MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
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DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

Amrize Building Envelope, LLC (Elevate)
26 Century Boulevard, Suite 205
Nashville, TN 37214

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Elevate UltraPly TPO & TPO XR Single Ply Roof Systems over Recover Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA 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 NOA renews NOA# 25-1023.22 and consists of pages 1 through 71.
The submitted documentation was reviewed by Alex Tigera.

05/21/26

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply Roofing
Material: TPO
Deck Type: Recover
Maximum Design Pressure: See Specific Deck Type

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specifications	Product Description
UltraPly TPO	Various	TAS 131 ASTM D6878	Reinforced TPO 0.045” to 0.080” thick membrane.
UltraPly TPO XR 100	Various	TAS 131 ASTM D6878	Reinforced TPO 0.045” membrane with 8 oz. fleece backing.
UltraPly TPO XR 115	Various	TAS 131 ASTM D6878	Reinforced TPO 0.060” membrane with8 oz. fleece backing.
UltraPly TPO XR 135	Various	TAS 131 ASTM D6878	Reinforced TPO .080” membrane with 8 oz. fleece backing.
Elevate SBS Poly Base	39.4" x 50'	ASTM D6164	Polyester reinforced SBS modified bitumen membrane with sanded surfaces.
UltraPly TPO Reinforced Curb Corner	Various	TAS 131 ASTM D6878	TPO curb flashing
UltraPly 18" Curb Flashing	Various	TAS 131 ASTM D6878	TPO curb flashing
UltraPly TPO Inside/Outside Corner	Various	TAS 131 ASTM D6878	Molded TPO for corner flashing
UltraPly TPO Large Pipe Flashing	Various	TAS 131 ASTM D6878	TPO flashing for large round penetrations
UltraPly TPO T-Joint Cover	Various	TAS 131 ASTM D6878	TPO flashing for T-joints
UltraPly TPO Penetration Kit	Various	TAS 131 ASTM D6878	Penetration sealing kit for UltraPly TPO
UltraPly TPO Walkway Pad	Various	TAS 131 ASTM D6878	TPO walkway pad
UltraPly TPO Coated Metal	Various	TAS 131 ASTM D6878	TPO laminated to hot-dipped galvanized steel for flashing
UltraPly TPO Premium Walkway Pad	Various	TAS 131 ASTM D6878	TPO walkway pad
UltraPly TPO Reinforced Split Pipe Boot	Various	TAS 131 ASTM D6878	TPO flashing for round penetrations 1" to 9" in diameter
UltraPly TPO 8" Reinforced Cover Strip	Various	TAS 131 ASTM D6878	8" wide 60 mil TPO cover strip

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specifications	Product Description
UltraPly TPO Universal Pipe Boot	Various	TAS 131 ASTM D6878	TPO flashing for round penetrations 1" to 6" in diameter
UltraPly TPO Unsupported Flashing	Various	TAS 131 ASTM D6878	Unreinforced TPO used for flashing
UltraPly QuickSeam R.M.A. Strip	10” x 100’	Proprietary	Strip of UltraPly TPO with QuickSeam Tape for anchoring membrane to substrate.
Single-Ply QuickPrime Primer	1 gallon, 3 gallon	Proprietary	Primer for TPO Flashing.
XR Bonding Adhesive	5 gal. pail	Proprietary	Solvent based adhesive.
UltraPly Bonding Adhesive	5 gal. pail	Proprietary	Solvent based adhesive.
XR Stick Membrane Adhesive	5 gal. pail	Proprietary	A low-rise polyurethane, low VOC, membrane adhesive.
I.S.O. Stick	5 gal & 1500 ml	Proprietary	A dual component polyurethane adhesive.
I.S.O. Twin Pack Insulation Adhesive	1500 ml	Proprietary	A dual component polyurethane adhesive.
I.S.O. Spray R	15 gal. pail & 55 gal. drum	Proprietary	A two part polyurethane adhesive
Single-Ply LVOC Bonding Adhesive	5 gal. pail	Proprietary	Solvent based bonding adhesive.
Single-Ply LVOC Bonding Adhesive 1168	5 gal. pail	Proprietary	Solvent based bonding adhesive.
Water Based Bonding Adhesive P	5 gal. pail	Proprietary	Water based bonding adhesive.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ISO 95+ GL (flat and tapered)	Polyisocyanurate foam insulation	Amrize Building Envelope, LLC
ISOGARD HD	Polyisocyanurate with a coated fiberglass facer	Amrize Building Envelope, LLC
DensDeck, DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum LLC
SECUROCK Gypsum-Fiber Roof Board	Rigid, gypsum-based board stock	United States Gypsum Corp.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Elevate Heavy-Duty	#15 Fastener for steel, Wood, concrete decks.	N/A	Amrize Building Envelope, LLC
2.	Elevate All-Purpose	#14 Fastener for steel, Wood, concrete decks.	N/A	Amrize Building Envelope, LLC
3.	Elevate Heavy Duty Plus	Insulation and membrane fastener.	Various	Amrize Building Envelope, LLC
4.	Concrete Drive	Structural concrete fastener.	Various	Amrize Building Envelope, LLC
5.	Purlin Fasteners	#12 purlin fastener.	Various	Amrize Building Envelope, LLC
6.	Insulation Fastening Plate	Galvalume insulation plate.	3” diameter	Amrize Building Envelope, LLC
7.	Elevate HD Plus Seam Plate	Galvalume insulation plate.	2¾” diameter	Amrize Building Envelope, LLC
8.	Elevate HD Seam Plates	AZ55 or AZ50 galvalume insulation plate.	2-3/8” diameter	Amrize Building Envelope, LLC
9.	Elevate UltraPly TPO InvisiWeld Plates	High-performance TPO membrane fastening system.	3” diameter	Amrize Building Envelope, LLC
10.	Metal Batten Bar	Galvalume AZ55 batten bar.	10’ long, 1” wide	Amrize Building Envelope, LLC
11.	Elevate Polymer Batten Strip	Polymer batten	250’ long, 3/4” wide	Amrize Building Envelope, LLC
12.	Coiled Metal Batten Bar	Galvalume AZ55 batten strip	220’ long, I” wide	Amrize Building Envelope, LLC
13.	Two Piece Impact Nail	Base ply fastening systems for lightweight concrete decks	Various	Amrize Building Envelope, LLC

