



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

APPLICATION FOR HCAI PREAPPROVAL OF
MANUFACTURER'S CERTIFICATION (OPM)

OFFICE USE ONLY

APPLICATION #: OPM-0757

HCAI Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal/Update

Manufacturer Information

Manufacturer: Door Systems

Manufacturer's Technical Representative: Jeff Bonnema

Mailing Address: 1150 Las Brisas Place, Placentia, CA 92870

Telephone: (714) 258-7100

Email: jeff@doorsysinc.com

Product Information

Product Name: DSI-FW119 Smoke and Fire Containment System

Product Type: other mechanical or electrical components

Product Model Number: DSI-FW119 Closure each side of opening

General Description: Smoke and fire curtain for various interior opening sizes

Applicant Information

Applicant Company Name: EASE LLC.

Contact Person: Tiffany Tonn

Mailing Address: 1515 FAIRVIEW AVE, STE 205, MISSOULA, MT 59801

Telephone: (406) 541-3273

Email: tiffany@easeco.com

Title: Office Assistant

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STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT**

Registered Design Professional Preparing Engineering Recommendations

Company Name: EASE LLC

Name: Jonathan Roberson California License Number: S4197

Mailing Address: 5877 Pine Ave., Suite 210, Chino Hills, CA 91709

Telephone: (951) 295-1892 Email: jon@EASECo.com

Certification Method

Testing in accordance with: ICC-ES AC156 FM 1950 ASHRAE 171 FEMA 461

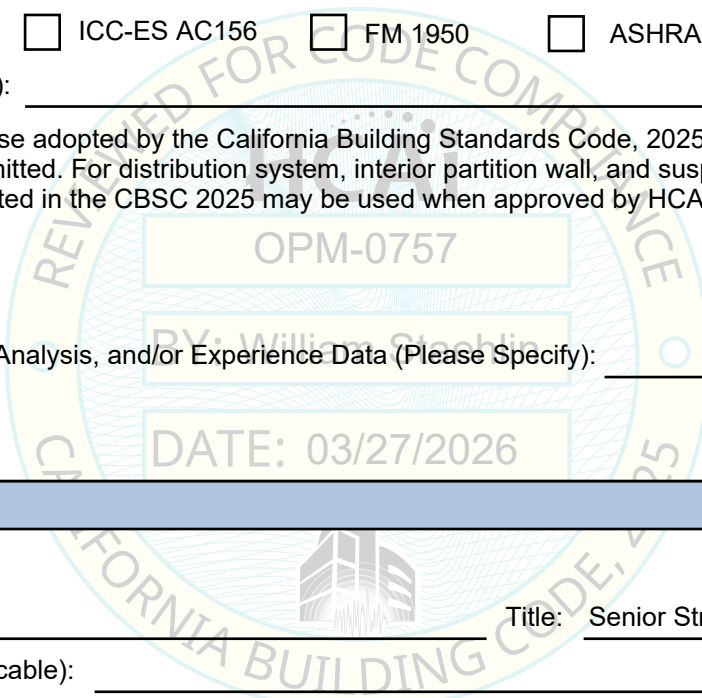
Other(s) (Please Specify): _____

*Use of criteria other than those adopted by the California Building Standards Code, 2025 (CBSC 2025) for component supports and attachments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic bracings, test criteria other than those adopted in the CBSC 2025 may be used when approved by HCAI prior to testing.

Analysis

Experience Data

Combination of Testing, Analysis, and/or Experience Data (Please Specify): _____



HCAI Approval

Date: 3/27/2026

Name: William Staehlin Title: Senior Structural Engineer

Condition of Approval (if applicable): _____

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STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY





**EQUIPMENT ANCHORAGE
& SEISMIC ENGINEERING**

5877 Pine Ave, Ste. 210
Chino Hills, CA. 91709
Phn: (909) 606-7622

The Department of Health Care Access and Information
PREAPPROVAL OF MANUFACTURER'S CERTIFICATION
OPM-0757

