



WEAVER CONSTRUCTION MANAGEMENT, INC.

3679 S. Huron St., Suite 404

Englewood, CO 80110

Phone: (303) 789-4111 FAX: (303) 789-4310

SUBMITTAL TRANSMITTAL

August 5, 2011

WGC Submittal No: 08710-001

PROJECT: Harold Thompson Regional WRF
Birdsall Rd.
Fountain, CO 80817
Job No. 2908

ENGINEER: GMS, Inc.
611 No. Weber St., #300
Colorado Springs, CO 80903
719-475-2935 Roger Sams

OWNER: Lower Fountain Metropolitan
Sewage Disposal District
901 S. Santa Fe Ave.
Fountain, CO 80817
719-382-5303 James Heckman

CONTRACTOR: Colorado Doorways, Inc.
3333 East 52nd Avenue
Denver, CO 80216
303-291-0900 Ernie Chavez

SUBJECT: Door Hardware - Frame, Door and Hardware

SPEC SECTION: 08710 - Door Hardware

PREVIOUS SUBMISSION DATES:

DEVIATIONS FROM SPEC: ___ YES X NO

CONTRACTOR'S STAMP: This submittal has been reviewed by Weaver General Construction and approved with respect to the means, methods, techniques, & safety precautions & programs incidental thereto. Weaver General Construction also warrants that this submittal complies with contracted documents and comprises on deviations thereto:

<p>Contractor's Stamp:</p> <p>Date: 8/4/11 Reviewed by: H.C. Myers (X) Reviewed Without Comments () Reviewed With Comments</p> <p>ENGINEER'S COMMENTS: _____</p>	<p>Engineer's Stamp:</p>
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SOUTHWESTERN HOLLOW METAL
DIVISION OF COOK STREET LTD.

JOB NO.: 8348
PROJECT: Harold D. Thompson
LOCATION: Fountain, CO

ATTN: Customer

QUESTIONS:

1. At Arch #'s: D-HW1, D-HW2, D-HW4, and D-HW6 (SWHM #'s: 1, 2, 3, and 4), verify that the doors get prepped for 1/4" thick glass. _____
_____ (sheet 3)

NO MATERIAL WILL BE RELEASED FOR FABRICATION UNTIL
ALL ABOVE QUESTIONS ARE ANSWERED OR RESOLVED.

BY- Dennis H. Baca 08/01/11

SHEET 1 OF 1

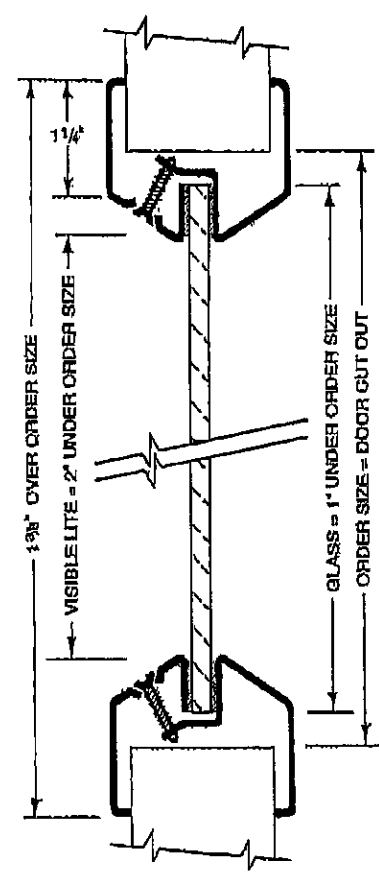
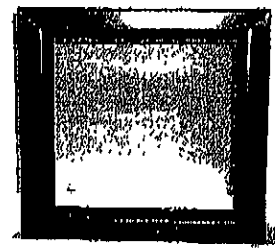
600 SOUTH FIRST STREET * P.O. BOX 520 * RATON, N.M. 87740 *
PHONE# (575) 445-5582, FAX# (575) 445-8571

V4 BEVELED VISION LITE FOR 3/16" - 1/4" GLAZING: VLFEZ

Self-Attaching, Beveled Vision Lite with Single Side Fasteners For Fire Rated Doors for 3/16" to 1/4" Glass

SPECIFICATIONS:

Material	20 gauge CRS frame. Min Size 3" x 3", Max 60" x 104". See Fire Rating Below.
Construction	1-1/4" trim, with mitered and welded corners. Continuous glass retainer, counter-sunk mounting holes in the bevel on non-corridor side.
Door	For 1-3/4" door. For other sizes, see VLFIG and VLFEZIG.
Fasteners	#8 x 7/8" flathead phillips SMS
Finish	___ (B) Mineral Bronze ___ (G) Gray Primer (stock colors) ___ (BK) Black ___ (FBK) Flat Black ___ (W) White ___ (SB) SC Beige ___ (SA) Satin Aluminum ___ (R) Red ___ (S) Sand ___ (AB) AMS Beige ___ (GH) Gray Hammetone Color Samples Online
Glazing	3/16" - 1/4" glazing to be ordered separately from Glazing Section of catalog. Use fire rated glazing with Warnock Hersey (WHI) or UL classification markings for fire rated applications. Visible light is 2" under rough opening size. Glass is 1" under order size. Fire-Rated Air Louvers Glazing to fit this vision frame: WS, UL PYRO, PPF, KRRF.
Fire Rating	When installed in properly rated and approved door, ratings up to 3 hours can be achieved, depending on the glazing used. See glazing ratings for max exposed area. Tested and Listed for UL 10C and Criteria of UBC 7-2 Positive Pressure.



OPTIONS AT ADDITIONAL COST:



Includes	Includes Vision Lite, Glass Sized to Fit, Applied Glazing tape for UL10B Installations, Securely Packaged Individually. See First Page in Vision Lite Catalog.
UL10C	___ Additional intumescent tape for Positive Pressure UL10C 20 minute combustible core wood doors installation. See detailed installation instructions.
Material	___ (S) 20 Gauge Stainless Steel: #4 Finish. ___ (G) Galvanized Sheet for Exterior Applications. ___ (EG) Electro Zinc Plating for Maximum Corrosion Resistance. ___ Optional colors. Please provide color chip & contact C.S.
Fastener	___ Torx ___ Hex head ___ Other: _____
Options	Factory welded to vision lite & painted. See VSL-G Page in this section to order.
Size	Smaller or larger sizes. Leadlined. Contact Customer Service for special orders.
Approved	Approved large glass lite with standard wire glazing approved to 90 minutes. See info on website

STOCK ITEM - MANY STANDARD SIZES OF VLFEZ IN STOCK FOR NEXT DAY SHIPMENT FROM ALL WAREHOUSES

Order Format: VLFEZ _____ Example: VLFEZ 1212AMS
 Option S,G,EG W H Color

Interpretation of Fire and Building Codes May Vary. Consult with the Local Authority Having Jurisdiction (AHJ) to determine appropriate standards.

	Distributor:	Width: <u>4</u> x Height: <u>20</u>
	Architect:	Quantity:
	Contractor:	Model:
	Project:	Date: _____ Version: ALSPDS1001

Hdqtrs: 4450 West 78th St Cir., Bloomington, MN 55435-5416 PH: 800-554-6077 FAX: 952-835-2218 EMAIL: SALES@AIRLOUVERS.COM
 VISIT WWW.ACTIVARCPG.COM FOR THE MOST UPDATED PRODUCT INFORMATION • AN ACTIVAR CONSTRUCTION PRODUCTS COMPANY
 ACPG WEST COAST (AIR LOUVERS MANUFACTURING): COMMERCE CA • WAREHOUSES: LANCASTER PA, ATLANTA GA, CHICAGO IL, Bloomington MN

SOUTHWESTERN HOLLOW METAL, DIVISION OF COOK STREET LTD.
 P.O. BOX 520, 600 SOUTH FIRST STREET
 RATON, NM 87740 (575) 445-5582 FAX (575) 445-8571

IMPORTANT NOTES

Contractor **MUST** coordinate section widths, overall frame dimensions, anchor types and jamb extensions (below finish floor) with job conditions and construction requirements.

Customer **MUST** furnish an unmarked copy of the approved hardware schedule and templates. **NO** material will go into processing until approved shop drawings, approved hardware schedule, and all templates are received.

Items **NOT** by S.W.H.M. - glass, glazing, hardware, installation, weather-stripping, sillseals, excelsior, thresholds, caulking, anchor bolts, wood doors, wood panels, drilling and tapping for surface type hardware, all holes 1/8" or less in diameter, ALL BY OTHERS, unless noted otherwise.

These shop drawings have been prepared for S.W.H.M. use only. We are not responsible for any errors through their use by other trades. (Subject to revisions).

Back charges will **NOT** be honored, unless inspected by a S.W.H.M. field representative.

S.W.H.M. will mortise, reinforce, drill and tap for all mortise type hardware.

WARNING - HIGH GLOSS FINISHES ARE NOT RECOMMENDED FOR USE ON HOLLOW METAL.

All requests for verification **MUST** be (✓) or verification will be assumed.

Contact S.W.H.M. for verification on all hardware locations, for other trades.

All doors and frames **MUST** be checked for correct swing, size, hardware preparation prior to installation. Installation shall constitute acceptance thereof.

S.W.H.M. won't be responsible for fitting of doors where frames are not set true and plumb.

NOTE damages or shortages (IF ANY) on the bill of lading, otherwise material will be assumed complete and correct at shipment.

S.W.H.M. is **NOT** responsible for rust, due to grout with anti-freeze additive, muriatic acid brick wash or from improper storage.

JOB NUMBER: 8348

PROJECT	Harold D. Thompson Reg.
LOCATION	Fountain, CO
CUSTOMER	Colorado Doorways, Inc.
P.O. NUMBER	
ARCHITECT	GMS, Inc.
CONTRACTOR	
DOOR QTY.	5
FRAME QTY.	4
MISC.	

	BY	DATE	SETS
DRAWN	DHB	8/1/11	1
REVISED			
HDW. POSTED			
FRAMES CUT			
DOORS CUT			
FIELD & FILE			

NAAMM

S.W.H.M. is a member of
 The National Association of
 Architectural Metal Manufacturers.

