City of Belle Isle Job Site Card Building PERMIT 2019-08-020

PERMIT MUST BE POSTED ON SITE - A permit expires in 6 months if approved inspections are not recorded / schedule within that time frame. **You are responsible for scheduling and keeping track of all your inspections.**

Permit Number: 2019- 08-020
Site Address: 3007 Cullen Lake Shore Dr 32812
Class: □ Residential OVERSIZED PLANS
Description of Work: REAR PORCH ADDITION 32'7" X 14'. TWO SMALL FOOTER TO HOLD 2 COLUMN SUPPORTS – THEN WILL CONSTRUCT UPON EXISTING PAVERS – NO CHANGE TO SR FOOT PRINT.

Issue Date: 08/19/2019
Parcel #: 18-23-30-4386-03-680

Issued: BIG DAY CONSTRUCTION, INC.
Name: BARNES, KYLE KEVIN
Payment Date & Method: 8/29/2019 □ Picked up or sent by in person □ Emailed
□ Visa □ Master Card □ Amex □ Discover □ Check / Money Order # 1183

Business Phone: 407 952-4458
Contractor License: CBC1259742

Schedule Inspections via Email at: BIDscheduling@universalengineering.com
SCHEDULE INSPECTIONS BY 3:00PM CUT OFF TIME
Inspection Results Will Be Sent Out the Following Business Day

SEPARATE PERMITS WILL BE REQUIRED FOR ALL SUB-WORK

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR 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."

BUILDING	INSPECTOR	DATE	COMMENTS
100 Demo Final			
110 Footing			
120 Stem Wall			
125 Concrete Encased Electrode			
130 Slab			
135 Termite Barrier (Bug)			
140 Lintel/Tie Beam			
150 Down Pour			
160 Tilt Panel			
170 Window In-progress			
180 Sheathing (wall)			
190 Sheathing (roof)			
195 Dry-in (roof/walls)			
200 Framing			
205 Drywall Nail/Screw			
210 Fire Rated Assembly			
220 Above-Ceiling			
230 Insulation			
235 Insulation Final			
240 Lathe			
245 Concrete Sidewalk			
250 Final			
260 Other			

Inspection requests are to be emailed to BIDscheduling@UniversalEngineering.com; a confirmation email will be sent back to you upon scheduling. Next-Day Inspection requests must be made by 3pm. 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

City of Belle Isle

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

RECEIVED AUG - 6.

Building Permit (Land Use) Application

DATE: 8/6/19

PERMIT # 2019-08-020

PROJECT ADDRESS 3007 Cullen Lake Shore Drive, Belle Isle, FL ___32809 ✓32812

PROPERTY OWNER Allan Shields PHONE 407-952-4458 VALUE OF WORK (labor &material) $ 25,000.00

PLEASE LIST THE NATURE OF YOUR PROPOSED IMPROVEMENTS

Rear porch Addition 32'7" x 14'. Two small footers to hold 2 column supports - then will construct upon existing pavers - no change to ISR footprint

Please provide information, if applicable.

- **SINGLE FAMILY RESIDENCE:** 8.5"x11" Plat Survey, Plot Plan of Home and Floor Plans of New Construction/Revision Required
- **BOAT DOCK:** DEP Clearance Required with Application (Call 407-897-4100); please provide a copy of their report
- **SEPTIC SYSTEM (RESIDENTIAL):** – Provide verification of OC Health Dept approval for on-site septic tank system, per FAC Chap. 64E-6
- Homeowners will be required to have a contractor on record for homes that are rented and/or not homestead

Please Complete for the City of Belle Isle Zoning Review: **Parcel Id Number:** 18-23-30-4386-03-68C

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

SPECIAL CONDITIONS: STRUCTURES MAY NOT ENCROACH INTO ANY EASEMENT OR REQUIRED SETBACK. Survey specific foundation plan required to show compliance with zoning setbacks. Note: this Zoning Approval MAY or MAY NOT be in conflict with your Deed Restrictions. For New Single Family Residence, a Traffic Impact Fee and School Impact will be assessed.

ZONING APPROVED Date: 8/13/19 By: City of Belle Isle

PLANNING & ZONING APPROVAL: 8/13/19 DATE

Wind Exposure Category: B____ C____ D____

PLEASE COMPLETE for Building Review (min. of 2 sets of signed/sealed plans required)

CONSTRUCTION TYPE _____

OCCUPANCY GROUP _____ Comm Res: _____ Single Fam _____ Multi Fam

#BLDG. _____ #UNITS _ #STORIES _____ TOTAL SQ.FT. 456

MAX. FLOOR LOAD _____ MAX. OCCUPANCY _____

MIN. FLOOD ELEV. _____ LOW FLOOR ELEV. _____

WATER SERVICE ✓NOC WELL _____ SEPTIC PA ✓

BUILDING REVIEWER Tajendra Nahal DATE 8/28/19

✓ VERIFIED CONTRACTOR'S LICENSE & INSURANCE ARE ON FILE New PAID 8-29-19 VISA 1183 DATE 8-6-19

SPRINKLERS REQ'D	Y	N	
If Required – SUBMIT COPY OF PLANS FOR FIRE REVIEW	Date: Sent	RCD	
ZONING	(Y)	N	$ 165
CERT OF OCC	Y	N	$
TRAFFIC	Y	N	$
SCHOOL	Y	N	$
FIRE	Y	N	$
SWIMMING POOL	Y	N	$
SCREEN ENCLOSURE	Y	N	$
ROOFING	Y	N	$
BOAT DOCK	Y	N	$
BUILDING	(Y)	N	$ 181.50
WINDOW(S)	Y	N	$
DOOR(S)	Y	N	$
FENCE	Y	N	$
SHED	Y	N	$
DRIVEWAY	Y	N	$
OTHER_____	Y	N	$
1% BCAIB FEE			2 min
1.5% DCA FEE			2.72
TOTAL			351.22

OTHER PERMITS REQUIRED:

ELECTRICAL	Y	NA
PREPOWER	Y	NA
MECHANICAL	Y	NA
PLUMBING	Y	NA
ROOFING	Y	NA
GAS	Y	NA

Per FSS 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."

Republic Services is by legal contract the sole authorized provider of garbage, recycling, yard waste, and commercial garbage and construction debris collection and disposal services with the city limits of the City. Contractors, homeowners and commercial businesses may contact Republic Services at 407-293-8000 to setup accounts for Commercial, Construction Roll Off, or other services needed. Rates are fixed by contract and are available at City Hall or from Republic Services. The City enforces the contract through its code enforcement office. Failure to comply will result in a stop work order.

SEPARATE PERMITS ARE REQUIRED FOR ROOFING, ELECTRICAL, PLUMBING, GAS, MECHANICAL, SIGNS, POOLS, ENCLOSURES, ETC. 1ST 1K

4x24

25
96
121
60.50
181.50

154127

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

kevin

Building Permit (Land Use) Application
To be completed as required by State Statute Section 713 and other applicable sections.

PERMIT # 2019-08-020

Owner's Name Allan Shields

Owner's Address 3007 Cullen Lake Shore Dr. Belle Isle, Fl. 32812

Contractor Name Kyle Barnes	**Company Name** Big DAy Construction Inc.
License # CBC 1259742	**Company Address** 2701 Rafford Ct.
Contact Phone/Cell 407-952-4458	**City, State, ZIP** Orlando, Fl. 32806
Contact Email bigdAy construction @yAhoo.com	**Contact Fax** —

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 if job is $2500(+) or if A/C Replacement $7500(+) 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.

I hereby make Application for Permit as outlined above, and if same is granted I agree to conform to all Division of Building Safety Regulations (www.floridabuilding.org) and City Ordinances (www.municode.com) regulating same and in accordance with plans submitted. The issuance of this permit does not grant permission to violate any applicable City and/or State of Florida codes and /or ordinances. Application is hereby made to obtain a permit to do the work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work will be performed to meet the standards of all laws regulating construction in this jurisdiction. I understand that a **separate** permit must be secured for all other construction including ROOFING, ELECTRICAL, MECHANICAL, PLUMBING, GAS, SIGNS, POOLS, SCREEN ENCLOSURES, ETC.

OWNER'S AFFIDAVIT: *I certify that all the foregoing information is accurate and that all work will be done in compliance with all applicable laws regulating construction and zoning.*

Owner Signature Allan J Shields

The foregoing instrument was acknowledged before me this 8/5/2019

by Allan James Shields who is personally known to me

and who produced Florida Drivers ID. as identification and who did not take an oath.

Notary as to Owner

State of Florida
County of Orange

YOLANDA QUICENO
Notary Public - State of Florida
Commission # GG 10309
My Comm. Expires Nov 11, 2020

Contractor Signature

COMPANY NAME Big DAy Coast Inc.

The foregoing instrument was acknowledged before me this 08/05/2019

by Kevin Barnes who is personally known to me

and who produced FL Drivers License as identification and who did not take an oath.

Notary as to Owner

State of Florida
County of Orange

ROLANDO PERERA
Notary Public – State of Florida
Commission # GG 069733
My Comm. Expires Mar 11, 2021

Impervious Surface Ratio Worksheet
Development Zoned A-1, A-2, R-1-AAA, R-1-AA, R-1-A, R-1 per City Code, Section 50-74: Impervious Surface Ratio

1. Total Lot Area (sqft) X 0.35 = Allowable Impervious Area (BASE).

   Total Lot Area _____ X 0.35=

   Allowable Impervious Area (BASE)_____

2. Calculate the "proposed" impervious area on the lot. This includes the sum of all areas that do not allow direct percolation of rainwater. *Examples include house, pool, deck, driveway, accessory building, etc*

   - **House** _____
   - **Driveway** _____
   - **Walkway** _____
   - **Accessory Buildings** _____
   - **Pool & Spa** _____
   - **Deck & Patio** _____
   - **Other** _____

   Actual Impervious Area (AIA) _____

3. If AIA is less than BASE, subtract AIA from BASE to determine the amount of impervious area that may be added without providing onsite retention.

4. If AIA is greater than BASE, then onsite retention **must be provided.**

Assuming 7.5 inches of rainfall based on a 24hr 10 year Rain Event (TP40), the formula is: **(7.5 inches rainfall/12 inches p/foot) X (result from line 4) = cubic feet of storage volume needed**

ON EXISTING PAVERS

Record Notarized Document at OC Comptroller's Office

DOC# 20190485942
08/06/2019 12:35:52 PM Page 1 of 1
Rec Fee: $10.00
Phil Diamond, Comptroller
Orange County, FL
IP - Ret To: BIG DAY CONST INC

do

Permit Number: _____
Folio/Parcel Identification Number: _____
Prepared by: _____

Return to: _____

NOTICE OF COMMENCEMENT

State of Florida, County of Orange

The undersigned hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

1. **Description of property** (legal description of the property, and street address if available)
   Lot 368 Lk. Conway Estates Section Seven Plat Bk 2 Pg 38
2. **General description of improvement** 3007 Cullen Lake Shore Dr. Belle Isle, Fl. 32812
   Rear Porch Addition
3. **Owner information or Lessee information if the Lessee contracted for the improvement**
   Name Allan Shields
   Address 3007 Cullen Lake Shore Dr. Belle Isle, Fl.
   Interest in Property _____
   Name and address of fee simple titleholder (if different from Owner listed above)
   Name N/A
   Address _____
4. **Contractor**
   Name Kyle Barnes / Big Day Const. Inc. Telephone Number 407-952-4458
   Address 2701 Rafford Ct. Orl. Fl. 32806
5. **Surety** (if applicable, a copy of the payment bond is attached)
   Name N/A Telephone Number _____
   Address _____ Amount of Bond $ _____
6. **Lender**
   Name — Telephone Number _____
   Address —
7. **Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by §713.13(1)(a)7, Florida Statutes.**
   Name _____ Telephone Number _____
   Address _____
8. **In addition to himself or herself, Owner designates the following to receive a copy of the Lienor's Notice as provided in §713.13(1)(b), Florida Statutes.**
   Name _____ Telephone Number _____
   Address _____
9. **Expiration date of notice of commencement** (the expiration date may not be before the completion of construction and final payment to the contractor, but will be 1 year from the date of recording unless a different date is specified) _____

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN 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 COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

Under penalty of perjury, I declare that I have read the foregoing notice of commencement and that the facts stated in it are true to the best of my knowledge and belief.

Allan J Shields — _____
Signature of Owner or Lessee, or Owner's or Lessee's Authorized Officer/Director/Partner/Manager — Signatory's Title/Office

The foregoing instrument was acknowledged before me this 5th day of August (month/year) by 2019 James Allan Shields (name of person)

as homeowner (Type of authority, e.g., officer, trustee, attorney in fact) for _____ (Name of party on behalf of whom instrument was executed)

Signature of Notary Public – State of Florida — Print, type, or stamp commissioned name of Notary Public

YOLANDA QUICENO
Notary Public - State of Florida
Commission # GG 10309
My Comm. Expires Nov 4, 2020

Personally Known ____ OR Produced ID ✓
Type of ID Produced Florida Driver License

Form Revised September 26, 2011

State of FLORIDA, County of ORANGE
I hereby certify that this is a true copy of the document as reflected in the Official Records
PHIL DIAMOND, COUNTY COMPTROLLER
BY: _____ D.C.
DATED: 8/6/19

COUNTY COMPTROLLER SEAL ORANGE COUNTY FLORIDA

SWERDLOFF & FERRY SURVEYING, INC.

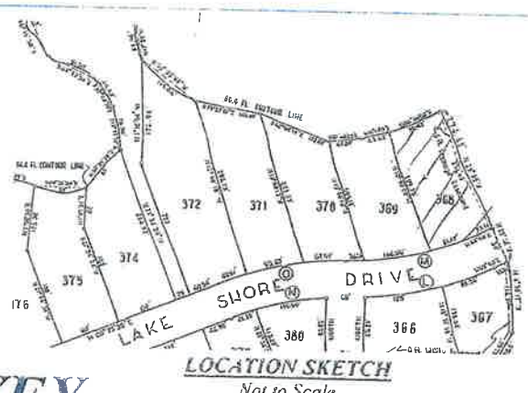
370 Waymont Court • Lake Mary, FL 32746 • Voice 407.688.7631 • Fax 407.688.7691 • sandfsurveying@gmail.com

Lot 368, LAKE CONWAY ESTATES SECTION SEVEN, according to the plat thereof, as recorded in Plat Book Z, Page(s) 38, of the Public Records of Orange County, FL.

