Attch 18B, Appendices to Training Manual Page 1 of 38

# APPENDIX A: FLORIDA STATUTE

Newly created Florida Statute s. 215.5586, extracted from Senate Bill 1980, 2006 Regular Sage of 38

Section 215.5586, Florida Comprehensive Hurricane Damage Mitigation Program -

There is established within the Department of Financial Services the Florida Comprehensive Hurricane Damage Mitigation Program. This section does not create an entitlement for property owners or obligate the state in any way to fund the inspection or retrofitting of residential property in this state. Implementation of this program is subject to annual legislative appropriations. The program shall be administered by an individual with prior executive experience in the private sector in the areas of insurance, business, or construction. The program shall develop and implement a comprehensive and coordinated approach for hurricane damage mitigation that shall include the following:

# (1) WIND CERTIFICATION AND HURRICANE MITIGATION INSPECTIONS -

(a) Free home-retrofit inspections of site-built, residential property, including single-family, twofamily, three-family, or four-family residential units, shall be offered to determine what mitigation measures are needed and what improvements to existing residential properties are needed to reduce the property's vulnerability to hurricane damage. The Department of Financial Services shall establish a request for proposals to solicit proposals from wind certification entities to provide at no cost to homeowners wind certification and hurricane mitigation inspections. The inspections provided to homeowners, at a minimum, must include:

1. A home inspection and report that summarizes the results and identifies corrective actions a homeowner may take to mitigate hurricane damage.

2. A range of cost estimates regarding the mitigation features.

3. Insurer-specific information regarding premium discounts correlated to recommended mitigation features identified by the inspection.

4. A hurricane resistance rating scale specifying the home's current as well as projected wind resistance capabilities.

(b) To qualify for selection by the department as a provider of wind certification and hurricane mitigation inspections, the entity shall, at a minimum:

1. Use wind certification and hurricane mitigation inspectors who:

a. Have prior experience in residential construction or inspection and have received specialized training in hurricane mitigation procedures.

b. Have undergone drug testing and background checks.

c. Have been certified, in a manner satisfactory to the department, to conduct the inspections.

2. Provide a quality assurance program including a reinspection component.

## Attch 18B, Appendices to Training Manual Page 3 of 38

## (2) GRANTS -

Financial grants shall be used to encourage single-family, site-built, owner-occupied, residential property owners to retrofit their properties to make them less vulnerable to hurricane damage.

(a) To be eligible for a grant, a residential property must:

- 1. Have been granted a homestead exemption under chapter 196.
- 2. Be a dwelling with an insured value of \$500,000 or less.
- 3. Have undergone an acceptable wind certification and hurricane mitigation inspection.

A residential property which is part of a multi-family residential unit may receive a grant only if all homeowners participate and the total number of units does not exceed four.

(b) All grants must be matched on a dollar-for-dollar basis for a total of \$10,000 for the mitigation project with the state's contribution not to exceed \$5,000.

(c) The program shall create a process in which mitigation contractors agree to participate and seek reimbursement from the state and homeowners select from a list of participating contractors. All mitigation must be based upon the securing of all required local permits and inspections. Mitigation projects are subject to random reinspection of up to at least 10 percent of all projects.

(d) Matching fund grants shall also be made available to local governments and nonprofit entities for projects that will reduce hurricane damage to single-family, site-built, owner-occupied, residential property.

(e) Grants may be used for the following improvements:

- 1. Roof deck attachment
- 2. Secondary water barrier;
- 3. Roof covering;
- 4. Brace gable ends;
- 5. Reinforce roof-to-wall connections;
- 6. Opening protection; and
- 7. Exterior doors, including garage doors.

(f) Low-income homeowners, as defined in s.420.0004(9), who otherwise meet the requirements of paragraphs (a) and (c) are eligible for a grant of up to \$5,000 and are not required to provide a matching amount to receive the grant. Such grants shall be used to retrofit single-family, site-built, owner-occupied, residential properties in order to make them less vulnerable to hurricane damage.

## (3) EDUCATION AND CONSUMER AWARENESS -

Multimedia public education, awareness, and advertising efforts designed to specifically address mitigation techniques shall be employed, as well as a component to support ongoing consumer resources and referral services.

## Attch 18B, Appendices to Training Manual Page 4 of 38

## (4) ADVISORY COUNCIL -

There is created an advisory council to provide advice and assistance to the program administrator with regard to his or her administration of the program. The advisory council shall consist of:

(a) A representative of lending institutions, selected by the Financial Services Commission from a list of at least three persons recommended by the Florida Bankers Association.

(b) A representative of residential property insurers, selected by the Financial Services Commission from a list of at least three persons recommended by the Florida Insurance Council.

(c) A representative of home builders, selected by the Financial Services Commission from a list of at least three persons recommended by the Florida Home Builders Association.

(d) A faculty member of a state university, selected by the Financial Services Commission, who is an expert in hurricane-resistant construction methodologies and materials.

(e) Two members of the House of Representatives, selected by the Speaker of the House of Representatives.

(f) Two members of the Senate, selected by the President of the Senate.

(g) The Chief Executive Officer of the Federal Alliance for Safe Homes, Inc., or his or her designee.

- (h) The senior officer of the Florida Hurricane Catastrophe Fund.
- (i) The executive director of Citizens Property Insurance Corporation.

(j) The director of the Division of Emergency Management of the Department of Community Affairs.

Members appointed under paragraphs (a)-(d) shall serve at the pleasure of the Financial Services Commission. Members appointed under paragraphs (e) and (f) shall serve at the pleasure of the appointing officer. All other members shall serve voting ex officio. Members of the advisory council shall serve without compensation but may receive reimbursement as provided in s. 112.061 for per diem and travel expenses incurred in the performance of their official duties.

## (5) FEDERAL FUNDING -

The department shall use its best efforts to obtain grants or funds from the federal government to supplement the financial resources of the program.

# (6) RULES -

The Department of Financial Services shall adopt rules pursuant to ss. 120.536(1) and 120.54 governing the Florida Comprehensive Hurricane Damage Mitigation Program. The department shall also adopt rules establishing priorities for grants provided under this section based on objective criteria that gives priority to reducing the state's probable maximum loss from hurricanes. However, pursuant to this overall goal, the department may further establish priorities based on the insured value of the dwelling, whether or not the dwelling is insured by Citizens Property Insurance Corporation and whether or not the area under consideration has sufficient resources and the ability to perform the retrofitting required.

Attch 18B, Appendices to Training Manual Page 5 of 38

# APPENDIX B: EXAMPLE OF A COMPLETED CHECKLIST

Checklist
Completed
Example of a

The information entered on the checklist represents what the surveyor is to complete for each checklist. Specific notes have been added to clarify the	of this manual for more detailed information.	The photos included in this Appendix show the features of the subject house and should be referred to when checking the features reported.		
Florida Home Survey Checklist	Section A inspector information E: Date inspected: 1-0ん	Inspection Company: Finish Time: 10. 45 代ル 2nd 3rd Section B Owner Information	Contact Person:     Home Phone:       Home Phone:     Work Phone:       Work Phone:     Cell Phone:       Cell Phone:     Cell Phone:       E-Mail Address:     Policy Number:       Policy Number:     Cell Phone:       Policy Number:     Policy Number:       1 Story     Tabla on Grade       2 Story     Stem wall       3 Story     Stem wall       A story     Stem wall	10-16-06
SR Number <u>Cranupl</u>	S Date Assigned:WCE	Inspector Start time: 101 00 A 11/ Dates of Attempted Calls: 1st	Owner's Name:       Property Address:         Property Address:       Eity:         Cunty:       Zip Code:         Insurance Co:       Sect         Year Built       Number         Year Estimated       WCE Offic         Mind Speed       WCE Offic         I also acknowledge that (inspector name)       I         I also acknowledge that i received the DFS       Printed Name:         Signature:       Signature:         Findel Hung       Double Hin         Easement       Estimated Hung         Findel Aung       Ending Gia         Estimated       Estimated Hung         Signature:       Estimated Hung         Estimate Hung       Estimated Estimated         Estimated       Estimated         Estimated       Estimated         Estimated       Estimated         Estimated       Estimated         Estimated       Estimated         Estimated       Estimated         Estimated       Estistimated	Version 10.1