SHEET 1 OF 2

U.L. REQUIREMENTS

DOOR LABELS

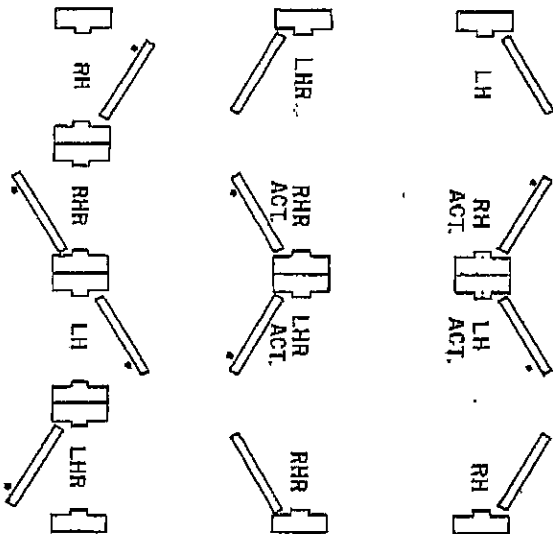
- A - LABEL, 3-hour.
- B - LABEL, 1 1/2-hour.
- C - LABEL, 3/4-hour.
- 20-LABEL, 20-Min.

FRAME LABELS

- FR-LABEL, standard tog.
- TP-LABEL, transom panel.
- TL-LABEL, transom lites.
- SL-LABEL, side lite.
- TSL-LABEL, transom panel and side lite.
- STL-LABEL, side lite and transom lite.
- WDW-LABEL, window frame.

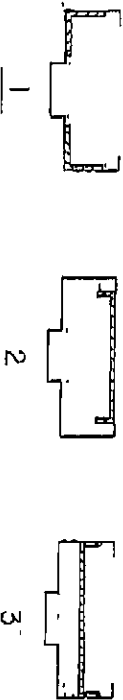
U.L. CONST. noted in label column of door or frame indicates, will NOT bear a noncompliance with U.L. requirements.

DETERMINATION OF DOOR SWINGS AND ACTIVE LEAF



KEY-SIDE, DETERMINES DOOR SWING, WHICH IS EXTERIOR OR CORRIDOR AND NOT ROOM SIDE.

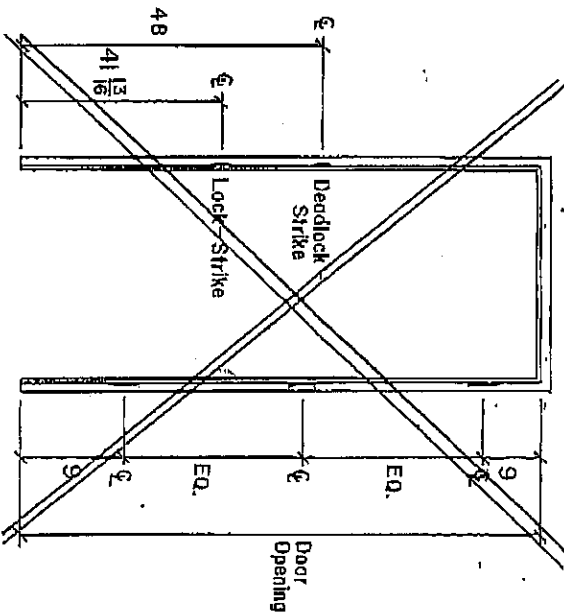
HEAD CHANNEL REINF. (ONLY WHEN NOTED IN SPEC'S.)



SEE CONST. SHEET FOR GAUGES AND NOTES.

HARDWARE-LOCATIONS

5" hinge lockset on frame, 1/4" on door.



CARRIES HARDWARE LOCATIONS

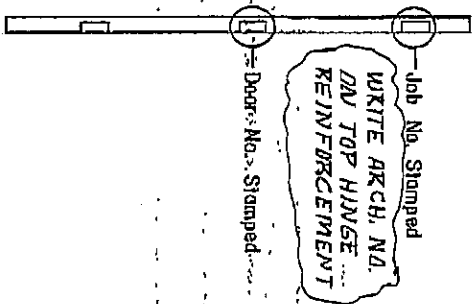
LOCATIONS NOT FOR ANY OTHER TRADES. CONTACT S.W.H.M. FOR VERIFICATION OF ALL HARDWARE LOCATIONS, DUE TO REVISIONS.

DOOR CONSTRUCTION

GENERAL - NOTES

- ALL DOORS ARE 1 1/4" THICK U.N.O.
- ALL DOOR EDGES ARE DON'T WELDED, AND FINISHED SMOOTH. (SEAMLESS)
- ALL DOORS FULLY INSULATED WITH 3 1/2" TRICOR-INSORGANIC-INSULATION (R-11) COMPRESS TO 1 1/8" HONEYCOMB CORE
- ALL DOORS REINFORCED FOR CLOSERS, WHETHER CLOSER REQUIRED OR NOT.
- ALL DOORS WILL BE BEVELLED ON LOCK EDGE 1/8" IN 2.
- ASTRAGALS WILL BE FURNISHED ONLY IF SPECIFIED OR REQUESTED, FLAT-BAR TYPE.
- ALL HARDWARE HOLES 1/2" DIAMETER OR LESS ARE TO BE FIELD DRILLED BY OTHERS.
- ~~FINISH: ALL DOORS WILL HAVE ONE COAT OF GRAY OXIDE PRIMER.~~

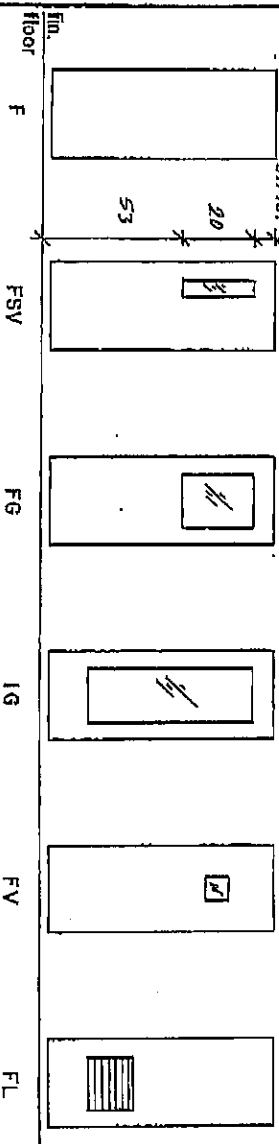
DOOR - EDGE



SPECIFICATIONS

GAUGE	DESCRIPTION
16	FACE SHEETS, 20 GAUGE STEEL (SEAMLESS)
16	TOPS AND BOTTOMS, WELDED IN PLACE.
N/A	RIBS - 6" A.P. - SPOTWELDED - 4" O.C. - VERTICALLY
7	SHIMME LAMINATE - 1/2" X 3/4" X 1/8" - 20 GA. - 20 GA. - 20 GA.
17	MORTISED LOCK TAB REINF.
17	SURFACE MOUNTED HARDWARE REINF.
	HONEYCOMB CORE

REMARKS



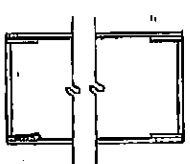
Doors will be undercut 3/4" unless noted or specified otherwise.

(2" X 18" CLEAR VISION)

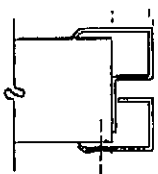
CUTBACK 1/4" X 29"

DIMS. 20" X 29"

SEALED TOP AND BOTTOM



Top and bottom, flush specified.



18 Gauge standard glazing stops. Set for 1/4" thick glass, unless noted otherwise.

Southwestern Hollow Metal

SHEET OF

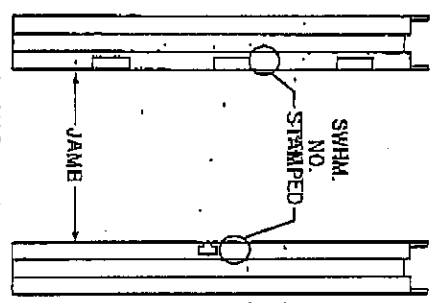
JOB NO.

8348

FRAME CONSTRUCTION

GLAZING - NOTES

- 1 1/4" glass b/o. near - side.
- 2 1/4" glass b/o. door - side.
- 3 1/4" glass b/o. opp. - door.
- 4 1" glass b/o. near - side.
- 5 1" glass b/o. door - side.
- 6 1" glass b/o. opp. - door.
- 7 3/4" wood panel b/o. door - side
- 8 3/4" HM. panel door - side. (welded in place)
- 9 3/4" HM. panel door - side. (rem. type)
- 10
- 11
- 12
- 13



WRITE ARCH NO. ON MIDDLE HINGE REINFORCEMENT

SPECIFICATIONS

GAUGE	DESCRIPTION
14	FULLY WELDED FRAMES. STAINLESS STEEL
7	HINGE REINF. 1 1/2" X 10"
12	STRIKE TAB REINF.
12	SURFACE MOUNTED HDW. REINF.
14	FLOOR ANCHORS. (FIXED - TYPE)

GENERAL - NOTES

INSIDE PERIMETER OF STOP AND FACE TRIM JOINTS ARE WELDED. EXPOSED WELDS FINISHED. SMOOTH. MORTAR BOX PROVIDED AT HDW. MORTISES. FLOOR ANCHORS PROVIDED AT ALL FRAMES THAT REST ON FLOOR, EXCEPT FRAMES GOING INTO EXISTING WALLS. FIRE RATED FRAMES MUST HAVE WELDED IN ANCHORS AND CLOSER REINF. REM. GLAZING STOPS WILL BE 5/8" GAUGE MAT. AND BUTTED AT CORNERS. PREP. FOR NO. 8 S.M.S. CLEARANCE BETWEEN STOPS IS 5/8" THICKNESS OR PANEL PLUS 1/4". REM. STOP SIZE: 5/8" X 5/8" U.N.O.

ANCHOR TYPES

MAS - TEE	A	U.L. - MAS.	B	STEEL - STUD	C	STEEL - STUD	D	WOOD - STUD	E	PIPE - SLEEVE	F	WOOD - STUD	G	H	I	J

FINISH ALL FRAMES WILL HAVE ONE COAT OF GRAY OXIDE PRIMER.

