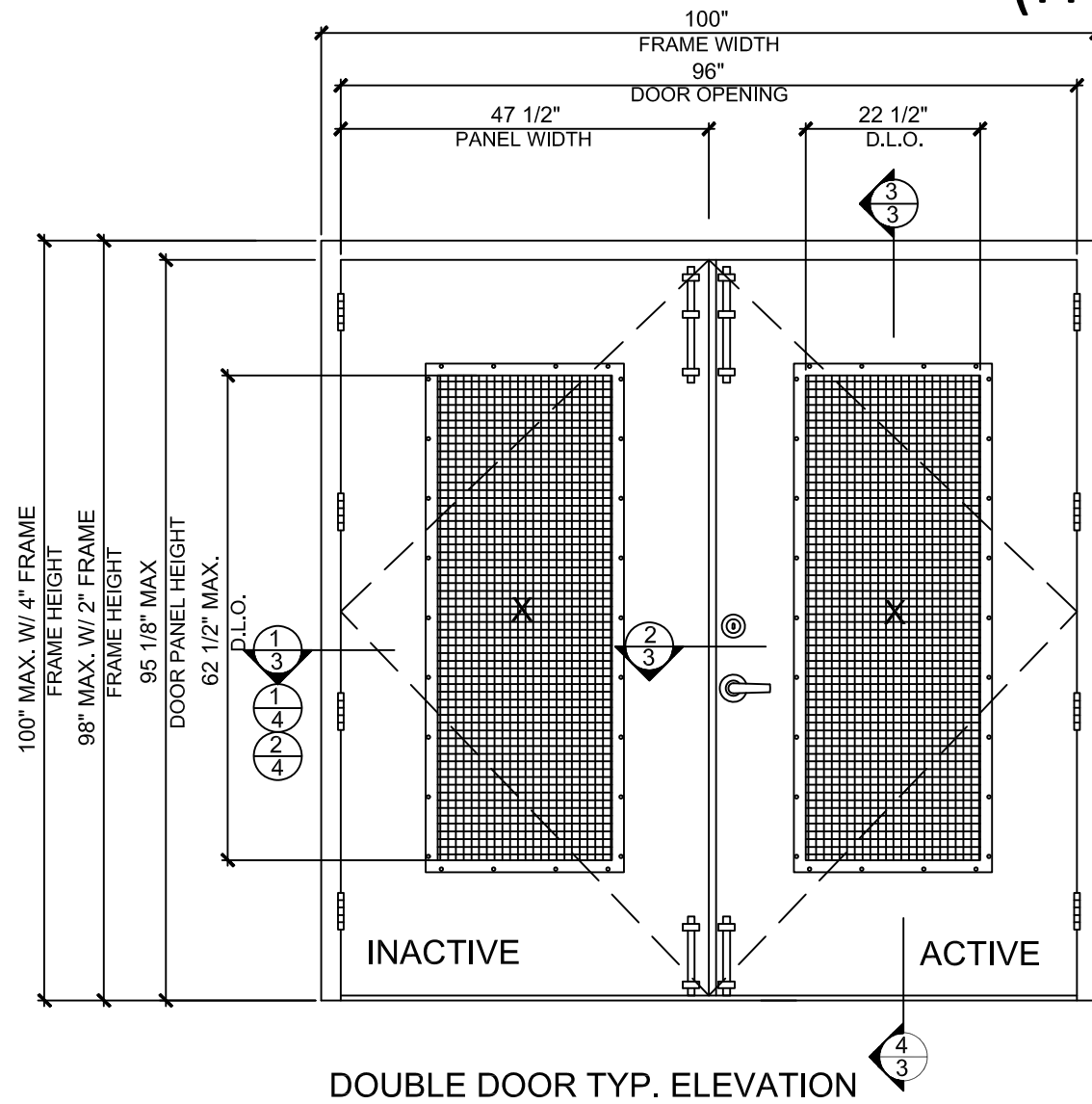


MESKER MBM, LLC.

"N" SERIES COMMERCIAL OUTSWING STEEL LOUVER DOOR (HVHZ) (IMPACT)



MESKER MBM, LLC
3440 Standwood Blvd.
Huntsville, AL 35811
PH: (256) 851-6670



DOUBLE DOOR TYP. ELEVATION

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN DESIGNED AND EVALUATED TO COMPLY WITH THE REQUIREMENTS OF THE CURRENT FLORIDA BUILDING CODE: ASTM E1886-13a, ASTM E1996-17, ASTM E330-14, TAS 201-94, TAS 202-94, TAS 203-94, INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
2. DOORS RATED FOR LARGE MISSILE IMPACT (9LB, 50 FPS) AND DO NOT REQUIRE SHUTTERS.
3. ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON ELEVATIONS / DETAILS. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
4. ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
5. MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS.
6. METAL STRUCTURES NOT BY MESKER MBM MUST SUPPORT LOADS IMPOSED BY DOOR SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.
7. DOOR PANEL: MIN. 16 GA. (0.053" THK.) STEEL MIN. $F_y = 40.3$ KSI MIN. DOOR FRAME: MIN. 16 GA. (0.053" THK.) STEEL .
8. DOOR DOES NOT MEET THE WATER INFILTRATION REQUIREMENTS FOR "HVHZ" AND 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.
9. DOOR IS NOT RATED FOR AIR INFILTRATION REQUIREMENTS.
10. OTHER DOOR PANEL CONFIGURATIONS AVAILABLE PER REQUEST TO MANUFACTURE.

NOTE:

EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.

TABLE OF CONTENTS	
SHEET	SHEET DESCRIPTION
1	TABLE OF CONTENTS & TEST ELEVATION
2	DOOR PANEL DETAILS
3	HORIZONTAL & VERTICAL CROSS SECTIONS
4	HORIZONTAL CROSS SECTION
5	HORIZONTAL CROSS SECTION
6	ANCHORING DETAILS
7	ANCHORING DETAILS
8	HARDWARE OPTIONS
9	COMPONENTS
10	BILL OF MATERIALS

SURFACE / FLUSH BOLT ALLOWABLE DESIGN PRESSURE TABLE						
HARDWARE OPTION	OVERALL FRAME SIZE		SURFACE/FLUSH BOLT LOCATIONS		DESIGN PRESSURE (PSF)	
	WIDTH	HEIGHT	ACTIVE DOOR	INACTIVE DOOR	POSITIVE	NEGATIVE
(2) SURFACE BOLT	100"	100"	YES	YES	+75.0	-75.0
(1) SURFACE BOLT	100"	100"	NO	YES	+37.5	-37.5
(1) FLUSH BOLT	100"	100"	NO	YES	+65.0	-65.0

SEE SHEET 8 FOR ADDITIONAL DESIGN PRESSURE REQUIREMENTS DUE TO HARDWARE COMPONENT SELECTION

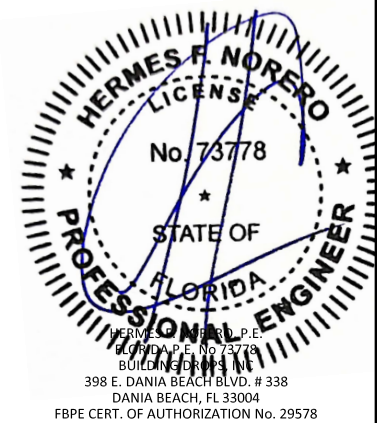
TITLE: "N" SERIES COMMERCIAL OUTSWING STEEL LOUVER DOOR (HVHZ) (IMPACT)

TABLE OF CONTENTS & TEST ELEVATION

PREPARED BY: BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
2020 FBC UPDATE	NUS	07/23/20
2023 NAME CHANGE	MG	03/06/23

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:

FL15493

DATE: 06.03.16

DWG. BY: LS CHK. BY: HFN

SCALE: NTS

DWG. #: MDI001

SHEET:

1

OF 10

TITLE: "N" SERIES COMMERCIAL
OUTSWINGING STEEL LOUVER DOOR
(HVHZ) (IMPACT)

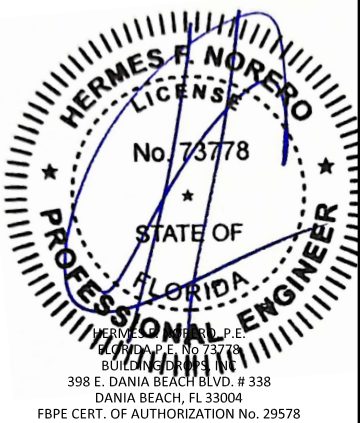
DOOR PANEL DETAILS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