Image: control transment of the control transment of transmen		Front Eleve	ation			roof shape is reported "Gable." The roof complexity
Image: constraint of the constr	Roof Shape	Section F-1 Exterior R	oof Information	Roof Complexity		this elevation is "Complex" due to the number of
Image: Constrained by the sector of the s	X Gable Hip Gambrel Mansard	Flat Other	Simple Modera X Comple	Roof Shape te Roof Shape x Roof Shape		different surfaces and angles of the roof.
Image: control     Image: control     Image: control       Image: control     Image: control	X Shingles Tile Wood Metal	Roof Covering (Front	levation Only) (ear installed: 2 0 0 4	Year	r Known · Estimated	
wind     main     wind     main     main       1     1     1     1     1       1     1     1     1     1     1       1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1 <td>to the second second</td> <td>Section G-1 Windov</td> <td>v Openings</td> <td></td> <td>and the second</td> <td></td>	to the second	Section G-1 Windov	v Openings		and the second	
Image: section is above the windows where they exist.       Image: section is above the windows where they exist.	Number Quantity Window Type	Floor Width	ing in Inches Height	Code Prote	ction Yr. Installed	Window Onening dimensions include the clear fixed
<sup>1</sup> / <sub>1</sub>	2 1 SH	24 1	96	×>		alace cartions above the windows where they aviet
non-the	3 1 SH	72 1	24	××		
Maine     Description     Maine (norme)     Maine (norme)     Maine (norme) <ul> <li></li></ul>	5 5					
Were form     Description     Description     Description       1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1		Section H-1 L	loors			
Image: constraint of constraints     Image: constraint of constraints     Image: constraint of constraints     Image: constraints     Ima	Number Quantity Door Type	Floor Open	ing in Inches Height	Code Yr	Glazed Installed VesiNo	The door dimensions include the clear place above the
	- PI	24	156	×	1 1	front door The front door contains alazing and is so
Image: sector of styling     Image: sector o	2 1 G D	261 1	58	7 11	500	ITUIL UNDER THAT THAT AND ANTIGUES FIRE THAT AND AN ANTICAL THAT AND ANTICAL ANTIC
Output     Description     Descripti	4 Saction L1 Skylinhte		Sertio	n I-1 Gable Ends	-	
Montane     Montane     Montane     Montane     Montane     Montane       Image: Section Ki wal radong (new low)       Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)       Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)       Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)       Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)       Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)       Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)       Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)       Image: Section Ki wal radong (new low)     Image: Section Ki wal radong (new low)	Quantity Dayligh/Buck Pr	otection Quantity	/ Height	Bottom	Vent-inches	was MIDC approved in 2005 for impact.
Metric     Sector K1 Mat Cadeny error     Action K1	Audit Linger		16	30 VIULI VII		
Image: Second state     Image: Second st		Section K-1 Wall Claddi	ng (circle floor	1100 0	0	I hree gable ends are reported with no Vent.
	Aluminum Siding 1 2 3 Vinyl Siding 1 2 3 Wood Siding 1 2 3	4         Stucco         K           4         Brick Veneer         4           4         Painted Block         1	1 2 3 4 1 2 3 4	Other 1	2 3 4	Wall finish is renorted
Concrete Block Feanification     2     3     4     WoodDight Main       Not Applicable     1     2     3     4     WoodDight Main       Not Applicable     1     2     3     4       Not Applicable     Last Come [Last Clock 5: 5 locations for with one of Come [Last Clock 5: 5 locations for with colspan="2">Applicable     There locations could have been checked have been chave been checked have been checked have been checked have	S IConcrete Block Un-Reinforced	ection L-1 Wall Constru	ction (circle flo ISolid Concre	or) ite   1	2 3 4	
Nat Applicable       Left Corret       Number of Carses       Number	Concrete Block Reinforced	Creement Check Ichec	Wood/Light	Metal Frame 1	2 3 4	Reinforcing is checked in two places on the front
section N-1 Carport       section O-1 Porches       section P-1 Softis         Section N-1 Carport       section O-1 Porches       section P-1 Softis         Section N-1 Carport       Example of the far right is difficult so another location vertices         Section N-1 Carport       Example of the far right is difficult so another location vertices         Section N-1 Carport       Example of the far right is difficult so another location vertices         Section N-1 Carport       Example of the first side.         Attached       Detached         Section N-1 Carport       Section N-1 Carport         Section Norther       Example of the first side.         Number of Cars:       Large         Large       Enclosed         Attached       Detached         Section 10.1       2         Version 10.1       2         Attached       2         Attached       Section the first side.         Attached       Enclosed         Attached       Enclosed         Attached       Detached         Attached       Enclosed         Attached       Enclosed         Attached       Enclosed         Attached       Enclosed         Attached       Enclosed         Attached<	Not Applicable Left Co	mer X Windo	W/Door X	Right Corner		elevation. There locations could have been checked l
One     Endit-In     Concertant     Overhand     Interfaction       Allached     Detached     Ruil-In     Sini-In     Overhand     Interfaction       Allached     Detached     Ruil-In     Sini-In     Overhand     Interfaction       Allached     Detached     Ruil-In     Sini-In     Overhand     Interfaction       Number of Cars:     Large     Frolosed     Period     Period       Version 10.1     2     10-16-06	Section N-1 Carport	Section O-1 Por	ches	Section P-1	Soffits	access to the far right is difficult so another location
Allactived     Detached     Small     Open     Z     0.0       Number of Cars:     Large     Enclosed     and solid soffits 12 inches       Version 10.1     2     10-16-06	Vone Built-In	(Exclude Pool Screen Er (Circle Size and Ty, Size	nclosure) pe) <b>Y De</b>	Overhang (inches)	Length (linear feet)	checked on the right side.
Number of Cars:     Large     Enclosed     B     A small porch is reported and solid soffits 12 inches       Version 10.1     2     10-16-06     Nucle for the full length of the front walls is recorded.	Attached Detached	Small Open Medium Scree		21	180	
Version 10.1 2 10-16-06 10-16-06	Number of Cars:	Large Enclo	pes	Type Vinyl/Alur None	od/Other minum	A small porch is reported and solid soffits 12 inches wide for the full length of the front walls is recorded.
	Version 10.1	2			10-16-06	
_						

### 3

# Attch 18B, Appendices to Training Manual

			Attch '	18B, Appendic	<del>es to Training Man</del> ual Page 8 of 38
This side of the house has a simple roof hip shape.	One window opening is reported so the sizes noted include the fixed glass section above.		Stucco on reinforced masonry is reported here too	The final reinforcing check is performed and recorded here. Soffit type and dimensions are recorded.	
SR Number. Example	Right Elevation       Right Elevation       Section F.2 Exterior Roof Information       Roof Shape       Roof Shape       Gable     X Hip       Gambrel     X Hip       Gambrel     X Hip       Complex Roof Shape     Complex Roof Shape       Gambrel     Other       Complex Roof Shape     Complex Roof Shape       Section G-2 Window Openings     Complex Roof Shape       Number     Quantity     Window       To     Type     Floor       Opening in Inches     Protection       2     Type     Floor       1     Type     Floor       2     Type     Tobe       3     Settion     Code	0     7     Section H.2 Doors       Aumter     Quantity     Door Type     Floor     Opening in Inches     Protection       1     Opening in Inches     Protection     Glazed       2     Opening in Inches     Protection     Glazed       3     4     Section 1.2 Skylights     Section 1.2 Skylights       0uantity     Undth     Height     Code     Yr. Installed       2     A     Section 1.2 Skylights     Section J.2 Gable Ends	Section K-2 Wall Cladding (circle floor)           Section K-2 Wall Cladding (circle floor)           Aluminum Siding         1         2         3         4           Wood Siding         1         2         3         4         Other         1         2         3         4           Wood Siding         1         2         3         4         Delined Block         1         2         3         4           Wood Siding         1         2         3         4         Delined Block         1         2         3         4           Section L-2 Wall Construction (circle floor)         Section L-2 Wall Construction (circle floor)         Delined Block         1         2         3         4	Concrete Block Un-Reinforced     1     2     3     4     Solid Concrete     1     2     3     4       Concrete Block Reinforced     1     2     3     4     Wood(ight Metal Frame     1     2     3     4       Section N2 Reinforced     1     2     3     4     Wood(ight Metal Frame     1     2     3     4       Not Applicable     Left Corner     Window/Door     Right Corner     1     2     3     4       Section N2 Carport     Section 0.2 Porches     Section 1     Section 2.2 Soffits     1     2     1       More     Bull-In     (incles spectane)     (incles is and Type)     (incles)     1     1     2     3     4       More     Bull-In     Size     Type     1     1     2     3     4	Number of Cars:     Large     Enclosed     a Solid/Mood/Other       Pp     Virry/Aluminum       Version 10.1     3     10-16-06

Hip roof with "Moderate" shape rating due to the multi-surface roof.	The entire lanai is protected with one of the Fabric hurricane screens (MDC approved). Therefore, all openings are considered "H" rated, thus recording the dimensions is not required. If the lanai was not protected and the windows and doors did not have other protection, you must record the dimensions of the Openings. The checklist shows the correct way to record this information in both cases.	The exterior finish is Stucco but the majority of the back wall is wood frame as evidenced by the lack of set-back for the windows and sliding glass doors. A large open porch is reported (the fact that there are two is not significant). A solid soffit and the dimensions are recorded at the bottom.	Page 9 of 3
SR Number. Example	Back Elevation         Back Elevation           Section F.3 Exterior Roof Information         Section F.3 Exterior Roof Information           Roof Shape         Nonderate Roof Shape           Cambred         Amnsard         Flat           Cambred         Other         Section F.3 Exterior Roof Shape           Cambred         Other         Complex Roof Shape           Mundow         Floor         Other         Section H.3 Exterior Roof Shape           2         OR         Type         Providenate Roof Shape           2         OR         Type         Providenate Roof Shape           2         OR         Providenate Roof Shape         Providenate           2         OR         Providenate Roof Shape         Providenate           3         D         Providenate         Providenate           3         D         Providenate         Providenate           3         D         Providenation         Providenate           4         P <td>Section K:3 Wall Cladding (circle floor)       Section K:3 Wall Cladding (circle floor)       Vinyl Siding     1     2     3     4       Vinyl Siding     1     2     3     4       Vinyl Siding     1     2     3     4       Ord Siding     1     2     3     4     Solutocon       Concrete Block Un-Reinforced     1     2     3     4     Solid       Not Applicable     Left Comer     Nindow/Door     Right Comer       Section N-3 Carport     Section O-3 Porches     Section P-3 Soffits       Attached     Defand     Reinforcense     Inpetition       Attached     Defand     Reinforcense     Inpetition       Attached     Defand     Reinforcense     I</td> <td>Version 10.1 4 10-16-06</td>	Section K:3 Wall Cladding (circle floor)       Section K:3 Wall Cladding (circle floor)       Vinyl Siding     1     2     3     4       Vinyl Siding     1     2     3     4       Vinyl Siding     1     2     3     4       Ord Siding     1     2     3     4     Solutocon       Concrete Block Un-Reinforced     1     2     3     4     Solid       Not Applicable     Left Comer     Nindow/Door     Right Comer       Section N-3 Carport     Section O-3 Porches     Section P-3 Soffits       Attached     Defand     Reinforcense     Inpetition       Attached     Defand     Reinforcense     Inpetition       Attached     Defand     Reinforcense     I	Version 10.1 4 10-16-06

