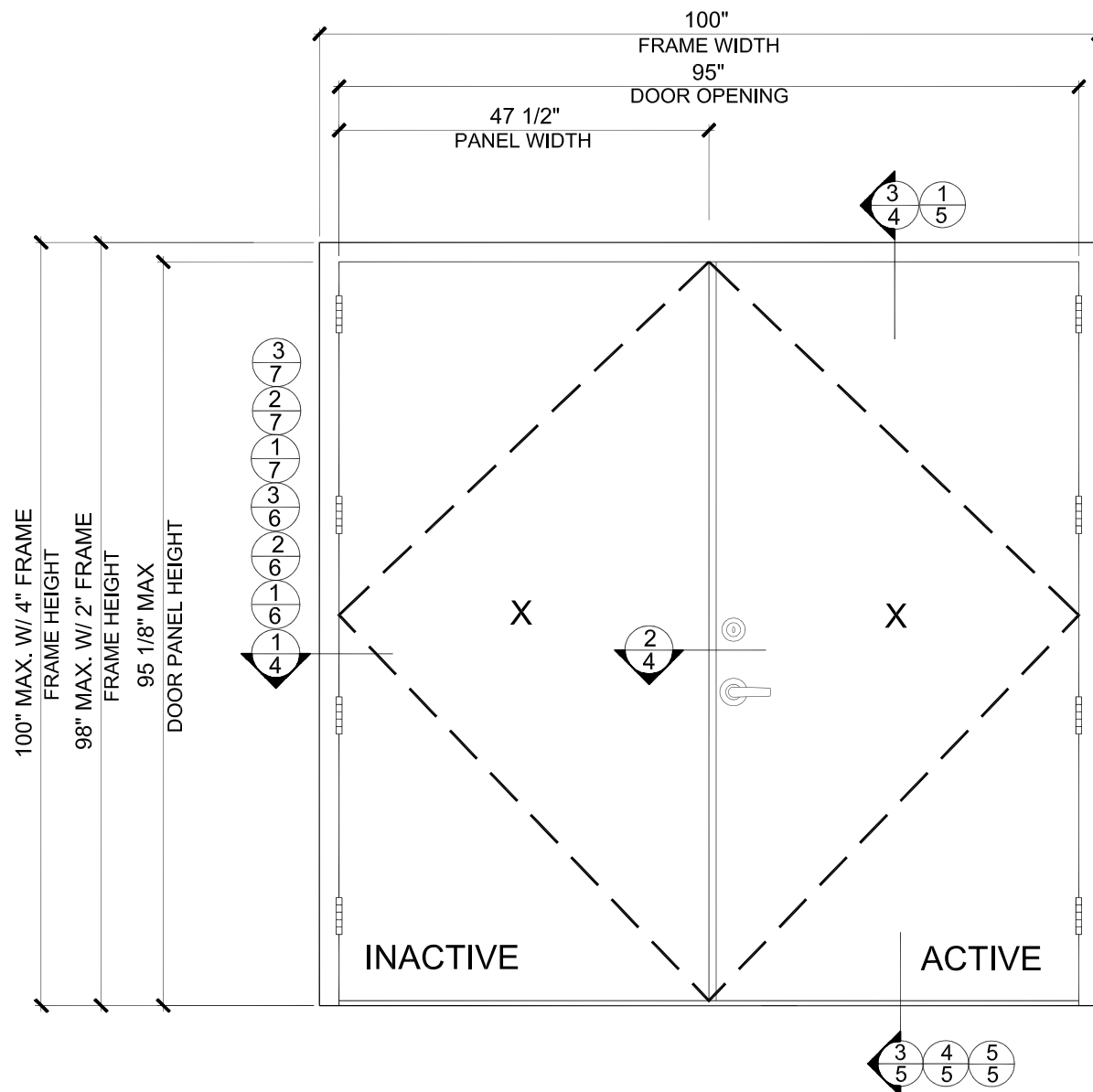


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**DOUBLE DOOR TYP. ELEVATION**

TABLE OF CONTENTS	
SHEET	SHEET DESCRIPTION
1	TYPICAL ELEVATIONS, DESIGN PRESSURES, & GENERAL NOTES
2	TYPICAL ELEVATIONS & DESIGN PRESSURES
3	HORIZONTAL CROSS SECTIONS
4	HORIZONTAL CROSS SECTIONS
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6	VERTICAL CROSS SECTION
7	HORIZONTAL CROSS SECTIONS
8	HORIZONTAL CROSS SECTIONS
9	ANCHORING DETAILS
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11	ANCHORING DETAILS
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13	COMPONENTS
14	BILL OF MATERIALS & COMPONENTS

**"NVS" SERIES COMMERCIAL OUTSWING STEEL DOOR (LMI)**

- THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE (IBC) AND INTERNATIONAL RESIDENTIAL CODE (IRC)
- DOORS RATED FOR LARGE MISSILE IMPACT AND DO NOT REQUIRE SHUTTERS.
- ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON ELEVATIONS / DETAILS. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
- MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS.
- METAL STRUCTURES NOT BY MESKER INC. MUST SUPPORT LOADS IMPOSED BY DOOR SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.
- DOOR PANEL: MIN. 18 GA. (0.042" THK.) STEEL MIN. Fy = 29 KSI  
DOOR FRAME: MIN. 16 GA. (0.053" THK.) STEEL MIN. Fy = 42 KSI
- SEE SHEET 5 FOR WATER INFILTRATION RATING DETAILS. WATER TEST PRESSURE = 0.15 x POSITIVE DESIGN PRESSURE
- DOORS THAT DO NOT MEET THE WATER INFILTRATION REQUIREMENTS SHALL BE INSTALLED ONLY IN NON-HABITABLE AREAS OR HABITABLE LOCATIONS PROTECTED BY AN OVERHANG OR CANOPY SUCH THAT THE ANGLE BETWEEN THE EDGE OF CANOPY OR OVERHANG TO SILL IS LESS THAN 45 DEGREES.
- OTHER DOOR PANEL CONFIGURATIONS AVAILABLE PER REQUEST TO MANUFACTURE

**NOTES:**

EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.

OVERALL FRAME SIZE		FLUSH BOLT LOCATION		DESIGN PRESSURE (PSF)	
WIDTH	HEIGHT	ACTIVE DOOR	INACTIVE DOOR	POSITIVE	NEGATIVE
100"	100"	NO	YES	+65.0	-65.0

SEE SHEET 12 FOR ADDITIONAL DESIGN PRESSURE REQUIREMENTS DUE TO HARDWARE COMPONENT SELECTION



MESKER DOOR, a division of Dormakaba USA, Inc.  
3440 Standwood Blvd.  
Huntsville, AL 35811  
PH: (256) 851-6670

TITLE: "NVS" SERIES COMMERCIAL OUTSWING STEEL DOOR

INSTALLATION & GENERAL NOTES

PREPARED BY:

BD BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
PH: (954) 399-8478 FX: (954) 744-4738

**REVISIONS**

DESCRIPTION	BY	DATE
	2018 CODE REVISION	LL



DATE: 02.07.17  
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CHK BY: HFN  
SCALE: NTS

DWG #: MDI011

SHEET: 1 OF 14

TITLE: "NVS" SERIES COMMERCIAL  
OUTSWING STEEL DOOR

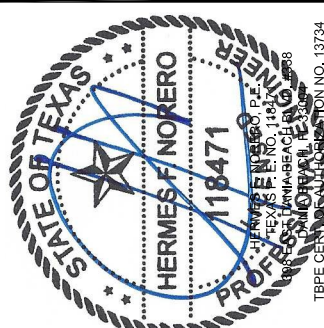
INSTALLATION & GENERAL NOTES

PREPARED BY:

BD BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
PH: (954) 399-8478 FX: (954) 744-4738

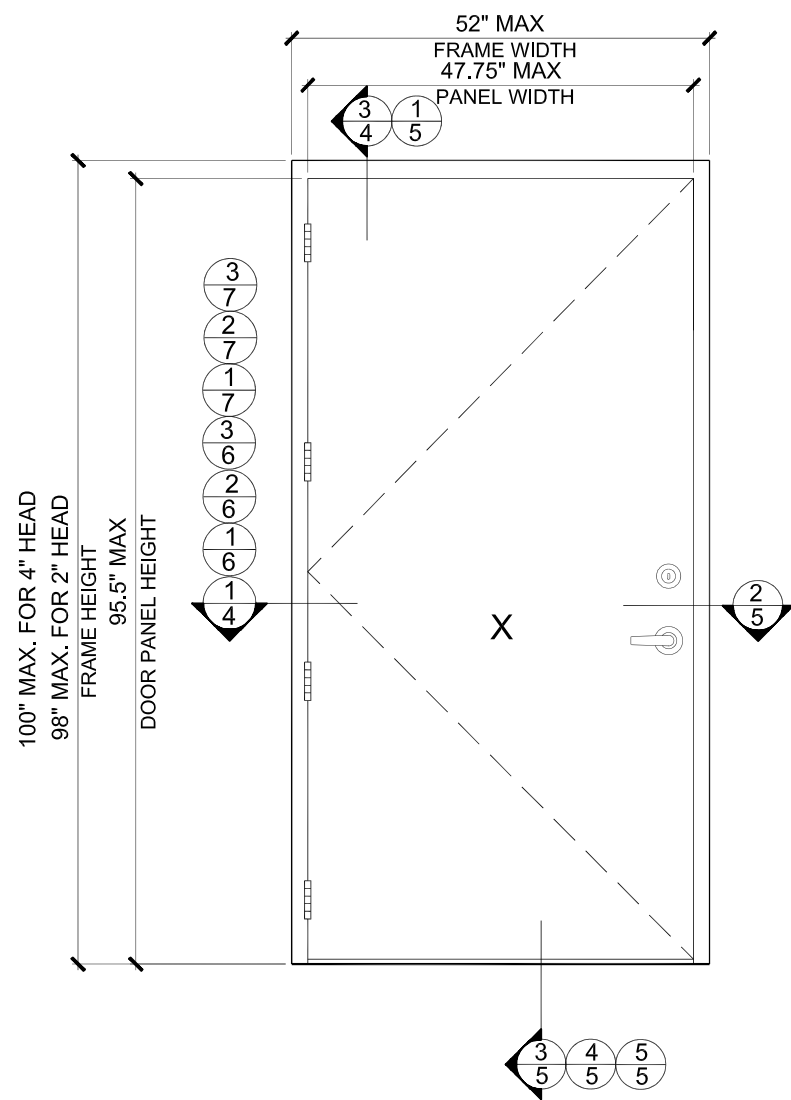
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DESCRIPTION	BY	DATE
2018 CODE REVISION	LL	5/24/22

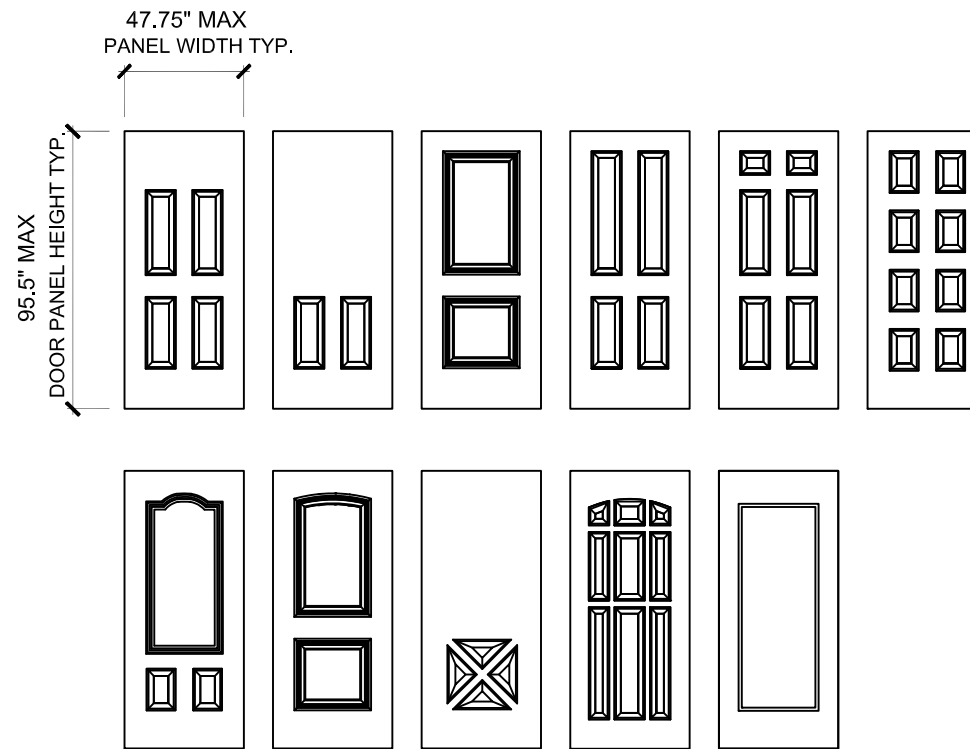
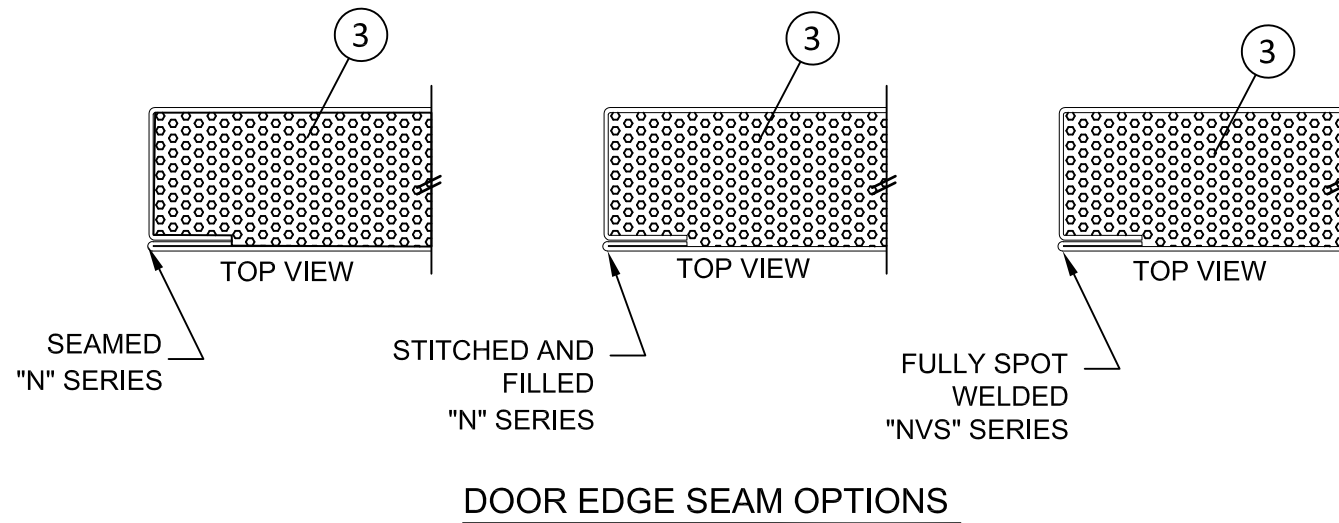


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DWN BY:	LS
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SCALE:	NTS

DWG #: **MDI011**  
SHEET: **2 OF 14**

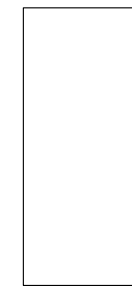


SINGLE DOOR TYP. ELEVATION



OPTIONAL PARTIAL EMBOSSED DOOR LEAF PATTERNS

(MIN. Fy = 42 KSI, MIN Fu = 51.5 KSI)

