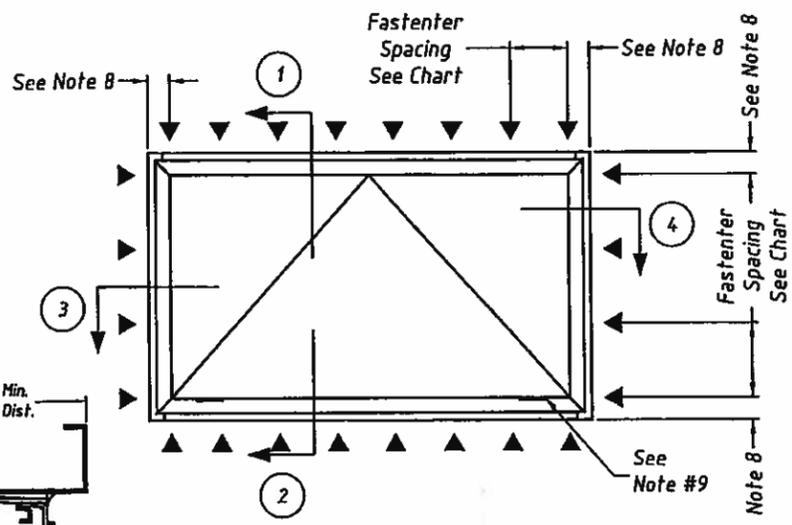
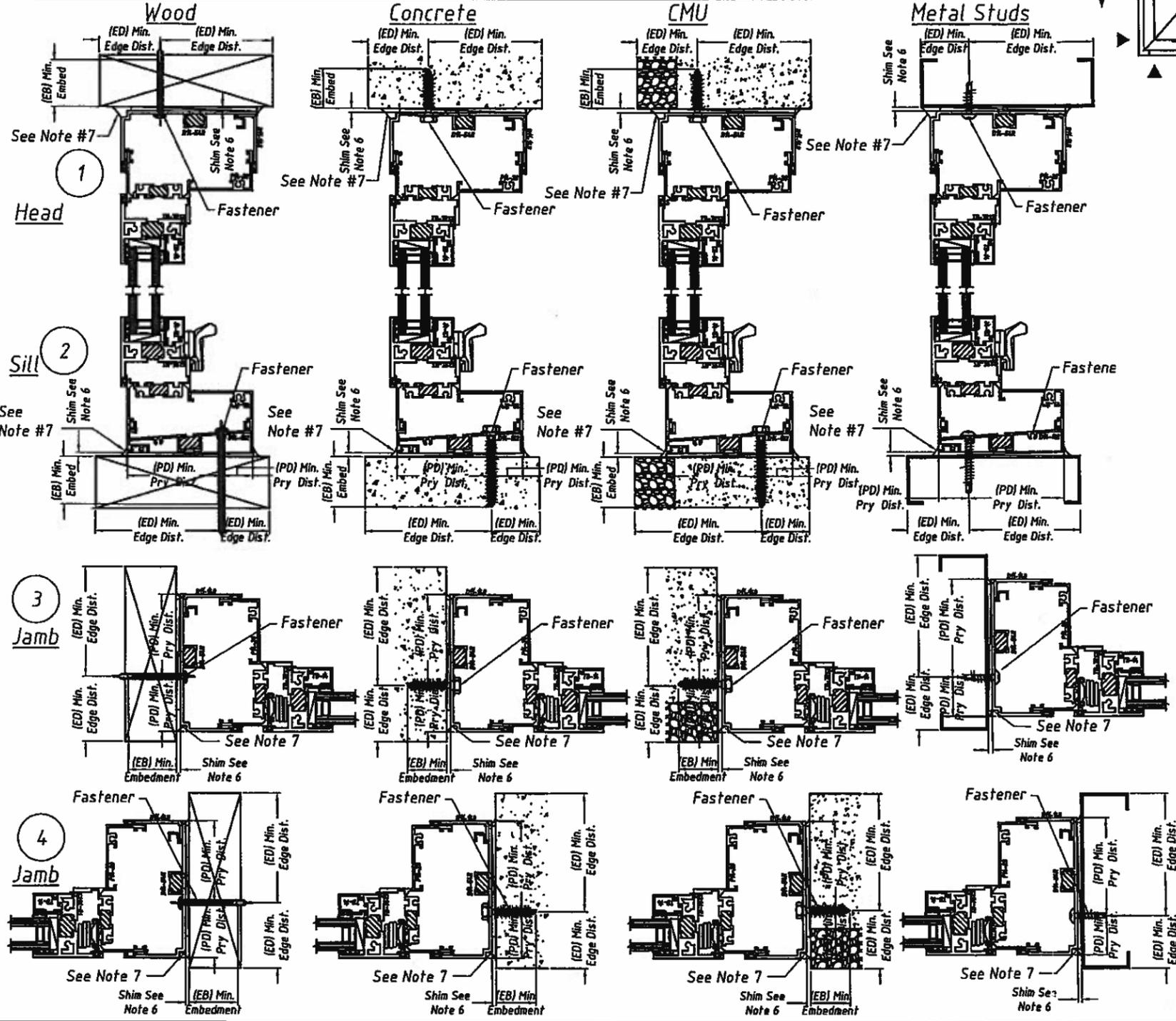


