

BERTHA ASTROGUARD

WIND ABATEMENT SYSTEM

GENERAL NOTES

1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SIXTH EDITION (2017) FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE PER TAS 201, 202 AND 203 TESTING STANDARDS. THE SYSTEM IS DESIGNED AS LARGE MISSILE RESISTANT.
2. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
3. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7 AND THE FLORIDA BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
4. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR. PANELS HAVE BEEN DESIGN WITH A TOTAL 2" PRE-LOAD SLACK.
5. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
6. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
7. THIS SYSTEM IS INTENDED FOR USE ONLY DURING WIND STORM EVENTS. WHEN NOT IN USE, PRODUCT SHALL BE PROPERLY STORED AWAY FROM PROLONGED EXPOSURE TO DIRECT SUNLIGHT OR OTHER WEATHERING CONDITIONS.
8. ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6, U.N.O.
9. UNLESS OTHERWISE NOTED HEREIN, ALL SCREWS SHALL BE 304 OR 316 STAINLESS STEEL OR CORROSION RESISTANT COATED SAE GR. 5 CARBON STEEL.
10. MAXIMUM PANEL SPAN: 18'-2"
11. MAXIMUM ALLOWABLE DESIGN PRESSURE: ±60 PSF
12. PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL CONTAINING THE FOLLOWING:
 EASTERN METAL SUPPLY
 4268 WESTROADS DRIVE
 WEST PALM BEACH, FL 33407
 TAS 201, 202, 203
 FLORIDA PRODUCT APPROVAL NUMBER
13. PANELS MAY BE MOUNTED VERTICALLY OR HORIZONTALLY AS APPLICABLE.
14. DISSIMILAR MATERIALS SHALL BE INSULATED FROM TO PREVENT CORROSION AND ELECTROLYSIS AS NECESSARY.
15. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

RETENTION CLIP END CONNECTOR:

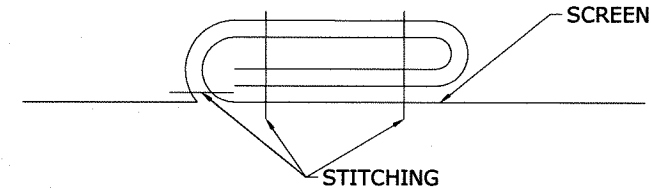
RHODIA ENGINEERING PLASTICS
 POLYAMIDE 66

FABRIC SPECIFICATION:

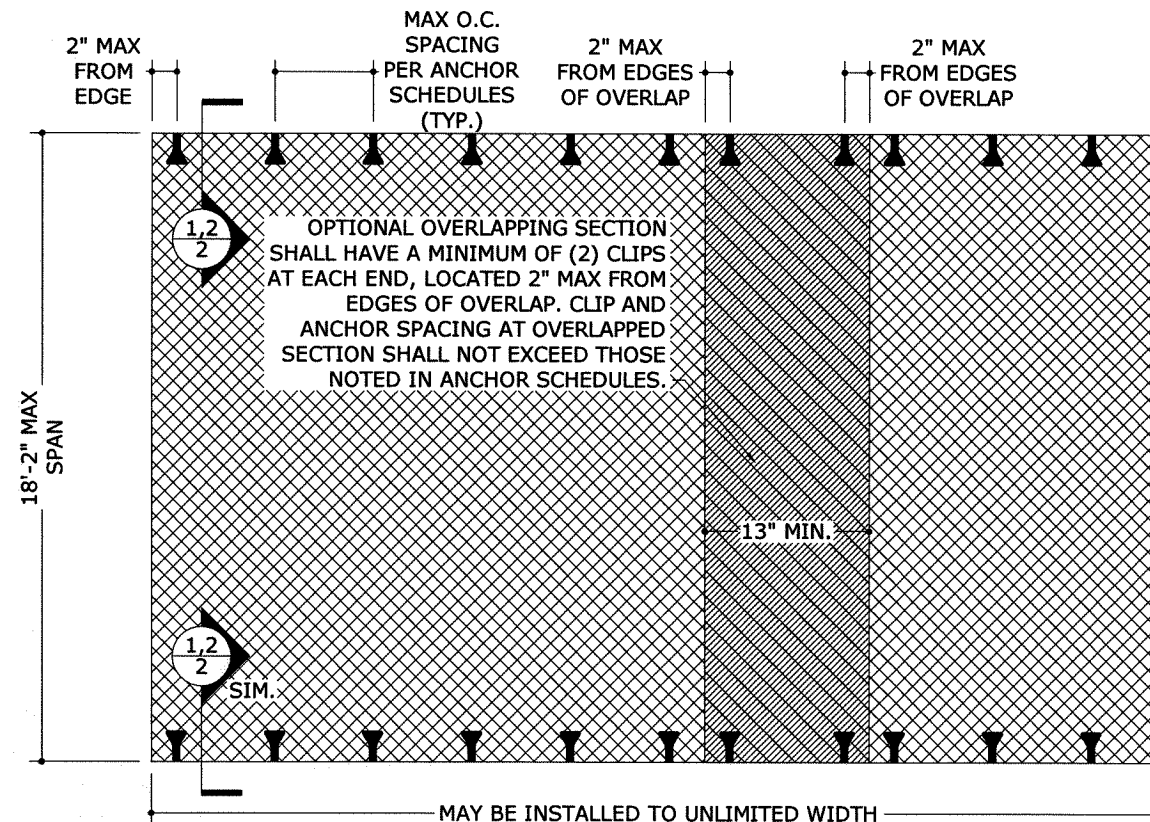
TYPE OF YARN: TEXTILE FABRIC
 CONSTRUCTION: 25 X 25 WEAVE
 THICKNESS: 1000 MICRONS ± 5%
 FINISH: RESIN COATED
 WEIGHT (ASTM D 3776): 10.83 OZ/YD²
 TENSILE STRENGTH (GRAB METHOD, ASTM D 4632): WARP: 879 LBS, WEFT: 879 LBS
 BURST STRENGTH (ASTM D 3786): 1500 PSI
 ABRASION RESISTANCE (ASTM D 4886): 95% STRENGTH RETAINED

SEWING:

SEWING ONLY AT SPLICE (SEE SPLICE DETAIL). NO SEWING AT EDGES.