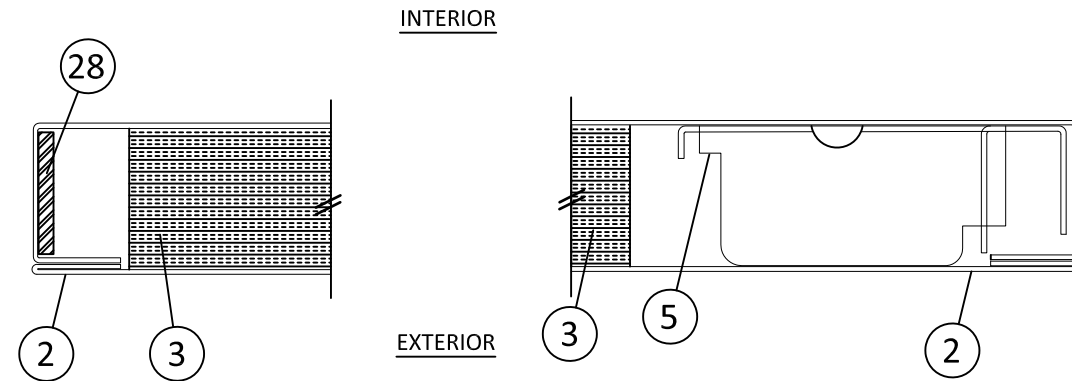
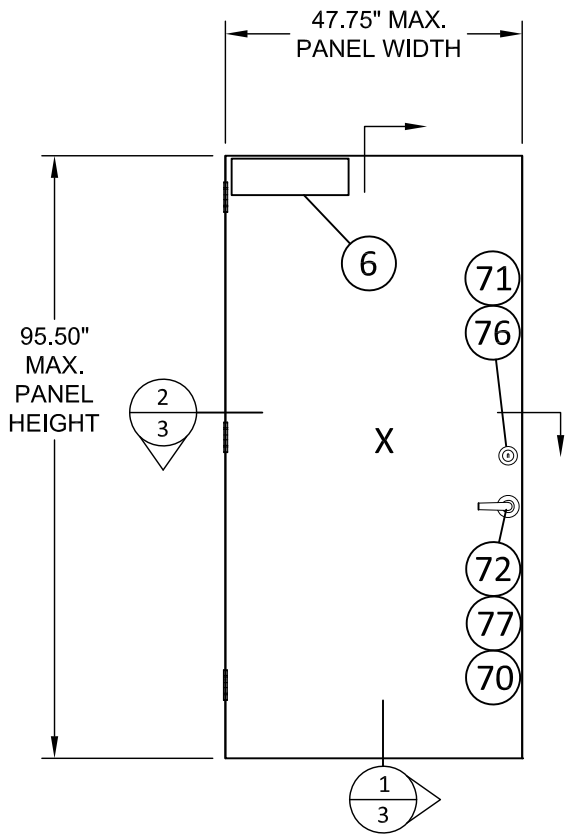


FLUSH DOOR

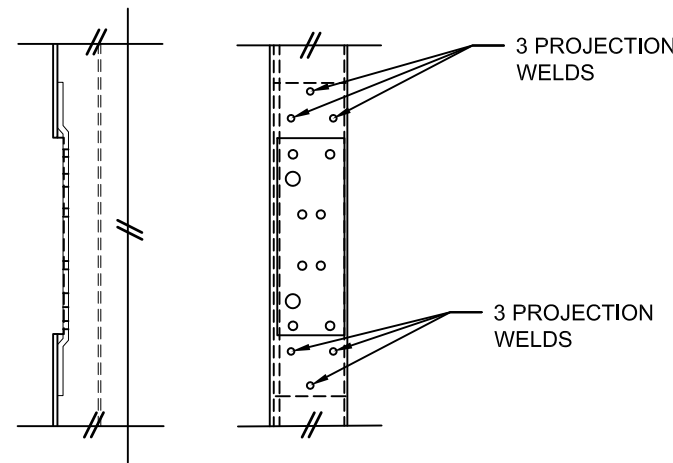
(MIN. Fy = 42 KSI,  
MIN Fu = 51.5 KSI)

SERIES	OVERALL FRAME SIZE		DESIGN PRESSURE (PSF)	
	WIDTH	HEIGHT	POSITIVE	NEGATIVE
NVS	52"	100"	+75.0	-75.0
N	52"	100"	+65.0	-65.0

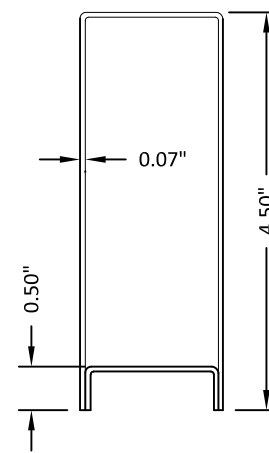
SEE SHEET 12 FOR ADDITIONAL DESIGN PRESSURE REQUIREMENTS  
DUE TO HARDWARE COMPONENT SELECTION



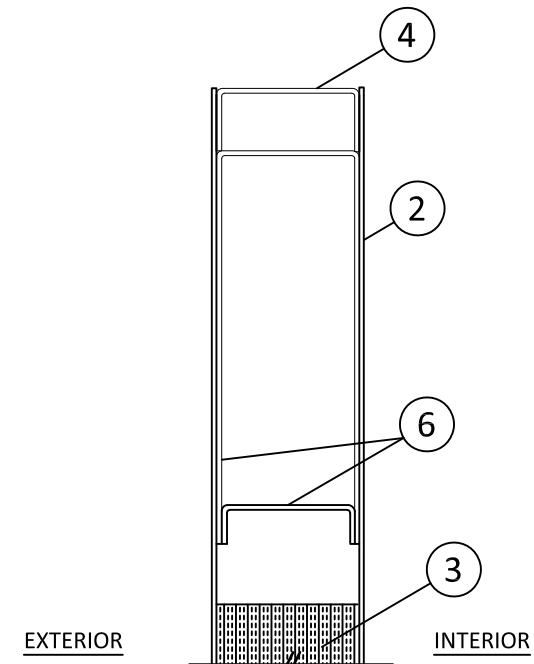
**2** HORIZONTAL CROSS SECTION  
**3** DOOR PANEL



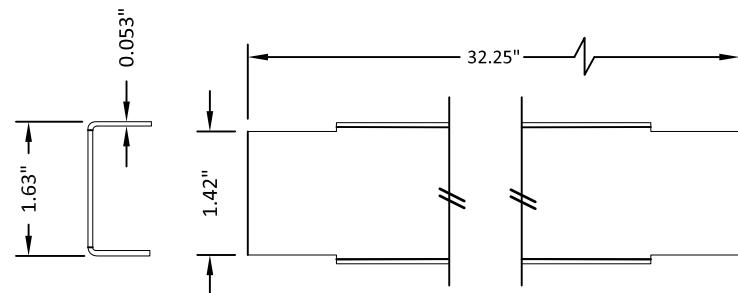
**23** DOOR HINGE REINFORCEMENT



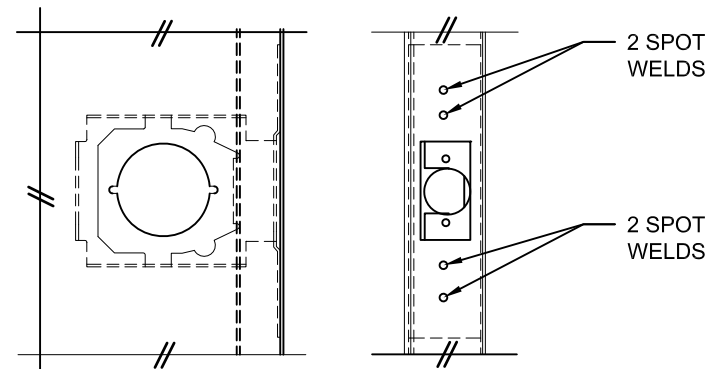
**6** CLOSER REINFORCEMENT



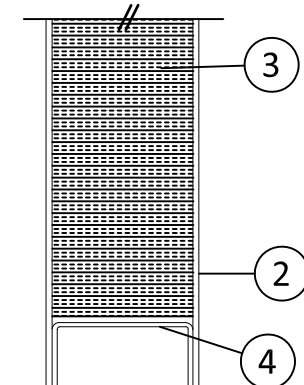
**1** VERTICAL CROSS SECTION  
**3** DOOR PANEL



**4** DOOR TOP & BOTTOM CLOSER

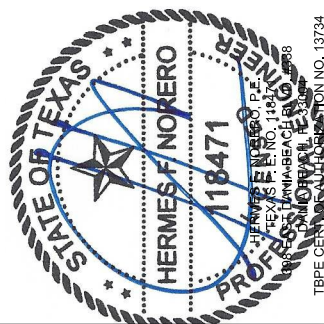


**5** LOCK BOX REINFORCEMENT



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DWG #:	MDI011
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**TYPICAL ANCHORS @ HEAD/JAMB: (REFER TO ELEVATION FOR SPACING)**

**TYPE A** 3/8" DIA. DYNABOLT SLEEVE ANCHOR BY "ITW"  
 DIRECTLY INTO  $f_c'=3000$  PSI CONCRETE, 1-1/2" MIN. EMBED  
 DIRECTLY INTO GROUT FILLED CONCRETE BLOCK, 1-1/2" MIN. EMBED  
 MIN. EDGE DIST 2-1/2"  
 MIN. SPACING 4-1/2"

**TYPE B** 3/8" POWER-BOLT BY "POWERS"  
 DIRECTLY INTO  $f_c'=3000$  PSI CONCRETE, 2" MIN. EMBED  
 DIRECTLY INTO GROUT FILLED/HOLLOW CONCRETE BLOCK, 1-1/4" MIN. EMBED  
 MIN. EDGE DIST 3-3/4"  
 MIN. SPACING 4-1/2"

**TYPE C** 5/16" DIA. SMS OR MACHINE BOLTS (MIN. GRADE 5 CRS) OR ST/ST  
 STEEL :  $F_y = 36$  KSI MIN.  
 INTO METAL STRUCTURES (STEEL OR ALUMINUM 1/8" MIN. THICK.)  
 ALUMINUM : 6063-T6 MIN.  
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

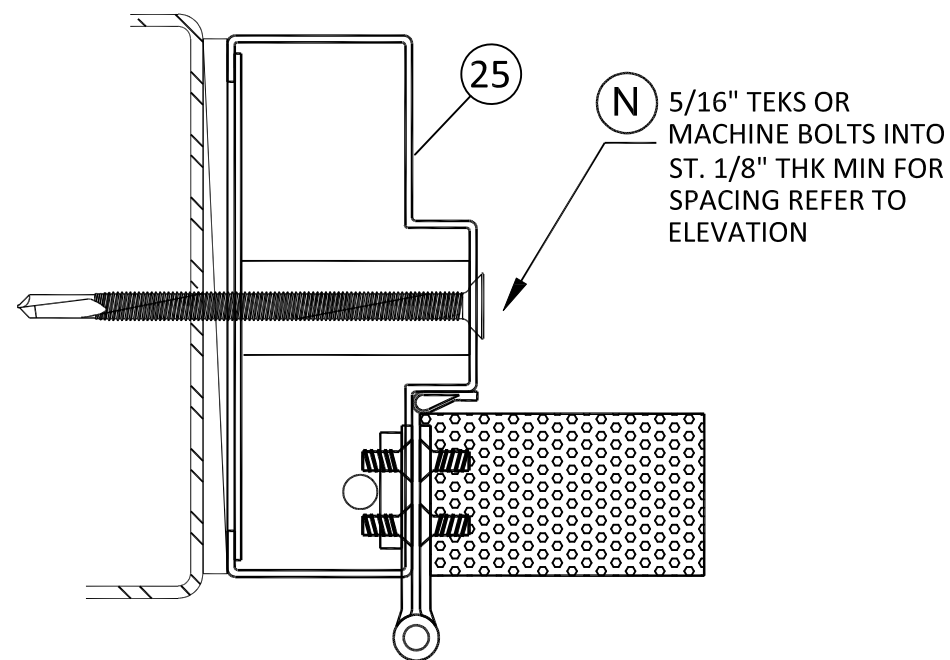
**TYPICAL ANCHORS @ THRESHOLD: (REFER TO ELEVATION FOR SPACING)**

**TYPE D** 1/4" TAPCON BY "ITW" DIRECTLY INTO  $f_c'=3000$  PSI CONCRETE  
 1-1/4" MIN. EMBED  
 MIN. EDGE DIST 2-1/2"  
 MIN. SPACING 3"

**TYPE E** 5/16" DIA. ULTRACONS BY "ELCO" DIRECTLY INTO  $f_c'=3000$  PSI CONCRETE  
 1-3/4" MIN. EMBED  
 MIN. EDGE DIST 2-3/16"  
 MIN. SPACING 3"

**SEALANT:**

ALL FRAME JOINTS AND CORNERS TO BE SEALED WITH SILICONE AT PERIMETER



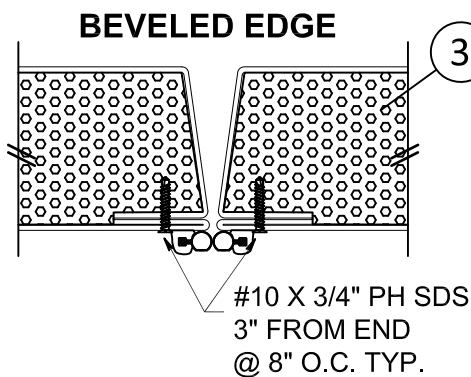
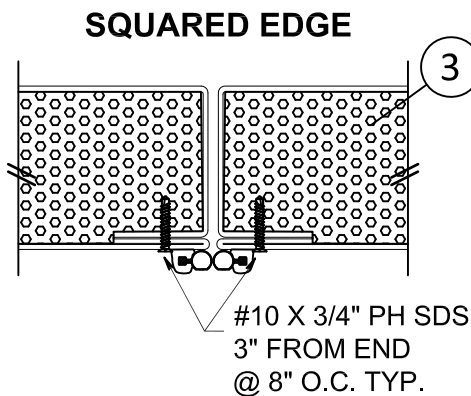
**1**  
**4** ANCHOR OPTION

**TYPE F** 3/8" DIA. HLC SLEEVE ANCHOR BY "HILTI"  
 DIRECTLY INTO  $f_c'=3000$  PSI CONCRETE  
 MIN. EMBED. 1-3/8"  
 MIN. EDGE DIST 3-1/4"  
 MIN. SPACING 4-1/2"