Southwestern Hollow Metal

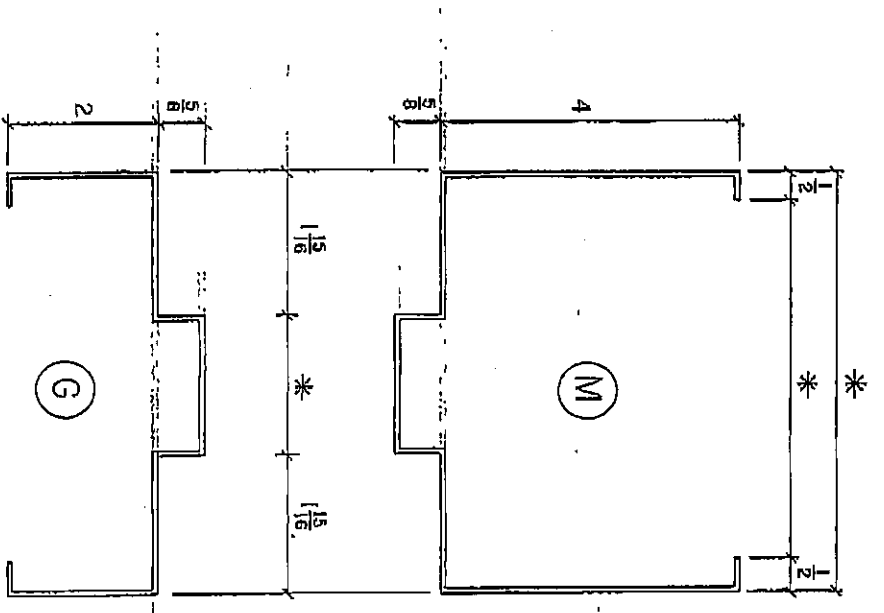
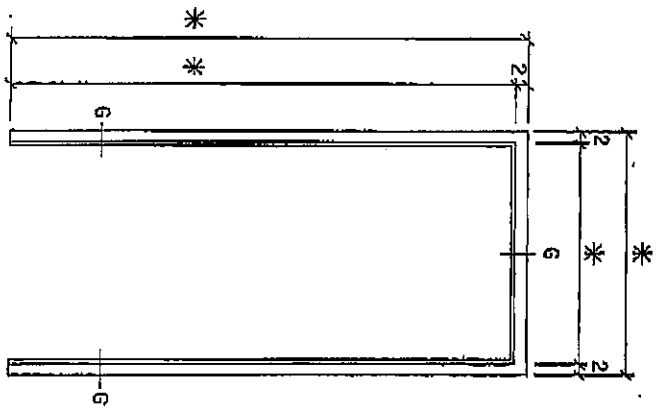
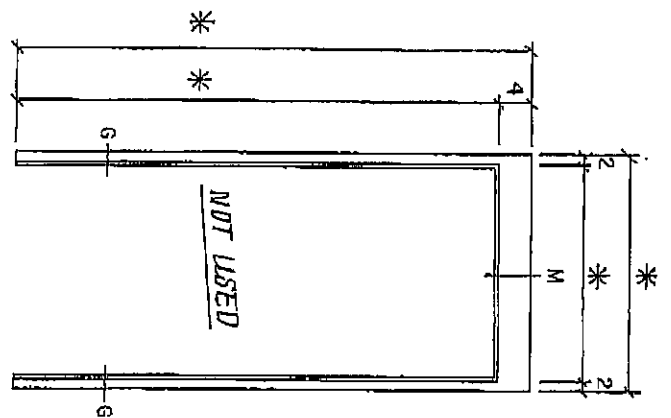
REVISION NOTES		CONSTRUCTION NOTES	
NOTE	DESCRIPTION	DATE	DESCRIPTION
1			ADD #4 FINISH STRAINLESS STEEL DOOR AND FRAME
2			"FSU" DOOR AT RYKA, "F" DOOR AT LHR
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

Southwestern Hollow Metal SHEET 5 OF JOB NO. 8348

SOUTHWESTERN HOLLOW METAL JOB NO. 8348

DOOR INFO.			LOCATION			FRAME INFORMATION						DR. OPENING			HARDWARE INFORMATION						□	△	#			
U.L. LABEL	MATERIAL	ELEVATION	UNDERCUT	SWING	KEY SIDE	ROOM SIDE	ARCH. NO.	S.W.H.M. NO.	ELEVATION	JAMB DEPTH	U.L. LABEL	ANCHOR QTY.	ANCHOR TYPE	WIDTH	HEIGHT	HDW. SET	SET-UP	PAIRS	HINGE SIZE	LOCK / PANIC	STRIKE	BOLT OR MULL	CLOSER	CONSTRUCTION NOTES	REVISIONS	PARTIAL
2	SS FSV			RHR	EXT	ELEC	DHW1	1	BB	6	2	6	A	36	86									1		
2	SS FSV			LHR	EXT	UPPER OPER	DHW2	2	BB	6	1	8	A	36	86									1		
2	SS FSV			LHR	EXT	UPPER OPER	DHW4	3	BB	6	2	8	A	36	86									1		
2	SS FSV/F			RHR/LHR	EXT	LOWER OPER	DHW6	4	BB	6	2	8	A	34	86									1,2		

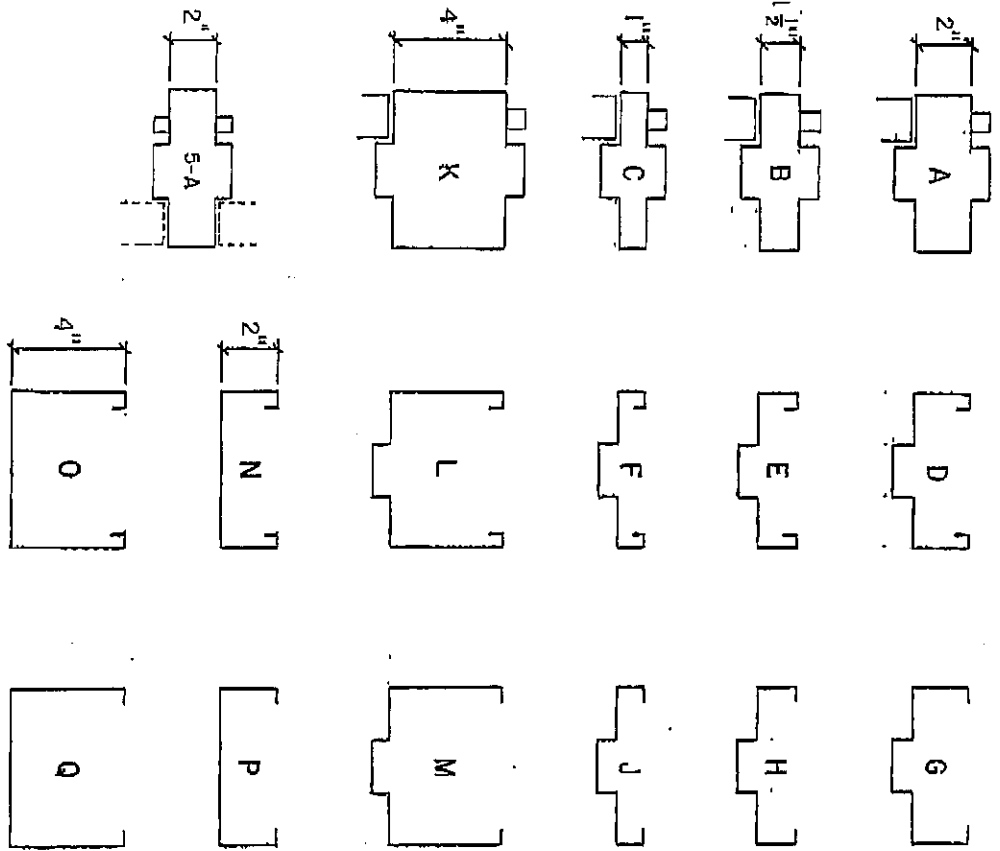
SHEET 6 OF



STANDARD FRAMES AND SECTIONS.

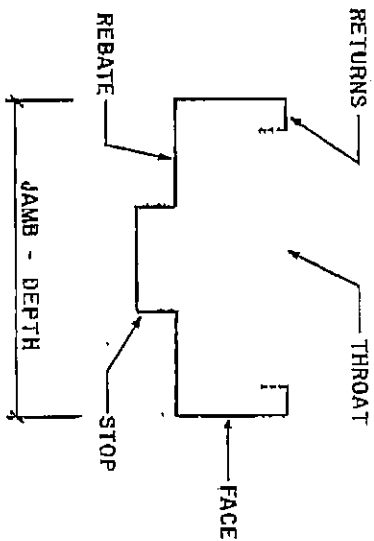
* INDICATES VARIES, SEE SCHEDULE FOR DOOR OPENING SIZE OR JAMB DEPTH.

STANDARD FRAME SECTIONS



SECTIONS ARE FOR 1 3/4" THICK DOORS.
 ALL REBATES TO BE 15/16"
 ALL RETURNS ARE 1/2" WIDE.
 THROAT DIMENSIONS ARE 1" LESS THAN
 JAMB DEPTH.

ALL STOP HEIGHT'S ARE 5/8"
 THESE SECTIONS ARE FOR 16 & 14 GAUGE.