THIS PREAPPROVAL CONFORMS TO THE 2025 CALIFORNIA BUILDING CODE

MANUFACTURER: **DOOR SYSTEMS INC**
EQUIPMENT NAME: **DSI-FW-W119 SMOKE AND FIRE CURTAIN**

Sheet: 1 of 9
Date: 3/26/26

GENERAL NOTES

1. THIS HCAI PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2025 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2025 CBC
2. THIS DOCUMENT MAY ONLY BE USED WITH THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER LISTED ABOVE FOR THE SPECIFIC PROJECT SITE AND INSTALLATION LOCATION. THIS DOCUMENT IS INVALID WITHOUT SUCH CONSENT.
3. THIS PREAPPROVAL CONFORMS TO THE 2025 CALIFORNIA BUILDING CODE WHERE SDS IS NOT GREATER THAN 1.75 & 2.50.
4. FORCES PER ASCE 7-22 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3,
WHERE $S_{Ds}=1.75, I_p=1.5, C_{AR}=1.0, R_{po}=1.5, z/h \leq 1, (R_u=1.3, H_f=3.50)$ AT CONCRETE WALL. SEE FOLLOWING SHEETS FOR Ω_{op}
WHERE $S_{Ds}=2.50, I_p=1.5, C_{AR}=1.0, R_{po}=1.5, z/h \leq 1, (R_u=1.3, H_f=3.50)$ AT CONCRETE WALL. SEE FOLLOWING SHEETS FOR Ω_{op}
5. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
6. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
7. SHEET METAL SCREWS SHALL BE TEKS SCREWS BY ITW BUILDEX (ICC ESR-1976)
8. CONCRETE WALL DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION. (i.e. $z/h \leq 1$)
9. REFER TO ESR-4761 FOR DSI 600 SYSTEM'S FIRE AND SMOKE PROTECTION APPROVAL
10. **RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING**
 - A. PROVIDE SUPPORTING STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.
 - B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2025 CBC AND WITH THE DETAILS, MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.
 - C. VERIFY THAT PROJECT SPECIFIC SEISMIC PARAMETERS RESULT IN SEISMIC FORCES (E_h, E_v) THAT DO NOT EXCEED THE VALUES IN THIS OPM.
 - D. VERIFY THAT THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ANCHORED MEETS THE REQUIREMENTS OF THE APPLICABLE ICC ESR REPORT AND THIS OPM.
 - E. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS (SEE TYPICAL DETAIL ON SHEET 2).
 - F. VERIFY THAT ALL NEW OR EXISTING ANCHORS ARE AN ADEQUATE DISTANCE FROM THE UNIT ATTACHMENTS AND CHECK FOR INTERACTION WHERE OTHER ANCHORS ARE WITHIN 18" OR $6h_{ef}$ FROM THIS UNIT'S ANCHORS.



DOOR SYSTEMS INC

DES. **J. ROBERSON**

SHEET

2

JOB NO. **11-2602**

DSI-FW-W119 SMOKE AND FIRE CURTAIN

DATE **3/26/26**

OF **9** SHEETS

11. EXPANSION ANCHORS:

A. ATTACHMENT IS TO BE MADE WITH THE ANCHORS LISTED BELOW AND INSTALLED AS DESCRIBED IN THE CORRESPONDING ICC REPORT.

Anchor Diameter	Concrete Type	Min. f _c (psi)	Anchor Type	ICC Report No.	Min. Embed.	Min. Spacing	Min. + Edge Dist.	Min. Conc. Thickness	Torque Test	Direct Tension
3/8"	Normal Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	2"	6"	4"	6"	30 FT-LB	1982 lb

B. THIS PREAPPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE SLAB EDGES, 4" AWAY MINIMUM (i.e. - CORNER). SEE ADJACENT DETAIL FOR ADDITIONAL MINIMUM ALLOWABLE CONCRETE EDGE DISTANCES.