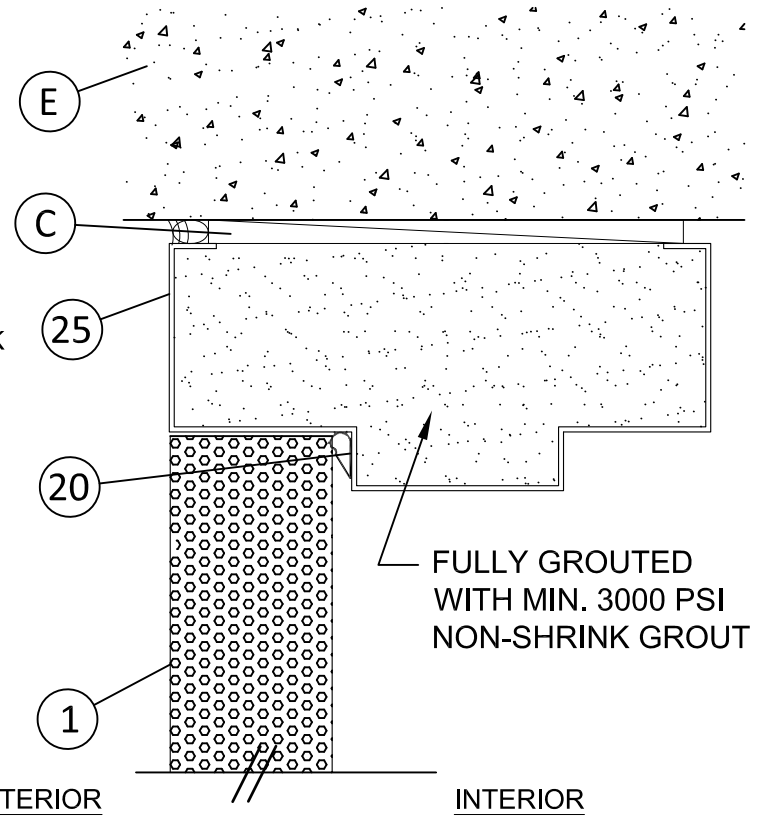
**TYPE F1** 3/8" DIA. HLC SLEEVE ANCHOR BY "HILTI"  
 DIRECTLY INTO GROUT FILLED/HOLLOW CONCRETE BLOCK  
 MIN. EMBED. 1-3/8"  
 MIN. EDGE DIST 3-1/2"  
 MIN. SPACING 4-1/2"

**TYPE G** 3/8" DIA. LOK BOLT BY "POWERS"  
 DIRECTLY INTO  $f_c'=3000$  PSI CONCRETE  
 MIN. EMBED. 1-5/8"  
 MIN. EDGE DIST 3-3/4"  
 MIN. SPACING 4-1/2"

**TYPE G1** 3/8" DIA. LOK BOLT BY "POWERS"  
 DIRECTLY INTO GROUT FILLED/HOLLOW CONCRETE BLOCK  
 MIN. EMBED. 1-1/2"  
 MIN. EDGE DIST 3-3/4"  
 MIN. SPACING 4-1/2"



**2**  
**4** HORIZONTAL CROSS SECTION



**3**  
**4** VERTICAL CROSS SECTION  
W/ 2" HEAD



MESKER DOOR, a division of  
 Dormakaba USA, Inc.  
 3440 Standwood Blvd.  
 Huntsville, AL 35811  
 PH: (256) 851-6670

TITLE: "NVS" SERIES COMMERCIAL OUTSWING STEEL DOOR VERTICAL & HORIZONTAL SECTIONS	BY	LL	DATE	5/24/22
	PREPARED BY:	BD BUILDING DROPS, INC. 398 E. DANIA BEACH BLVD. #338 DANIA BEACH, FL 33004 PH: (954) 399-6478 FX: (954) 744-4738		

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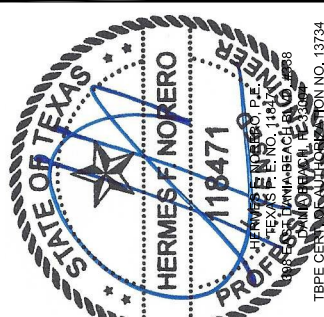
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SCALE:	NTS

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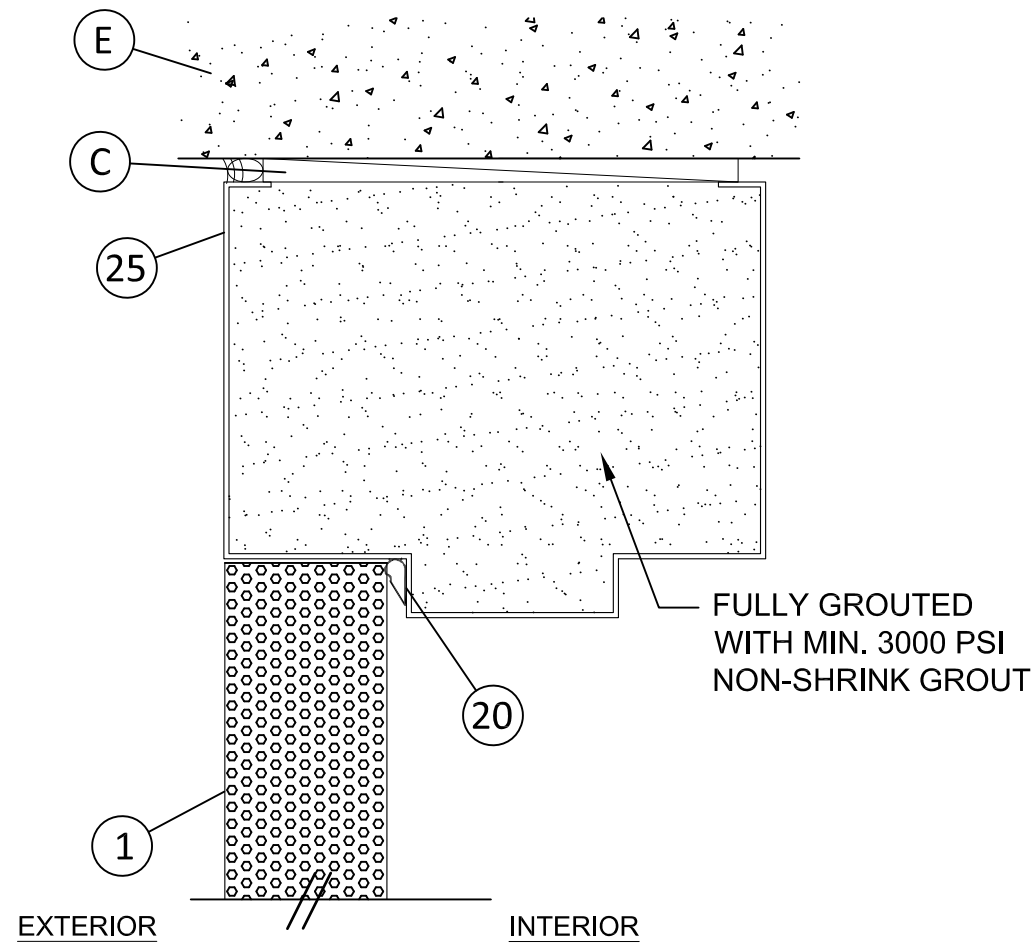


**REVISIONS**

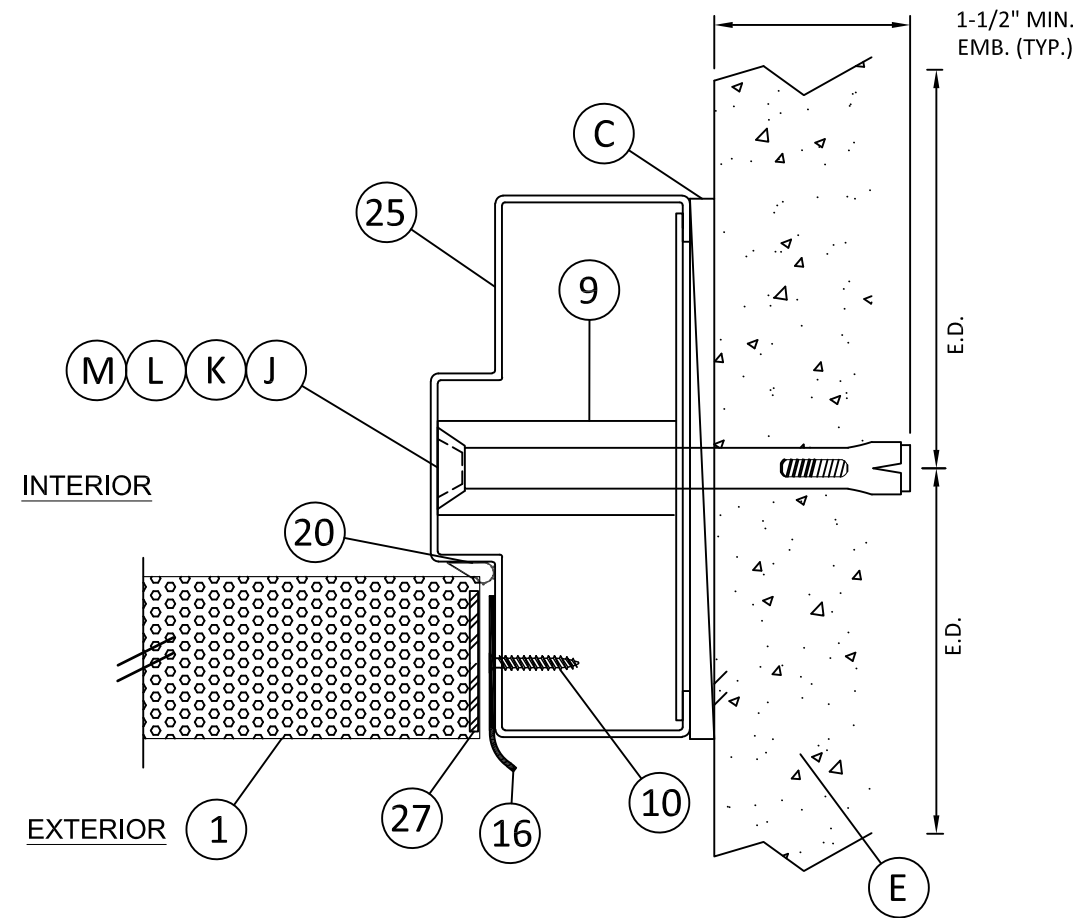
DESCRIPTION	BY	DATE
2018 CODE REVISION	LL	5/24/22



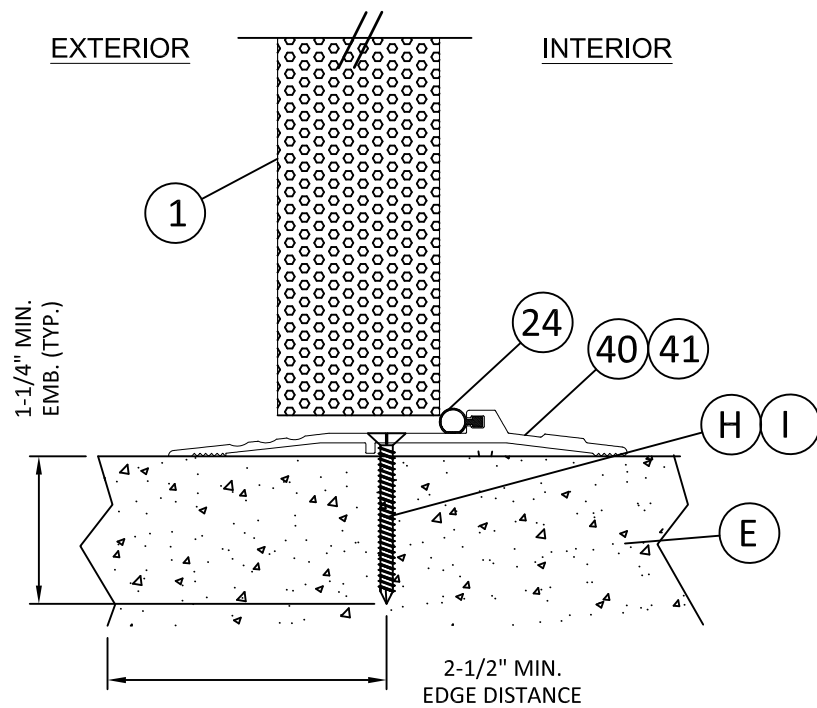
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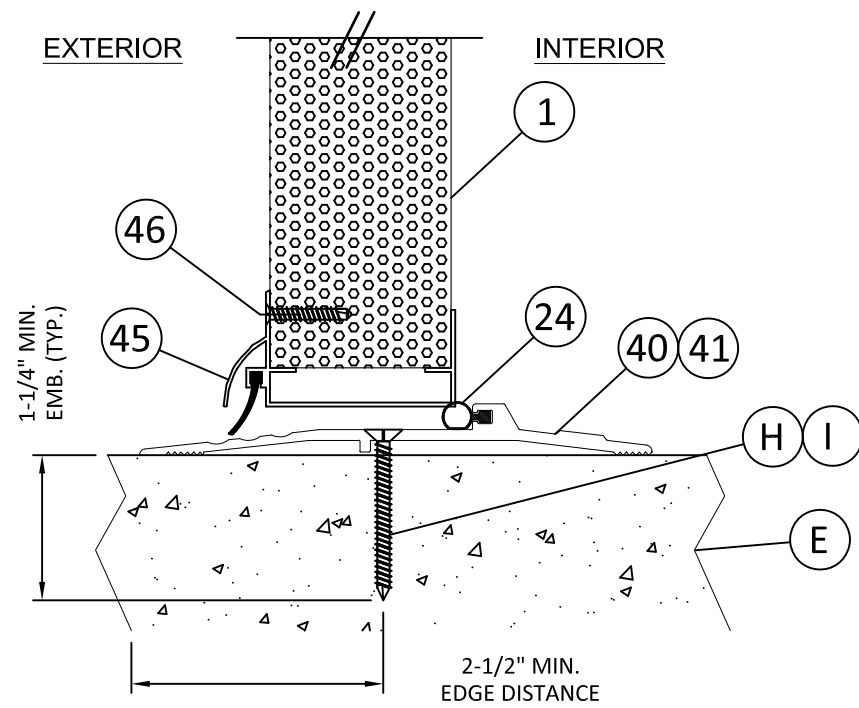
**1** VERTICAL CROSS SECTION  
**5** W/ 4" HEAD