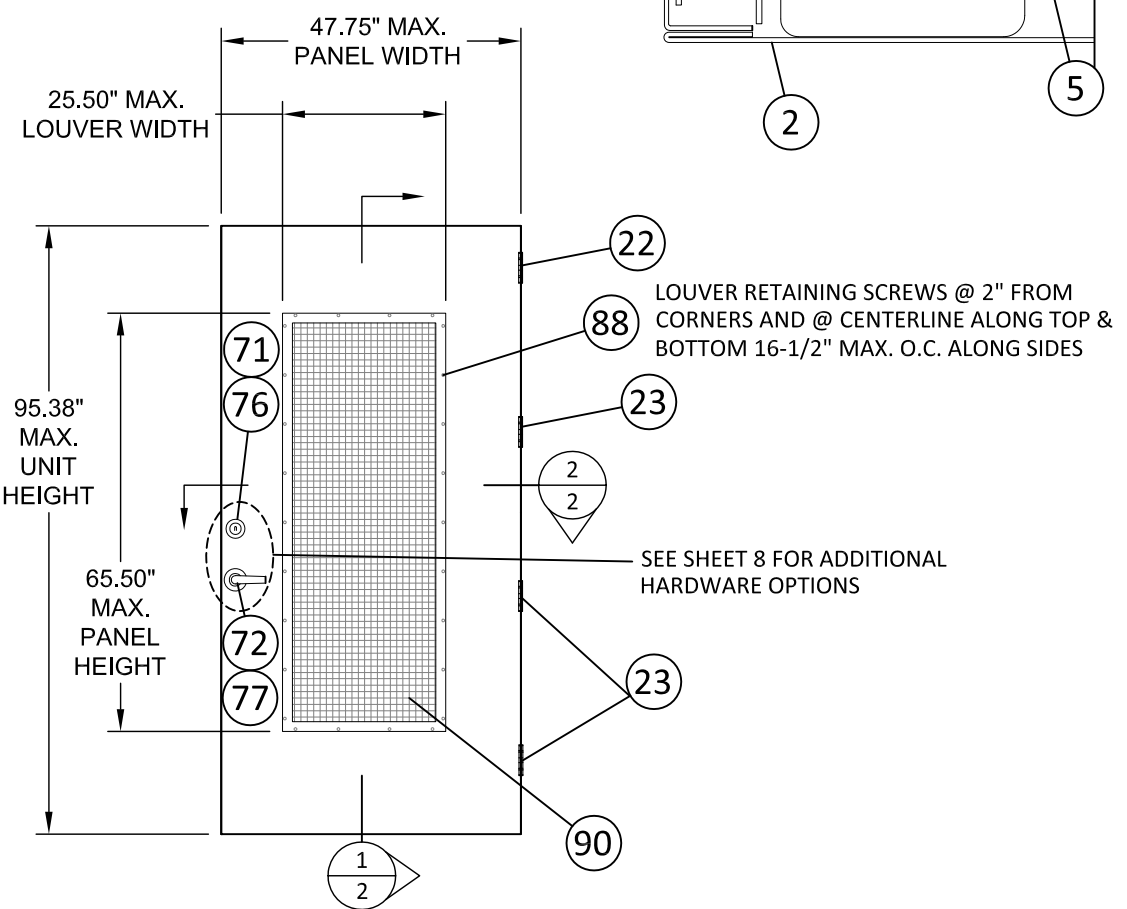


REMARKS	BY	DATE
2020 FBC UPDATE	NUS	07/23/20
2023 NAME CHANGE	MG	03/06/23

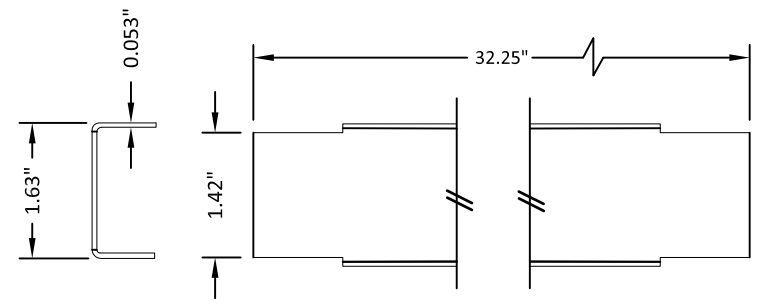
THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



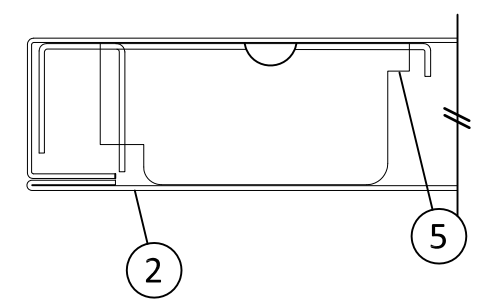
FL #:	FL15493
DATE:	06.03.16
DWG. BY:	LS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	MDI001
SHEET:	2



1 "N" STEEL DOOR PANEL

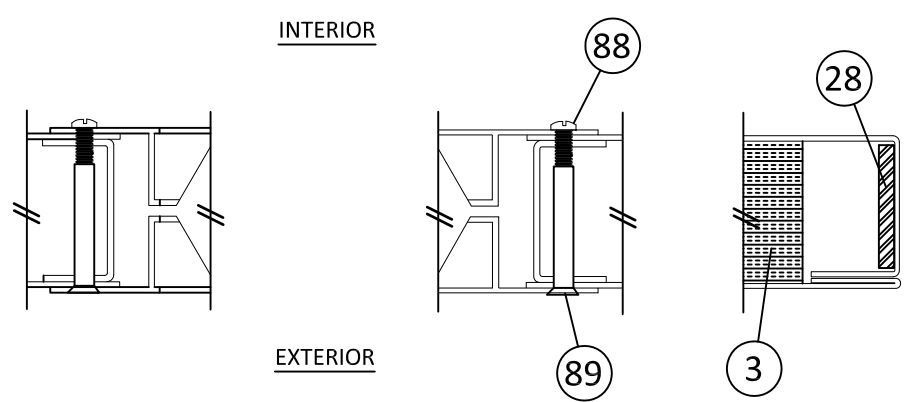


4 DOOR TOP & BOTTOM CLOSER

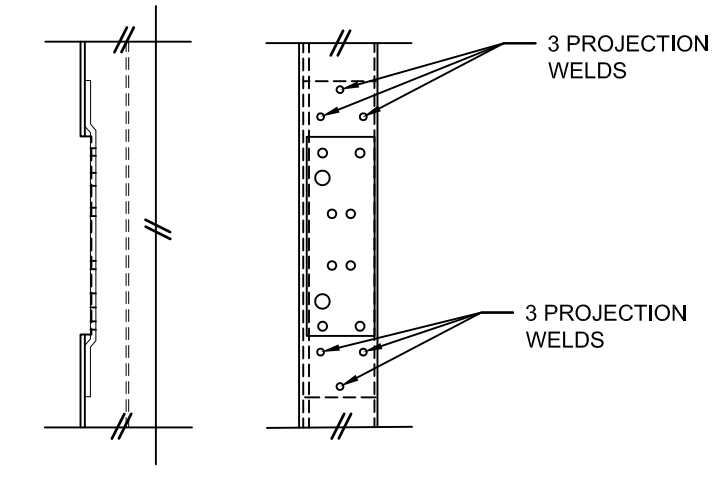


5 LOCK BOX REINFORCEMENT

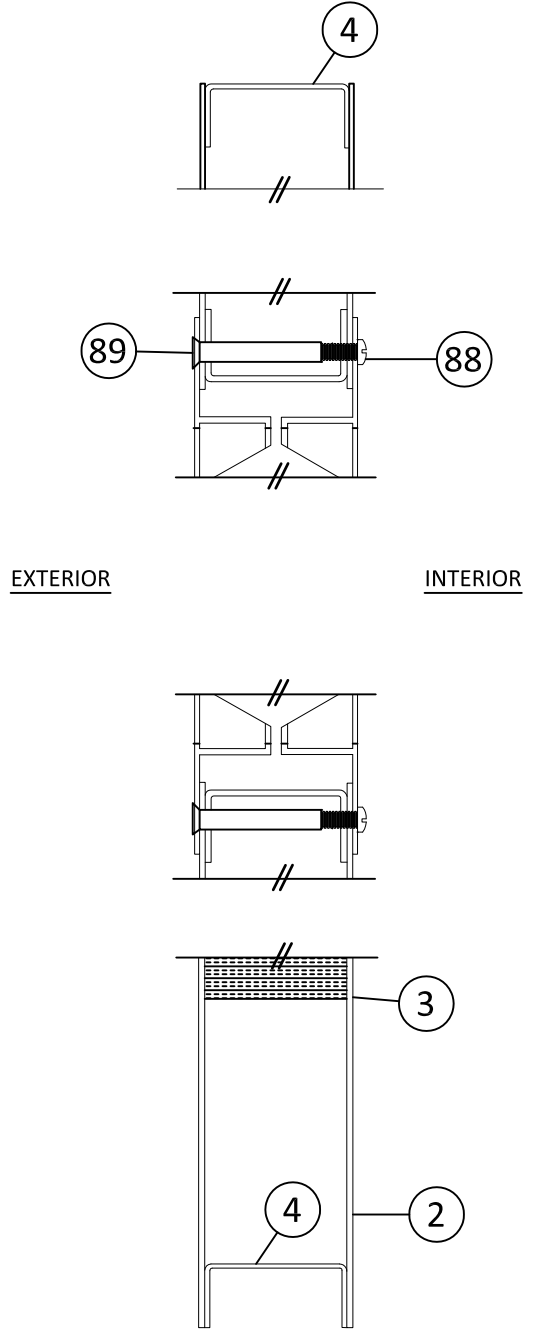
2 HORIZONTAL CROSS SECTION



23 DOOR HINGE REINFORCEMENT



1/2 VERTICAL CROSS SECTION



4/24/2023 11:48 AM s:\projects\mesker mbm, llc\fb\23-0112 - fbc submittal - commercial steel doors revisions\dwg\15493\mdi001.dwg

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)

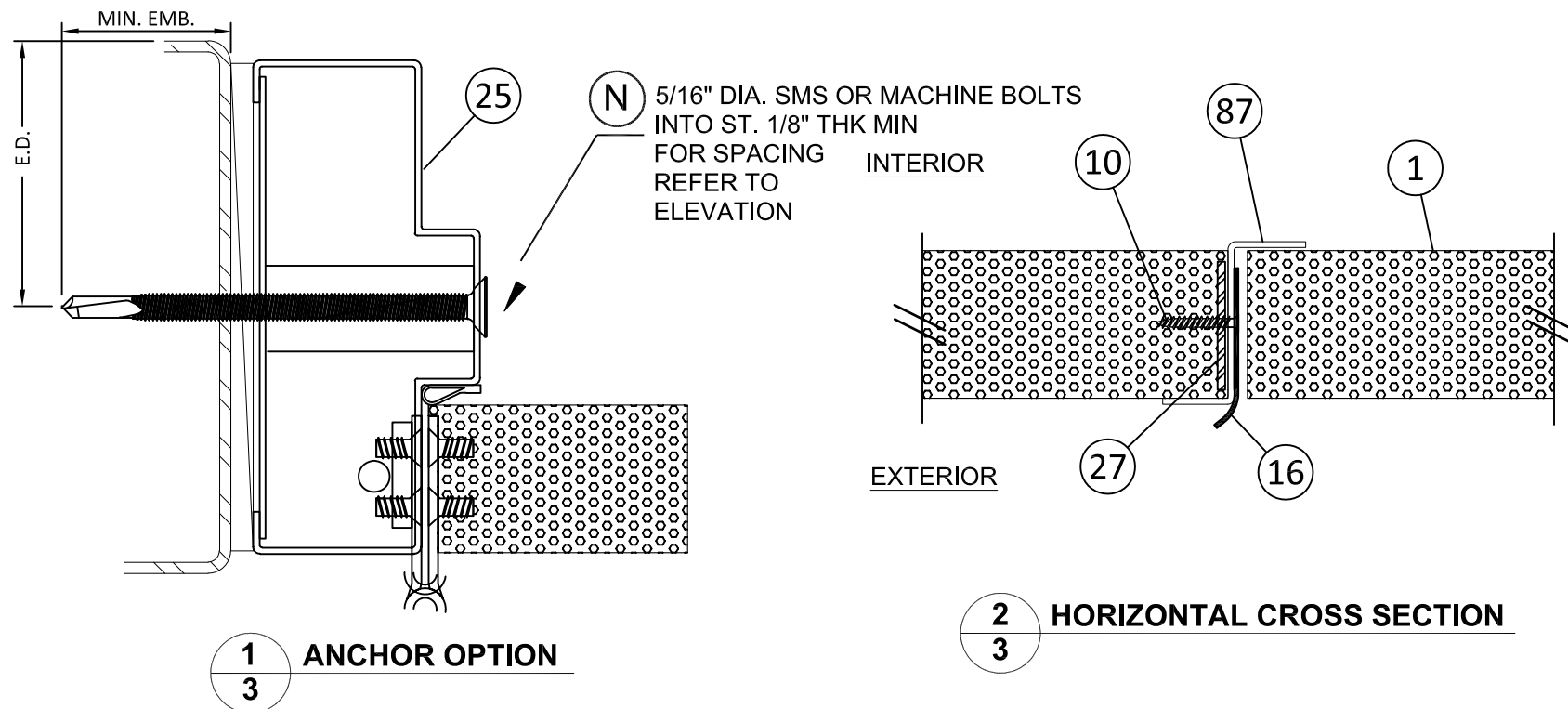
- TYPE F** 3/8" DIA. HLC SLEEVE ANCHOR BY "HILTI"
 DIRECTLY INTO $f_c'=3000$ PSI CONCRETE
 MIN. EMBED. 1-3/8"
 MIN. EDGE DIST 3-1/4"
 MIN. SPACING 4-1/2"
- TYPE F1** 3/8" DIA. HLC SLEEVE ANCHOR BY "HILTI"
 DIRECTLY INTO GROUT FILLED/HOLLOW CONCRETE BLOCK
 MIN. EMBED. 1-3/8"
 MIN. EDGE DIST 3-1/2"
 MIN. 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"