Community number: *120181* ***Panel:*** *0430*
Suffix: *F* ***F.I.R.M. Date:*** *9/25/2009* ***Flood Zone:*** *X & AE*
Date of field work: *7/16/2008* ***Completion Date:*** *7/18/2008*

Certified to:
Allan J. Shields; Heather B. Shields; Dominion Title Company; Chicago Title Insurance Company; The Mortgage Firm, Inc., its' successors and/or assigns.

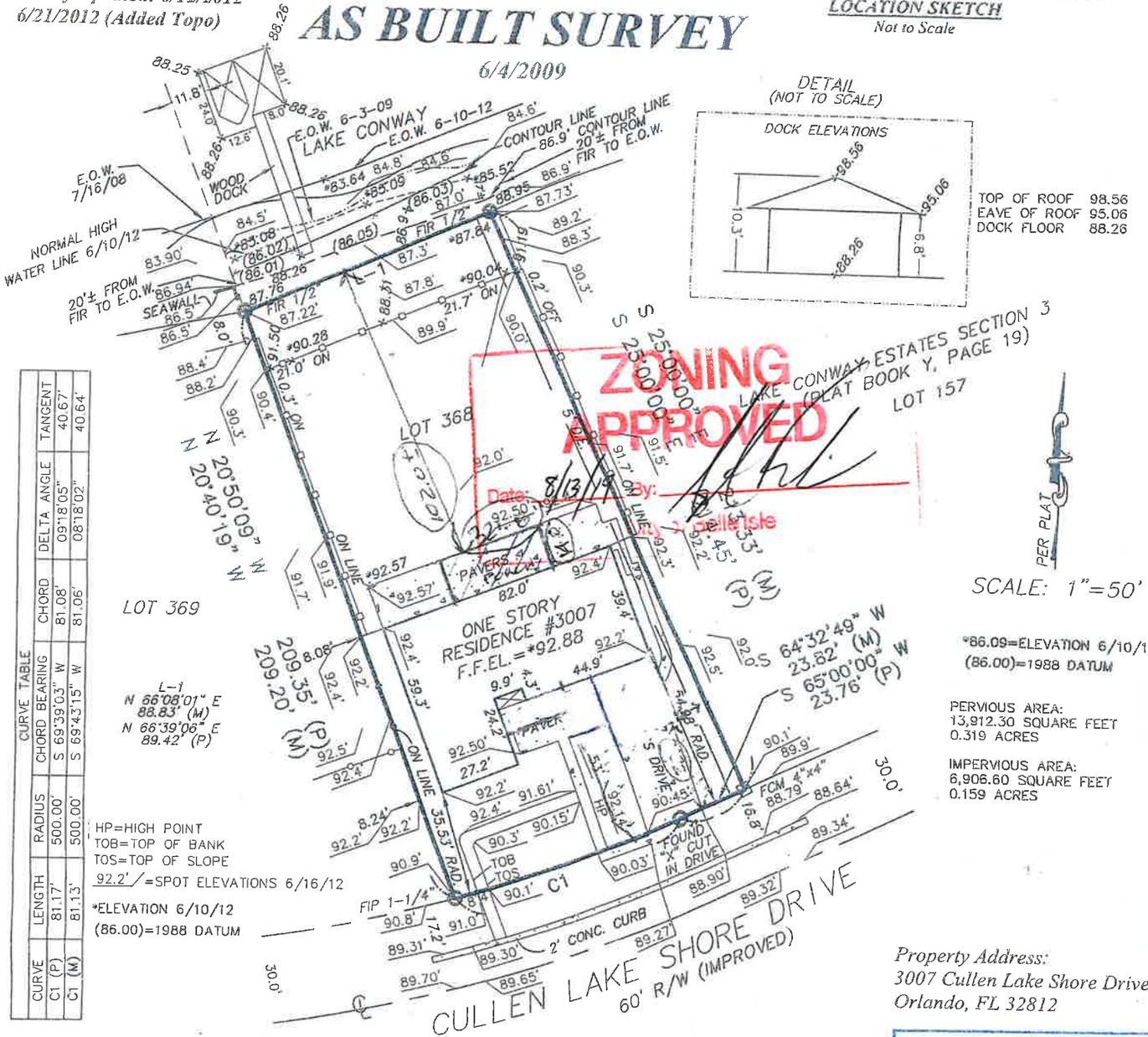
Survey Updated: *6/12/2012*
6/21/2012 (Added Topo)



LOCATION SKETCH
Not to Scale

AS BUILT SURVEY

6/4/2009



DETAIL
(NOT TO SCALE)

TOP OF ROOF 98.56
EAVE OF ROOF 95.06
DOCK FLOOR 88.26

SCALE: 1"=50'

*86.09=ELEVATION 6/10/12
(86.00)=1988 DATUM

PERVIOUS AREA:
13,912.30 SQUARE FEET
0.319 ACRES

IMPERVIOUS AREA:
6,906.60 SQUARE FEET
0.159 ACRES

CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD BEARING	CHORD	DELTA ANGLE	TANGENT
C1 (P)	81.17'	500.00'	S 69°39'03" W	81.08'	09°18'05"	40.67'
C1 (M)	81.13'	500.00'	S 69°43'15" W	81.06'	08°18'02"	40.64'

L-1
N 66°08'01" E
88.83' (M)
N 66°39'06" E
89.42' (P)

HP=HIGH POINT
TOB=TOP OF BANK
TOS=TOP OF SLOPE
92.2'/=SPOT ELEVATIONS 6/16/12
*ELEVATION 6/10/12
(86.00)=1988 DATUM

Property Address:
3007 Cullen Lake Shore Drive
Orlando, FL 32812

Survey number: SL 98519

LEGEND

O—	Wood Fence	W.M.	Water Meter	O.R.	Official Records
O—	Wire Fence	TEL	Telephone Facilities	O.R.B.	Official Records Book
L.F.	Chain Link Fence		Covered Area	P.C.P.	Permanent Control Point
N	Found Nail	B.R.	Bearing Reference	P.R.M.	Permanent Reference Monument
ONC	Concrete	CH	Chord	PG.	Page
	Field Measured	RAD	Radial	PVMT	Pavement
	Clear	A/C	Air Conditioning	E.O.P.	Edge of Pavement
NGR	Encroachment	B.M.	Bench Mark	P.B.	Plat Book
	Centerline	C.	Calculated	P.O.B.	Point of Beginning
	Concrete	ZZZZ	Block Wall	P.O.C.	Point of Commencement
	Property Line	Δ	Central Angle/Delta	P.O.L.	Point on Line
M.	Concrete Monument	D.B.	Deed Book	P.C.	Point of Curvature
I.R.	Found Iron Rod	D.	Description or Deed	P.R.C.	Point of Reverse Curvature
F	Found Iron Pipe	D.H.	Drill Hole	P.T.	Point of Tangency
W	Right of Way	D/W	Driveway	R.	Radius (Radial)
&D	Nail & Disk	ESMT	Easement	R.O.E.	Roof Overhang Easement
E	Drainage Easement	EL.	Elevation	S.I.R.	Set Iron Rod & Cap
E.	Utility Easement	F.F.	Finished Floor	S/W	Sidewalk
	Found	F.C.M.	Found Concrete Monument	T.O.B.	Top of Bank
	Plat	F.P.K.	Found Parker-Kalon Nail	TYP.	Typical
H U	Overhead Utilities	L.	Length	W.C.	Witness Corner
	Power Pole	L.B.	Licensed Business	10.05	Existing Elevation
	Transformer	L.A.E.	Limited Access Easement	E.O.W.	Edge of Water
ATV	Cable Riser	—1—	Line Break Not to Scale	P.C.C.	Point of Compound Curve
B	Chord Bearing	M.H.	Manhole	P.I.	Point of Intersection
C.C	Found Cross Cut	OHL	Overhead Lines	T.B.M.	Temporary Bench Mark
	Field	N.T.S.	Not to Scale		

GENERAL NOTES

1. Legal description provided by others.
2. The lands shown hereon were not abstracted for easements or other recorded encumbrances not shown on the plat.
3. Underground portions of footings, foundations or other improvements were not located.
4. Wall ties are to the face of the wall.
5. Only visible encroachments located.
6. No identification found on property corners unless noted.
7. Adjoining lots are within the same block, unless otherwise noted.
8. This is a BOUNDARY SURVEY unless otherwise noted.
9. Not valid unless sealed with the signing surveyors embossed seal.
10. FLOOD ZONE DETERMINATIONS ARE PROVIDED AS A COURTESY ONLY, AND ARE DERIVED FROM THE BEST SOURCES AVAILABLE TO THE SURVEYOR. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR FLOOD INSURANCE PURPOSES, AND MAY DIFFER FROM INFORMATION PROVIDED BY OTHERS.
11. Septic tank and/or drainfield locations are approximate and MUST be verified by appropriate utility location companies.
12. Bearing basis shown per plat unless otherwise noted.
13. Surveys are valid only unless signed and sealed by a Florida Registered Land Surveyor.
14. All lines are not fence unless otherwise noted.
15. Recent aerial photo may not indicate an update.

I hereby certify that this survey is a true and correct representation of the above described property.

L.B. 7132

Edgar Swerdloff

Registered Land Surveyor No. 5017

K&M TRUSS, INC.
P.O Box 1138 Zellwood, FL 32798
Main Office:407-880-4551
Fax:407-377-5839
office@kmtruss.com

Uplifts Reactions

Job #: 190364

Order Date 6/14/2019

Customer Information:

Name: Big Day Construction

Contact:

Address:

City, State, Zip ORLANDO, FL 32806

Salesman: CHRIS VOSE

Designer: Keith Czermerys

Notes:

Project Information:

Name: SHIELDS REAR PORCH

Address: 3007 CULLEN LAKE SHORE DRI

Region: ORANGE COUN

City, State, Zip ORLANDO, FL

Loading:

	TC	BC
LL	20	0
DL	7	10

C-Cust Notes:

WoodTruss

Qty	Span	Description	Truss	Bearing1 Reaction/Uplift	Bearing2 Reaction/Uplift	Bearing3 Reaction/Uplift	Bearing4 Reaction/Uplift	Height
☐ 6	32-06-00	A1 4/12 147.0 lbs. eac		00-03-08 BC100 1301 / 337	00-03-08 BC100 1301 / 337			05-08-15
☐ 1	32-06-00	A2 4/12 164.9 lbs. eac		00-03-08 BC100 199 / 55	32-02-08 BC100 2394 / 639			05-08-15

Packed By

Loaded By

William Ranieri
06.21.2019 14:14:14
William M. Ranieri, State of FL, Professional Engineer #42704
This item has been electronically signed and sealed by William M. Ranieri, PE (FL Lic #42704) on the date stated directly above using a Digital Signature.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Job: (190364) -SHIELDS REAR PORCH -Big Day Construction / H1

THIS DWG. PREPARED BY THE ALPINE JOB DESIGNER PROGRAM FROM TRUSS MFR'S LAYOUT

Top chord 2x4 SP #2
Bot chord 2x4 SP Dense Struct. 65 :B2 2x4 SP #1:
Webs 2x4 SP #3
:Lt Wedge 2x4 SP #3::Rt Wedge 2x4 SP #3:

Calculated horizontal deflection is 0.36" due to live load and 0.31" due to dead load.

Calculated vertical deflection is 0.75" due to live load and 1.27" due to dead load at X = 16-3-0.

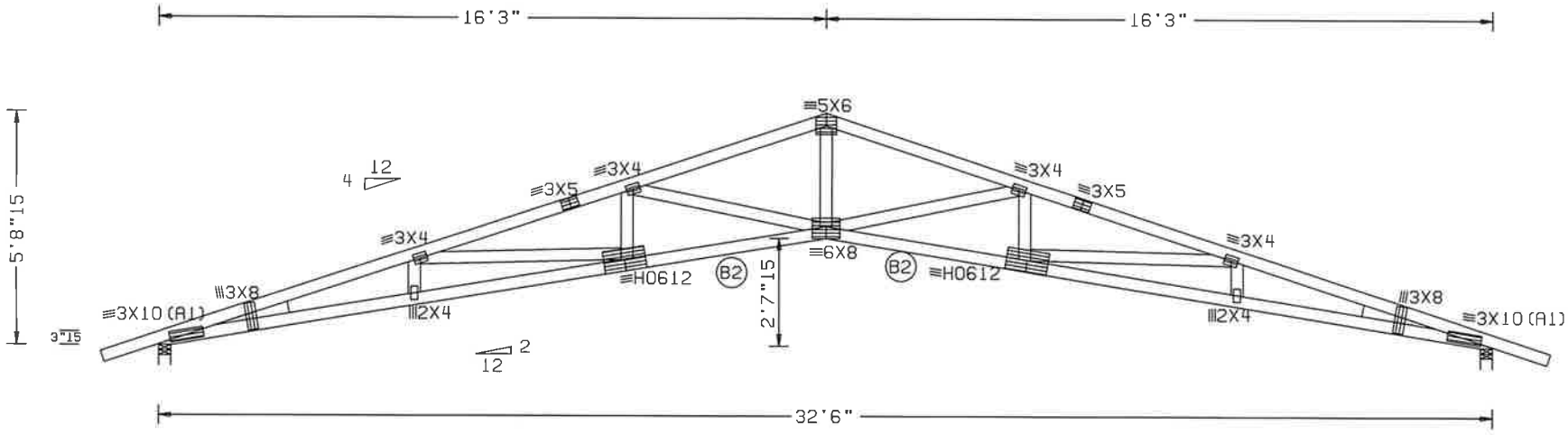
140 mph wind, 15.00 ft mean hgt, ASCE 7-10, PART. ENC. bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=4.2 psf, wind BC DL=5.0 psf. GCpi(+/-)=0.55

Wind loads and reactions based on MWFRS with additional C&C member design.