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
UL LLC	R9516	UL 790	04/28/26
FM Approvals	3032272	FM 4470	05/22/09
	3036642	FM 4470	10/09/09
	3030650	FM 4470	07/10/09
	3035560	FM 4470	01/11/10
	3019991	FM 4470	09/20/05
	3017120	FM 4470	04/30/04
	3038546	FM 4470	12/17/10
	3039133	FM 4470	04/07/11
	3036747	FM 4470	02/12/10
	3040535	FM 4470	10/05/10
	3035017	FM 4470	04/15/09
	3038191	FM 4470	08/04/11
	3036256	FM 4470	04/27/09
	3038546	FM 4470	12/17/10
	3038770	FM 4470	08/04/11
	3041939	FM 4470	08/14/12
	3044047	FM 4470	05/17/12
	3047398	FM 4470	08/15/13
	3047700	FM 4470	08/16/13
	3050274	FM 4470	10/01/13
	797-05830-267	FM 4470	08/30/10
	797-10191-267	FM 4470	01/09/15
Trinity|ERD	F8300.07.08	TAS 131/ ASTM D6878	07/30/08
	F8300.11.08-R3	TAS 131/ ASTM D6878	02/25/11
	F45600.09.13-R1	TAS 131/ASTM D6878	12/30/13
PRI Construction Materials Technologies, LLC	FBP-054-02-05, R1	FM 4474/TAS 114 D	02/07/13
	FBP-069-02-01, R1	FM 4474/TAS 114 J	02/07/13
	FBP-070-02-01, R1	FM 4474/TAS 114 J	02/07/13
	FBP-085-02-01	TAS 114 J	10/04/12
	FBP-086-02-01	TAS 114 J	10/04/12
	FBP-044-02-01, R7	TAS 114 H, J	02/04/14
	FBP-145-02-01	TAS 131/ASTM D6878	06/26/14
	FBP-094-02-01	TAS 131/ASTM D6878	11/20/13
	FBP-120-02-01	TAS 114 J	07/23/13
	FBP-122-02-01, R1	TAS 114 J	02/04/14
	FBP-125-02-01	TAS 114 C	07/23/13
	FBP-148-02-01	TAS 114 J	12/18/13
	FBP-149-02-01	TAS 114 J	12/18/13
	FBP-153-02-01	TAS 114 J	12/18/13
	FBP-154-02-02	TAS 114 J	12/18/13
	FBP-165-02-01	TAS 114 J	04/28/14
	FBP-165-02-01A	TAS 114 J	04/28/14
	FBP-175-02-01	TAS 114 J	04/28/14
	FBP-190-02-01	TAS 114 D	07/31/14
	FBP-193-02-02	TAS 114 J	10/16/14
	FBP-196-02-04.1	TAS 114 J	10/21/14

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
	FBP-206-02-01	TAS 114 J	02/02/15
	FBP-213-02-01	TAS 114 J	11/20/14
	FBP-220-02-01.1	TAS 114 J	01/29/15
	FBP-225-02-01	TAS 114 J	03/19/15
	FBP-230-02-01	TAS 114 J	04/02/15
	FBP-233-02-01	TAS 114 J	06/01/15
	FBP-233-02-02	TAS 114 C	04/03/15
	FBP-233-02-03	TAS 114 J	06/01/15
	FBP-235-02-01	TAS 114 J	06/01/15
	FBP-238-02-01	TAS 114 J	07/01/15
	FBP-238-02-03	TAS 114 J	07/15/15
	FBP-239-02-01	TAS 114 J	07/15/15
	FBP-241-02-01	TAS 114 J	07/22/15

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

Engineer/Agency	Identifier	Assemblies	Date
Zachary R. Priest, P.E.	Signed/Sealed Calculations	B(7), B(8)	06/01/15
		E(2), E(3)	04/18/16
		C(14), C(18), C(19), C(20)	10/03/16
		C(12), C(17), C(24), C(25), D(20), D(21), D(4), D(22), D(24)	09/20/17
		D(25), E(4), E(8)	10/11/17
		C(21), C(22)	07/10/19
FM Approval Deck Limitations	N/A	C(10), C(11), C(12), D(1), D(2), D(3), D(5), D(6), D(7), D(8), D(9), D(10), D(13), D(15), D(18), D(19)	01/01/13

APPROVED ASSEMBLIES

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(1): One or more layers of insulation adhered with approved adhesive over existing asphaltic BUR; membrane adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum: 1.0" thick**	**N/A**	**N/A**
Tapered ISO 95+ GL **Minimum: ½" thick with a ¼" per ft. taper**	**N/A**	**N/A**
ISOGARD HD **Minimum: ½" thick**	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum: ¼" thick**	**N/A**	**N/A**

Note: All layers of insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous ½" – ¾" wide beads spaced 12" o.c. or I.S.O. Stick applied in continuous ¾" – 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO XR adhered with XR Stick Membrane Adhesive applied in continuous 1" minimum beads spaced a maximum of 4" o.c. and allowed to expand to full coverage application prior to placement of the roof cover. The 2" wide roof cover side laps are sealed with a minimum 1.5 in. heat weld placed on the outside edge of the lap.
Or
UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or

Membrane: (Continued)

UltraPly TPO XR (over SECUROCK and DensDeck only) roof cover is fully adhered to with hot asphalt or Owens Corning PermaMop applied in the EVT range at a rate of 25-30 lbs./sq. or XR Bonding Adhesive at a rate of 70-90 ft^2/gal to the substrate only.
Or
UltraPly TPO XR is adhered with I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure:

-172.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: 18-22 ga. 33 ksi Steel/Wood/Gypsum

System Type A(2): One or more layers of insulation adhered with approved adhesive over existing asphaltic BUR; membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISOGARD HD **Minimum: ½" thick**	**N/A**	**N/A**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum: ¼" thick**	**N/A**	**N/A**

Note: Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous ½" – ¾" wide beads spaced 12" o.c. or, I.S.O. Stick applied in continuous ¾" – 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO XR adhered with XR Stick Membrane Adhesive applied in continuous 1" minimum beads spaced a maximum of 4" o.c. and allowed to expand to full coverage application prior to placement of the roof cover. The 2" wide roof cover side laps are sealed with a minimum 1.5 in. heat weld placed on the outside edge of the lap.
Or
UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR (over SECUROCK and DensDeck only) roof cover is fully adhered to with hot asphalt or Owens Corning PermaMop applied in the EVT range at a rate of 25-30 lbs./sq. or XR Bonding Adhesive at a rate of 70-90 ft^2/gal to the substrate only.
Or
UltraPly TPO XR is adhered with I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: 18-22 ga. 33 ksi Steel/Wood/Gypsum

System Type A(3): One or more layers of insulation adhered with approved adhesive; membrane fully adhered with hot asphalt.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum: ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in full mopping of aproved asphalt within the EVT range and at a rate of 20-25 lbs./sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO XR fully adhered to insulation layer with hot asphalt applied at a rate of 20-25 lbs./sq. The minimum 3" roof cover laps are sealed with a minimum 1.5 in. heat weld along the outside edge.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type B(1): Base layer of insulation mechanically fastened, top layer adhered: membrane adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1.5" thick**	**1 or 4 with 6**	**1:2 ft^2**

