	Deck (Note 1)	Insulation Layer(s) (Note 13)		Base Sheet			Roof Cover (Note 15)		MDP (psf)
		Type	Attach	Base	Fastener (Note 11)	Attach	Ply	Cap	
CWF-17.	Existing Tectum	One or more layers, any combination	Prelim Attach	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Locking Impact Nail (min. 1.8-inch embedment)	9-inch o.c. at the 2-inch lap and 18-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0*

TABLE 5E: CEMENTITIOUS WOOD FIBER DECKS – REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER							
System No.	Deck (Note 1)	Base Sheet			Roof Cover (Note 15)		MDP (psf)
		Type	Fastener (Note 11)	Attach	Ply	Cap	
CWF-18.	Existing Tectum	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Polymer Gyptec Fastener and Drill-Tec 3" Gyptec Plate	6-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)		-45.0*
CWF-19.	Existing Tectum	GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec LD Fastener and Drill-Tec LD Plate	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)		-67.5
CWF-20.	Existing Tectum	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Locking Impact Nail (1.8-inch)	9-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows	GAF BUR. Note 15. (No V-BS)		-82.5

©NEMO ETC, LLC

TABLE 6A: GYPSUM DECKS – REROOF (TEAR-OFF) SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER										
System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
		Type	Fastener (Note 11)	Attach	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:										
G-1.	Existing sound gypsum or gypsum plank	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 270 lbf)	1 per 3.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	BS	GAF BUR. Note 15		-45.0*
G-2.	Existing sound gypsum or gypsum plank	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 270 lbf)	1 per 3.0 ft^2	Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite)	hot asphalt	BS	GAF BUR. Note 15		-45.0*
G-3.	Existing sound gypsum or gypsum plank	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf)	1 per 2.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	BS	GAF BUR. Note 15		-45.0*
G-4.	Existing sound gypsum or gypsum plank	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf)	1 per 2.0 ft^2	Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite)	hot asphalt	BS	GAF BUR. Note 15		-45.0*
VENTING BASE SYSTEMS:										
G-5.	Existing sound gypsum or gypsum plank	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 270 lbf)	1 per 3.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*
G-6.	Existing sound gypsum or gypsum plank	Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf)	1 per 2.0 ft^2	Min. 1.0-inch EnergyGuard RA or RN	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*
G-7.	Existing sound gypsum or gypsum plank	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf)	1 per 2.0 ft^2	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber)	hot asphalt	V-BS	GAF BUR. Note 15		-45.0*

FBC HVHZ

TABLE 6B: GYPSUM DECKS – REROOF (TEAR-OFF) SYSTEM TYPE B-3: MECHANICALLY FASTENED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER											
System No.	Deck (Note 1)	Anchor Sheet			Insulation			Roof Cover (Note 15)			MDP (psf)
		Type	Fastener (Note 11)	Attach	Base	Top	Attach (Notes 6,7,8)	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:											
G-8.	Existing sound gypsum or gypsum plank	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet	Min. 1.8-inch Drill-Tec Locking Impact Nail or Drill-Tec Base Sheet Fastener (1.2 in) (Field MCRF ≥ 105 lbf)	9-inch o.c. at the 2-inch lap and 18-inch o.c. in two, equally spaced, staggered center rows	Min. 1.5-inch EnergyGuard	Min. 0.5-inch EnergyGuard Perlite Recover Board or min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	hot asphalt	BS	GAF BUR. Note 15		-45.0*
G-9.	Existing sound gypsum or gypsum plank	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec CR 1.2-inch Base Sheet fasteners (Field MCRF ≥ 48 lbf)	7-inch o.c. at the 2-inch lap and 7-inch o.c. in three staggered center rows	(Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN	Min. 1.5-inch EnergyGuard Composite, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	hot asphalt	BS	GAF BUR. Note 15		-52.5
G-10.	Existing sound gypsum or gypsum plank	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Locking Impact Nail (1.8-inch) (Field MCRF ≥ 140 lbf)	9-inch o.c. at the 2-inch lap and 12-inch o.c. in two staggered center rows	(Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN	Min. 1.5-inch EnergyGuard Composite, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	hot asphalt	BS	GAF BUR. Note 15		-75.0
VENTING BASE SYSTEMS:											
G-11.	Existing sound gypsum or gypsum plank	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec CR 1.2-inch Base Sheet fasteners (Field MCRF ≥ 48 lbf)	7-inch o.c. at the 2-inch lap and 7-inch o.c. in three staggered center rows	(Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN	Min. 1.5-inch EnergyGuard RA or RN or min. 0.25-inch Dens Deck	hot asphalt	V-BS	GAF BUR. Note 15		-52.5
G-12.	Existing sound gypsum or gypsum plank	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Locking Impact Nail (1.8-inch) (Field MCRF ≥ 112 lbf)	9-inch o.c. at the 2-inch lap and 12-inch o.c. in two staggered center rows	(Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN	Min. 1.5-inch EnergyGuard RA or RN	hot asphalt	V-BS	GAF BUR. Note 15		-60.0