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

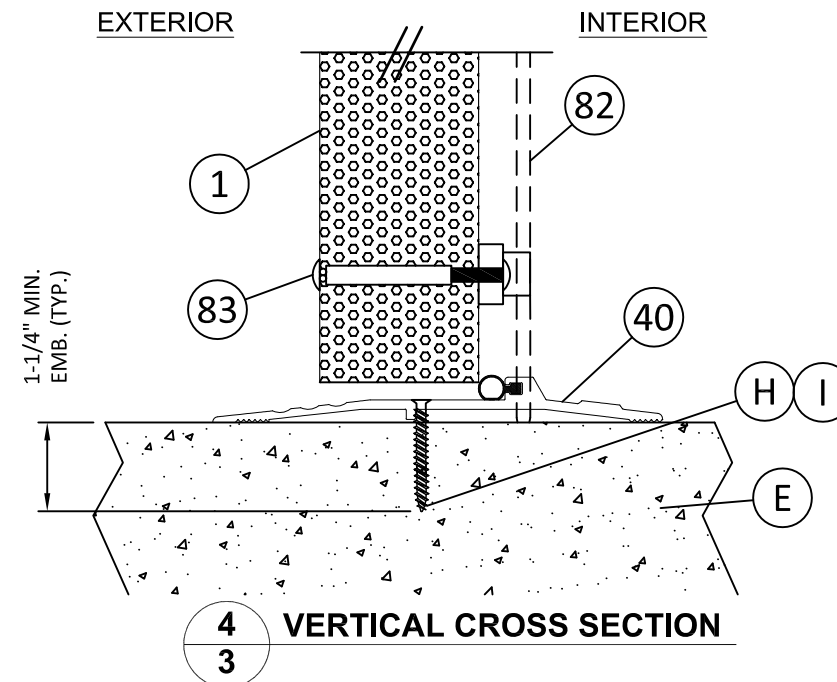
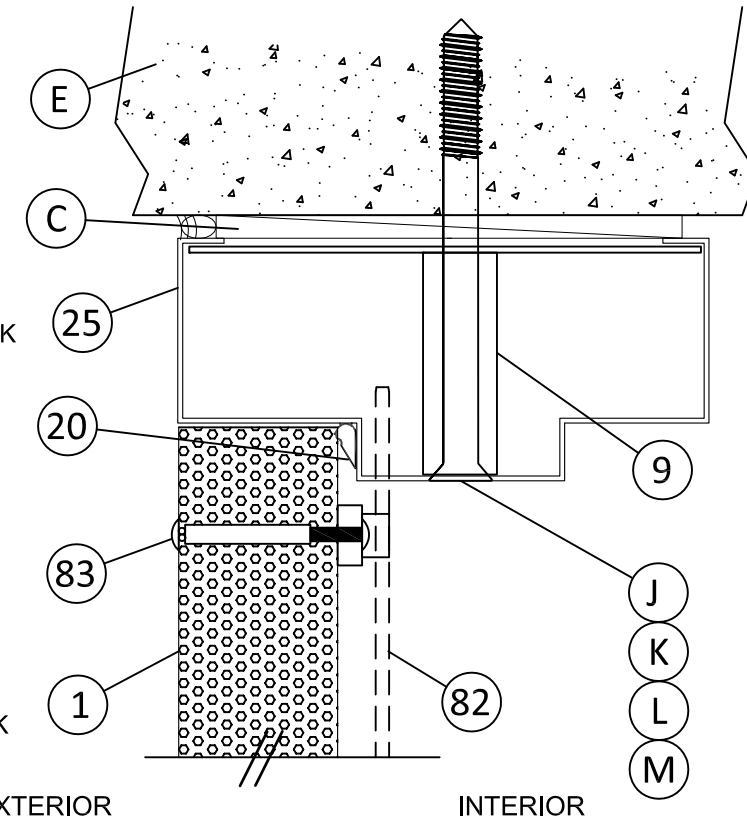
- TYPE D** 1/4" TAPCON BY "ITW" DIRECTLY INTO $f_c'=3000$ PSI CONCRETE
 1-1/4" MIN. EMBED
 MIN. EDGE DIST 2-1/2"
 MIN. SPACING 3"
- TYPE E** 5/16" DIA. ULTRACONS BY "ELCO" DIRECTLY INTO $f_c'=3000$ PSI CONCRETE
 1-3/4" MIN. EMBED
 MIN. EDGE DIST 2-3/16"
 MIN. SPACING 3"

SEALANT:

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



2 HORIZONTAL CROSS SECTION



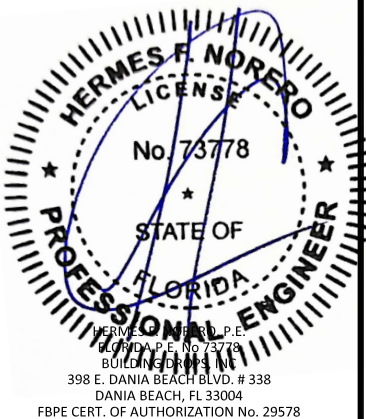
MESKER MBM, LLC
 3440 Standwood Blvd.
 Huntsville, AL 35811
 PH: (256) 851-6670

TITLE: "N" SERIES COMMERCIAL
 OUTSWING STEEL LOUVER DOOR
 (HVHZ) (IMPACT)
 VERTICAL & HORIZONTAL
 SECTIONS

PREPARED BY:
BUILDING DROPS, INC.
 398 E. DANIA BEACH BLVD., STE. 338
 DANIA BEACH, FL 33004
 PH: (954) 399-8478
 FAX: (954) 744-4738
 WEB: www.buildingdrops.com

REMARKS	BY	DATE
2020 FBC UPDATE	NUS	07/23/20
2023 NAME CHANGE	MG	03/06/23

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:

FL15493

DATE: 06.03.16

DWG. BY: LS	CHK. BY: HFN
----------------	-----------------

SCALE: NTS

DWG. #: MDI001

SHEET:

4/24/2023 11:48 AM s:\projects\mesker mbm, llc\fb\23-0112 - fbc submittal - commercial steel doors revisions\dwg\15493\mdi001.dwg

TITLE: "N" SERIES COMMERCIAL
OUTSWING STEEL LOUVER DOOR
(HVHZ) (IMPACT)

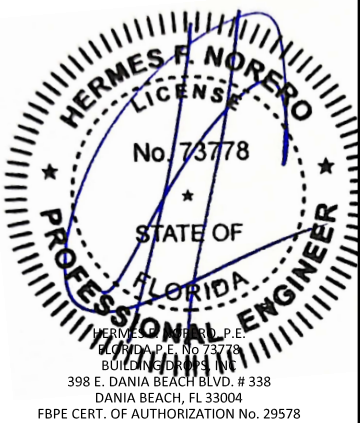
HORIZONTAL SECTIONS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com



REMARKS	BY	DATE
2020 FBC UPDATE	NUS	07/23/20
2023 NAME CHANGE	MG	03/06/23

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:

FL15493

DATE: 06.03.16

DWG. BY: LS	CHK. BY: HFN
-----------------------	------------------------

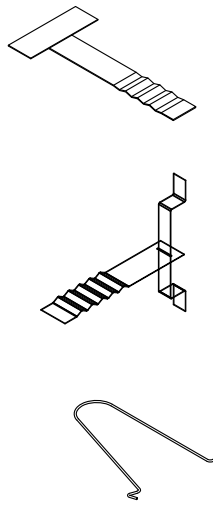
SCALE: **NTS**

DWG. #: **MDI001**

SHEET:

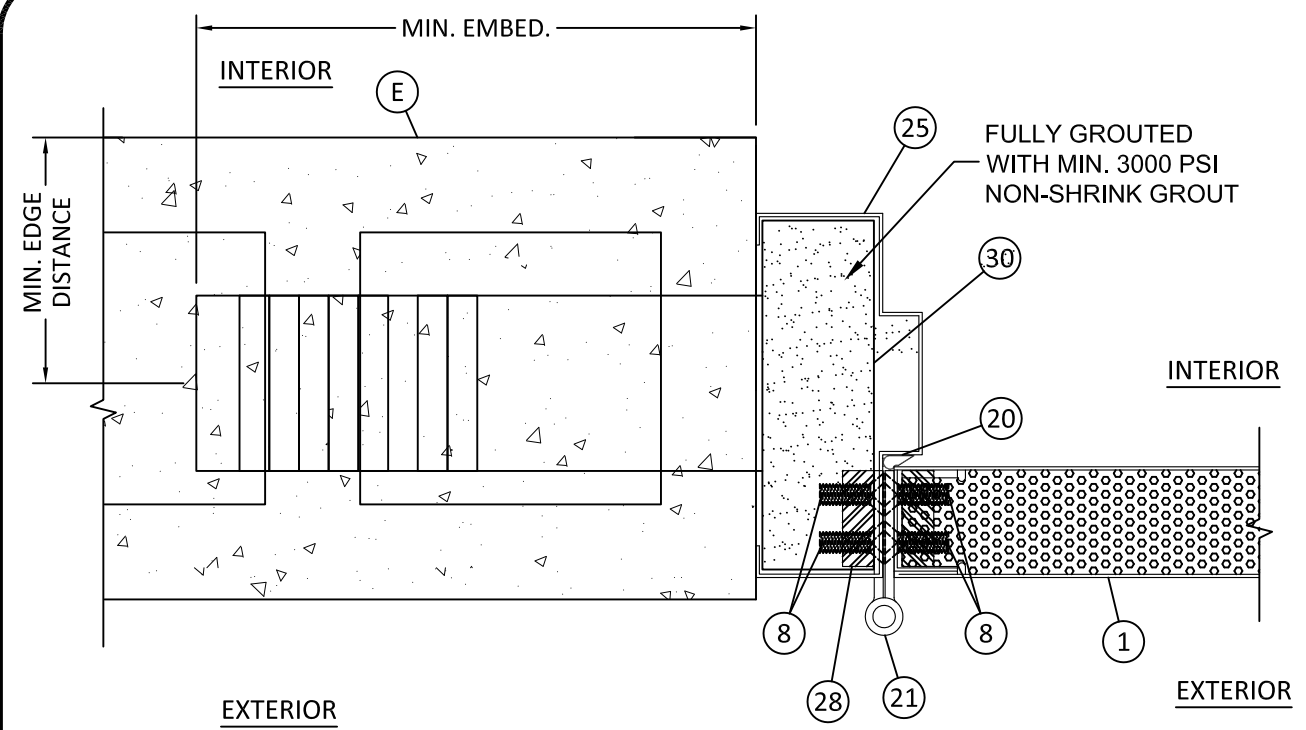
4

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

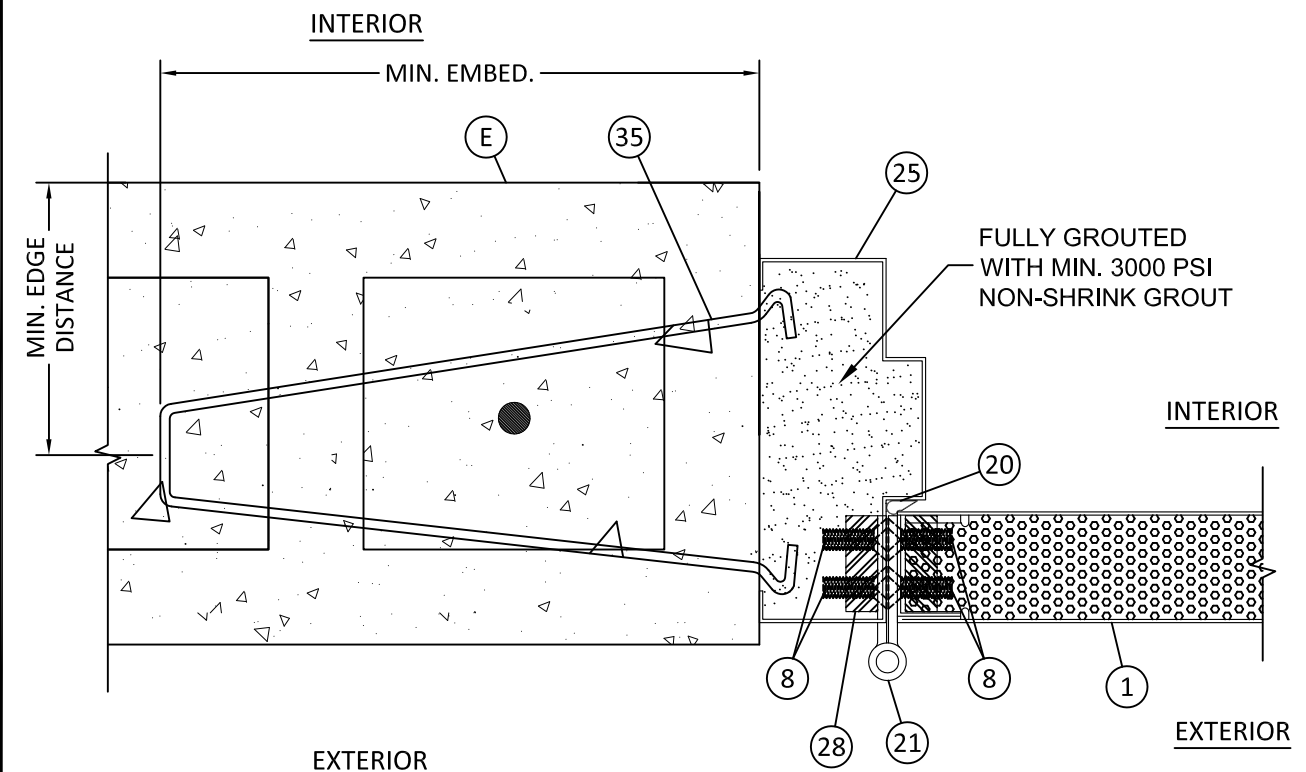


- TYPE H** STRAP ANCHOR (PF-2) (Fy=60 KSI) MIN.
30 DIRECTLY INTO fc'=3000 PSI GROUT FILLED CONCRETE BLOCK
LIMIT DESIGN PRESSURE TO +/- 65 PSF
 6" MIN. EMBEDMENT, 2 1/2 " MIN. EDGE DISTANCE, 8" MIN. SPACING
- TYPE I** STRAP ANCHOR (PS-241) (Fy=60 KSI) MIN.
31 DIRECTLY INTO fc'=3000 PSI GROUT FILLED CONCRETE BLOCK
LIMIT DESIGN PRESSURE TO +/- 65 PSF
 6" MIN. EMBEDMENT, 2 1/2 " MIN. EDGE DISTANCE, 8" MIN. SPACING
- TYPE J** WIRE ANCHOR (PF-2) (Fy=60KSI) MIN.
35 DIRECTLY INTO fc'=3000 PSI CONCRETE, 1-1/2" MIN. EMBED
 DIRECTLY INTO GROUT FILLED/HOLLOW CONCRETE BLOCK, 1-1/4" MIN. EMBED
LIMIT DESIGN PRESSURE TO +/- 65 PSF
 8 3/4 " MIN. EMBEDMENT, 1 5/8 " MIN. EDGE DISTANCE

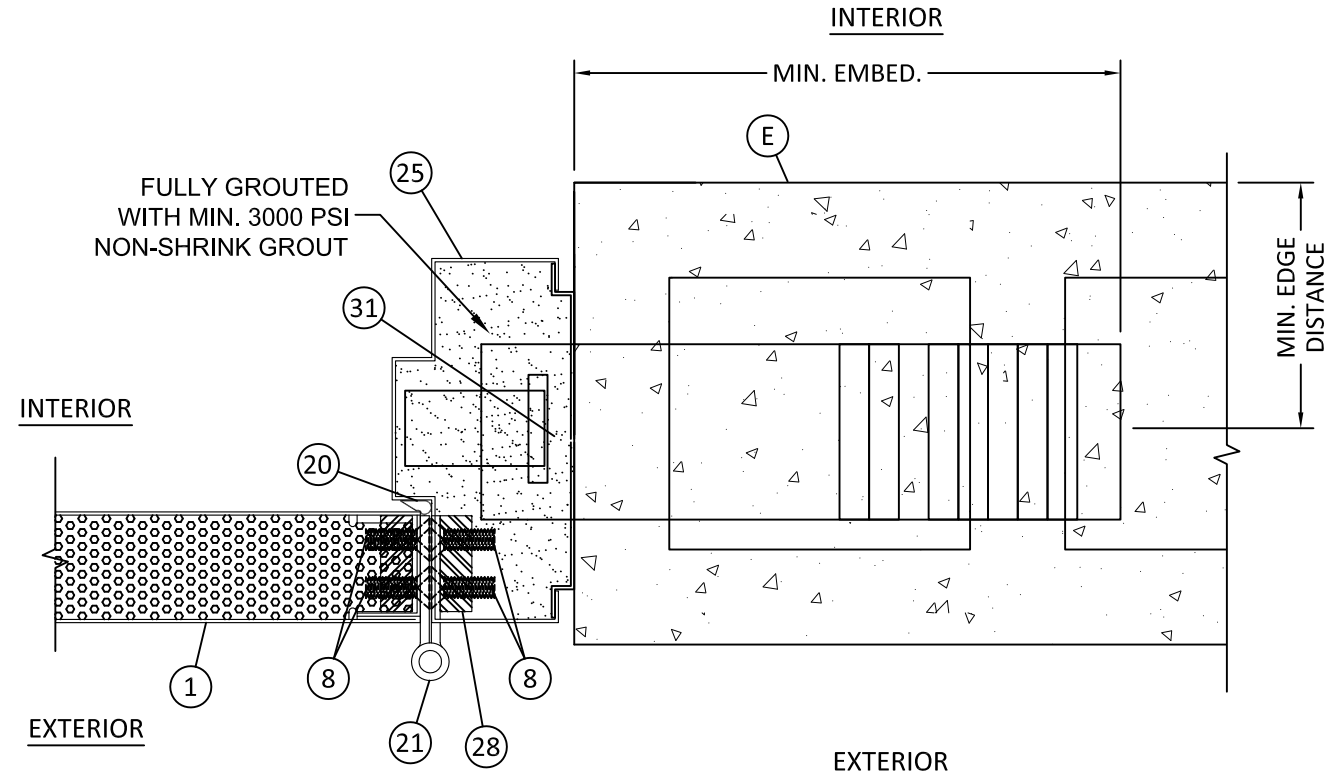
NOTE:
HEAD & JAMBS TO BE FULLY GOUTED WITH MIN. 3000 PSI NON-SHRINK GROUT



2 HORIZONTAL CROSS SECTION
4 STRAP ANCHOR (PF-2)



1 HORIZONTAL CROSS SECTION
4 WIRE ANCHOR



3 HORIZONTAL CROSS SECTION
4 STRAP ANCHOR (PS-241)

4/24/2023 11:48 AM
s:\projects\mesker mbm, llc\fb\23-0112 - fbc submittal - commercial steel doors revisions\dwg\15493\mdi001.dwg

TITLE: "N" SERIES COMMERCIAL
OUTSWINGING STEEL LOUVER DOOR
(HVHZ) (IMPACT)

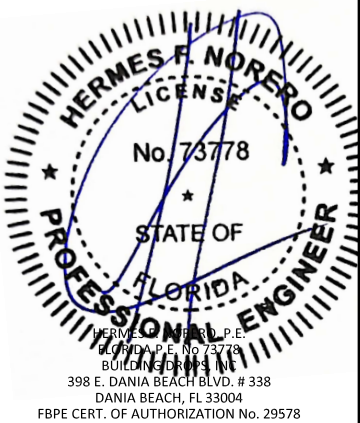
HORIZONTAL SECTIONS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com



REMARKS	BY	DATE
2020 FBC UPDATE	NUS	07/23/20
2023 NAME CHANGE	MG	03/06/23

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:

FL15493

DATE: **06.03.16**

DWG. BY: LS	CHK. BY: HFN
-----------------------	------------------------

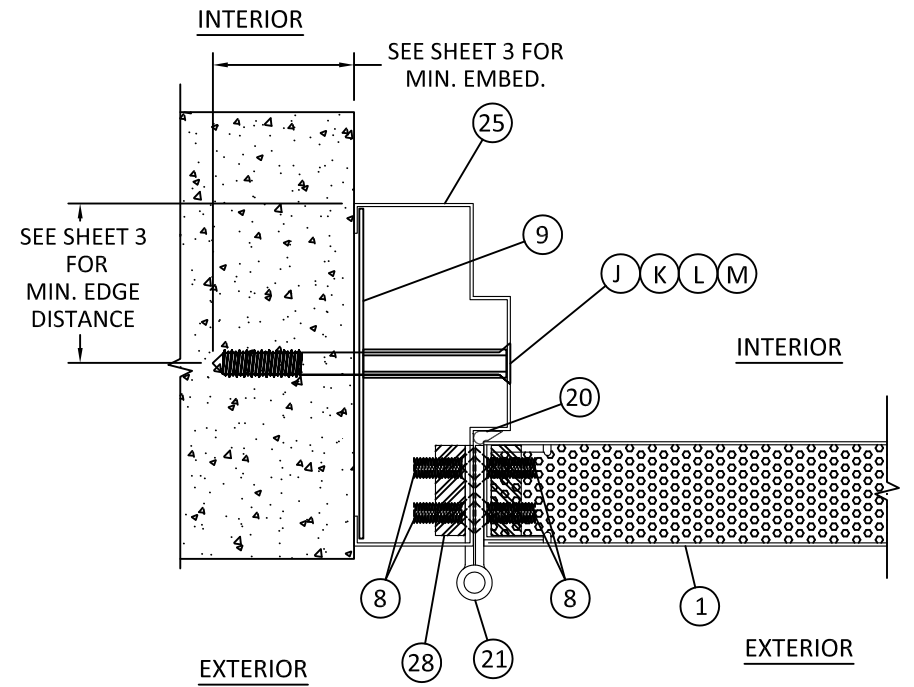
SCALE: **NTS**

DWG. #: **MDI001**

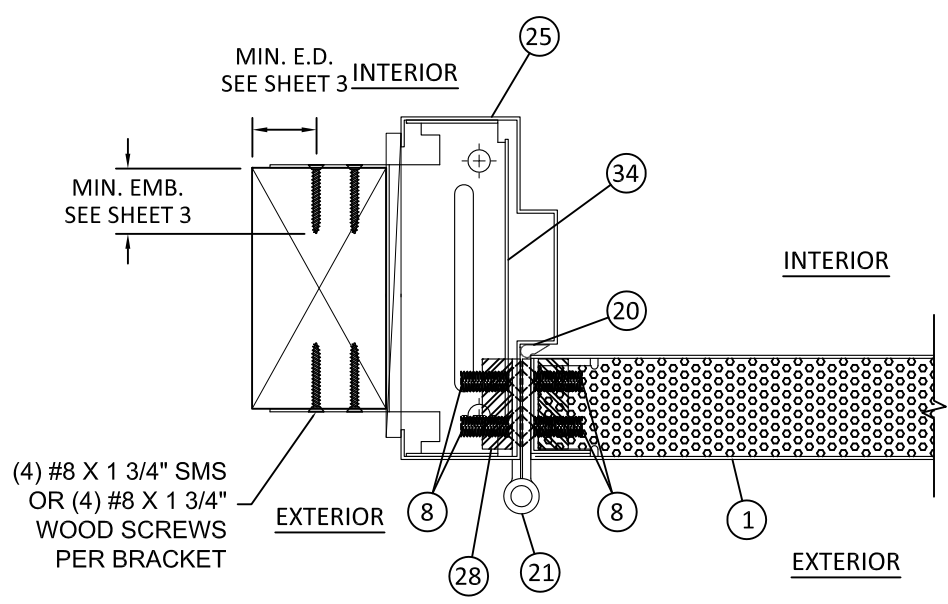
SHEET:

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

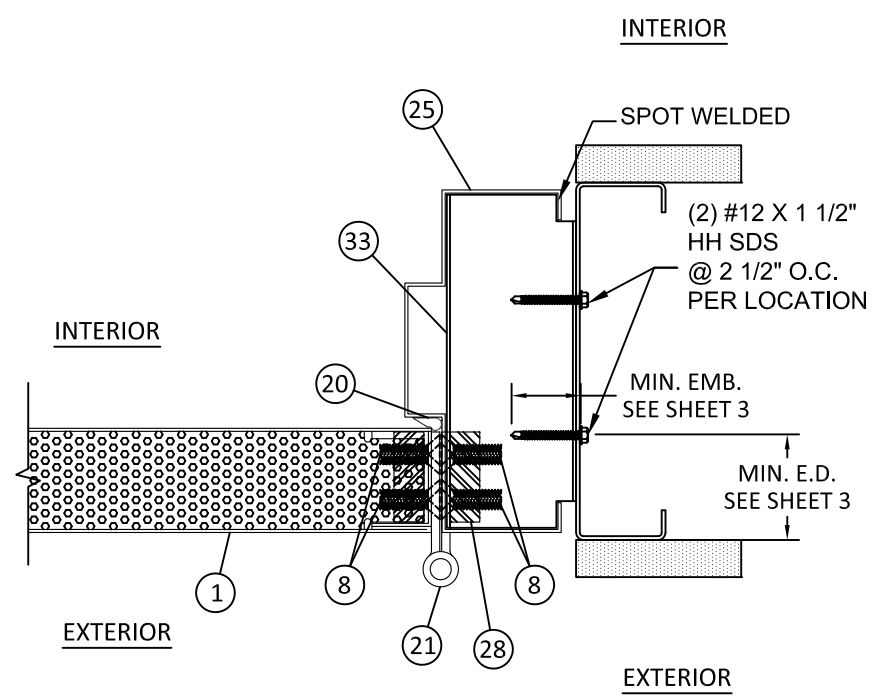
- TYPE K TUBE ANCHOR (PF-10)
SEE ELEVATIONS FOR ANCHOR BRACKET LAYOUT
SEE SHEET 3 FOR ANCHOR TYPES AND SPACING REQUIREMENTS
- TYPE L Z ANCHOR (PF-9) WITH 2 #12 X 1 1/2" HH SDS
SEE ELEVATIONS FOR ANCHOR BRACKET LAYOUT
LIMIT DESIGN PRESSURE TO +/- 65 PSF
THREE THREADS MIN. PENETRATION BEYOND STEEL
1/2" MIN. EDGE DISTANCE, 2 1/2" SPACING
- TYPE M WOOD STUD ANCHOR (F-24) WITH 4 #8 X 1 3/4" SMS OR
(4) #8 X 1 3/4" WOOD SCREWS
SEE ELEVATIONS FOR ANCHOR BRACKET LAYOUT
LIMIT DESIGN PRESSURE TO +/- 65 PSF
1 1/2" MIN. EMBEDMENT, 1/2" MIN. EDGE DISTANCE,
1" SPACING



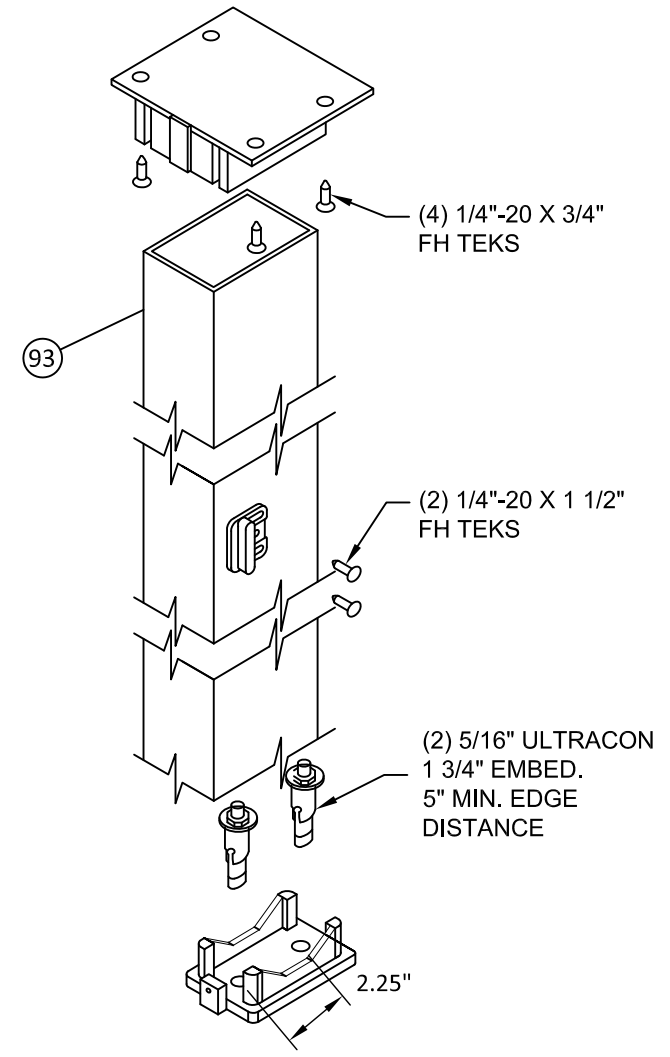
2 HORIZONTAL CROSS SECTION
5 TUBE ANCHOR



1 HORIZONTAL CROSS SECTION
5 WOOD STUD ANCHOR



3 HORIZONTAL CROSS SECTION
5 Z ANCHOR



**DESIGN HARDWARE SERIES
KRM REMOVABLE MULLION**

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

4/24/2023 11:48 AM
s:\projects\mesker mbm, llc\fb\23-0112 - fbc submittal - commercial steel doors revisions\dwgs\15493\mdi001.dwg

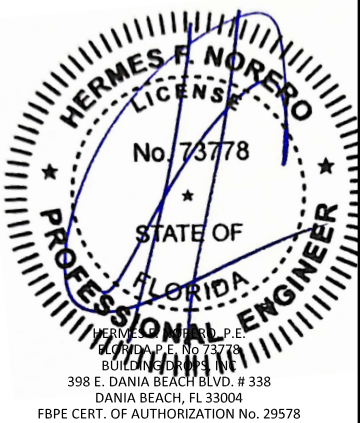
TITLE: "N" SERIES COMMERCIAL
OUTSWING STEEL LOUVER DOOR
(HVHZ) (IMPACT)
ANCHORING DETAILS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

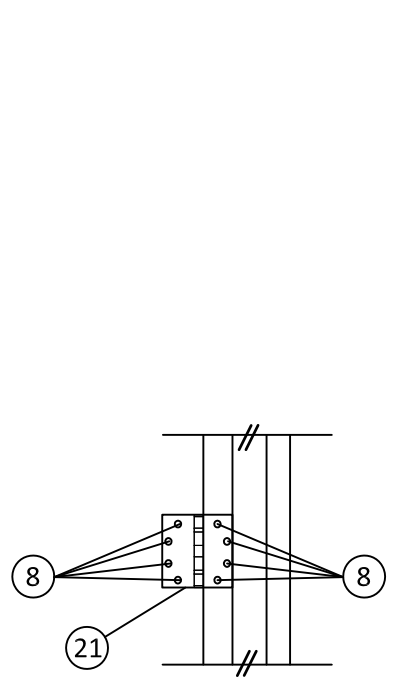


REMARKS	BY	DATE
2020 FBC UPDATE	NUS	07/23/20
2023 NAME CHANGE	MG	03/06/23

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.