Bottom chord checked for 10.00 psf non-concurrent live load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 2.00.

All wind load cases on this truss have a 1.33 duration factor.



1'4" 1'4"

R=1301# U=337# RL=116/-116# W=3"8 (Rigid Surface)

R=1301# U=337# W=3"8 (Rigid Surface)

William Ranieri
06.21.2019 14:14:14
William M. Ranieri, State of FL, Professional Engineer #42704
This item has been electronically signed and sealed by William M. Ranieri, PE (FL Lic #42704) on the date stated directly above using a Digital Signature.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

LEFT RAKE = 1'4"14

RIGHT RAKE = 1'4"14

PLT. TYP.-WAVE

DESIGN CRIT=FBC2017RES/TPI-2014 FT/RT=20%(0%)/10(0)

QTY= 6 TOTAL= 6

REV. 17.02.01A.1115.CAL

SEQ = 373735
SCALE =0.2411

WARNING! READ AND FOLLOW ALL NOTES ON THIS DRAWING!
IMPORTANT FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLER.
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and WTCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.
ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.
A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.
For more information see this job's general notes page and these web sites:
ITWBCG: www.itwbcg.com; TPI: www.tpinst.org; WTCA: www.sbcindustry.com; ICC: www.iccsafe.org

WILLIAM M. RANIERI LICENSE No. 42704 STATE OF FLORIDA PROFESSIONAL ENGINEER

TC LL	20.0psf	REF
TC DL	7.0psf	DATE 06-21-2019
BC DL	10.0psf	DRWG
BC LL	0.0psf	
TOT.LD.	37.0psf	O/A LEN. 320600
DUR.FAC.	1.25	JOB #: 190364
SPACING	24.0"	TYPE COMN

Job: (190364) -SHIELDS REAR PORCH -Big Day Construction / H2

THIS DWG. PREPARED BY THE ALPINE JOB DESIGNER PROGRAM FROM TRUSS MFR'S LAYOUT

Top chord 2x4 SP #3
Bot chord 2x4 SP #3
Webs 2x4 SP #3

140 mph wind, 15.00 ft mean hgt, ASCE 7-10, PART._ENC. bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=4.2 psf, wind BC DL=5.0 psf. GCpi(+/-)=0.55

Bottom chord checked for 10.00 psf non-concurrent live load.

All wind load cases on this truss have a 1.33 duration factor.

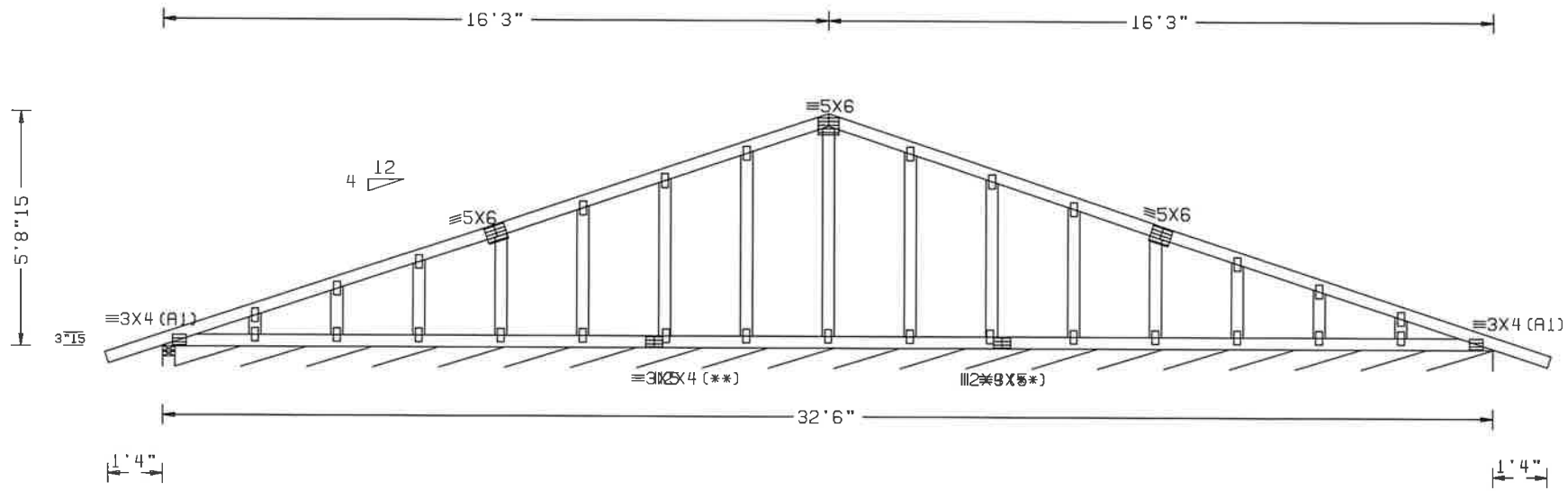
All plates are 2X4 except as noted.

(**) 2 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

Wind loads and reactions based on MWFRS with additional C&C member design.

See DWGS A16015ENC101014 & GBLLETIN1014 for gable wind bracing and other requirements.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 2.00.



R=199# U=54# RL=116/-116# W=3"8
(Rigid Surface)

R=74plf U=100plf W=32'2"8
(Rigid Surface)

William Ranieri
06.21.2019 14:14:14
William M. Ranieri, State of FL, Professional Engineer #42704
This item has been electronically signed and sealed by William M. Ranieri, PE (FL Lic #42704) on the date stated directly above using a Digital Signature.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

LEFT RAKE = 1'4"14

RIGHT RAKE = 1'4"14

PLT. TYP.-WAVE

DESIGN CRIT-FBC2017RES/TPI-2014 FT/RT=20%(0%)/10(0)

QTY= 1 TOTAL= 1

SEQ = 373738
REV. 17.02.01A.1115.2AL SCALE =0.2411

WARNING! READ AND FOLLOW ALL NOTES ON THIS DRAWING!
IMPORTANT FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLER.
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and WTCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.
ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.
A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.
For more information see this job's general notes page and these web sites:
ITWBCG: www.itwbcg.com; TPI: www.tpinst.org; WTCA: www.sbcindustry.com; ICC: www.icosafe.org

WILLIAM M. RANIERI LICENSE No. 42704 STATE OF FLORIDA PROFESSIONAL ENGINEER

TC LL	20.0psf	REF	
TC DL	7.0psf	DATE	06-21-2019
BC DL	10.0psf	DRWG	
BC LL	0.0psf		
TOT.LD.	37.0psf	O/A LEN.	320600
DUR.FAC.	1.25	JOB #:	190364
SPACING	24.0"	TYPE	GABL

BLDG permit

City of Belle Isle

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

Product Approval Form

DATE: _____ PERMIT # 2019-08-020

PROJECT ADDRESS 3007 Cullen Lk. Shore DR., Belle Isle, FL ____32809 ✓32812

As required by Florida Statue 553.842 and Florida Administrative Code 9B-72m, please provide the information and approval numbers of the building components listed below if they will be utilized on the building or structure. FL Approved products are listed online at www.floridabuilding.org or can be obtained from the local product supplier. The following information must be turned in with permit application and available onsite for inspections:

- **This Product Approval Cover Sheet**
- **Internet screen printout from FloridaBuilding.Org showing PA#, approval code and edition stamped**
- **Manufacturer's installation details from FloridaBuilding.Org and requirements for each product stamped**
- **The Installation instructions must be posted on-site before your first inspection**

Product Type	Manufacturer	Model/Series	FL Product Approval #	Product Type	Manufacturer	Model/Series	FL Product Approval #
EXTERIOR DOORS				**WALL PANELS**			
Swinging			FL. 12098.5	Siding	[redacted]	[redacted]	[redacted]
Sliding				Soffits	Michiha	Panel Wall Siding	FL 12[redacted]-R7
Sectional/Rollup				~~Stone Veneer~~	KAYCAN	12" soffit	FL 12198.3
Other				~~Glass~~ Block			
				~~Other~~			
WINDOWS				**ROOFING PRODUCTS**			
Single/Dbl Hung				Asphalt Shingles			
Horizontal Slider				Non Struct Metal			
Casement				Roofing Tiles			
Fixed				Single Ply Roof			
Mullion							
Skylights				Other			
Other							
STRUCTURAL COMPONENTS				**OTHER**			
Wood Connectors							
Wood Anchors							
Truss Plates							
Insulation Forms							
Lintels							
Other							

It is the applicant's responsibility to verify that specific products have been installed in accordance with their limitations and with the minimum required design pressures for the structure. Specific compliance will be verified during field inspections.

Applicant Signature _____ **Date** _____

Product Approval
USER: Public User

FL #	FL12198-R5
Application Type	Revision
Code Version	2017
Application Status	Approved
	*Approved by DBPR. Approvals by DBPR shall be reviewed and ratified by the POC and/or the Commission if necessary.
Comments	
Archived	
Product Manufacturer	KAYCAN LTD
Address/Phone/Email	1 Memorial Drive Richford, VT 05476 (662) 252-9991 Ext 231 joe.lundine@kpproducts.com
Authorized Signature	Joe Lundine joe.lundine@kpproducts.com
Technical Representative	Joe Lundine
Address/Phone/Email	402 Boyer St Williston, VT 05495 (662) 252-9991 joe.lundine@kpproducts.com
Quality Assurance Representative	Joe Lundine
Address/Phone/Email	402 Boyer St Williston, VT 05495 (662) 252-9991 joe.lundine@kpproducts.com
Category	Panel Walls
Subcategory	Soffits
Compliance Method	Certification Mark or Listing
Certification Agency	Miami-Dade BCCO - CER
Validated By	Miami-Dade BCCO - VAL

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Standard	Year
TAS 202	1994
TAS 203	1994

Method 1 Option A

Date Submitted	03/21/2018
Date Validated	03/28/2018
Date Pending FBC Approval	
Date Approved	04/04/2018

Summary of Products

FL #	Model, Number or Name	Description
12198.1	Aluminum Soffit SP-600	SP-600 16" Vented Aluminum Soffit
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** +55/-35 **Other:** Maximum Panel Dimensions: 21-1/2" x 16.515"		**Certification Agency Certificate** FL12198_R5_C_CAC_17122131.pdf **Quality Assurance Contract Expiration Date** 06/01/2021 **Installation Instructions** FL12198_R5_II_17122131.pdf Verified By: Miami-Dade BCCO - CER Created by Independent Third Party: **Evaluation Reports** Created by Independent Third Party:
12198.2	Vinyl Soffit D5	D5 10" Vented Vinyl Soffit
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** +55/-35 **Other:** Maximum Panel Dimensions: 21-1/2" x 11.384"		**Certification Agency Certificate** FL12198_R5_C_CAC_17122132.pdf **Quality Assurance Contract Expiration Date** 04/20/2021 **Installation Instructions** FL12198_R5_II_17122132.pdf Verified By: Miami-Dade BCCO - CER Created by Independent Third Party: **Evaluation Reports** Created by Independent Third Party:
12198.3	Vinyl Soffit T4	T4 12" Vented Vinyl Soffit
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** +55/-35 **Other:** Maximum Panel Dimensions: 21-1/2" x 13.352"		**Certification Agency Certificate** FL12198_R5_C_CAC_17122132.pdf **Quality Assurance Contract Expiration Date** 04/20/2021 **Installation Instructions** FL12198_R5_II_17122132.pdf Verified By: Miami-Dade BCCO - CER Created by Independent Third Party: **Evaluation Reports** Created by Independent Third Party:

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MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

Kaycan
1 Memorial Drive.
Richford, VT 05476

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.

DESCRIPTION: Model D5 10" and T4 12" Vinyl Vented Soffit

APPROVAL DOCUMENT: Drawing No. **KAY0001**, titled "Vinyl PVC Soffit D510" and T4 12" Vented", sheets 1 through 4 of 4, dated 12/27/2011, with revision **3** dated 12/01/2017, prepared by the manufacturer, signed and sealed by Robert J. Amoruso, P.E., bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: None

LABELING: Each piece shall bear a permanent label marked at not more than 4 ft. (1.2m) o.c. with the Kaytec, Richford, VT or Cowansville, QC, Canada and following statement: "Miami-Dade County Product Control Approved", per FBC 1709.10.2 and 1709.10.3.

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 **revises NOA # 17-0404.04** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**

MIAMI-DADE COUNTY APPROVED

02/15/2018

NOA No. 17-1221.32
Expiration Date: April 20, 2021
Approval Date: February 22, 2018

Kaycan

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS *"Submitted under NOA # 15-0612.16"*

1. Drawing No. **KAY0001**, titled "Vinyl PVC Soffit D510" and T4 12" Vented", sheets 1 through 4 of 4, dated 12/27/2011, with revision 2 dated 03/17/2015, prepared by the manufacturer, signed and sealed by Robert J. Amoruso, P.E.

B. TESTS *"Submitted under NOA # 17-0404.04"*

1. Test report on Wind Driven Rain Resistance Test per TAS 100(A) of Model D5 10" and T4 12" Vinyl Vented Soffit, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **9458**, dated 03/28/2017, signed and sealed by Idalmis Ortega, P.E.

"Submitted under NOA # 05-0804.03"

	Test Report No.	Standard	Date	Signature
2.	AT-55983.01-106-18	ASTM D3679	01/03/06	Joseph A. Reed, P.E.
3.	AT-55983.01-106-18	ASTM G155	01/03/06	Joseph A. Reed, P.E.
4.	AT-55983.01-106-18	ASTM D638	01/03/06	Joseph A. Reed, P.E
5.	AT-55983.01-106-18	ASTM D2843	01/03/06	Joseph A. Reed, P.E.
6.	AT-55983.01-106-18	ASTM D1929	01/03/06	Joseph A. Reed, P.E
7.	AT-55983.01-106-18	ASTM D635	01/03/06	Joseph A. Reed, P.E
8.	AT-55981.02-122-18	PA 202 & 203	07/15/05	S. A. Urich, P.E.