Fastener Installation Requirements

Location Substrate	Head and Jamb (Fastener)			Sill (Fastener)		
	EB (Min)	ED (Min)	PD (Min)	EB (Min)	ED (Min)	PD (Min)
Wood	#12 Wood Screw @ 6" @ Max O.C. Spacing					
	1-1/2"	1"	1"	1-1/2"	1"	1/2"
Concrete	1/4" Dia. Powers Tapper + @ Max. 13" O.C.					
	1-3/4"	2-1/2"	1"	1-3/4"	2-1/2"	1/2"
CMU	1/4" Dia. Powers Tapper + @ Max. 5" O.C.					
	1-1/4"	2-1/2"	1"	1-1/4"	2-1/2"	1/2"
Metal Stud	1/4" Dia. Buildex Tek @ Max. 8" O.C.					
	N/A	3/8"	1"	N/A	3/8"	1/2"



Notes:

1. Installations depicted comply with the 2006 International Building Code (IBC), the limitations and calculations within the ANSI/AF&PA NDS (National Design Specifications) 2005 ASD method and the ADM (Aluminum Design Manual) 2005 ASD method for design wind pressures and overall sizes listed in the following table.

Type	Maximum Size	Design Pressure
A	60" x 36"	+/- 80 psf
2. The products depicted in this drawing have not been proven for resistance to wind-borne debris and are thus approved for impact.
3. Wood screws shall be used for a wood substrate. Wood screw materials and dimensions shall meet the requirements of ANSI / AF&PA NDS (National Design Specifications) 2005 and ANSI / ASME Standard B18.6.1

Self Drilling Screws (Buildex Tek™) shall be used for steel stud substrate. Tek™ screw materials and dimensions shall meet the requirements of ASTM Standard Specifications for Carbon Bolts and Studs ASTM A 307.

Powers Tapper™ Anchors shall be used for Concrete and CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Pre-drilled Fasteners (Screw Anchors) in Concrete or Masonry Elements. Tapper™ Anchor Length shall be sufficient to guarantee Embedment listed. Install concrete anchors per manufacturer's instructions.
4. Calculations provided with drawings are based only on tested design pressure for wind loading.
5. Wood buck installations are assumed 2x S-P-F (G=0.42) or denser. Buck width shall be greater than the window frame width. Tapered or partial bucks are not allowed. Wood buck shall be secured to the structure to resist all design loads.

Steel Stud installations assume 18 gauge 33 KSI studs and follow AISI Cold-Formed Steel Design Manual (2002 Edition) rules and procedures.

Concrete Masonry installations are assumed at least ASTM C90 Hollow masonry units with 1-1/4" wall thickness or normal weight concrete with a minimum compressive strength of fc=3,000 psi.
6. Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load bearing type.
7. These drawings depict the details necessary to meet structural load requirements. Continuous perimeter seal required.
8. 4" Max. edge distance from corner of window.
9. Provide glass setting blocks 4" long at 6" from each end.
10. Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.