Middle Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1" thick**	**N/A**	**N/A**

(Optional) Additional Middle Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1" thick**	**N/A**	**N/A**
Tapered ISO 95+ GL **Minimum ½" thick with a ¼" per ft. taper**	**N/A**	**N/A**

Top Insulation Layer (cover board)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**

Note: Base layer shall be mechanically attached with fasteners and density described. All other layers of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" – ¾" wide beads spaced 12" o.c. or I.S.O. Stick applied in continuous ¾" – 1" wide ribbons spaced 12" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or

Membrane: (Continued)

UltraPly TPO XR (over SECUROCK and DensDeck only) roof cover is fully adhered to with hot asphalt or Owens Corning PermaMop applied in the EVT range at a rate of 25-30 lbs./sq. or XR Bonding Adhesive at a rate of 70-90 ft^2/gal to the substrate only.
Or
UltraPly TPO XR is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type B(2): Base layer of insulation mechanically fastened; top layer adhered; membrane adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ISO 95+ GL **Minimum 1.5" thick**	**1 or 4 with 6**	**1:1.6 ft²**

Top Insulation Layer (cover board)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ½" thick**	**N/A**	**N/A**

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" – ¾" wide beads spaced 6" o.c. or I.S.O. Stick applied in continuous ¾" – 1" wide ribbons spaced 6" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 or UltraPly TPO 135 membrane adhered to the top insulation layer with XR Stick Membrane Adhesive applied in continuous ¾" – 1" wide ribbons spaced 6" o.c. The 2 in. wide roof cover side and end laps are sealed with a minimum 1.5 in. heat weld placed on outside edge of lap.
Or
UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft²/gallon (120 ft²/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft²/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR roof cover is fully adhered to with hot asphalt or Owens Corning PermaMop applied in the EVT range at a rate of 25-30 lbs./sq. or XR Bonding Adhesive at a rate of 70-90 ft²/gal to the substrate only.
Or
UltraPly TPO XR is adhered with I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -60 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type B(3): Base layer of insulation mechanically fastened; top layer adhered; membrane adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ISO 95+ GL Minimum 2" thick	**1 or 4 with 6**	**1:1.6 ft²**

Top Insulation Layer (cover board)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ISO 95+ GL Minimum 1" thick	**N/A**	**N/A**

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" – ¾" wide beads spaced 6" o.c. or I.S.O. Stick applied in continuous ¾" – 1" wide ribbons spaced 6" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 or UltraPly TPO 135 membrane adhered to the top insulation layer with XR Stick Membrane Adhesive applied in continuous ¾" – 1" wide ribbons spaced 6" o.c. The 2 in. wide roof cover side and end laps are sealed with a minimum 1.5 in. heat weld placed on outside edge of lap
Or
UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft²/gallon (120 ft²/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft²/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR is adhered with I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -75 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type B(4): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 2" thick**	**1 & 6 or 4 & 6**	**1:1 ft^2**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" – ¾" wide beads spaced 12" o.c. or I.S.O. Stick applied in continuous ¾" – 1" wide ribbons spaced 12" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -90 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type B(5): Base layer of insulation mechanically fastened, top layer adhered: membrane adhered with approved adhesive. .

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL Minimum 2" thick	**1 or 4 with 6**	**1:1 ft^2**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL Minimum 1" thick	**N/A**	**N/A**

Note: Base layer shall be mechanically attached with fasteners and density described. Top insulation layer shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" – ¾" wide beads spaced 4" o.c. or I.S.O. Stick applied in continuous ¾" – 1" wide ribbons spaced 4" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR is adhered maximum 6" o.c. with XR Stick or a maximum 12" o.c. with I.S.O. Spray R applied in 3/4" to 1" wide ribbons.

Maximum Design Pressure: -127.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. Type B, Grade 33 steel decking attached to steel supports spaced maximum 6 ft. o.c. or structural concrete. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. When tested with Elevate All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type B(6): Base layer of insulation mechanically fastened, top layer adhered: membrane adhered with approved adhesive. .

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 2" thick**	**1 or 2 with 6 (steel)** **1 or 4 with 6 (concrete)**	**1:1.78 ft^2**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISOGARD HD **Minimum 1/2" thick**	**N/A**	**N/A**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum 1/4" thick**	**N/A**	**N/A**

Note: Base layer shall be mechanically attached with fasteners and density described. Top insulation layer shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive (ISOGARD HD only) in continuous ½" – ¾" wide beads spaced 6" o.c. or I.S.O. Fix II (except DensDeck Prime) or I.S.O. Stick applied in continuous ¾" – 1" wide ribbons spaced 6" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR roof cover is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -67.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO
Deck Type 7I: Recover, Insulated
Deck Description: Concrete
System Type C(1): Membrane adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL Minimum 1.5" thick	**1 or 4 with 6**	**1:2 ft^2**

Note: Insulation layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO
Deck Type 7I: Recover, Insulated
Deck Description: Concrete
System Type C(2): Membrane adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ISO 95+ GL **Minimum 1" thick**	**N/A**	**N/A**
Tapered ISO 95+ GL **Minimum ½" thick with a ¼" per ft. taper**	**N/A**	**N/A**

Note: Base layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ISO 95+ GL **Minimum 2 ¼" thick**	**1 or 4 with 6**	**1:4 ft²**

Additional Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ISO 95+ GL **Minimum 1.5" thick**	**N/A**	**N/A**

Note: Top layer shall be mechanically attached with fasteners and density described. Additional layers of insulation shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous ½" – ¾" wide beads spaced 12" o.c. or I.S.O. Stick applied in continuous ¾" – 1" wide ribbons spaced 12" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO XR is adhered with XR Stick or I.S.O. Spray R applied in 3/4” to 1” wide ribbons spaced a maximum 12” o.c.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO
Deck Type 7I: Recover, Insulated
Deck Description: Concrete
System Type C(3): Membrane adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL **Minimum 1.5" thick**	**N/A**	**N/A**

(Optional) Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft2
Tapered ISO 95+ GL **Minimum ½" thick with a ¼" per ft. taper**	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (cover board)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**1 or 4 with 6**	**1:2 ft^2**
Plywood **Minimum 19/32" thick**	**1 or 4 with 6**	**1:2 ft^2**

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 or UltraPly TPO 135 membrane adhered to the top insulation layer with XR Stick Membrane Adhesive applied in continuous ¾" – 1" wide ribbons spaced 12" o.c. The 2 in. wide roof cover side and end laps are sealed with a minimum 1.5 in. heat weld placed on outside edge of lap.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: 18-22 ga. 33 ksi steel deck

System Type C(4): Membrane adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**1 or 2 with 6**	**1:2 ft^2**

Note: Insulation layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR roof cover is fully adhered to with hot asphalt or Owens Corning PermaMop applied in the EVT range at a rate of 25-30 lbs./sq. or XR Bonding Adhesive at a rate of 70-90 ft^2/gal to the substrate only.
Or
UltraPly TPO XR is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly)

System Type C(5): Membrane bonded over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer: To be placed between the ribs or over panels of existing structural metal roof system.	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1.5" thick**	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**
DensDeck; DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
Plywood **Minimum 19/32" thick**	**N/A**	**N/A**

Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Please refer to Roofing Application Standard RAS 117 for insulation attachment. A minimum insulation thickness of 1 inch must be used with Elevate UltraPly InvisiWeld Plates.