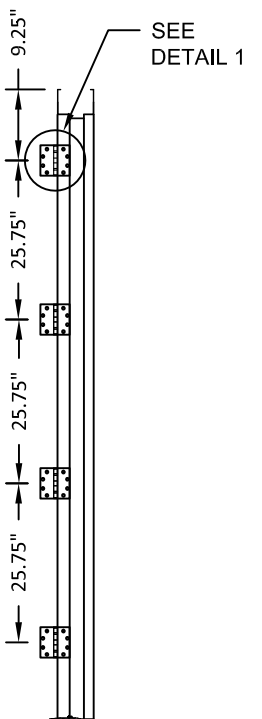


FL #:	FL15493
DATE:	06.03.16
DWG. BY:	LS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	MDI001
SHEET:	6

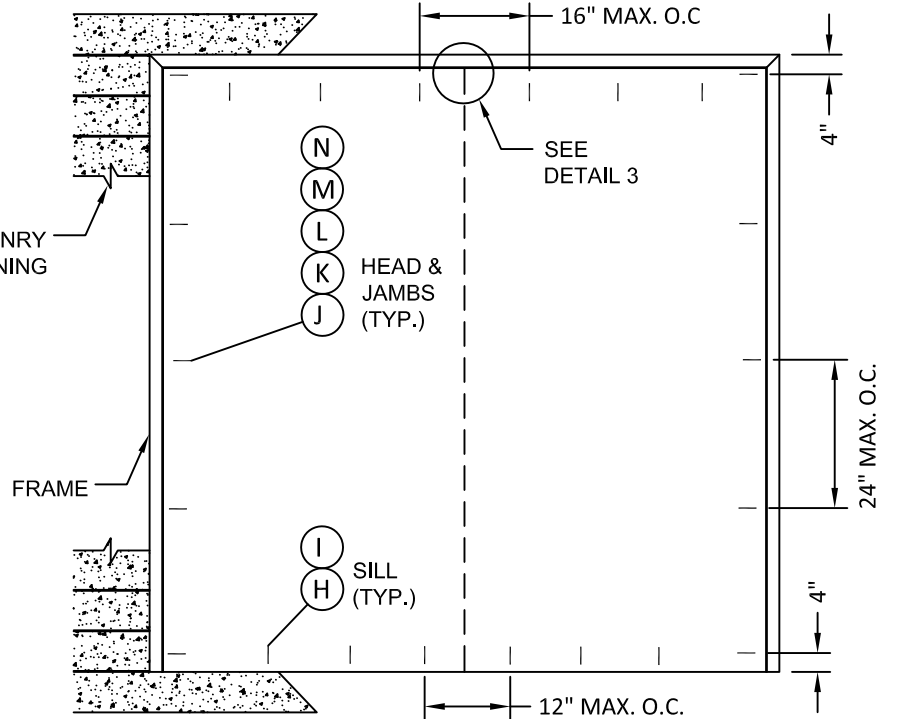
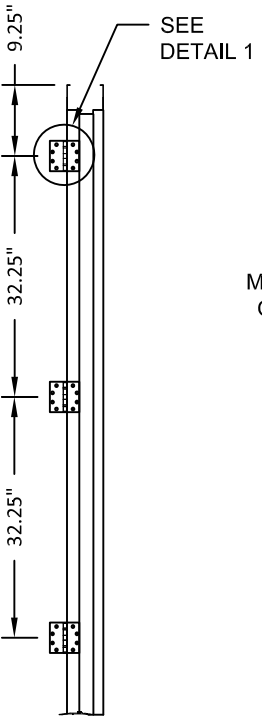


DETAIL 1

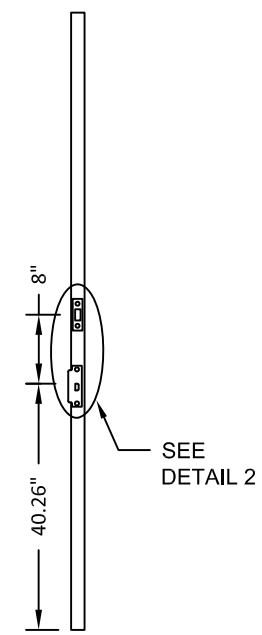
HINGE JAMB
4 HINGE OPTION
100" MAX. FRAME HEIGHT



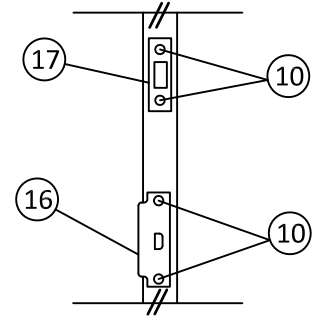
HINGE JAMB
3 HINGE OPTION
90" MAX. FRAME HEIGHT



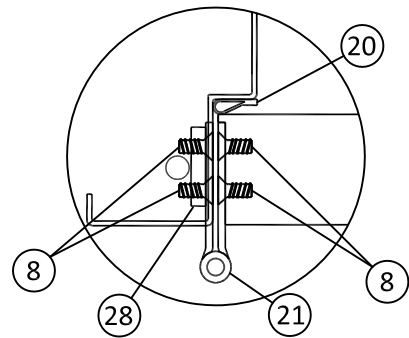
FRAME ANCHORING



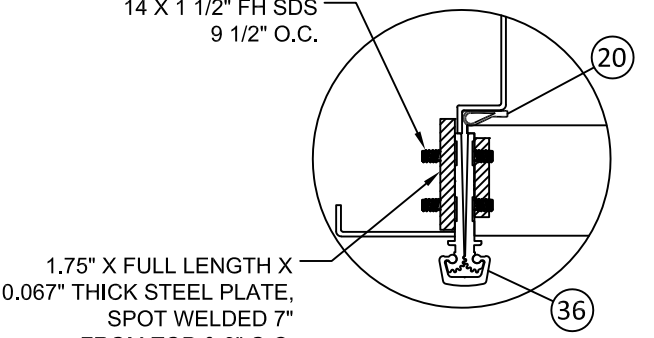
STRIKE JAMB



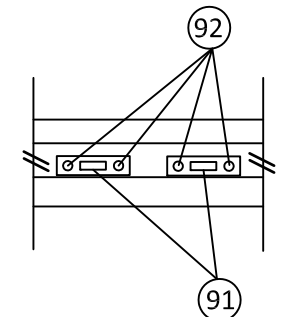
DETAIL 2



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 ALTERNATE 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.

4/24/2023 11:48 AM
s:\projects\mesker mbm, llc\fb\23-0112 - fbc submittal - commercial steel doors revisions\dwg\15493\mdi001.dwg

TITLE: "N" SERIES COMMERCIAL
OUTSWINGING STEEL LOUVER DOOR
(HVHZ) (IMPACT)

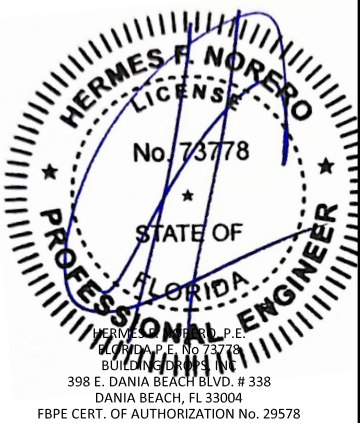
ANCHORING DETAILS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