Southwestern Hollow Metal

SHEET 8 OF

JOB NO. 8340

DOOR HARDWARE

Section 08710



3333 East 52nd Ave
Denver, CO 80216-2322
Phone: 303-291-0900
Fax: 303-2910113

Original Submittal Set

PROJECT: Harold Thompson WTP
Birdsall Road
Fountain, Colorado 80817

JOB NUMBER: 11266AMV

CUSTOMER: Weaver General Const. Co.~
3679 S. Huron Street
Suite 404
Englewood, Colorado 80110

ARCHITECT: Gms, Inc. Consulting Engineers
611 N. Weber, Suite 300
Colorado Springs, Colorado 80903

Prepared By:

Date: July 20, 2011

Opening List

<u>Opening</u>	<u>Hdw Set</u>	<u>Hdw Heading</u>	<u>Opening Label</u>	<u>Door Type</u>	<u>Frame Type</u>
D-HW1	A	A		A	A
D-HW2	B	B		B	B
D-HW4	B	B		B	B
D-HW6	C	C		B	B
W-HW1					
W-HW2					

Finish List

<u>Code</u>	<u>Description</u>
AL	Aluminum
26D	Satin Chrome
626	Satin Chromium Plated
630	Satin Stainless Steel
US26D	Chromium Plated, Dull
US32D	Stainless Steel, Dull

Hardware Schedule

HEADING #A (SET #A)

Opening Description: 3'0" x 7'2" x 1 3/4" Type A Type A

1 Single Door #D-HW1	EXTERIOR from ELECTRICAL AND CONTROL ROOM	90	RHR
----------------------	--	----	-----

3 Hinges	5BB1HW 4 1/2 x 4 1/2 NRP	630	IV
1 Lockset	ND80PD RHO (CMK MK)	626	SC
1 Electric Strike	6210	US32D	VO
1 Closer	4041 REG/PA SRI TBWMS	AL	LC
1 Kickplate	8400 10" x 34"	US32D	IV
1 Floor Stop	FS448	US26D	IV
1 Weatherstrip	305SSS 1/36" X 2/86"		MIHW
1 Door Bottom	315 SSN 36"		PE
1 Threshold	172 A 36"		PE

Images: IV5BB1HW, IV8400_SERIES, IVFS448, LC4040-ORDER, LC4040-PA-MTG, LC4040-SIZE, PE172, PE315SSN, PEFINISH, SCND-BU, SCND-RHO, SCND80PD, VO6000SPEC, VO6210---D

HEADING #B (SET #B)

Opening Description: 3'0" x 7'2" x 1 3/4" Type B Type B

1 Single Door #D-HW2	EXTERIOR from TREATMENT PLANT	90	LHR
1 Single Door #D-HW4	EXTERIOR from TREATMENT PLANT	90	LHR

6 Hinges	5BB1HW 4 1/2 x 4 1/2 NRP	630	IV
2 Exit Device	98NL x 990NL-R&V	US26D, US32D	VO
2 Rim Cylinder	20-022 (CMK MK)	626	SC
2 Closer	4041 REG/PA SRI TBWMS	AL	LC
2 Floor Stop	FS448	US26D	IV
2 Weatherstrip	305SSS 1/36" X 2/86"		MIHW
2 Door Bottom	315 SSN 36"		PE
2 Threshold	172 A 36"		PE

Images: IV5BB1HW, IVFS448, LC4040-ORDER, LC4040-PA-MTG, LC4040-SIZE, PE172, PE315SSN, PEFINISH, SC20-021, VO98,99-990-S, VO98,99_990NL-V, VO990NL-R_V

**Harold Thompson WTP
Fountain, Colorado**

**DOOR HARDWARE
SECTION 08710**

HEADING #C (SET #C)

Opening Description: 2 - 3'6" x 7'2" x 1 3/4" Type B Type B

1 Pair Doors #D-HW6	EXTERIOR from TREATMENT PLANT	90	RHRA
6 Hinges	5BB1HW 4 1/2 x 4 1/2 NRP	630	IV
2 Flush Bolt	FB458	US26D	IV
1 Exit Device	98NL x 990NL-R&V 1609-US26D 48"	US26D, US32D	VO
1 Rim Cylinder	20-022 (CMK MK)	626	SC
1 Closer	4041 REG/PA SRI TBWMS	AL	LC
	Note: ACTIVE LEAF ONLY		
2 Kickplate	8400 10" x 40"	US32D	IV
1 Door Stop	70 B	26D	IV
	Note: ACTIVE LEAF		
1 Wall Stop/Holder	WS449	US26D	IV
	Note: INACTIVE LEAF.		
1 Weatherstrip	305SSS 1/84" X 2/86"		MIHW
1 Astragal	357 SS 96"		PE
1 Smoke Seal	S88 D 17"		PE
	Note: FOR ASTRAGAL		
2 Door Bottom	315 SSN 48"		PE
	Note: CUT IN FIELD FOR 3'6" DOOR		
1 Threshold	172 A 84"		PE

Images: IV5BB1HW, IV70, IV8400_SERIES, IVFB458, IVWS449, LC4040-ORDER, LC4040-PA-MTG, LC4040-SIZE, PE172, PE315SSN, PEFINISH, SC20-021, VO98,99-990-S, VO98,99_990NL-V, VO990NL-R_V

**Harold Thompson WTP
Fountain, Colorado**

**DOOR HARDWARE
SECTION 08710**

Image Reference: IV5BB1HW

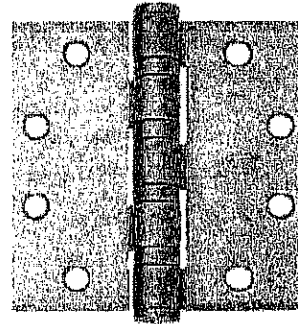
4 BALL BEARING • HIGH FREQUENCY • HEAVY WEIGHT

For use on Heavy Weight Doors or High Frequency Usage

5BB1HW Steel with steel pin

5BB1HW Stainless Steel with stainless steel pin (630 finish only)
Non-Removable Pin suffix "NRP" strike

- Hinges tested to ANSI - A156.1.
- Dimensions & tolerances conform to ANSI - A156.7.
- 5BB1HW Steel description conforms to ANSI - A8111.
- 5BB1HW Stainless description conforms to ANSI - A5111.
- Packed with wood and machine screws.



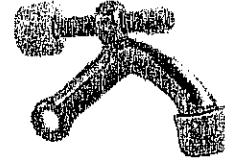
Size (Inches)	Size (MM)	Gauge
4.5 x 4.5	114 x 114	0.180
5 x 4.5	127 x 114	0.190

Image Reference: IV70

70 Hinge Pin Door Stop

Features:

- For use on hinged doors where the installation of a standard door stop is not desirable.
- Designed for narrow trim installation.
- High quality rubber bumpers - shoulder on stud supports rubber through entire body for engineered cushioning.
- Replaceable, non-marring rubber tips.
- Removable bushings accommodate 1/4" to 5/16" diameter hinge pins.
- Easy installation.
- Made from solid brass, aluminum, or epoxy coated aluminum.
- Finishes: B3 (B-605), B4, B5, B10, B10B (B-613), B14, B15 (B-619), B15A (B-620), B26 (B-625), B26D, A3, A4, A5, A10, A10B, A14, A26, A92, A-A (Almond Epoxy Coated), A-W (White Epoxy Coated), A-BLK (Black Epoxy Coated).



Product Number	Door Openings Adjustments
70	85° to 125°

Architectural Door Trim

Series 8400 Door Protection Plates



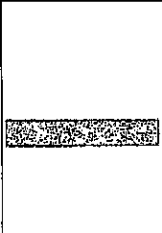
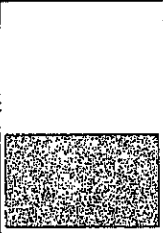
.050" Thickness

Features:

- Door Protection Plates are fabricated from the finest architectural aluminum, brass, and stainless steel, or 1/8" thick clear acrylic plastic or black or brown high impact polyethylene.
- All aluminum, brass, bronze and stainless steel Door Protection Plates meet ANSI A156.6 requirements for .050" thickness.
- Optional Beveling—For beveling of top and two sides of plates suffix with B3E, and for beveling of four sides suffix with B4E. Plastic plates are beveled on all four sides as standard.
- Each plate is packaged carefully wrapped in strong kraft paper with #6 x 5/8" oval head, undercut sheet metal screws plated to match, for easy installation on hollow metal, laminate, or wood doors. All plates are packaged in heavy duty corrugated cardboard; larger plates are enclosed in a wooden frame.



- Use No. 8401 Kickplate Gasket Tape as a buffer between brass kickplates and metal doors to help prevent tarnishing which may result from electrolytic oxidation. One package provides enough double-sided adhesive-backed foam tape for the perimeter of an 8" x 34" plate.
- Finishes:
 Brass: B3, B4, B5, B10, B10B (for heights over 24", check with customer service)
 Stainless Steel: S32D, S32
 Aluminum: PA28
 Plastic: BLK, BRN, CLR

 <p>Mop Plates</p> <ul style="list-style-type: none"> • Protect the bottom of the pull side of door subject to cleaning and mopping procedures. • Size Ranges: 4" to 6" high, 22" to 48" wide 	 <p>Kick Plates</p> <ul style="list-style-type: none"> • Protect the bottom of the push side of doors subject to scuffing from foot traffic. • Recommended for all doors subject to normal use (especially doors using a closer). • Size Ranges: 8" to 24" high, 22" to 48" wide 	 <p>Stretcher Plates</p> <ul style="list-style-type: none"> • Protect doors at specific areas where consistent contact is made by stretchers, service carts or other equipment. • Usually applied to push side of doors. • Specify "B4E" Option for beveled edges. • Size Ranges: 6" to 8" high, 22" to 48" wide 	 <p>Armor Plates</p> <ul style="list-style-type: none"> • Protect lower half of doors from abuse by hard carts, trucks and rough usage. • Usually applied to push side of single doors and both sides of double acting doors. • Size Ranges: 26" to 48" high, 22" to 48" wide
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How to Order

8400

X

Finish

Height:

4" up to 48" in 1/2" increments
 (For brass kick plates over 24", check with customer service.)