Attch 18B, Appendices to Training Manual Page 9 of 38

Completed items here include a small non rated skylight. Walls are all reinforced masonry.		Attch	ו 18B, Appendices to Tra	aining Manual Page 10 of 38
	Left Elevation       Ion F4 Exterior Roof Information       Roof Complexity       Plat       Roof Shape       Other       Complex Roof Shape       Code     Yr. Installed       Code     St. Installed	Section H-4 Doors     Protection     Glazed       Section H-4 Doors     Opening in Inches     Protection     Glazed       Vidth     Height     Code     Yr. Installed     Ves No       2/6/     8/0     X     X     X       n     2/6     8/0     X     X       n     2/6     8/0     X     X       n     Section J-4 Gable Ends     Vent     X       n     Section J-4 Gable Ends     Vent     X       n     Section J-4 Gable Ends     Noth     Height       n     Section J-4 Gable Ends     Section J-4 Gable Ends     Section J-4 Gable Ends       n     Section J-4 Gable Ends     Section J-4 Gable Ends     Section J-4 Gable Ends       n     Section J-4 Gable Ends     Section J-4 Gable Ends     Section J-4 Gable Ends       n     Section J-4 Gable Ends     Section J-4 Gable Ends     Section J-4 Gable Ends       n     Section J-4 Gable Ends     Section J-4 Gable Ends     Section J-4 Gable Ends       n     Section J-4 Gable Ends     Section J-4 Gable Ends     Section J-4 Gable Ends	Painted Block     1     2     3     4       1.1-4 Wall Construction (circle floor)     1     2     3     4       1     2     3     4     1     2     3     4       Pentre Lawei Construction (circle floor)     1     2     3     4       Pentre Lawei Vindow/Door     Right Corner     1     2     3     4       Ment Check: (check 3- 5 locations for entire house)     Right Corner     1     2     3     4       Ment Check: (check 3- 5 locations for entire house)     Right Corner     1     2     3     4       Circle Stee and Type)     (circle Stee and Type)     1     2     3     4       (Circle Stee and Type)     1     2     3     4       (Circle Stee and Type)     1     2     5     5       Mediup     Open     1     2     5     5       Action     Corner     1     2     3     4       Action     Corner     1     1     2     3     4       Intell     Open     1     2     5     5     5       Action     Enclosed     2     7     5     3     4	10-16-06
SR Number Example	Sect Rcof Shape Gambrel Ahnpe Gambrel Mansard Number Quantity Window F 3 3 5 5 5	6     7       7     7       1     1       1     1       2     3       3     3       4     Section 1-4 Skylights       0uantity     DoylightBack       1     3.3       2     3.4       Section 1-4 Skylights       0uantity     DoylightBack       1     3.3       3     3.3       4     3.3       5.3     3.4       Vinnis Siding     1       1     2       1     2       1     2       1     2       2     3.4	Wood Siding     1     2     3     4       Concrete Block Un-Reinforced     Section     Section       Concrete Block Reinforced     Section M-4 Reinforced       Not Applicable     Left Corner       Section N-4 Carport     None       None     Built-In       Attached     Detached       Number of Cars:     1	Version 10.1

The photos clearly show plywood, the grade stamp shows 15/32 which is nominal $\frac{1}{2}$ inch material. The missed nail is an 8d nail (deck was refastened when the roof covering was replaced in 2004). Spacing checked out to be 6/6. Missed nails are actually very few so the average is "0"	Wood Trusses are obvious and spacing is 24". No SWR was observed and owner said they did not do that in 2004. Photos show single wrap straps on each truss with three nails and no corrosion.	Form the elevation pages, three gable ends were reported Because the height of all of them is under 4 feet, no braching information is needed. If they were over 4 feet in height these gables would all be marked "no access" because there is no way to get to any of them. The owner had a set of plans to enable the surveyor to determine the footprint square feet.	Training Manua Page 11 of 38
SR Number-     Section Q Roof Deck       Materials     Section Q Roof Deck       Materials     Deck Thickness       Roof Deck     No Access       PlanksDimensional Lumber     7/16"       PlanksDimensional Lumber     7/16"       Deck ver Battens     3/4"       Deck ver Battens     5/12"       Deck ver Battens     5/12"       Deck ver Battens     5/12"       Other        Roof Stope:     6/12	Section R Roof Structure Materials     Section S Secondary Water Barrier       No Access     No Access       No Access     Exterior       How verified:     Photos Documents       Wood Trusses     Interior       Ught Metal Trusses     Interior       Spacing:     12° f6°(24°) >24"       Incelsion     12° f6°(24°) >24"       Modess     Spacing:       Spacing:     12° f6°(24°) >24"       Modess     V       Severe Corrosion     3 of More Walls       V     N	If Unknown, Explain why:	Version 10.1 6 10-16-06



# Attch 18B, Appendices to Training Manual Page 12 of 38



# Attch 18B, Appendices to Training Manual Page 13 of 38







# Attch 18B, Appendices to Training Manual Page 15 of 38

Attch 18B, Appendices to Training Manual Page 16 of 38

Attch 18B, Appendices to Training Manual Page 17 of 38

# APPENDIX C: SUGGESTED PROTOCOLS FOR SURVEYORS/INSPECTORS

# Suggested Protocols for Surveyors/Inspectors

## Surveyor/Inspector Responsibilities

The Surveyor will:

- 1. Have an in-depth understanding of the certification criteria and methods.
- 2. Achieve an acceptable score on the tests and all follow-up tests (if necessary) to ensure understanding of all changes in the program.
- 3. Use the latest approved forms for the survey. Electronic forms will be shipped to you with changes included.
- 4. Upon receipt of a request, contact the homeowner by phone to set up the appointment time. Professional and courteous language must be used. A suggested script is provided below.
- 5. Arrive at your appointment on time. If you will be more than 10 minutes late, call the homeowner.
- 6. At the dwelling, complete the entire survey and check it for completeness before you leave.
- 7. Be courteous and professional at all times.
- 8. Send completed surveys to the WCE within 24 hours of completion.
- 9. Respond reasonably to homeowner follow-up questions on your survey. This may include, in rare cases, revisiting the house if the homeowner can make a case that something you did was in error.

## **Setting Survey Appointments**

The survey must be completed with the homeowner, or adult representative, present, to allow access to the attic of the building. DO NOT ENETER THE HOME IF ONLY MINOR CHILDREN ARE PRESENT. The surveyor should call the homeowner to arrange for an appropriate person to provide access to the home.

When scheduling the appointment, request that the homeowner locate and have available copies of any papers related to any existing hurricane protection devices like shutters. The papers for the protection devices are needed to verify that the present products meet the required standards. If the home was built between March 1, 2002, and January 1, 2003, they will have to show you information regarding compliance with the Florida Building Code.

# Survey Tools

In addition to normal inspector tools and equipment, the following list shows some suggested additional items you can use to complete a Mitigation Survey of a residential house. There are a couple of tools that may be unique to this survey program. One is the Zircon Metalliscanner‰ 6.0 or MT 6 which is used for measuring nail spacing and location of rebar in masonry construction. Another is a telescoping pole needed to check the presence of hurricane straps in low slope roofs.

- Latest version of the Survey Checklist
- Laser Pointer for Laminated Glass Testing
- Flashlight—high intensity with 1,000,000 Candle Power is suggested
- Head mounted flashlight

- Step ladder or folding ladder to access attic
- 6" steel ruler to measure deck thickness
- Zircon MetalliScanner<sup>™</sup> MT-6 (approximately \$100)
- 3' telescoping pole (such as a golf ball retriever)– to gently part insulation around rafter/wall connection to examine straps in low slope roofs
- Inspection Mirror
- Binoculars for examining skylights from the ground
- Long sleeved shirt to protect skin from insulation in attic
- Dust mask and Bump of Hard Hat for use in attic
- Tyvec suit

## At the dwelling

- 1. Look for shutters/attachment brackets and notice garage door type (if any).
- 2. Knock on front door and request owner or the person you talked to when making the appointment.
- 3. Show owner your ID badge and remind him/her of purpose of visit and confirm he/she will be here during your inspection. Ask for any paperwork on shutters.
- 4. Conduct the exterior inspection.
- 5. Make sure shoes are clean and/or ask if you need to remove shoes before entering the house (if necessary) to conduct the attic inspection.
- 6. Examine documentation regarding shutters.