Rice Engineering, Inc.
Texas Firm No.: F-2183



JAN 04 2011

Rev.	Description	Date

Scale: NTS	Drawn by: K. Snader
Winco Window Co. 6200 Maple Ave. St. Louis, Mo. 63130 PHONE (314) 725-8088 FAX (314) 725-1419	
WINCO Product: 1450 - Receptor Configuration: Project	
Certification: AAMA Non-Impact	



Fastener Installation Requirements

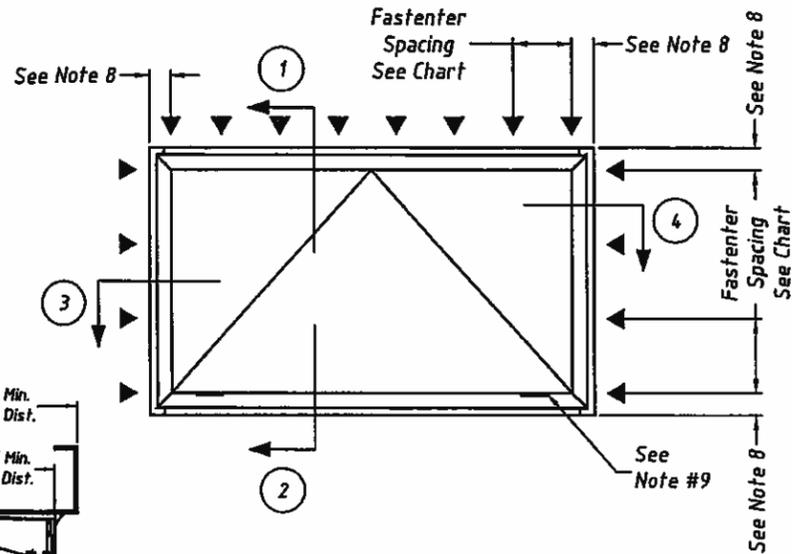
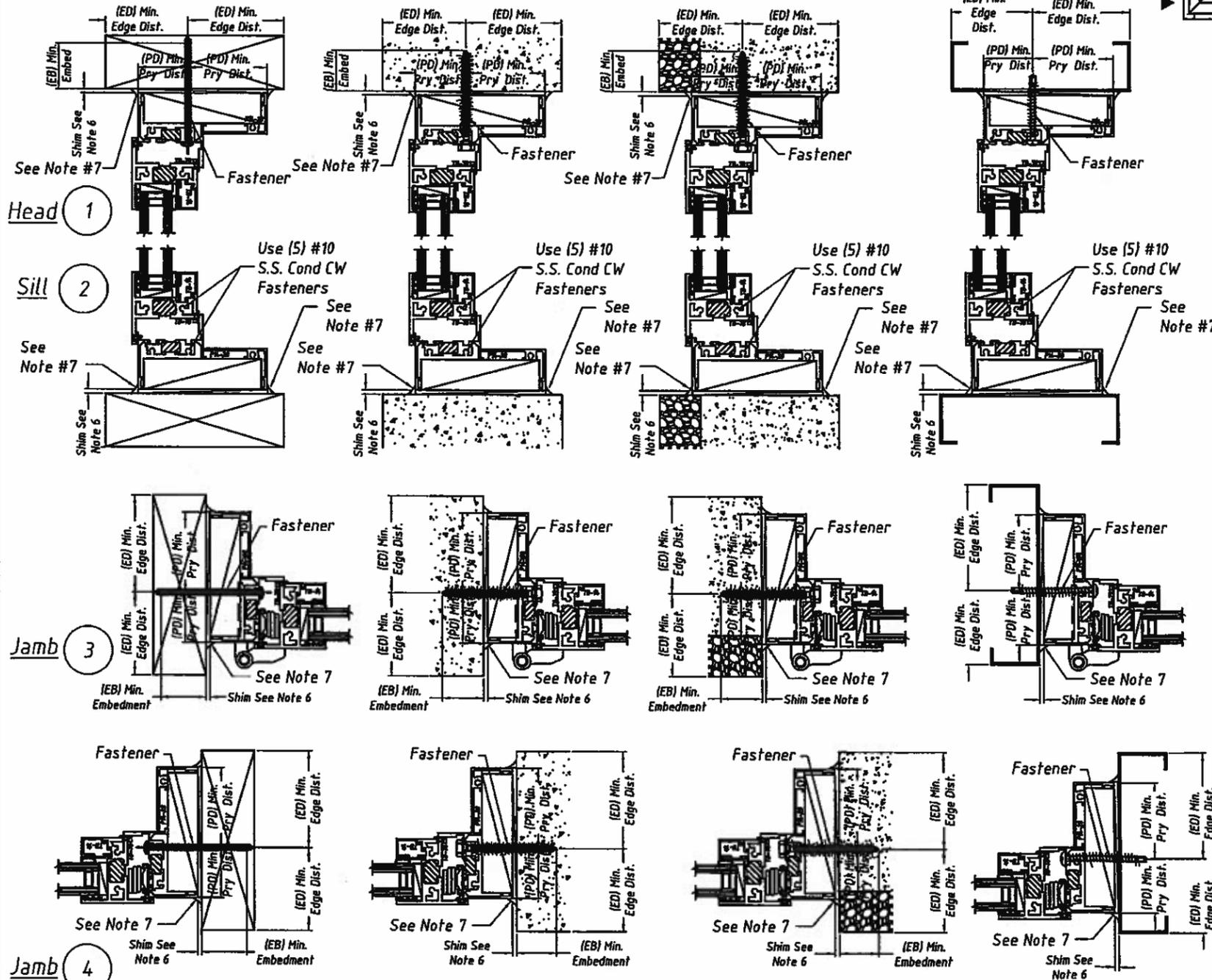
Location	Head and Jamb (Fastener)		
	EB (Min)	ED (Min)	PD (Min)
Wood	#12 Wood Screw @ 10" @ Max O.C. Spacing		
	1-1/2"	1"	1-1/2"
Concrete	1/4" Dia. Powers Tapper + @ Max. 19" O.C.		
	1-3/4"	2-1/2"	1-1/2"
CMU	1/4" Dia. Powers Tapper + @ Max. 7" O.C.		
	1-1/4"	2-1/2"	1-1/2"
Metal Stud	1/4" Dia. Buildex Tek @ Max. 12" O.C.		
	N/A	3/8"	1-1/2"