Membrane: UltraPly TPO is mechanically fastened to the deck through the insulation to 16 ga. purlins spaced 5 ft. o.c. maximum using Purlin fasteners and Elevate UltraPly TPO InvisiWeld Plates, fastened 12" o.c. maximum along the purlins. (Areas where the metal panels do not lay flush on purlin shall have a ¼" pilot pre-drilled into the panel prior to fastening) and then bonded to the Elevate UltraPly TPO InvisiWeld Plates using a RhinoBond Portable Bonding Tool and weighted RhinoBond Cooling Clamps. The minimum 3 in. wide roof cover side laps are sealed with a minimum 1.5 in. wide heat weld on the outside edge of the lap.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO
Deck Type 7I: Recover, Insulated
Deck Description: Concrete
System Type C(6): Membrane adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL **Minimum 2" thick**	**1 or 4 with 6**	**1:1.6 ft^2**

Note: Insulation layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 or UltraPly TPO 135 membrane adhered to the top insulation layer with XR Stick Membrane Adhesive applied in continuous ¾" – 1" wide ribbons spaced 6" o.c. The 2 in. wide roof cover side and end laps are sealed with a minimum 1.5 in. heat weld placed on the outside edge of lap.
Or
UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR is adhered with I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -82.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO
Deck Type 7I: Recover, Insulated
Deck Description: Concrete
System Type C(7): Membrane adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL Minimum 2" thick	**1 or 4 with 6**	**1:1 ft^2**

Note: Insulation layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 or UltraPly TPO 135 membrane adhered to the top insulation layer with XR Stick Membrane Adhesive applied in continuous ¾" – 1" wide ribbons spaced 4" o.c. The 2 in. wide roof cover side and end laps are sealed with a minimum 1.5 in. heat weld placed on the outside edge of lap.
Or
UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR is adhered with I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -142.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Concrete or 18-22 ga. 33 ksi steel deck

System Type C(8): Membrane bonded over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL or ISOGARD HD **Minimum ½" thick**	**1 with 9** **4 (concrete only) with 9**	**1:5.3 ft^2**
DensDeck; DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**1 with 9** **4 (concrete only) with 9**	**1:5.3 ft^2**

Note: All layers shall be simultaneously fastened. See above for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. A minimum insulation thickness of 1 inch must be used with Elevate UltraPly InvisiWeld Plates.

Membrane: UltraPly TPO is bonded to the Elevate UltraPly TPO InvisiWeld Plates using a RhinoBond Portable Bonding Tool and weighted RhinoBond Cooling Clamps. The minimum 6" wide roof cover side laps are sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.

Maximum Design Pressures: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. Grade 33, Type B steel deck secured to supports space at maximum 6 ft. o.c. with ITW Buildex Traxx/5 spaced at 6" o.c. Side lap fastened with ITW Buildex Traxx/1 spaced at 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
Or
Concrete

System Type C(9): Membrane bonded over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL, ISOGARD HD		
Minimum ½" thick	**1 with 9** **4 (concrete only) with 9**	**See Design Pressures**
DensDeck; DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**1 with 9** **4 (concrete only) with 9**	**See Design Pressures**

Note: All layers shall be simultaneously fastened. See above for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. A minimum insulation thickness of 1 inch must be used with UltraPly InvisiWeld Plates.

Membrane: UltraPly TPO is bonded to the UltraPly TPO InvisiWeld Plates using a RhinoBond Portable Bonding Tool and weighted RhinoBond Cooling Clamps. The minimum 6" wide roof cover side laps are sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.

Maximum Design Pressures:
-60 psf. at 1:4 ft^2 (See General Limitation #7)
-75 psf. at 1:2.7 ft^2 (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. Grade 3, Type B steel deck secured to supports space at maximum 6 ft. o.c. with two (2) ITW Buildex Traxx/5 spaced at 6" o.c. Side lap fastened with ITW Buildex Traxx/1 spaced at 24" o.c.;
Or
Concrete

System Type C(10): Membrane bonded over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL, ISOGARD HD **Minimum ½" thick**	**1 with 9** **4 (concrete only) with 9**	**1:2 ft^2**
DensDeck; DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**1 with 9** **4 (concrete only) with 9**	**1:2 ft^2**

Note: All layers shall be simultaneously fastened. See above for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. A minimum insulation thickness of 1 inch must be used with UltraPly InvisiWeld Plates.

Membrane: UltraPly TPO is bonded to the UltraPly TPO InvisiWeld Plates using a RhinoBond Portable Bonding Tool and weighted RhinoBond Cooling Clamps. The minimum 6" wide roof cover side laps are sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.

Maximum Design Pressures: -105 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. Grade 3, Type B steel deck secured to supports space at maximum 6 ft. o.c. with two (2) ITW Buildex Traxx/5 spaced at 6" o.c. Side lap fastened with ITW Buildex Traxx/1 spaced at 24" o.c.;
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
Or
Concrete

System Type C(11): Membrane bonded over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL, ISOGARD HD **Minimum ½" thick**	**1 with 9** **4 (concrete only) with 9**	**See Below**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**1 with 9** **4 (concrete only) with 9**	**See Below**

Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Please refer to Roofing Application Standard RAS 117 for insulation attachment. A minimum insulation thickness of 1 inch must be used with UltraPly InvisiWeld Plates.

Membrane: UltraPly TPO is bonded to the UltraPly TPO InvisiWeld Plates are secured through the insulation layer to the deck at a maximum 6" o.c. in rows in rows spaced a maximum 60" o.c. UltraPly TPO is bonded to the UltraPly TPO InvisiWeld Plates using a RhinoBond Portable Bonding Tool and weighted RhinoBond Cooling Clamps. The minimum 6" wide roof cover side laps are sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.

