

AMERICAN SHUTTER SYSTEMS ASSOCIATION

BRICKHOUSE COLONIAL SHUTTER

LARGE/SMALL MISSILE IMPACT RESISTANT (MISSILE LEVEL D)

VALID FOR USE ONLY OUTSIDE THE HVHZ (SEE LIMITATIONS HEREIN)

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

GENERAL NOTES:

- THIS SYSTEM HAS BEEN TESTED AND EVALUATED AS A LARGE/SMALL MISSILE IMPACT PROTECTIVE SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) FOR USE OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (NON-HVHZ ONLY), AS WELL AS THE INTERNATIONAL BUILDING CODE (IBC) AND INTERNATIONAL RESIDENTIAL CODE (IRC). SEE PRODUCT EVALUATION REPORT FOR ADDITIONAL INFORMATION.
- WIND LOAD DURATION FACTOR $C_d=1.6$ HAS BEEN USED FOR WOOD ANCHOR DESIGN.
- POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7 AND CHAPTER 1609 OF THE FLORIDA BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE ASD DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
- DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
- THIS SYSTEM HAS BEEN DESIGNED WITH NO SEPARATION FROM GLAZING REQUIRED FOR ALL WIND ZONES, IN ACCORDANCE WITH ASTM 1996. IT IS ACCEPTABLE BY CODE UNLESS OPTIONAL CRITERIA IS INDEPENDENTLY ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
- THE STRUCTURAL ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS BY THIS SYSTEM SHALL BE VERIFIED BY OTHERS. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR. WOOD BUNKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. IF SITE CONDITIONS DEVIATE FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS TO BE USED IN CONJUNCTION WITH THIS DOCUMENT.
- SHUTTER MAY BE INSTALLED AS SINGLE PANEL OR AS MULTI-PANEL SPANS AS DESCRIBED.
- ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE. ALL TOLERANCES SHALL BE IN ACCORDANCE WITH ADM 2020.

SYSTEM PERFORMANCE DERIVATIONS

SYSTEM PERFORMANCE DERIVED FROM CERTIFIED TEST REPORT(S) PER ASTM E330, ASTM E1996 & ASTM E1886 TEST STANDARD(S).

GENERAL NOTES (CONTINUED):

- THIS SYSTEM MUST BE CLOSED AND LOCKED FOR WIND AND IMPACT PROTECTION. THIS SYSTEM HAS BEEN DESIGNED FOR A WIND PRESSURE OF 18 PSF IN THE OPEN POSITION. A PERMANENT LABEL MUST BE ADHERED TO THE UNDERSIDE OF EACH BAHAMA SHUTTER CONTAINING THE FOLLOWING:

SHUTTER TO BE CLOSED AND LOCKED
WHEN HURRICANE WARNINGS ARE ISSUED

- COLONIAL SHUTTERS SHALL BE PERMANENTLY LABELED AS PRESCRIBED IN THE ABOVE-NOTED BUILDING CODE AND CONTAIN AT LEAST THE FOLLOWING:

AMERICAN SHUTTER SYSTEMS ASSOCIATION
WEST PALM BEACH, FL
ASTM E330, E1886, & E1996 AND 9LB MISSILE LEVEL D & SMALL MISSILE
FLORIDA PRODUCT APPROVAL NUMBER

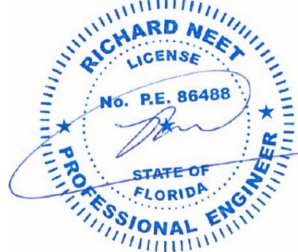
- ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, STAINLESS STEEL, OR 2024-T6 ALUMINUM ALLOY WITH A MINIMUM TENSILE YIELD STRENGTH OF 33 KSI.
- ALL CONCRETE ANCHORS TO BE INSTALLED TO NON-CRACKED CONCRETE ONLY.
- ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED AS PRESCRIBED IN THE ABOVE-NOTED BUILDING CODE.
- CONTRACTOR IS RESPONSIBLE TO INSULATE OR PROTECT ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- FASTENERS SHALL BE CADMIUM-PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" SECTION J.3.7.2 BY THE ALUMINUM ASSOCIATION INC., AND ANY APPLICABLE FEDERAL, STATE AND OR LOCAL CODES.
- REFER TO FASTENER MANUFACTURER'S PUBLISHED DATA SHEETS AND RECOMMENDATIONS FOR FASTENER INSTALLATION INSTRUCTIONS.
- ENGINEER SEAL AFFIXED HERETO VALIDATE STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- PRESSURE VALUES ON THIS APPROVAL ARE (ASD) ALLOWABLE DESIGN PRESSURES.
- ALTERATIONS ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

MAXIMUM ALLOWABLE DESIGN PRESSURE:

±60 psf

RICHARD NEET, P.E.
PE# 86488 CA# 9885

SEPTEMBER 5, 2024



Digitally signed
by Richard Neet
Date: 2024.09.05
10:40:49-04'00'

NOTE REGARDING USE OF THIS DOCUMENT & USE OUTSIDE FLORIDA:

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. THIS PRODUCT EVALUATION IS VALID FOR USE IN **FLORIDA ONLY**. USE OF THIS EVALUATION REQUIRES A REVIEW & CERTIFICATION BY A LOCAL DESIGN PROFESSIONAL WHO SHALL BE RESPONSIBLE FOR THE PROPER ADAPTATION OF THIS GENERAL PERFORMANCE EVALUATION TO ANY SITE-SPECIFIC PROJECT. CONTACT THIS OFFICE AT **ENGINEERINGEXPRESS.COM/QUOTE** FOR ASSISTANCE WITH YOUR PROJECT-SPECIFIC NEEDS & FOR ADAPTATION & CERTIFICATION OF THIS DOCUMENT OUTSIDE OF FLORIDA.

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TERMINOLOGY:

THE FOLLOWING ABBREVIATIONS APPEAR IN THIS APPROVAL: "INC." FOR "INCORPORATION", "CORP." FOR "CORPORATION", "ALUM" FOR "ALUMINUM", "ASD" FOR "ALLOWABLE STRESS DESIGN", "ASTM" FOR "AMERICAN SOCIETY FOR TESTING AND MATERIALS", "CS" FOR "CARBON STEEL", "CONN" FOR "CONNECTION", "EMBED" FOR "EMBEDMENT", "DIST." FOR "DISTANCE", "GA" FOR "GAUGE", "HVHZ" FOR "HIGH-VELOCITY HURRICANE ZONE", "LB" FOR "POUND", "MAX" FOR "MAXIMUM", "N.T.S." FOR "NOT TO SCALE", "PSF" FOR "POUNDS PER SQUARE FOOT (lb/ft²)", "SPECS" FOR "SPECIFICATIONS", "&" FOR "AND", "MAX" FOR "MAXIMUM", "W/" FOR "WITH", "EXIST" FOR "EXISTING", "STRUCT" FOR "STRUCTURE", "CONC." FOR "CONCRETE". CONTACT ENGINEERING EXPRESS FOR ADDITIONAL ABBREVIATION/TERMINOLOGY CLARIFICATIONS.

VISIT [ECALC.IO/EASTERN](https://ecalculator.com/eastern)

FOR SITE-SPECIFIC DEVIATIONS
& MORE INFORMATION ABOUT THIS DOCUMENT
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AMERICAN SHUTTER SYSTEMS ASSOCIATION

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WEST PALM BEACH, FL 33407

(800) 432-2204

BRICKHOUSE COLONIAL SHUTTER

FLORIDA BUILDING CODE EIGHTH EDITION (2023)