Wood

Concrete

CMU

Metal Studs



Notes:

- Installations depicted comply with the 2006 International Building Code (IBC), the limitations and calculations within the ANSI/AF&PA NDS (National Design Specifications) 2005 ASD method and the ADM (Aluminum Design Manual) 2005 ASD method for design wind pressures and overall sizes listed in the following table.

Type	Maximum Size	Design Pressure
A	60" x 36"	+/- 80 psf
- The products depicted in this drawing have not been proven for resistance to wind-borne debris and are thus approved for impact.
- Wood screws shall be used for a wood substrate. Wood screw materials and dimensions shall meet the requirements of ANSI / AF&PA NDS (National Design Specifications) 2005 and ANSI / ASME Standard B18.6.1
Self Drilling Screws (Buldex Tek™) shall be used for steel stud substrate. Tek™ screw materials and dimensions shall meet the requirements of ASTM Standard Specifications for Carbon Bolts and Studs ASTM A 307.
Powers Tapper™ Anchors shall be used for Concrete and CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in Concrete or Masonry Elements. Tapper™ Anchor Length shall be sufficient to guarantee Embedment listed. Install concrete anchors per manufacturer's instructions.
- Calculations provided with drawings are based only on tested design pressure for wind loading.
- Wood buck installations are assumed 2x S-P-F (G=0.42) or denser. Buck width shall be greater than the window frame width. Tapered or partial bucks are not allowed. Wood buck shall be secured to the structure to resist all design loads.
Steel Stud installations assume 18 gauge 33 KSI studs and follow AISI Cold-Formed Steel Design Manual (2002 Edition) rules and procedures.
Concrete Masonry installations are assumed at least ASTM C90 Hollow masonry units with 1-1/4" wall thickness or normal weight concrete with a minimum compressive strength of $f_c=3,000$ psi.
- Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load bearing type.
- These drawings depict the details necessary to meet structural load requirements. Continuous perimeter seal required.
- 4" Max. edge distance from corner of window.
- Provide glass setting blocks 4" long at 6" from each end.
- Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.