+ FOOTNOTE: MINIMUM ALLOWABLE EDGE DISTANCE OF 2.5" AT GUIDE RAILS ONLY

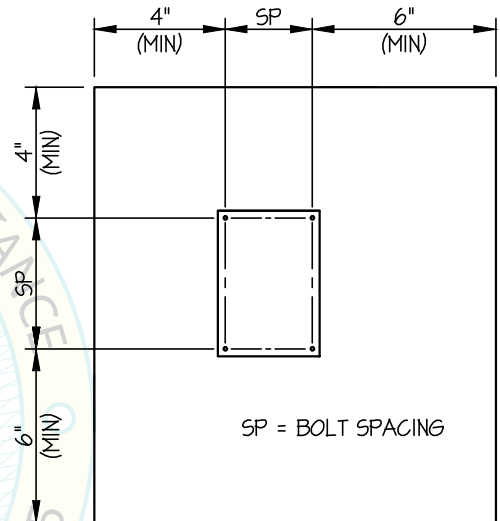
C. TESTING AND SPECIAL INSPECTION OF EXPANSION ANCHORS SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY EMPLOYED BY THE FACILITY OWNER PER CBC 1704A & 1910A.5 AND CAC 7-149. ALL REPORTS SHALL BE SENT TO THE INSPECTOR OF RECORD, OWNER AND THE ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE.

(i) DIRECT PULL TENSION TEST AT LEAST 50% OF THE ANCHORS.

(ii) ACCEPTANCE CRITERIA:

- DIRECT TENSION TEST: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE TEST LOAD. A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER BECOMES LOOSE.
- TORQUE TEST: THE APPLICABLE TORQUE MUST BE ACHIEVED WITHIN THE FOLLOWING LIMITS: WEDGE TYPE : 1/2 TURN OF THE NUT

(iii) IF ANY ANCHOR FAILS, TEST ALL ANCHORS.



TYPICAL CONCRETE EDGE DETAIL



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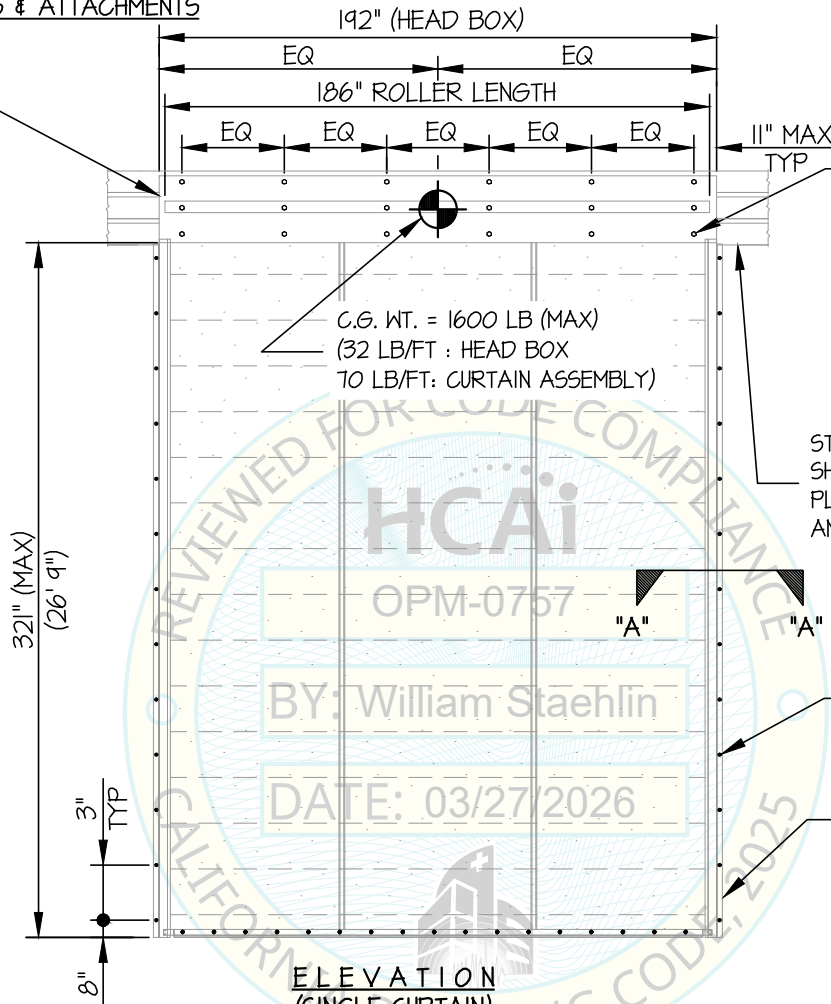
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OF 9 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED

HEADBOX
(18 GA, A653,
F_y=30 KSI MIN)
(BY MFR)



USE #14 TEK SCREWS AT 16" O.C. MAX
W/ 3/16" x 1/4" FENDER WASHERS
(TOP, MIDDLE & BOTTOM, 18)
TO STEEL STUD WALL
OR
USE 3/8"Φ HILTI KB-TZ2 (CS)
EXPANSION ANCHORS
(MIN. EMBED. (h_{ef}) = 2") @ 36" O.C.
W/ 1/2" x 1/2" FENDER WASHERS
(TOP, MIDDLE & BOTTOM)
TO CONCRETE WALL
(BY STRUCTURAL ENGINEER OF RECORD)

STRUCTURAL ENGINEER OF RECORD
SHALL DESIGN THE BACKING
PLATE (16 GA., 50 KSI MIN.)
AND THE WALL STRUCTURE

SEE SHEET 9

#10 TEK SCREWS

SIDE GUIDE
(11 GA, A653, F_y=30 KSI MIN)
(BY MFR) (2 TOTAL)

NOTES:

- FORCES ARE DETERMINED PER 2025 CALIFORNIA BUILDING CODE AND ASCE 7-22. STRENGTH DESIGN IS USED. (EXAMPLE: I_p=15, C_{AR}=10, R_{po}=15, Ω_{op}=2.0, R_J=1.3, H_f=3.50, z/h≤1)

S _{Ds}	1.75	2.50
HORIZONTAL FORCE (E _h)	1.88 W _p	2.69 W _p
HORIZONTAL FORCE (E _{mh})	3.76 W _p	5.38 W _p
VERTICAL FORCE (E _v)	0.35 W _p	0.50 W _p

- THIS CALCULATION ENCOMPASSES WEIGHTS AND C.G. POSITIONS NOT EXCEEDING VALUES SHOWN.
- THIS CALCULATION WAS PREPARED WITHOUT KNOWLEDGE OF ANY SITE CONDITION. COMPATIBILITY FOR USE WITH A SITE SHALL BE EVALUATED BY THE STRUCTURAL ENGINEER OF RECORD OF THE INSTALLATION (SEOR). USE REQUIRES APPROVAL BY THE SEOR.
- STRUCTURAL ENGINEER OF RECORD FOR THE INSTALLATION SHALL VERIFY ALL CONDITIONS, EVALUATE INTERACTION WITH ADJACENT EQUIPMENT AND ANCHORS, AND PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
- SEE GENERAL NOTES: SHEETS 1 AND 2