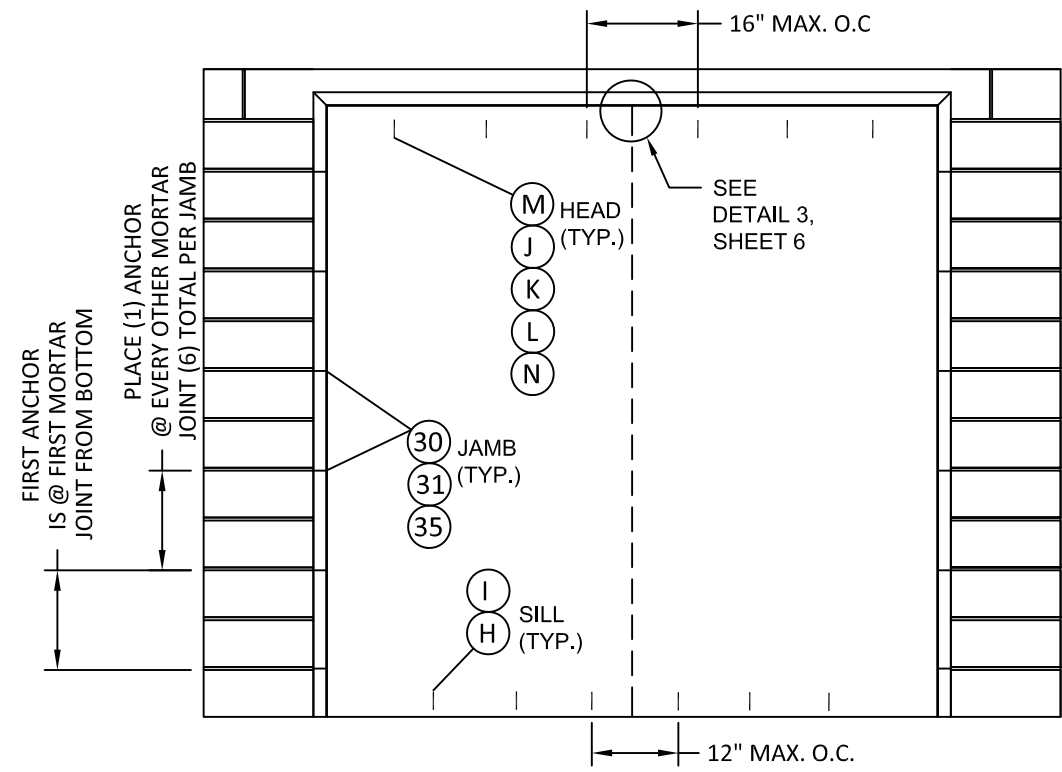


REMARKS	BY	DATE
2020 FBC UPDATE	NUS	07/23/20
2023 NAME CHANGE	MG	03/06/23

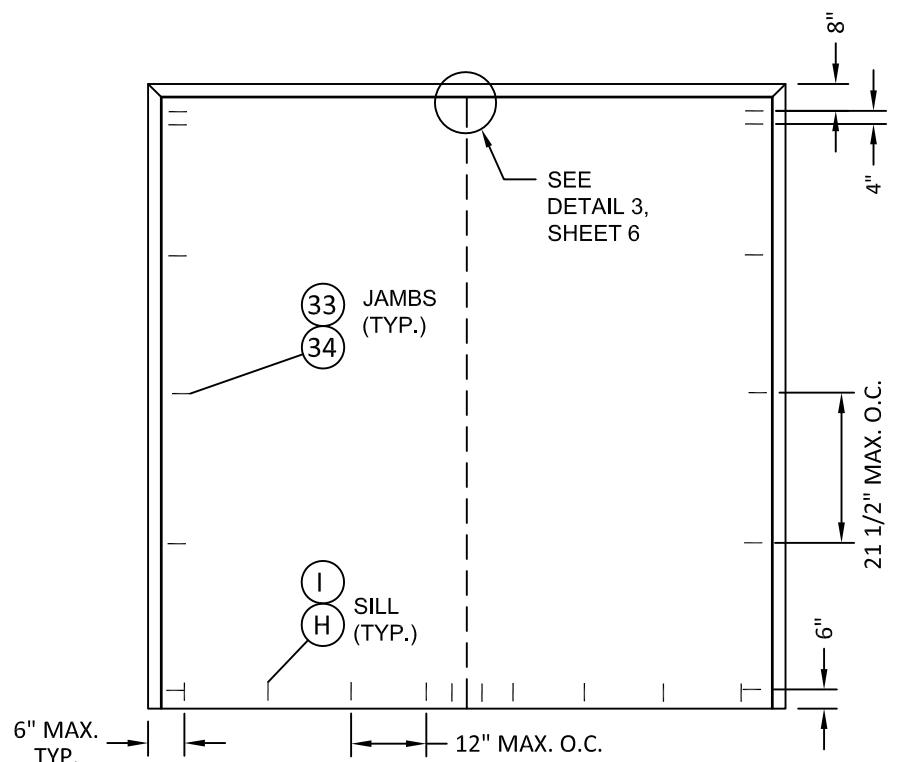
THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:	FL15493
DATE:	06.03.16
DWG. BY:	LS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	MDI001
SHEET:	7



FRAME ANCHORING
T STRAP & WIRE ANCHOR



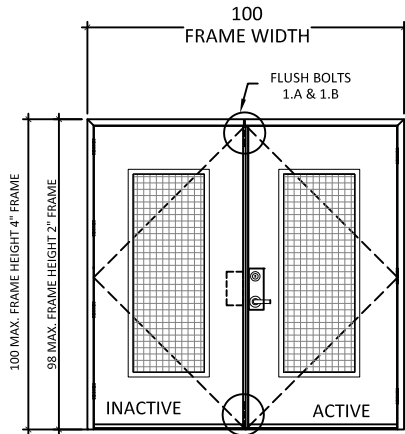
FRAME ANCHORING
Z ANCHOR & WOOD STUD ANCHOR

4/24/2023 11:48 AM s:\projects\mesker mbm, llc\fb-23-0112 - fbc submittal - commercial steel doors revisions\dwg\15493\mdi001.dwg

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) 1/4" X 3/8" FH MS

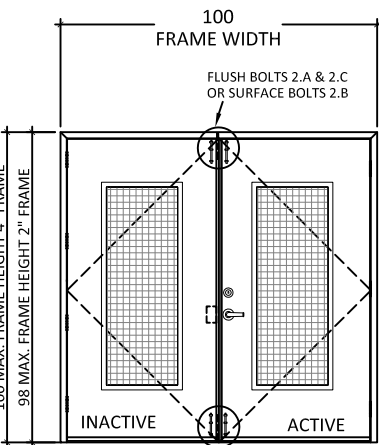
OPTION 1.B (+/- 60 PSF, 40" X 88")

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

*SEE SURFACE / FLUSH BOLT ALLOWABLE DESIGN PRESSURES BASED ON CONFIGURATION, SHEET 1

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, 100" X 100") OR (+/- 37.5 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, WITH DEADBOLT D-1S OR D2-S. DESIGN HARDWARE SURFACE BOLTS FOR +/- 75 PSF

INACTIVE LEAF:

DESIGN HARDWARE IVES SB453 OR ROCKWOOD 580-8 SURFACE BOLT

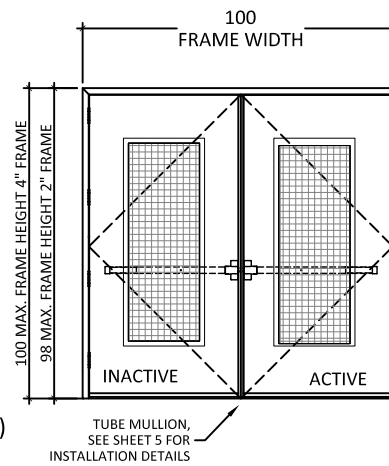
OPTION 2.C (+/- 55 PSF, 40" X 88")

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

*SEE SURFACE / FLUSH BOLT ALLOWABLE DESIGN PRESSURES BASED ON CONFIGURATION, SHEET 1

NOTE:
CONTINUOUS HINGE OR BB5 HINGE ACCEPTABLE ON ALL OPTIONS. LIMIT TO +/- 65 PSF WITH USE OF CONTINUOUS HINGE. FOR PANEL HINGE OPTIONS, SEE SHEET 6.



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.

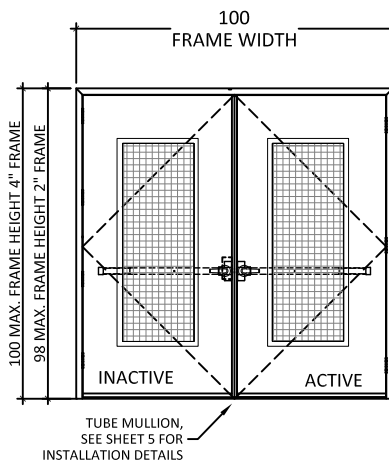
OPTION 3.C (+/- 55 PSF, 52" X 88")

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.

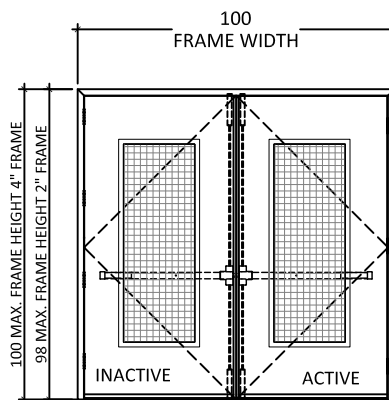
WITH 2" X 3" X 1/8" THICK STEEL VERTICAL TUBE MULLION, FY = 36 KSI MIN.

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 MBM, LLC
3440 Standwood Blvd.
Huntsville, AL 35811
PH: (256) 851-6670

TITLE: "N" SERIES COMMERCIAL OUTSWING STEEL LOUVER DOOR (HVHZ) (IMPACT)
HARDWARE OPTIONS
PREPARED BY: BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
2020 FBC UPDATE	NUS	07/23/20
2023 NAME CHANGE	MG	03/06/23

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:	FL15493
DATE:	06.03.16
DWG. BY:	LS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	MDI001
SHEET:	8 OF 10

TITLE: "N" SERIES COMMERCIAL
OUTSWINGING STEEL LOUVER DOOR
(HVHZ) (IMPACT)

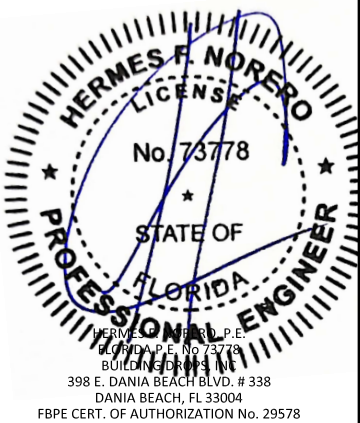
COMPONENTS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com