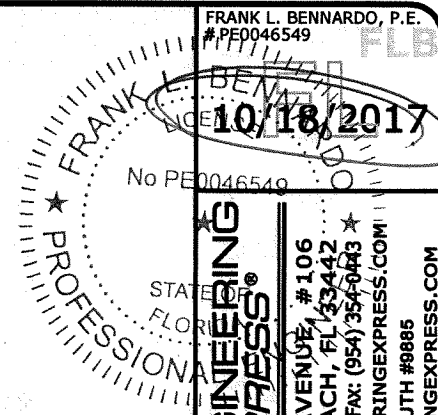


1 SPLICE DETAIL
 1 N.T.S.



NOTE: PANELS CAN OPTIONALLY BE ANCHORED ON THREE OR FOUR SIDES. FOR FOUR SIDE ATTACHMENT, THE SPAN IS THE SHORT DIMENSION BETWEEN FASTENERS.

2 TYPICAL PANEL INSTALLATION
 1 N.T.S. EXTERIOR ELEV

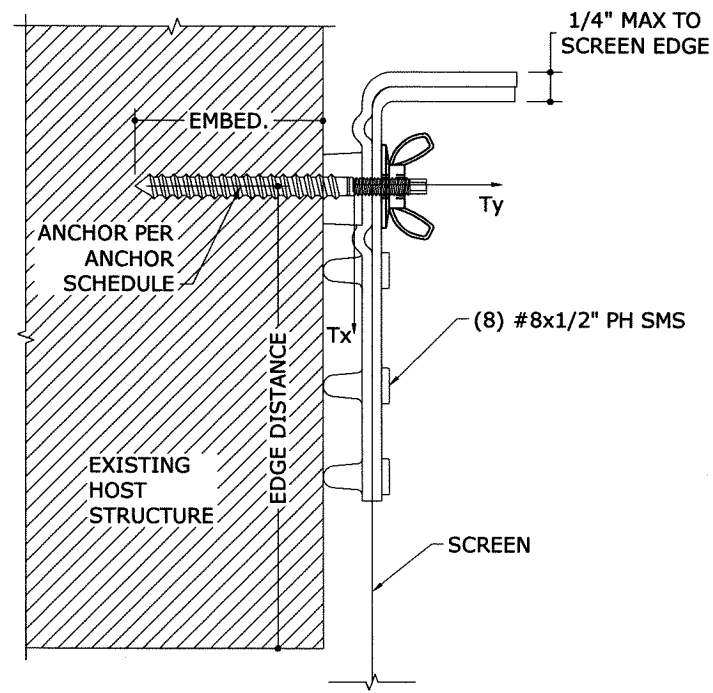


ENGINEERING EXPRESS
 160 SW 12th AVENUE #106
 DEERFIELD BEACH, FL 33442
 PH: (954) 354-0660 FAX: (954) 354-0443
 E: HELLO@ENGINEERINGEXPRESS.COM
 WWW.ENGINEERINGEXPRESS.COM
 CERT OF AUTH #9886

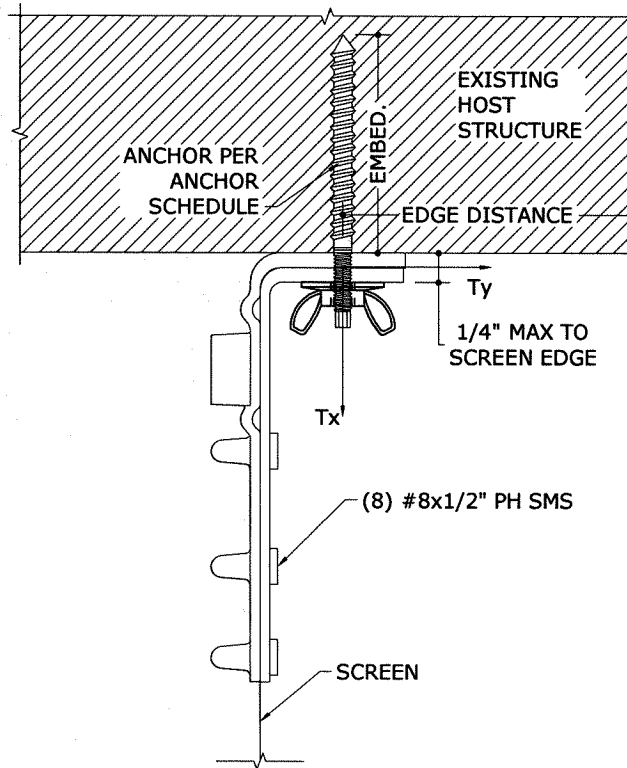
EASTERN METAL SUPPLY
 4268 WESTROADS DRIVE
 WEST PALM BEACH, FL 33407
 WWW.EASTERNMETAL.COM
 BERTHA ASTROGUARD
 WIND ABATEMENT SYSTEM
 NON-HVHZ AND HVHZ APPROVED - FL13271.1

REMARKS	DATE
INIT ISSUE	10/18/17

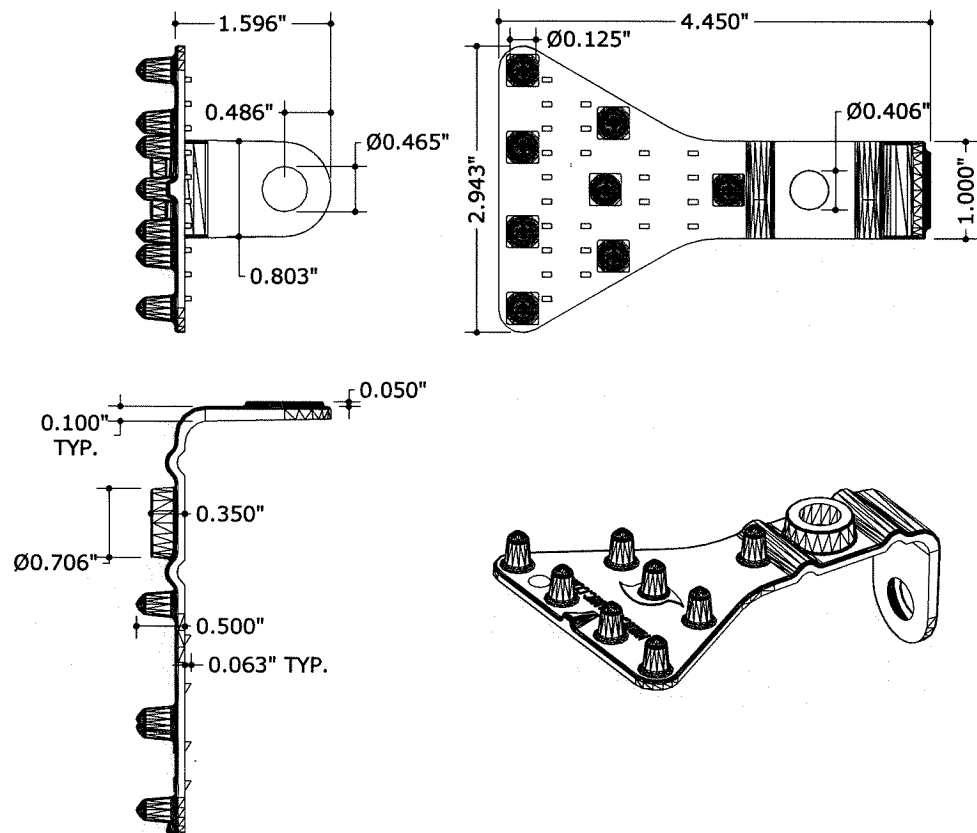
17-4890
 SCALE:
 PAGE DESCRIPTION:
 1 12