Conclusion to Survey:

- 7. Complete the "Date of inspection" and the time you started and completed the inspection.
- 8. If the homeowner information is not correct make appropriate changes
- 9. Leave the provided information letter/flyer with the homeowner.
- 10. Have the homeowner sign Check List on page 1
- 10. Tell the homeowner that
  - (a) Data will be forwarded to the office for processing.
  - (b) Their report will be issued within 30 days.

## Attch 18B, Appendices to Training Manual <u>Example Script for Contacting Homeowner to Set Up Appointment</u> Page 20 of 38

► Introduction:

 $\triangleright$  My name is \_\_\_\_\_ with (WCE's name)

▷ I am calling to schedule the FREE home inspection you requested through the My Safe Florida Home Program.

► Inform about Inspection Process:

- ▷ This certification inspection will take between 30 minutes and 1 hour.
- ▷ What days and times are convenient for you?
  - Decide on a mutually agreeable time
- $\triangleright$  You or an adult to represent you will need to be present during that time.
- $\triangleright$  I will need to get inside attic to complete my work.
- ▷ Do you have impact rated window or shutters on the house now?
  - If yes, ask them to have a copy of any available paperwork showing the year installed and the model name, number, or any other documents you have regarding your hurricane protection systems.

Confirmation and closing:

- ▷ Thank you. I will meet you at \_\_\_\_\_ (Confirm time and date).
- My name again is \_\_\_\_\_\_. If you must cancel or change the appointment, please call me at \_\_\_\_\_\_. Thank you again.

Attch 18B, Appendices to Training Manual Page 21 of 38

APPENDIX D: CHECKLIST

# My Safe Florida Home Survey Checklist

Section A In	spector Information									
Date Assigned: WCE:	Date Inspected:									
Inspector:	Inspection Company:									
Start time:	Finish Time:									
Dates of Attempted Calls: 1st	2nd 3rd									
Section B	Owner Information									
Owner's Name:	Contact Person:									
Property Address:	Home Phone:									
City:	Work Phone:									
County:	Cell Phone:									
Zip Code:	E-Mail Address:									
Insurance Co:	Policy Number:									
Section C Gene	ral Building Information									
Year Known       1 Story       Pier/Piling       Anchor Bolts         Year Estimated       3 Story       Slab on Grade       Cut Nails         Year Estimated       3 Story       Stem wall       Rebar         WCE Office to Complete the following information       None       None         Wind Speed       Exposure Cat B       C       WBDR       No       Yes         (Circle one)       (Circle one)       (Circle one)       Circle one)       Circle one)         I acknowledge that (inspector name)       ID Number       ID Number       ID Number         inspected the home at the address shown above and no damage was caused to the home and/or any property.       I also acknowledge that I received the DFS Homeowner Tips Guide or the FLASH Tips flyer.										
	Date:									
Signature:										
Sect	tion E Codes									
Window Type Door Ty	/pe Protection Codes:									
Single Hung SH Single Hinged (out swin	ig) SO									
Double Hung DH Double Hinged (out swi	ng) DO Hurricane H									
Awning / Jalousie AW Double Hinged (in swing	a) DI Ordinary O									
Casement CS Sliding Glass	SG NOT RATED (pre 1994) NR									
Fixed glass FG Garage (Single)	GS None X									
Garage (Double)	GD									

Front Elevation	
Section F-1 Exterior Roof Infor	nation
Roof Shape	Roof Complexity
Gable Hip Flat	Simple Roof Shape
Gambrel Mansard Other	loderate Root Shape
Roof Covering (Front Elevation	Only)
Shingles Tile Year inst	Vear Known
Wood Metal	Year Estimated
Other	
Section G-1 Window Openir	gs
Window Opening in Inch	es Protection
Number Quantity Type Floor Width H	eight Code Yr. Installed
1	
2	
3	
4	
5	
6	
(	
Section H-1 Doors	as Protection Clazed
Number Quantity Door Type Floor Width H	aight Code Yr Installed Ves No
1	
2	
3	
4	
Section I-1 Skylights	Section J-1 Gable Ends
Quantity Daylight/Buck Protection Quantity H	Bottom Vent-inches
Width Height Code Yr. Installed	Chord Width Width Height
Section K-1 Wall Cladding (circl	e floor)
Aluminum Siding 1 2 3 4 Stucco 1 2	$\frac{3}{2}$
Wood Siding 1 2 3 4 Blick Veneer 1 2 Wood Siding 1 2 3 4 Blick Veneer 1 2	3 4 Other $1 2 3 4$
Section L 1 Wall Construction (cir	
Concrete Block Lin-Reinforced 1 2 3 4 Solid	
Concrete Block Reinforced 1 2 3 4 Wood	/Light Metal Frame 1 2 3 4
Section M-1 Reinforcement Check: (check 3- 5 lo	ations for entire house)
Not Applicable Left Corner Window/Door	Right Corner
Section N-1 Carport Section O-1 Porches	
	Section P-1 Soffits
(Circle Applicable) (Exclude Pool Screen Enclosure)	Section P-1 Soffits Overhang Length
(Circle Applicable)(Exclude Pool Screen Enclosure)NoneBuilt-In(Circle Size and Type)	Section P-1 SoffitsOverhangLength(inches)(linear feet)
(Circle Applicable) (Exclude Pool Screen Enclosure) None Built-In (Circle Size and Type) Size <u>Type</u>	Section P-1 SoffitsOverhangLength(inches)(linear feet)
(Circle Applicable)(Exclude Pool Screen Enclosure)NoneBuilt-In(Circle Size and Type)AttachedDetachedSmallOpenOpen	Section P-1 Soffits           Overhang (inches)         Length (linear feet)
(Circle Applicable)(Exclude Pool Screen Enclosure)NoneBuilt-In(Circle Size and Type)AttachedDetachedSizeTypeSmallOpenMediumScreenedNumber of Cars:LargoEnclosed	Section P-1 Soffits Overhang (inches) Clinear feet) Clinear feet
(Circle Applicable)(Exclude Pool Screen Enclosure)NoneBuilt-In(Circle Size and Type)AttachedDetachedSizeTypeMumber of Cars:LargeEnclosed	Solid/Wood/Other

						_		Ri	ght	Elev	atio	on							
			Ro	of SI	iano	Se	ctior	ו F-2 I	Exte	rior F	Roof	Info	rmat	ion	Roof Comp	ovity			
E	Gable Gambrel			Hip Man	sard	•		Flat Other					Sim Mod Corr	ple F lerate plex	Roof Shape e Roof Shape Roof Shape	exity			
							Sec	tion 0	G-2 V	Vindo	ow C	)pen	ings						
Number	Quant	itv	V	/indc	W		Floo	or		Оре	ening	in Ind	ches			Protection	ſ		
4		,		Туре	9					Width	١		Heigh	nt	Code	Yr.	Insta	lled	
2																			
3																			
4																			
5 6																			
7																			
	1		_					Se	ctior	າ H-2	Doc	ors			Dest	ti			
Number	Quant	ity	Do	or T	ype		Floo	or		Ope Width	ening n	in Ind	ches Heiat	nt	Code	Yr Insta	alled	Gia Ves	zea
1										vviati	1		leigi	it.	Code	11. 1130	licu	163	NU
2																			
3																			
4	Sec	ction	1-2 9	Skyli	ahts								Sec	ction	I-2 Gable F	nds			
Overstitu	Daylig	ht/Buo	ck		P	rotec	tion	-		)	·	<b>.</b> .	Laiak		Bottom		Vent		
Quantity	Width Height Code					Yr.	Inst	alled	L.	Quantity			IL	Chord Width	Width	ŀ	leigh	nt	
						Sec	tion	K-2 V	Vall (	Clade	dina	(circ	cle fl	oor)					
Alur	ninum Sic	ding	1	2	3	4		Stuce				3	4						
Viny	I Siding		1	2	3	4		Brick	Veneer 1			2	3	4 Other 1 2 3			3	4	
Woo	od Siding		1	2	3	4	n I	Paint		BIOCK	1 Uctio	$\frac{2}{2}$	ircla	4 floo	r)				
Con	crete Blo	ck Ur	ı-Rei	infor	ced	Sould	1	2	3	4		Soli	d Co	ncret	te	1 2	3	4	
Con	crete Blo	ck Re	einfo	rced			1	2	3	4		Woo	od/Lię	ght N	letal Frame	1 2	3	4	
	a a l'a a la la	Sec	tion	M-2	Reir	nforc	eme	ent Ch	eck:	che	eck 3	6-5 le	ocati	ons	for entire ho	use)			
NOT A	ppiicable			Le	en Co	orner				vvinc	IOW/I	Joor			Right Cornel				
S	Section N	-2 Ca	arpo	rt			9	Sectio	n O-	-2 Po	rche	S		-	Sectio	n P-2 Sof	fits		
Non	(Circle A	pplical Ruil <del>l</del>	ble) F_In				(Ex	clude P	ool Sa 9 Size	creen E	Enclos	sure)			(inches)	L (lin	.engt ear fé	: <b>h</b> 2011	
Non	C	Dum	-111				S	ize	0120		уре) Туре	<u>)</u>			(incres)			501)	
Atta	ched	Deta	ache	d			Sm	all	•	Ope	n								
NI	abor of O	0.00					Med	dium		Scre	ene	d v				d/Mood/C	)thor		
NUN	iber of C	ars:			-		Lar	ye		EUC	use	J				vl/Alumini	uner Im		
																ne			