REMARKS	BY	DATE
2020 FBC UPDATE	NUS	07/23/20
2023 NAME CHANGE	MG	03/06/23

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:
FL15493

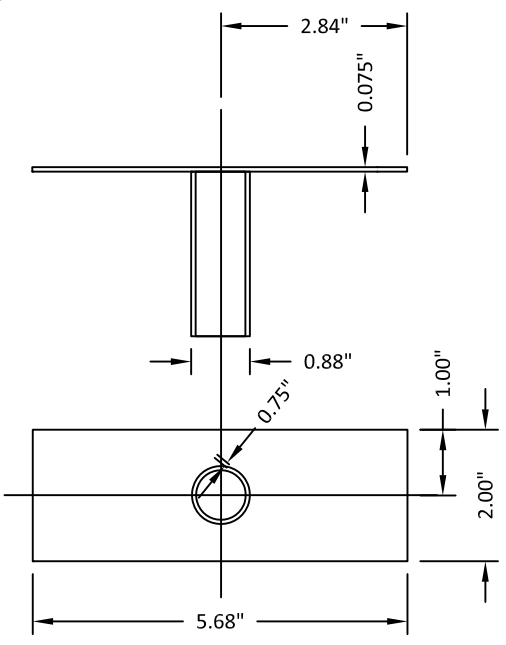
DATE: **06.03.16**

DWG. BY: **LS** CHK. BY: **HFN**

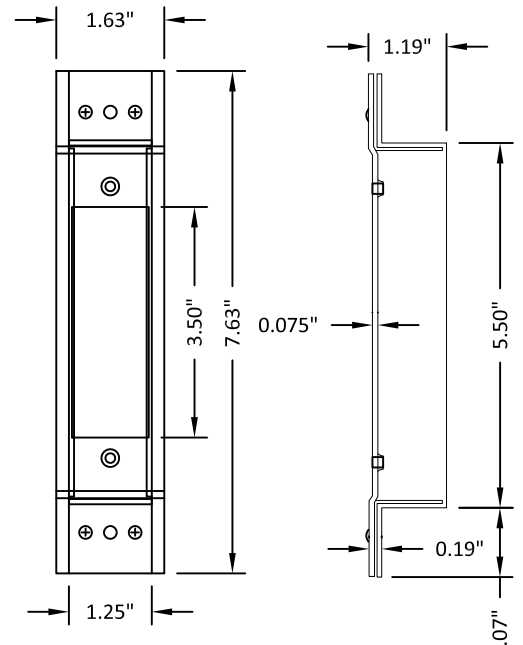
SCALE: **NTS**

DWG. #: **MDI001**

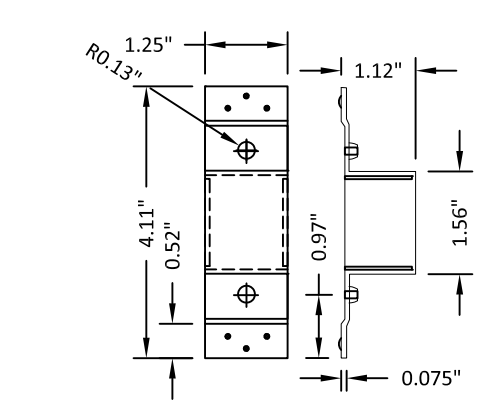
SHEET:
9



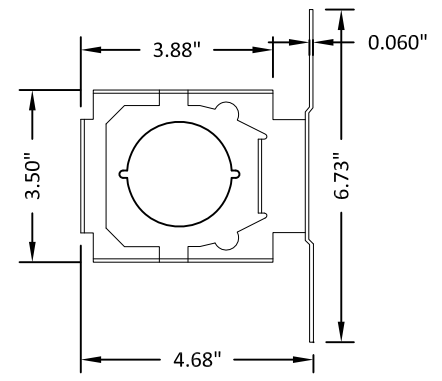
9 TUBE ANCHOR



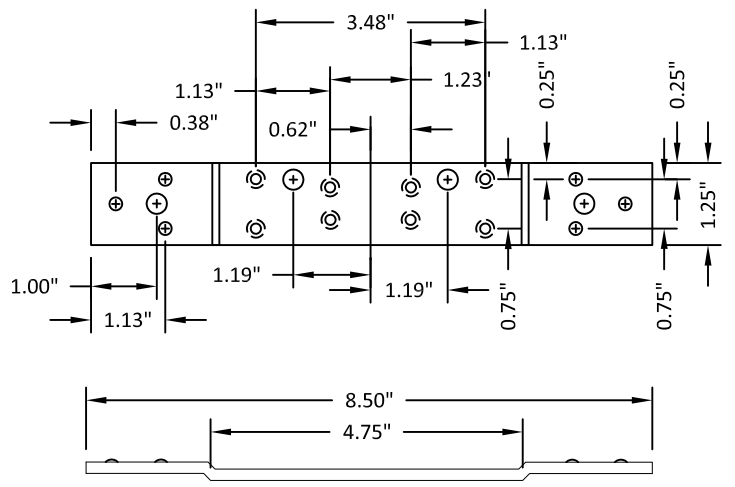
27 LATCH STRIKE REINFORCEMENT



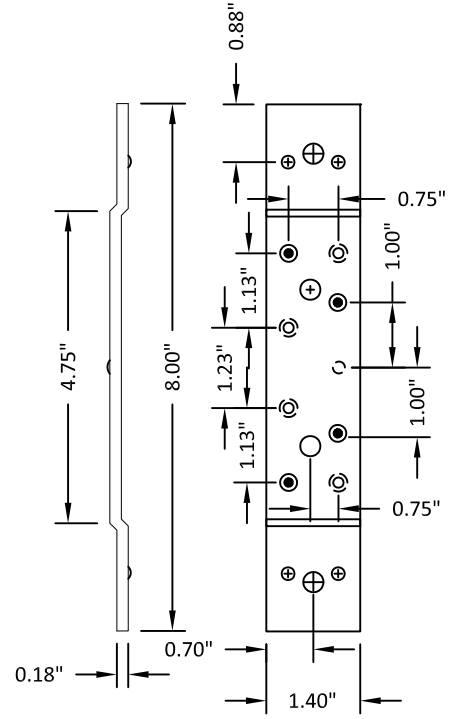
19 DEADBOLT STRIKE REINFORCEMENT



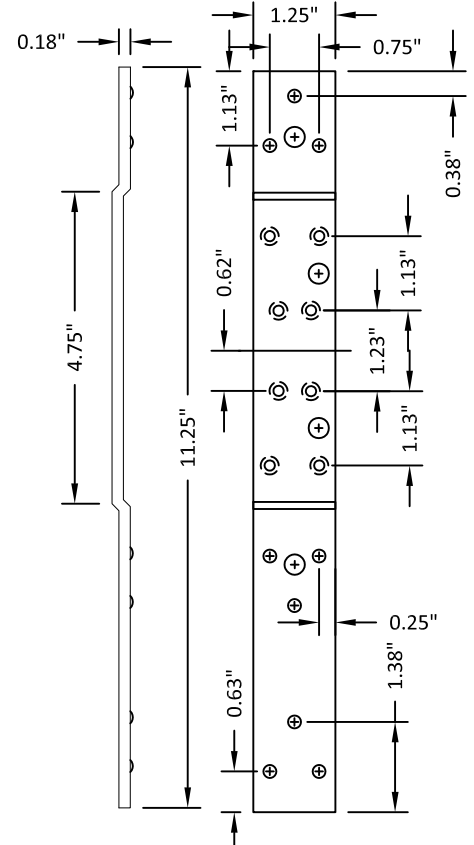
5 LOCK BOX REINFORCEMENT



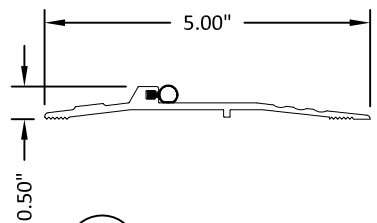
28 FRAME HINGE REINFORCEMENT



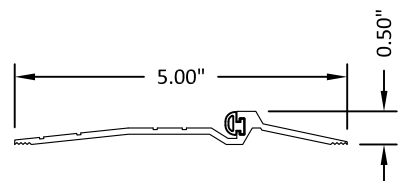
23 STANDARD (SHORT) DOOR HINGE REINFORCEMENT MIDDLE AND BOTTOM HINGE



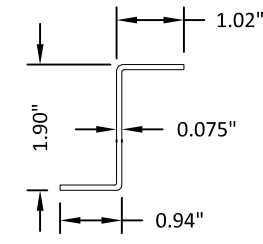
22 STANDARD (LONG) DOOR HINGE REINFORCEMENT TOP HINGE



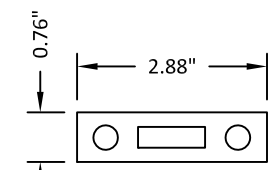
40 THRESHOLD NPG #896V



41 THRESHOLD PEMKO 2005_V



87 Z ASTRAGAL



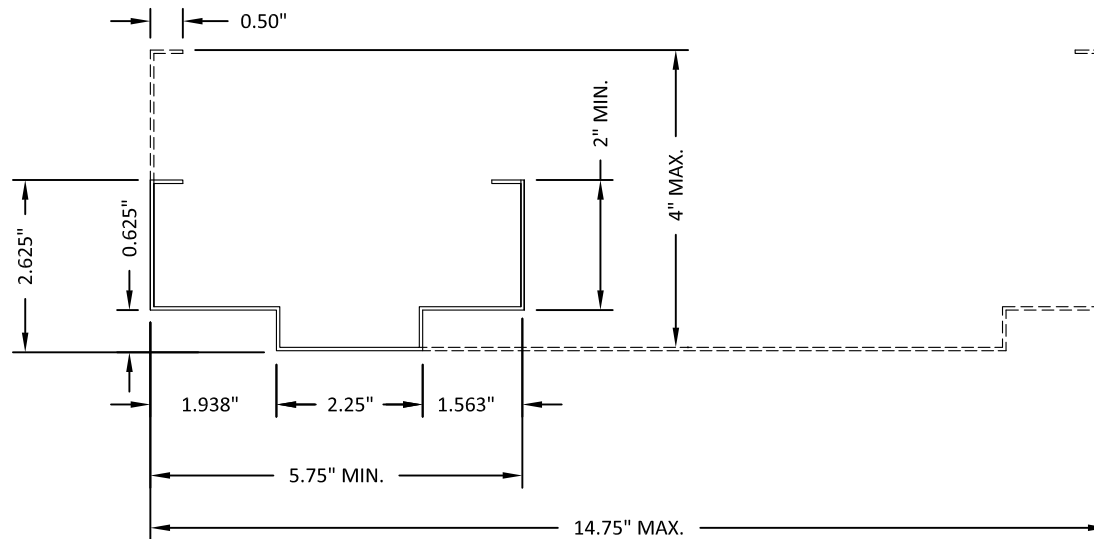
91 SURFACE BOLT PLATE

4/24/2023 11:49 AM
s:\projects\mesker mbm, llc\fb-23-0112 - fbc submittal - commercial steel doors revisions\dwgs\15493\mdi001.dwg

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" LOK BOLT BY POWERS FASTENERS	STEEL
M	3/8" POWER BOLT BY POWERS FASTENERS	STEEL
N	5/16" SMS OR MACHINE BOLT (MIN. GRADE 5 CRS)	STEEL
1	"N" STEEL DOOR PANEL	-
2	DOOR SKIN - 16GA (0.053" THK. STEEL, Fy=40,317 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
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
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
82	SURFACE BOLT (IVES SB453 OR ROCKWOOD 580-8)	STEEL
83	1/4" X 2-1/2" PPH MS	STEEL
87	Z ASTRAGAL (MESKER)	STEEL
88	SURFACE BOLT PLATE	STEEL
89	#8 X 1-1/4" PPH SELF TAPPER	STEEL
90	LOUVER (MODEL 1500-A-HRC BY AIR LOUVERS) 1500A_J2464	STEEL
91	SURFACE BOLT PLATE	STEEL
92	#8 X 1-1/4" PPH SELF TAPPER	STEEL
93	KRM REMOVABLE MULLION	STEEL



25 HOLLOW METAL FRAME



MESKER MBM, LLC
3440 Standwood Blvd.
Huntsville, AL 35811
PH: (256) 851-6670

TITLE: "N" SERIES COMMERCIAL
OUTSWING STEEL LOUVER DOOR
(HVHZ) (IMPACT)

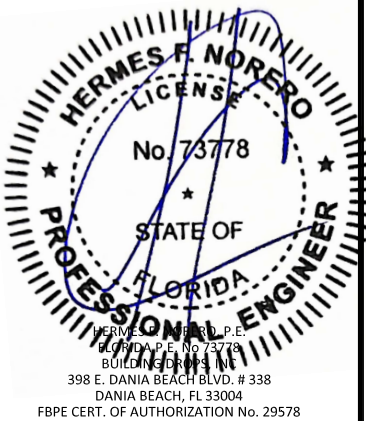
BILL OF MATERIALS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com



REMARKS	BY	DATE
2020 FBC UPDATE	NUS	07/23/20
2023 NAME CHANGE	MG	03/06/23

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:	FL15493
DATE:	06.03.16
DWG. BY:	LS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	MDI001
SHEET:	10

4/24/2023 11:49 AM s:\projects\mesker mbm, llc\fb-23-0112 - fbc submittal - commercial steel doors revisions\dwg\15493\md001.dwg