Width:

22" up to 48" in 1/2" increments

Options: (Only for metal plates)
 B3E for Bevel Top and 2 Edges
 B4E for Bevel 4 Edges
 CS for Counter Sink Holes
 ES for Extra row of Screws

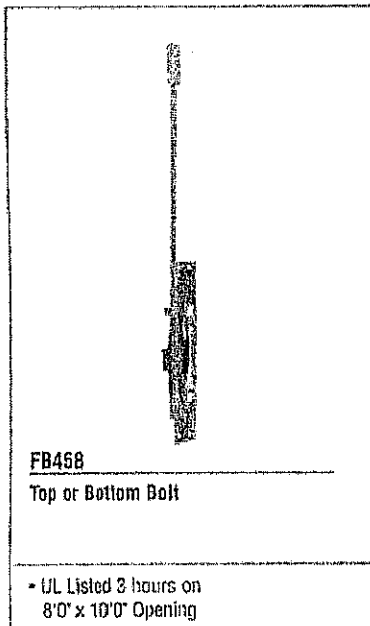
Image Reference: IVFB458

Manual Flush Bolts - Metal Doors

FB458

Series for Metal Doors

- When the active door is opened, the lever can be moved to the 'up' position, retracting the bolt and allowing the inactive leaf to be opened. When the inactive leaf is closed, the lever can be moved to the 'down' position, projecting the bolt into the strike and securely locking the inactive leaf.
- Simplified installation in metal frames. Round bolt head requires only a punched hole. Use of strike optional. Special design of guide and flat sided bolt tip to prevent bolt rotation.
- FB458 UL Listed for Fire Doors.
- FB458N and FB0458N not UL Listed for Fire Doors.
- FB0458N features 1/4" radius corners on body.
- Non-handed
- Finishes FB458: US3, US4, US10, US10B, US26, US26D.
FB458N and FB0458N: US3, US10B, US26, US26D.
- Bolt tip is 1/2" diameter.
- Bolts have 3/4" throw with a bolt backset of 3/4".
- Standard Rod Length is 12", which is measured from the center of the flush bolt body to the bolt tip.
- Meets ANSI/BHMA A156.16, L04251.
- Optional Dust Proof Strikes—DP1 or DP2, prevents dirt build-up assuring full engagement of bottom bolt.
- Optional Rod Lengths available for FB458: 6", 9", 18" and 24".
- Optional Rod Lengths available for FB458N and FB0458N: 6", 9", 18", 24", 30", 36" and 48".



Dimensions:

Body Size: 1" Wide x 6-3/4" Long x 1-1/8" Deep
Guide Size: 1" Wide x 2" Long x 5/64" Thick
Strike Size: 15/16" Wide x 2-1/4" Long x 5/64" Thick
Rod: 1/4"-20 Threaded Rod



Image Reference: IVFS448

FS448

Features:

- Ideal for interior or exterior use.
- Cast brass construction.
- Accommodates door undercut up to 2-1/2".
- Non-marring rubber tip.
- Packed with wood screws.
- Meets ANSI/BHMA 156.16, L12121, for brass and L32121 for aluminum.
- Finishes: US3, US4, US5, US10, US10B, US14, US15, US15A, US26, US26D, US28.

Product No.	Overall Height	Base Diameter
FS448	3"	2-1/2"

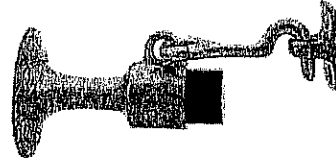


Image Reference: IVWS449

WS449

Features:

- Constructed in cast of brass or aluminum.
- Unit functions as a stop but serves as a Hold-Open device when hook is manually engaged in strike.
- Unit requires manual disengagement to release Hold-Open.
- Resilient, non-marring rubber tip.
- Packed with wood screws.
- Meets ANSI/BHMA 156.16, L11341 for brass and L31341 for aluminum.
- Finishes: US3, US4, US5, US10, US10B, US14, US15, US15A, US26, US26D, US28.



Product No.	Base Diameter	Base Projection	Engaged Projection	Strike Height	Strike Width	Strike Projection
WS449	2-1/4"	3-11/16"	5-3/4"	1-1/2"	13/16"	13/16"

Image Reference: LC4040-ORDER

**HOW-TO-ORDER
4040 SERIES CLOSERS**

1. SELECT FINISH

- Standard Powder Coat _____
Aluminum, Satin, Light Bronze, Tan,
Brass, Black, Dark Bronze
- Custom Powder Coat _____
- Plated Finish US _____
(optional metal cover will be furnished)
- SRI primer

Closer will be shipped with:
- STANDARD CYLINDER,
- STANDARD COVER,
- REGULAR ARM (without PA shoe), and
- WOOD and MACHINE SCREW PACK,
unless options listed below are selected.

CLOSER OPTIONS

CYLINDER

- PA Mount (add prefix "P" to cylinder for
4040-62PA shoe required with regular or
hold-open arm)
- Delayed Action (add suffix "DA" to cylinder)

COVER

- Metal (specify right or left hand)

ARM

- Regular w/62A
- Long
- Extra Long
- Hold-Open
- Long Hold-Open
- EDA (optional -62G or -145)
- H-EDA (specify right or left hand,
optional -62G or -145)
- Cush-H-Stop
- H-Cush-H-Stop
- Spring Cush
- Spring H-Cush

SCREW PACK

- Thru Bolt* & Machine Screws
- TB*, Wood & Machine Screws
- TORX Machine Screws
- TB* & TORX machine screws
- * Specify door thickness if other than 1 3/4".

SPECIAL TEMPLATE

- ST- _____

INSTALLATION ACCESSORIES

- Plate, 4040-18
- Plate, 4040-18TJ
- Plate, 4040-18G
- Plate, 4040-18PA
- CUSH Shoe Support, 4040-39
- Blade Stop Spacer, 4040-61
- Auxiliary Shoe, 4040-62A
- Soften Shoe, 4040-65
- PA Shoe Adapter, 4040-41B
- CUSH Hush Panel Adapter, 4040-41D

Image Reference: LC4040-PA-MTG

MOUNTING DETAILS

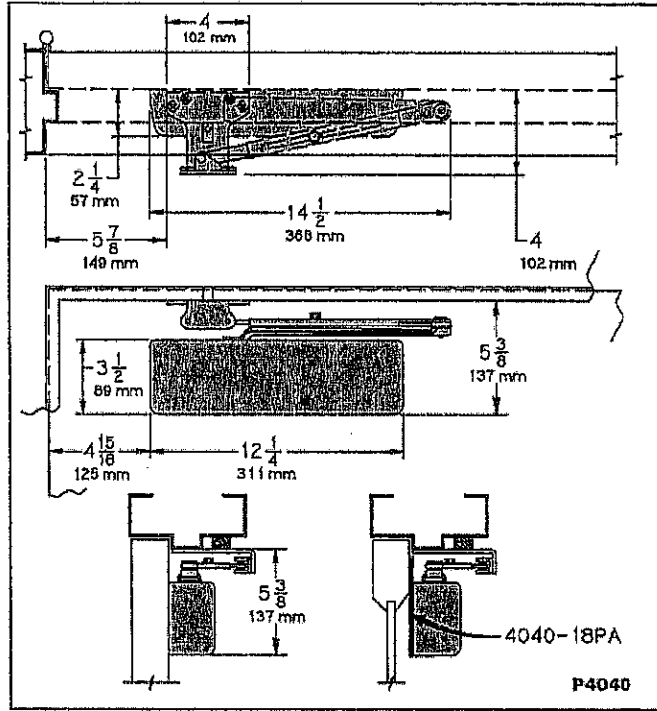
PARALLEL ARM (PUSH SIDE) MOUNTING

Optional mounting requires PA SHOE, 4040-62PA for REGULAR or HOLD-OPEN arms. Add prefix "P" to closer description (eg. P4041). P4041 closer includes 4040-201 FIFTH HOLE SPACER to support PA SHOE.

MAXIMUM OPENING

180° opening/hold-open points with all except CUSH arms.

110° opening/hold-open with CUSH arms.



4040 REGULAR or HOLD-OPEN MOUNT

- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point, where the door cannot swing 180°, or where CUSH-N-STOP® arm is not used.
- ▶ **Clearance** for 4040-62PA shoe is 4" (102 mm) from door face. EDA or CUSH shoe projects 5 1/2" (140 mm) from door face.
- ▶ **Top Rail** less than 5 1/2" (140 mm) measured from the stop requires PLATE, 4040-18PA. Plate requires 2" (51 mm) minimum.
- ▶ **Head Frame** flush or single rabbeted requires PA SHOE ADAPTER, 4040-418.
- ▶ **Stop Width** minimum 1" (25 mm).
- ▶ **Blade Stop** clearance requires 1/2" (13mm) BLADE STOP SPACER, 4040-61.
- ▶ **Delay Action** Add suffix "DA" to selected cylinder (eg. P4041 DA). Delays closing from 170° to 115°. Delays time adjustable up to 1 minute.

Options

- ▶ Delay action cylinder
- ▶ Hold-open: EDA/H-EDA
- ▶ CUSH/H-CUSH SPRING
- ▶ CUSH or SPRING/H-CUSH arm
- ▶ Metal cover

Special Templates

Customized installation templates on products may be available to solve unusual applications. Contact LCN for assistance.

Image Reference: LC4040-SIZE

TABLE OF SIZES

4041 cylinder is adjustable from size 1 through size 6 and is shipped set to size 3.

Closing power of 4040 series closers may be adjusted 50%.

—————> Indicates recommended range of door width for closer size.

EXTERIOR (and VESTIBULE) DOOR WIDTH

	24" 610mm	30" 762mm	36" 914mm	42" 1067mm	48" 1219mm
*4041	size 3	size 4	size 5	size 6	

Minimum Door Width

INTERIOR DOOR WIDTH

	24" 610mm	34" 864mm	38" 965mm	48" 1219mm	54" 1372mm	60" 1524mm
*4041	size 2	size 3	size 4	size 5	size 6	

Minimum Door Width

* Adjustable Size 1 thru 6

Image Reference: PE172

Saddle Thresholds

■ To use a saddle threshold in an offset condition, use an *elevator* (see page 19).