C. CALCULATIONS *"Submitted under NOA # 12-0124.04"*

1. Anchor calculations prepared by PTC Product Design Group, LLC, dated 12/27/2011, signed and sealed by Robert J. Amoruso, P.E.

"Submitted under NOA # 05-0804.03"

2. Fastener Installation Analysis, sheets 1 through 3, dated 07/27/2005, Project No. **05020010** signed and sealed by Allen N. Reeves, P.E.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS *"Submitted under NOA # 15-0612.16"*

1. Statement letter of code conformance to 5th edition (2014) FBC and of no financial interest, prepared by PTC Product Design Group, LLC, dated 03/17/2015, signed and sealed by Robert J. Amoruso, P.E.

"Submitted under NOA # 12-0124.04"

2. Statement letter of code conformance to 2010 FBC and no financial interest, prepared by PTC Product Design Group, LLC, dated 01/19/2012, signed and sealed by Robert J. Amoruso, P.E.

"Submitted under NOA # 11-0316.01"

3. Distributor agreement dated 04/25/2011.

02/15/2018

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 17-1221.32
Expiration Date: April 20, 2021
Approval Date: February 22, 2018

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **KAY0001**, titled "Vinyl PVC Soffit D510" and T4 12" Vented", sheets 1 through 4 of 4, dated 12/27/2011, dated 09/22/2010, with revision **3** dated 12/01/2017, prepared by PTC, LLC, signed and sealed by Robert J. Amoruso, P.E.

B. TESTS

1. None.

A. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of code conformance to 6th edition (2017) FBC and of no financial interest, prepared by PTC Product Design Group, LLC, dated 12/01/2017, signed and sealed by Robert J. Amoruso, P.E.

02/15/2018

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 17-1221.32
Expiration Date: April 20, 2021
Approval Date: February 22, 2018

Florida dbpr

Product Approval
USER: Public User

FL #	FL12098-R7
Application Type	Revision
Code Version	2017
Application Status	Approved
	*Approved by DBPR. Approvals by DBPR shall be reviewed and ratified by the POC and/or the Commission if necessary.
Comments	
Archived	
Product Manufacturer	Nichiha USA, Inc.
Address/Phone/Email	3150 Avondale Mill Road Macon, GA 31216 (770) 805-9466 Ext 1021 dhohenstern@nichiha.com
Authorized Signature	David Hohenstern dhohenstern@nichiha.com
Technical Representative	David Hohenstern
Address/Phone/Email	6455 East Johns Crossing Suite 250 Johns Creek, GA 30097 (770) 805-9466 dhohenstern@nichiha.com
Quality Assurance Representative	David Hohenstern
Address/Phone/Email	6465 East Johns Crossing Suite 250 JOHNS CREEK, GA 30097 (770) 805-9466 Ext 1021 dhohenstern@nichiha.com
Category	Panel Walls
Subcategory	Siding
Compliance Method	Evaluation Report from a Product Evaluation Entity
Evaluation Entity	Intertek Testing Services NA, Inc.
Quality Assurance Entity	Intertek Testing Services NA, Inc. - QA Entity
Quality Assurance Contract Expiration Date	12/31/2020
	Intertek Testing Services NA, Inc.

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Standard	Year
ASCE 7	2010
ASTM C1186	2008
ASTM E136	2012
ASTM E330	2002
ASTM E84	2013

Certified By

Sections from the Code

Product Approval Method	Method 1 Option C
Date Submitted	10/25/2018
Date Validated	10/25/2018
Date Pending FBC Approval	
Date Approved	10/30/2018

Summary of Products

FL #	Model, Number or Name	Description
12098.1	NichiBoard Plank	Lap siding boards in widths from 5-1/4" up to 12"; all boards are 12 feet in length and 5/16" in thickness.
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** N/A **Other:**		**Installation Instructions** FL12098_R7_II_2018-10-19 CCRR-0258.pdf Verified By: Intertek Testing Services NA, Inc. Created by Independent Third Party: **Evaluation Reports** FL12098_R7_AE_2018-10-19 CCRR-0258.pdf
12098.2	NichiPanel	Panels are available in 4-foot widths and 3 lengths: 8', 10', and 12'. All panels are 5/16" thick.
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** N/A **Other:**		**Installation Instructions** FL12098_R7_II_2018-10-19 CCRR-0258.pdf Verified By: Intertek Testing Services NA, Inc. Created by Independent Third Party: **Evaluation Reports** FL12098_R7_AE_2018-10-19 CCRR-0258.pdf
12098.3	NichiShake	Primed cedar shake panels available in widths from 6-/14" up to 12"; all boards are 18" in height.
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** N/A **Other:**		**Installation Instructions** FL12098_R7_II_2018-10-19 CCRR-0258.pdf Verified By: Intertek Testing Services NA, Inc. Created by Independent Third Party: **Evaluation Reports** FL12098_R7_AE_2018-10-19 CCRR-0258.pdf
12098.4	NichiSoffit	12",16" wide by 12' long, or 24", 48" wide by 8 feet long soffits. Product is 1/4" thick
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** N/A **Other:**		**Installation Instructions** FL12098_R7_II_2018-10-19 CCRR-0258.pdf Verified By: Intertek Testing Services NA, Inc. Created by Independent Third Party: **Evaluation Reports** FL12098_R7_AE_2018-10-19 CCRR-0258.pdf
12098.5	NichiStaggered / NichiStraight	16" wide by 4' long panels designed to look like individual cedar shake. The panels are 5/16" thick.
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** N/A **Other:**		**Installation Instructions** FL12098_R7_II_2018-10-19 CCRR-0258.pdf Verified By: Intertek Testing Services NA, Inc. Created by Independent Third Party: **Evaluation Reports** FL12098_R7_AE_2018-10-19 CCRR-0258.pdf

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Code Compliance Research Report CCRR-0258

Issue Date: 10-31-2016
Revision Date: 10-19-2018
Renewal Date: 10-31-2019

DIVISION: 07 00 00 -THERMAL AND MOISTURE PROTECTION
Section: 07 45 00 – Fiber-reinforced Cementitious Panels

REPORT HOLDER:
Nichiha USA Inc.
6465 E. Johns Crossing, Suite 250
Johns Creek, Georgia 30097
www.nichiha.com

REPORT SUBJECT:
NichiProducts™ Fiber-Cement Siding Products

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2018, 2015, and 2012 *International Building Code®* (IBC)
- 2018, 2015, and 2012 *International Residential Code®* (IRC)
- 2017 and 2014 *Florida Building Code* – Building (FBC) and Residential (FRC) (see Section 9)
- 2016 and 2013 *California Building Code* – Building (CBC) and Residential (CRC) (see Section 9)

NOTE: This report references 2018 Code sections. Section numbers in earlier editions may be different.

1.2 The NichiProducts™ siding products described in this report have been evaluated for the following properties (see Table 1):

- Physical properties
- Wind resistance
- Surface burning characteristics
- Noncombustibility
- Weather protection
- Fire-resistance-rated construction

1.3 The NichiProducts™ siding products have been evaluated for the following uses (see Table 1):

- Use as an exterior wall covering in accordance with IBC Section 1405.16 and IRC Section R703.10.
- Use on exterior walls in Types I, II, III, and IV construction
- Use on exterior walls permitted to be of Type V construction.
- Use on walls required to be of fire-resistance-rated construction.

2.0 STATEMENT OF COMPLIANCE

The NichiProducts™ siding products recognized in this report comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

3.0 DESCRIPTION

3.1 NichiProducts™ Fiber Cement Siding Products:

The siding products are used for lap and panel siding. A description of the siding products, their dimensions and their intended application is in Table 2.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Physical Properties: The siding products comply with ASTM C1186, Type A, Grade II, in accordance with IBC Section 1403.10 [1404.10] and IRC Section R703.10.

4.2 Wind Resistance: The maximum allowable wind pressure for each of the siding products is described in Tables 3, 4, 5 and 6.

4.3 Surface Burning Characteristics: The siding products have a flame spread index of 0 and a smoke-developed index of 0, when tested in accordance with ASTM E84.

4.4 Noncombustibility: The siding products are noncombustible building construction materials complying with IBC Section 703.5 as determined by testing in accordance with ASTM E136.

4.5 Weather Protection: Siding products are installed in accordance with Section 5.2 of this report.

4.6 Fire-resistance-rated Construction: Fire-resistance-rated construction is outside the scope of this report.

5.0 INSTALLATION

5.1 General:

The siding must be installed in accordance with the Nichiha USA Inc., published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.2 Application:

Under the IBC, the siding products must be installed over a water-resistive barrier complying with Sections 1403.2 [1404.2] and 1402.5 [1403.5] and must be attached as described for the specific assembly in Tables 3, 4, 5, 6 and 7.

Under the IRC, the siding products must be installed over a water-resistive barrier complying with Section R703.2. Lap siding and panel siding may be installed as described in Table R703.3(1), for areas in which the design pressure does not exceed 30 psf and the mean roof height does not exceed the limits in Table R703.3.1, or as described in Tables 3 through 6. For conditions that exceed these limits, the panels must be installed as described in Table 8.

6.0 CONDITIONS OF USE

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

6.2 When allowable wind speed is determined in accordance with Table 3, the allowable wind speed must be equal to or greater than the design wind speed calculated in accordance with the applicable Code.

6.3 When the wall construction includes a combustible water-resistive barrier and is required to be of Type I, II, III, or IV construction, use of the siding products is limited to a maximum 40 feet in height above grade plane except under the 2018 [2015] IBC where data has been presented to the building official demonstrating compliance with the Exception to Section 1402.5 [1403.5].

6.4 The NichiProducts™ siding products are produced under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM C1186, ASTM E84, ASTM E136, and ASTM E330.

7.2 Data in accordance with the ICC-ES Acceptance Criteria for Fiber Cement Siding Used as Exterior Wall Siding (AC90), dated June 2012 (editorially revised September 2015).

7.3 Intertek Listing Report "Nichiha NichiProducts™ Fiber Cement Siding Products" on the Intertek Directory of Building Products.

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

8.0 IDENTIFICATION

The NichiProducts™ siding products are identified with the Nichiha USA Inc., name, and address, the product name, the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0258).

CODE COMPLIANCE
Intertek
CCRR-0258

9.0 OTHER CODES

9.1 California Building Code

9.1.1 Scope of Evaluation:

The NichiProducts™ siding products were evaluated for compliance with the 2016 and 2013 California Building Code, including Chapter 7A. The siding products are noncombustible materials as defined in CBC Section 202 and as permitted for use on exterior walls in CBC Section 707A.3.

9.1.2 Conclusion:

The siding products, described in Sections 2.0 through 7.0 of this report, comply with the 2016 and 2013 California Building Code, subject to the conditions noted in Section 6.0 of this report. Section numbers for the CBC – Building and Residential correspond to the 2015 IBC and IRC section numbers.

9.2 Florida Building Code

9.2.1 Scope of Evaluation:

The NichiProducts™ siding products were evaluated for compliance with the 2017 and 2014 *Florida Building Code – Building, Florida Building Code – Residential* and *Florida Building Code – Energy Conservation.*

9.2.2 Conclusion:

The siding products described in Sections 2.0 through 7.0 of this report, comply with the 2017 and 2014 *Florida Building Code – Building, Florida Building Code – Residential* and *Florida Building Code – Energy*, subject to the following conditions:

- Use of the siding product for compliance with the High-Velocity Hurricane Zone provisions of the 2017 and 2014 *Florida Building Code – Building* and the *Florida Building Code – Residential* has not been evaluated and is outside the scope of this Research Report.
- Section numbers for the FBC – Building and Residential correspond to the 2015 IBC and IRC section numbers.
- Intertek is a Florida State Product Evaluation Entity.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

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

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

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

TABLE 1 – PROPERTIES EVALUATED

PROPERTY	2018 and 2015 IBC SECTION[1]	2018 and 2015 IRC SECTION[1]	2017 and 2014 FBC - Building	2017 and 2014 FBC – Residential	2016 and 2013 CBC
Physical properties	1403.10 [1404.10]	R703.10	1404.10	R703.10	1404.10
Surface burning characteristics	1403.10 [1404.10]	R703.10	1404.10	R703.10	1404.10
Noncombustibility	703.5	NA	703.5	NA	202, 703.5
Wind resistance	1404.16 [1405.16]	R703.16	1405.16	703.1.2	1405.16
Weather resistance	1403.2 [1404.2]	R703.2	1404.2	R703.2	1404.2

[1] Section numbers may be different for earlier versions of the International and Florida Codes.