								Ba	ack	Elev	atio	on								
						Se	ctior	ו F-3 I	Exte	erior F	Roof	Info	rmat	ion	<u> </u>	•.				
	Qabla		Ro	of SI	nape							1	Circo	min F	Roof Comple	exity				
	Gambrel			нр Man	sard			Other	ſ				Moc Con	pie F lerat nple>	e Roof Shape Roof Shape Roof Shape					
							Sec	tion 0	<u>3-3</u> \	Windo	ow C	)pen	inas							
Niccole	0	••	V	/indc	W	<u> </u>				Ope	ening	in In	ches	-	<b></b>	Prote	ctior	1		
Number	Quant	ity		Туре	9		FIOC	br		Width	1		Heigl	nt	Code		Yr.	Insta	lled	
1																				
2																				
3 4																				
5																				
6																				
/								So	ctio	n H_3	Doc	re								
				_		<u> </u>		56		Ope	enina	in In	ches		Prote	ection			Gla	zed
Number	Quant	ity	Do	or T	уре		Floo	or		Width	<u>เ</u>		Heigh	nt	Code	Yr. I	nsta	lled	Yes	No
1																				
2																				
3																			<u> </u>	
4	Sec	rtion	1-3.9	Skyli	ahts	<b></b>							Se	ctior	1.1-3 Gable Fr	nds				
0	Daylig	ht/Bu	ck		P	rotec	tion			o "					Bottom			Vent		
Quantity	Width	He	ight	Сс	ode	Yr. Installed			(	Quanti	ty		Heigi	nt	Chord Width	Wic	dth	ł	leigh	nt
					_		4	14.0.14	/ - 11		P	( - '	-1- 6							
Alur	ninum Sic	ling	1	2	3	Sec	tion	K-3 V	vall	Clade				oor) ⊿						
Vinv	/I Sidina	ung	1	2	3	4		Brick	Ve	neer	1	2	3	4	Other	1 2 3			4	1
Woo	od Siding		1	2	3	4		Paint	ed I	d Block 1 2 3			4				1			
					S	Section	on L	-3 Wa	II C	onstru	uctio	on (c	ircle	floo	or)					
Con	crete Blo	ck Ur	n-Rei	nfor	ced		1	2	3	4		Soli	d Co	ncre	te	1	2	3	4	
Con	crete Blo	ck Re	einfor	rced	Dali	-f	1	2	3	4		Wo	od/Li	ght N	letal Frame	1	2	3	4	
Not A	nnlicable	Sec	uon	IVI-S	ft Co	Inorc	eme	ent Ch	Ieck	Wind	ow/l	<b>)- 3  </b> Door	ocal	ons	Right Corner	ise)				
	phicable			LC		mer				vviire	10 00/1	5001								
Ś	Section N	-3 Cá	arpo	rt			ç	Sectio	on O	)-3 Po	rche	s			Section	ו P-3	Sof	fits		
	(Circle A	pplical	ble)				(Ex	clude P	ool S	Screen E	Enclos	sure)			Overhang		L	engi	h.	
Non	e	Built	-In					(Circl	e Siz	e and T	'ype) Turn				(inches)		(line	ear t	eet)	
Atta	ched	Deta	ache	d			Sm	all	-	One	n n	2								
,	0.100	2010		-			Med	dium		Scre	ene	d				1				
Nur	nber of C	ars:			-		Lar	ge		Encl	losed	d			g Soli	d/Woo	od/C	ther		
					-										Z Viny	/l/Alur	ninu	m		
															' Non	е				

							L	eft E	Eleva	atio	n								
				_	Se	ctior	ו <b>F-4</b>	Exte	rior F	Roof	Info	rmat	ion	<b>B</b> (A)					
	Qabla	Ro	of S	hape		1	I TLAK				1	Circo		Roof Comple	exity				
	Gable		Hip	aard			Flat	-				Sim	ple F	Roof Shape					
	Gamprei		iviar	isard			Othe	ſ					erat						
												Con	ipie	Roof Shape					
						Sec	tion (	G-4 V	Nindo	ow C	)pen	ings							
NI	0		Vindo	w		<b>E</b> 1		<b>—</b>	Ope	ening	in Ind	ches			Proteo	ction			
Number	Quantity		Туре	е		FIOC	or		Width	<del>ر</del>	ŀ	leigh	nt	Code		Yr. In	sta	lled	
1																			
2																			
3																			
4		_																	
5																			
7																			
					L		Se	ctior	n H-4	Doc	ors								
Number	Quantity		oor T					Γ	Оре	ening	in Ind	ches		Prote	ection			Gla	zed
number	Quantity	D		ype		FIOC	Л		Width	l	ł	Heigh	nt	Code	Yr. li	nstalle	ed	Yes	No
1																			
2																			
3																			
4	0		01			_				_		0	- 4				_	_	
	Secti Devlicet/	on I-4	Skyl	ights	otoo	lion		-			1	See	ctior	1 J-4 Gable El	nds		<u>.</u>		
Quantity	antity Width Height Code					lion	allod	G	Quanti	ity	H	Heigh	nt	Bottom Chord Width	Wid	V th	ent	loigh	+
	Width Height Code					msı	alleu								vviu	uı	Γ	leigi	ιι
	R		-		Sec	tion	K-4 \	Vall	Clade	ding	(circ	cle fl	oor)						
Alun	ninum Sidin	g 1	2	3	4		Stuc	0 1		2	3	4							
Viny	I Siding	1	2	3	4	Brick Ve			Veneer 1 2			3	4 Other 1 2 3 4				4		
Woo	od Siding	1	2	3	4 Painted Block			Block	1 2 3 4										
				S	ectio	on L	-4 Wa		onstr	uction (circle fl			floo	or)	1 . 1	_	_		
Con	crete Block	Un-Re	infor	ced		1	2	3	4		Soli	d Co	ncre	te	1	2	3	4	
Con		Reinic		Dair	foro	7	2	J	4	ok 2		Da/Lię	gnt N	for optire boy	7	2	3	4	
Not A	nnlicahla	ection	I IVI-4		Inorc	eme		IECK.	. (Che			ocali	ons	Pight Corper	use)				
NOL A	phicable		LC				J		VVIIIC	1000/1	0001			Right Comer					
S	ection N-4	Carpo	ort			ç	Sectio	on O	-4 Po	rche	s			Section	n <b>P-4</b> :	Soffit	S		
	(Circle Appl	icable)				(Ex	clude F	ool S	creen I	Enclos	sure)			Overhang		Lei	ngt	h	
Non	e B	uilt-In					(Circl	e Size	e and T	(ype)				(inches)		(linea	ar fe	eet)	
						S	ize	_		Туре	<u>ə</u>								
Atta	ched D	etache	d			Sma	all		Ope	n									
						Med	dium		Scre	ene	d				-10.47				
Num	iber of Car	s:		-		Larg	ge		Enc	iosed	a					od/Oth	ner		
															/i/Alun	mnum	I		
														NON					

Section Q Roof Deck									
Materials	Deck Thickness	Roof Deck Attachment	Spacing						
No Access Plywood OSB Planks/Dimensional Lumber Concrete	(Nominal) No Access 3/8" 7/16" 1/2"	No Access Staples 6d Nail 8d Nail 10d Nail Screws (=> #8 x 2	> 6"/12" 6"/12" 6"/6" 2.5")						
Deck over Battens Battens Metal Deck Other	5/8" 3/4" =>1" Other	Spray Foam Adhe	Spray Foam Adhesive Construction Adhesive						
Roof Slope: /12			]2 ]3 ]4+						
Section R Roof Structure Materials	Sect	ion S Secondary Water Ba	rrier						
No Access Rafters Wood Trusses Light Metal Trusses Spacing: 12" 16" 24" >24" (Circle one)	Exterior Interior None If none, is there > t	How verified: Photos (Circle Applicable) Spray Foam Adhesive: han 4 feet of height?	Documents Other						
Section T Roof to Wall Connection									
Severe Corrosion       3 or More Nails       Every Truss/Rafter       Within 1.5" of Trusses         No Access       Y       N       Y       N       Y       N         None       Toe Nail       Clips       Single Wrap       Double Wrap       Unknown         If Unknown, Explain why:									
Sec	tion U Gable End Wall	Construction							
Count	Count # Gab	oles = 4 or more feet high							
Total Number of ALL GablesNot NotNumber Less than 4' highOable NGable NPlywoodOSB Planks	Access Braced Cathedral Ceiling Braced Flat Ceiling Wall Sheathing (check ty Non-wood / Ir None Masonry	g Count # of BR/ Balloon Deck/Dia pe) Diagona sulation Horizont Masonry Masonry	ACED Gables aphragm I Bottom or X Bracing al Continuous Cathedral Flat Ceiling						
S Diam Manua (11)	ection V Building Foot	print Area:	r:						
Plan View of House (for calcula	ating building footprint are	ea Square Feet)>	sq. ft.						