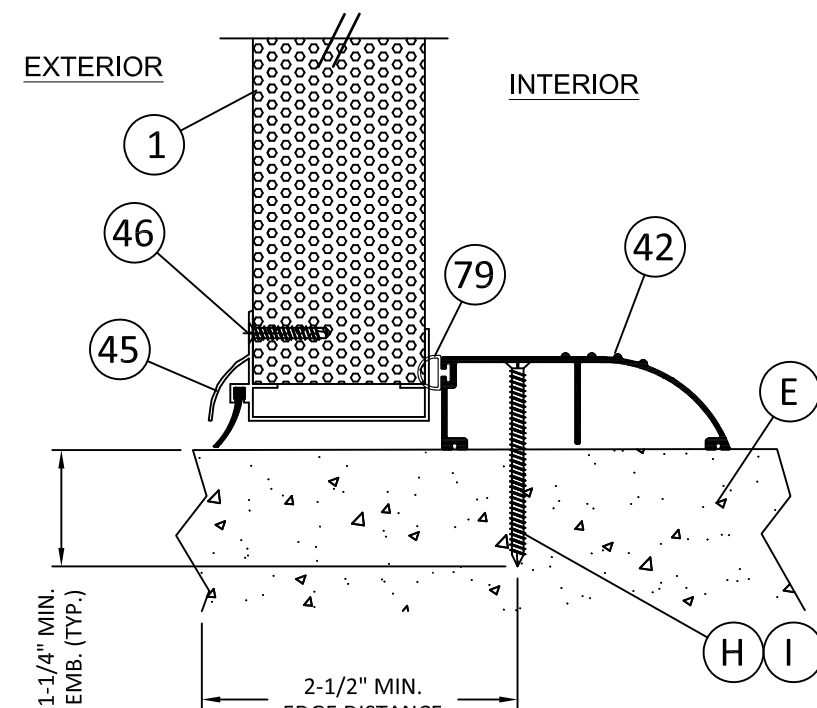
**2** HORIZONTAL CROSS SECTION  
**5**



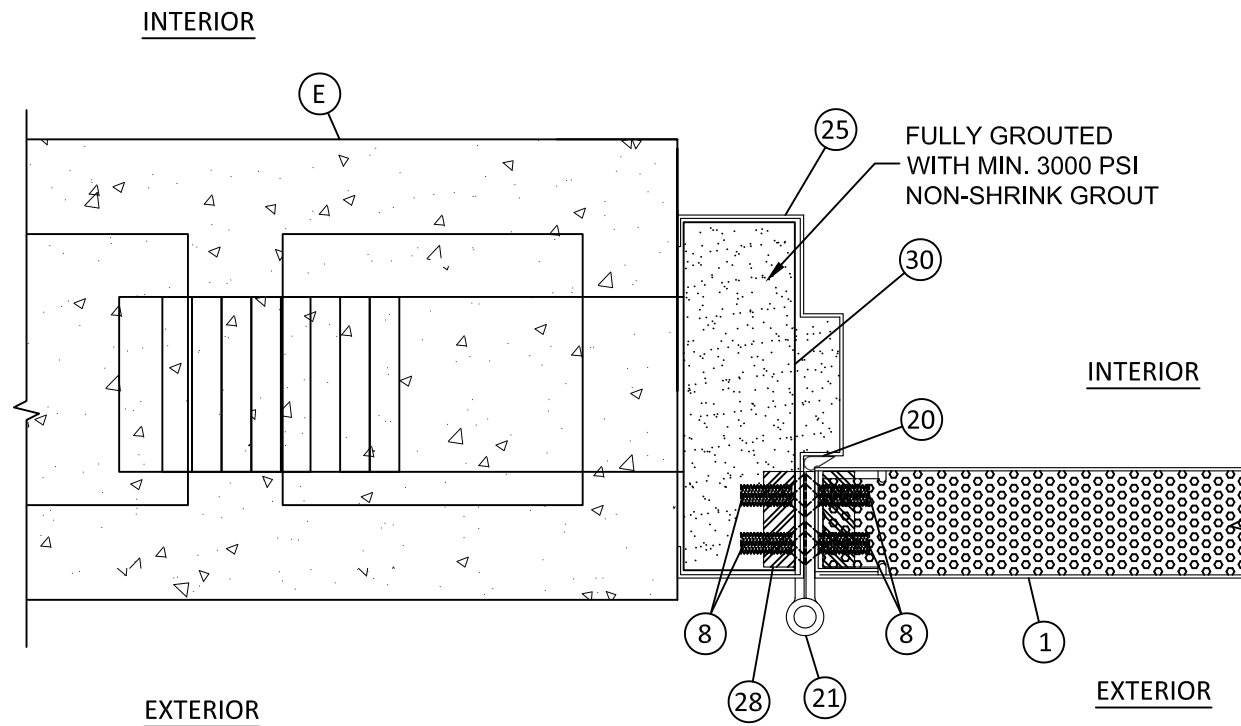
**3** VERTICAL CROSS SECTION  
**5**



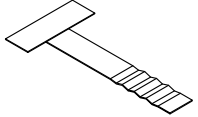
**4** VERTICAL CROSS SECTION  
**5** WATER RATED THRESHOLD

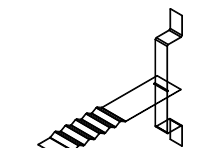


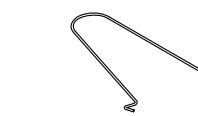
**5** VERTICAL CROSS SECTION  
**5** WATER RATED THRESHOLD



**2 HORIZONTAL CROSS SECTION**  
**6 STRAP ANCHOR (PF-2)**

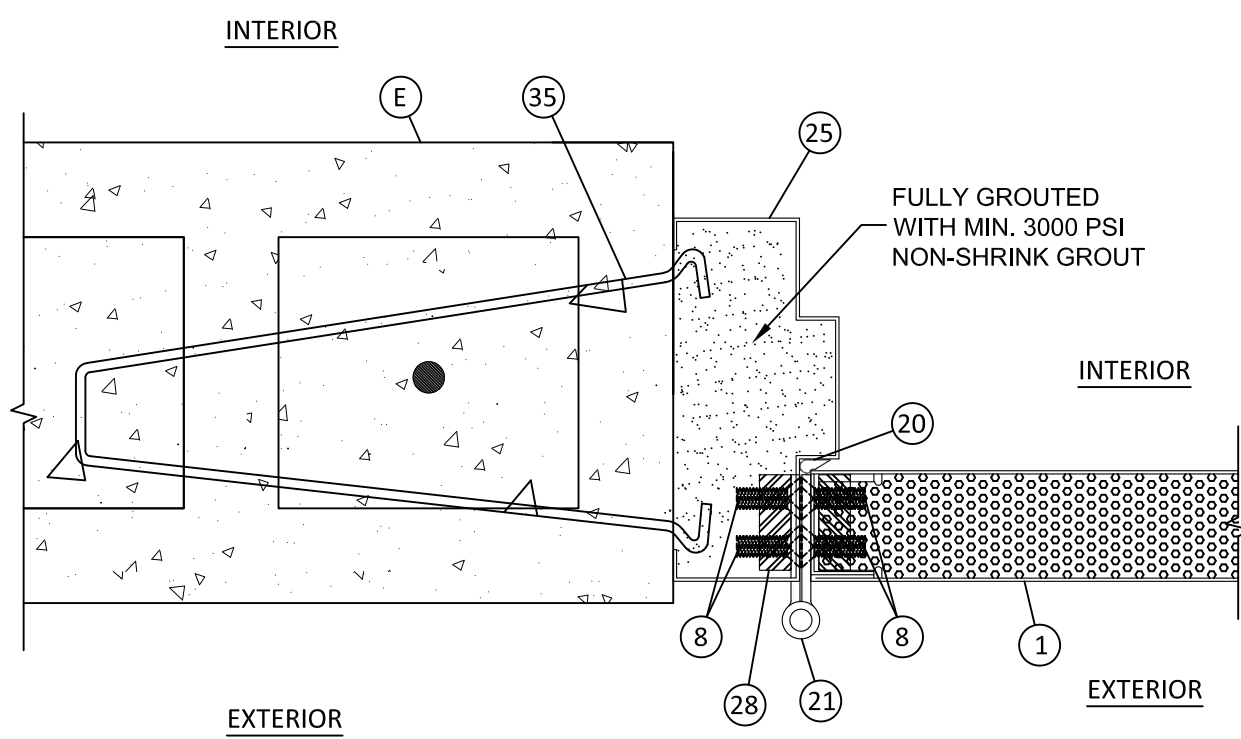
- TYPICAL ANCHORS @ JAMB: (REFER TO ELEVATION FOR SPACING)**
- 

**TYPE I** STRAP ANCHOR (PF-2) (Fy=60 KSI) MIN.  
DIRECTLY INTO fc'=3000 PSI GROUT FILLED CONCRETE BLOCK
  - 

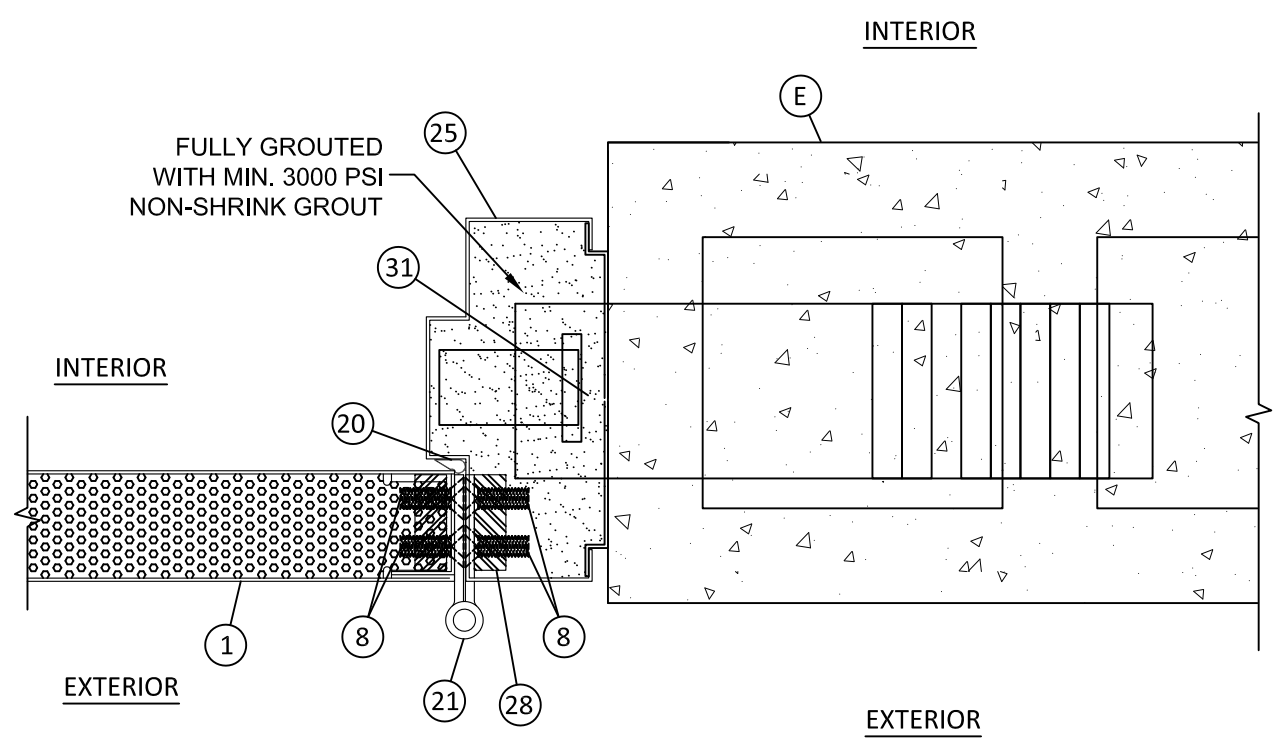
**TYPE J** STRAP ANCHOR (PS-241) (Fy=60 KSI) MIN.  
DIRECTLY INTO fc'=3000 PSI GROUT FILLED CONCRETE BLOCK  
LIMIT DESIGN PRESSURE TO +/- 65 PSF
  - 

**TYPE K** WIRE ANCHOR (PF-2) (Fy=60KSI) MIN.  
DIRECTLY INTO fc'=3000 PSI CONCRETE, 1-1/2" MIN. EMBED  
DIRECTLY INTO GROUT FILLED/HOLLOW CONCRETE BLOCK, 1-1/4" MIN. EMBED

**NOTE:**  
HEAD & JAMBS TO BE FULLY GOUTED WITH MIN. 3000 PSI NON-SHRINK GROUT



**1 HORIZONTAL CROSS SECTION**  
**6 WIRE ANCHOR**



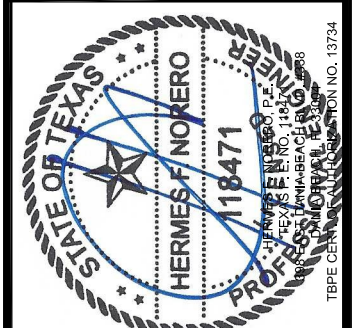
**3 HORIZONTAL CROSS SECTION**  
**6 STRAP ANCHOR (PS-241)**

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TITLE: "NVS" SERIES COMMERCIAL  
OUTSWING STEEL DOOR

HORIZONTAL SECTIONS

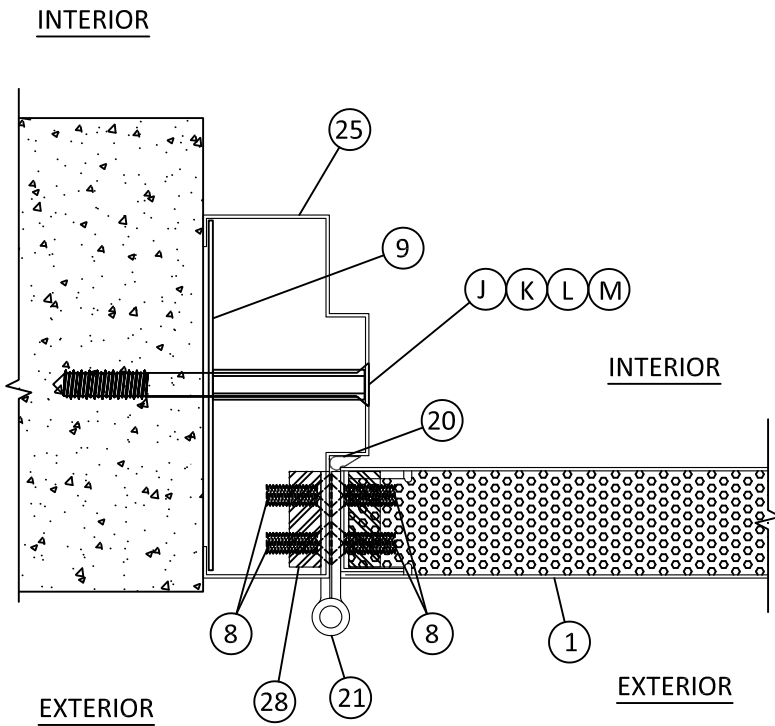
PREPARED BY:  
**BD BUILDING DROPS, INC.**  
398 E. DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
PH: (954) 399-6478 FX: (954) 744-4738



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CHK BY:	HFN
SCALE:	NTS
DWG #:	<b>MDI011</b>
SHEET:	<b>6 OF 14</b>

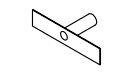
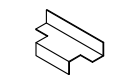
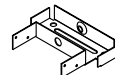
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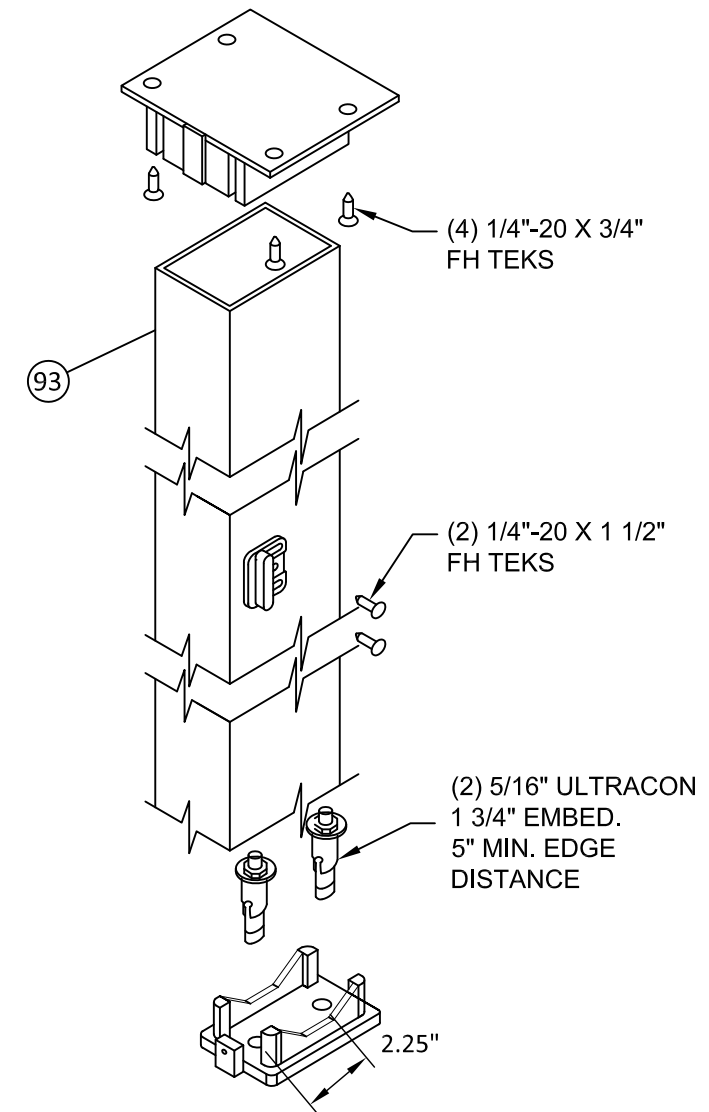
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**2** HORIZONTAL CROSS SECTION  
**7** TUBE ANCHOR