TABLE 2 – NICHIHA SIDING DESCRIPTION

Product Name	Nominal Thickness (in.)	Siding Dimensions	Intended Use	Description
NichiBoard™ plank	5/16	Width: 5.25, 6.25, 7.25, 8.25, 9.25 and 12 inches Length: 12 feet	Lap siding	Smooth or Cedar finish
NichiPanel™ sheets	5/16	4 feet by 8 feet 4 feet by 10 feet 4 feet by 12 feet	Panel siding	Cedar, Smooth, Stucco and Grooved- 8-in.- oc- Cedar finish
NichiStraight™ and NichiStaggered™ lap panels	5/16	16 inches wide by 4 foot long	Lap panel siding	Designed to look like individual cedar shakes
NichiShake™ cladding	5/16	Width: 6.25, 8.25 and 12 inches Length: 18 inches	Lap shingle siding	Designed to look like individual cedar shakes
NichiSoffit™	1/4	12, 16 inches wide by 12 feet long; 24, 48 inches wide by 8 feet long	Soffit	Vented or Nonvented; Smooth or Cedar finish

Table 3 - Design Loads for Negative Transverse Wind Load (NichiBoard™ Plank)[1,4,7]

Siding Type	Siding Fastener[5]	Face/Blind	Effective Fastener Frame/ Horizontal (in)	Effective Fastener Field (in)	Framing Type	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed Exp B	ASCE 7-05 Basic Wind Speed Exp C	ASCE 7-05 Basic Wind Speed Exp D	ASCE 7-10 Ultimate Exp B	ASCE 7-10 Ultimate Exp C	ASCE 7-10 Ultimate Exp D
5.25" / 6.25" NichiBoard™	6d Double HD MAZE Coil Nail	Face	16	5.25/6.25	SPF	-49.5	15	143	130	118	185	168	153
							20	143	126	115	185	163	149
							25	143	124	113	185	160	146
							30	143	121	111	185	156	144
							40	138	118	109	178	152	140
							50	133	115	106	172	148	137
							60	130	113	105	168	146	135
					DF	-76.5	15	170	162	147	210	209	190
							20	170	157	144	210	203	185
							25	170	154	141	210	199	182
							30	170	151	139	210	195	179
							40	170	146	135	210	189	174
							50	166	143	132	210	184	171
							60	162	140	130	209	181	168
			24	5.25/6.25	SPF	-33.0	15	117	106	97	151	137	125
							20	117	103	94	151	133	122
							25	117	101	93	151	130	119
							30	117	99	91	151	128	117
							40	112	96	89	145	124	114
							50	109	94	87	141	121	112
							60	106	92	86	137	119	110
					DF	-51.0	15	146	132	120	188	171	155
							20	146	128	117	188	166	151
							25	146	126	115	188	162	149
							30	146	123	113	188	159	146
							40	140	119	110	180	154	142
							50	135	117	108	175	151	140
							60	132	115	106	171	148	137
5.25" / 6.25" NichiBoard™	6d Double HD MAZE Coil Nail	Blind	16	5.25/6.25	SPF	-35.1	15	121	110	100	156	142	129
							20	121	107	97	156	138	126
							25	121	104	96	156	135	123
							30	121	102	94	156	132	121
							40	116	99	92	150	128	118
							50	112	97	90	145	125	116
							60	110	95	88	142	123	114
			24	5.25/6.25	SPF	-23.4	15	99	90	--	127	116	--
							20	99	87	--	127	112	--
							25	99	85	--	127	110	--
							30	99	--	--	127	108	--
							40	95	--	--	122	--	--
							50	92	--	--	118	--	--
							60	90	--	--	116	--	--

Table 3 - Continued (NichiBoard™ Plank)[1,4,7]

Siding Type	Siding Fastener[5]	Face/Blind	Effective Fastener Spacing		Framing Type	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
			Frame/Horizontal (in)	Field (in)				Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
5.25" / 6.25" NichiBoard™	Double HD MAZE Asphalt & Fiberglass Shingle Nail	Blind	12	5.25/6.25	7/16" OSB	-41.0	15	130	118	108	168	153	139
							20	130	115	105	168	149	136
							25	130	113	103	168	145	133
							30	130	110	101	168	142	131
							40	125	107	99	162	138	128
							50	121	105	97	157	135	125
							60	118	103	95	153	133	123
			16	5.25/6.25	7/16" OSB	-30.7	15	113	103	93	146	132	120
							20	113	100	91	146	129	117
							25	113	98	89	146	126	115
							30	113	96	88	146	123	113
							40	108	93	86	140	120	111
							50	105	91	--	136	117	108
							60	103	89	--	132	115	107
					SPF	-56.1	15	153	139	126	197	179	163
							20	153	135	123	197	174	159
							25	153	132	121	197	170	156
							30	153	129	119	197	167	153
							40	147	125	116	189	162	149
							50	142	122	113	183	158	146
							60	139	120	112	179	155	144
			24	5.25/6.25	7/16" OSB	-20.5	15	92	--	--	119	108	--
							20	92	--	--	119	105	--
							25	92	--	--	119	--	--
							30	92	--	--	119	--	--
							40	89	--	--	114	--	--
							50	86	--	--	111	--	--
							60	--	--	--	108	--	--
					SPF	-37.4	15	125	113	103	161	146	133
							20	125	110	100	161	142	130
							25	125	108	99	161	139	127
							30	125	105	97	161	136	125
							40	120	102	94	154	132	122
							50	116	100	93	150	129	119
							60	113	98	91	146	127	118
5.25" / 6.25" NichiBoard™	Aerosmith Fastening Systems, VersaPin	Face	16	5.256.25	20 GA Steel	-136.3	15	170	170	170	210	210	210
							20	170	170	170	210	210	210
							25	170	170	170	210	210	210
							30	170	170	170	210	210	210
							40	170	170	170	210	210	210
							50	170	170	170	210	210	210
							60	170	170	170	210	210	210
			24	5.25/6.25	20 GA Steel	-90.9	15	170	170	160	210	210	207
							20	170	170	156	210	210	202
							25	170	168	154	210	210	198
							30	170	164	151	210	210	195
							40	170	159	147	210	206	190
							50	170	156	144	210	201	186
							60	170	153	142	210	197	183
		Blind	16	5.25/6.25	20 GA Steel	-27.5	15	107	97	88	138	125	114
							20	107	94	86	138	122	111
							25	107	92	--	138	119	109
							30	107	90	--	138	117	107
							40	103	88	--	132	113	--
							50	99	86	--	128	111	--
							60	97	--	--	125	109	--

Table 3 - Continued (NichiBoard™ Plank)[1,4,7]

Siding Type	Siding Fastener[5]	Face/Blind	Effective Fastener Spacing		Framing Type	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
			Frame/Horizontal (in)	Field (in)				Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
7.25" NichiBoard™	6d Double HD MAZE Coil Nail	Face	16	7.25	SPF	-42.7	15	133	121	110	172	156	142
							20	133	117	107	172	152	138
							25	133	115	105	172	148	136
							30	133	113	103	172	145	134
							40	128	109	101	165	141	130
							50	124	107	99	160	138	128
							60	121	105	97	156	135	126
					DF	-66.0	15	166	150	136	210	194	176
							20	166	146	133	210	188	172
							25	166	143	131	210	184	169
							30	166	140	129	210	181	166
							40	159	136	125	205	175	162
							50	154	133	123	199	171	159
							60	150	130	121	194	168	156
			24	7.25	SPF	-28.4	15	109	99	90	140	127	116
							20	109	96	88	140	124	113
							25	109	94	86	140	121	111
							30	109	92	--	140	119	109
							40	104	89	--	135	115	106
							50	101	87	--	130	112	--
							60	99	86	--	127	110	--
					DF	-44.0	15	135	123	111	175	158	144
							20	135	119	109	175	154	140
							25	135	117	107	175	151	138
							30	135	114	105	175	147	136
							40	130	111	102	167	143	132
							50	126	108	100	162	140	130
							60	123	106	99	158	137	128
		Blind	16	7.25	SPF	-26.1	15	104	95	86	135	122	111
							20	104	92	--	135	119	108
							25	104	90	--	135	116	106
							30	104	88	--	135	114	--
							40	100	85	--	129	110	--
							50	97	--	--	125	108	--
							60	95	--	--	122	106	--

Table 3 - Continued (NichiBoard™ Plank)[1,4,7]

Siding Type	Siding Fastener[5]	Face/Blind	Effective Fastener Spacing		Framing Type	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
			Frame/Horizontal (in)	Field (in)				Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
7.25" NichiBoard™	Double HD MAZE Asphalt & Fiberglass Shingle Nail	Blind	12	7.25	7/16" OSB	-35.3	15	121	110	100	156	142	129
							20	121	107	98	156	138	126
							25	121	105	96	156	135	124
							30	121	102	94	156	132	122
							40	116	99	92	150	128	118
							50	113	97	90	145	125	116
							60	110	95	89	142	123	114
			16	7.25	SPF	-32.8	15	117	106	96	151	137	124
							20	117	103	94	151	133	121
							25	117	101	92	151	130	119
							30	117	99	91	151	127	117
							40	112	96	88	145	124	114
							50	109	94	87	140	121	112
							60	106	92	85	137	119	110
			24	7.25	SPF	-25.2	15	102	93	--	132	120	109
							20	102	90	--	132	117	106
							25	102	88	--	132	114	--
							30	102	87	--	132	112	--
							40	98	--	--	127	108	--
							50	95	--	--	123	106	--
							60	93	--	--	120	--	--
	*Double HD MAZE Asphalt & Fiberglass Shingle Nail	Blind	16	7.25	SYP	-54.7	15	151	137	124	195	177	160
							20	151	133	121	195	172	157
							25	151	130	119	195	168	154
							30	151	127	117	195	164	151
							40	145	124	114	187	160	147
							50	140	121	112	181	156	144
							60	137	119	110	177	153	142

*Fasteners shall be located a minimum distance of 3/4" from the vertical siding edges at corners and splices.

Table 3 - Continued (NichiBoard™ Plank)[1,4,7]

Siding Type	Siding Fastener[5]	Face/Blind	Effective Fastener Spacing		Framing Type	Allowable Des	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
			Frame/Horizontal (in)	Field (in)				Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
7.25" NichiBoard™	Aerosmith Fastening Systems, VersaPin	Face	16	7.25	20 GA Steel	-117.5	15	170	170	170	210	210	210
							20	170	170	170	210	210	210
							25	170	170	170	210	210	210
							30	170	170	170	210	210	210
							40	170	170	167	210	210	210
							50	170	170	164	210	210	210
							60	170	170	162	210	210	209
			24	7.25	20 GA Steel	-78.3	15	170	164	149	210	210	192
							20	170	159	145	210	205	188
							25	170	156	143	210	201	184
							30	170	152	140	210	197	181
							40	170	148	137	210	191	176
							50	168	145	134	210	187	173
							60	164	142	132	210	183	170
8.25" NichiBoard™	6d Double HD MAZE Coil Nail	Face	16	8.25	SPF	-37.5	15	125	113	103	161	146	133
							20	125	110	100	161	142	130
							25	125	108	99	161	139	127
							30	125	105	97	161	136	125
							40	120	102	95	155	132	122
							50	116	100	93	150	129	120
							60	113	98	91	146	127	118
					DF	-58.0	15	155	141	128	200	182	165
							20	155	137	125	200	177	161
							25	155	134	123	200	173	158
							30	155	131	121	200	169	156
							40	149	127	118	192	164	152
							50	144	124	115	186	161	149
							60	141	122	113	182	158	146
			24	8.25	SPF	-25.0	15	102	92	--	132	119	108
							20	102	90	--	132	116	106
							25	102	88	--	132	114	--
							30	102	86	--	132	111	--
							40	98	--	--	126	108	--
							50	95	--	--	122	105	--
							60	92	--	--	119	--	--
					DF	-38.6	15	127	115	104	164	148	135
							20	127	112	102	164	144	132
							25	127	109	100	164	141	129
							30	127	107	98	164	138	127
							40	122	104	96	157	134	124
							50	118	102	94	152	131	121
							60	115	100	93	148	129	120

Table 3 - Continued (NichiBoard™ Plank)[1,4,7]

Siding Type	Siding Fastener[5]	Face/Blind	Effective Fastener Spacing		Framing Type	Allowable Des	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
			Frame/Horizontal (in)	Field (in)				Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
8.25" NichiBoard™	Double HD MAZE Asphalt & Fiberglass Shingle Nail	Blind	12	8.25	7/16" OSB	-29.5	15	111	100	91	143	130	118
							20	111	98	89	143	126	115
							25	111	96	87	143	123	113
							30	111	94	86	143	121	111
							40	106	91	--	137	117	108
							50	103	89	--	133	114	106
							60	100	87	--	130	112	--
			16	8.25	SPF	-23.7	15	99	90	--	128	116	106
							20	99	87	--	128	113	--
							25	99	86	--	128	110	--
							30	99	--	--	128	108	--
							40	95	--	--	123	105	--
							50	92	--	--	119	--	--
							60	90	--	--	116	--	--
	*Double HD MAZE Asphalt & Fiberglass Shingle Nail	Blind	16	8.25	SYP	-43.0	15	134	121	110	173	157	142
							20	134	118	108	173	152	139
							25	134	115	106	173	149	136
							30	134	113	104	173	146	134
							40	128	110	101	166	142	131
							50	124	107	99	160	138	128
							60	121	105	98	157	136	126

*Fasteners shall be located a minimum distance of 3/4" from the vertical siding edges at corners and splices.

Table 3 - Continued (NichiBoard™ Plank)[1,4,7]

Siding Type	Siding Fastener[5]	Face/Blind	Effective Fastener Spacing		Framing Type	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
			Frame/Horizontal (in)	Field (in)				Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
8.25" NichiBoard™	Aerosmith Fastening Systems, VersaPin	Face	16	8.25	20 GA Steel	-103.3	15	170	170	170	210	210	210
							20	170	170	167	210	210	210
							25	170	170	164	210	210	210
							30	170	170	161	210	210	208
							40	170	170	157	210	210	203
							50	170	166	154	210	210	199
							60	170	163	151	210	210	195
			24	8.25	20 GA Steel	-68.8	15	169	153	139	210	198	180
							20	169	149	136	210	193	176
							25	169	146	134	210	188	173
							30	169	143	131	210	185	170
							40	162	139	128	210	179	165
							50	157	136	126	203	175	162
							60	153	133	124	198	172	160
9.25" NichiBoard™	6d Double HD MAZE Coil Nail	Face	16	9.25	SPF	-33.4	15	118	107	97	152	138	125
							20	118	104	95	152	134	122
							25	118	102	93	152	131	120
							30	118	100	92	152	129	118
							40	113	97	89	146	125	115
							50	110	94	88	141	122	113
							60	107	93	86	138	120	111
					DF	-51.7	15	147	133	121	189	172	156
							20	147	129	118	189	167	152
							25	147	126	116	189	163	150
							30	147	124	114	189	160	147
							40	141	120	111	182	155	143
							50	136	117	109	176	152	140
							60	133	115	107	172	149	138
			24	9.25	SPF	-22.3	15	96	87	--	124	113	--
							20	96	--	--	124	110	--
							25	96	--	--	124	107	--
							30	96	--	--	124	--	--
							40	92	--	--	119	--	--
							50	89	--	--	115	--	--
							60	87	--	--	113	--	--
					DF	-34.5	15	120	109	99	154	140	127
							20	120	106	96	154	136	124
							25	120	103	95	154	133	122
							30	120	101	93	154	131	120
							40	115	98	91	148	127	117
							50	111	96	89	144	124	115
							60	109	94	87	140	122	113
9.25" NichiBoard™	Double HD MAZE Asphalt & Fiberglass Shingle Nail	Blind	12	9.25	7/16" OSB	-23.5	15	99	90	--	127	116	105
							20	99	87	--	127	112	--
							25	99	85	--	127	110	--
							30	99	--	--	127	108	--
							40	95	--	--	122	--	--
							50	92	--	--	118	--	--
							60	90	--	--	116	--	--

