



MIAMI-DADE COUNTY
BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
 (305) 375-2901 FAX (305) 372-6339

NOTICE OF ACCEPTANCE (NOA)

www.maimidade.gov/buildingcode

Elco Construction Products
5110 Falcon Road
Rockford, IL 61109

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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.

DESCRIPTION: Aggre-Gator 300 Series Stainless Steel Concrete Anchor

APPROVAL DOCUMENT: Drawing No. **E08-100**, titled "Aggre-Gator Fasteners 300 Series Stainless Steel" sheets 1 and 2 of 2, dated 07/07/08, prepared by Elco Construction Products, signed and sealed by Jose D. Mitrani, P.E., bearing the Miami-Dade County Product Control approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: None

LABELING: Each box 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 consists of this page 1 and evidence page E-1, as well as approval document mentioned above. The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**



[Handwritten Signature]
 9/19/08

NOA No. 08-0813.06
Expiration Date: October 9, 2013
Approval Date: October 9, 2008
 Page 1

Elco Construction Products

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **E08-100**, titled "Aggre-Gator Fasteners 300 Series Stainless Steel" sheets 1 and 2 of 2, dated 07/07/08, prepared by Elco Construction Products, signed and sealed by Jose D. Mitrani, P.E.

B. TESTS

	<u>Report</u>	<u>Test</u>	<u>Date</u>	<u>Signature</u>
1.	HETI-08-A242	ASTM E488-96	02/28/08	Candido F. Font, P.E.
2.	HETI-08-A248	ASTM E488-96	02/28/08	Candido F. Font, P.E.
3.	HETI-08-A236	ASTM E488-96	02/28/08	Candido F. Font, P.E.
4.	HETI-08-A230	ASTM E488-96	02/28/08	Candido F. Font, P.E.
5.	HETI-08-A260	ASTM E488-96	02/28/08	Candido F. Font, P.E.
6.	HETI-08-A275	ASTM E488-96	03/17/08	Candido F. Font, P.E.
7.	HETI-08-A277	ASTM E488-96	03/17/08	Candido F. Font, P.E.
8.	HETI-08-A222	ASTM E488-96	02/28/08	Candido F. Font, P.E.
9.	HETI-08-A226	ASTM E488-96	02/28/08	Candido F. Font, P.E.
10.	HETI-08-C102A	ASTM C39-03	03/25/08	Candido F. Font, P.E.
11.	HETI-08-C101A	ASTM C39-03	03/25/08	Candido F. Font, P.E.
12.	HETI-08-C100A	ASTM C39-03	03/25/08	Candido F. Font, P.E.
13.	STTS 08001	TAS 114, App. E	05/25/08	Mark Mosbat, P.E.
14.	STTS 08003	TAS 114, App. E	06/21/08	Mark Mosbat, P.E.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. Miami Dade Building Code Compliance Office (BCCO).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of code conformance and no financial interest, issued by Jose D. Mitrani, P.E., dated 08/08/08, signed and sealed by Jose D. Mitrani, P.E.
2. Distributor Agreement between Shehkai Precision Co., LTD (manufacturer) and ELCO Construction Products (distributor), signed by Lin, Shang-An and Gregg E. Melvin.



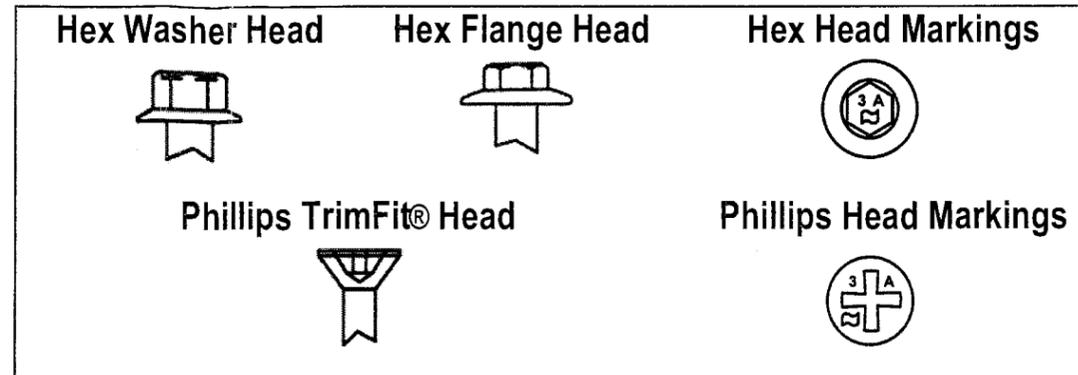
Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 08-0813.06

Expiration Date: October 9, 2013
Approval Date: October 9, 2008

GENERAL NOTES:

1. These drawings constitute a part of the product approval documents submitted to obtain a Miami-Dade County Product Control Division Notice Of Acceptance (NOA) for the High Velocity Hurricane Zone (HVHZ) of the 2007 Florida Building Code.
2. These anchors have been tested in compliance with the following standards: ASTM E-488-96 (reapproved 2003) and TAS 114 Appendix E of the 2007 Florida Building Code.
3. Anchors represented herein are manufactured from 300 series(18-8) stainless steel with a minimum average ultimate tensile strength of 96 KSI and a minimum average yield strength of 57 KSI, and have a fused high hardness carbon steel (SAE 1040) tapping point.
4. Anchor installation shall be made in accordance with the manufacturer's published installation instructions and the criteria and requirements of the notice of acceptance and the product approval documents.
5. Pilot holes for anchors tested were made with a 3/16" diameter drill bit with a diameter of 0.206" +0.000/-0.008."
6. This product approval document is generic and does not include information for a site-specific application.
7. Site-specific project documents utilizing these anchors shall be prepared by a Florida licensed professional engineer or registered architect proficient in structural design who will become the professional of record for the project and who will be responsible for the proper use of this product approval document.
8. Use of this product approval document shall comply with Chapter 61G15-23 of the Florida Administrative Code.
9. Deviations from, modifications to or additions to this product approval document are not permitted and shall result in an invalid document and an invalid or unapproved use of these anchors.

**ELCO AGGRE-GATOR®
300 SERIES STAINLESS STEEL
CONCRETE & MASONRY SCREW ANCHOR**



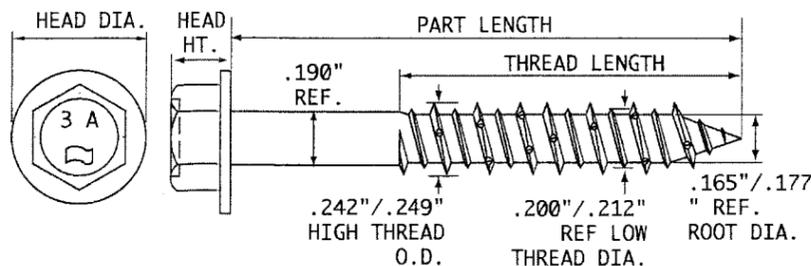
Aggre-Gator Head Dimensions

Head Style	Head Height	Across Flats	Washer Dia.
Hex Washer Head	.190"	.308"	.420"
Hex Flange Head	.225"	.308"	.620"
Phillips Flat Head	.155"	N/A	.430" *

*Flat Head Dia.

Aggre-Gator Lengths

Part Length	Thread Length for 1/4" Dia. Aggre-Gator Screw Anchors
1-3/4"	1-3/4"
2-1/4"	1-3/4"
2-3/4"	1-3/4"
3-1/4"	1-3/4"
4"	1-3/4"



Approved as complying with the Florida Building Code
Date: 10/09/2008
NOA# 08-2813-06
Miami Dade Product Control Division
By: [Signature]

**Aggre-Gator® Fasteners
300 Series Stainless Steel**

Elco Construction Products
5110 Falcon Road
Rockford, IL 61109
815.391.5500

José D. Mitrani P.E.
FL License PE 19943
10642 S.W. 129th Place
Miami, FL 33186

José D. Mitrani
8/8/8

no	date	by	description

date: July 7, 2008
drawn by: DLC
checked by: GEM
Dwg. No.: E08-100
Page 1 of 2

Substrate: 2220 psi Concrete				
Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embed.	Allowable Tension (lbs)
1/4"	1.25"	3"	1.000"	118
1/4"	2.50"	1.5"	1.000"	195
1/4"	1.25"	3"	1.375"	289
1/4"	2.50"	1.5"	1.375"	343
1/4"	1.25"	3"	1.750"	517
1/4"	2.50"	1.5"	1.750"	465
Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embed.	Allowable Shear (lbs)
1/4"	1.50"	3"	1.000"	204
1/4"	3"	1.5"	1.000"	259
1/4"	1.50"	3"	1.375"	259
1/4"	3"	1.5"	1.375"	413
1/4"	1.50"	3"	1.750"	318
1/4"	3"	1.5"	1.750"	488

Substrate: 3275 PSI Concrete				
Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embed.	Allowable Tension (lbs)
1/4"	1.25"	3"	1.000"	248
1/4"	2.50"	1.5"	1.000"	263
1/4"	1.25"	3"	1.375"	389
1/4"	2.50"	1.5"	1.375"	251
1/4"	1.25"	3"	1.750"	295
1/4"	2.50"	1.5"	1.750"	319
Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embed.	Allowable Shear (lbs)
1/4"	1.50"	3"	1.000"	255
1/4"	3"	1.5"	1.000"	226
1/4"	1.50"	3"	1.375"	319
1/4"	3"	1.5"	1.375"	511
1/4"	1.50"	3"	1.750"	306
1/4"	3"	1.5"	1.750"	515

Substrate: 1x4 (3/4" Thick) Treated No. 2 SYP attached to 2220 psi Concrete				
Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embed.	Allowable Shear (lbs)
1/4"	2.50"	3"	1.5"	200

Substrate: 2x4 (1-1/2" Thick) Treated No. 2 SYP attached to 2220 psi Concrete				
Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embed.	Allowable Shear (lbs)
1/4"	2.50"	3"	1.75"	199

Substrate: Concrete Masonry Hollow Block				
Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embed.	Allowable Tension (lbs)
1/4"	2.00"	3"	1.250"	195
1/4"	4.00"	3"	1.250"	221
Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embed.	Allowable Shear (lbs)
1/4"	2.00"	3"	1.250"	234
1/4"	4.00"	3"	1.250"	264

Substrate: Grout-Filled Concrete Block				
Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embed.	Allowable Tension (lbs)
1/4"	2.00"	3"	1.250"	208
1/4"	4.00"	1.5"	1.250"	186
1/4"	2.00"	3"	2.00"	407
1/4"	4.00"	1.5"	2.00"	504
Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embed.	Allowable Shear (lbs)
1/4"	2.00"	3"	1.250"	259
1/4"	4.00"	1.5"	1.250"	352
1/4"	2.00"	3"	2.00"	591
1/4"	4.00"	1.5"	2.00"	597

CAPACITY TABLE NOTES:

- Edge distances denoted herein shall be measured from the center of the anchor to the edge of the substrate in the direction of, as well as perpendicular to, the direction of the load. Spacing between anchors denoted herein shall be measured center-to-center of anchors.
- Allowable loads suggested herein are only valid when both the minimum anchor center-to-center spacing and the minimum edge distances are complied with.
- Allowable loads suggested herein equal 25% of the average ultimate laboratory test values obtained during testing performed as part of the requirements to obtain this NOA. Final determination of the appropriate working/design loads to be used in a specific project are the sole responsibility of the engineer of record or of the architect of record specifying the use of the product.
- No increase in allowable stress has been incorporated into the values provided in the tables contained herein.
- Anchors approved under this product approval document have not been tested for use under combined loading.
- The concrete substrate into which these anchors will be attached shall conform to ACI 301 specifications with strength properties as specified herein.
- The hollow and grout-filled concrete block substrate into which these anchors will be attached shall be medium weight or normal weight concrete block conforming to ASTM C-90.
- Combination wood and concrete substrate shall consist of 1 x 4 nominal (3/4" thick) treated No. 2 Southern Yellow Pine attached to concrete substrate conforming to ACI 301 specifications with strength properties as specified herein, or 2 x 4 nominal (1-1/2" thick) treated No. 2 Southern Yellow Pine attached to concrete substrate conforming to ACI 301 specifications with strength properties as specified herein.

Aggre-Gator® Fasteners
300 Series Stainless Steel

Elco Construction Products
 5110 Falcon Road
 Rockford, IL 61109
 815.391.5500

José D. Mitrani P.E.
 FL License PE 19943
 10642 S.W. 129th Place
 Miami, FL 33186

José D. Mitrani
 8/8/8

revisions		description
no	date	by

date:
 July 7, 2008

drawn by
 DLC

checked by GEM

Dwg. No.
 E08-100

Page 2 of 2

Approved as complying with the
 Florida Building Code
 Date 10/09/2008
 NOA# 08-0813.06
 Miami Dade Product Control
 Division
[Signature]