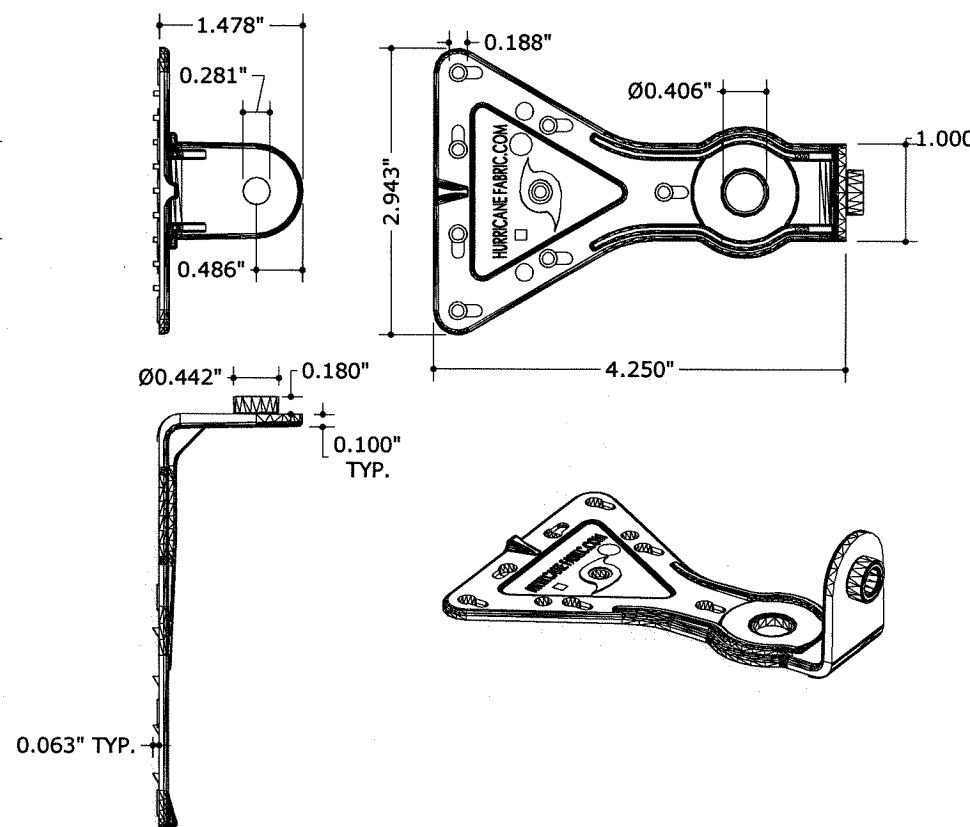
1 WALL MOUNT CONDITION
2 N.T.S. SECTION VIEW



2 INTERIOR MOUNT CONDITION
2 N.T.S. SECTION VIEW



1 BOTTOM MOUNTING CLIP
N.T.S. POLYAMIDE 66



2 TOP MOUNTING CLIP
N.T.S. POLYAMIDE 66

SPAN	MINIMUM GLAZING SEPARATION FROM GLASS INCLUDING INSTALLATION SLACK			
	POSITIVE DESIGN LOAD (PSF)			
	+60 PSF	+50 PSF	+40 PSF	+30 PSF
4'-0"	6.88"	6.63"	6.13"	5.75"
6'-0"	11.13"	10.50"	9.88"	9.00"
8'-0"	15.75"	14.88"	14.00"	12.75"
10'-0"	20.88"	19.75"	18.38"	16.88"
12'-0"	26.38"	24.88"	23.13"	21.13"
14'-0"	32.13"	30.38"	28.25"	25.75"
14'-8"	34.13"	32.38"	32.38"	32.38"
16'-0"	38.25"	36.88"	36.88"	36.88"
17'-0"	41.38"	39.00"	36.88"	36.88"
18'-2"	45.13"	42.50"	39.50"	36.88"

- NOTES:
1. SEPARATION FROM GLAZING IS REQUIRED FOR ALL INSTALLATIONS WITHIN THE HIGH VELOCITY HURRICANE ZONE, WIND ZONE 4 AND ESSENTIAL FACILITIES.
 2. SEPARATION IS NOT REQUIRED FROM ANY FENESTRATION PRODUCT THAT DOES NOT CONTAIN GLAZING.
 3. SEPARATION FROM GLAZING IS NOT REQUIRED FOR INSTALLATIONS OUTSIDE OF WIND ZONE 4 AND ESSENTIAL FACILITIES.
 4. INTERPOLATION OF THIS TABLE IS NOT PERMITTED. UTILIZE NEXT HIGHEST SEPARATION FROM GLAZING VALUE IF NEEDED.

SPAN	LOAD ON EXISTING STRUCTURE FROM SCREEN SYSTEM Tx = PARALLEL LOADS (PLF)			
	DESIGN PRESSURE (+/- PSF)			
	60	50	40	30
4'-0"	235.4	208.5	179.6	148.3
6'-0"	308.5	273.2	235.4	194.3
8'-0"	373.7	330.9	285.2	235.4
10'-0"	433.6	384.0	330.9	273.2
12'-0"	489.7	433.6	373.7	308.5
14'-0"	542.7	480.6	414.1	341.9
14'-8"	559.8	495.7	427.2	352.6
16'-0"	593.2	525.3	452.7	373.7
17'-0"	617.7	547.0	471.4	389.1
18'-2"	645.6	571.7	492.7	406.7