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SHEET

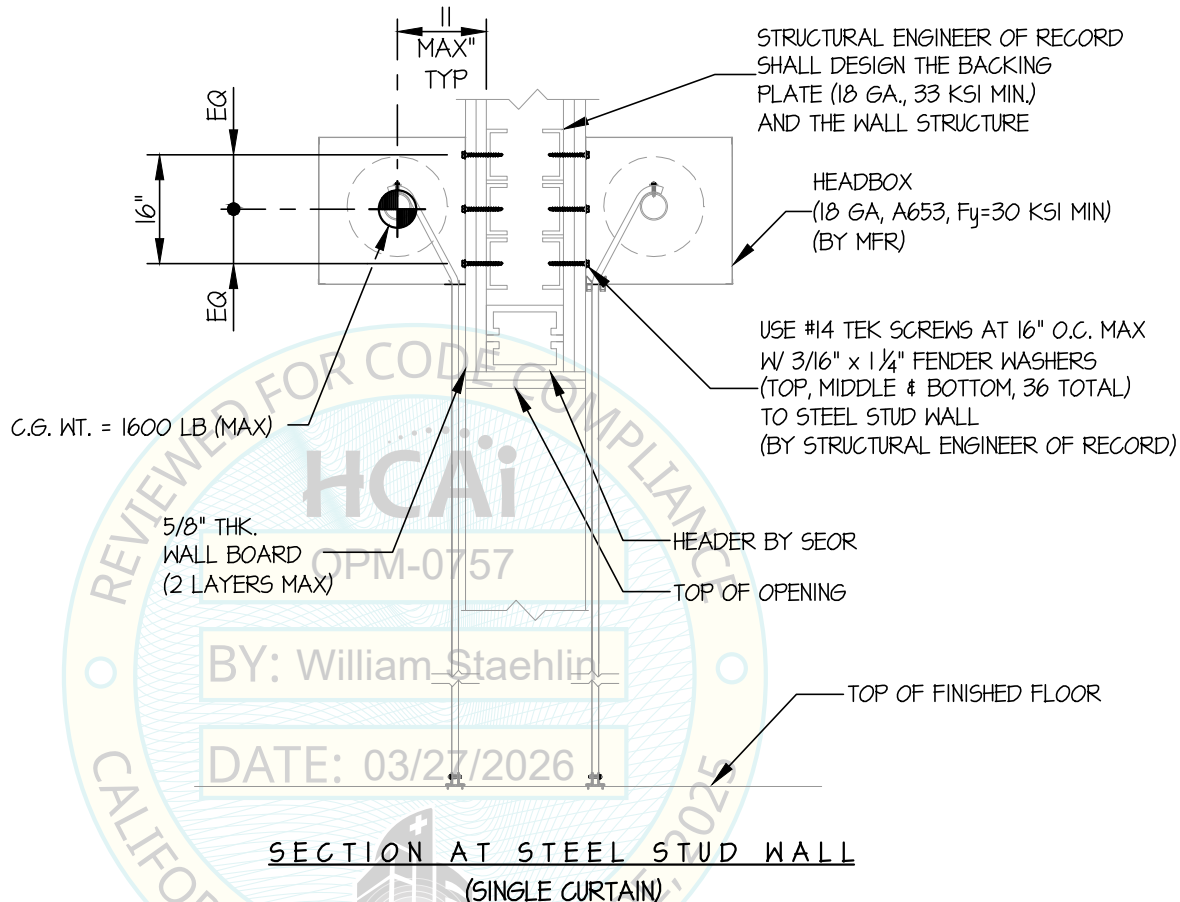
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OF 9 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

$S_Ds \leq 1.75$

WALL MOUNTED



$T_u = 237 \text{ LB/SCREW (MAX)}$
 $V_u = 109 \text{ LB/SCREW (MAX)}$
 (VALUES DO NOT INCLUDE Ω_{op})