Attch 18B, Appendices to Training Manual Page 28 of 38

Attch 18B, Appendices to Training Manual Page 29 of 38

# APPENDIX E: METALLISCANNER INSTRUCTIONS

Attch 18B, Appendices to Training Manual Page 30 of 38





or PVC pipe cannot be

Caution:



# ZIRCON

Zircon. Any implied warranties applicable to this product are limited to the IN NO EVENT WILL ZIRCON BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR and no other representations or claims of any nature shall bind or obligate neglect. This warranty is in lieu of all other warranties, express or implied, purchase. Any in-warranty defective product returned to Zircon\*, freight handling, will be repaired or replaced at Zircon's option. This warranty CONSEQUENTIAL DAMAGES RESULTING FROM POSSESSION, USE OR limited to the electronic circuitry and original case of the product and prepaid with proof of purchase date and \$5.00 to cover postage and Zircon Corporation, ("Zircon") warrants this product to be free from defects in materials and workmanship for one year from the date of specifically excludes damage caused by abuse, unreasonable use or LIMITED 1 YEAR WARRANTY one year period following its purchase. MALFUNCTION OF THIS PRODUCT.

damages, so the above limitations and/or exclusions may not apply to you, and further (ii) this warranty gives you specific legal rights and you may also have other rights which vary from state to state. lasts and/or the exclusion or limitation of incidental or consequential

and repair, where proof of purchase is not provided, shall be returned with Be sure to include your name and return address. Out of warranty service Return product freight prepaid with proof of purchase date (dated sales repairs charged C.O.D. Allow 4 to 6 weeks for delivery. Chula Vista, CA 91914-3510 USA receipt) and \$5.00 to cover postage and handling, to: 2390 Boswell Road, Suite 300 \*Attn: Returns Department Zircon Corporation

Customer Service, 1-800-245-9265 or 1-408-866-8600 E-mail: cur U.S. Patent #5729143

@2002 Zircon Corporation • P/N 58932 • Rev B (11/02)

(i) some states do not allow limitations on how long an implied warranty

In accordance with government regulations, you are advised that:

**NSTALLING THE BATTERY** 

battery into the MT 6 bat-Slide open the bat-tery compartment tery compartment and replace the door. With battery clip. Insert the door and connect the 9-volt battery to the -

normal use, one 9-volt battery should last approximately one year.

# **GETTING FAMILIAR WITH** THE DISPLAY

Depth Plus/Minus Sign

Range



The display has indicators that indicate status and show information about detected objects

(targets). 

There are 3 status indicators: low battery, audible, and silent icons. The low battery icon is displayed when the battery has less than five hours of use remaining. in the AUDIBLE mode. In the SILENT mode, the SILENT The AUDIBLE icon will always be on when the unit is icon will be active.

netic material (copper, for example) is detected, the The remaining icons indicate information about a target: detects magnetic material, such as iron. If nonmagicon will show a line through the magnet. Neither icon is displayed until the MT 6 detects metal at The magnetic icon is displayed whenever the unit less than 6 in. (152 mm) deep.

sequentially turn on as the MT 6 gets closer to the metal. The depth numbers correspond to the depth The bars begin from the bottom of the display and The depth bars represent the depth of the target. Depth is indicated in both inches and centimeters. to the top surface of the metal target.

passed, the plus sign changes to the minus sign and The plus sign indicates that you are moving toward metal, while the minus sign indicates movement away from it. If the unit is stationary, the icon indi-cates the most recent movement. When a target is the MT 6 beeps (in the AUDIBLE mode).

# **TURNING THE MT 6 ON AND OFF**

The 3 position mode select switch turns the MT 6 on and off and selects either audible or silent operation. m

either the AUDIBLE or SILENT position. This should Turn the unit on by moving the mode switch to

 The MT 6 performs a calibration immediately after be done in air and awav from any metal.

it is turned on.

any large metal objects and remove them or move long, low-pitched tone and all the depth bars will be displayed. If this happens, check the area for Note: If the unit fails to calibrate, you will hear a the unit to a different location. Then try turning

 To turn the MT 6 off, move the mode switch to the the unit on again.

OFF position.

 The auto power off feature turns off the MT 6 after five minutes of inactivity. After it turns off, the unit loses its calibration.

# PRESCANNING THE TARGET AREA

thin piece of cardboard between the surface and Note: 1. Before scanning, wipe the area to be scanned clean of sand and pebbles. 2. If the scanning surface is fairly rough, place a 4

the unit. The thickness of the cardboard must be determine the actual depth to the target when subtracted from the depth reading to using this procedure.

 Turn on the unit away from the surface to be scanned.

 Place the unit on the scanning surface and move from side to side. As a target is approached, an increasing number of depth bars will show. At the point closest to metal, the pluc sign will change to a minus sign and there will be a beep (in AUDIBLE mode.)

using this product. The

2

inaccurate results. metal may cause

# Once you have located a target, reposition the MT The type of metal detected will be indicated by the magnetic/nonmagnetic icon.

you scan along the length. pipe, the depth indicator will remain constant as the extent of the target. If the target is a rod or 6 over it and scan perpendicular to your original scanning direction to be sure you have determined

- Continue scanning to determine if there are multiple targets. If precise depth is important, determine an area that is free of metal for
- If desired, mark target locations. Crosshairs on the top and front of the unit show where recalibration (See next section).

sensitivity is maximum.

# RECALIBRATION FOR MAXIMUM DEPTH ACCURACY

after prescanning targets before making a final deter-mination of depth. Recalibration will not affect the of concrete. Thus, it is often beneficial to recalibrate 5 The MT 6 automatically calibrates at turn on. However, depth accuracy is dependent on the materials in the vicinity of the measurement, in positioning accuracy. particular, when the materials may contain metal or metallic minerals, as is common with various mixes

To recalibrate:

 Locate an area on the surface where there is no indication of metal.

with rebar in concrete, there may be no area free of metal. In this case, best results may be obtained Note: If a grid pattern exists, such as may occur not improve overall depth accuracy. accuracy may be affected and recalibration may by calibrating midway between targets. However,

- Press and release the PRESS TO RECALIBRATE switch. All icons on the display will light
- Rescan target areas. A final determination of depth momentarily during calibration.
- can now be obtained from the depth indicator.
- Rough Surfaces: Wipe area to be scanned clean of sand and pebbes. If scanning surface is still airly rough, place very thin cardoard between surface and unit. Cardoard thickness must be subtracted from the depth reading to determine actual depth to the target.
- Temperature Changes: MT 6 is designed to operate at approximately 70°F (21°C). Sensitivity decreases slightly at higher temperatures, but is not noticeably affected at lower temperatures.
- Nonmetallic Objects: MT 6 will only locate metal objects. Nonmetallic objects such as wood studs and ceramic or PVC pipe cannot be located with this product.

# DEPTH ACCURACY AND TARGET SIZE HELPFUL HINTS

The Jack reading an energiable and for	Situation	Probable Causes	Solutions
measuring 1/2 inch copper pipe or #4 rebar. For any other metal object, the depth reading of the MT 6 will be loss accurate	Difficulty detecting metal accurately.	<ul> <li>Metal spaced too closely together prevents calibration.</li> </ul>	<ul> <li>Avoid wearing any jewelny, including watches, when using the MT 6 and move large metal tools away from target, when feasible.</li> </ul>
<ul> <li>Small objects such as nail heads will be shallower than indicated.</li> <li>For rebar other than #4, the depth reading is accurate to about ±1 inch (±2.54 cm).</li> </ul>			<ul> <li>Oper constant, wight pressure during scan,</li> <li>Allow 5 to 10 minutes for temperature to stabilize before operating if unit has been moved to an area with a 10°F (-12°C) change or greater (e.g., from air-conditioned building to outdoors on a warm day).</li> </ul>
<ul> <li>For 1/4 inch copper pipe, actual depth will be about 30% shallower than indicated.</li> </ul>	Inaccurate calibration and/or depth reading	Calibrated directly over a metal target.	Calibrate away from metal to accurately determine depths.     Move the unit over a few inches and recalibrate.     Move the unit over a few concers to concers.
<ul> <li>For 34 inch copper pipe, actual depth may be about 20% deeper than indicated.</li> <li>Large metallic objects, such as pieces of sheet metal, at very shallow depths may give erroneous indica- tions of metal type (magnetic vs nonmagnetic).</li> </ul>	nonmagnetic objects positioned side-by-side or on top of each other.	segments that could have been poured at different times.	<ul> <li>Make sure use wir or ukurus ruie suriacer it is summer it is summer it is summer.</li> <li>Do not rely on single calibration for the entrine depth of targets for each segment of concrete.</li> <li>For maximum accuracy on concrete, make sure concrete is fully cured.</li> </ul>
CAUTION	Calibration is lost.	<ul> <li>Unit was turned off or mode changed.</li> </ul>	<ul> <li>Recalibrate every time you change mode or turn on unit.</li> </ul>
<ol> <li>Always turn off power when working near electrical wires.</li> <li>In situations involving multiple, closely spaced targets, the MT 6 may be unable to detect the exact location and/or depth of each piece of metal. Always use Caution and wear safety glasses when nation critical or in walls.</li> </ol>	Beep doesn't seem relative to targets	<ul> <li>Scanning near the edge of a piece of concrete.</li> <li>Target is more than 4 in.</li> <li>(10 cm) deep: unit will not beep at the same time as plus/minus change and maximum depth bars appear.</li> </ul>	<ul> <li>Ignore beep and rely on depth bars to locate target.</li> </ul>
<ul> <li>ceilings that may contain metal objects.</li> <li>3. If a magnetic and nonmagnetic object (ex., rebar and copper pipe) are positioned side-by-side or on too of each other, the MT 6 may have difficulty</li> </ul>	Unit makes long, low-pitched tone and display does not return to normal.	<ul> <li>Calibration error has occurred.</li> </ul>	<ul> <li>Reposition the MT 6 and recalibrate.</li> </ul>
locating them.	Low battery indicator.	<ul> <li>Battery has less than 5 hours of use remaining.</li> </ul>	Replace battery to maintain sensitivity.
	Questions? Chec	k our Web site at www	.zircon.com and click "Product Support."
Rough Surfaces: Wine area to be scanned clean of sand	dacational clice		Enconicom and circs in page papport.