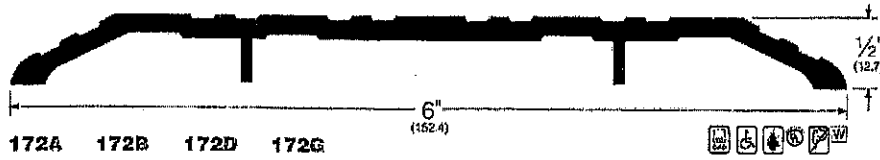


Image Reference: PE315SSN

315SSN 
AVAILABLE FINISHES: 

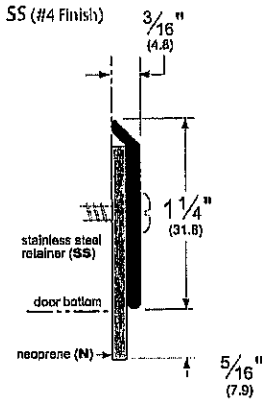


Image Reference: PEFINISH

METALS AND FINISHES: Pemko's extruded metal products are made from: 6063 and 6463 aluminum alloys, and CDA alloy C38500 architectural bronze (brass). Roll-formed metal products are made from stainless steel, high-strength special-purpose zinc alloy, 70-30 yellow brass or 85-15 red brass. Roll-formed aluminum weatherstripping is produced from various alloys selected for the particular properties required. **357SP** is made from hot rolled galvanealed steel; the **357SS** is made from 304-stainless steel. See the charts (below) for all finish designations. If you do not see the option you require, please inquire with our customer service department about the feasibility of a custom finish. Also, a "Finish Designations" Option Table is shown at the top of every pair of pages as a key for one or more of the products on those pages.

Standard Finishes	
Code	Finish Designations
A	mill finish aluminum
B	mill finish extruded bronze (brass)
BA	bright dip clear anodized aluminum
BA	bright dip gold anodized aluminum
C	clear anodized aluminum
CB	cladded brass
CB	dark bronze anodized aluminum
C	gold anodized aluminum
PA	painted aluminum
PB	painted bronze aluminum
PD	painted dark bronze aluminum
PE	painted gold aluminum
PW	painted white aluminum
S	cladded stainless steel
SN	satin nickel anodized aluminum
GP	galvanealed steel
SS	see individual part for finish
Z	zinc metal
SK	skid resistant PemKote™ (on aluminum or bronze)
Special Order Finishes	
Code	Finish Designations
*	black anodized aluminum
*	chrome plated bronze
*	gray prime coated aluminum
*	polished aluminum, uncoated
*	polished bronze, uncoated
*	satin brushed aluminum, uncoated
*	satin brushed bronze, uncoated
*	oxidized and oil rubbed bronze

* = no code; special order finish option.

Image Reference: SC20-021

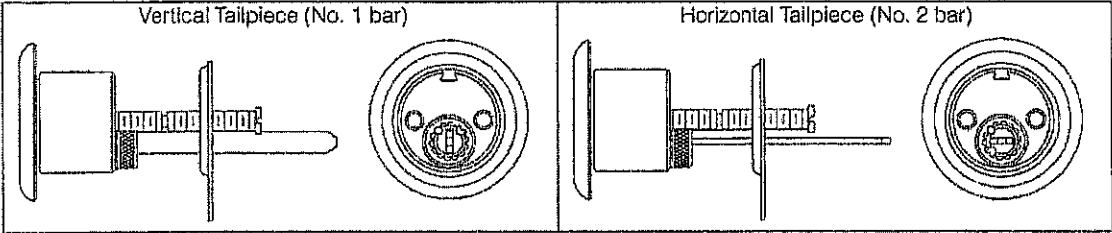


Image Reference: SCND-BU

Exploded View

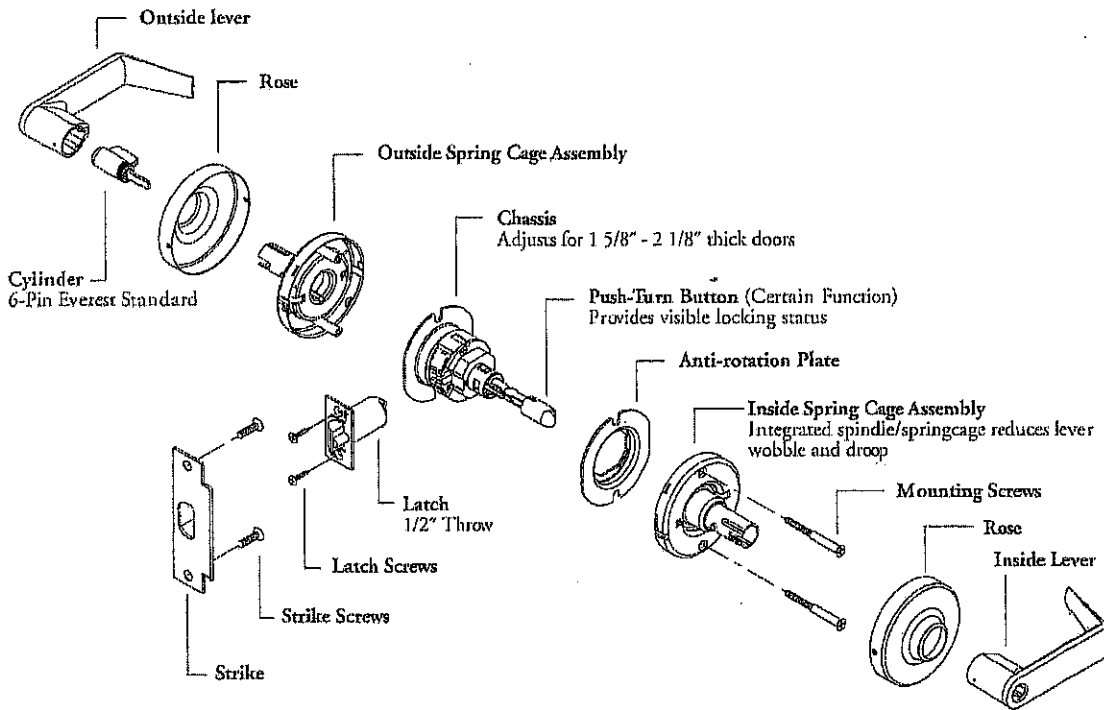
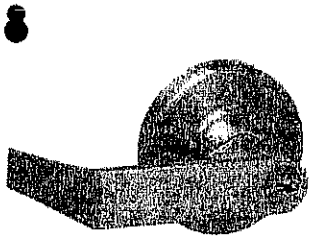


Image Reference: SCND-RHO



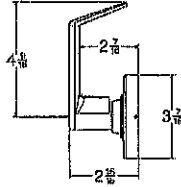
RHODES

Symbol: RHO (06)

Material: Pressure cast
zinc lever; wrought brass rose

Finishes:

605, 606, 612,
613, 619, 625,
626



612

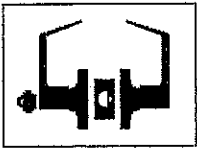


Harold Thompson WTP
Fountain, Colorado

DOOR HARDWARE
SECTION 08710

Image Reference: SCND80PD

ND80PD F86



Storeroom Lock*
Outside lever fixed. Entrance by key only.
Inside lever always unlocked.

Image Reference: VO6000SPEC

VON DUPRIN® SERIES 6000 ELECTRIC STRIKES

Electric Strikes provide remote release of a locked door. They allow the door to be opened without retracting the latchbolt. This occurs by the releasing of the electric strike lip (sometimes called keeper or gate). When the door closes the beveled latchbolt rides over the lip and falls into the electric strike pocket.

VON DUPRIN SERIES 6000 ELECTRIC STRIKES

Strikes feature all stainless steel construction, are non-handed and available in 12V or 24V, DC or AC. Strikes are furnished fail secure (FSE) standard, with fail safe (FS) optional. Strike box is adjustable to compensate for any misalignment of the door or frame. Two-piece plug connectors are furnished for ease of installation and for removal during strike servicing.

To assure the proper selection of an electric strike on new applications, lockset compatibility charts are shown on page 12. When using a lockset not listed or when retrofitting a strike to an existing application, consult Von Duprin for application assistance.

OPTIONS

AC Operation

SO12 and SO24 are rectifier kits to convert AC voltage to operate the DC solenoids. These kits are field installable and plug in-line to solenoid.

DS and DS-LC — Dual Switch Monitoring

Dual switch monitoring option has two SPDT contacts, one switch monitors the tripper which is depressed when the latchbolt is inserted into the strike pocket. The second switch monitors the condition of the strike lip, open or closed and locked.

Two switch options are available — DS and DS-LC. DS is standard, rated 24V, operating range from 2 ampere to 50 milliampere.

DS-LC low volt gold contact switches for use on applications associated with computer control and monitoring, rated 24V, operating range 50 milliampere or below.

Fail Secure — FSE

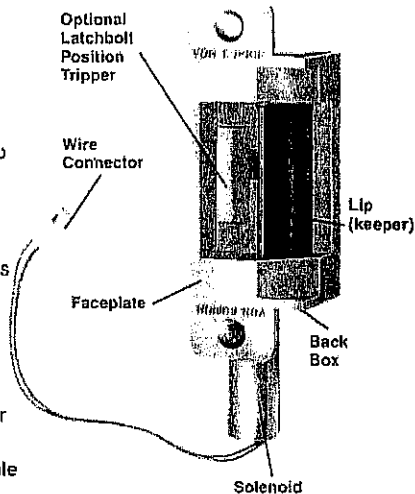
FSE — FAIL-SECURE electric strikes require power to be applied to unlock the strike lip. On loss of power, the strike is locked.

Fail Safe — FS

FS — FAIL-SAFE electric strikes require power to be applied to lock the strike lip. On loss of power, the strike is unlocked. Building codes prohibit the use of fail-safe strikes on labeled openings.

Entry Buzzer — EB

EB — Entry buzzer is available for use with fail-secure strikes. Installed in the frame and in parallel with the circuit, the buzzer will sound when the strike is unlocked.



UL LISTED

UL Listed Burglary-Resistant and Electric Strike for fire doors and frames, A label for single doors and B label for double doors. Strikes are tested in accordance with BHMA Standard 501 and ANSI 156.5, Grade 1, 1984.

TO ORDER, SPECIFY

1. Model number
2. FS (fail safe, when required)
3. DS or DS-LC (dual switch, when required)
4. Voltage 12VDC or 24VDC
5. SO12 or SO24 (required when using AC)
6. Finish
7. Entry buzzer, FSE only (when required)

Note: information listed is for use on new applications. On retrofit applications, modification of the frame preparation may be required, consult factory.