Maximum Design Pressures: -82.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type C(12): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL **Minimum 1-1/4" thick**	**1 or 4 with 6**	**1:2.7 ft^2**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. or structural concrete. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 213 lbf. when tested with Elevate All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) installed through to the deck in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(13): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL **Minimum 1.5" thick**	**1 or 2 with 6 (steel)** **1 or 4 with 6 (concrete)**	**1:1.78 ft^2**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Or

UltraPly TPO XR is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -60 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. or structural concrete. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 360 lbf. when tested with Elevate Heavy-Duty fasteners installed through to the deck in accordance with TAS 105.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(14): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL **Minimum ½" thick**	**1 with 9**	**1:4 ft^2**
DensDeck, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**1 with 9**	**1:4 ft^2**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. A minimum insulation thickness of 1 inch must be used with UltraPly InvisiWeld Plates.

Membrane: UltraPly TPO is bonded to the UltraPly TPO InvisiWeld Plates using a RhinoBond Portable Bonding Tool and weighted RhinoBond Cooling Clamps. The minimum 6" wide roof cover side laps are sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(15): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**1 or 2 with 6**	**1:1.78 ft^2**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO (over SECUROCK and DensDeck only) roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR roof cover is fully adhered to with hot asphalt or Owens Corning PermaMop applied in the EVT range at a rate of 25-30 lbs./sq. or XR Bonding Adhesive at a rate of 70-90 ft^2/gal to the substrate only.
Or
UltraPly TPO XR is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: **S**tructural concrete. The existing shall be minimum 1" in total thickness. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 160 lbf. when tested with Elevate All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) installed through to the deck in accordance with TAS 105.

System Type C(16): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**1 or 4 with 6**	**1:1.78 ft^2**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. or structural concrete. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. when tested with Elevate All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) installed through to the deck in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(17): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+GL Minimum 2" thick	**1 or 2 with 6 (steel) 1 or 4 with 6 (concrete)**	**1:2.67 ft^2**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. Grade 33, Type B steel deck, concrete, or wood

System Type C(18): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	**1 or 2 with 6 (for steel) 4 with 6 (for concrete)**	**1:2.7 ft^2**
ISO 95 +GL Minimum 1.5" thick	**4 with 6 (for concrete)**	**1:2.7 ft^2**

Note: All layers shall be simultaneously fastened. See above for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered to the top insulation layer with UltraPly Bonding Adhesive or Single-Ply LVOC Bonding Adhesive applied at a rate of 60 ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate).

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. or concrete *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 401 lbf. when tested with Elevate Heavy-Duty fasteners installed through to the deck in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(19): Membrane bonded over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Bottom Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ISO 95+ GL **Minimum 1/2" thick**	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ISOGARD HD **Minimum 1/2" thick**	**1 with 9**	**1:2.67 ft²**
DensDeck, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**1 with 9**	**1:2.67 ft²**
ISO 95 +GL **Minimum 1" thick**	**1 with 9**	**1:2.67 ft²**

Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Please refer to Roofing Application Standard RAS 117 for insulation attachment. A minimum insulation thickness of 1 inch must be used with UltraPly InvisiWeld Plates.

Membrane: UltraPly TPO is bonded to the UltraPly TPO InvisiWeld Plates using a RhinoBond Portable Bonding Tool and weighted RhinoBond Cooling Clamps. The minimum 2" wide roof cover side laps are sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.

Maximum Design Pressures: -75 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. or concrete. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 294 lbf. when tested with Elevate All-Purpose fasteners (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) installed through to the deck in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(20): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum ½" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber roof Board Minimum ½" thick	**1 or 2 with 6 (steel) 1 or 4 with 6 (concrete)**	**1:1.78 ft^2**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR roof cover is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -82.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 15/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 144 lbf. when tested with Elevate All Purpose Fasteners or Heavy Duty Fasteners installed through to the deck in accordance with TAS 105.

System Type C(21): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Bottom Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1/2" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95 + GL Minimum 1.5" thick	**1or 2 with 6**	**1:1.60 ft^2**

Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon.

The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressures:

-45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 15/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c at the perimeter and 12" o.c. in the field of each board. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 144 lbf. when tested with Elevate All Purpose or Heavy Duty fasteners installed through to the deck in accordance with TAS 105.

System Type C(22): Membrane adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft2**
ISO 95+ GL **Minimum 1/2" thick**	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft2**
SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**1 or 2 with 6**	**1:1.60 ft2**
DensDeck Prime **Minimum ½" thick**	**1 or 2 with 6**	**1:1.60 ft2**
ISO 95+ GL **Minimum 1½" thick**	**1 or 2 with 6**	**1:1.60 ft2**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft2/gallon (120 ft2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR (over SECUROCK and DensDeck only) roof cover is fully adhered to with hot asphalt or Owens Corning PermaMop applied in the EVT range at a rate of 25-30 lbs./sq. or XR Bonding Adhesive at a rate of 70-90 ft2/gal to the substrate only.
Or
UltraPly TPO XR is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 15/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. at the perimeter and 12" o.c. in the field of each board. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 224 lbf. when tested with Elevate All Purpose or Heavy Duty fasteners installed through to the deck in accordance with TAS 105.

System Type C(23): Membrane adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1/2" thick	**NA**	**NA**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	**1 or 2 with 6**	**1:2.13 ft^2**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR (over SECUROCK and DensDeck only) roof cover is fully adhered to with hot asphalt or Owens Corning PermaMop applied in the EVT range at a rate of 25-30 lbs./sq. or XR Bonding Adhesive at a rate of 70-90 ft^2/gal to the substrate only.
Or
UltraPly TPO XR is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga, Type B, Grade 33 steel deck attached to structural supports spaced a maximum 6-ft o.c. or concrete. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 187 lbf. when tested with Elevate All Purpose Fasteners (steel only), Heavy Duty, or Concrete Drive (concrete only) installed through to the deck in accordance with TAS 105. Existing roof shall be a minimum 1/2" thick.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(24): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1/2" thick**	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ½" thick**	**1 or 2 with 6 (steel)** **1 or 4 with 6 (concrete)**	**1:1.78 ft^2**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO roof cover is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive, or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 60ft^2/gallon (120 ft^2/gallon to both the underside of membrane and the substrate) or Water Based Bonding Adhesive P applied at a rate of 100-120ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Or
UltraPly TPO XR (over SECUROCK and DensDeck only) roof cover is fully adhered to with hot asphalt or Owens Corning PermaMop applied in the EVT range at a rate of 25-30 lbs./sq. or XR Bonding Adhesive at a rate of 70-90 ft^2/gal to the substrate only.
Or
UltraPly TPO XR is adhered with XR Stick or I.S.O. Spray R applied in 3/4" to 1" wide ribbons spaced a maximum 12" o.c.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly)

System Type D(1): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer: To be placed between the ribs or over panels of existing structural metal roof system.	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1" thick**	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1.5" thick**	**N/A**	**N/A**
ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
Plywood **Minimum 19/32" thick**	**N/A**	**N/A**

Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO shall be mechanically fastened to the deck through the insulation to 16 ga. purlins spaced 7.5 ft. maximum with Elevate HD Seam Plates and Purlin Fasteners. Fastener rows are spaced at a maximum 7.5 ft. o.c. and fasteners are spaced 12" o.c. within the 6" wide roof cover side laps. (Areas where the metal panels do not lay flush on purlin shall have a ¼" pilot pre-drilled into the panel prior to fastening) The minimum 6 in. wide roof cover side laps are sealed with a minimum 1.5 in. wide heat weld on the outside edge of the lap.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly)

System Type D(2): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer: To be placed between the ribs or over panels of existing structural metal roof system.	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1.0" thick**	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1.5" thick**	**N/A**	**N/A**
ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
Plywood **Minimum 19/32" thick**	**N/A**	**N/A**

Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly QuickSeam R.M.A. Strips shall be mechanically attached over the top insulation to the purlins with Coiled Metal Batten Bar and Purlin Fasteners spaced 6" o.c. along the batten strips. UltraPly QuickSeam R.M.A. Strips are spaced 10 ft. o.c. (centered directly over purlins). (Areas where the metal panels do not lay flush on purlin shall have a ¼" pilot pre-drilled into the panel prior to fastening) UltraPly TPO is adhered to each UltraPly QuickSeam R.M.A. Strip by priming the underside of the roof cover, at the strip locations, with Single-Ply QuickPrime Primer and placing the primed portion of the roof cover onto the strips. Minimum 2" wide side laps are sealed with a minimum 1.5" wide heat weld placed along the outside edge of lap.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly)

System Type D(3): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer: To be placed between the ribs or over panels of existing structural metal roof system.	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1" thick**	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1.5" thick**	**N/A**	**N/A**
ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**
DensDeck; DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
Plywood **Minimum 19/32" thick**	**N/A**	**N/A**

Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO shall be mechanically attached over the top insulation to the purlins spaced 142" maximum with Elevate HD Seam Plates and Purlin Fasteners. Fastener rows are placed at a maximum 142" o.c. and fasteners are spaced 6" o.c. and centered within the 6" wide roof cover side laps. (Areas where the metal panels do not lay flush on purlin shall have a ¼" pilot pre-drilled into the panel prior to fastening) Minimum 6" wide side laps are sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to supports space at maximum 6 ft. o.c. with ITW Buildex Traxx/5 spaced at 6" o.c. Side lap fastened with ITW Buildex Traxx/1 spaced at 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(4): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations (not to exceed 1" thick)

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**
ISO 95+ GL, ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: UltraPly TPO is placed over the insulation and mechanically secured within the 6" wide laps with Elevate Heavy Duty Plus and Elevate HD Plus Seam Plates spaced 12" o.c. Side laps are spaced a maximum of 90" o.c. and sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 22 ga., Type B, Grade 80 steel deck secured to supports space at maximum 6 ft. o.c. with ITW Buildex Traxx/5 spaced at 6" o.c. Side lap fastened with ITW Buildex Traxx/1 spaced at 24" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.** Or Concrete.
System Type D(5):	Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations
(not to exceed 1" thick for steel deck or 8" thick for ISO 95+ GL on concrete).

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
ISO 95+ GL or ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane:	UltraPly TPO is placed over the insulation and mechanically secured within the 6" wide laps with Elevate Heavy-Duty and Elevate HD Seam Plates spaced 12" o.c. Side laps are spaced a maximum 90" o.c. and sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.
Maximum Design Pressure:	-45 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 22 ga., Type B, Grade 80 steel deck secured to supports space at maximum 6 ft. o.c. with ITW Buildex Traxx/5 spaced at 6" o.c. Side lap fastened with ITW Buildex Traxx/1 spaced at 24" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.** Or Concrete.
System Type D(6):	Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations
(not to exceed 1" thick for steel deck or 8" thick for ISO 95+ GL on concrete).

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
ISO 95+ GL or ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane:	UltraPly TPO is placed over the insulation and mechanically secured within the 6" wide laps.
Rows at 114" o.c.:	Membrane secured to the deck with Elevate Heavy-Duty and Elevate HD Seam Plates spaced 6" o.c. Side laps are sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.
Rows at 142" o.c.:	Membrane secured to the deck with Elevate Heavy-Duty and Elevate HD Seam Plates spaced 6" o.c. Side laps are sealed with a minimum 1.5" wide heat weld on the outside edge of the lap.
Maximum Design Pressure:	-52.5 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 22 ga., Type B, Grade 80 steel deck secured to supports space at maximum 6 ft. o.c. with Traxx/5 spaced at 6" o.c. Side lap fastened with Traxx/1 spaced at 24" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.** Or Concrete
System Type D(7):	Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations (not to exceed 1" thick for steel deck or 8" thick for ISO 95+ GL on concrete).

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**
ISO 95+ GL or ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane:	UltraPly TPO is placed over the insulation and mechanically secured to the deck Elevate within the 6" wide side laps.
Rows at 114" o.c.:	Elevate Heavy-Duty fastened 6" o.c. through the Elevate Polymer Batten Strip. Side laps are sealed with a 5" wide heat weld which encapsulates the batten and fasteners.
Maximum Design Pressure:	-60 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 22 ga., Type B, Grade 33 steel deck secured to supports space at maximum 6 ft. o.c. with Traxx/5 spaced at 6" o.c. Side lap fastened with Traxx/1 spaced at 24" o.c.
	This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
System Type D(8):	Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations (not to exceed 1").

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**
ISO 95+ GL or ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane:	UltraPly TPO is placed over the insulation and mechanically secured to the deck within the 6" wide side laps.
Rows at 90" o.c.:	Elevate Heavy-Duty fastened 6" o.c. through the Elevate Polymer Batten Strip. Side laps are sealed with a 5" wide heat weld which encapsulates the batten and fasteners.
Rows at 114" o.c.:	Elevate Heavy Duty Plus and Elevate HD Plus Seam Plates fastened 6" o.c. Side laps are sealed with a 1.5" wide heat placed along the outside edge of the lap.
Maximum Design Pressure:	-67.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type D(9): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations
(ISO 95+ GL maximum thickness is 8"; all others shall not exceed 1").

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**
ISO 95+ GL or ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: UltraPly TPO is placed over the insulation and mechanically secured to the deck Elevate within the 6" wide side laps with Elevate Heavy-Duty fastened 6" o.c. through the Elevate Polymer Batten Strip. Side laps are spaced a maximum of 90" o.c. and are sealed with a 5" wide heat weld which encapsulates the batten and fasteners.

Maximum Design Pressure: -67.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck secured to supports space at maximum 6 ft. o.c. with Traxx/5 spaced at 6" o.c. Side lap fastened with Traxx/1 spaced at 24" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
Or
Concrete

System Type D(10): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations
(not to exceed 1" thick for steel deck or 8" thick for ISO 95+ GL on concrete).