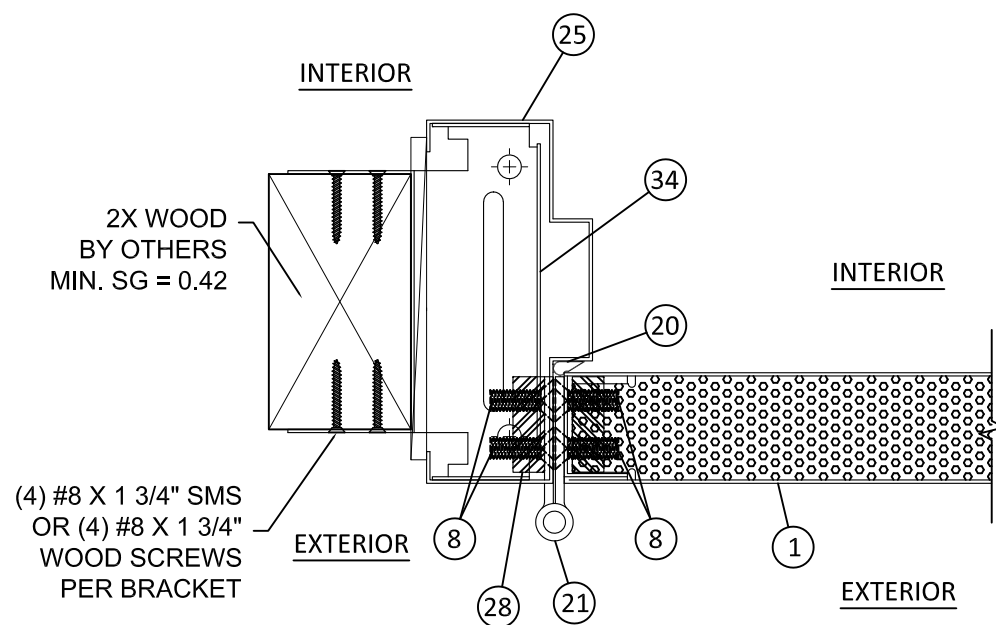
TYPICAL ANCHORS @ JAMB: (REFER TO ELEVATION FOR SPACING)

- 
**TYPE L** TUBE ANCHOR (PF-10)  
**9** SEE ELEVATIONS FOR ANCHOR BRACKET LAYOUT
- 
**TYPE M** Z ANCHOR (PF-9)  
**33** SEE ELEVATIONS FOR ANCHOR BRACKET LAYOUT  
 LIMIT DESIGN PRESSURE TO +/- 65 PSF
- 
**TYPE N** WOOD STUD ANCHOR (F-24)  
**34** SEE ELEVATIONS FOR ANCHOR BRACKET LAYOUT  
 LIMIT DESIGN PRESSURE TO +/- 65 PSF

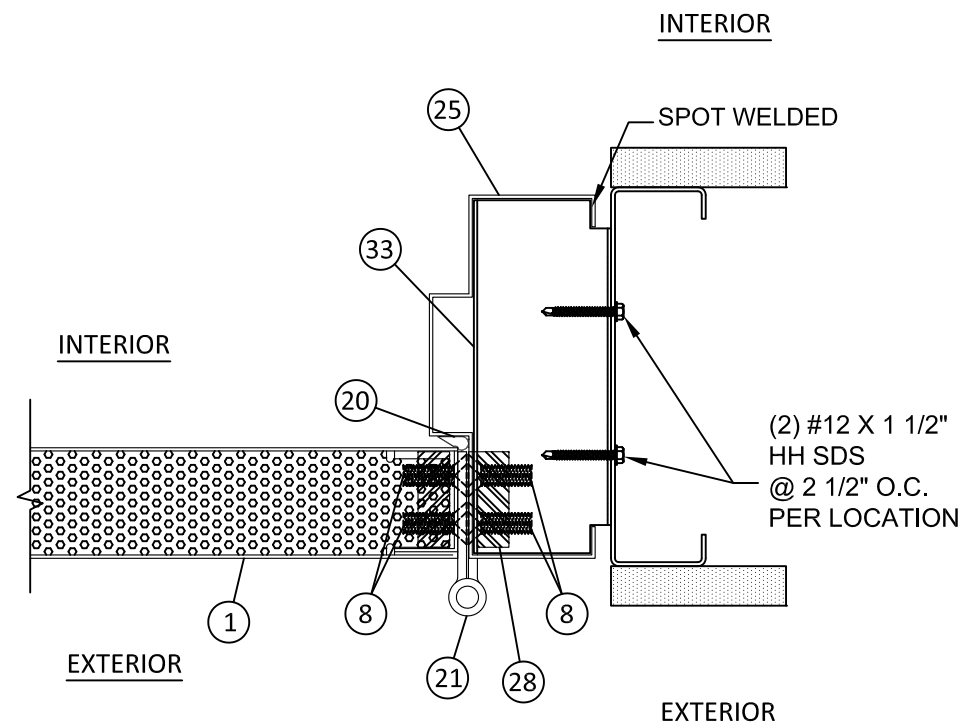


**DESIGN HARDWARE SERIES  
KRM REMOVABLE MULLION**

Fy = 36 KSI MIN.  
1/8" THK. STEEL



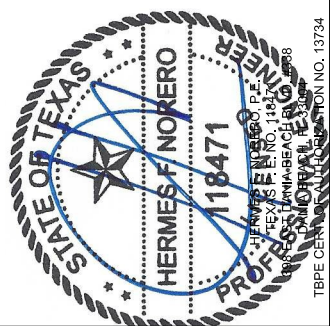
**1** HORIZONTAL CROSS SECTION  
**7** WOOD STUD ANCHOR



**3** HORIZONTAL CROSS SECTION  
**7** Z ANCHOR

TITLE: "NVS" SERIES COMMERCIAL OUTSWING STEEL DOOR	HORIZONTAL SECTIONS	
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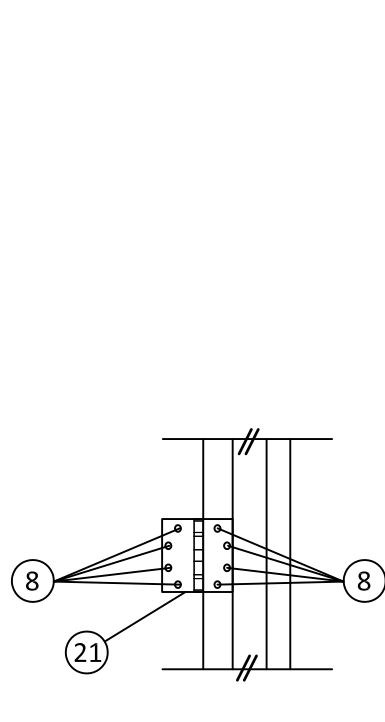


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SCALE:	NTS

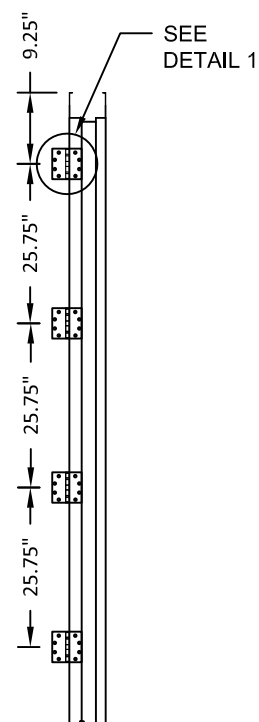
DWG #: **MDI011**

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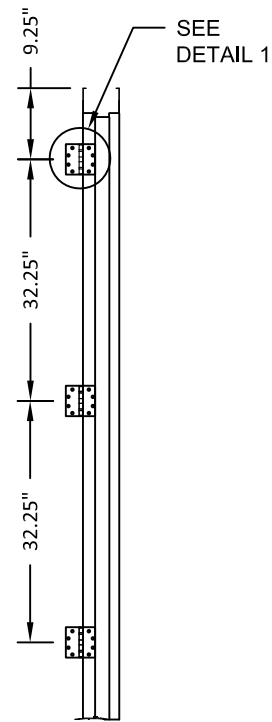




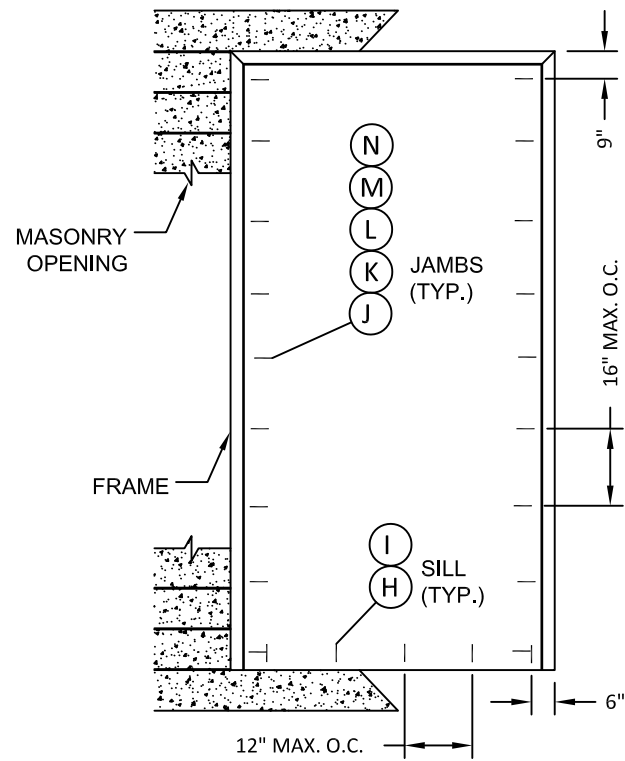
**DETAIL 1**



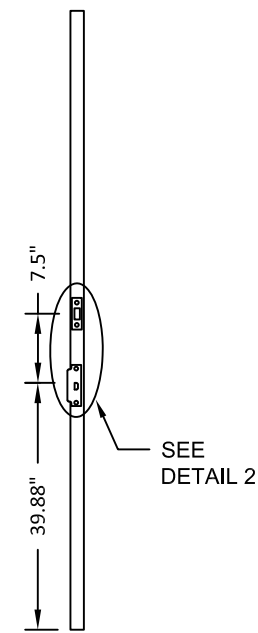
**HINGE JAMB**  
4 HINGE OPTION  
100" MAX. FRAME HEIGHT



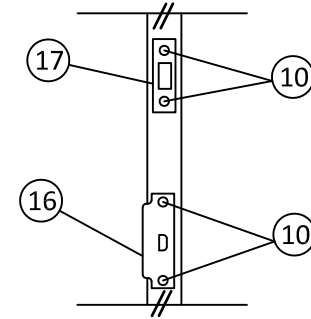
**HINGE JAMB**  
3 HINGE OPTION  
90" MAX. FRAME HEIGHT



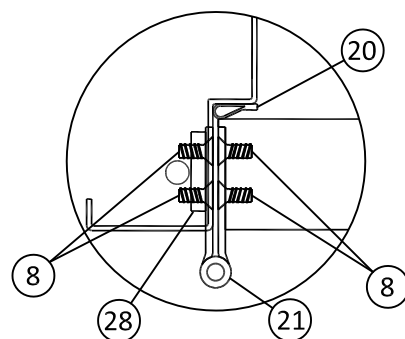
**FRAME ANCHORING**  
CONCRETE/MASONRY



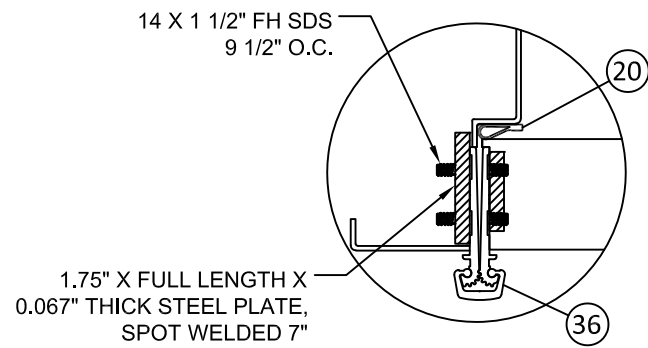
**STRIKE JAMB**



**DETAIL 2**



**HINGE OPTION 1**  
BB5 BALL BEARING HINGE



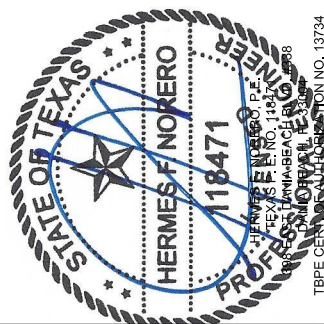
**HINGE OPTION 2**  
CONTINUOUS GEARED HINGE

**ANCHOR NOTES:**

1. Substitution of equal concrete screws from a different supplier may have different edge distance and center distance requirements. Min. edge distances shown in details are for Dynalbolt Sleeve Anchors. Adjust min. clearances for Tapper concrete screws as necessary.
2. Concrete screw locations at the centers may be adjusted to maintain the minimum edge distance to mortar joints. If concrete screw locations noted as "MAX. ON CENTER" must be adjusted to maintain minimum edge distance to mortar joints, additional concrete screws may be required to ensure the maximum on center dimension is not exceeded.