FBC HVHZ

TABLE 6B: GYPSUM DECKS – REROOF (TEAR-OFF) SYSTEM TYPE B-3: MECHANICALLY FASTENED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER											
System No.	Deck (Note 1)	Anchor Sheet			Insulation			Roof Cover (Note 15)			MDP (psf)
		Type	Fastener (Note 11)	Attach	Base	Top	Attach (Notes 6,7,8)	Base	Ply	Cap	
G-13.	Existing sound gypsum or gypsum plank	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Locking Impact Nail (1.8-inch) (Field MCRF ≥ 140 lbf)	9-inch o.c. at the 2-inch lap and 12-inch o.c. in two staggered center rows	(Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN	Min. 0.25-inch Dens Deck	hot asphalt	V-BS	GAF BUR. Note 15		-75.0

TABLE 6C: GYPSUM DECKS - REROOF (TEAR-OFF) SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER										
System No.	Deck (Note 1)	Base Insulation Layer (Note 13)		Top Insulation Layer			Roof Cover (Note 15)			MDP (psf)
		Type	Attach	Type	Fastener (Note 11)	Attach	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:										
G-14.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination	Loose laid	Min. 1.5-inch EnergyGuard Composite (iso side down)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf)	1 per 2.0 ft^2	BS	GAF BUR. Note 15		-45.0*
G-15.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination	Loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf)	1 per 2.0 ft^2	BS	GAF BUR. Note 15		-45.0*
G-16.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination	Loose laid	Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous)	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf)	1 per 2.0 ft^2	BS	GAF BUR. Note 15		-45.0*
VENTING BASE SYSTEMS:										
G-17.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination	Loose laid	Min. 1.5-inch EnergyGuard RA or RN	Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf)	1 per 2.0 ft^2	V-BS	GAF BUR. Note 15		-45.0*

FBC HVHZ

TABLE 6D: GYPSUM DECKS – REROOF (TEAR-OFF) SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER									
System No.	Deck (Note 1)	Insulation Layer(s) (Note 13)		Base Sheet			Roof Cover (Note 15)		MDP (psf)
		Type	Attach	Base	Fastener (Note 11)	Attach	Ply	Cap	
G-18.	Existing sound gypsum or gypsum plank	One or more layers, any combination	Prelim Attach	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Locking Impact Nail (Field MCRF ≥ 105 lbf)	9-inch o.c. at the 2-inch lap and 18-inch o.c. in two equally spaced staggered center rows	GAF BUR. Note 15.		-45.0*

TABLE 6E: GYPSUM DECKS – REROOF (TEAR-OFF) SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER							
System No.	Deck (Note 1)	Base Sheet			Roof Cover (Note 15)		MDP (psf)
		Type	Fastener (Note 11)	Attach	Ply	Cap	
G-19.	Existing sound gypsum or gypsum plank	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec CR 1.2-inch Base Sheet fasteners (Field MCRF ≥ 41 lbf)	7-inch o.c. at the 2-inch lap and 7-inch o.c. in three staggered center rows	GAF BUR. Note 15.		-45.0
G-20.	Existing sound gypsum or gypsum plank	GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec LD Fastener and Drill-Tec LD Plate (Field MCRF ≥ 77 lbf)	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	GAF BUR. Note 15.		-67.5
G-21.	Existing sound gypsum or gypsum plank	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth	Drill-Tec Locking Impact Nail (1.8-inch) (Field MCRF ≥ 140 lbf)	9-inch o.c. at the 2-inch lap and 12-inch o.c. in two staggered center rows	GAF BUR. Note 15.		-75.0