Table 3 - Continued (NichiBoard™ Plank)[1,4,7]

Siding Type	Siding Fastener[5]	Face/Blind	Effective Fastener Spacing		Framing Type	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
			Frame/Horizontal (in)	Field (in)				Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
9.25" NichiBoard™	Aerosmith Fastening Systems, VersaPin	Face	16	9.25	20 GA Steel	-92.1	15	170	170	161	210	210	208
							20	170	170	157	210	210	203
							25	170	169	155	210	210	200
							30	170	165	152	210	210	196
							40	170	160	148	210	207	191
							50	170	157	145	210	202	188
							60	170	154	143	210	199	185
			24	9.25	20 GA Steel	-61.4	15	160	145	132	206	187	170
							20	160	141	129	206	182	166
							25	160	138	126	206	178	163
							30	160	135	124	206	174	160
							40	153	131	121	198	169	156
							50	148	128	119	192	165	153
							60	145	126	117	187	162	151

Table 3 - Continued (NichiBoard™ Plank)[1,4,7]

Siding Type	Siding Fastener[5]	Face/Blind	Effective Fastener Spacing		Framing Type	Allowable Design Pressure (psf)[8]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
			Frame/Horizontal (in)	Field (in)				Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
12" NichiBoard™	6d Double HD MAZE Coil Nail	Face	16	12	SPF	-25.8	15	103	94	85	134	121	110
							20	103	91	--	134	118	108
							25	103	89	--	134	115	106
							30	103	87	--	134	113	--
							40	99	--	--	128	110	--
							50	96	--	--	124	107	--
							60	94	--	--	121	105	--
					DF	-39.8	15	129	117	106	166	151	137
							20	129	113	104	166	147	134
							25	129	111	102	166	143	131
							30	129	109	100	166	140	129
							40	123	106	97	159	136	126
							50	120	103	96	154	133	123
							60	117	101	94	151	131	121
			24	12	SPF	-17.2	15	--	--	--	109	--	--
							20	--	--	--	109	--	--
							25	--	--	--	109	--	--
							30	--	--	--	109	--	--
							40	--	--	--	--	--	--
							50	--	--	--	--	--	--
							60	--	--	--	--	--	--
					DF	-26.6	15	105	95	87	136	123	112
							20	105	93	--	136	120	109
							25	105	91	--	136	117	107
							30	105	89	--	136	115	105
							40	101	86	--	130	111	--
							50	98	--	--	126	109	--
							60	95	--	--	123	107	--
12" NichiBoard™	Aerosmith Fastening Systems, VersaPin	Face	16	12	20 GA Steel	-71.0	15	170	156	142	210	201	183
							20	170	151	138	210	196	179
							25	170	148	136	210	191	175
							30	170	145	133	210	187	172
							40	165	141	130	210	182	168
							50	160	138	128	206	178	165
							60	156	135	126	201	175	162
			24	12	20 GA Steel	-47.3	15	140	127	116	181	164	149
							20	140	124	113	181	160	146
							25	140	121	111	181	156	143
							30	140	119	109	181	153	141
							40	135	115	106	174	149	137
							50	130	112	104	168	145	134
							60	127	110	103	164	142	132

Notes:

1. **NichiBoard™** fiber cement lap siding may only be installed on vertical walls. Fasteners must be installed in a way that does not damage the board during installation. Where necessary, pre-drilled holes may be used in combination with hand-nailed fasteners to avoid damage to the fiber cement product.
2. ASCE 7-05 Basic Wind Speeds are based upon occupancy category II, a wind directionality factor (Kd) equal to 0.85, an internal pressure coefficient (GCpi) equal to +/-0.18, and an external pressure coefficient (GCp) equal to -1.4. The effects of topographic features have not been considered and the wind speed has been limited to 170mph.
3. ASCE 7-10 Ultimate Wind Speeds are based upon a wind directionality factor (Kd) equal to 0.85, an internal pressure coefficient (GCpi) equal to +/-0.18, and an external pressure coefficient (GCp) equal to -1.4. The effects of topographic features have not been considered and the wind speed has been limited to 210mph.
4. The values in this table are based on testing per ASTM E330 and represent the allowable capacity of the siding to resist the wind pressures associated with the corresponding wind speed.
5. Fastener specifications for those used in testing are outlined in Table 8 of this Intertek CCRR. These specifications may be used by the designer of record to determine the acceptability of alternative fasteners.
6. Allowable design pressures in highlighted cells have been adjusted based on the listed allowable withdrawal capacity of the tested fastener.
7. Framing and bracing are beyond the scope of this evaluation report.
8. Allowable design pressures for assemblies described in this table are applicable to the NichiBoard Plank attached to ASTM C90 fully-grouted CMU block wall using ITW Ramset TE Series power actuated fasteners (ICC-ES ESR-1799). Minimum fastener embedment is 1 inch; fasteners must be placed a minimum of 5.1 inches from the edge of the wall.

Table 4 - Design Loads for Negative Transverse Wind Load (NichiPanel™ Sheet)[1,4,7]

Panel Fastener[5]	Fastener Spacing		Framing Type	Framing Spacing	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
	Perimeter (in)	Field (in)					Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
6d Double HD MAZE Coil Nail	6	12	SPF Lumber	16"o.c.	-28.7	15	109	99	90	141	128	116
						20	109	96	88	141	124	113
						25	109	94	86	141	122	111
						30	109	92	--	141	119	109
						40	105	90	--	135	116	107
						50	101	87	--	131	113	--
						60	99	86	--	128	111	--
6d Double HD MAZE Coil Nail	8	8	SPF Lumber	16"o.c.	-43.0	15	134	121	110	173	157	142
						20	134	118	108	173	152	139
						25	134	115	106	173	149	136
						30	134	113	104	173	146	134
						40	128	110	101	166	142	131
						50	124	107	99	160	138	128
						60	121	105	98	157	136	126
				24"o.c.	-30.4	15	112	102	93	145	132	120
						20	112	99	91	145	128	117
						25	112	97	89	145	125	115
						30	112	95	87	145	123	113
						40	108	92	85	139	119	110
						50	105	90	--	135	116	108
						60	102	88	--	132	114	106
6d Double HD MAZE Coil Nail	6	6	SPF Lumber	16"o.c.	-57.3	15	154	140	127	199	181	164
						20	154	136	124	199	176	160
						25	154	133	122	199	172	157
						30	154	130	120	199	168	155
						40	148	127	117	191	163	151
						50	143	124	115	185	160	148
						60	140	121	113	181	157	146
				24"o.c.	-40.6	15	130	118	107	168	152	138
						20	130	115	105	168	148	135
						25	130	112	103	168	145	133
						30	130	110	101	168	142	130
						40	125	107	98	161	138	127
						50	121	104	96	156	134	125
						60	118	102	95	152	132	123
6d Double HD MAZE Coil Nail	4	4	SPF Lumber	16"o.c.	-85.9	15	170	170	156	210	210	201
						20	170	167	152	210	210	196
						25	170	163	149	210	210	193
						30	170	160	147	210	206	189
						40	170	155	143	210	200	185
						50	170	151	140	210	195	181
						60	170	149	138	210	192	178
				24"o.c.	-60.9	15	159	144	131	205	186	169
						20	159	140	128	205	181	165
						25	159	137	126	205	177	162
						30	159	134	124	205	174	159
						40	153	130	120	197	168	156
						50	148	127	118	191	165	152
						60	144	125	116	186	162	150

Table 4 - Continued (NichiPanel™ Sheet)[1,4,7]

Panel Fastener[5]	Fastener Spacing		Framing Type	Framing Spacing	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
	Perimeter (in)	Field (in)					Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
8d Masonite Siding Nails	6	12	SPF Lumber	16"o.c.	-39.9	15	129	117	106	166	151	137
						20	129	114	104	166	147	134
						25	129	111	102	166	143	131
						30	129	109	100	166	141	129
						40	124	106	98	160	136	126
						50	120	103	96	155	133	123
						60	117	101	94	151	131	122
				24"o.c.	-26.6	15	105	95	87	136	123	112
						20	105	93	--	136	120	109
						25	105	91	--	136	117	107
						30	105	89	--	136	115	105
						40	101	86	--	130	111	--
						50	98	--	--	126	109	--
						60	95	--	--	123	107	--
8d Masonite Siding Nails	8	8	SPF Lumber	16"o.c.	-59.9	15	158	143	130	204	185	168
						20	158	139	127	204	180	164
						25	158	136	125	204	176	161
						30	158	133	123	204	172	158
						40	151	129	119	195	167	154
						50	147	126	117	189	163	151
						60	143	124	115	185	160	149
				24"o.c.	-39.9	15	129	117	106	166	151	137
						20	129	114	104	166	147	134
						25	129	111	102	166	143	131
						30	129	109	100	166	141	129
						40	124	106	98	160	136	126
						50	120	103	96	155	133	123
						60	117	101	94	151	131	122
8d Masonite Siding Nails	6	6	SPF Lumber	16"o.c.	-79.9	15	170	165	150	210	210	194
						20	170	161	147	210	207	189
						25	170	157	144	210	203	186
						30	170	154	142	210	199	183
						40	170	149	138	210	193	178
						50	169	146	135	210	188	175
						60	165	143	133	210	185	172
				24"o.c.	-53.3	15	149	135	123	192	174	158
						20	149	131	120	192	169	155
						25	149	128	118	192	166	152
						30	149	126	116	192	162	149
						40	143	122	113	184	158	145
						50	138	119	110	179	154	143
						60	135	117	109	174	151	140

Table 4 - Continued (NichiPanel™ Sheet)[1,4,7]

Panel Fastener[5]	Fastener Spacing		Framing Type	Framing Spacing	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
	Perimeter (in)	Field (in)					Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
8d Masonite Siding Nails	4	4	SPF Lumber	16"o.c.	-119.8	15	170	170	170	210	210	210
						20	170	170	170	210	210	210
						25	170	170	170	210	210	210
						30	170	170	170	210	210	210
						40	170	170	169	210	210	210
						50	170	170	166	210	210	210
						60	170	170	163	210	210	210
				24"o.c.	-79.9	15	170	165	150	210	210	194
						20	170	161	147	210	207	189
						25	170	157	144	210	203	186
						30	170	154	142	210	199	183
						40	170	149	138	210	193	178
						50	169	146	135	210	188	175
						60	165	143	133	210	185	172

Table 4 - Continued (NichiPanel™ Sheet)[1,4,7]

Panel Fastener[5]	Fastener Spacing		Framing Type	Framing Spacing	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
	Perimeter (in)	Field (in)					Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
Grabber #8 Flat Wafer Head Screws	6	12	SPF Lumber	16"o.c.	-55.9	15	152	138	126	197	179	162
						20	152	134	123	197	173	158
						25	152	131	120	197	170	156
						30	152	129	118	197	166	153
						40	146	125	115	189	161	149
						50	142	122	113	183	158	146
						60	138	120	111	179	155	144
				24"o.c.	-37.3	15	124	113	103	161	146	132
						20	124	110	100	161	142	129
						25	124	107	98	161	139	127
						30	124	105	97	161	136	125
						40	119	102	94	154	132	122
						50	116	100	92	149	129	119
						60	113	98	91	146	126	117
			20 GA Steel	16"o.c.	-48.5	15	142	129	117	183	166	151
						20	142	125	114	183	162	148
						25	142	123	112	183	158	145
						30	142	120	110	183	155	142
						40	136	116	108	176	150	139
						50	132	114	105	170	147	136
						60	129	112	104	166	144	134
				24"o.c.	-32.4	15	116	105	96	150	136	123
						20	116	102	93	150	132	121
						25	116	100	92	150	129	118
						30	116	98	90	150	127	116
						40	111	95	88	144	123	113
						50	108	93	86	139	120	111
						60	105	91	--	136	118	109
Grabber #8 Flat Wafer Head Screws	8	8	SPF Lumber	16"o.c.	-83.8	15	170	169	154	210	210	199
						20	170	165	150	210	210	194
						25	170	161	147	210	208	190
						30	170	158	145	210	204	187
						40	170	153	141	210	198	182
						50	170	149	138	210	193	179
						60	169	147	136	210	190	176
				24"o.c.	-55.9	15	152	138	126	197	179	162
						20	152	134	123	197	173	158
						25	152	131	120	197	170	156
						30	152	129	118	197	166	153
						40	146	125	115	189	161	149
						50	142	122	113	183	158	146
						60	138	120	111	179	155	144
			20 GA Steel	16"o.c.	-72.8	15	170	158	143	210	204	185
						20	170	153	140	210	198	181
						25	170	150	137	210	194	177
						30	170	147	135	210	190	174
						40	167	143	132	210	184	170
						50	162	139	129	209	180	167
						60	158	137	127	204	177	164
				24"o.c.	-48.5	15	142	129	117	183	166	151
						20	142	125	114	183	162	148
						25	142	123	112	183	158	145
						30	142	120	110	183	155	142
						40	136	116	108	176	150	139
						50	132	114	105	170	147	136
						60	129	112	104	166	144	134

Table 4 - Continued (NichiPanel™ Sheet)[1,4,7]