SPAN	LOAD ON EXISTING STRUCTURE FROM SCREEN SYSTEM Ty = PERPENDICULAR LOADS (PLF)			
	DESIGN PRESSURE (+/- PSF)			
	60	50	40	30
4'-0"	120.0	100.0	80.0	60.0
6'-0"	180.0	150.0	120.0	90.0
8'-0"	240.0	200.0	160.0	120.0
10'-0"	300.0	250.0	200.0	150.0
12'-0"	360.0	300.0	240.0	180.0
14'-0"	420.0	350.0	280.0	210.0
14'-8"	440.0	366.7	293.3	220.0
16'-0"	480.0	400.0	320.0	240.0
17'-0"	510.0	425.0	340.0	255.0
18'-2"	545.0	454.2	363.3	272.5

FRANK L. BENNARDO, P.E.
PE0046549

10/18/2017

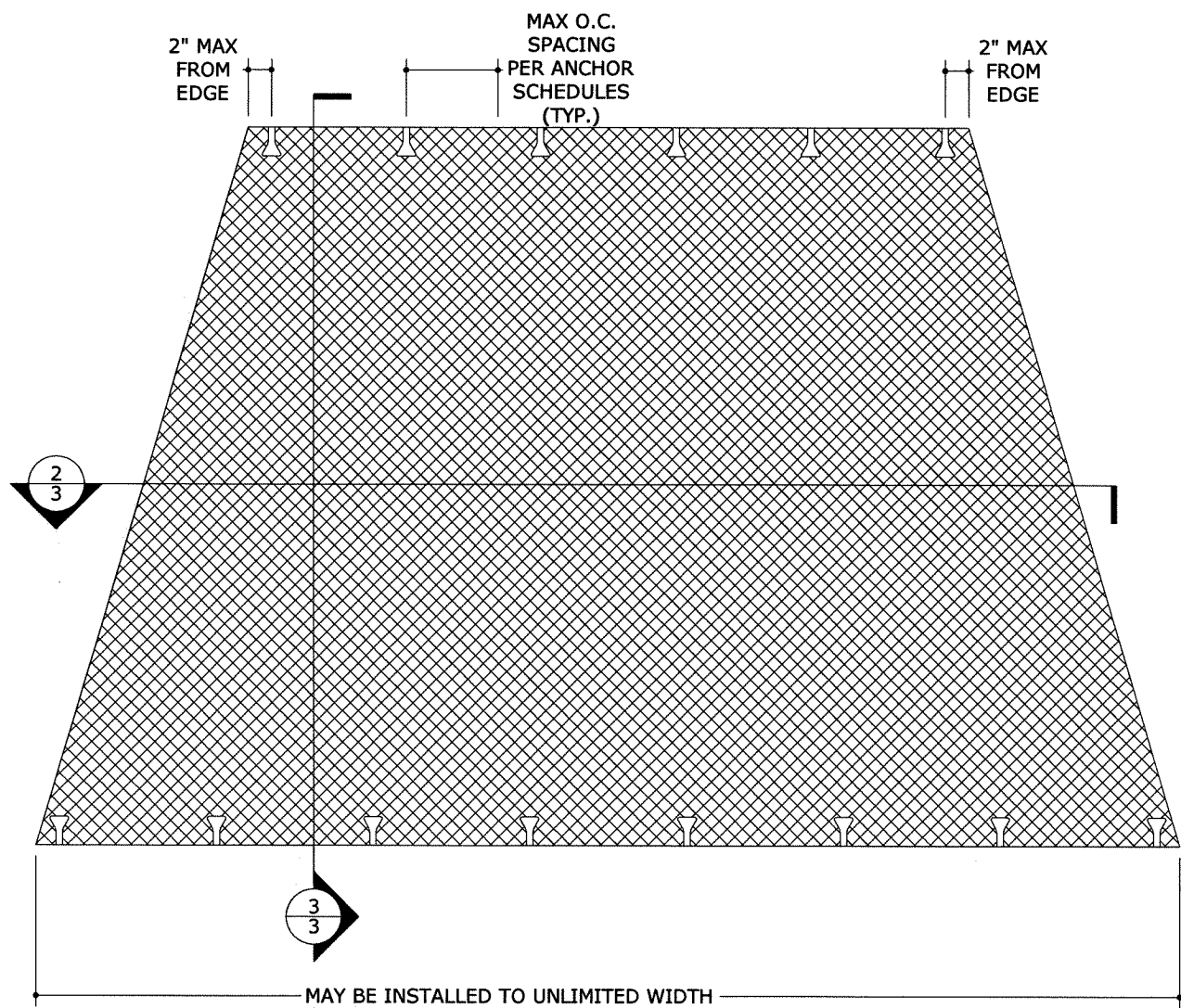
ENGINEERING EXPRESS
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
PH: (954) 354-0660 FAX: (954) 354-0443
E: HELLO@ENGINEERINGEXPRESS.COM
CERT OF AUTH #8888
WWW.ENGINEERINGEXPRESS.COM

EASTERN METAL SUPPLY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
WWW.EASTERNMETAL.COM
BERTHA ASTROGUARD
WIND ABATEMENT SYSTEM
NON-HVHZ AND HVHZ APPROVED - FL13271.1

DRWN	CHKD	DATE
JAC	FLB	10/18/17

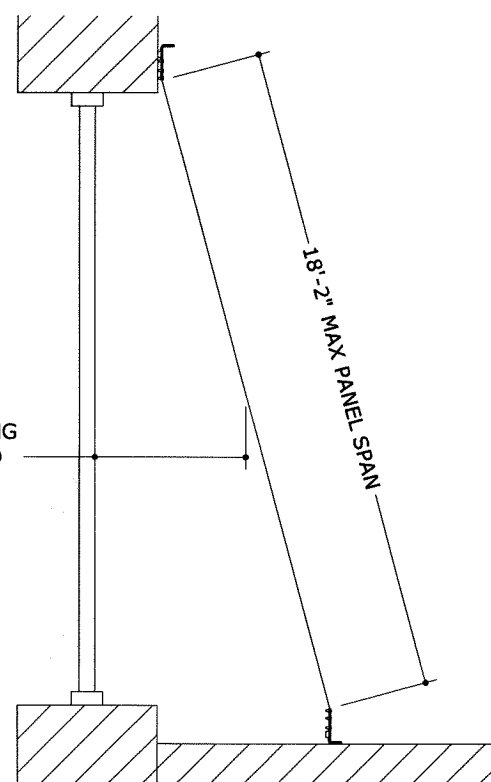
REMARKS INIT ISSUE

17-4890
SCALE:
PAGE DESCRIPTION:

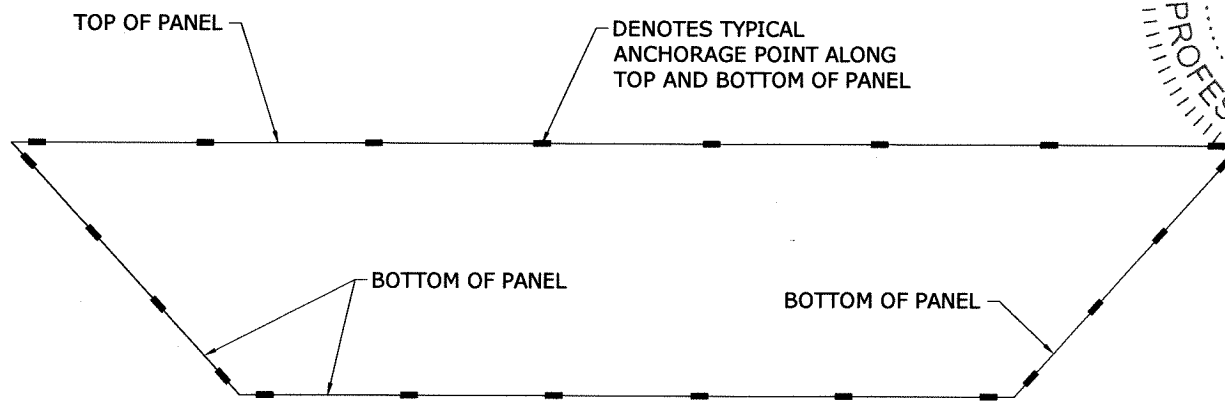


1 ANGLLED PANEL INSTALLATION
3 N.T.S. EXTERIOR ELEV

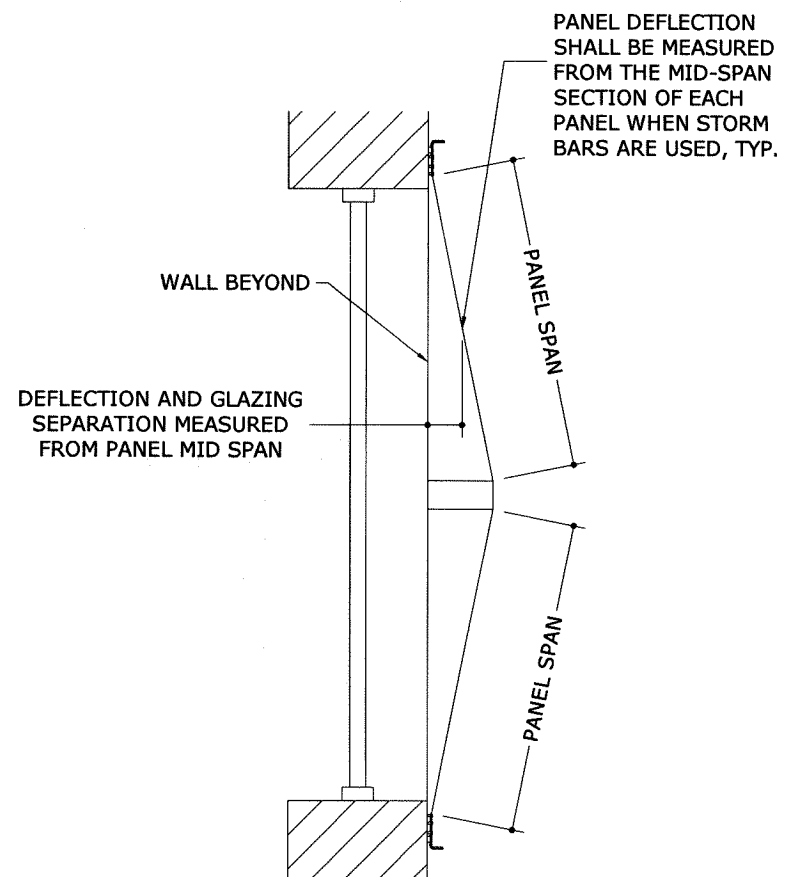
NOTE: NON-SPAN OVERLAP SHALL BE A MINIMUM OF 1.5 X THE PANEL PROJECTION FROM OPENING



3 ANGLLED PANEL INSTALLATION
3 N.T.S. VERTICAL SECTION



2 ANGLLED PANEL INSTALLATION
3 N.T.S. PLAN VIEW



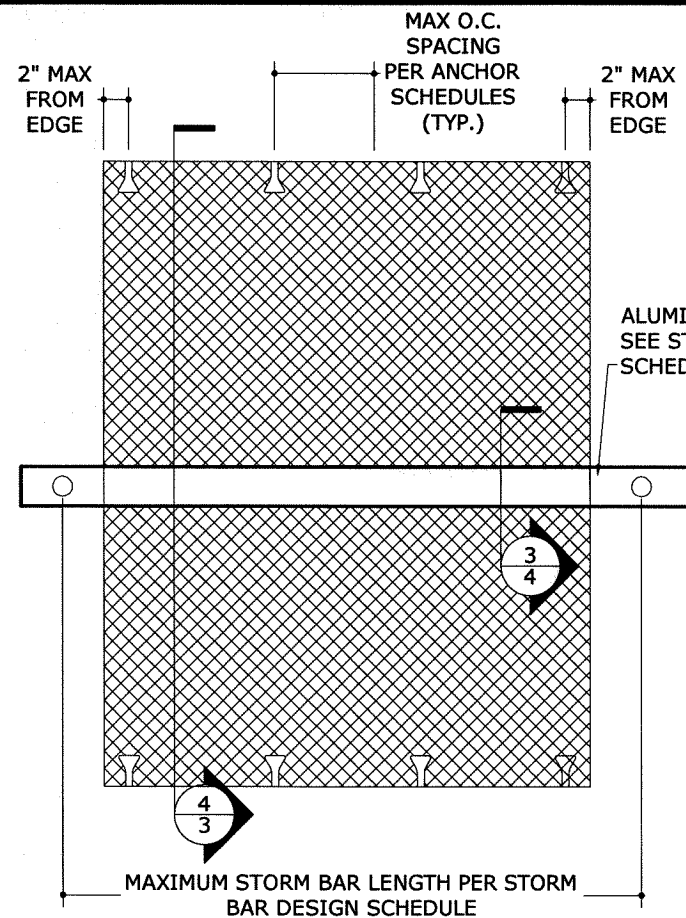
4 INSTALLATION W/ STORM BAR
3 N.T.S. VERTICAL SECTION

FRANK L. BENNARDO, P.E.
 RE0046549
 10/18/2017
 No RE0046549
EX ENGINEERING EXPRESS
 160 SW 12th AVENUE, # 106
 DEERFIELD BEACH, FL 33442
 Ph: (954) 354-0660 Fax: (954) 354-0443
 E: HELLO@ENGINEERINGEXPRESS.COM
 CERT OF AUTH #9885
 WWW.ENGINEERINGEXPRESS.COM