Jonathan Roberson

REGISTERED PROFESSIONAL ENGINEER
 JONATHAN ROBERSON
 No. 4197
 EXP. 6-30-2026
 3/26/26
 STRUCTURAL
 STATE OF CALIFORNIA

DOOR SYSTEMS INC

DSI-FW-W119 SMOKE AND FIRE CURTAIN

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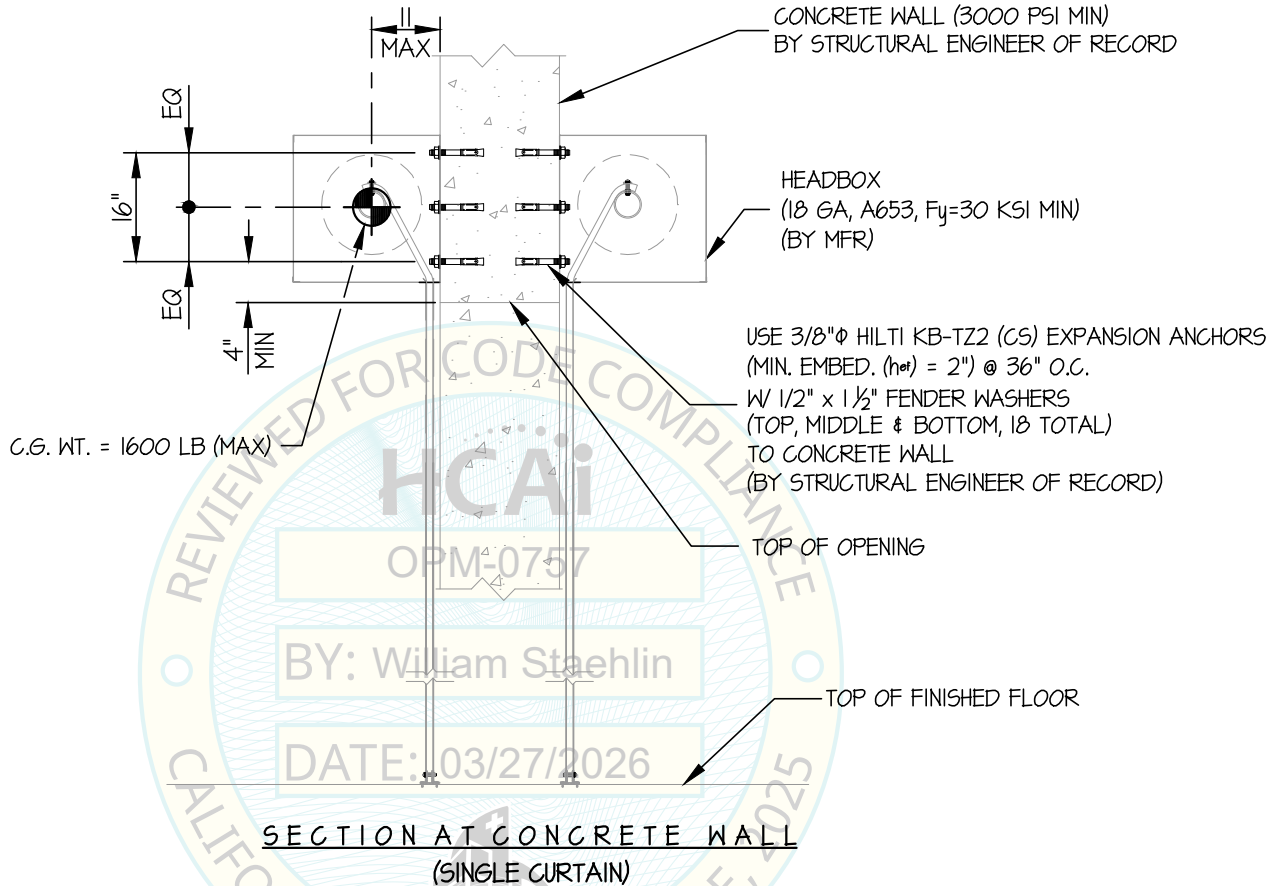
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OF **9** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

$S_Ds \leq 2.50$

WALL MOUNTED



$T_u = 844$ LB/BOLT (MAX)
 $V_u = 502$ LB/BOLT (MAX)
(VALUES INCLUDE Ω_{op})