Image Reference: VO6210---D

6210

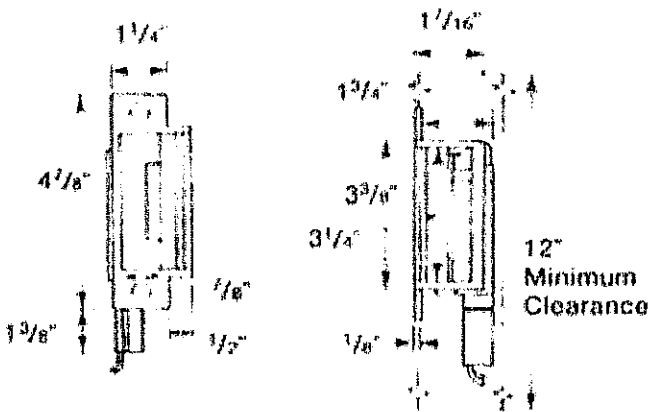
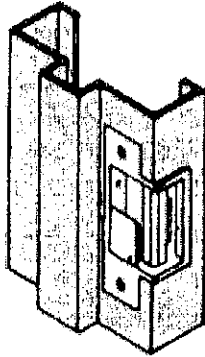


Image Reference: VO98,99-990-S

SERIES 990

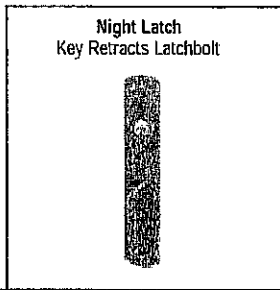
Heavy 10 gauge (2.4mm) brass, bronze, or stainless steel. Available functions: 990DT, 990NL, and 990TP. Optional 990EO exit only trim plate is available in this series. When ordering with the exit device, use 99EOx990EO.

Image Reference: VO98,99 990NL-V



990NL

Image Reference: VO990NL-R_V



Trim Description	990NL-R/V
Escutcheon Plate Size	3" x 14 ³ / ₁₆ " x 9 ³ / ₃₂ " (76x360x2mm)
Pull Center to Center	5 ¹ / ₂ " (140mm)
Projection	2" (51mm)
ANSI Function	03
Cylinder Type	Rim
Optional Trim (See pages 32 - 34)	x991K-NL x992L-NL x994L-NL x996L-NL x696NL x697NL
Optional #425 Sex Bolt Quantity for Device	2



ASSA ABLOY

**PERIMETER GASKETING:
STANDARD PERIMETER GASKETING**



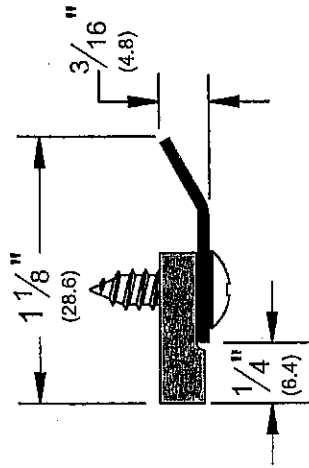
305SSS

AVAILABLE FINISHES: SS (#4)

WIDTH: 3/16" (4.8 mm)

PROFILE HEIGHT: 7/8" (22.2 mm)

TOTAL HEIGHT WITH INSERT: 1-1/8" (28.6 mm)



SS (Stainless Steel)

TITLE:
PREPARED FOR:
PREPARED BY:
DATE:
COMMENTS:

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305SSS_CUT Rev 1 - 12.21.09

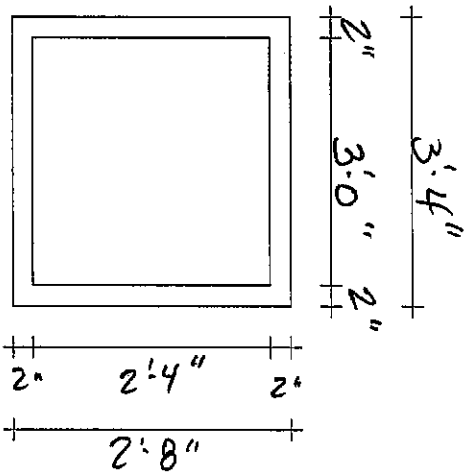
Door Frame Submittal Legend

Manufacturer	
**	By Others
SH01	Corrin Company
SWHM	Southwestern Hollow Metal
Door Description	
SWHM/HMD	Hollow Metal Door Stainless Steel
Door Gauge	
SWHM/16	16 Gauge
Door Thickness	
SWHM/1 3/4"	1-3/4" Thick
Frame Description	
SH01	Borrowed Lite
SWHM/IDBL	Double 3-sided frame
SGL	Single 3 Sided Frame
Frame Series	
SH01	Masonry Profile EQ Rabbit
Frame Gauge	
SWHM/14	14 ga
Frame Construction	
SH01	Knocked Down
SWHM/WF	Welded Frame Stainless Steel
Frame Material	
SWHM/SS	Stainless Steel
Frame Profile	
SWHM/G	Standard Double Rebate
Frame Anchors	
SH01	EWA Existing Wall Anchor

Harold Thompson WTP
Fountain, Colorado

Door Frame Submittal

Opening										Door										Frame																
Opening Number	Hdw' Qty	Hdw' Hdg	Hdw' Sel	Rating	Wall Cond	Sill	Leaf Size	Mfg	Arch Type	Desc	Thick	Series	Mail	Core	Gal Ply	Edge	Finish	Elev Code	Hand	Size	Mfg	Arch Type	Desc	Mail	Series	Profile	Gal Cons	Jamb/ Titrail	Head	Elev Code	Anchor	Hand	Weid			
D-HW1	1	A	A				3072	SWH M	A	HMD	1 3/4"				16				RHR	3072	SWH M	A	SGL	SS		G	14	WF						LH		
EXTERIOR from ELECTRICAL AND CONTROL ROOM																																				
D-HW2	1	B	B				3072	SWH M	B	HMD	1 3/4"				16				LHR	3072	SWH M	B	SGL	SS		G	14	WF							RH	
EXTERIOR from TREATMENT PLANT																																				
D-HW4	1	B	B				3072	SWH M	B	HMD	1 3/4"				16				LHR	3072	SWH M	B	SGL	SS		G	14	WF							RH	
EXTERIOR from TREATMENT PLANT																																				
D-HW6	1	C	C				3672	SWH M	B	HMD	1 3/4"				16				RHR	7072	SWH M	B	DBL	SS		G	14	WF							RHRA	
EXTERIOR from TREATMENT PLANT																																				
D-HW6	1						3672	SWH M	B	HMD	1 3/4"				16				LHR																	
W-HW1	1						3428	**												3428	SH01	BL		MER				KD	534	434		WDW	EWA			
W-HW2	1						3428	**												3428	SH01	BL		MER				KD	534	434		WDW	EWA			



COLORADO DOORWAYS INC. 3333 East 52nd Avenue Denver, CO 80216-2322 Phone: (303) 291-0900 Fax: (303) 291-0113 www.codoor.com

ELEVATION WDW

TITLE: HAROLD THOMPSON WTP
BIRDSALL ROAD
FOUNTAIN, COLORADO

DATE

07-20-11

DRAWN BY

EMC

SHEET NO.

<< ENTER
SHEET # >>

CDI JOB NO.

11266AMV



colorado
DOORWAYS

Inc.

CORRIM

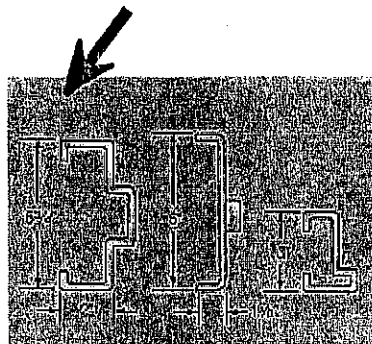
DOORS * FRAMES * FIRE DOORS * WINDOWS * LOUVERS * HARDWARE * MAIN PAGE * CONTACT

Fiberglass Frames

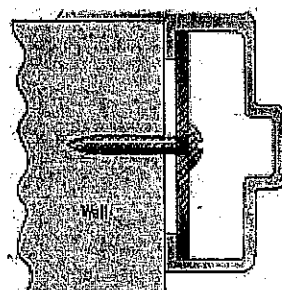
Features

Technical Sheet

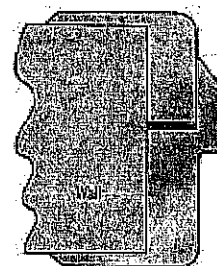
- Standard profiles match hollow metal frames
- Variety of throat openings
- Variety of face dimensions
- Variety of sizes
- Variety of depths
- Color matched to doors or walls
- Variety of anchoring systems
- Transom lights / panels available
- Side lights / panels available
- Fixed or removable millions available
- 4" Header available