Rice Engineering, Inc.
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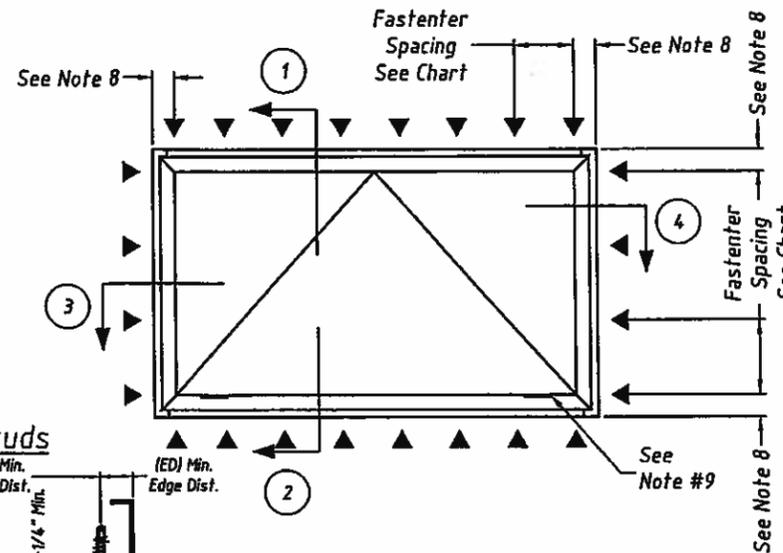
JAN 04 2011

Rev.	Description	Date
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Scale: NTS	Drawn by: K. Snader
Winco Window Co. 6200 Maple Ave. St. Louis, Mo. 63130 PHONE (314) 725-8088 FAX (314) 725-1419	
WINCO Product:	1450 - Through Frame
Configuration:	Project
Certification:	AAMA Non-Impact

Fastener Installation Requirements

Location Substrate	(Fastener)	
	EB (Min)	ED (Min)
Wood	Fastener "a" #10 SS Drill Screw @ 9" Max. O.C. Spacing	
	Fastener "b" #12 Wood Screw @ 6" Max O.C. Spacing	
Concrete	Fastener "a" #10 SS Drill Screw @ 9" Max. O.C. Spacing	
	Fastener "b" 1/4" Dia. Powers Tapper + @ Max. 12" O.C. Spacing	
CMU	Fastener "a" #10 SS Drill Screw @ 9" Max. O.C. Spacing	
	Fastener "b" 1/4" Dia. Powers Tapper + @ Max. 4-1/2" O.C. Spacing	
Metal Stud	Fastener "a" #10 SS Drill Screw @ 9" Max. O.C. Spacing	
	Fastener "b" 1/4" Dia. Buildex Tek @ Max. 8" O.C. Spacing	
	N/A	3/8"



Notes:

- Installations depicted comply with the 2006 International Building Code (IBC), the limitations and calculations within the ANSI/AF&PA NDS (National Design Specifications) 2005 ASD method and the ADM (Aluminum Design Manual) 2005 ASD method for design wind pressures and overall sizes listed in the following table.