**REVISIONS**

DESCRIPTION	BY	DATE
2018 CODE REVISION	LL	5/24/22



DATE:	02.07.17
DWN BY:	LS
CHK BY:	HFN
SCALE:	NTS

DWG #:	<b>MDI011</b>
SHEET:	<b>8 OF 14</b>



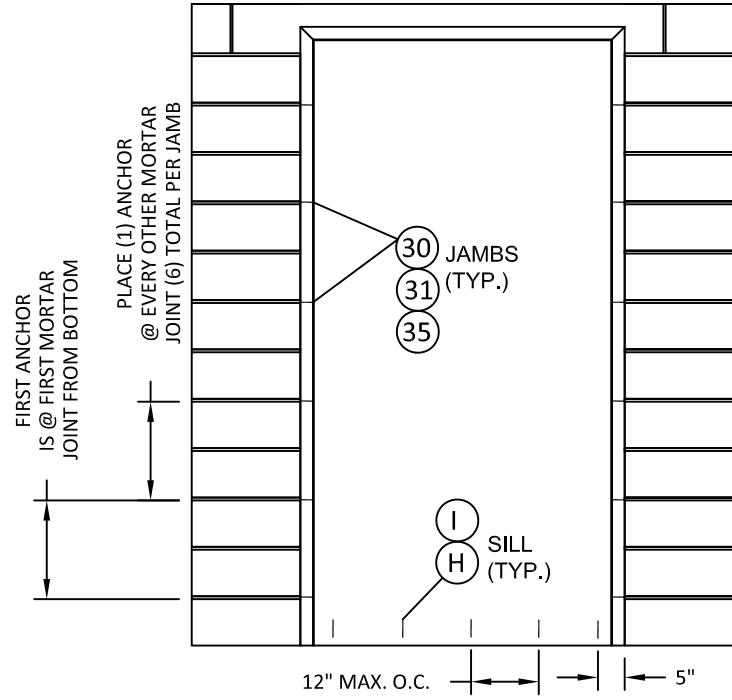


MESKER DOOR, a division of  
Dormakaba USA, Inc.  
3440 Standwood Blvd.  
Huntsville, AL 35811  
PH: (256) 851-6670

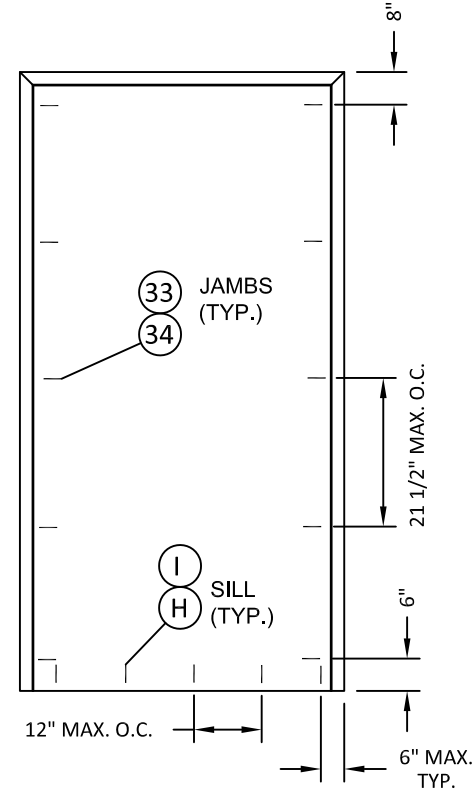
TITLE: "NVS" SERIES COMMERCIAL  
OUTSWING STEEL DOOR

ANCHORING DETAILS

PREPARED BY:  
BD BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
PH: (954) 399-8478 FX: (954) 744-4738



**FRAME ANCHORING**  
T-STRAP & WIRE ANCHOR



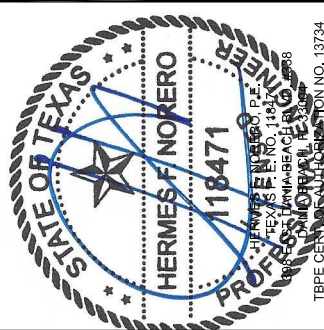
**FRAME ANCHORING**  
WOOD STUD & Z ANCHOR

**NOTE:**

1. SEE SHEET 8 FOR HINGE AND JAMB DETAILS

**REVISIONS**

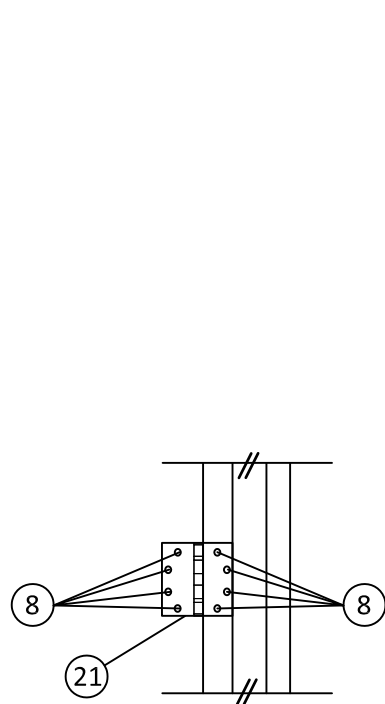
DESCRIPTION	BY	DATE
2018 CODE REVISION	LL	5/24/22



DATE:	02.07.17
DWN BY:	LS
CHK BY:	HFN
SCALE:	NTS

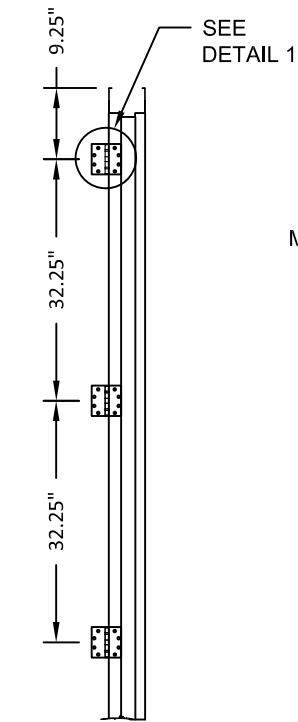
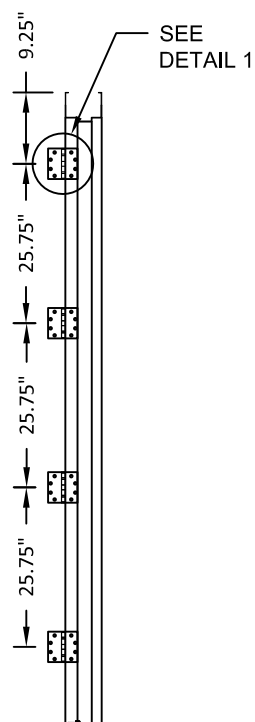
DWG #: **MDI011**

SHEET: **9 OF 14**

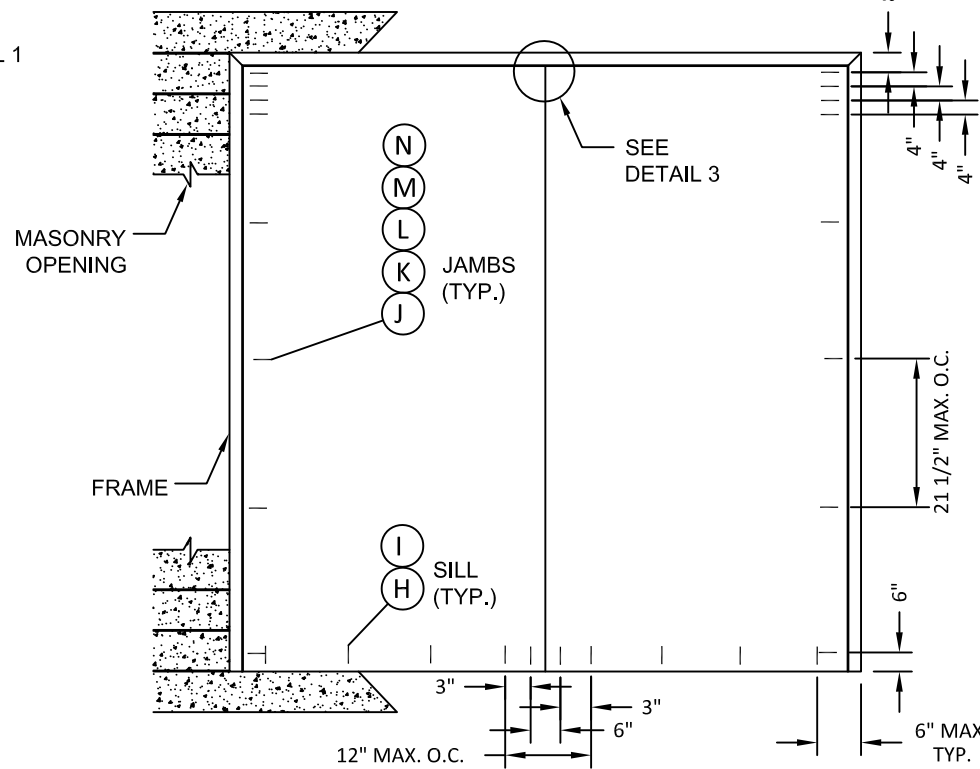


**DETAIL 1**

**HINGE JAMB**  
4 HINGE OPTION  
100" MAX. FRAME HEIGHT

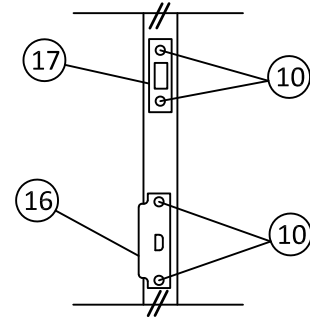
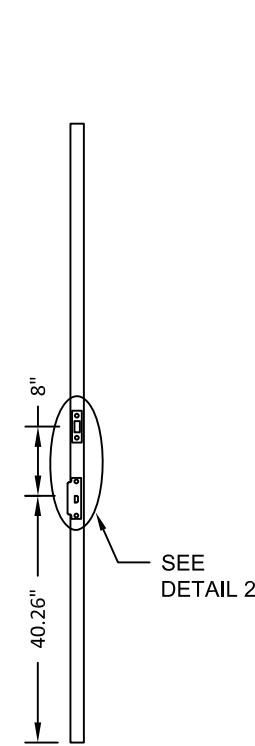


**HINGE JAMB**  
3 HINGE OPTION  
90" MAX. FRAME HEIGHT

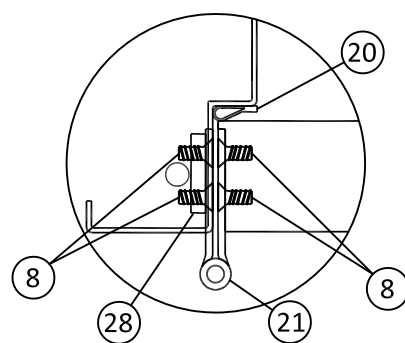


**FRAME ANCHORING**  
CONCRETE/MASONRY

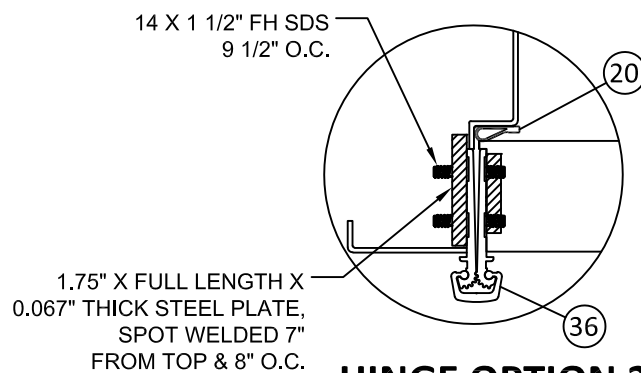
**STRIKE JAMB**



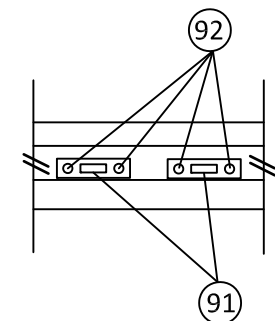
**DETAIL 2**



**HINGE OPTION 1**  
BB5 BALL BEARING HINGE



**HINGE OPTION 2**  
CONTINUOUS GEARED HINGE



**DETAIL 3**

**ANCHOR NOTES:**

1. Substitution of equal concrete screws from a different supplier may have different edge distance and center distance requirements. Min. edge distances shown in details are for Dynalbolt Sleeve Anchors. Adjust min. clearances for Tapper concrete screws as necessary.
2. Concrete screw locations at the centers may be adjusted to maintain the minimum edge distance to mortar joints. If concrete screw locations noted as "MAX. ON CENTER" must be adjusted to maintain minimum edge distance to mortar joints, additional concrete screws may be required to ensure the maximum on center dimension is not exceeded.

**REVISIONS**

DESCRIPTION	BY	DATE
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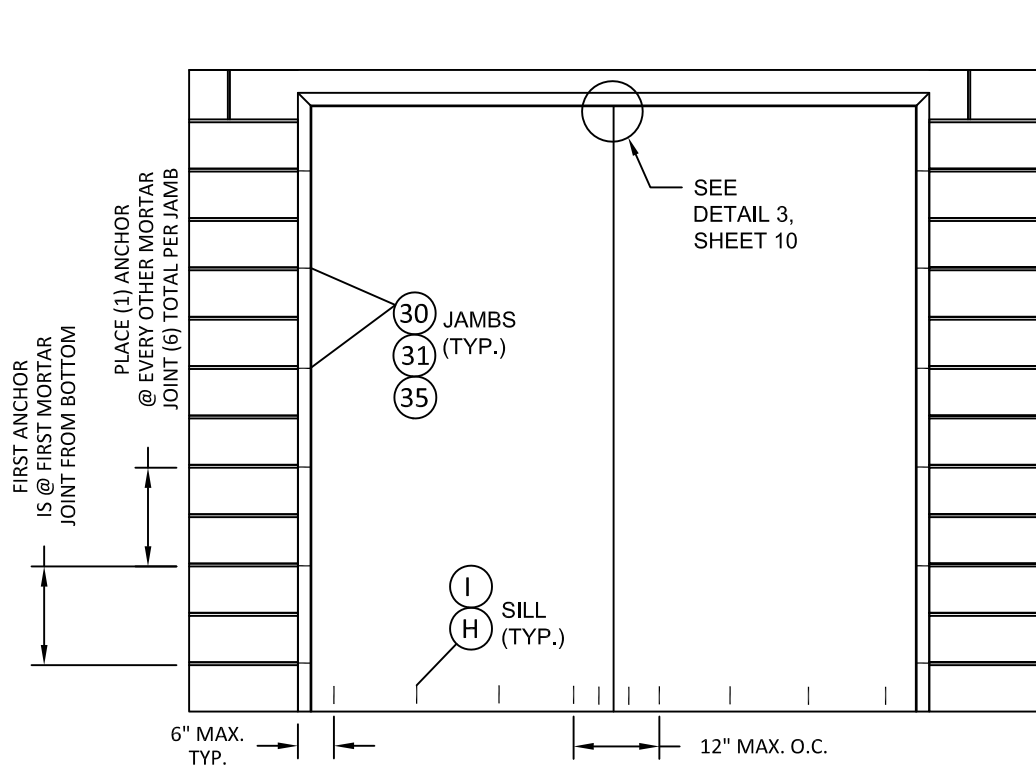
DATE:	02.07.17
DWN BY:	LS
CHK BY:	HFN
SCALE:	NTS