EASTERN METAL SUPPLY
 4268 WESTROADS DRIVE
 WEST PALM BEACH, FL 33407
 WWW.EASTERNMETAL.COM
 BERTHA ASTROGUARD
 WIND ABATEMENT SYSTEM
 NON-HVHZ AND HVHZ APPROVED - FL13271.1

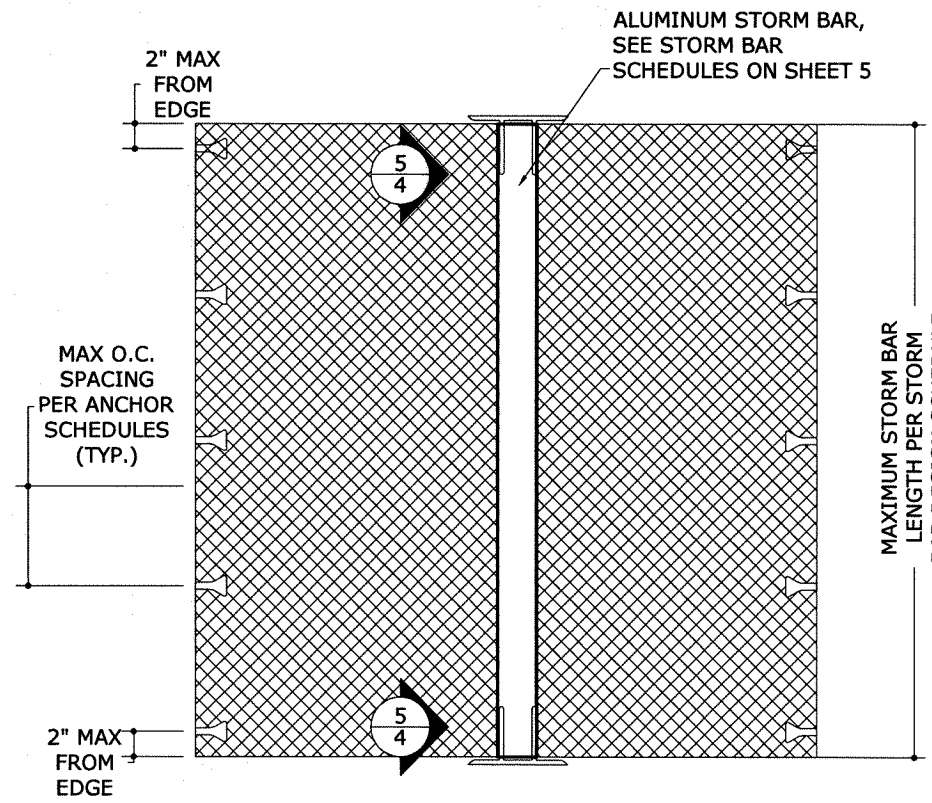
REMARKS	INIT	ISSUE	DATE
			10/18/17

17-4890
 SCALE:
 PAGE DESCRIPTION:



1 INSTALLATION W/ STORM BAR
 4 N.T.S. EXTERIOR ELEV

STORM BARS & FABRIC MAY BE INSTALLED HORIZONTALLY OR VERTICALLY AS APPLICABLE (HORIZONTAL STORM BAR INSTALLATION WITH VERTICAL PANEL SPAN SHOWN HEREIN)

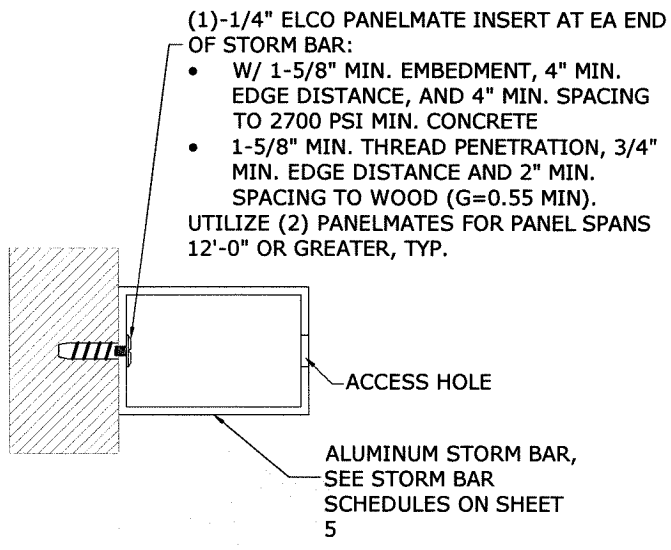


2 INSTALLATION W/ STORM BAR
 4 N.T.S. EXTERIOR ELEV

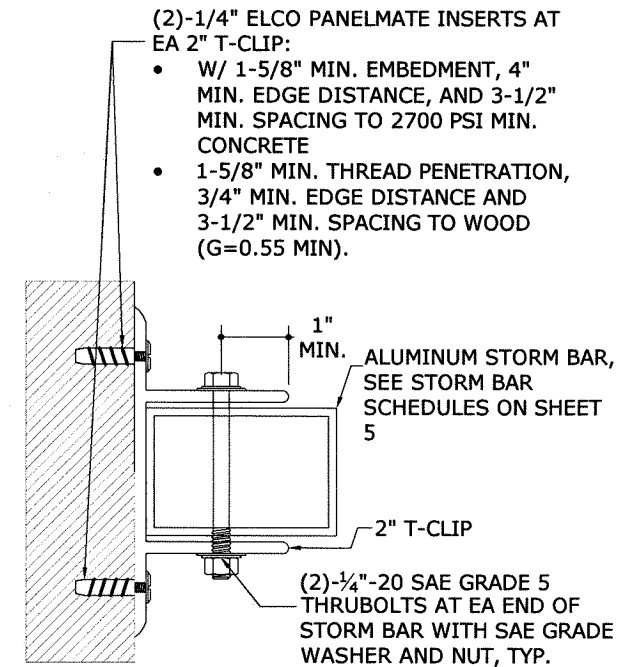
STORM BARS & FABRIC MAY BE INSTALLED HORIZONTALLY OR VERTICALLY AS APPLICABLE (VERTICAL STORM BAR INSTALLATION WITH HORIZONTAL PANEL SPAN SHOWN HEREIN)

STORM BAR NOTES:

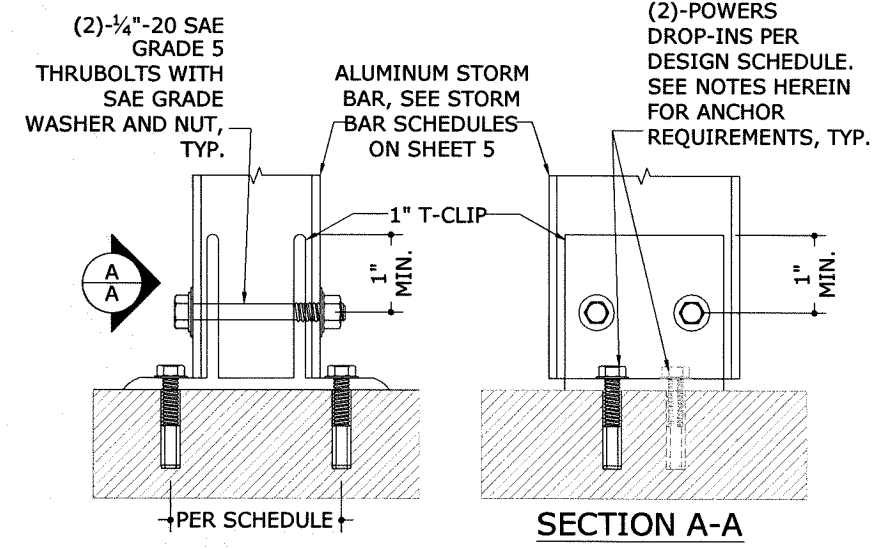
1. THE STORM BAR SCHEDULES ON SHEET 5 ARE GOVERNED BY POSITIVE WIND LOAD DIRECTIONS ONLY. NEGATIVE WIND LOAD DIRECTIONS DO NOT SUBJECT THE STORM BARS TO ANY EXTERIOR LOADING.
2. DIRECT MOUNTS AND 2" T-CLIP MOUNTS SHALL BE ATTACHED TO THE HOST STRUCTURE PER DETAILS 3/4 AND 4/4, RESPECTIVELY.
3. 1" T-CLIP MOUNTS (DETAIL 5/4) SHALL BE ATTACHED PER THE ANCHOR SCHEDULE ON SHEET 5.
4. STORM BAR LENGTHS, SHAPES OR ATTACHMENT METHODS THAT ARE NOT DETAILED IN THIS DRAWING SHALL BE DESIGNED ON A SITE SPECIFIC BASIS.



3 STORM BAR DIRECT MOUNT
 4 N.T.S. SECTION



4 STORM BAR 2\"/>
 4 N.T.S. SECTION



5 STORM BAR 1\"/>
 4 N.T.S. SECTION
 *SEE SHEET 5 FOR 1" T-CLIP ANCHOR DESIGN SCHEDULE

FRANK L. BENNARDO, P.E.
 #PE0046549
 10/18/2017
 No. PE0046549
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA
 ENGINEERING EXPRESS, INC.
 160 SW 12th AVENUE, #106
 DEERFIELD BEACH, FL 33442
 Ph: (954) 354-0660 Fax: (954) 354-0443
 E: HELLO@ENGINEERINGEXPRESS.COM
 CERT OF AUTH #9885
 WWW.ENGINEERINGEXPRESS.COM

EASTERN METAL SUPPLY
 4268 WESTROADS DRIVE
 WEST PALM BEACH, FL 33407
 WWW.EASTERNMETAL.COM
 BERTHA ASTROGUARD
 WIND ABATEMENT SYSTEM
 NON-HVHZ AND HVHZ APPROVED - FL13271.1

REMARKS	INIT	ISSUE	DATE
	JAC	FLB	10/18/17

17-4890
 SCALE:
 PAGE DESCRIPTION:

STORM BAR SCHEDULES

2"x3"x1/8" STORM BAR								
MAX PANEL SPAN	60 PSF		50 PSF		40 PSF		30 PSF	
	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION
3 FT	75"	281.2 lb	80"	249.0 lb	86"	214.6 lb	94"	177.1 lb
4 FT	68"	340.6 lb	72"	301.6 lb	78"	259.9 lb	86"	214.6 lb
5 FT	63"	395.2 lb	67"	350.0 lb	72"	301.6 lb	80"	249.0 lb
6 FT	60"	446.3 lb	63"	395.2 lb	68"	340.6 lb	75"	281.2 lb
7 FT	57"	494.6 lb	60"	438.0 lb	65"	377.5 lb	71"	311.6 lb
8 FT	54"	540.7 lb	57"	478.8 lb	62"	412.6 lb	68"	340.6 lb
9 FT	52"	584.8 lb	55"	517.9 lb	60"	446.3 lb	65"	368.4 lb
10 FT	50"	624.7 lb	53"	555.6 lb	57"	478.8 lb	63"	395.2 lb
11 FT	48"	655.2 lb	52"	592.0 lb	56"	510.2 lb	61"	421.2 lb
12 FT	46"	684.4 lb	50"	624.7 lb	54"	540.7 lb	60"	446.3 lb
13 FT	44"	712.3 lb	48"	650.2 lb	53"	570.3 lb	58"	470.8 lb
14 FT	42"	739.2 lb	46"	674.8 lb	51"	599.2 lb	57"	494.6 lb
15 FT	41"	765.1 lb	45"	698.5 lb	50"	624.7 lb	55"	517.9 lb
16 FT	40"	790.2 lb	43"	721.4 lb	48"	645.2 lb	54"	540.7 lb
17 FT	38"	814.5 lb	42"	743.6 lb	47"	665.1 lb	53"	563.0 lb
18.17 FT	37"	842.1 lb	41"	768.7 lb	45"	687.6 lb	52"	588.5 lb

