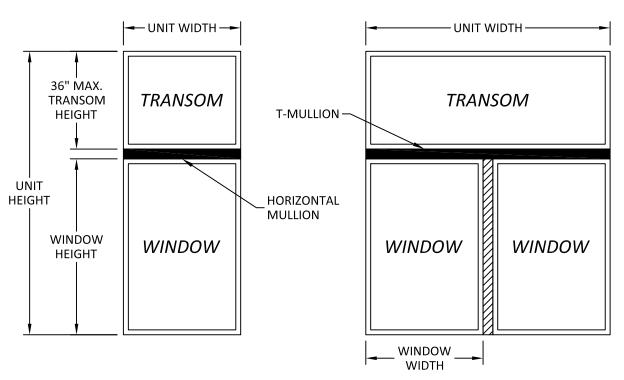
# SHOWCASE CUSTOM WINDOWS AND DOORS

## HORIZONTAL & T-NON-REINFORCED MULLION (IMPACT)



				HODIZOI	NITAL NAL	HILIONIC	A D A CITY					
HORIZONTAL MULLION CAPACITY HEIGHT (IN.)  HORIZONTAL MULLION CAPACITY UNIT WIDTH (IN.)												
HEIGH	UNIT WIDTH (IN.)											
WINDOW	TRANSOM	18.0	21.0	24.0	27.0	30.0	36.0	39.0	42.0	45.0	48.0	53.0
24.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	69.3
30.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	64.8
36.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	61.7
42.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	59.7
48.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	69.7	58.6
54.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	69.7	58.4
60.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	69.7	58.4
63.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	69.7	58.4
66.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	69.7	58.4
72.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	69.7	58.4
78.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	69.7	58.4
84.0	36.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	69.7	58.4

T-MULLION CAPACITY													
HEIGH	UNIT WIDTH (IN.)												
WINDOW	TRANSOM	36.0	42.0	48.0	54.0	60.0	66.0	72.0	78.0	84.0	90.0	96.0	106.0
24.0	36.0	70.0	70.0	70.0	67.5	58.4	51.4	46.0	41.5	37.9	32.6	26.6	19.5
30.0	36.0	70.0	70.0	70.0	63.0	54.3	47.7	42.6	38.4	35.0	29.6	24.1	17.7
36.0	36.0	70.0	70.0	69.7	59.1	51.1	44.9	40.0	36.0	32.7	27.1	22.1	16.2
42.0	36.0	70.0	70.0	65.5	55.7	48.3	42.5	37.9	34.1	31.0	25.1	20.5	15.0
48.0	36.0	70.0	70.0	61.7	52.6	45.7	40.3	36.0	32.5	29.2	23.4	19.1	14.0
54.0	36.0	70.0	70.0	58.4	49.9	43.4	38.4	34.3	30.9	27.3	22.0	17.9	13.1
60.0	36.0	70.0	66.3	55.4	47.4	41.3	36.6	32.7	29.6	25.7	20.7	16.9	12.4
63.0	36.0	70.0	64.6	54.0	46.3	40.4	35.7	32.0	28.9	24.9	20.1	16.4	12.0
66.0	36.0	70.0	63.0	52.7	45.2	39.5	34.9	31.3	28.3	24.2	19.5	15.9	11.7
72.0	36.0	70.0	59.9	50.2	43.1	37.7	33.5	30.0	27.1	22.9	18.5	15.1	11.1
78.0	36.0	70.0	57.1	48.0	41.3	36.2	32.1	28.8	26.1	21.8	17.6	14.4	10.5
84.0	36.0	67.0	54.6	46.0	39.6	34.7	30.8	27.7	25.1	20.7	16.7	13.7	10.0

#### DESIGN PRESSURE TABLE INSTRUCTION:

- 1. DEFINE REQUIRED DESIGN LOAD PER INTERNATIONAL BUILDING CODE OR INTERNATIONAL RESIDENTIAL CODE.
- 2. DETERMINE UNIT HEIGHT AND MULLION SPAN BASED ON PRODUCT TO BE INSTALLED.
- 3. LOCATE MULLION SPAN (UNIT WIDTH) AND UNIT HEIGHT. AT THE INTERSECTION OF ROW AND COLUMN CONTAINING THE MULLION SPAN AND UNIT HEIGHT RESPECTIVELY IS THE MULLION RATING FOR PRODUCT IN STEP 2.

  MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.

	TABLE OF CONTENTS						
SHEET	SHEET DESCRIPTION						
1	ELEVATION, NOTES AND DESIGN PRESSURE CHART						
2	INSTALLATION DETAILS AND BILL OF MATERIALS						
3	INSTALLATION DETAILS						
4	COMPONENTS						

#### NOTES:

- 1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE (IBC) AND 2018 INTERNATIONAL RESIDENTIAL CODE (IRC).
- WOOD FRAMING AND MASONRY OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING AND MASONRY OPENING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
- 4. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS ZONE 3 OR LESS.
- 5. APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS ZONE 4.
- DESIGN PRESSURE AND INSTALLATION DETAILS SHOWN IN THIS DOCUMENT APPLY ONLY TO THE MULLION. WINDOWS MUST BE APPROVED UNDER SEPARATE APPROVAL.
- 7. SINGLE UNITS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING.
- 8. DESIGN PRESSURE OF MULLED UNIT SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW UNIT.
- 9. FOR USE WITH APPLICABLE SHOWCASE PRODUCTS.