FLORIDA STATEWIDE APPROVAL

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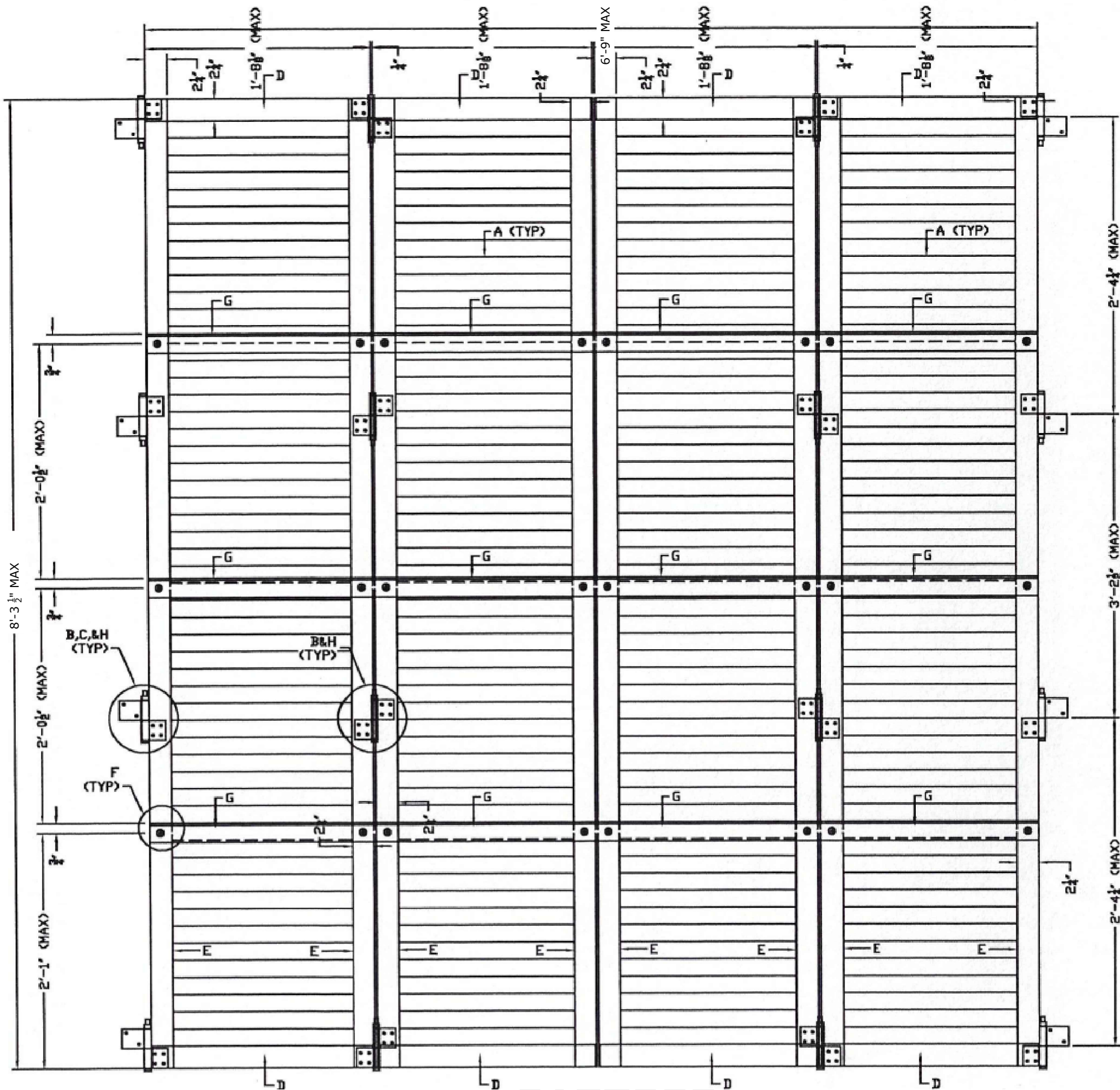
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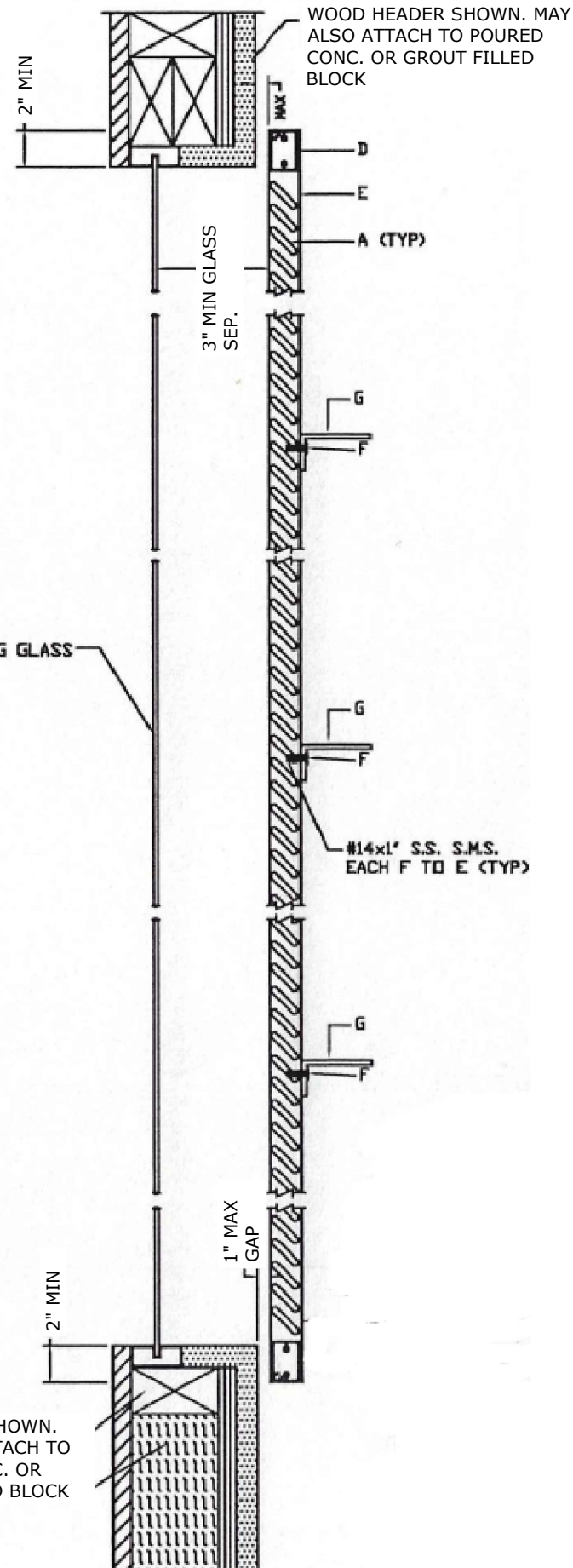
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BRICKHOUSE BI-FOLD COLONIAL SHUTTER (ELEV - NTS)