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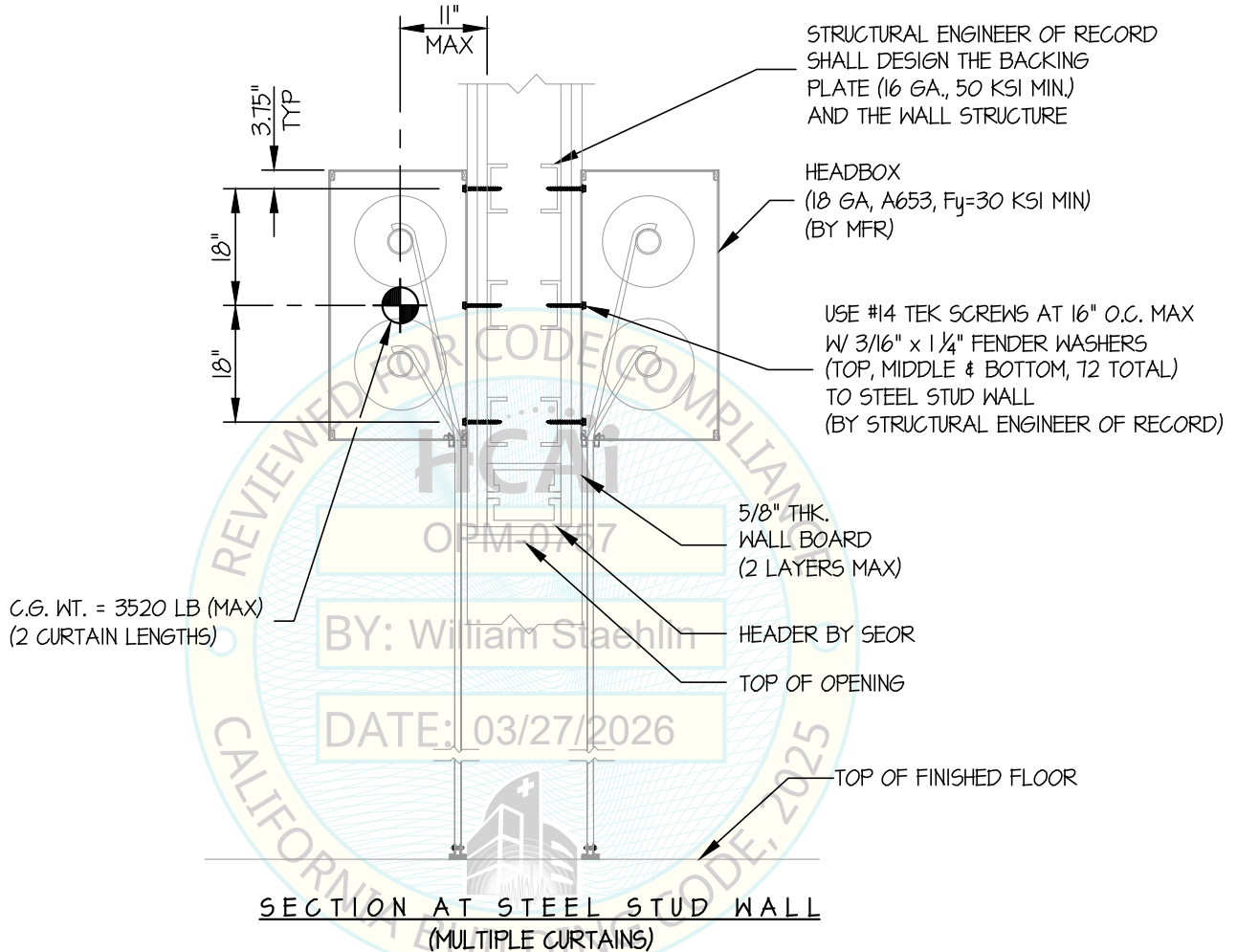
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OF **9** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

$S_Ds \leq 1.75$

WALL MOUNTED



$T_u = 182$ LB/SCREW (MAX)
 $V_u = 119$ LB/SCREW (MAX)
(VALUES DO NOT INCLUDE Ω_{op})