12613 CITYPARK DRIVE, SUITE 100 MISSOURI CITY, TX 77489 PH: (713) 926-8500

-NON-REINFORCED MULLION (IMPACT) ELEVATION, NOTES AND DESIGN PRESSURE CHART

PRESSURE CHA
PREPARED BY:
BUILDING I
338 E. DANIN BEA

REMARKS BY DATE

A. CHANGE OF P.E. LS 12.10.15

B. REV. ANCHOR & DP 70 MS 05.06.16

C. RE-EVALUATION MS 12.21.21

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



HERMES F. NORERO, P.E. TEXAS P.E. No 118471 BUILDING DROPS, INC 398 E. DANIA BEACH BLVD. # 338 DANIA BEACH, FL 33004 TBPE FIRM No. 13734

DATE: 03.12.14

DWG. BY:

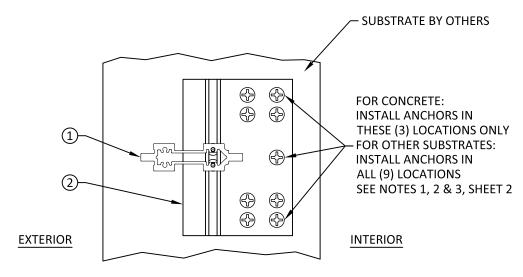
CHK. BY:
HFN
NTS

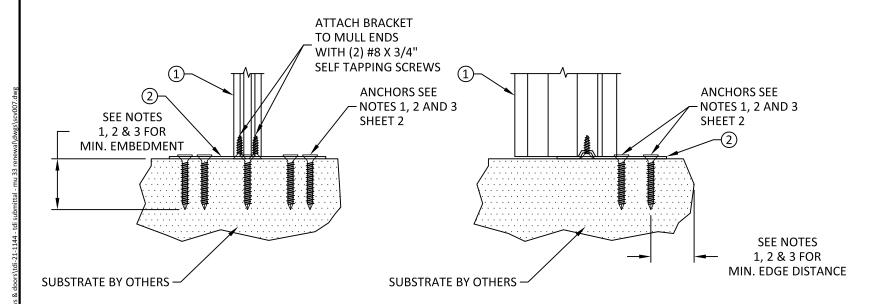
SCALE: NTS
DWG. #: SCV007

SHEET:



OF 4





**INSTALLATION DETAILS** SILL. HEAD AND JAMBS TYP.

#### **ANCHOR NOTES:**

- 1. FOR ANCHORING MULLION BRACKET OR MULL CLIP INTO MASONRY/CONCRETE USE 3/16" ITW TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2 5/8" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
- 2. FOR ANCHORING MULLION BRACKET OR MULL CLIP INTO WOOD FRAMING OR 2X BUCK USE #10 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 3/4" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
- 3. FOR ANCHORING MULLION BRACKET OR MULL CLIP INTO METAL FRAMING USE #10 TEK SELF TAPPING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A MINIMUM EMBEDMENT OF THREE THREADS PAST SUBSTRATE WITH 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
- 4. FOR WINDOW UNIT ANCHORING TO VERTICAL MULLION SEE INDIVIDUAL WINDOW APPROVAL INSTALLATION INSTRUCTIONS.
- 5. FOR WINDOW UNIT ANCHORING SCHEDULE TO SUBSTRATE REFER TO INDIVIDUAL WINDOW APPROVAL INSTALLATION INSTRUCTIONS.
- 6. ALL FASTENERS TO BE CORROSION RESISTANT.
- 7. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
  - A. WOOD MINIMUM SPECIFIC GRAVITY OF G = 0.42
  - CONCRETE MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
  - MASONRY STRENGTH CONFORMANCE TO ASTM C-90.
  - STEEL MIN. 16 GA. TENSILE YIELD STRENGTH OF 33 KSI
  - ALUMINUM MIN. 0.125" THICK, 6063-T5 (f'y=16000 PSI)

12613 CITYPARK DRIVE, SUITE 100 MISSOURI CITY, TX 77489 PH: (713) 926-8500

DROPS, EACH BLVD., STE E: HORIZONTAL & T
-NON-REINFORCED MULL
(IMPACT)
INSTALLATION DETAILS A
BILL OF MATERIALS BUILDING I

& T MULLION

REMARKS DATE A. CHANGE OF P.E. LS 12.10.1 3. REV. ANCHOR & DP 70 MS 05.06.1 C. RE-EVALUATION MS 12.21.2

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



HERMES F. NORERO, P.E. TEXAS P.E. No 118471 BUILDING DROPS, INC 398 E. DANIA BEACH BLVD. # 338 DANIA BEACH, FL 33004 TBPE FIRM No. 13734