This equipment has been rested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment gener-ates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, C there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be FCC Part 15 Class B Registration Warning

- determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna
- (2) Increase the separation between the equipment and
- receiver
- (3) Connect the equipment into an outlet on a circuit, different from that which the receiver is connected (if applicable)
- (4) Consult the dealer or an experienced radio/TV











Zircon Corporation ("Zircon") garantiza ette producto cano libre de defectos consenteiros y mono de dara por una los partir de la harta de conpra-cuenteiros y mono partiro, con programa esta partiro de la parti

EN NINGUN CASO, ZIRCON SERA RESPONSABLE DE NINGUN DAÑO ESPECIAL, INCIDENTAL O RESULTANTE DE LA POSESION, USO O MAL FUNCIONAMIENTO DE ESTE PRODUCTO.

midad con las reglamentaciones gubernamentales, se le notifica que: I) en algunos estados no se permiten limitaciones del tiempo de vigencia de una garantía implícita ylo de la exclusión o limitación de daños incidentales o

@2002 Zircon Corporation • P/N 58932 • Rev B (11/02)

Asegúrese de incluir su nombre y dirección. El servicio y reparación fuera de garantía donde no se incluya el comprobante de compra se regresará con cargos de reparación C.O.D. Permita de 4 a 6 semanas para la entrega. Servicio a clientes: 1-800-245-9265 ó 1408-866-8600 De lunes a vienes de 8 a.m. à 5 p.m. hora del Pacífico, A la dirección de correo electrónico: customer:service@zircon.com 2390 Boswell Road, Suite 300 Chula Vista, CA 91914-3510 USA \*Attn: Patente de EE.UU. #5729143

# audible y silencioso. El icono de batería baja aparece cuando a la batería le quedan menos de cinco horas de uso. El Existen 3 indicadores de estado: iconos de batería baja, muestra información sobre los objetos detectados (objetivos).

modo de SILENT (SILENCIO), el icono SILENT estará activo. El resto de los iconos muestra información acerca de un encendido cuando la unidad esté en modo AUDIBLE. En icono AUDIBLE (AUDIBLE) siempre estará objetivo: estado.

hasta que el MT 6 detecte metal a menos de 6 pulgadas material no magnético (por ejemplo, cobre), se mostrará una línea a través del icono. No aparece ningún icono El icono de magnético aparece siempre que la unidad detecte material magnético, como hierro. Si se detecta (152 mm) de profundidad.

 Las barras de profundidad representan la profundidad del objetivo. La profundidad se indica en pulgadas y

en centímetros. Las barras se inician desde la parte infeconforme el MT 6 se acerca más al metal. Los números rior de la pantalla y se encienden en secuencia,

de la profundidad corresponden a la profundidad hasta la superficie superior del objetivo metálico.

**NSTALACION DE LA BATERIA** 

 El signo más (+) indica que usted avanza hacia el metal, mientras que el signo menos (-) indica que se aleja. Si la unidad está sin moverse, el icono señala el movimiento cambia de más a menos y el MT 6 emite un sonido (en más reciente. Cuando se pasa por un objetivo, el signo el modo AUDIBLE).

# ENCENDIDO Y APAGADO DEL MT 6

cerrarla. Bajo condiciones normales, la batería durará

aproximadamente 1 año.

colocar la puerta de la batería y deslícela hasta

compartimiento. Vuelva a

No R

Inserte la batería de 9-V en

el conector. Coloque la timiento para baterías.

batería dentro del

puerta del compar-

Deslice y abra la

G

- El interruptor de selección de modo de 3 posiciones enciende y apaga el MT 6 y m
- selecciona modo de operación silenciosa o audible.
  - Encienda la unidad moviendo el interruptor de modo a la posición AUDIBLE o SILENT. Esto debe hacerse en el aire y lejos de cualquier metal.

COMO FAMILIARIZARSE CON LA

 El MT 6 se calibra inmediatamente después de encenderlo.

> s de Profundidad Indicador de

Signo Más/Menos

PANTALLA

Nota: Si la unidad no se calibra, escuchará un sonido largo y de tono bajo, y se mostrarán todas las barras mueva la unidad a un lugar diferente. Luego intente de profundidad. Si esto sucede, revise el área por si hubiera objetos metálicos grandes, y retirelos o

10 Ellipsi - Indicador de Sistema Auditivo

Silenciador

to the Bateria Baja

Barras de Profundidad

Icono Magnético

La pantalla tiene indicadores de estado y

2

- Para apagar el MT 6, mueva el interruptor de modo a encender la unidad otra vez.
  - la posición OFF (APAGADO).
- La función de apagado automático apaga el MT 6 después de cinco minutos de inactividad. Después de apagarse, la unidad pierde su calibración.

# **EXPLORACION PREVIA DEL** AREA OBJETIVO



un pedazo de cartón delgado entre la superficie y la unidad. Debe restar el grosor del cartón de la lectura 2. Si la superficie de exploración es irregular, coloque

de profundidad, para determinar la profundidad real del objetivo al utilizar este procedimiento.

- Encienda la unidad lejos de la superficie que va a explorar.
- Coloque la unidad sobre la superficie de exploración y

mostrará un número cada vez mayor de barras de pro-fundidad. En el punto más cercano al metal, el signo muévala de lado a lado. Al acercarse a un objetivo, se

2

resultados poco precisos.

metal puede provocar

tal vez no exista un área libre de metal. En este caso, tal vez obtenga mejores resultados calibrando a media dis-tancia entre los objetivos. La exactitud puede vense afec-tada y la recalibración puede no mejorar la exactitud de la lectura de profundidad. materiales pudieran contener metal o minerales metáli-cos, como es usual en diversas mezclas de concreto. Por lo tanto, a menudo es útil recalibrarlo después de la exploración previa de los objetitos y antes de realizar la determinación final de la profundidad. La recalibración Nota: Si existe un patrón de rejilla, como pudiera suceder con las barras de refuerzo en el concreto. Localice un área en la superficie donde no exista indino afectará la precisión del posicionamiento. Para recalibrarlo: cercanías de la medición, en particular cuando los G RECALIBRACION PARA MAXIMA Continúe explorando para determinar si hubiera obje-tivos múltiples. Si es importante que la profundidad Presione y suelte el interruptor PRESS TO RECALIBRATE (Presione para recalibrar). Todos los Precision de profundidad Explore nuevamente las áreas del objetivo. Ahora cación de metal la parte superior y frontal de la unidad (vea la sección COMPONENTES DEL MT 6). Si lo desea, marque las ubicaciones de los objetivos para recalibrarlo (vea la siguiente sección). sea precisa, determine un área que esté libre de metal lo largo de la longitud. pendicular a su dirección original de exploración, para asegurarse de que determinó el alcance del objetivo. Una vez que haya localizado un objetivo, coloque nue El tipo de metal detectado se indicará por el icono que mente durante la calibración. La sensibilidad maxima se senala por cursores tinos en fundidad se mantendrá constante mientras explora a Si el objetivo es una varilla o tubo, el indicador de proindica magnético/no magnético. sonido (en modo AUDIBLE). iconos de la pantalla se encenderán momentáneavamente el MT 6 sobre él y explore en dirección perprofundidad con el indicador de profundidad. puede obtener una determinación final profundidad depende de los materiales en las El MT 6 se calibra automáticamente al R

# RECALIBRACION PARA MAXIMA PRECISION DE PROFUNDIDAD

más cambiará a signo menos y se escuchará un

Las lecturas de profundidad se sintonizan especificamente para medir tuberías de cobre de ½ pulg, o barras de refuerzo #4. Para cualquier otro objeto de metal, la lectura de profundidad del MT 6 será menos precisa.