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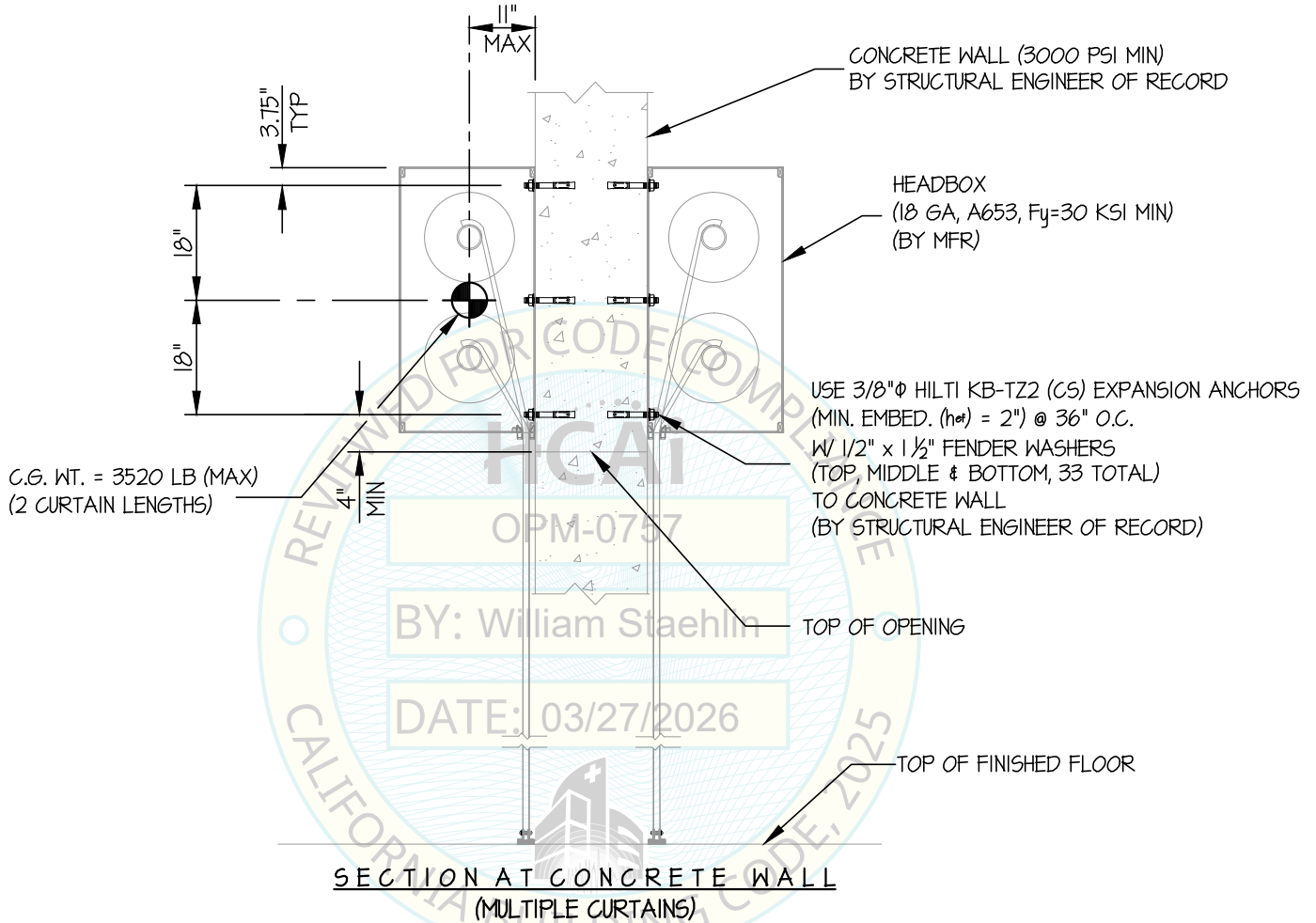
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OF **9** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

$S_Ds \leq 2.50$

WALL MOUNTED



$T_u = 797$ LB/BOLT (MAX)
 $V_u = 602$ LB/BOLT (MAX)
(VALUES INCLUDE Ω_{op})

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SHEET

9

OF **9** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED

STRUCTURAL ENGINEER OF RECORD SHALL DESIGN THE BACKING PLATE (16 GA., 50 KSI MIN.) AND THE WALL STRUCTURE

USE #14 TEK SCREWS W/ STANDARD WASHERS TO STEEL STUD WALL (BY STRUCTURAL ENGINEER OF RECORD)

5/8" THK WALL BOARD (2 LAYER MAX)

EDGE OF OPENING

L 3 x 2 (11 GA, A653)
W #4 x 3/8" L RIVET @ 12" O.C.*
(BY MFR)

SIDE GUIDE
(11 GA, A653, Fy=30 KSI MIN)
(BY MFR) (2 TOTAL)

L 3 x 2 (11 GA, A653)
W #4 x 3/8" L RIVET @ 12" O.C.*
(BY MFR)

SECTION AT STEEL STUD WALL

DATE: 03/27/2026

* RIVETS ARE FIELD INSTALLED BY DOOR SYSTEMS CERTIFIED INSTALLERS

EDGE OF OPENING

L 3 x 2 (11 GA, A653)
W #4 x 3/8" L RIVET @ 12" O.C.*
(BY MFR)

SIDE GUIDE
(11 GA, A653, Fy=30 KSI MIN)
(BY MFR) (2 TOTAL)

USE 3/8"φ HILTI KB-TZ2 (CS) EXPANSION ANCHORS (MIN. EMBED. (h_{ef}) = 2") W/ STANDARD WASHERS TO CONCRETE WALL (BY STRUCTURAL ENGINEER OF RECORD)

L 3 x 2 (11 GA, A653)
W #4 x 3/8" L RIVET @ 12" O.C.*
(BY MFR)

**SECTION AT CONCRETE WALL
SECTION A-A**