Panel Fastener[5]	Fastener Spacing		Framing Type	Framing Spacing	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
	Perimeter (in)	Field (in)					Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
Grabber #8 Flat Wafer Head Screws	6	6	SPF Lumber	16"o.c.	-111.8	15	170	170	170	210	210	210
						20	170	170	170	210	210	210
						25	170	170	170	210	210	210
						30	170	170	167	210	210	210
						40	170	170	163	210	210	210
						50	170	170	160	210	210	207
						60	170	170	158	210	210	203
				24"o.c.	-74.5	15	170	160	145	210	206	187
						20	170	155	142	210	200	183
						25	170	152	139	210	196	180
						30	170	149	137	210	192	176
						40	169	144	133	210	186	172
						50	164	141	131	210	182	169
						60	160	138	129	206	179	166
			20 GA Steel	16"o.c.	-97.0	15	170	170	166	210	210	210
						20	170	170	162	210	210	209
						25	170	170	159	210	210	205
						30	170	170	156	210	210	201
						40	170	165	152	210	210	196
						50	170	161	149	210	208	192
						60	170	158	147	210	204	189
				24"o.c.	-64.6	15	164	149	135	210	192	174
						20	164	145	132	210	187	170
						25	164	141	130	210	183	167
						30	164	138	127	210	179	164
						40	157	134	124	203	174	160
						50	152	131	122	197	170	157
						60	149	129	12	192	167	155
Grabber #8 Flat Wafer Head Screws	4	4	SPF Lumber	16"o.c.	-136.0	15	170	170	170	210	210	210
						20	170	170	170	210	210	210
						25	170	170	170	210	210	210
						30	170	170	170	210	210	210
						40	170	170	170	210	210	210
						50	170	170	170	210	210	210
						60	170	170	170	210	210	210
				24"o.c.	-90.6	15	170	170	160	210	210	207
						20	170	170	156	210	210	202
						25	170	167	153	210	210	198
						30	170	164	151	210	210	195
						40	170	159	147	210	206	190
						50	170	156	144	210	201	186
						60	170	153	142	210	197	183
			20 GA Steel	16"o.c.	-136.0	15	170	170	170	210	210	210
						20	170	170	170	210	210	210
						25	170	170	170	210	210	210
						30	170	170	170	210	210	210
						40	170	170	170	210	210	210
						50	170	170	170	210	210	210
						60	170	170	170	210	210	210
				24"o.c.	-90.6	15	170	170	160	210	210	207
						20	170	170	156	210	210	202
						25	170	167	153	210	210	198
						30	170	164	151	210	210	195
						40	170	159	147	210	206	190
						50	170	156	144	210	201	186
						60	170	153	142	210	197	183

Table 4 - Continued (NichiPanel™ Sheet)[1,4,7]

Panel Fastener[5]	Fastener Spacing		Framing Type	Framing Spacing	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
	Perimeter (in)	Field (in)					Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
Aerosmith Fastening Systems, VersaPin	6	12	20 GA Steel	16"o.c.	-29.3	15	110	100	91	142	129	117
						20	110	97	89	142	126	115
						25	110	95	87	142	123	113
						30	110	93	86	142	120	111
						40	106	90	--	137	117	108
						50	102	88	--	132	114	106
						60	100	87	--	129	112	--
Aerosmith Fastening Systems, VersaPin	8	8	20 GA Steel	16"o.c.	-43.9	15	135	123	111	174	158	144
						20	135	119	109	174	154	140
						25	135	117	107	174	150	138
						30	135	114	105	174	147	135
						40	130	111	102	167	143	132
						50	126	108	100	162	140	129
						60	123	106	99	158	137	127
Aerosmith Fastening Systems, VersaPin	6	6	20 GA Steel	16"o.c.	-58.5	15	156	141	129	201	183	166
						20	156	137	126	201	178	162
						25	156	135	123	201	174	159
						30	156	132	121	201	170	156
						40	150	128	118	193	165	152
						50	145	125	116	187	161	149
						60	141	123	114	183	158	147
Aerosmith Fastening Systems, VersaPin	4	4	20 GA Steel	16"o.c.	-87.9	15	170	170	158	210	210	203
						20	170	169	154	210	210	199
						25	170	165	151	210	210	195
						30	170	161	148	210	208	192
						40	170	157	145	210	202	187
						50	170	153	142	210	198	183
						60	170	150	140	210	194	180
				24"o.c.	-35.6	15	122	110	100	157	143	129
						20	122	107	98	157	139	126
						25	122	105	96	157	136	124
						30	122	103	95	157	133	122
						40	117	100	92	151	129	119
						50	113	98	90	146	126	117
						60	110	96	89	143	124	115

Notes:

1. **NichiPanel™** fiber cement flat sheet siding may only be installed on vertical walls. Fasteners must be installed in a way that does not damage the board during installation. Where necessary, pre-drilled holes may be used in combination with hand-nailed fasteners to avoid damage to the fiber cement product.
2. ASCE 7-05 Basic Wind Speeds are based upon occupancy category II, a wind directionality factor (Kd) equal to 0.85, an internal pressure coefficient (Gcpi) equal to +/-0.18, and an external pressure coefficient (GCp) equal to -1.4. The effects of topographic features have not been considered and the wind speed has been limited to 170mph.
3. ASCE 7-10 Ultimate Wind Speeds are based upon a wind directionality factor (Kd) equal to 0.85, an internal pressure coefficient (Gcpi) equal to +/-0.18, and an external pressure coefficient (GCp) equal to -1.4. The effects of topographic features have not been considered and the wind speed has been limited to 210mph.
4. The values in this table are based on testing per ASTM E330 and represent the allowable capacity of the siding to resist the wind pressures associated with the corresponding wind speed.
5. Fastener specifications for those used in testing are outlined in Table 8 of this Intertek CCRR. These specifications may be used by the designer of record to determine the acceptability of alternative fasteners.
6. Allowable design pressures in highlighted cells have been adjusted based on the listed allowable withdrawal capacity of the tested fastener.
7. Framing and bracing are beyond the scope of this evaluation report.
8. Allowable design pressures for assemblies described in this table are applicable to the NichiPanel attached to ASTM C90 fully-grouted CMU block wall using ITW Ramset TE Series power actuated fasteners (ICC-ES ESR-1799). Minimum fastener embedment is 1 inch; fasteners must be placed a minimum of 5.1 inches from the edge of the wall.

Table 5 - Design Loads for Negative Transverse Wind Load (NichiStraight™/NichiStaggered™ Lap Panel)[1,4,7]

Siding Type	Siding Fastener[5]	Face/Blind	Effective Fastener Spacing		Framing Type	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
			Frame/Horizontal (in)	Field (in)				Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
NichiStraight™/ NichiStaggered™	6d Double HD MAZE Coil Nail	Blind	12	8.625	7/16" OSB	-23.5	15	99	90	--	128	116	105
							20	99	87	--	128	113	--
							25	99	85	--	128	110	--
							30	99	--	--	128	108	--
							40	95	--	--	122	--	--
							50	92	--	--	119	--	--
							60	90	--	--	116	--	--
			16	8.625	SPF	-35.9	15	122	111	101	158	143	130
							20	122	108	98	158	139	127
							25	122	105	96	158	136	125
							30	122	103	95	158	133	122
							40	117	100	92	151	129	119
							50	113	98	91	146	126	117
							60	111	96	89	143	124	115
			24	8.625	SPF	-23.9	15	100	90	--	129	117	106
							20	100	88	--	129	113	--
							25	100	86	--	129	111	--
							30	100	--	--	129	109	--
							40	96	--	--	123	106	--
							50	93	--	--	120	--	--
							60	90	--	--	117	--	--
NichiStraight™/ NichiStaggered™	6d Ring Shank Double HD MAZE Coil Nail	Blind	12	8.625	7/16" OSB	-24.9	15	102	92	--	131	119	108
							20	102	90	--	131	116	106
							25	102	88	--	131	113	--
							30	102	86	--	131	111	--
							40	98	--	--	126	108	--
							50	95	--	--	122	105	--
							60	92	--	--	119	--	--
NichiStraight™/ NichiStaggered™	#8-18 Wafer Head ROCK-ON™ Screws	Blind	24	8.625	20 GA Steel	-49.6	15	144	130	118	185	168	153
							20	144	127	116	185	163	149
							25	144	124	114	185	160	147
							30	144	121	112	185	157	144
							40	138	118	109	178	152	140
							50	133	115	107	172	149	138
							60	130	113	105	168	146	136

Notes:

1. **NichiStraight™/NichiStaggered™ Lap Panel** fiber cement siding may only be installed on vertical walls. Fasteners must be installed in a way that does not damage the board during installation. Where necessary, pre-drilled holes may be used in combination with hand-nailed fasteners to avoid damage to the fiber cement product.
2. ASCE 7-05 Basic Wind Speeds are based upon occupancy category II, a wind directionality factor (Kd) equal to 0.85, an internal pressure coefficient (Gcpi) equal to +/-0.18, and an external pressure coefficient (GCp) equal to -1.4. The effects of topographic features have not been considered and the wind speed has been limited to 170mph.
3. ASCE 7-10 Ultimate Wind Speeds are based upon a wind directionality factor (Kd) equal to 0.85, an internal pressure coefficient (Gcpi) equal to +/-0.18, and an external pressure coefficient (GCp) equal to -1.4. The effects of topographic features have not been considered and the wind speed has been limited to 210mph.
4. The values in this table are based on testing per ASTM E330 and represent the allowable capacity of the siding to resist the wind pressures associated with the corresponding wind speed.
5. Fastener specifications for those used in testing are outlined in Table 8 of this Intertek CCRR. These specifications may be used by the designer of record to determine the acceptability of alternative fasteners.
6. Allowable design pressures in highlighted cells have been adjusted based on the listed allowable withdrawal capacity of the tested fastener.
7. Framing and bracing are beyond the scope of this evaluation report.
8. Allowable design pressures for assemblies described in this table are applicable to the NichiStraight/NichiStaggered lap panels attached to ASTM C90 fully-grouted CMU block wall using ITW Ramset TE Series power actuated fasteners (ICC-ES ESR-1799). Minimum fastener embedment is 1 inch; fasteners must be placed a minimum of 5.1 inches from the edge of the wall.

Table 6 - Design Loads for Negative Transverse Wind Load (NichiShake™ Shingles)[1,4,7]

Siding Fastener[5]	Fasteners per Shake			Sheathing Type	Allowable Design Pressure (psf)[6]	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
	6-1/4" Width	8-1/4" Width	12" Width				Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
6d Double HD MAZE Coil Nail	2	2	3	7/16" OSB	-30.6	15	113	102	93	146	132	120
						20	113	99	91	146	128	117
						25	113	97	89	146	126	115
						30	113	95	88	146	123	113
						40	108	93	85	140	119	110
						50	105	90	--	135	117	108
						60	102	89	--	132	115	106

Notes:

1. **NichiShake™** fiber-cement shingle siding may only be installed on vertical walls. Fasteners must be installed in a way that does not damage the board during installation. Where necessary, pre-drilled holes may be used in combination with hand-nailed fasteners to avoid damage to the fiber cement product.
2. ASCE 7-05 Basic Wind Speeds are based upon occupancy category II, a wind directionality factor (Kd) equal to 0.85, an internal pressure coefficient (GCpi) equal to +/- 0.18, and an external pressure coefficient (GCp) equal to -1.4. The effects of topographic features have not been considered and the wind speed has been limited to 170mph.
3. ASCE 7-10 Ultimate Wind Speeds are based upon a wind directionality factor (Kd) equal to 0.85, an internal pressure coefficient (GCpi) equal to +/-0.18, and an external pressure coefficient (GCp) equal to -1.4. The effects of topographic features have not been considered and the wind speed has been limited to 210mph.
4. The values in this table are based on testing per ASTM E330 and represent the allowable capacity of the siding to resist the wind pressures associated with the corresponding wind speed.
5. Fastener specifications for those used in testing are outlined in Table 8 of this Intertek CCRR. These specifications may be used by the designer of record to determine the acceptability of alternative fasteners.
6. Allowable design pressures in highlighted cells have been adjusted based on the listed allowable withdrawal capacity of the tested fastener.
7. Framing and bracing are beyond the scope of this evaluation report.

Table 7 – Design Loads for Negative Transverse Wind Load (NichiSoffit™)

	Fastener Spacing (in.)	Framing Type	Framing Spacing (in.)	Allowable Design Pressure (psf)	Building Height (ft)	ASCE 7-05 Basic Wind Speed (MPH)[2]			ASCE 7-10 Ultimate Wind Speed (MPH)[3]		
						Exp B	Exp C	Exp D	Exp B	Exp C	Exp D
1-3/4-in.-long Maze double hot dipped galvanized ring-shank nails (0.125-in. shank dia., 0.365-in. head dia.)	8	Wood, 2 x 4, min. specific gravity 0.42	12 Max. 16-inch-wide panels	-84.4	15	170	169	154	210	210	199
					20	170	165	150	210	210	194
					25	170	161	147	210	208	190
					30	170	158	145	210	204	187
					40	170	153	141	210	198	182
					50	170	149	138	210	193	179
					60	169	147	136	210	190	176
1-3/4-in.-long Maze double hot dipped galvanized ring-shank nails (0.125-in. shank dia., 0.0365-in. head dia.)	6	Wood, 2 x 4, min. specific gravity 0.42	16 Max. 16-inch-wide panels	-71.1	15	170	156	142	210	201	183
					20	170	151	138	210	196	179
					25	170	148	136	210	191	175
					30	170	145	133	210	187	172
					40	165	141	130	210	182	168
					50	160	138	128	206	178	165
					60	156	135	126	201	175	162
1-1/2-in.-long 4d hot dipped galvanized ring-shank nails (0.120-in. shank dia., 0.219-in. head dia.)	8	Wood, min. specific gravity 0.42	24 Max. 16-inch-wide panels	-37.6	15	124	113	103	161	146	132
					20	124	110	100	161	142	129
					25	124	107	98	161	139	127
					30	124	105	97	161	136	125
					40	119	102	94	154	132	122
					50	116	100	92	149	129	119
					60	113	98	91	146	126	117
6d lap siding nails (0.12-in shank dia., 2-in. long, 17/64-in. head dia.)	8	Wood, 2x4, min. specific gravity 0.42	24 Max. 48-inch-wide panels	-18.3	15	--	--	--	109	--	--
					20	--	--	--	109	--	--
					25	--	--	--	109	--	--
					30	--	--	--	109	--	--
					40	--	--	--	--	--	--
					50	--	--	--	--	--	--
					60	--	--	--	--	--	--
#8 x 1-1/4-in. self-piercing lath screws	8	No. 20 gage steel	24 Max. 48-inch-wide panels	-21.6	15	96	87	--	124	113	--
					20	96	--	--	124	110	--
					25	96	--	--	124	107	--
					30	96	--	--	124	--	--
					40	92	--	--	119	--	--
					50	89	--	--	115	--	--
					60	87	--	--	113	--	--

Table 7 - Continued

Notes:

1. **NichiSoffit™ sheets** may only be installed on soffits. Fasteners must be installed in a way that does not damage the board during installation. Where necessary, pre-drilled holes may be used in combination with hand-nailed fasteners to avoid damage to the fiber cement product.
2. ASCE 7-05 Basic Wind Speeds are based upon occupancy category II, a wind directionality factor (Kd) equal to 0.85, an internal pressure coefficient (GCpi) equal to +/- 0.18, and an external pressure coefficient (GCp) equal to -1.4. The effects of topographic features have not been considered and the wind speed has been limited to 170mph.
3. ASCE 7-10 Ultimate Wind Speeds are based upon a wind directionality factor (Kd) equal to 0.85, an internal pressure coefficient (GCpi) equal to +/-0.18, and an external pressure coefficient (GCp) equal to -1.4. The effects of topographic features have not been considered and the wind speed has been limited to 210 mph.
4. The values in this table are based on testing per ASTM E330 and represent the allowable capacity of the siding to resist the wind pressures associated with the corresponding wind speed.
5. Fastener specifications for those used in testing are outlined in Table 8 of this Intertek CCRR. These specifications may be used by the designer of record to determine the acceptability of alternative fasteners.
6. Allowable design pressures in highlighted cells have been adjusted based on the listed allowable withdrawal capacity of the tested fastener.
7. Framing and bracing are beyond the scope of this evaluation report.