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
ISO 95+ GL, ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: UltraPly TPO is placed over the insulation and mechanically secured to the deck with Elevate Heavy-Duty or Concrete Drive (concrete deck only) and Metal Batten Bar or Elevate Heavy Duty Plus and Elevate Polymer Batten Strip (steel deck only) centered within the 6" wide side laps. Fasteners are spaced 6" o.c. along the batten bar. Batten rows are spaced at a maximum 114" o.c. Roof cover side laps are sealed with a 5" wide heat weld which encapsulates the batten and fasteners.

Maximum Design Pressure: -75 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to supports space at maximum 6 ft. o.c. with Traxx/5 spaced at 6" o.c. Side lap fastened with Traxx/1 spaced at 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(11): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations (not to exceed 1").

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**
ISO 95+ GL or ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: UltraPly TPO is placed over the insulation and mechanically secured to the deck within the 6" wide side laps. Elevate Heavy Duty Plus fastened 6" o.c. through the Metal Batten Bar. Side laps are spaced a maximum of 90" o.c. and sealed with a 5" wide heat weld which encapsulates the batten and fasteners.

Maximum Design Pressure: -82.5 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 22 ga. Grade 80 steel deck secured to supports space at maximum 6 ft. o.c. with two (2) Traxx/5 at each bearing point spaced at 6" o.c. Side lap fastened with Traxx/1 spaced at 24" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.** Or Concrete
System Type D(12):	Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations (not to exceed 1" thick for steel deck or 8" thick for ISO 95+ GL on concrete).

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
ISO 95+ GL or ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane:	UltraPly TPO is placed over the insulation and mechanically secured to the deck within the 6" wide side laps. Elevate Heavy-Duty fastened 6" o.c. through the Elevate Polymer Batten Strip. Side laps are spaced a maximum 68" o.c. are sealed with a 5" wide heat weld which encapsulates the batten and fasteners.
Maximum Design Pressure:	-82.5 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 18 ga., Type B, Grade 80 steel deck secured to supports space at maximum 6 ft. o.c. with Traxx/5 at each bearing point spaced at 6" o.c. Side lap fastened with Traxx/1 spaced at 24" o.c.; **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type D(13):	Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations (not to exceed 1" thick).

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
ISO 95+ GL or ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: UltraPly TPO is placed over the insulation and mechanically secured to the deck with Elevate Heavy Duty Plus and Elevate HD Plus Seam Plates spaced maximum 6" o.c. within the 6" wide side laps, in rows sapced a maximum 90" o.c. Roof cover side laps are sealed with a 5" wide heat weld which encapsulates the row of plates and fasteners.

Maximum Design Pressure: -90 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 22 ga. Grade 80 steel deck secured to supports space at maximum 6 ft. o.c. with Traxx/5 at each bearing point spaced at 6" o.c. Side lap fastened with Traxx/1 spaced at 24" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.** Or Concrete
System Type D(14):	Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations (not to exceed 1" thick for steel deck or 8" thick for ISO 95+ GL on concrete).

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
ISO 95+ GL, ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane:	UltraPly TPO is placed over the insulation and mechanically secured to the deck with Elevate Heavy-Duty or Concrete Drive (concrete only) and Elevate Coiled Metal Batten Bar centered within the 6" wide side laps. Fasteners are spaced 6" o.c. along the batten bar. Batten rows are spaced at a maximum 90" o.c. Roof cover side laps are sealed with a 5" wide heat weld which encapsulates the batten and fasteners.
Maximum Design Pressure:	-90 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 18 ga. Grade 80 steel deck secured to supports space at maximum 6 ft. o.c. with Traxx/5 at each bearing point spaced at 6" o.c. Side lap fastened with Traxx/1 spaced at 24" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type D(15):	Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations (not to exceed 1" thick)

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
ISO 95+ GL, ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane:	UltraPly TPO is placed over the insulation and mechanically secured to the deck with Elevate Heavy Duty Plus and Metal Batten Bar centered within the 6" wide side laps. Fasteners are spaced 6" o.c. along the batten bar. Batten rows are spaced at a maximum 90" o.c. Roof cover side laps are sealed with a 5" wide heat weld which encapsulates the batten and fasteners.
Maximum Design Pressure:	-97.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. Grade 80 steel deck secured to supports space at maximum 6 ft. o.c. with two (2) Traxx/5 at each bearing point spaced at 6" o.c. Side lap fastened with Traxx/1 spaced at 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(16): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations (not to exceed 1" thick).

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**
ISO 95+ GL, ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: UltraPly TPO is placed over the insulation and mechanically secured to the deck with Elevate Heavy Duty Plus and 3/4" wide Polymer Batten Strips 6" o.c. along the batten bar in rows spaced at a 142 in. o.c. and along one intermediate field row centered in the field of the sheet. Roof cover side laps are sealed with a 5" wide heat weld which encapsulates the batten and fasteners. The intermediate field row batten bar is sealed with a min. 5" wide strip of UltraPly TPO sealed with a min. 1.5" wide heat weld on each side of the batten.

Maximum Design Pressure: -135 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly)

System Type D(17): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer: To be placed between the ribs or over panels of existing structural metal roof system.	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1" thick**	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1.5" thick**	**N/A**	**N/A**
ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
Plywood **Minimum 19/32" thick**	**N/A**	**N/A**

Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly QuickSeam R.M.A. Strips shall be mechanically attached over the top insulation to the purlins with Coiled Metal Batten Bar and Purlin Fasteners spaced 6" o.c. along the batten strips. UltraPly QuickSeam R.M.A. Strips are spaced a maximum 10 ft. o.c. (centered directly over purlins). (Areas where the metal panels do not lay flush on purlin shall have a ¼" pilot pre-drilled into the panel prior to fastening) UltraPly TPO is adhered to each UltraPly QuickSeam R.M.A. Strip by priming the underside of the roof cover, at the strip locations, with Single-Ply QuickPrime Primer and placing the primed portion of the roof cover onto the strips. Minimum 2" wide side laps are sealed with a minimum 1.5" wide heat weld placed along the outside edge of lap.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 22 ga., Type B, Grade 50 steel deck with supports spaced maximum 6 ft. o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 641 lbf. when tested with Elevate Heavy Duty Plus fasteners installed through to the deck in accordance with TAS 105. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type D(18):	Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼ ” thick	**N/A**	**N/A**
ISO 95+ GL Minimum 1” thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane:	UltraPly TPO is placed over the insulation and mechanically secured to the deck with Elevate Heavy Duty Plus and Elevate HD Plus Seam Plates spaced max. 6” o.c. within the 6” wide side laps, in rows max, 114” o.c. Roof cover side laps are sealed with a 1.5” min. wide heat weld placed along the outer edge of the lap.
Maximum Design Pressure:	-67.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck with supports spaced maximum 6 ft. o.c. or concrete. Existing roof shall be a minimum 1" in total thickness. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 499 lbf. when tested with Elevate Heavy Duty fasteners installed through to the deck in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(19): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ISO 95+ GL **Minimum 1" thick**	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck, Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**
ISOGARD HD **Minimum ½" thick**	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: UltraPly TPO (min. 0.060") is placed over the insulation and mechanically secured to the deck with Elevate Heavy-Duty and Elevate HD Seam Plates spaced max. 6" o.c. within the 6" wide side laps, in rows max, 114" o.c. Roof cover side laps are sealed with a 1.5" wide heat weld which encapsulates the row of plates and fasteners.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 300 psi Celcore Lightweight Concrete cast over minimum 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. or concrete *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 499 lbf. when tested with Elevate Heavy-Duty fasteners installed through to the deck in accordance with TAS 105.