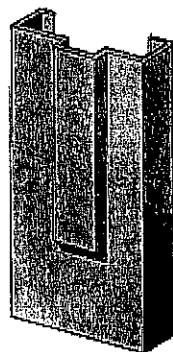
Typical Frame Profiles



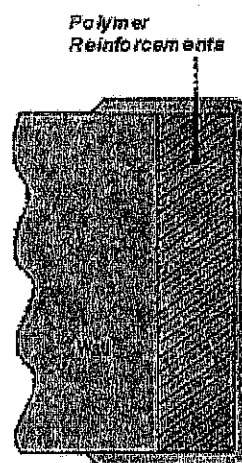
Special Frames



Adjustable Frames



Hospital Frames



Custom Frames

STANDARD COLORS

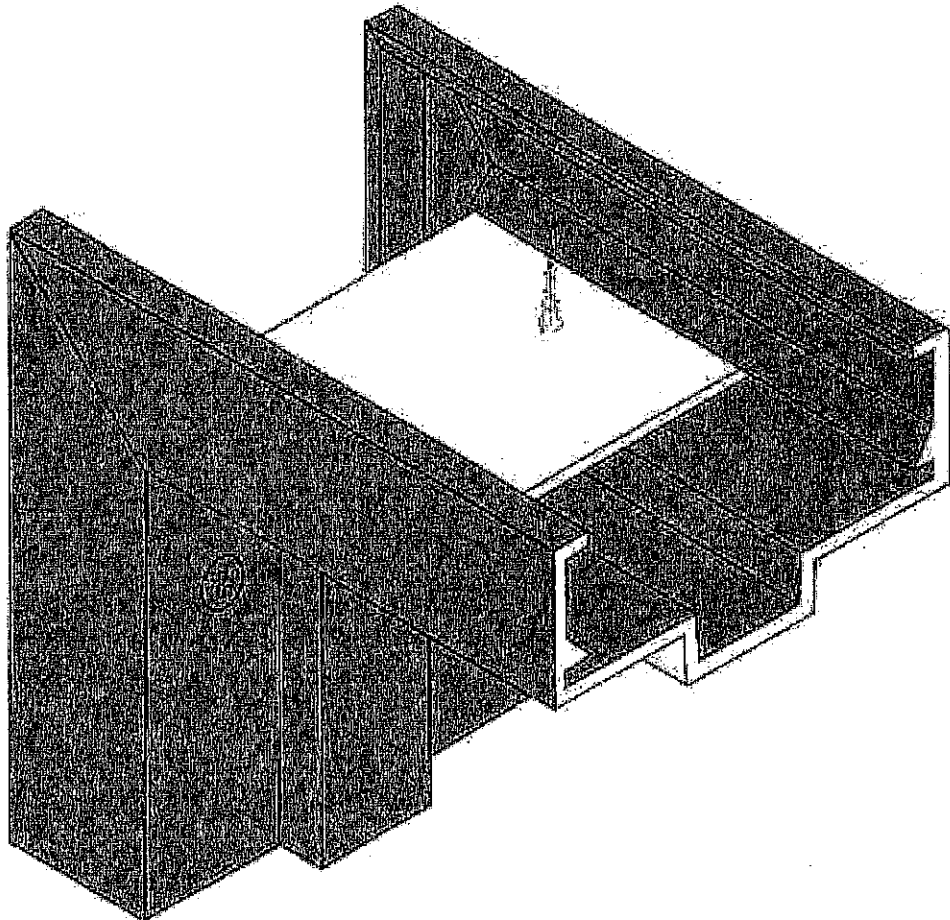
White
Beige
Gray

CORRIM

DOORS * FRAMES * FIRE DOORS * WINDOWS * LOUVERS * HARDWARE * MAIN PAGE * CONTACT

CORRIM Company

Oshkosh, Wisconsin
F.R.P. FRAME SYSTEMS



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CORRIM Company

Corrosion Immune Fiberglass Doors and Frames

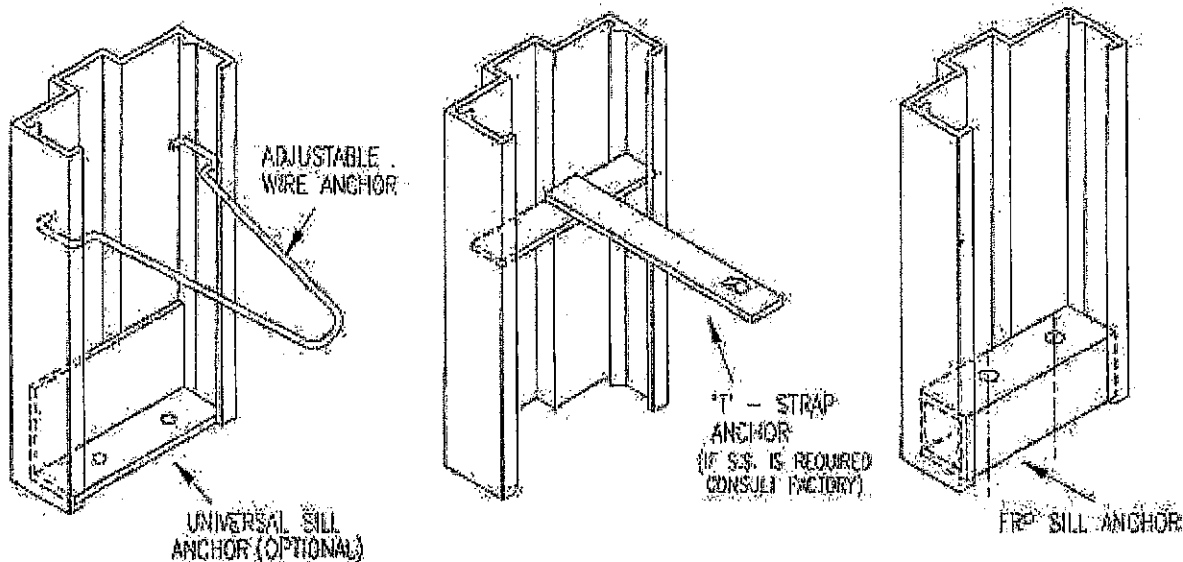
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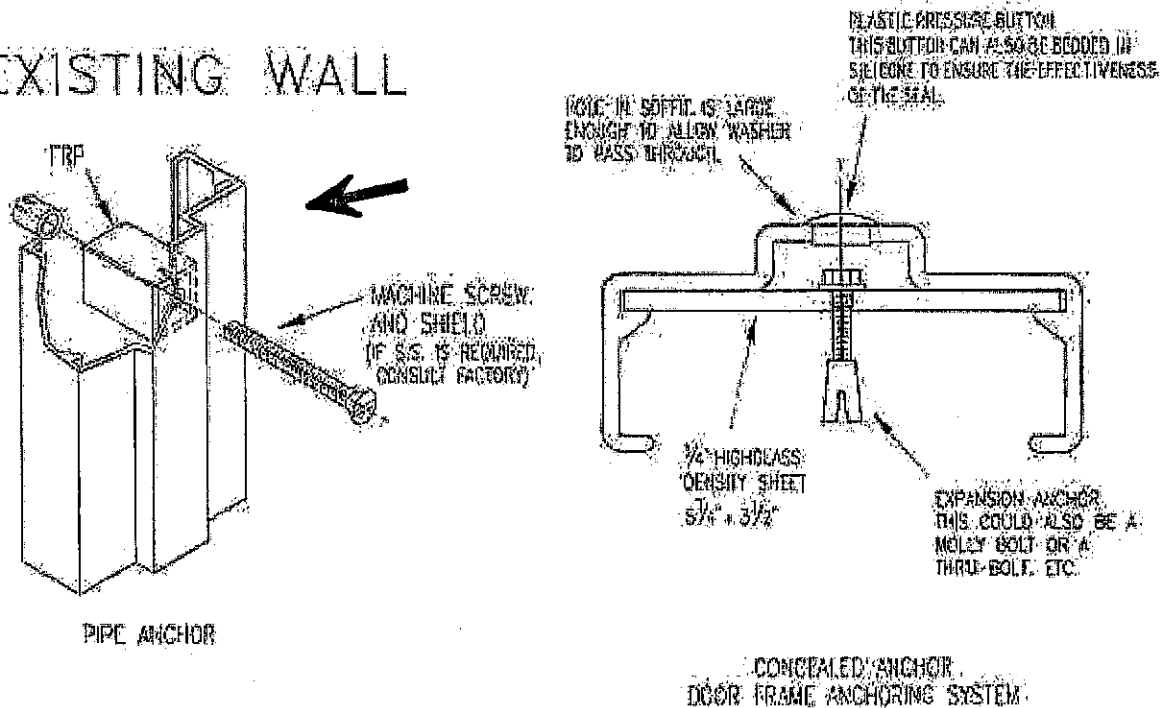
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MASONRY



EXISTING WALL



CORRIM STANDARD PROFILE FRAMES

NOTE: ALL FRAMES ARE BUILT TO FIT A PARTICULAR OPENING. WIDTH, HEIGHT, DEPTH & WALL MATERIAL OF EACH ROUGH OPENING MUST BE SPECIFIED.

Right hand leaf is always active unless specified.

SPECIFICATIONS

GENERAL

Frames, transoms and sidelight units shall be furnished by CORRIM Company, in accordance with the specifications as published in the current literature. Installation shall be by the general contractor in strict accordance with manufacturer's recommendations and instructions. The specifications stated below cover one particular configuration. CORRIM Company offers many alternate systems and configurations which might suit a particular or unusual installation.

FRAME PROFILE

- Jamb Depth: 5-3/4"
- Face Dimension.: 2"
- Return: 1/2"
- Stop: 5/8"
- Rabbet: 1-15/16"
- Corner Miter: Head & jamb members shall be standard 45 degree miter.
- Pultrusion: In compliance with pultrusion industry standards.

REINFORCEMENTS AND BRACES/SUPPORTS

- Corner Reinforcement: 4" x 4" x 5-3/8" x 1/4" thick pultruded fiberglass angle. Attached to head bar at factory using stainless steel screws. Field attached to jambs using stainless steel screws for KD installation.
- Mortise Hinge: 5-1/4" x 8" x 1/4" thick polymer Reinforcement. Attached to frame by means of bonding and stainless steel countersunk screws. Screw heads are covered over at the factory.
- Surface Hinge: Same as mortise hinge reinforcement.
- Closer Reinforcement: 1-1/8" x 18" x 1/4" polymer bonded to frame.
- Strike Reinforcement: 1-1/2" x 8" x 3/4" thick polymer material. Attached to frame by means of bonding and stainless steel countersunk screws. Screw heads are covered over at the factory.

ANCHORING SYSTEMS

Standard anchoring systems are not provided with frames. All anchors must be specified and ordered.

- Existing Wall – Pipe anchor or concealed anchor
- T-Strap – For masonry construction
- Wire Anchor – For masonry construction
- Custom Anchor – Consult factory

FINISH

- Gelcoat: 15 mils thick on all exposed surfaces. Color choice available.

SPECIAL NOTES

- The installer may elect to use a silicone sealant to fill miter seam.
- The factory may, by request, preassemble the frame unit. This requires that the installer still seals the miters in the field.
- A 6" x 1-5/8" composite stop frame is available. Consult factory for specifications, installations, etc.

INSTALLATION

Though fiberglass material is extremely strong and forgiving, it will conform to the characteristics of the opening. If the surfaces to which the frame is attached are not square and free of torque, the installer will have difficulty in achieving a square and plumb installation.

LABELED FRAMES

Fiberglass frame systems are non-fire rated. Class I (E 84) is available.