Table 8 -Specifications of Tested Fasteners

Siding Fastener	Length (in)	Head Diameter (in)	Shank Diameter (in)	Material[1,2,3]	Siding Type[5]	Minimum Fastener Penetration into Material (in)	Fastener Withdrawal Value (lbs)
6d Double HD MAZE Coil Nail	2	0.237	0.099	SPF	NichiPanel™	1 11/16	42.2
					NichiBoard™ (Face)	1 3/8	34.4
					NichiBoard™ (Blind)	1 11/16	42.2
					NichiStraight™/ NichiStaggered™	1 3/8	34.4
				DF	NichiBoard™ (Face)	1 3/8	53.1
					NichiBoard™ (Blind)	1 11/16	65.2
				7/16" OSB	NichiStraight™/ NichiStaggered™	7/16	16.9
				7/16" OSB	NichiShake™	7/16	16.9
	2.5	0.236	0.097	SPF	NichiBoard™ (Face)	1 7/8	45.9
					NichiBoard™ (Blind)	2 3/16	53.6
6d Ring Shank Double HD MAZE Coil Nail	2	0.233	0.105	SPF	NichiFrontier™ (Face)	1 1/8	29.8
					NichiFrontier™ (Blind)	1 9/16	41.4
				7/16" OSB	NichiStraight™/ NichiStaggered™	7/16	17.9
				SYP	NichiFrontier™ (Face)	1 1/8	46.1
					NichiFrontier™ (Blind)	1 9/16	64.0
8d Masonite Siding Nails	2.5	0.313	0.118	SPF	NichiPanel™	2 3/16	65.2
Double HD MAZE Asphalt & Fiberglass Shingle Nail	1.75	0.365	0.125	SPF	NichiBoard™ (Face)	1 1/8	35.5
					NichiBoard™ (Blind)	1 7/16	45.4
				SYP	NichiBoard™ (Blind)	1 7/16	70.1
				7/16" OSB	NichiBoard™ (Face)	7/16	21.3
					NichiBoard™ (Blind)	7/16	21.3
Double HD Grip Rite Roofing Nail	2.5	0.383	0.125	SPF w/ 7/16" OSB	NichiFrontier™ (Face)	1 5/8	51.3
					NichiFrontier™ (Blind)	2 1/16	65.1
	1.75	0.362	0.125	7/16" OSB	NichiFrontier™ (Face)	7/16	21.3
					NichiFrontier™ (Blind)	7/16	21.3
Grabber #8 Flat Wafer Head Screws[6]	1.625	0.406	0.166	SPF	NichiPanel™	1 5/16	85.0
				20 GA Steel	NichiPanel™	--	88.3
Aerosmith Fastening Systems, VersaPin[7]	1.5	0.301	0.106	20 GA Steel	NichiPanel™	--	94.7
					NichiBoard™ (Face)	--	94.7
					NichiBoard™ (Blind)	--	94.7
	1.375	0.251	0.107	20 GA Steel	NichiPanel™	--	94.7
#8-18 Wafer Head ROCK-ON™ Screws[8]	1.625	0.395	0.162	20 GA Steel	NichiFrontier™ (Face)	--	95.0
					NichiFrontier™ (Blind)	--	95.0
					NichiStraight™/ NichiStaggered™	--	95.0
Aerosmith Fastening Systems, SurePin[9]	1.25	0.300	0.145	Concrete Block	NichiBoard™ (Face)	3/4	233.1
	2	0.300	0.145	Concrete Block	NichiBoard™ (Blind)	1 1/8	233.8
					NichiStraight™/ NichiStaggered™	1 1/8	233.8

Notes:

1. SPF (Spruce-Pine-Fir) framing material is assumed to have a Specific Gravity of 0.42 or greater.
2. DF (Douglas Fir) framing material is assumed to have a Specific Gravity of 0.5 or greater.
3. OSB sheathing material is assumed to have a Specific Gravity of 0.5 or greater. Where fasteners are installed through OSB sheathing into SPF studs, a Specific Gravity of 0.42 shall be assumed for the entire fastener penetration depth.
4. SYP (Southern Yellow Pine) framing material is assumed to have a Specific Gravity of 0.5 or greater.
5. Alternative fasteners must meet the minimum head and shank diameters listed in Table 8. The required length and withdrawal capacity shall be determined by the design professional of record in accordance with the requirements of Table 3, 4, 5, 6, and 7 of this Intertek CCRR.
6. Fastener pull-out capacity based on manufacturer (Grabber Construction Products, Inc.) technical data sheet and a safety factor of 3.
7. Fastener pull-out capacity based on PEI Product Report PER-06014 and a safety factor of 3.
8. Fastener pull-out capacity based on ITW Buildex and Illinois Tool Works, Inc. Product Report No. 02722 and a safety factor of 3.
9. Fastener pull-out capacity based on PEI Product Report PER-07021 and a safety factor of 5.

RICK SINGH, CFA - ORANGE COUNTY PROPERTY APPRAISER

Searches | Sales Search | Results | **Property Record Card** | My Favorites | Sign up for e-Notify...

3007 Cullen Lake Shore Dr

< 18-23-30-4386-03-680 >

Name(s)
Shields Allan J
Shields Heather B

Mailing Address On File
3007 Cullen Lake Shore Dr
Belle Isle, FL 32812-1040
Incorrect Mailing Address?

Physical Street Address
3007 Cullen Lake Shore Dr

Postal City and Zipcode
Orlando, Fl 32812

Property Use
0130 - Sfr - Lake Front

Municipality
Belle Isle

Property Features | Values, Exemptions and Taxes | **Sales Analysis** | **Location Info** | **Market Stats** | Update Information

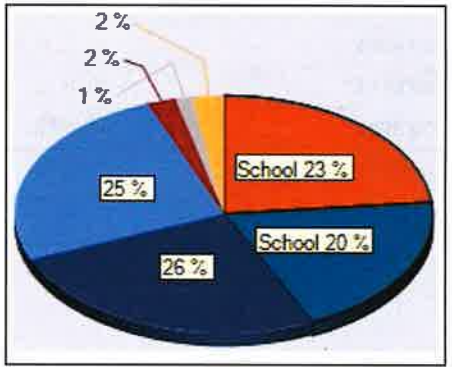
Historical Value and Tax Benefits

Has Homestead in 2019

Tax Year Values		Land		Building(s)		Feature(s)		Market Value		Assessed Value	
2019	W MKT	$365,000	+	$301,678	+	$49,000	= $715,678	(7.5%)		**$587,768**	(1.9%)
2018	✓ MKT	$320,000	+	$296,314	+	$49,500	= $665,814	(.74%)		**$576,809**	(2.1%)
2017	✓ MKT	$320,000	+	$290,951	+	$50,000	= $660,951	(12%)		**$564,945**	(11%)
2016	✓ MKT	$300,000	+	$239,551	+	$50,500	= $590,051			**$509,513**	

Tax Year Benefits		Original Homestead	Additional Hx	Other Exemptions	SOH Cap	Tax Savings
2019	W $ HX CAP	$25,000	$25,000	$0	$127,910	**$2,842**
2018	✓ $ HX CAP	$25,000	$25,000	$0	$89,005	**$2,205**
2017	✓ $ HX CAP	$25,000	$25,000	$0	$96,006	**$2,349**
2016	✓ $ HX CAP	$25,000	$25,000	$0	$80,538	**$2,118**

2019 Tax Breakdown



2019 Taxable Value and Estimate of Proposed Taxes

TAX YEAR | 2019 • 2018 • 2017 • 2016

Taxing Authority	Assd Value	Exemption	Tax Value	Millage Rate	Taxes %

RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE BUILDING CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

BARNES, KYLE KEVIN

BIG DAY CONSTRUCTION, INC.
2701 RAEFORD COURT
ORLANDO FL 32806

LICENSE NUMBER: CBC1259742

EXPIRATION DATE: AUGUST 31, 2020

Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 07/30/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER: Floridian Insurance Agency Inc 7316 E Colonial Dr Orlando FL 32807	CONTACT NAME:	
	PHONE (A/C, No, Ext): 407-207-1616	FAX (A/C, No): 407-207-1662
	E-MAIL ADDRESS: nader@floridianinsurance.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Crum and Forster Specialty Ins Company	
INSURED: BIG DAY CONSTRUCTION, INC. 2701 RAEFORD CT ORLANDO FL 32806	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	✓ COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	✓ CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 5,000
				BAK-43108-2	07/13/2019	07/13/2020	PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	✓ POLICY ☐ PRO-JECT ☐ LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						PER STATUTE ☐ OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ N / A (Mandatory in NH)						E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Residential / Commercial Building Contractor

CERTIFICATE HOLDER

CITY OF BELLE ISLE
1600 NELA AVE
BELLE ISLE, FLORIDA 32809

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

JIMMY PATRONIS
CHIEF FINANICAL OFFICER

STATE OF FLORIDA
DEPARTMENT OF FINANCIAL SERVICES
DIVISION OF WORKERS' COMPENSATION

*** * CERTIFICATE OF ELECTION TO BE EXEMPT FROM FLORIDA WORKERS' COMPENSATION LAW * ***

CONSTRUCTION INDUSTRY EXEMPTION

This certifies that the individual listed below has elected to be exempt from Florida Workers' Compensation law.

EFFECTIVE DATE: 11/6/2018 **EXPIRATION DATE:** 11/5/2020

PERSON: KYLE K BARNES **EMAIL:** BIGDAYCONSTRUCTION@YAHOO.COM

FEIN: 455282935

BUSINESS NAME AND ADDRESS:

BIG DAY CONSTRUCTION, INC.

2701 RAEFORD COURT

ORLANDO, FL 32806

SCOPE OF BUSINESS OR TRADE:

Licensed Building Contractor Concrete Construction NOC Carpentry ☐ NOC Contractor-Project Manager, Construction Executive, Construction Manager or Construction Superintendent

IMPORTANT: Pursuant to Chapter 440.05(14), F.S., an officer of a corporation who elects exemption from this chapter by filing a certificate of election under this section may not recover benefits or compensation under this chapter. Pursuant to Chapter 440.05(12), F.S., Certificates of election to be exempt... apply only within the scope of the business or trade listed on the notice of election to be exempt. Pursuant to Chapter 440.05(13), F.S., Notices of election to be exempt and certificates of election to be exempt shall be subject to revocation if, at any time after the filing of the notice or the issuance of the certificate, the person named on the notice or certificate no longer meets the requirements of this section for issuance of a certificate. The department shall revoke a certificate at any time for failure of the person named on the certificate to meet the requirements of this section.

Tax Collector Scott Randolph **Local Business Tax Receipt** **Orange County, Florida**

2018 **EXPIRES** **9/30/2019** 1816-1096944

1816 PNT/CRMO/BSBD/SOF/FA $30.00 1 EMPLOYEE

TOTAL TAX	$30.00
PENALTIES	$3.00
PREVIOUSLY PAID	$33.00
TOTAL DUE	$0.00

BARNES KEVIN K

BIG DAY CONSTRUCTION INC
BARNES KEVIN K
2701 RAEFORD CT
ORLANDO FL 32806

2701 RAEFORD CT (MOBILE)
U - ORLANDO, 32806

PAID: $33.00 0098-00872679 10/23/2018

Tax Collector Scott Randolph **Local Business Tax Receipt** **Orange County, Florida**

This local Business Tax Receipt is in addition to and not in lieu of any other tax required by law or municipal ordinance. Businesses are subject to regulation of zoning, health and other lawful authorities. This receipt is valid from October 1 through September 30 of receipt year. **Delinquent penalty is added October 1.**

2018 **EXPIRES** **9/30/2019** 1816-1096944

1816 PNT/CRMO/BSBD/SOF/FA $30.00 1 EMPLOYEE

TOTAL TAX	$30.00
PENALTIES	$3.00
PREVIOUSLY PAID	$33.00
TOTAL DUE	$0.00

BARNES KEVIN K

BIG DAY CONSTRUCTION INC
BARNES KEVIN K
2701 RAEFORD CT
ORLANDO FL 32806

2701 RAEFORD CT (MOBILE)
U - ORLANDO, 32806

PAID: $33.00 0098-00872679 10/23/2018

SCOTT RANDOLPH, TAX COLLECTOR • ORANGE COUNTY, FLORIDA •

This receipt is official when validated by the Tax Collector.

Orange County Code requires this local Business Tax Receipt to be displayed conspicuously at the place of business in public view. It is subject to inspection by all duly authorized officers of the County.