03.12.14 DATE:

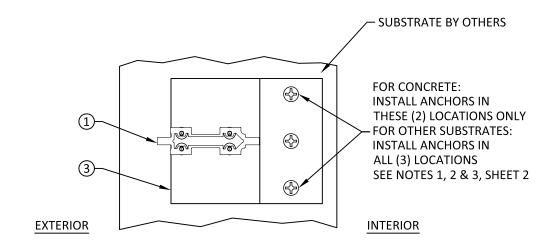
DWG. BY: SSM CHK. BY: HFN

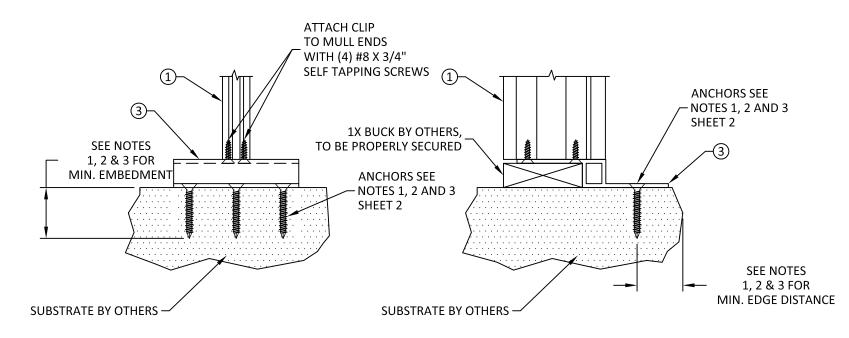
NTS SCALE: **SCV007** DWG. #:

SHEET:

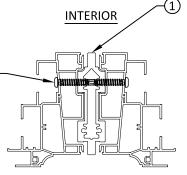
OF 4

STEEL MULLION BRACKET 10203000





#8 PH SCREW MIN. 3 THREADS PENETRATION, 4" FROM CORNERS, 12" MAX. O.C. AT EACH SIDE, 1/2" OFFSET



**EXTERIOR** 

12613 CITYPARK DRIVE, SUITE 100 MISSOURI CITY, TX 77489 PH: (713) 926-8500

:: HORIZONTAL & T -NON-REINFORCED MULLION (IMPACT) BUILDING DROPS, II 398 E. DANIA BEACH BLVD., STE. :B DANIA BEACH, 123004 PH: (954)399-8478 FAX: (954)7444738 INSTALLATION DETAILS

REMARKS BY DATE A. CHANGE OF P.E. LS 12.10.15 B. REV. ANCHOR & DP 70 MS 05.06.10 C. RE-EVALUATION MS 12.21.21

AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFI 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.



HERMES F. NORERO, P.E. TEXAS P.E. No 118471 BUILDING DROPS, INC 398 E. DANIA BEACH BLVD. # 338 DANIA BEACH, FL 33004 TBPE FIRM No. 13734

03.12.14 DATE:

DWG. BY: SSM CHK. BY: HFN

SCALE: DWG. #:

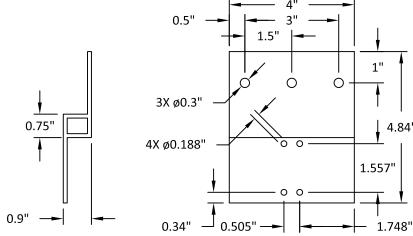
NTS SCV007

SHEET:

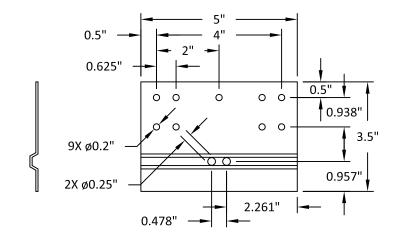
OF 4

**MULLION CLIP 10300093** INSTALLATION DETAILS SILL, HEAD AND JAMBS TYP.

### 10300085 ALUMINUM VERTICAL MULLION ALUMINUM 6005-T5 0.075" THICK MINIMUM



10300093 MULLION CLIP



10203000 STEEL MULLION BRACKET 15 GA. GALVANIZED STEEL



12613 CITYPARK DRIVE, SUITE 100 MISSOURI CITY, TX 77489 PH: (713) 926-8500

BUILDING DROPS, INC. 398 E. DANIA BEACH BLVD., STE. 338 DANIA BEACH, FL. 33004 PH: (954)399-8478 FAX: (954)3444738 LE: HORIZONTAL & T -NON-REINFORCED MULLION (IMPACT) COMPONENTS

REMARKS ВҮ DATE A. CHANGE OF P.E. LS 12.10.15 B. REV. ANCHOR & DP 70 MS 05.06.10 C. RE-EVALUATION MS 12.21.2

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENER!
AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFI
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.



HERMES F. NORERO, P.E. TEXAS P.E. NO 118471 BUILDING DROPS, INC 398 E. DANIA BEACH BLVD. # 338 DANIA BEACH, F. 133004 TBPE FIRM No. 13734

03.12.14 DATE:

DWG. BY: SSM CHK. BY: HFN

NTS SCALE: SCV007 DWG. #:

SHEET:



OF 4

4.84"

ALUMINUM 6005-T5 0.125" THICKNESS