System Type D(20): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL **Minimum 1/2" thick**	**N/A**	**N/A**
DensDeck, Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼ " thick**	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: UltraPly TPO is placed over the insulation and mechanically secured to the deck with Elevate Heavy Duty fasteners and Elevate HD Seam Plates spaced max. 6" o.c. within the 6" wide side laps, in rows max. 114" o.c. Roof cover side laps are sealed with a 1.5" minimum wide heat weld placed along the outer edge of the lap.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7:	Recover, Non-Insulated
Deck Description:	18-22ga. 33 ksi steel. Or Structural Concrete.
System Type E(1):	Membrane mechanically fastened over existing roof system.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Barrier:	None.
Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 attached to deck as described below.
Fastening #1:	Membrane is mechanically attached using Elevate Heavy Duty Plus and Elevate HD Plus Seam Plates spaced 12” o.c. within minimum 6” wide laps in rows spaced 114” o.c. and sealed with minimum 1.5” heat weld along the outside edge.
Fastening #2:	Membrane is mechanically attached using Elevate Heavy-Duty and Elevate HD Seam Plates spaced 6” o.c. within minimum 6” wide laps in rows spaced 114” o.c. and sealed with minimum 1.5” heat weld along the outside edge.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Min. 300 psi Generic Cellular Lightweight Concrete cast over steel deck o or concrete. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 390 lbf. when tested with Elevate Heavy-Duty installed through the LWC to the steel deck in accordance with TAS 105.
System Type E(2):	Membrane attached over existing roof system.
Deck:	Minimum 22 gauge, Grade 50, Type-B steel deck is secured to supports spaced a maximum of 6 ft. o.c. with #12-24 x 1-1/4" HWH SD screws with ½" washers spaced at 6" o.c. Side lap fasteners secured with #1/4-14 x 7/8" HWH SD screws with ½" washers spaced 12" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.** Or Structural Concrete.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane:	UltraPly TPO attached through the lightweight concrete and engaged to the steel deck as described below:
Fastening:	Membrane is mechanically attached using Polymer Batten Strip spaced 4 ft. o.c. and fastened to deck with Heavy Duty fasteners spaced 6" o.c. along the batten strip. A 6" wide UltraPly TPO Cover Strip is heat welded over battens with 1.5 in. wide heat welds. The roof cover side and end laps are sealed with a minimum 1.5" heat weld on the outside edge of the lap
Maximum Design Pressure:	-97.5 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 7:	Recover, Non-Insulated
Deck Description:	18-22 ga. 33 ksi Steel/Concrete/Wood/Gypsum/Cementitious Wood Fiber
System Type F(1):	Membrane adhered to existing asphaltic BUR

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane:	UltraPly TPO XR adhered with XR Stick Membrane Adhesive applied in continuous ¾" – 1" wide ribbons spaced 12" o.c. The 2" roof cover side laps are sealed with a minimum 1.5" heat weld on the outside edge of the lap.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 7:	Recover, Non-Insulated
Deck Description:	18-22 ga. 33 ksi Steel/Concrete/Wood/Gypsum/Cementitious Wood Fiber
System Type F(2):	Membrane adhered to existing granule surfaced asphaltic modified bitumen roof systems.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane:	UltraPly TPO XR adhered with XR Stick Membrane Adhesive applied in continuous ¾" – 1" wide ribbons spaced 6" o.c. The 2" roof cover side laps are sealed with a minimum 1.5" heat weld on the outside edge of the lap.
Maximum Design Pressure:	-142.5 psf. (See General Limitation #9) for Steel and Concrete decks. -45 psf. (See General Limitation #9) for all other deck types.

Membrane Type:	Single Ply, TPO
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Concrete
System Type F(3):	Membrane adhered to existing asphaltic BUR

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane:	UltraPly TPO XR 115 adhered with XR Stick Membrane Adhesive applied in continuous 1” minimum beads spaced a maximum of 4” o.c. and allowed to expand to full coverage application prior to placement of the roof cover. The 2” wide roof cover side laps are sealed with a minimum 1.5 in. heat weld placed on the outside edge of the lap
Maximum Design Pressure:	-315 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7: Recover, Non-Insulated

Deck Description: Concrete

System Type F(4): Membrane adhered to existing asphaltic roof system.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: One ply of UltraPly TPO XR adhered with hot asphalt at a rate of 20-25 lb./sq. Minimum 3" roof cover laps are sealed with a minimum 1.5" heat weld along the outside edge.

Maximum Design Pressure: -495 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7: Recover, Non-Insulated

Deck Description: Concrete

System Type F(5): Membrane adhered to existing torch adhered granule surfaced SBS Modified Roofing.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 Reinforced Membrane adhered to existing roof system with XR Stick Membrane Adhesive applied in ¾ - 1 in. wide ribbons spaced 12" o.c. The 2" roof cover side laps are sealed with a minimum 1.5" heat weld on the outside edge of the lap.

Maximum Design Pressure: -122.5 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Concrete
System Type F(6):	Membrane adhered to existing smooth surfaced BUR

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane:	UltraPly TPO XR 115 or UltraPly TPO XR 135 adhered with XR Stick Membrane Adhesive applied in continuous 1" minimum beads spaced a maximum of 12" o.c. The 2" wide roof cover side laps are sealed with a minimum 1.5 in. heat weld placed on the outside edge of the lap
Maximum Design Pressure:	-112.5 psf. (See General Limitation #9)

RECOVER SYSTEM LIMITATIONS:

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.
2. All assemblies listed herein shall be installed in compliance with the applicable sections of FBC 1521. Uplift performance of assemblies bonded to existing roofing system shall be verified per 1521.10. Uplift performance of assemblies mechanically attached through existing roofing system shall be verified per 1521.11.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer.
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
   Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf, as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE