



City of Belle Isle

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
 Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

PERMIT CARD – PLEASE POST AT JOB SITE

THIS DOCUMENT BECOMES YOUR PERMIT WHEN PROPERLY VALIDATED

Per FBC 105.3.3: An enforcing authority may not issue a building permit for any building construction, erection, alteration, modification, repair or addition unless the permit either includes on its face or there is attached to the permit the following statement: "NOTICE: In addition to the requirements of this permit, there may be additional restrictions applicable to this property that may be found in the public records of this county, and there may be additional permits required from other governmental entities such as water management districts, state agencies, or federal agencies." The issuance of this permit does not grant permission to violate any applicable City, Orange County, State of Florida and/or Federal codes and/or ordinances. Separate permits are required for Signs, Roofing, Electrical, Gas, Plumbing and Mechanical services. This permit becomes VOID if the work authorized is not commenced within 6 months, or is suspended or abandoned for a period of 6 months after commencement. WORK SHALL BE CONSIDERED SUSPENDED IF AN APPROVED INSPECTION HAS NOT BEEN MADE WITHIN A 6 MONTH PERIOD. PERMISSION IS GRANTED TO DO THE FOLLOWING WORK ACCORDING TO THE CONDITIONS HEREON AND THE APPROVED PLANS AND SPECIFICATIONS, SUBJECT TO COMPLIANCE WITH THE ORDINANCES OF THE CITY OF BELLE ISLE, FLORIDA.

<p>Scope of Work: MECHANICAL: HVAC change out - no duct work</p> <p>Comments: None</p> <p>Project Information Address: 1720 Conway Isle Circle, Belle Isle, FL 32812 Parcel ID: 24-23-29-3490-00-380 Property Owner: Wilson, Donna Phone Number: 407-852 9296 ***** Company Name: Del-Air Heating & Air Conditioning, LLC Contractor Name: Dello Russo, Robert License Number: CAC032488 Address: 531 Codisco Way, Sanford, FL 32771 Phone Number: 407-935-9904</p>	<p style="text-align: right;">Permit Number: 2015-08-011</p> <p style="text-align: right;">Date of Application: <u>08/03/2015</u> Date Permit Issued: <u>08/06/2015</u></p> <p>WARNING TO OWNER: "YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT." ON THE JOB INSPECTION(S) MUST BE MADE BEFORE PROCEEDING WITH SUBSEQUENT WORK. THIS CARD MUST BE DISPLAYED OUTSIDE AND BE PROTECTED FROM THE WEATHER WHILE BEING VISIBLE FROM THE STREET UNTIL THE FINAL INSPECTIONS HAVE BEEN APPROVED.</p>
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BUILDING FEATURES

<p>IMPACT FEES</p> <p>Traffic \$ School \$</p> <p>ZONING FEES</p> <p>Zoning Fee \$</p> <p>UNIVERSAL ENG - BUILDING FEES</p> <p>Boat Dock \$ Boat House \$ Building \$ Demo \$ Door(s) \$ Driveway \$ Electrical \$ Fence \$ Gas \$ Irrigation \$ Low Voltage \$ Mechanical \$127.50 Plumbing \$ Pool \$ Roofing \$ Screen Encl \$ Shed \$ Temp Pole \$ Window(s) \$</p> <p>SURCHARGE FEES</p> <p>Surcharge Fee \$2.00 Surcharge Fee \$2.00</p> <p style="color: red; font-weight: bold; text-align: center;">TOTAL FEES \$131.50</p> <p>Date Paid <u>8-7-15</u></p> <p>CC or Check # <u>USA 5294</u></p> <p>Amount Paid <u>131.50</u></p> <p>The person accepting this permit shall conform to the terms of the application on file and construction shall conform to the requirements of the Florida Building Code (FS 553).</p>	<p style="text-align: center;">BUILDING INSPECTOR USE ONLY</p> <p>IF APPLICABLE: Have Zoning Approval Conditions Been Met? YES NO Have Stormwater Approval Conditions Been Met? YES NO Silt fencing in place? YES NO Turbidity Barrier in place? YES NO</p> <p>BUILDING</p> <p>1st _____ (Footing/Foundation) Survey specific foundation plan must be onsite before slab pour. Approved Plan on Site? _____</p> <p>2nd _____ (Slab)</p> <p>3rd _____ (Lintel)(Wall Reinforcing on Masonry Building)</p> <p>4th _____ (Exterior Framing)(Roof/Wall Sheathing)</p> <p>5th _____ (Framing) (To be made after Plumbing/ Mechanical/ Electrical Rough-Ins & Windows/Doors Installed)</p> <p>6th _____ (Insulation to be Made After Roof Installed)</p> <p>7th _____ (Drywall)</p> <p>8th _____ (Sidewalk/Driveway)</p> <p>9th _____ (Other)</p> <p>10th _____ (Final – After MEP and Other Applicable Finals)</p> <p>ROOFING OSHA APPROVED ACCESS MUST BE MADE AVAILABLE TO INSPECTOR</p> <p>1ST ROOFING Deck Nailing/Dry-in/Flashing _____</p> <p>2nd ROOFING Covering In-Progress _____</p> <p>3rd ROOFING Covering Final _____</p> <p>PLUMBING (Pool-Piping, Solar, Irrigation, Water Treatment Equip, Etc...)</p> <p>1ST _____ (Underground) 2nd _____ (Sewer)</p> <p>3rd _____ (Rough-In/Tub Set) 4th _____ (Final)</p> <p>CHECK APPROPRIATE BOX</p> <p><input type="checkbox"/> GAS <input type="checkbox"/> Natural <input type="checkbox"/> LP <input type="checkbox"/> MECHANICAL <input type="checkbox"/> ELECTRICAL <input type="checkbox"/> LOW VOLTAGE</p> <p>1st _____ (Rough-In) 2nd _____ (Final)</p>
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Inspection requests are to be emailed to BI scheduling@UniversalEngineering.com; a confirmation email will be sent back to you upon scheduling. **Next-Day Inspection requests must be made by 1pm.** Please include the following in your request: Permit #, project address, type of inspection, date of the requested inspection, a contact name & a contact phone number. AM or PM may be requested but cannot be guaranteed.

CITY OF BELLE ISLE
Permit Application Review Sheet

Permit Number	2015-08-011
Property Owner	Wilson, Donna & Eddy
Address	1726 Conway Isle Circle
Nature of Improvement	Mechanical - 2 units change at 7.5 hr total
Received Application	8-3-15
Sent for Stormwater Review	
Stormwater Approved	/
Sent for Zoning Review	
Zoning Approved	/
Applied for Variance	
Variance Approved	
Sent to BO for Review	8-3-15 WO # 55156
Building Official Approved	

Comments	
1. Susan 8-3-15	Need NOC & the downs - sent email set the downs
2.	
3.	
4.	\$ 6 x 8 = 48
5.	37.-
6.	<u>85 = 2 = 42.50</u>
7.	42.50
8.	<u>127.50 + 4 = 136.50</u>
9.	
10.	
11.	
12.	



City of Belle Isle

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APPLICATION FOR MECHANICAL PERMIT

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

DATE OF APPLICATION: 8/3/15 PERMIT NUMBER 205-08-011
PLEASE PRINT. The undersigned hereby applies for a permit to make installations as indicated below:

Project Address 1720 Conway Isle Circle Belle Isle FL 32809 32812
Property Owner Donna Wilson Phone 407-529-2910
Property Owner's Mailing Address 1720 Conway Isle Circle City Belle Isle
State FL Zip Code 32809 Parcel Id Number: 20222954960060

To obtain this information, please visit http://www.ocpafl.org/Searches/ParcelSearch.aspx

Class of Building: Old [X] New [] Type of Building: Residential [X] Commercial [] Other []
Type of Work: New [] Alteration [] Addition [] Repair [X] 24-23-29-3490-00-380

- REQUIRED certified Tie Down Engineering documentation (can be found at www.floridabuilding.org)
REQUIRED: If adding A/C to new space, provide Energy Calculations & Equipment Sizing Calculations
REQUIRED: If replacing unit with no duct work, Duct Certification as per FB 101.4.7.1, must be posted on unit

Please indicate the nature of work by completing the information below:
Air Conditioning: # of Units 2 Tons Per Unit 5 P.S. Total Tons 7.5 tons
Type of System: Water to Air Chiller Split System Package Heat Pump
Heating: # of Units KWS Per Unit 10/10 Total KWS 20 BTU's 37000/27800
Oil Electric Boiler Gas

Estimated Cost \$ 14,237
Estimated Cost \$
(A) Estimated Cost Fee \$

Fees for items below are based on valuation of all units, equipment, materials and labor supplied by owner or contractor.
Ventilation: (Number of) Grease Heat Hoods, Air Intakes Exhaust Fans Dryer Vents
Refrigeration: Number of units
Piping: Air Vacuum Steam Chill Water
Others: (Specify) 2 hvac coils no duct work
Was the space previously Air Conditioned? Yes [X] No

I hereby certify that the above is true and correct to the best of my knowledge and make Application for Permit as outlined above, and if same is granted I agree to conform to all Florida Building Code Regulations and City Ordinances regulating same and in accordance with plans submitted. The issuance of this permit does not grant permission to violate any applicable Town and/or State of Florida codes and/or ordinances.

LICENSE HOLDER SIGNATURE R. DeLio Russo LICENSE # CAC032448
LICENSE HOLDER NAME R. DeLio Russo COMPANY NAME del-air
Street Address 531 Oakwood way
City Sanford State FL Zip Code 32771 Phone Number 407-333-2165
Email Address LRaplan@delair.com

Building Official: Date
Verified Contractor's Licenses & Insurance are on file [Signature] Date 8-3-15
Permit Fee \$ 85.-
Review Fee \$ 42.00
3% Florida Surcharge \$ 4.00
Total Permit Fee \$ 131.50

NOTE: The Building Permit Number is required if the Mechanical Installation is associated with any construction or alteration where a Building Permit has been issued. Building Permit Number

DEL-AIR
HEATING - AIR CONDITIONING
REFRIGERATION, INC.

Date 8/3/15

City Of Belle Isle
Building Division

Dear Sir:

This letter is written to give authorization for e. d'angelo to pull the mechanical permit for Del-Air Heating, Air Conditioning & Refrigeration, Inc. for 1720 Conway Isle Cir

Thank You,


Robert G. Dello Russo, President

DEL-AIR HEATING, AIR CONDITIONING &
REFRIGERATION, INC.

RGDR/jd

Sworn to before me by Robert G. Dello Russo
on this 3 day of August, 2009 2015


NOTARY PUBLIC

MY COMMISSION EXPIRES: 6/14/19



P.O. Box 520522
Longwood, FL 32752-0522
Phone (407)333-COOL (2665)
(407)831-COOL (2665)

SALES
SERVICE
INSTALLATION



This combination qualifies for a Federal Energy Efficiency Tax Credit when placed in service between Feb 17, 2009 and Dec 31, 2014.

Certificate of Product Ratings

AHRI Certified Reference Number: 7017294

Date: 7/20/2015

Product: Split System: Heat Pump with Remote Outdoor Unit-Air-Source

Outdoor Unit Model Number: 25HCB660A**32

Indoor Unit Model Number: FV4CNB006L

Manufacturer: CARRIER AIR CONDITIONING

Trade/Brand name: CARRIER AIR CONDITIONING

Series name: PERFORMANCE 16 PURON HP

Manufacturer responsible for the rating of this system combination is CARRIER AIR CONDITIONING

Rated as follows in accordance with AHRI Standard 210/240-2008 for Unitary Air-Conditioning and Air-Source Heat Pump Equipment and subject to verification of rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (Btuh):	56500
EER Rating (Cooling):	12.50
SEER Rating (Cooling):	16.00
Heating Capacity(Btuh) @ 47 F:	57000
Region IV HSPF Rating (Heating):	9.00
Heating Capacity(Btuh) @ 17 F:	36000



* Ratings followed by an asterisk (*) indicate a voluntary rerate of previously published data, unless accompanied with a WAS, which indicates an involuntary rerate.

DISCLAIMER

AHRI does not endorse the product(s) listed on this Certificate and makes no representations, warranties or guarantees as to, and assumes no responsibility for, the product(s) listed on this Certificate. AHRI expressly disclaims all liability for damages of any kind arising out of the use or performance of the product(s), or the unauthorized alteration of data listed on this Certificate. Certified ratings are valid only for models and configurations listed in the directory at www.ahridirectory.org.

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CERTIFICATE VERIFICATION

The information for the model cited on this certificate can be verified at www.ahridirectory.org, click on "Verify Certificate" link and enter the AHRI Certified Reference Number and the date on which the certificate was issued, which is listed above, and the Certificate No., which is listed at bottom right.

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AIR-CONDITIONING, HEATING, & REFRIGERATION INSTITUTE

we make life better™

CERTIFICATE NO.: 130819082546603864



This combination qualifies for a Federal Energy Efficiency Tax Credit when placed in service between Feb 17, 2009 and Dec 31, 2014.

Certificate of Product Ratings

AHRI Certified Reference Number: 6938134 Date: 7/20/2015

Product: Split System: Heat Pump with Remote Outdoor Unit-Air-Source

Outdoor Unit Model Number: 25HBC530A**30

Indoor Unit Model Number: FV4CNF002L

Manufacturer: CARRIER AIR CONDITIONING

Trade/Brand name: CARRIER

Series name: COMFORT SERIES PURON HP

Manufacturer responsible for the rating of this system combination is CARRIER AIR CONDITIONING

Rated as follows in accordance with AHRI Standard 210/240-2008 for Unitary Air-Conditioning and Air-Source Heat Pump Equipment and subject to verification of rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (Btuh):	28200
EER Rating (Cooling):	12.50
SEER Rating (Cooling):	15.00
Heating Capacity(Btuh) @ 47 F:	27800
Region IV HSPF Rating (Heating):	8.50
Heating Capacity(Btuh) @ 17 F:	16800



* Ratings followed by an asterisk (*) indicate a voluntary rerate of previously published data, unless accompanied with a WAS, which indicates an involuntary rerate.

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AHRI does not endorse the product(s) listed on this Certificate and makes no representations, warranties or guarantees as to, and assumes no responsibility for, the product(s) listed on this Certificate. AHRI expressly disclaims all liability for damages of any kind arising out of the use or performance of the product(s), or the unauthorized alteration of data listed on this Certificate. Certified ratings are valid only for models and configurations listed in the directory at www.ahrirectory.org.

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CERTIFICATE NO.: 130819080216996132

Susan Manchester

From: John Connell
Sent: Tuesday, August 04, 2015 1:35 PM
To: Susan Manchester
Cc: BIDReviews
Subject: RE: 1720 Conway Isle Circle - mechanical app review WO 55156

Approved, not sure if I sent this over yesterday

From: Susan Manchester
Sent: Monday, August 03, 2015 10:03 AM
To: BIDReviews; John Connell
Subject: 1720 Conway Isle Circle - mechanical app review WO 55156

1720 Conway Isle Circle - mechanical app review WO 55156.

Thank you,

Susan Manchester

Universal Engineering Sciences, Inc.
3532 Maggie Blvd.
Orlando, FL 32811
Phone: 407-581-8161
Fax: 407-581-0313
Email: smanchester@universalengineering.com

ORLANDO BUSINESS JOURNAL



2015 BEST PLACES TO WORK

**PLEASE NOTE:
DUE TO THE HIGH DEMAND FOR OUR SERVICES, THE 1PM CUTOFF TIME
FOR NEXT-DAY INSPECTION REQUESTS WILL BE STRICTLY ENFORCED.
THANK YOU!!**



DEL-AIR

(888)-831-2665

Heating · Air Conditioning
Appliances · Electrical

24 Hours - 7 Days a Week

State Cert CAC032448

WWW.DELAIR.COM

Sales Agreement

Donna Wilson	407-852-9296	7/21/2015	Craig Fortin
1720 Conway Isle Cir	Cell	Email	407-417-3892
Orlando	FL	32809	WWW.DELAIR.COM

Description	Size	SEER RATING
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Carrier Comfort 15 Puron® HP	2.5 TON	15.0
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Carrier Limited Factory Warranty: 10 years all functional parts 1 year on labor.

For the sum set forth we agree to install and service the following Del-Air comfort system as per the specifications outlined including the equipment and materials listed on proposal. Materials not listed are not included.

Total Including Permit \$ 4,951

Terms and Conditions

Check or Cash

Homeowners are responsible to stay home for one (1) full day for the Building Department Inspection.

Del-Air gives no guarantee for any existing conditions such as, but not limited to, pre-existing Electrical, Ductwork, Mechanical Equipment & House Structure

Florida's Lien Law

ACCORDING TO FLORIDA'S CONSTRUCTION LIEN LAW (SECTIONS 713.001 – 713.37, FLORIDA STATUTES), THOSE WHO WORK ON YOUR PROPERTY OR PROVIDE MATERIALS AND ARE NOT PAID IN FULL HAVE THE RIGHT TO ENFORCE THEIR CLAIM FOR PAYMENT AGAINST YOUR PROPERTY. IF YOUR CONTRACTOR OR A SUBCONTRACTOR FAILS TO PAY SUBCONTRACTORS, SUB-SUBCONTRACTORS, OR MATERIAL SUPPLIERS, THE PEOPLE WHO ARE OWED MONEY MAY LOOK TO YOUR PROPERTY FOR PAYMENT, EVEN IF YOU ALREADY PAID YOUR CONTRACTOR IN FULL. IF YOU FAIL TO PAY YOUR CONTRACTOR, YOUR CONTRACTOR MAY ALSO HAVE A LIEN ON YOUR PROPERTY. THIS MEANS IF A LIEN IS FILED, YOUR PROPERTY COULD BE SOLD AGAINST YOUR WILL TO PAY FOR LABOR, MATERIALS, OR OTHER SERVICES THAT YOUR CONTRACTOR OR A SUBCONTRACTOR MAY HAVE FAILED TO PAY. TO PROTECT YOURSELF, YOU SHOULD STIPULATE IN THIS CONTRACT THAT BEFORE ANY PAYMENT IS MADE, YOUR CONTRACTOR IS REQUIRED TO PROVIDE YOU WITH A WRITTEN RELEASE OF LIEN FROM ANY PERSON OR COMPANY THAT HAS PROVIDED TO YOU A "NOTICE TO OWNER." FLORIDA'S CONSTRUCTION LIEN LAW IS COMPLEX, AND IT IS RECOMMENDED THAT YOU CONSULT AN ATTORNEY.

Add Additional Notes Here

X 

7/21/2015

I have the authority to order the work outlined above.

Donna Wilson

7/21/2015

Craig Fortin

In the event payment is not made promptly in accordance with agreed terms, it shall be seller's option to charge a service charge not exceeding two (2) percent per month. The first service charge will be due 15 days from the date of the billing of our amount due on the job. In the event of collection by an attorney, all attorney fees, court costs, and other legal fees shall be borne by the buyer; in the event of non-payment, purchaser agrees to allow seller on premises to remove equipment installed. This sales agreement shall be binding upon the heirs, successors, and/or assigns of the party hereto.

It is understood that the title of all products and equipment covered by the contract remains solely in the seller until the entire purchase price has been paid in full and the manner of installation an/or attachment to any equipment and/or any portion of the building structure in which the installation is made shall not in any manner jeopardize the seller's title.

Proposal is no longer valid after;

8/20/2015



DEL-AIR

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Appliances · Electrical

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State Cert CAC032448

WWW.DELAIR.COM

Sales Agreement

Donna Wilson	407-852-9296	7/22/2015	Craig Fortin
1720 Conway Isle Cir	Cell	Email	407-417-3892
Orlando	FL	32809	WWW.DELAIR.COM

Description

Size

SEER RATING

Carrier Performance 16 Puron® 2 Stage HP

5 Ton

16.0

Carrier Limited Factory Warranty: 10 years all functional parts, 5 years limited on thermostat 1 year on labor.

For the sum set forth we agree to install and service the following Del-Air comfort system as per the specifications outlined including the equipment and materials listed on proposal. Materials not listed are not included.

Total Including Permit \$ 9,286

Terms and Conditions

Check or Cash

Homeowners are responsible to stay home for one (1) full day for the Building Department Inspection.

Del-Air gives no guarantee for any existing conditions such as, but not limited to, pre-existing Electrical, Ductwork, Mechanical Equipment & House Structure

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Add Additional Notes Here

X

Donna Wilson
Signature

7/21/2015

I have the authority to order the work outlined above.

Donna Wilson

7/21/2015

Craig Fortin

In the event payment is not made promptly in accordance with agreed terms, it shall be seller's option to charge a service charge not exceeding two (2) percent per month. The first service charge will be due 15 days from the date of the billing of our amount due on the job. In the event of collection by an attorney, all attorney fees, court costs, and other legal fees shall be borne by the buyer; in the event of non-payment, purchaser agrees to allow seller on premises to remove equipment installed. This sales agreement shall be binding upon the heirs, successors, and/or assigns of the party hereto.

It is understood that the title of all products and equipment covered by the contract remains solely in the seller until the entire purchase price has been paid in full and the manner of installation an/or attachment to any equipment and/or any portion of the building structure in which the installation is made shall not in any manner jeopardize the seller's title.

Proposal is no longer valid after:

8/20/2015

- Searches
- Sales Search
- Results
- Property Record Card**
- My Favorites

1720 Conway Isle Cir < 24-23-29-3490-00-380 >

Name(s) Wilson Jean Eddy Sr Wilson Donna Moody Mailing Address On File 1720 Conway Isle Cir Belle Isle, FL 32809-3500 Incorrect Mailing Address?	Physical Street Address 1720 Conway Isle Cir Postal City and Zipcode Orlando, Fl 32809 Property Use 0103 - Single Fam Class III Municipality Belle Isle
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- Values, Exemptions and Taxes**
- Property Features
- Sales Analysis
- Location Info
- M

Property Description

HIGHLANDS AT LAKE CONWAY 45/11 LOT 38

Total Land Area 12,411 sqft (+/-) | 0.28 acres (+/-) GIS Calculated Notice

Land (includes working values)

Land Use Code	Zoning	Land Units	Unit Price	Land Value
0100 - Single Family	R-1-AA	1 LOT(S)	\$140,000.00	\$140,000

Page 1 of 1 (1 total records)

Buildings (includes working values)

	Important Information	Structure
	Model Code: 01 - Single Fam Residence	Actual Year Built: 2002
	Type Code: 0103 - Single Fam Class III	Beds: 4
	Building Value: \$338,368	Baths: 2.0
	Estimated New Cost: \$369,397	Floors: 2

Page 1 of 1 (1 total records)

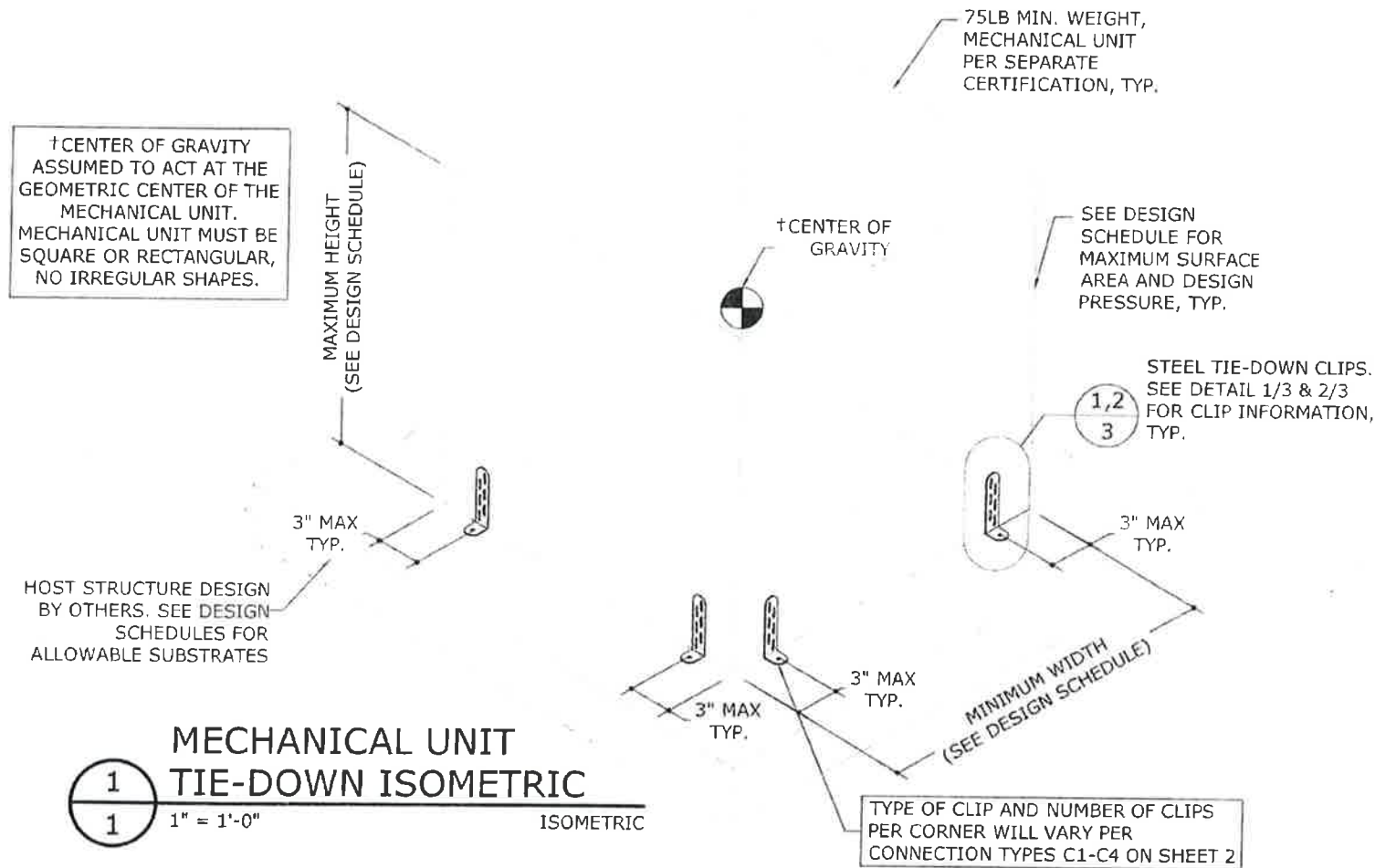
Extra Features (includes working values)

Description	Date Built	Units
PL2 - Above Average Pool	08/08/2002	1 Unit
SCR2 - Scrn Enc 2	08/08/2002	1 Unit

Page 1 of 1 (2 total records)

BMP INTERNATIONAL, INC.

MECHANICAL UNIT STEEL TIE-DOWN CLIP: AT GRADE & ROOF-TOP MOUNTED APPLICATIONS



DESIGN NOTES:

THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH ASCE 7-10 AND THE FLORIDA BUILDING CODE FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE AS INDICATED IN THE ACCOMPANYING DESIGN SCHEDULES. THE DESIGN CRITERIA USED TO CALCULATE THE ALLOWABLE ROOF-TOP HEIGHTS CONSIDERS ASCE 7-10 SECTION 29.5.1 FOR ROOF TOP HEIGHTS (H) ≤ 60 FT AND SECTION 29.5 FOR ROOF TOP HEIGHTS (H) > 60 FT & SECTION 29.4.1 FOR INSTALLATIONS AT GRADE. $(GC_{lateral}) = 3.10$ WITHIN THE HVHZ, $(GC_{lateral}) = 1.90$ OUTSIDE THE HVHZ, $(GC_{uplift}) = 1.5$ FOR ALL LOCATIONS (CONCURRENT). ALL OTHER DESIGN VARIABLES ARE IN ACCORDANCE WITH ASCE 7-10 CHAPTERS 26 & 29. THE HEIGHTS LISTED IN THE DESIGN SCHEDULES REPRESENT THE ALLOWABLE HEIGHT OF THE BUILDING. THIS PRODUCT APPROVAL ALLOWS FOR EACH UNIT TO BE INSTALLED ON A MAXIMUM 30" TALL A/C STAND (CERTIFICATION BY OTHERS) ON TOP OF THE HEIGHTS LISTED IN THE DESIGN SCHEDULES.

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE & ASCE 7-10. THIS PRODUCT MAY BE USED WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM.
- DESIGN IS BASED ON CLIENT PROVIDED PRODUCT AND DIE SHEETS FROM TEST REPORTS #TEL 01970387A, #TEL 01970387B BY TESTING EVALUATION LABORATORIES, INC.. NO SUBSTITUTIONS WITHOUT WRITTEN APPROVAL BY THIS ENGINEER SHALL BE PERMITTED.
- MAXIMUM & MINIMUM DIMENSIONS AND MINIMUM WEIGHT OF MECHANICAL UNIT SHALL CONFORM TO SPECIFICATIONS STATED HEREIN. ALL MECHANICAL SPECIFICATIONS (CLEAR SPACE, TONNAGE, ETC.) SHALL BE AS PER MANUFACTURER RECOMMENDATIONS AND ARE THE EXPRESS RESPONSIBILITY OF THE CONTRACTOR.
- FASTENERS TO BE #12 X 3/4" OR GREATER SAE GRADE 5 UNLESS NOTED OTHERWISE. TAPCONS REFERRED TO HEREIN SHALL BE ITW BUILDEX BRAND, CARBON STEEL ONLY, INSTALLED TO 3000 PSI MIN CONCRETE. SEE ANCHOR SCHEDULE FOR ANCHOR REQUIREMENTS. ALL FASTENERS SHALL HAVE APPROPRIATE CORROSION PROTECTION TO PREVENT ELECTROLYSIS.
- ALL STEEL CLIPS SHALL BE ASTM A283 STEEL (GRADE D) WITH $F_y = 33$ KSI OR BETTER. ALL STEEL MEMBERS SHALL BE PROTECTED AGAINST CORROSION WITH AN APPROVED COAT OF PAINT, ENAMEL OR OTHER APPROVED PROTECTION. G90-RATED COATING REQUIRED FOR ALL COASTAL INSTALLATIONS.
- ALL CONCRETE SPECIFIED HEREIN IS NOT PART OF THIS CERTIFICATION. AS A MINIMUM, ALL CONCRETE SHALL BE STRUCTURAL CONCRETE 4" MIN. THICK AND SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI, UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- ELECTRICAL GROUND, WHEN REQUIRED, TO BE DESIGNED & INSTALLED BY OTHERS.
- THE ADEQUACY OF ANY EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS SHALL BE VERIFIED BY THE ONSITE DESIGN PROFESSIONAL AND IS NOT INCLUDED IN THIS CERTIFICATION. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- WATER-TIGHTNESS OF EXISTING HOST SUBSTRATE SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR. CONTRACTOR SHALL ENSURE THAT ANY REMOVED OR ALTERED WATERPROOFING MEMBRANE IS RESTORED AFTER FABRICATION AND INSTALLATION OF STRUCTURE PROPOSED HEREIN. THIS ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY WATERPROOFING OR LEAKAGE ISSUES WHICH MAY OCCUR AS WATER-TIGHTNESS SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
- FOR AN EXPLANATION OF EXPOSURE CATEGORIES THAT ACCOMPANY THE VULT WIND SPEEDS USED IN THIS APPROVAL, SEE SECTION 26.7.3 OF ASCE 7-10.

TIE-DOWN CLIP DIRECTIVE EXAMPLE

(THE FOLLOWING EXAMPLE ILLUSTRATES THE PROCEDURE USED TO DETERMINE THE MAXIMUM ALLOWABLE ROOF-TOP INSTALLATION HEIGHT, H, FOR ANY GIVEN MECHANICAL UNIT THAT CONFORMS TO THE DIMENSION RESTRICTIONS AND DESIGN CRITERIA LISTED HEREIN. SEE SHEETS 4-5 FOR DESIGN SCHEDULES.)

MECHANICAL UNIT CRITERIA:

CONSIDER THE INSTALLATION OF (1) MECHANICAL UNIT WITH THE FOLLOWING CRITERIA=

- Vult=170 MPH, EXPOSURE 'B'
- 48" TALL x 48" DEEP x 48" WIDE, 100 LB (WEIGHT AS VERIFIED BY OTHERS)
- INSTALLED TO 3000 PSI MIN CONCRETE WITH (1)-2" CLIP AT EACH CORNER OF UNIT (TOTAL OF (4) CLIPS)

PROCEDURE:

PROCEDURE STEP	RESULT
1 DETERMINE THE CONNECTION TYPE BASED ON THE DIAGRAMS ON SHEET 2	CONNECTION TYPE 3
2 DETERMINE WHICH DESIGN SCHEDULE TABLE TO USE	THIS INSTALLATION IS INTENDED FOR A Vult=170 MPH, EXPOSURE 'B'. THIS DESIGN CRITERIA CORRESPONDS TO TABLE 5
3 DETERMINE LARGEST FACE AREA OF MECHANICAL UNIT TO BE INSTALLED	48"x48"=16FT ²
4 CHECK MAXIMUM UNIT HEIGHT RESTRICTION	THIS UNIT HEIGHT OF 48" IS EQUAL TO THE MAXIMUM ALLOWABLE HEIGHT OF 48". NOTE: THIS PRODUCT APPROVAL ALLOWS THE UNIT TO BE INSTALLED ON TOP OF AN A/C STAND THAT IS A MAXIMUM 30" TALL. IF AN A/C STAND IS UTILIZED, CHECK TO SEE THAT THE STAND DOES NOT EXCEED 30" IN HEIGHT
5 CHECK MINIMUM UNIT WIDTH RESTRICTION	UNIT WIDTH IS 48" WHICH IS GREATER THAN THE MINIMUM ALLOWABLE WIDTH OF 24"
6 DETERMINE THE ALLOWABLE ROOF-TOP HEIGHT OF THE INSTALLATION	THIS UNIT MAY BE INSTALLED AT ROOF HEIGHTS LESS THAN OR EQUAL TO 15 FT. ADDITIONALLY, THIS UNIT MAY BE INSTALLED ON ROOF-TOP HEIGHTS GREATER THAN 60FT AND LESS THAN 100 FT. SEE (*) ON TABLE 5 FOR THE NUMERICAL VALUES OF THIS DESIGN EXAMPLE

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MECHANICAL UNIT STEEL TIE-DOWN CLIPS

FBC 5TH EDITION (2014) PRODUCT APPROVAL FL#14239.1

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (11-BMP-0001)	TSS	FLB	12-11-11
REV FOR UNITS	CSI	TSS	02-15-13
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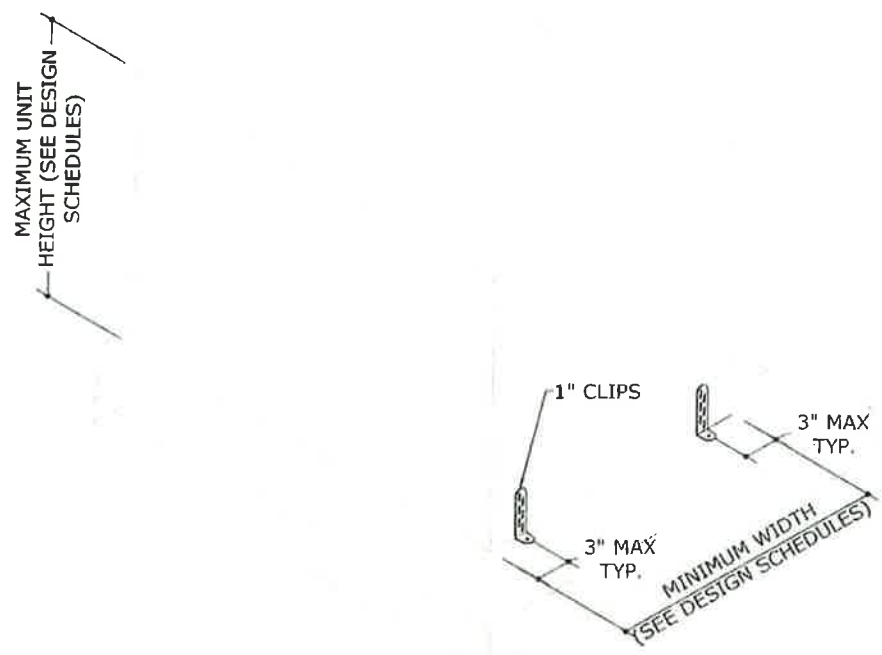
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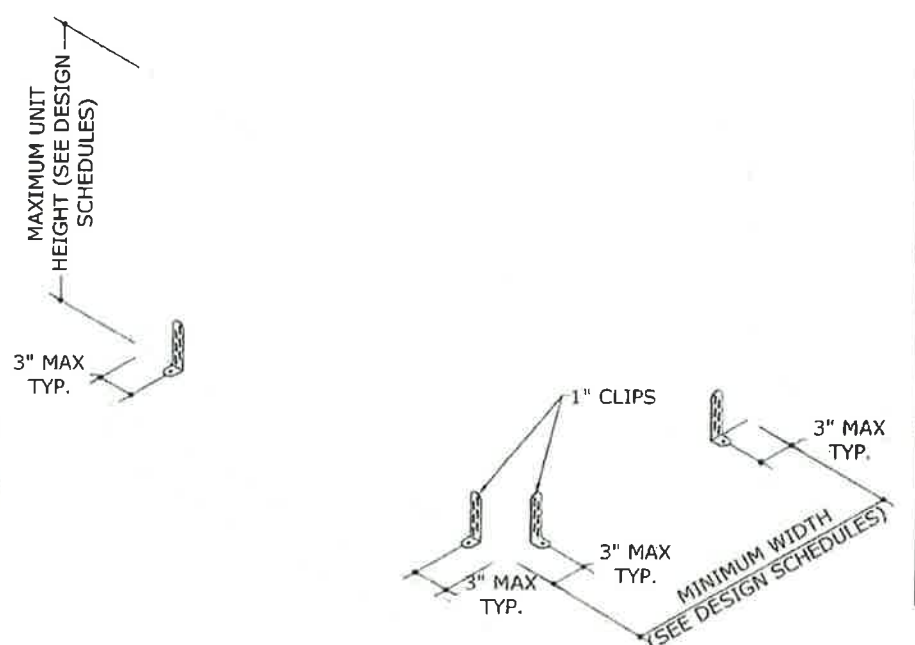


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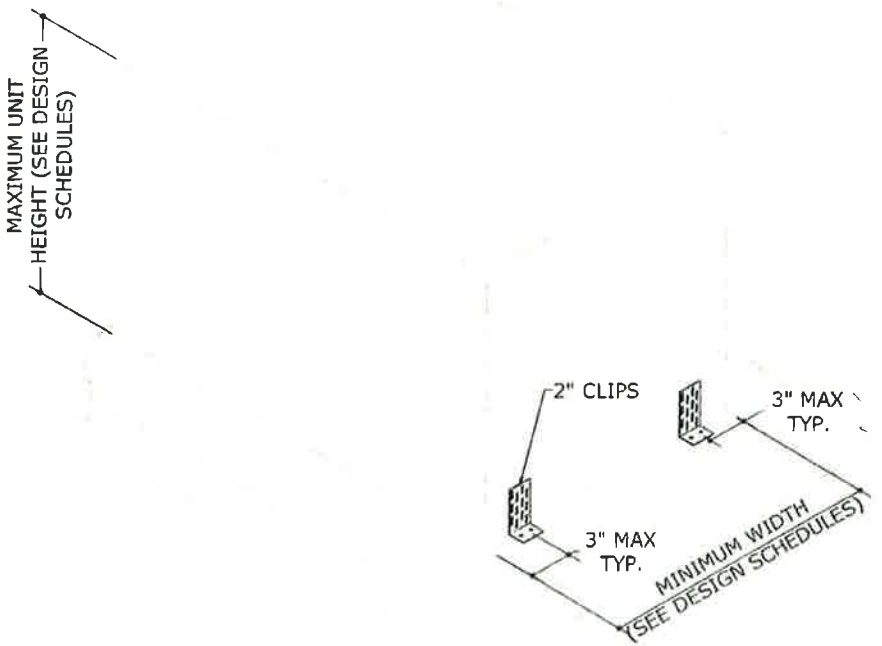
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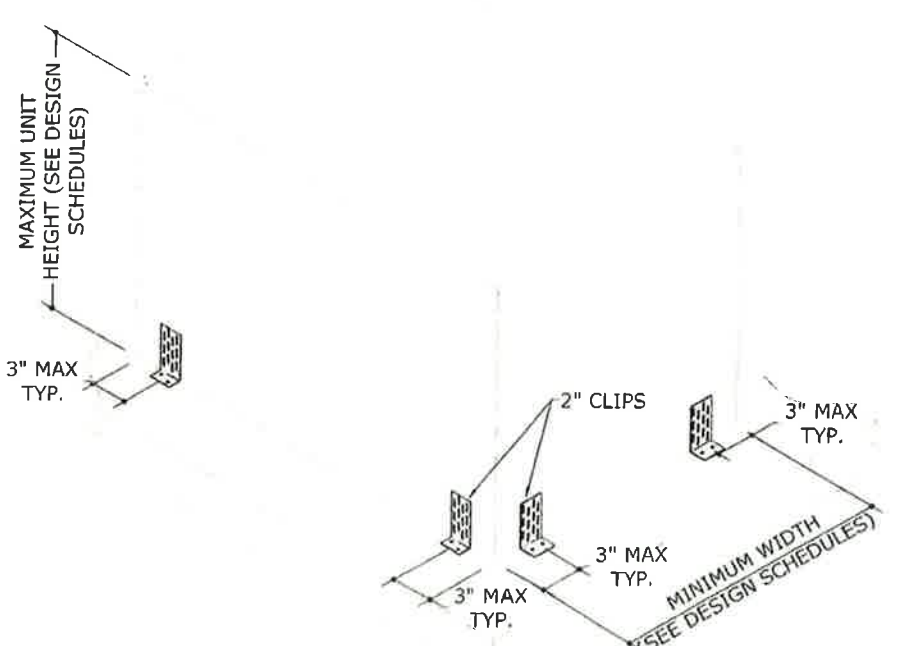
C1 CONNECTION TYPE C1
 1" CLIP - UTILIZE (1) AT EACH CORNER FOR A TOTAL OF (4) PER UNIT



C2 CONNECTION TYPE C2
 1" CLIP - UTILIZE (2) AT EACH CORNER FOR A TOTAL OF (8) PER UNIT



C3 CONNECTION TYPE C3
 2" CLIPS - UTILIZE (1) AT EACH CORNER FOR A TOTAL OF (4) PER UNIT



C4 CONNECTION TYPE C4
 2" CLIPS - UTILIZE (2) AT EACH CORNER FOR A TOTAL OF (8) PER UNIT

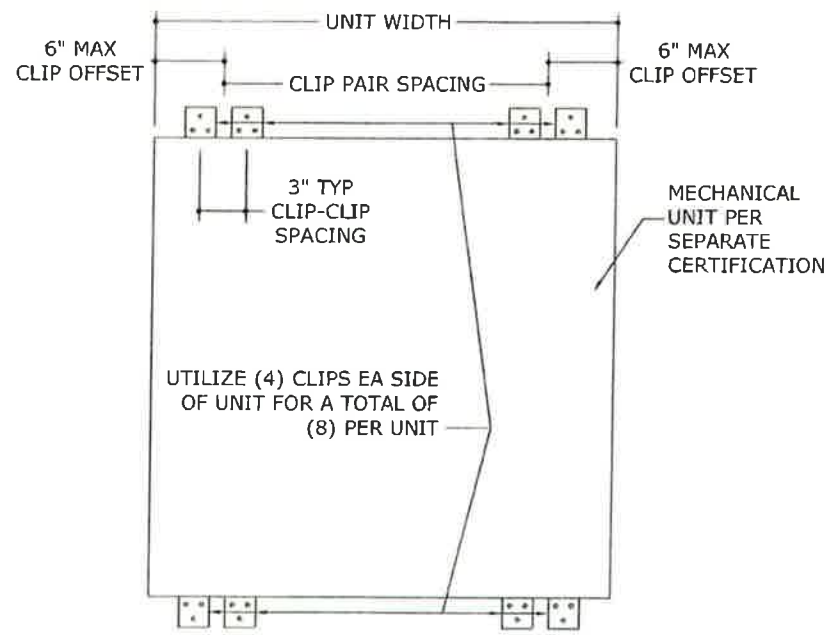
ANCHOR SCHEDULE:
 1" CLIPS

SUBSTRATE	DESCRIPTION
CONCRETE: (4" THICK MIN, 3000 PSI MIN.)	(1)-5/16"Ø CARBON STEEL ITW BUILDEX TAPCON, 2¼" FULL EMBED TO CONCRETE, 3¾" MIN. EDGE DISTANCE, 3¾" MIN. SPACING TO ANY ADJACENT ANCHOR.
ALUMINUM: (0.125" MIN. THICK, 6061-T6 MIN. ALUMINUM)	(1)-#14 SAE GRADE 5 SHEET METAL SCREW TO ALUMINUM, PROVIDE (5) PITCHES MIN. PAST THREAD PLANE
STEEL: (0.125" MIN. THICK, 33 KSI MIN. STEEL)	(1)-#14 SAE GRADE 5 SHEET METAL SCREW TO STEEL, PROVIDE (5) PITCHES MIN. PAST THREAD PLANE

2" CLIPS

SUBSTRATE	DESCRIPTION
CONCRETE: (4" THICK MIN, 3000 PSI MIN.)	(1)-5/16"Ø CARBON STEEL ITW BUILDEX TAPCON, 2¼" FULL EMBED TO CONCRETE, 3¾" MIN. EDGE DISTANCE, 3¾" MIN. SPACING TO ANY ADJACENT ANCHOR.
ALUMINUM: (0.125" MIN. THICK, 6061-T6 MIN. ALUMINUM)	(2)-#14 SAE GRADE 5 SHEET METAL SCREWS TO ALUMINUM, PROVIDE (5) PITCHES MIN. PAST THREAD PLANE
STEEL: (0.125" MIN. THICK, 33 KSI MIN. STEEL)	(2)-#14 SAE GRADE 5 SHEET METAL SCREWS TO STEEL, PROVIDE (5) PITCHES MIN. PAST THREAD PLANE

1. EMBEDMENT AND EDGE DISTANCE EXCLUDES FINISHES, IF APPLICABLE.
2. ENSURE MINIMUM EDGE DISTANCE AS NOTED IN ANCHOR SCHEDULE.
3. SEE DETAILS ON SHEET 3 FOR ANCHORS ATTACHING TO MECHANICAL UNIT.



5 ALTERNATE (8) CLIP DETAIL
 3 N.T.S. PLAN VIEW

THIS DETAIL MAY BE USED AS AN ALTERNATE GEOMETRIC PATTERN FOR ALL CONNECTION TYPES THAT UTILIZE (2) CLIPS AT EACH CORNER FOR A TOTAL OF (8) CLIPS PER UNIT.

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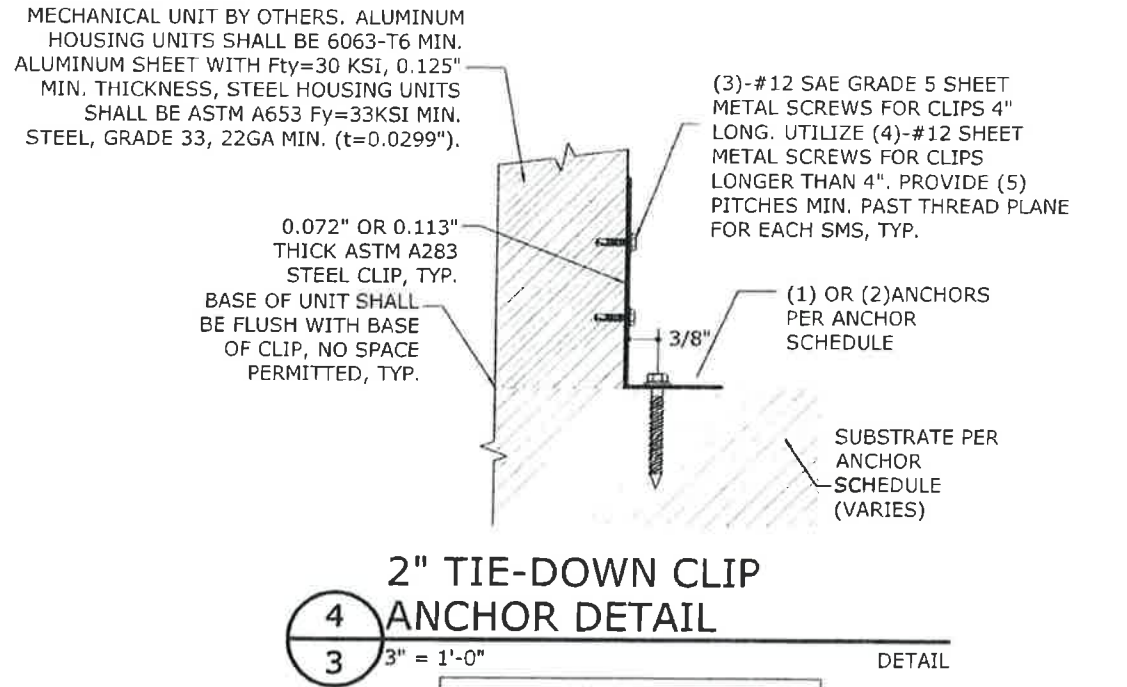
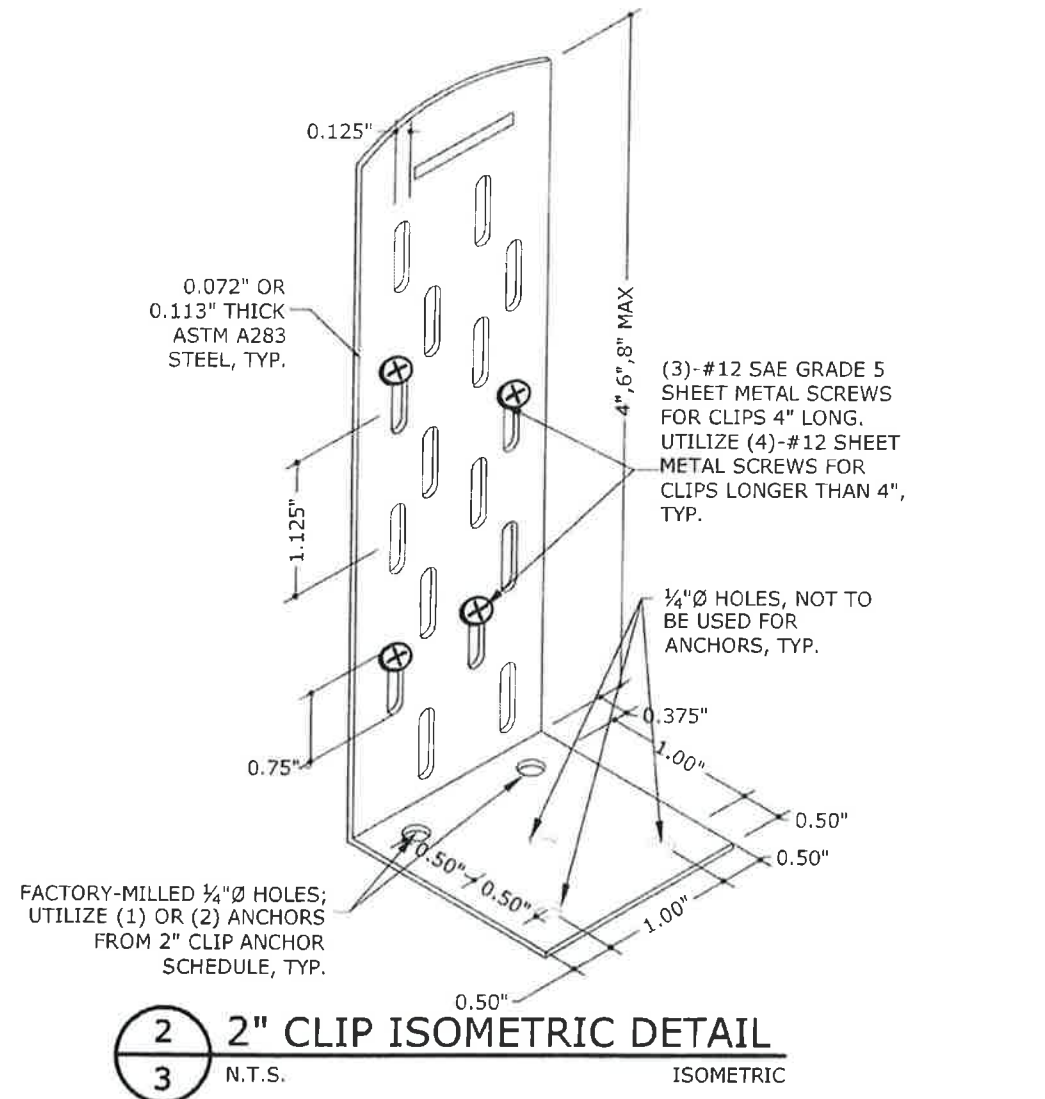
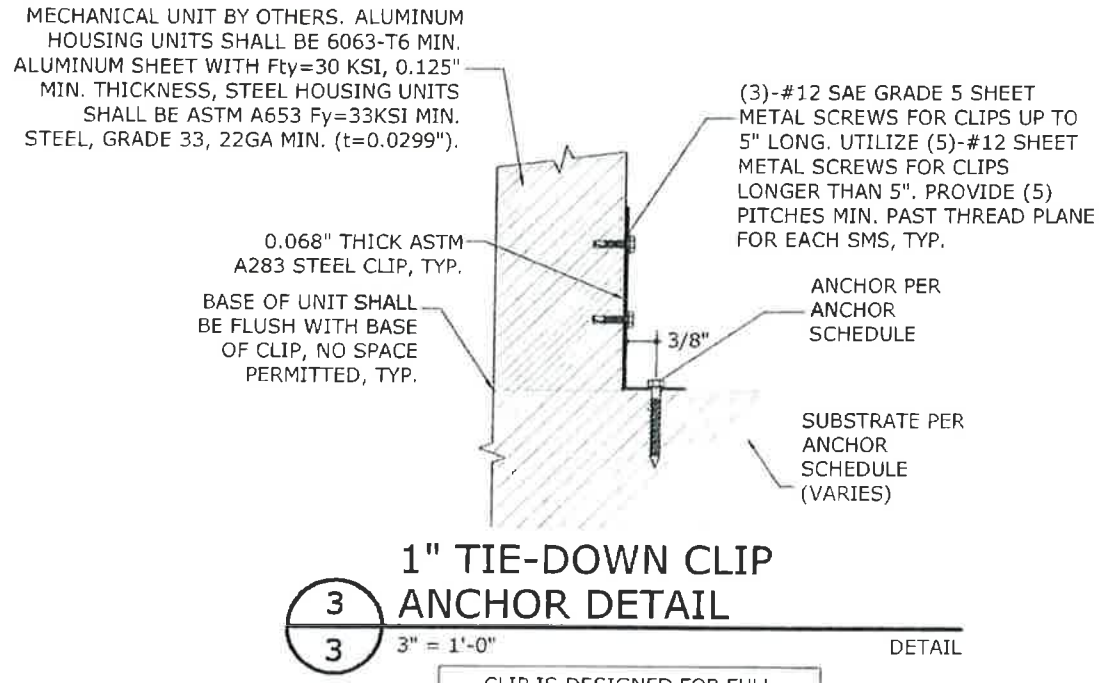
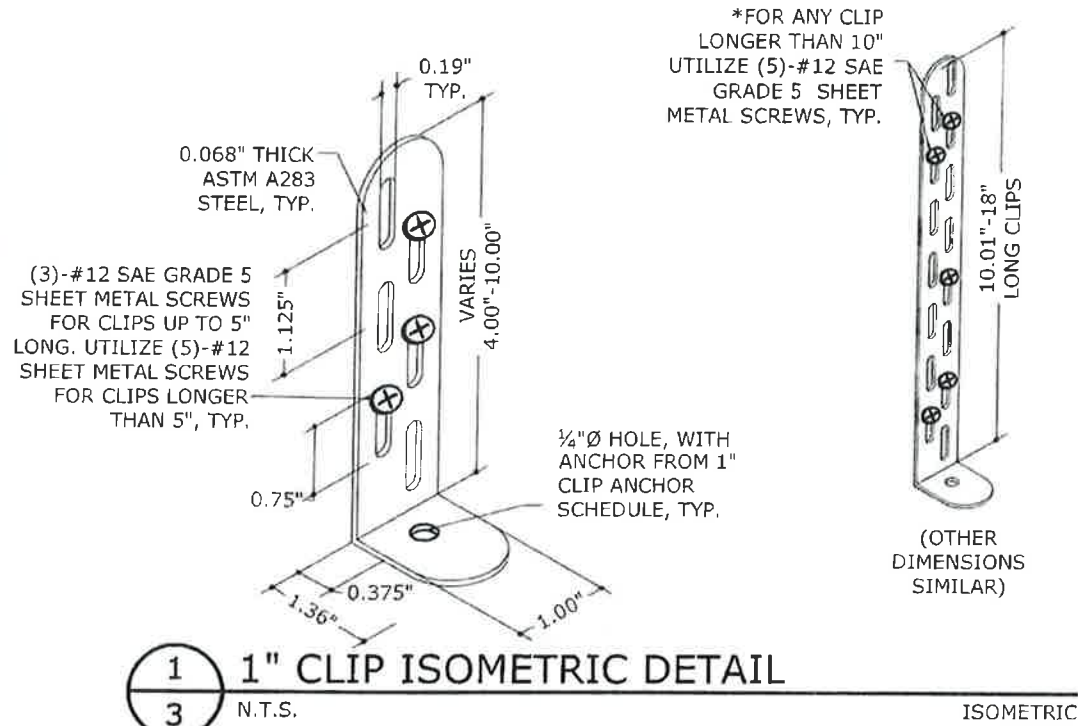
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TABLE 1: Vult=175 MPH, EXPOSURE C

(FOR USE WITH A RISK CATEGORY II STRUCTURE IN THE HIGH VELOCITY HURRICANE ZONE*)

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT ²	24" MAX	12" MIN	N/A	AT GRADE	AT GRADE	H ≤ 200 FT
9 FT ²	32" MAX	15" MIN	N/A	AT GRADE	AT GRADE	H ≤ 60 FT
4 FT ²	48" MAX	24" MIN	AT GRADE	H ≤ 200 FT	H ≤ 30 FT	H ≤ 200 FT
6 FT ²			AT GRADE	H ≤ 40 FT	AT GRADE	H ≤ 200 FT
9 FT ²			N/A	AT GRADE	AT GRADE	H ≤ 160 FT
12 FT ²			N/A	AT GRADE	AT GRADE	H ≤ 40 FT
16 FT ²			N/A	AT GRADE	N/A	AT GRADE
20 FT ²			N/A	AT GRADE	N/A	AT GRADE
25 FT ²	60" MAX	48" MIN	N/A	AT GRADE	N/A	AT GRADE
30 FT ²			N/A	N/A	N/A	AT GRADE
36 FT ²			N/A	N/A	N/A	AT GRADE
			N/A	N/A	N/A	AT GRADE

*THIS TABLE IS PERMISSIBLE TO BE USED WITHIN THE HVHZ WHICH CONTAINS BROWARD AND MIAMI-DADE COUNTIES. CHECK WITH LOCAL AUTHORITY HAVING JURISDICTION FOR THE APPLICABILITY OF THIS TABLE WITHIN CERTAIN FLORIDA COUNTIES.

TABLE 2 : Vult=175 MPH, EXPOSURE D

(FOR USE WITH A RISK CATEGORY II STRUCTURE IN THE HIGH VELOCITY HURRICANE ZONE*)

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT ²	24" MAX	12" MIN	N/A	AT GRADE	AT GRADE	H ≤ 200 FT
9 FT ²	32" MAX	15" MIN	N/A	AT GRADE	N/A	H ≤ 30 FT
4 FT ²	48" MAX	24" MIN	AT GRADE	H ≤ 200 FT	AT GRADE	H ≤ 200 FT
6 FT ²			N/A	H ≤ 15 FT	AT GRADE	H ≤ 200 FT
9 FT ²			N/A	AT GRADE	AT GRADE	H ≤ 80 FT
12 FT ²			N/A	AT GRADE	N/A	AT GRADE
16 FT ²			N/A	AT GRADE	N/A	AT GRADE
20 FT ²			N/A	AT GRADE	N/A	AT GRADE
25 FT ²	60" MAX	48" MIN	N/A	N/A	N/A	AT GRADE
30 FT ²			N/A	N/A	N/A	AT GRADE
36 FT ²			N/A	N/A	N/A	AT GRADE
			N/A	N/A	N/A	AT GRADE

*THIS TABLE IS PERMISSIBLE TO BE USED WITHIN THE HVHZ WHICH CONTAINS BROWARD AND MIAMI-DADE COUNTIES. CHECK WITH LOCAL AUTHORITY HAVING JURISDICTION FOR THE APPLICABILITY OF THIS TABLE WITHIN CERTAIN FLORIDA COUNTIES.

TABLE 3 : Vult=170 MPH, EXPOSURE C

(FOR USE WITH A RISK CATEGORY II STRUCTURE*)

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT ²	24" MAX	12" MIN	N/A	H ≤ 200 FT	AT GRADE 60 FT < H ≤ 160 FT	H ≤ 200 FT
9 FT ²	32" MAX	15" MIN	N/A	H ≤ 15 FT 60 FT < H ≤ 200 FT	AT GRADE	H ≤ 200 FT
4 FT ²	48" MAX	24" MIN	AT GRADE 60 FT < H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
6 FT ²			AT GRADE	H ≤ 200 FT	H ≤ 40 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT
9 FT ²			N/A	H ≤ 200 FT	AT GRADE 60 FT < H ≤ 80 FT	H ≤ 200 FT
12 FT ²			N/A	AT GRADE 60 FT < H ≤ 200 FT	N/A	H ≤ 200 FT
16 FT ²			N/A	AT GRADE	N/A	H ≤ 200 FT
20 FT ²			N/A	AT GRADE	N/A	H ≤ 200 FT
25 FT ²	60" MAX	48" MIN	N/A	N/A	N/A	H ≤ 30 FT 60 FT < H ≤ 200 FT
30 FT ²			N/A	N/A	N/A	AT GRADE 60 FT < H ≤ 180 FT
36 FT ²			N/A	N/A	N/A	AT GRADE
			N/A	N/A	N/A	AT GRADE

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TABLE 4 : Vult=170 MPH, EXPOSURE D

(FOR USE WITH A RISK CATEGORY II STRUCTURE*)

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT ²	24" MAX	12" MIN	N/A	H ≤ 200 FT	AT GRADE 60 FT < H ≤ 80 FT	H ≤ 200 FT
9 FT ²	32" MAX	15" MIN	N/A	AT GRADE 60 FT < H ≤ 200 FT	N/A	H ≤ 200 FT
4 FT ²	48" MAX	24" MIN	AT GRADE 60 FT < H ≤ 100 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
6 FT ²			N/A	H ≤ 200 FT	H ≤ 15 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT
9 FT ²			N/A	H ≤ 15 FT 60 FT < H ≤ 200 FT	AT GRADE	H ≤ 200 FT
12 FT ²			N/A	AT GRADE 60 FT < H ≤ 120 FT	N/A	H ≤ 200 FT
16 FT ²			N/A	N/A	N/A	H ≤ 40 FT 60 FT < H ≤ 200 FT
20 FT ²			N/A	AT GRADE	N/A	H ≤ 40 FT 60 FT < H ≤ 200 FT
25 FT ²	60" MAX	48" MIN	N/A	N/A	N/A	AT GRADE 60 FT < H ≤ 200 FT
30 FT ²			N/A	N/A	N/A	AT GRADE 60 FT < H ≤ 100 FT
36 FT ²			N/A	N/A	N/A	AT GRADE
			N/A	N/A	N/A	AT GRADE

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TABLE 5 : Vult=140 MPH, EXPOSURE B

(FOR USE WITH A RISK CATEGORY II STRUCTURE*)

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT ²	24" MAX	12" MIN	H ≤ 15 FT 60 FT < H ≤ 120 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
9 FT ²	32" MAX	15" MIN	AT GRADE	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
4 FT ²	48" MAX	24" MIN	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
6 FT ²			H ≤ 40 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
9 FT ²			AT GRADE 60 FT < H ≤ 80 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
12 FT ²			AT GRADE	H ≤ 200 FT	H ≤ 40 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT
16 FT ²			N/A	H ≤ 200 FT	H ≤ 15 FT 60 FT < H ≤ 100 FT	H ≤ 200 FT
20 FT ²	60" MAX	48" MIN	N/A	H ≤ 200 FT	H ≤ 15 FT 60 FT < H ≤ 180 FT	H ≤ 200 FT
25 FT ²			N/A	H ≤ 40 FT 60 FT < H ≤ 200 FT	AT GRADE 60 FT < H ≤ 80 FT	H ≤ 200 FT
30 FT ²			N/A	H ≤ 15 FT 60 FT < H ≤ 160 FT	AT GRADE	H ≤ 200 FT
36 FT ²			N/A	AT GRADE 60 FT < H ≤ 80 FT	AT GRADE	H ≤ 200 FT

TABLE 6 : Vult=140 MPH, EXPOSURE C

(FOR USE WITH A RISK CATEGORY II STRUCTURE*)

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT ²	24" MAX	12" MIN	AT GRADE	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
9 FT ²	32" MAX	15" MIN	N/A	H ≤ 200 FT	H ≤ 15 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT
4 FT ²	48" MAX	24" MIN	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
6 FT ²			AT GRADE 60 FT < H ≤ 180 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
9 FT ²			AT GRADE	H ≤ 200 FT	H ≤ 40 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT
12 FT ²			N/A	H ≤ 200 FT	AT GRADE 60 FT < H ≤ 140 FT	H ≤ 200 FT
16 FT ²			N/A	H ≤ 15 FT 60 FT < H ≤ 200 FT	AT GRADE	H ≤ 200 FT
20 FT ²	60" MAX	48" MIN	N/A	H ≤ 30 FT 60 FT < H ≤ 200 FT	AT GRADE	H ≤ 200 FT
25 FT ²			N/A	AT GRADE 60 FT < H ≤ 140 FT	AT GRADE	H ≤ 200 FT
30 FT ²			N/A	AT GRADE	N/A	H ≤ 200 FT
36 FT ²			N/A	AT GRADE	N/A	H ≤ 30 FT 60 FT < H ≤ 200 FT

TABLE 7 : Vult=140 MPH, EXPOSURE D

(FOR USE WITH A RISK CATEGORY II STRUCTURE*)

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT ²	24" MAX	12" MIN	N/A	H ≤ 200 FT	H ≤ 30 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT
9 FT ²	32" MAX	15" MIN	N/A	H ≤ 200 FT	AT GRADE 60 FT < H ≤ 140 FT	H ≤ 200 FT
4 FT ²	48" MAX	24" MIN	H ≤ 40 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
6 FT ²			AT GRADE 60 FT < H ≤ 100 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
9 FT ²			N/A	H ≤ 200 FT	H ≤ 15 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT
12 FT ²			N/A	H ≤ 40 FT 60 FT < H ≤ 200 FT	AT GRADE 60 FT < H ≤ 80 FT	H ≤ 200 FT
16 FT ²			N/A	AT GRADE 60 FT < H ≤ 200 FT	N/A	H ≤ 200 FT
20 FT ²	60" MAX	48" MIN	N/A	AT GRADE 60 FT < H ≤ 200 FT	AT GRADE	H ≤ 200 FT
25 FT ²			N/A	AT GRADE 60 FT < H ≤ 80 FT	N/A	H ≤ 200 FT
30 FT ²			N/A	N/A	N/A	H ≤ 40 FT 60 FT < H ≤ 200 FT
36 FT ²			N/A	N/A	N/A	AT GRADE 60 FT < H ≤ 200 FT

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 ST. PETERSBURG, FL 33471
 PH: (727) 577-1613
 MECHANICAL UNIT STEEL TIE-DOWN CLIPS
 PRODUCT APPROVAL FL#14239.1
 5TH EDITION (2014)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (11-BMP-0001)	FLB	FLB	12-11-11
REV FOR UNITS	TSB	TSB	02-15-13
REV FOR FBC 5TH (2014)	CSL	CSL	04-06-15
	RWN	CSL	

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