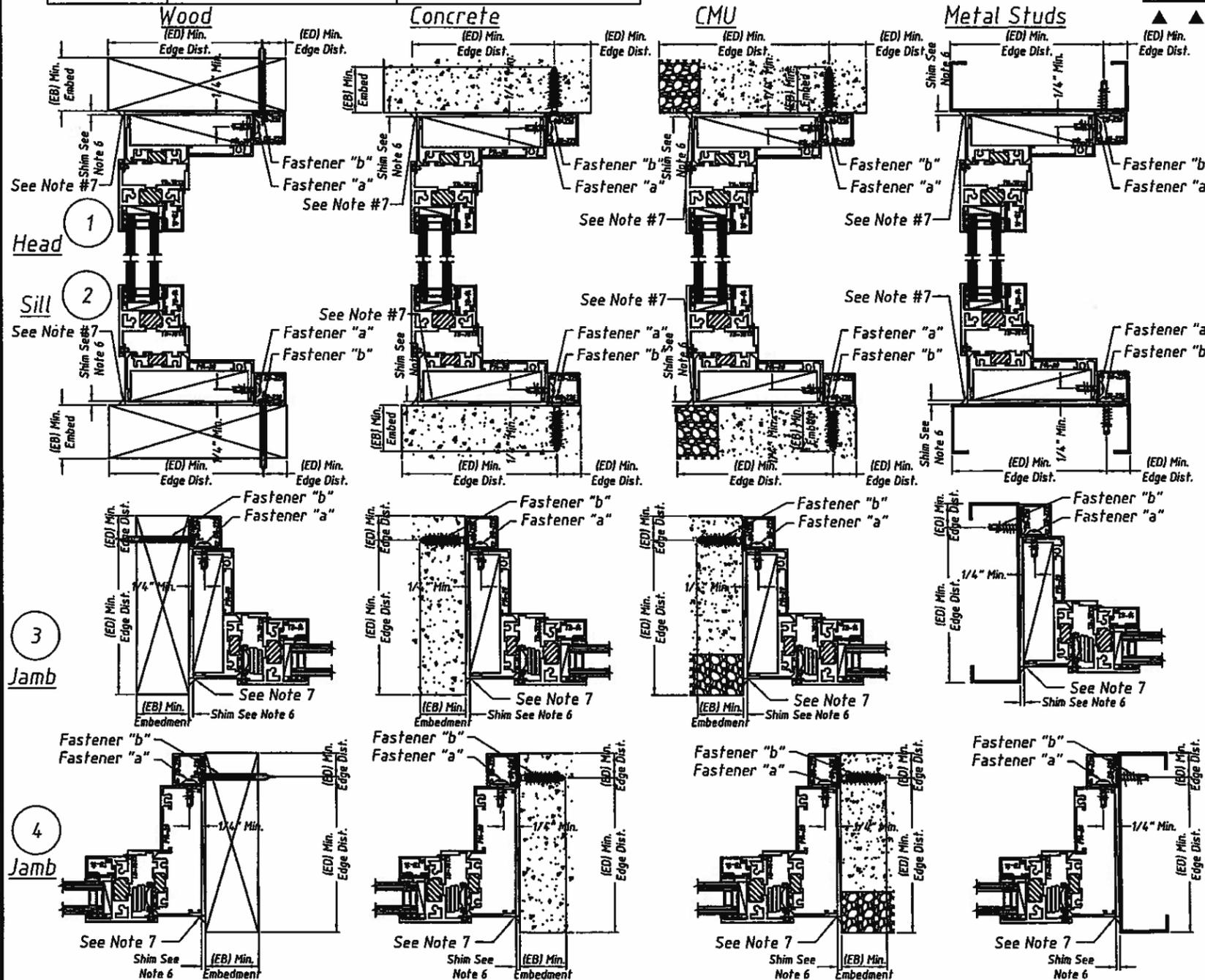
Type	Maximum Size	Design Pressure
A	60" x 36"	+/- 80 psf
- The products depicted in this drawing have not been proven for resistance to wind-borne debris and are thus approved for impact.
- Wood screws shall be used for a wood substrate. Wood screw materials and dimensions shall meet the requirements of ANSI / AF&PA NDS (National Design Specifications) 2005 and ANSI / ASME Standard B18.6.1

Self Drilling Screws (Buildex TekTM) shall be used for steel stud substrate. TekTM screw materials and dimensions shall meet the requirements of ASTM Standard Specifications for Carbon Bolts and Studs ASTM A 307.

Powers TapperTM Anchors shall be used for Concrete and CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in Concrete or Masonry Elements. TapperTM Anchor Length shall be sufficient to guarantee Embedment listed. Install concrete anchors per manufacturer's instructions.
- Calculations provided with drawings are based only on tested design pressure for wind loading.
- Wood buck installations are assumed 2x S-P-F (G=0.42) or denser. Buck width shall be greater than the window frame width. Tapered or partial bucks are not allowed. Wood buck shall be secured to the structure to resist all design loads.

Steel Stud installations assume 18 gauge 33 KSI studs and follow AISI Cold-Formed Steel Design Manual (2002 Edition) rules and procedures.

Concrete Masonry installations are assumed at least ASTM C90 Hollow masonry units with 1-1/4" wall thickness or normal weight concrete with a minimum compressive strength of $f_c=3,000$ psi.
- Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load bearing type.
- These drawings depict the details necessary to meet structural load requirements. Continuous perimeter seal required.
- 4" Max. edge distance from corner of window.
- Provide glass setting blocks 4" long at 6" from each end.
- Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.



Rice Engineering, Inc.
Texas Firm No.: F-2183



JAN 04 2011

Rev.	Description	Date

Scaler: NTS	Drawn by: K. Snader
Winco Window Co. 6200 Maple Ave. St. Louis, Mo. 63130 PHONE (314) 725-8088 FAX (314) 725-1419	
WINCO Product: 1450 - Trim Clip	
Configuration: Project	
Certification: AAMA Non-Impact	