EXISTING GLASS

WOOD SILL SHOWN.
MAY ALSO ATTACH TO
POURED CONC. OR
GROUT FILLED BLOCK



(SECTION - NTS)

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PE# 86488 CA# 9885

SEPTEMBER 5, 2024



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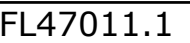
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WOOD JAMB SHOWN. MAY ALSO
— ATTACH TO POURED CONC. OR
GROUT FILLED BLOCK

✓ (4) #12x1-1/4" S.S. S.D. SCREWS

BRICKHOUSE BI-FOLD & LOW PROFILE COLONIAL SHUTTER (SECTION VIEWS)

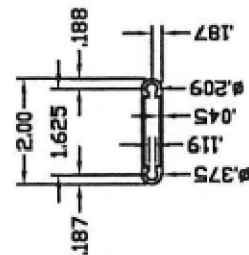
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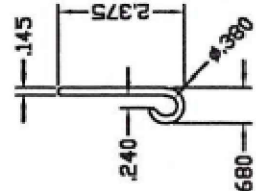
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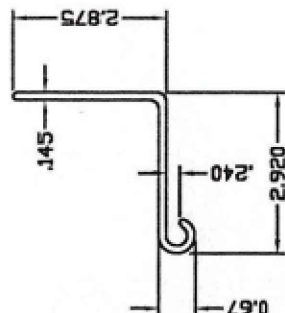
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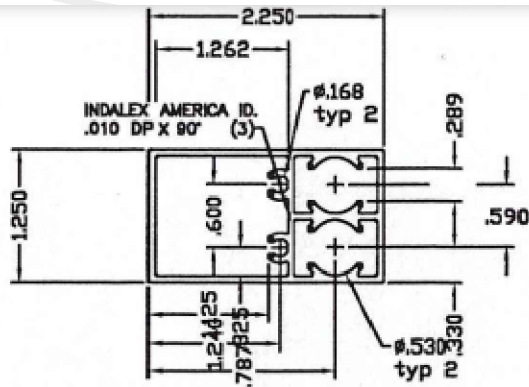
(A) LOUVER BLADE
6063-T6 ALUM. ALLOY



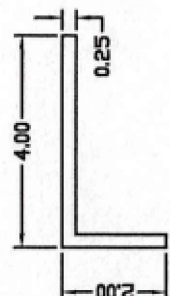
(B) FLAT HINGE, 2' LONG
6063-T5 ALUM. ALLOY



(C) DOUBLE HINGE, 2' LONG
6063-T5 ALUM. ALLOY



(D) TOP & BOTTOM RAIL
6063-T6 ALUM. ALLOY

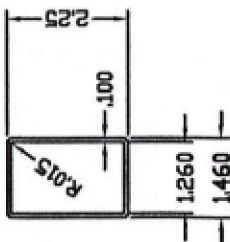


(G) STORM BAR
6063-T5 ALUM. ALLOY

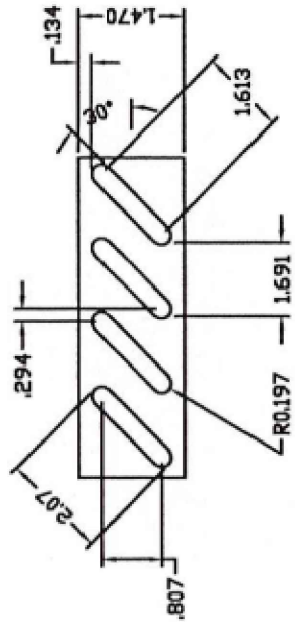
SHUTTER COMPONENTS



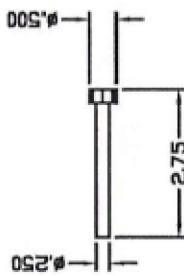
(F) 1/4-20x1" SS SIDEWALK BOLT
1/4-20x3/4" ALUM. RIVET NUT



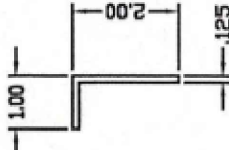
(E) JAMB
6063-T6 ALUM. ALLOY



(H) S.S. HINGE BOLT
W/ LOCK NUT



(I) S.S. H.V. SAFETY PEN
W/ 2 S.S. WIRE SNAP



(J) NON-HURRICANE BRACKET ANGLE
6063-T6 ALUM. ALLOY

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SEPTEMBER 5, 2024



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