- Los objetos pequeños, como las cabezas de los clavos, estarán a menos profundidad de la indicada.
- Para barras de refuerzo diferente a la #4, la lectura de profundidad es precisa aproximadamente a  $\pm 1$  pulg ( $\pm 2$  .54 cm).
- Para tuberías de cobre de ¼ de pulg., la profundidad real será aproximadamente 30% menor de la indicada
- Para tubería de cobre de <sup>3</sup>/<sub>4</sub> de pulg., la profundidad real puede ser aproximadamente 20% mayor de la indicada.
- Los objetos metálicos grandes, como piezas de chapa metálica a muy poca profundidad, pueden dar indica-ciones erróneas del tipo de metal (magnético contra

# PRECAUCION no magnético).

Siempre apague la alimentación eléctrica cuando trabaje cerca de alambres eléctricos.
 En situaciones que involucren objetivos múlti-ples y que estén muy cercanos, el MT 6 tal vez no pueda detectar la ubicación y/to profundidad exacta de cada pieza de metal. Sempre tenga cuidado y use lentes de seguridad al davar, cortar o perforar sobre

 Si un objeto magnético y uno no magnético (ej., una barra de refuerzo y un tubo de cobre) están coloca-dos lado a lado o uno arriba del otro, el MT 6 podría paredes, pisos y techos que pudieran contener obje-tos metálicos.

tener problemas para localizarlos.

# CONSIDERACIONES ESPECIALES

- Superficies Rugosas: Limple el área que se debe explorar extrayendo la arena y los piedras pequeñas.
   Si la superficie de exploración continúa siendo rugosa, coloque una placa de cartulina delgada entre la superficie y la unidad.
- Cambios de Temperatura: El MT 6 está diseñado
- para operar en unà temperatura de aproximada-mente 70° F (21° C). La sensibilidad disminuye leve-mente a temperaturas más altas, pero no se ve con-siderablemente afectada a temperaturas más bajas.

dañina cuando el equipo se opere en una instalación

- Objetos No Metálicos: El MT 6 sólo buscará objetos de metal. Los objetos no metálicos tales como vigas de madera, tubería de cerámica o PVC no pueden ser encontrados con este producto.

no ocurrirá interferencia en una instalación en particular. Si comunicaciones de radio. Sin embargo, no hay garantía de que

# CONSEJOS UTILE Ŋ

							_
- Advartancia da ranistro da	Indicador de baja batería. Preguntas? Visi	La unidad emite un tono largo, grave y la pantalla no vuelve la normalidad.	La alarma no parece encontrarse cerca de objetos.	Se perdió la calibración.	Calibración y/o lectura de profundidad no precisa debido a objetos magnéticos/ no magnéticos ubicados uno al lado del otro o encima del otro.	Dificultad para detectar metales con precisión.	Situación
a la ECC Secrión 15 Clase R	Todavia le restan menos de 5 horas de uso a la batería. te nuestro sitio Web www	<ul> <li>Se produjo un error de calibración.</li> </ul>	<ul> <li>Se está explorando cerca del borde de una porción de concreto</li> <li>El objetivo está a más de 4 pulgadas (10 cm) de profundi- dad; la unidad no suena al mismo tiempo que cambia más/menos y aparecen las barras de profundidad máxima.</li> </ul>	<ul> <li>Se apagó la unidad o se cambió la modalidad.</li> </ul>	<ul> <li>Calibrado directamente sobre un objetivo de metal.</li> <li>El concreto y las varillas se encuentran en esgmentos que podrían fluir en momentos diferentes.</li> </ul>	<ul> <li>Los metales colocados muy juntos impiden la calibración.</li> </ul>	<b>Causas Probables</b>
acta anuina mauna interferencia dañina a la recentión de	Reemplace la bateria para mantener la sensibilidad.     zircon.com y presione "Product Support."	<ul> <li>Vuelva a ubicar el MT 6 y vuelva a calibrar.</li> </ul>	<ul> <li>Ignore la alarma y confie en la rueda de exploración y las barras de profundidad para buscar el objetivo.</li> </ul>	<ul> <li>Vuelva a calibrar cada vez que cambie la modalidad o encienda la unidad.</li> </ul>	<ul> <li>Calibre lejos de los metales para determinar la profundidad con precisión. Mueva la unidad unas pocas pulgadas y vuelva a calibrar.</li> <li>Asegúrese de que el MT 6 toque la superficie que está explorando.</li> <li>No confie en una única calibración de todo el área. Explore previamente cada segmento por separado; calibre y determine la profundidad de los objetivos de cada segmento de concreto.</li> <li>Para la máxima precisión, use sólo en concreto completamente seco.</li> </ul>	<ul> <li>Evite usar alhajas, incluso reloj, cuando use el MT 6 y aleje las herramientas grandes de metal del objetivo, cuando le resulte posible.</li> <li>Use presión constante y leve durante la exploración.</li> <li>Espere entre 5 y 10 minutos hasta que se estabilite la tempe- ratura antes de usar la unidad si fue llevada a un área com cambio de temperatura de 25° o mayor (por ejemplo, de un cambio de temperatura de 25° o mayor (por ejemplo, de un edificio con aire acondicionado al exterior en un día caluroso).</li> </ul>	Soluciones

las instrucciones, puede provocar interferencia dañina a las radio frecuencia y, si no se instala y utiliza en conformidad con residencial. Este equipo genera, usa y puede radiar energía de para ofrecer una protección razonable contra la interferencia Sección 15 de las Reglas de la FCC. Estos límites se diseñaron límites para un dispositivo digital Clase B, conforme a la Este equipo se ha probado y se encontró que cumple con los (2) Incremente la separación entre el equipo y el receptor. Reoriente o reubique la antena de recepción. diferente al que se conectó el receptor (si aplica). (3) Conecte el equipo en una toma eléctrica en un circuito la interferencia mediante una o más de las siguientes medidas apagando el equipo, se exhorta al usuario a tratar de corregir radio o televisión, lo cual puede determinarse encendiendo y

(4) Consulte al distribuidor o a un técnico experimentado en

radio y televisión para recibir ayuda

6

Attch 18B, Appendices to Training Manual Page 35 of 38

Attch 18B, Appendices to Training Manual Page 36 of 38

# APPENDIX F: FLORIDA BUILDING CODE REFERENCES FOR GABLE END WALL CONSTRUCTION

# Appendix F Florida Building Code References for Gable End Wall Construction

Florida Building Code References for Gable End Wall Construction.

1918.3 Gable endwalls.

1918.3.1 General.

Gable endwalls shall be structurally continuous between points of lateral support.

1918.3.2 Cathedral endwalls.

Gable endwalls adjacent to cathedral ceilings shall be structurally continuous from the uppermost floor to ceiling diaphragm or to the roof diaphragm.

2115.1 Gable endwalls.

2115.1.1 General.

Gable endwalls shall be structurally continuous between points of lateral support.

2115.1.2 Cathedral endwalls.

Gable endwalls adjacent to cathedral ceilings shall be structurally continuous from the uppermost floor to the ceiling diaphragm or to the roof diaphragm.

2212.1 Gable end walls.

Gable endwalls shall be structurally continuous between points of lateral support.

2212.2 Cathedral end walls.

Gable endwalls adjacent to cathedral ceilings shall be continuous from the uppermost floor to ceilings shall be continuous from the uppermost floor to ceiling diaphragm or to the roof diaphragm.

2304.3.4 Gable endwalls.

2304.3.4.1 General.

Gable endwalls shall be structurally continuous between points of lateral support.

2304.3.4.2 Cathedral endwalls.

Gable endwalls adjacent to cathedral ceilings shall be structurally continuous from the uppermost floor to the ceiling diaphragm or to the roof diaphragm.

2304.3.4.3 Full height studs.

Full height studs may be sized using the bracing at a ceiling diaphragm for determining stud length requirements.

2318.1.8 Framing types.

2318.1.8.1

Wood framing may be any one, or a combination of, the following types: platform, balloon, plank and beam or pole type.

### 2318.1.8.2

### Attch 18B, Appendices to Training Manual Page 38 of 38

Exterior stud walls of two-story buildings shall be balloon-framed with studs continuous from foundation to second floor ceiling and with second floor joists supported as indicated in Section 2319.3.3. Gable end walls in wood frame buildings shall be balloon framed with studs continuous from foundation to roof.

Exception: Platform framing is allowed in buildings over one story in height provided an additional mandatory inspection for floor level connectors is made before the framing/firestopping inspection. Gable end walls shall be balloon framed with studs continuous from top floor to roof.

### 2319.17.2.4.4

At gable ends, this diaphragm shall be designed to transmit lateral loads imposed on the gable to roof diaphragms and/or ceiling diaphragms where available. Where the wall supporting the gable is not designed to withstand lateral loads independent of the gable (by using shear walls or other methods), anchorage of the gable to the wall shall be designed to transmit the loads from the wall to the bracing and the bracing designed to transmit the lateral loads from the gable and wall to the roof diaphragms and/or ceiling diaphragms where available. Ceiling diaphragms that provide lateral support at gable walls shall be designed by the architect or professional engineer of record, and shall have continuous bottom chord bracing, end restraints, intermediate restraints and conditions so as to sufficiently transfer the lateral loads at the top of the gable end walls to the intersecting shear walls. In no case shall the rigid ceiling as defined in Section 2319.17.1.2 be used as an integral part of the system needed for lateral bracing of the gable end walls.