DWG #:	<b>MDI011</b>
SHEET:	<b>10 OF 14</b>

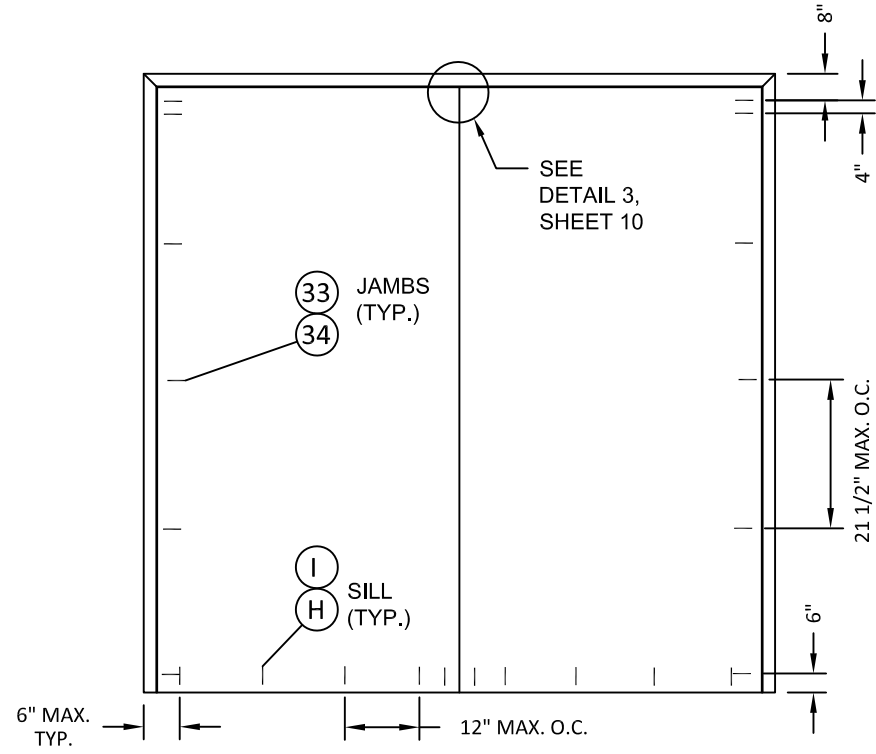
TITLE: "NVS" SERIES COMMERCIAL  
OUTSWINGING STEEL DOOR

ANCHORING DETAILS

PREPARED BY:  
BD BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
PH: (954) 399-8478 FX: (954) 744-4738



**FRAME ANCHORING**  
T-STRAP & WIRE ANCHOR



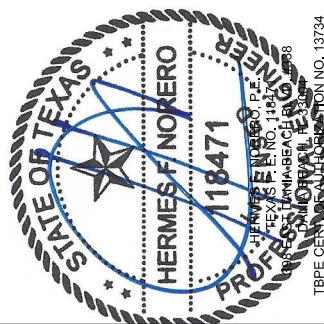
**FRAME ANCHORING**  
WOOD STUD & Z ANCHOR

**NOTE:**

1. SEE SHEET 10 FOR HINGE AND JAMB DETAILS

**REVISIONS**

DESCRIPTION	BY	DATE
2018 CODE REVISION	LL	5/24/22



DATE:	02.07.17
DWN BY:	LS
CHK BY:	HFN
SCALE:	NTS

DWG #:  
**MDI011**

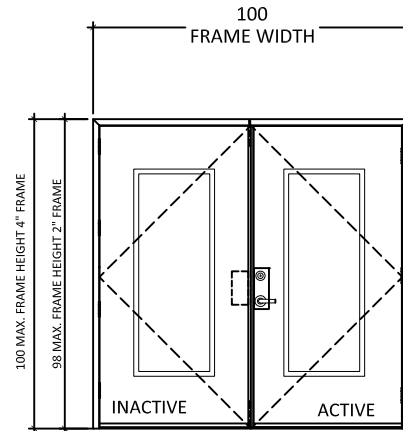
SHEET: **11 OF 14**



# HARDWARE/LOCK OPTIONS

ACTIVE DOOR HARDWARE CAN APPLY TO SINGLE DOORS  
(EXTERIOR ELEVATIONS - OUTSWING DOORS)

## OPTION 1



### OPTION 1.A (+/- 65 PSF, 100" X 100")

#### ACTIVE LEAF:

DESIGN HARDWARE M SERIES EXTRA HEAVY DUTY (GRADE 1) MORTISE LOCK WITH (2) 8-32 X 1 1/8" FH MS, LATCH = SS 3/4" THROW, DEADBOLT = SS 1" THROW

#### INACTIVE LEAF:

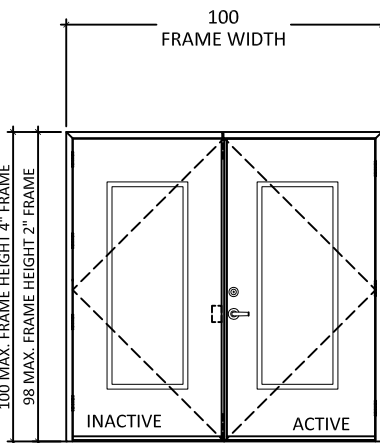
DESIGN HARDWARE UL-MFB-M FLUSH BOLTS WITH (4) 8 X 3/4" FH MULTI THREAD SCREWS, TOP AND BOTTOM, FLUSH MOUNT METALLIC FLUSH BOLT GUIDE WITH (2) #8 X 3/4" FH THREAD SCREWS, FLUSH MOUNT METALLIC STRIKE PLATE, WITH (2) 1/4" X 3/8" FH MS

### OPTION 1.B (+/- 60 PSF, 40" X 88")

#### ACTIVE LEAF:

ONITY 86E SERIES EXTRA HEAVY DUTY (GRADE 1) MORTISE LOCK WITH (2) #12-24 X 1" COMBINATION MS, LATCH = SS 3/4" THROW, DEADBOLT = SS 1" THROW

## OPTION 2



### OPTION 2.A (+/- 65 PSF, 100" X 100")

#### ACTIVE LEAF:

DESIGN HARDWARE X OR Z SERIES (GRADE 1) CYLINDRICAL LOCK, WITH (2) #8 X 3/4" FH THREAD SCREWS AND (2) #10 X 1 9/16" FH MS. LATCH = SS 1/2" THROW

#### INACTIVE LEAF:

DESIGN HARDWARE UL-MFB-M FLUSH BOLTS, FLUSH MOUNT METALLIC FLUSH BOLT GUIDE, SURFACE MOUNT METALLIC STRIKE PLATE, WITH (4) 8 X 3/4" FH MULTI THREAD SCREWS, TOP AND BOTTOM

### OPTION 2.B (+/- 75 PSF, 52" X 100")

#### ACTIVE LEAF:

DESIGN HARDWARE X OR Z SERIES (GRADE 1) CYLINDRICAL LOCK, WITH (2) #8 X 3/4" FH THREAD SCREWS AND (2) #10 X 1 9/16" FH MS. LATCH = SS 1/2" THROW, WITH DEADBOLT D-1S OR D2-S.

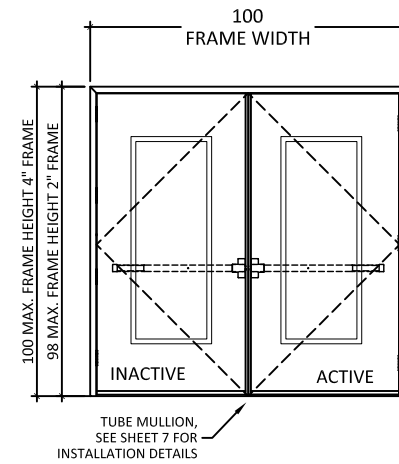
### OPTION 2.C (+/- 55 PSF, 40" X 88")

#### ACTIVE LEAF:

SCHLAGE 161 (GRADE 1) CYLINDRICAL LOCK, WITH (2) #8 X 3/4" FH THREAD SCREWS AND (2) #10 X 1 9/16" FH MS. LATCH = SS 1/2" THROW

#### NOTE:

CONTINUOUS HINGE OR BB5 HINGE ACCEPTABLE ON ALL OPTIONS. LIMIT TO +/- 65 PSF WITH USE OF CONTINUOUS HINGE. FOR PANEL OPTIONS, SEE SHEET 2.



## OPTION 3

### OPTION 3.A (+/- 65 PSF, 100" X 100")

#### ACTIVE LEAF/INACTIVE LEAF:

DESIGN HARDWARE 2000 SERIES STANDARD DUTY SURFACE MOUNT METALLIC RIM PANIC DEVICE WITH (6) 14 X 1 1/2" FH SDS, RIM PANIC LATCH AT LOCKS = 5/8" THROW. ROLLER STRIKE WITH 5/8" PROJECTION & 1/8" SHIM.

WITH 2" X 3" X 1/8" THICK STEEL VERTICAL TUBE MULLION, FY = 36 KSI MIN.

### OPTION 3.B (+/- 65 PSF, 100" X 100")

#### ACTIVE LEAF/INACTIVE LEAF:

DESIGN HARDWARE 1000 SERIES HEAVY DUTY SURFACE MOUNT METALLIC PANIC DEVICE WITH (5) 14 X 1 1/2" FH SDS, ROLLER STRIKE WITH 5/8" PROJECTION & 1/8" SHIM.

WITH 2" X 3" X 1/8" THICK STEEL VERTICAL TUBE MULLION, FY = 36 KSI MIN.

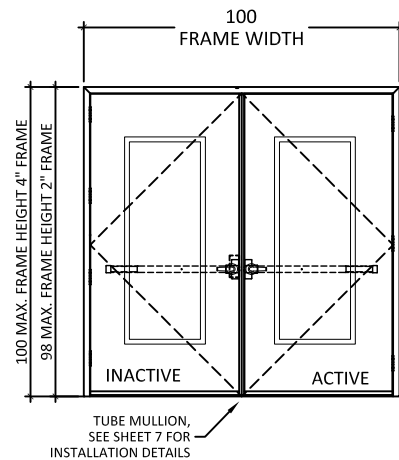
### OPTION 3.C (+/- 55 PSF, 52" X 88")

#### ACTIVE LEAF:

VON DUPRIN 99 SERIES STANDARD DUTY SURFACE MOUNT METALLIC RIM PANIC DEVICE WITH (6) 14 X 1 1/2" FH SDS, RIM PANIC LATCH AT LOCKS = 5/8" THROW.

ROLLER STRIKE WITH 5/8" PROJECTION & 1/8" SHIM.

WITH 2" X 3" X 1/8" THICK STEEL VERTICAL TUBE MULLION, FY = 36 KSI MIN.



## OPTION 4

### OPTION 4.A (+/- 65 PSF, 100" X 100")

#### ACTIVE LEAF/INACTIVE LEAF:

DESIGN HARDWARE 2000 SERIES STANDARD DUTY SURFACE MOUNT METALLIC PANIC DEVICE WITH DESIGN KIL TRIM, WITH (4) 14 X 1 1/2" FH SDS, HANDLE WITH (2) #8-36 X 1 1/2" PH MS.

WITH 2" X 3" X 1/8" THICK STEEL VERTICAL TUBE MULLION, FY = 36 KSI MIN.

### OPTION 4.B (+/- 65 PSF, 100" X 100")

#### ACTIVE LEAF/INACTIVE LEAF:

DESIGN HARDWARE 1000 SERIES HEAVY DUTY SURFACE MOUNT METALLIC PANIC DEVICE WITH DESIGN KIL TRIM WITH (5) 14 X 1 1/2" FH SDS, HANDLE WITH (2) #8-36 X 1 1/2" PH MS.

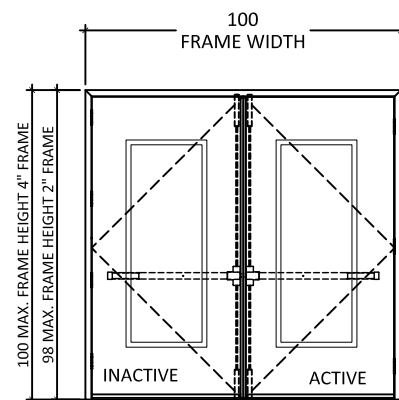
WITH 2" X 3" X 1/8" THICK STEEL VERTICAL TUBE MULLION, FY = 36 KSI MIN.

### OPTION 4.C (+/- 55 PSF, 52" X 88")

#### ACTIVE LEAF

VON DUPRIN 99 SERIES STANDARD DUTY SURFACE MOUNT METALLIC RIM PANIC DEVICE WITH DESIGN KIL TRIM, WITH (4) 14 X 1 1/2" FH SDS, HANDLE WITH (2) #8-36 X 1 1/2" PH MS. WITH

2" X 3" X 1/8" THICK STEEL VERTICAL TUBE MULLION, FY = 36 KSI MIN.



## OPTION 5

### OPTION 5.A (+/- 65 PSF, 100" X 100")

#### ACTIVE LEAF/INACTIVE LEAF:

DESIGN HARDWARE 2000 SERIES STANDARD DUTY (GRADE 1) SVR SURFACE MOUNT METALLIC 2 POINT LOCK SYSTEM WITH PANIC DEVICE AND VERTICAL RODS ON EXTERIOR WITH (6) 14"-20 X 3/4 PH SMS AND (6) 14-20 X 3/4" FH MS. TOP STRIKE WITH (3) 1/4"-20P X 3/4" FH MS.

### OPTION 5.B (+/- 65 PSF, 100" X 100")

#### ACTIVE LEAF/INACTIVE LEAF:

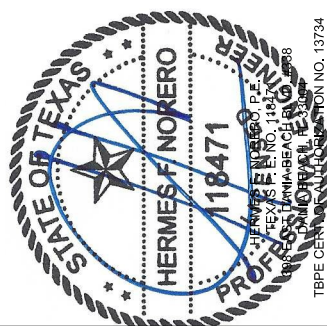
DESIGN HARDWARE 1000 SERIES HEAVY DUTY (GRADE 1) SVR SURFACE MOUNT METALLIC PANIC DEVICE WITH (2) 14-20" PH MS AND (4) 14 X 1/4" FH SMS, VERTICAL ROD AT TOP AND BOTTOM (2) 14 X 1 1/2" FH SDS. TOP STRIKE WITH (3) 1/4"-20P X 3/4" FH MS.



MESKER DOOR, a division of  
Dormakaba USA, Inc.  
3440 Standwood Blvd.  
Huntsville, AL 35811  
PH: (256) 851-6670

TITLE: "NVS" SERIES COMMERCIAL OUTSWING STEEL DOOR	HARDWARE OPTIONS
PREPARED BY: BD BUILDING DROPS, INC. 398 E. DANIA BEACH BLVD. #338 DANIA BEACH, FL 33004	PH: (954) 399-6478 FX: (954) 744-4738