FBC HVHZ

TABLE 7A: RECOVER APPLICATIONS SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER									
[A] The reported MDP documents the allowable maximum design pressure of the new insulation and roof cover when installed atop the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.									
System No.	Substrate (Note 1 and Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)[A]
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
CONVENTIONAL SYSTEMS:									
R-1.	Existing sand- or granule-surface modified bitumen or asphaltic built-up roof; (Optional) ASTM D41 primer	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	hot asphalt	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime	hot asphalt	BS	GAF BUR. Note 15.		-150.0*
R-2.	Existing smooth-surface asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	LRF-M	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime	hot asphalt	BS	GAF BUR. Note 15.		-75.0*
R-3.	Existing smooth-surface asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	LRF-M	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime	LRF-M	BS	GAF BUR. Note 15.		-75.0*
R-4.	Existing sand- or granule-surface modified bitumen or asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	LRF-M	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime	hot asphalt	BS	GAF BUR. Note 15.		-150.0*
R-5.	Existing sand- or granule-surface modified bitumen or asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	LRF-M	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime	LRF-M	BS	GAF BUR. Note 15.		-150.0*
R-6.	Existing smooth- or granule-surface asphalt BUR or SBS modified bitumen or granule-surface APP modified bitumen	Min. 1.5-inch EnergyGuard Polyiso Insulation	LRF-M Canister	Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-M Canister	BS	GAF BUR. Note 15.		-202.5*
R-7.	Existing asphaltic built-up roof	(Optional) Min. 1.5-inch EnergyGuard RA	LRF-XF	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-XF	BS	GAF BUR. Note 15.		-240.0*
R-8.	Existing asphaltic built-up roof	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	OB500	None	N/A	BS	GAF BUR. Note 15.		-120.0*
R-9.	Existing asphaltic built-up roof	Min. 1.5-inch EnergyGuard RA or RN	OB500	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	OB500	BS	GAF BUR. Note 15.		-120.0*
R-10.	Existing asphaltic built-up roof	Min. 1.5-inch EnergyGuard RA or RN	OB500	Min. 0.25-inch Dens Deck or Dens Deck Prime	OB500	BS	GAF BUR. Note 15.		-120.0*

FBC UNIT

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

[A] The reported MDP documents the allowable maximum design pressure of the new insulation and roof cover when installed atop the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Note 1 and Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)[A]
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
R-11.	Existing asphaltic built-up roof	Min. 1.5-inch EnergyGuard RA or RN	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	BS	GAF BUR. Note 15.		-120.0*
R-12.	Existing sand-surface APP modified bitumen or asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	OB500	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime	hot asphalt	BS	GAF BUR. Note 15.		-150.0*
R-13.	Existing sand- or granule-surface modified bitumen or asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	OB500	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime	hot asphalt	BS	GAF BUR. Note 15.		-150.0*
R-14.	Existing sand- or granule-surface modified bitumen or asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	OB500	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime	OB500	BS	GAF BUR. Note 15.		-150.0*
R-15.	Existing sand-surface APP modified bitumen or asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	OB500	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime	OB500	BS	GAF BUR. Note 15.		-150.0*
VENTING BASE SYSTEMS:									
R-16.	Existing sand- or granule-surface modified bitumen or asphaltic built-up roof; (Optional) ASTM D41 primer	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	hot asphalt	None	N/A	V-BS	GAF BUR. Note 15.		-150.0*
R-17.	Existing smooth-surface asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	LRF-M	None	N/A	V-BS	GAF BUR. Note 15.		-75.0*
R-18.	Existing sand- or granule-surface modified bitumen or asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	LRF-M	None	N/A	V-BS	GAF BUR. Note 15.		-225.0*
R-19.	Existing smooth- or granule-surface asphalt BUR or SBS modified bitumen or granule-surface APP modified bitumen	Min. 1.5-inch EnergyGuard Polyiso Insulation	LRF-M Canister	Insulation: (Optional) Additional layer(s) base insulation.	LRF-M Canister	V-BS	GAF BUR. Note 15.		-150.0*

FBC USE ONLY

TABLE 7A: RECOVER APPLICATIONS SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER									
[A] The reported MDP documents the allowable maximum design pressure of the new insulation and roof cover when installed atop the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.									
System No.	Substrate (Note 1 and Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)[A]
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base	Ply	Cap	
R-20.	Existing smooth- or granule-surface asphalt BUR or SBS modified bitumen or granule-surface APP modified bitumen	Min. 1.5-inch EnergyGuard Polyiso Insulation	LRF-M Canister	Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	LRF-M Canister	V-BS	GAF BUR. Note 15.		-202.5*
R-21.	Existing sand- or granule-surface modified bitumen or asphaltic built-up roof	Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation	OB500	None	N/A	V-BS	GAF BUR. Note 15.		-225.0*

TABLE 7B: RECOVER APPLICATIONS SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER					
[A] The reported MDP documents the allowable maximum design pressure of the new roof cover when adhered to the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.					
System No.	Substrate (Note 1 and Note 12)	Roof Cover (Note 15)			MDP (psf)[A]
		Base	Ply	Cap	
R-22.	Existing asphaltic built-up roof	V-BS	GAF BUR. Note 15.		-60.0*

FBC HVHZ