REVISIONS	DESCRIPTION	BY	DATE
	2018 CODE REVISION	LL	5/24/22

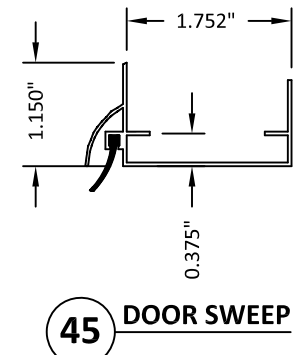
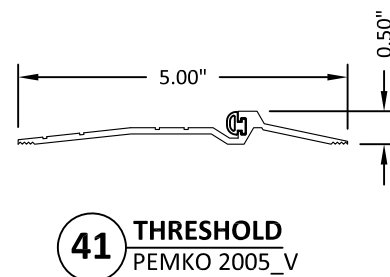
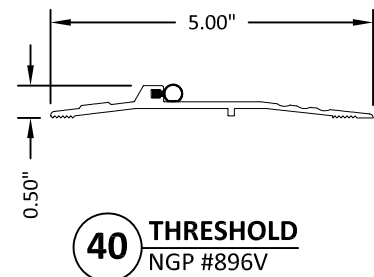
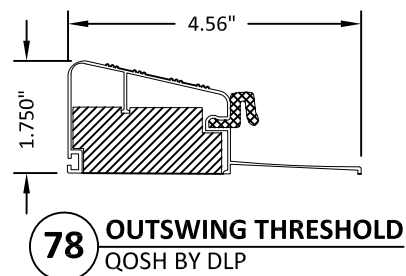
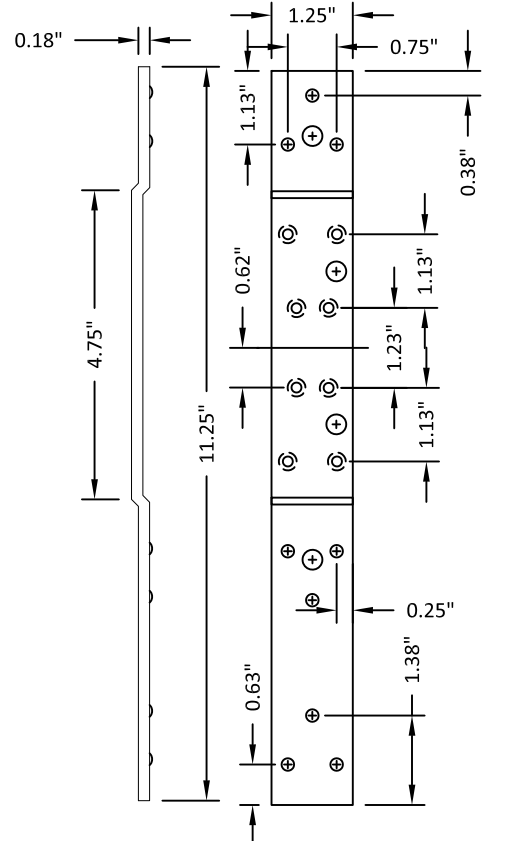
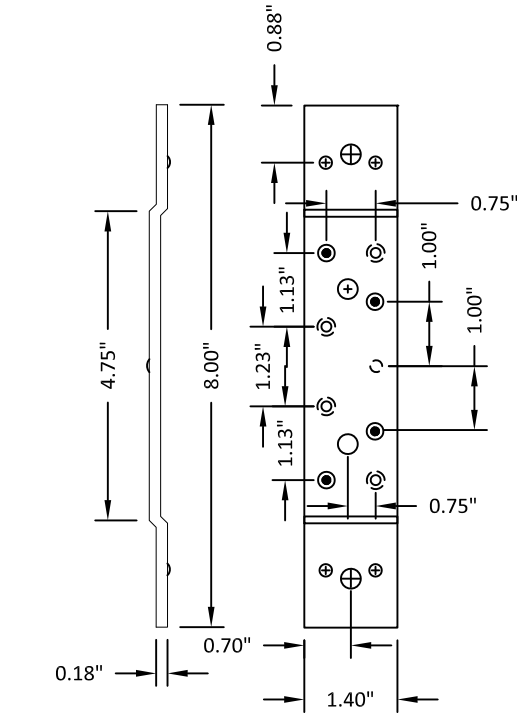
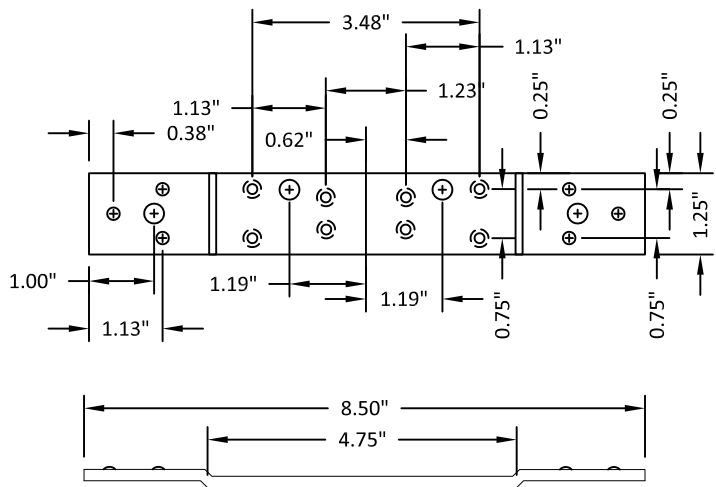
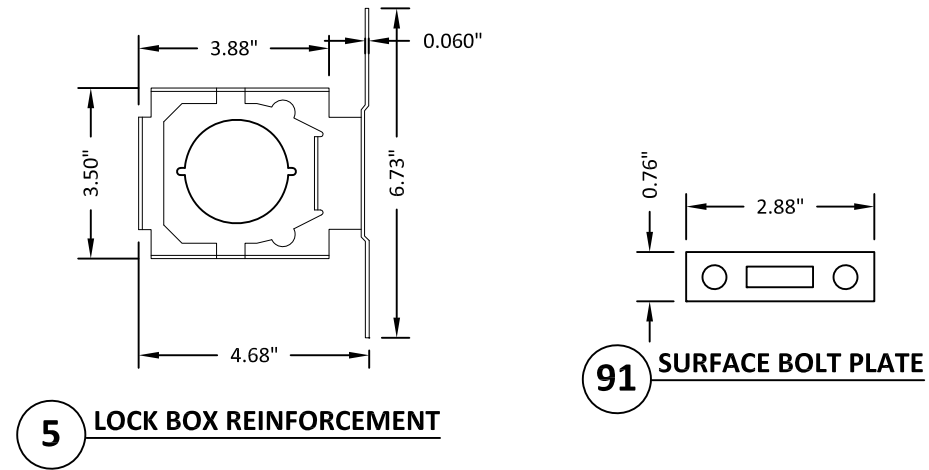
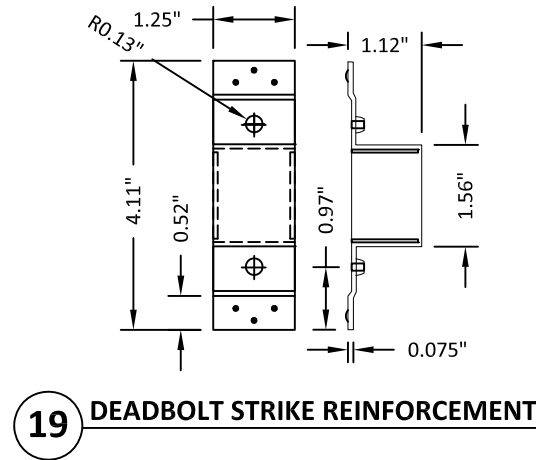
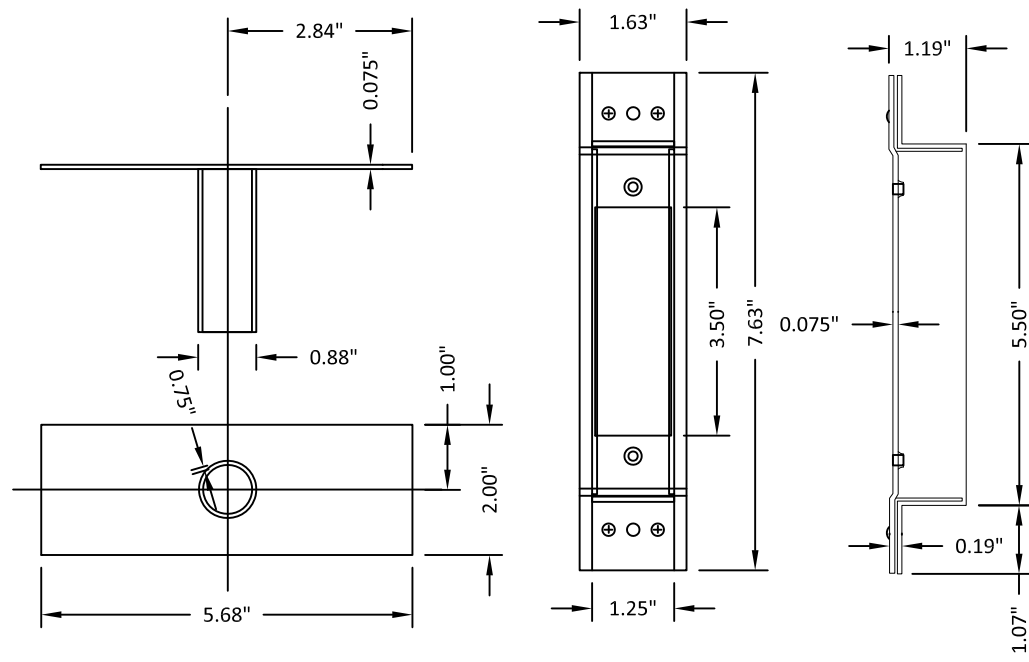


DATE: 02.07.17	DWN BY: LS	CHK BY: HFN	SCALE: NTS
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DWG #: MDI011
SHEET: 12 OF 14

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TITLE: "NVS" SERIES COMMERCIAL  
OUTSWING STEEL DOOR

COMPONENTS

PREPARED BY:  
BD BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
PH: (954) 399-8478 FX: (954) 744-4738

REVISIONS

DESCRIPTION	BY	DATE
2018 CODE REVISION	LL	5/24/22



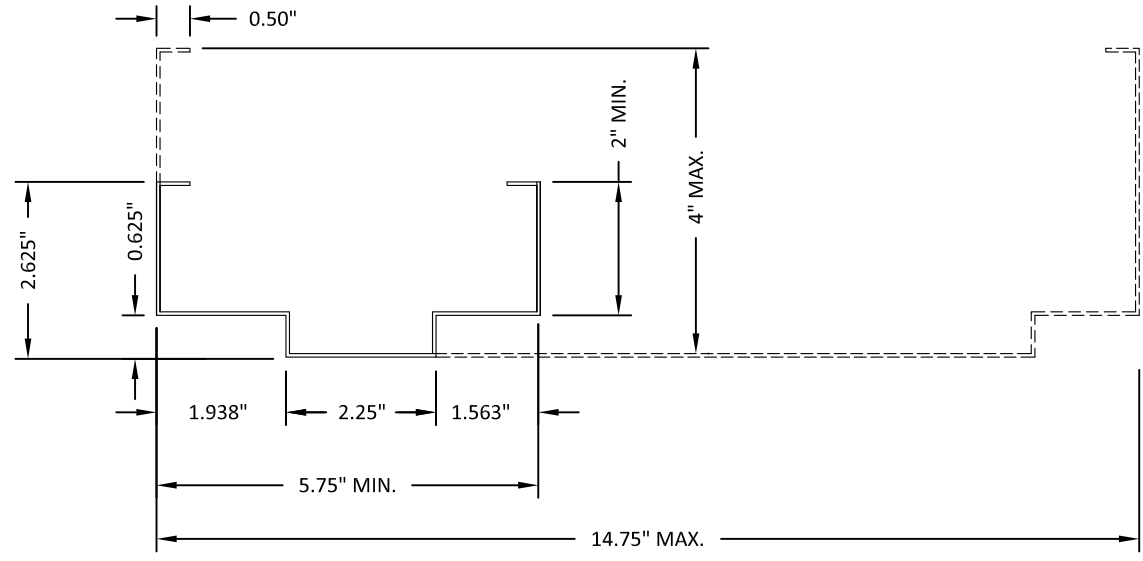
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DWN BY:	LS
CHK BY:	HFN
SCALE:	NTS

DWG #: MDI011  
SHEET: 13 OF 14

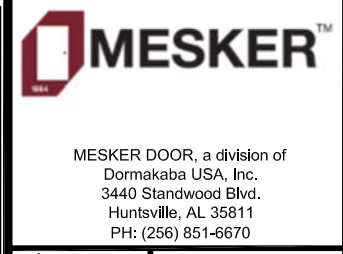
**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" ELCO OR ITW CONCRETE SCREWS	STEEL
E	MASONRY - 3000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
H	1/4" X 1-3/4" ITW PFH CONCRETE SCREW	STEEL
I	5/16" X 1-3/4" ELCO ULTRACON CONCRETE SCREW	STEEL
J	3/8" X 5" PFH ITW DYNABOLT SLEEVE ANCHOR	STEEL
K	3/8" X 5" HLC HILTI SLEEVE ANCHOR	STEEL
L	3/8" X 5" SLEEVE ANCHOR BY POWERS FASTENERS	STEEL
M	3/8" X 5" TAPPER CONCRETE SCREW BY POWERS FASTENERS	STEEL
N	5/16" SMS OR MACHINE BOLT (MIN. GRADE 5 CRS)	STEEL
O	3/8" X 5" WEDGE BOLT CONCRETE SCREW BY POWERS FASTENERS	STEEL
1	"N" STEEL DOOR PANEL	-
2	DOOR SKIN - 18GA (0.042" THK. STEEL, Fy=42 PSI MIN.) BY MESKER	STEEL
3	FOAM 1.0 PCF MIN. DENSITY	POLYSTYRENE
4	DOOR TOP & BOTTOM CLOSER	STEEL
5	LOCK BOX REINFORCEMENT	STEEL
8	#12-24 X 1/2" SELF TAPPER	STEEL
9	TUBE ANCHOR (PF-10)	STEEL
10	#12-24 X 1" COMBINATION MACHINE / WOOD SCREW	STEEL
16	ANSI LATCH STRIKE	STEEL
17	DEADBOLT STRIKE	STEEL
19	DEADBOLT STRIKE REINFORCEMENT	STEEL
20	WEATHERSTRIP (PEMKO S-88)	NEOPRENE
21	4-1/2" X 4-1/2" X 0.125" TEMPLATE HINGE	STEEL
22	STANDARD (LONG) DOOR HINGE TOP HINGE REINFORCEMENT	STEEL
23	STANDARD (SHORT) DOOR HINGE MIDDLE BOTTOM HINGE REINF.	STEEL
24	WEATHERSTRIP (THRESHOLD)	NEOPRENE
25	HOLLOW METAL FRAME - 16GA (0.053" THK.) BY MESKER	STEEL
27	LATCH STRIKE REINFORCEMENT	STEEL
28	FRAME HINGE REINFORCEMENT	STEEL
30	MASONRY 'TEE' ANCHOR (MESKER PFMT5)	STEEL
31	STRAP ANCHOR (PS-241)	STEEL
33	Z ANCHOR (PF-9)	STEEL
34	WOOD STUD ANCHOR (F-24)	STEEL
35	WIRE ANCHOR (PF-2)	STEEL
36	CONTINUOUS GEARED HINGE	ALUMINUM

ITEM #	DESCRIPTION	MATERIAL
40	THRESHOLD (NATIONAL GUARD PRODUCTS, INC. #896V)	ALUMINUM
41	THRESHOLD (PEMKO 2005_V)	ALUMINUM
42	1" BUMPER THRESHOLD BY DESIGN HARDWARE	ALUMINUM
45	95WHA DOOR SWEEP NATIONAL GUARD PRODUCTS, INC.	ALUMINUM
46	#6 X 3/4" PHILIPS HEAD SMS	STEEL
71	DESIGN HARDWARE D1-S SERIES DEADBOLT	STEEL
72	DESIGN HARDWARE "Z" SERIES ENTRY	STEEL
76	DESIGN HARDWARE D2-S SERIES DEADBOLT	STEEL
77	DESIGN HARDWARE "X" SERIES ENTRY	STEEL
78	-	-
79	BULB GASKET	VINYL
89	#8 X 1-1/4" PPH SELF TAPPER	STEEL
92	#8 X 1-1/4" PPH SELF TAPPER	STEEL
93	KRM REMOVABLE MULLION	STEEL



**25 HOLLOW METAL FRAME**



TITLE: "NVS" SERIES COMMERCIAL OUTSWING STEEL DOOR  
 BILL OF MATERIALS  
 PREPARED BY: **BD BUILDING DROPS, INC.**  
 398 E. DANIA BEACH BLVD. #338  
 DANIA BEACH, FL 33004  
 PH: (954) 399-6478 FX: (954) 744-4738

REVISIONS	DESCRIPTION	BY	DATE
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DATE: 02.07.17  
 DWN BY: LS  
 CHK BY: HFN  
 SCALE: NTS

DWG #: **MDI011**  
 SHEET: **14 OF 14**

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