2"x4"x1/8" STORM BAR								
MAX PANEL SPAN	60 PSF		50 PSF		40 PSF		30 PSF	
	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION
3 FT	95"	355.9 lb	101"	315.2 lb	109"	271.6 lb	120"	224.2 lb
4 FT	86"	431.2 lb	92"	381.8 lb	99"	329.0 lb	109"	271.6 lb
5 FT	80"	500.3 lb	85"	443.1 lb	92"	381.8 lb	101"	315.2 lb
6 FT	75"	565.0 lb	80"	500.3 lb	86"	431.2 lb	95"	355.9 lb
7 FT	72"	626.1 lb	76"	554.5 lb	82"	477.8 lb	90"	394.4 lb
8 FT	68"	684.4 lb	73"	606.1 lb	78"	522.3 lb	86"	431.2 lb
9 FT	65"	730.7 lb	70"	655.6 lb	75"	565.0 lb	83"	466.4 lb
10 FT	62"	770.2 lb	67"	703.1 lb	73"	606.1 lb	80"	500.3 lb
11 FT	59"	807.8 lb	64"	737.4 lb	70"	645.9 lb	78"	533.2 lb
12 FT	56"	843.7 lb	62"	770.2 lb	68"	684.4 lb	75"	565.0 lb
13 FT	54"	878.2 lb	59"	801.7 lb	66"	717.0 lb	73"	596.0 lb
14 FT	52"	911.3 lb	57"	831.9 lb	64"	744.1 lb	72"	626.1 lb
15 FT	50"	943.3 lb	55"	861.1 lb	62"	770.2 lb	70"	655.6 lb
16 FT	49"	974.3 lb	53"	889.4 lb	60"	795.5 lb	68"	684.4 lb
17 FT	47"	1004.2 lb	52"	916.7 lb	58"	820.0 lb	67"	710.1 lb
18.17 FT	46"	1038.2 lb	50"	947.8 lb	56"	847.7 lb	65"	734.1 lb

2"x5"x1/8" STORM BAR								
MAX PANEL SPAN	60 PSF		50 PSF		40 PSF		30 PSF	
	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION
3 FT	114"	428.8 lb	120"	375.0 lb	120"	300.0 lb	120"	225.0 lb
4 FT	104"	519.5 lb	110"	460.0 lb	119"	396.4 lb	120"	300.0 lb
5 FT	96"	602.8 lb	102"	533.8 lb	110"	460.0 lb	120"	375.0 lb
6 FT	91"	680.7 lb	96"	602.8 lb	104"	519.5 lb	114"	428.8 lb
7 FT	86"	754.3 lb	92"	668.0 lb	99"	575.7 lb	109"	475.2 lb
8 FT	82"	821.0 lb	88"	730.2 lb	94"	629.3 lb	104"	519.5 lb
9 FT	77"	870.8 lb	84"	789.9 lb	91"	680.7 lb	100"	561.9 lb
10 FT	73"	917.9 lb	80"	837.9 lb	88"	730.2 lb	96"	602.8 lb
11 FT	70"	962.7 lb	77"	878.8 lb	85"	778.1 lb	93"	642.3 lb
12 FT	67"	1005.5 lb	73"	917.9 lb	82"	821.0 lb	91"	680.7 lb
13 FT	64"	1046.5 lb	71"	955.3 lb	79"	854.5 lb	88"	718.0 lb
14 FT	62"	1086.0 lb	68"	991.4 lb	76"	886.7 lb	86"	754.3 lb
15 FT	60"	1124.2 lb	66"	1026.2 lb	73"	917.9 lb	84"	789.9 lb
16 FT	58"	1161.0 lb	64"	1059.9 lb	71"	948.0 lb	82"	821.0 lb
17 FT	56"	1196.8 lb	62"	1092.5 lb	69"	977.1 lb	80"	846.2 lb
18.17 FT	54"	1237.3 lb	60"	1129.5 lb	67"	1010.2 lb	77"	874.9 lb

2"x6"x1/8" STORM BAR								
MAX PANEL SPAN	60 PSF		50 PSF		40 PSF		30 PSF	
	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION	MAX STORM BAR SPAN	END REACTION
3 FT	120"	450.0 lb	120"	375.0 lb	120"	300.0 lb	120"	225.0 lb
4 FT	120"	600.0 lb	120"	500.0 lb	120"	400.0 lb	120"	300.0 lb
5 FT	113"	703.6 lb	120"	623.0 lb	120"	500.0 lb	120"	375.0 lb
6 FT	106"	794.5 lb	113"	703.6 lb	120"	600.0 lb	120"	450.0 lb
7 FT	101"	880.5 lb	107"	779.7 lb	115"	671.9 lb	120"	525.0 lb
8 FT	95"	946.8 lb	102"	852.3 lb	110"	734.5 lb	120"	600.0 lb
9 FT	89"	1004.3 lb	98"	916.8 lb	106"	794.5 lb	117"	655.8 lb
10 FT	85"	1058.6 lb	93"	966.3 lb	102"	852.3 lb	113"	703.6 lb
11 FT	81"	1110.3 lb	88"	1013.5 lb	99"	906.5 lb	109"	749.7 lb
12 FT	77"	1159.6 lb	85"	1058.6 lb	95"	946.8 lb	106"	794.5 lb
13 FT	74"	1207.0 lb	81"	1101.8 lb	91"	985.5 lb	103"	838.0 lb
14 FT	72"	1252.5 lb	78"	1143.4 lb	88"	1022.7 lb	101"	880.5 lb
15 FT	69"	1296.5 lb	76"	1183.5 lb	85"	1058.6 lb	98"	916.8 lb
16 FT	67"	1339.0 lb	73"	1222.3 lb	82"	1093.3 lb	95"	946.8 lb
17 FT	65"	1380.2 lb	71"	1260.0 lb	80"	1126.9 lb	92"	976.0 lb
18.17 FT	63"	1426.9 lb	69"	1302.6 lb	77"	1165.1 lb	89"	1009.0 lb

1" T-CLIP ANCHOR SCHEDULE

SUBSTRATE	ANCHOR TYPE	EMBEDMENT	MINIMUM SPACING	MINIMUM EDGE DISTANCE	MAXIMUM END CAPACITY
CONCRETE ($f_c=3000$ psi MIN.)	(2) - 1/4" DIAMETER POWERS STEEL DROP-IN	1"	3"	3 1/2"	1060 lb
	(2) - 3/8" DIAMETER POWERS STEEL DROP-IN	1 9/16"	3"	5 1/4"	1534 lb

ANCHOR SCHEDULE NOTES:

1. THE "END REACTION" LISTED IN THE STORM BAR SCHEDULES ABOVE SHALL BE LESS THAN OR EQUAL TO THE "MAXIMUM END CAPACITY" LISTED IN THIS ANCHOR SCHEDULE.
2. THIS ANCHOR SCHEDULE APPLIES ONLY TO 1" T-CLIP MOUNTS. DIRECT MOUNT AND 2" T-CLIP MOUNTS SHALL BE INSTALLED PER THE DETAILS ON SHEET 4.
3. ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

FRANK L. BENNARDO, P.E.
#PE0046549

10/18/2017

No. PE0046549

ENGINEERING EXPRESS
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 FAX: (954) 354-0443
E: HELLO@ENGINEERINGEXPRESS.COM
CERT OF AUTH #9885
WWW.ENGINEERINGEXPRESS.COM

EASTERN METAL SUPPLY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
WWW.EASTERNMETAL.COM

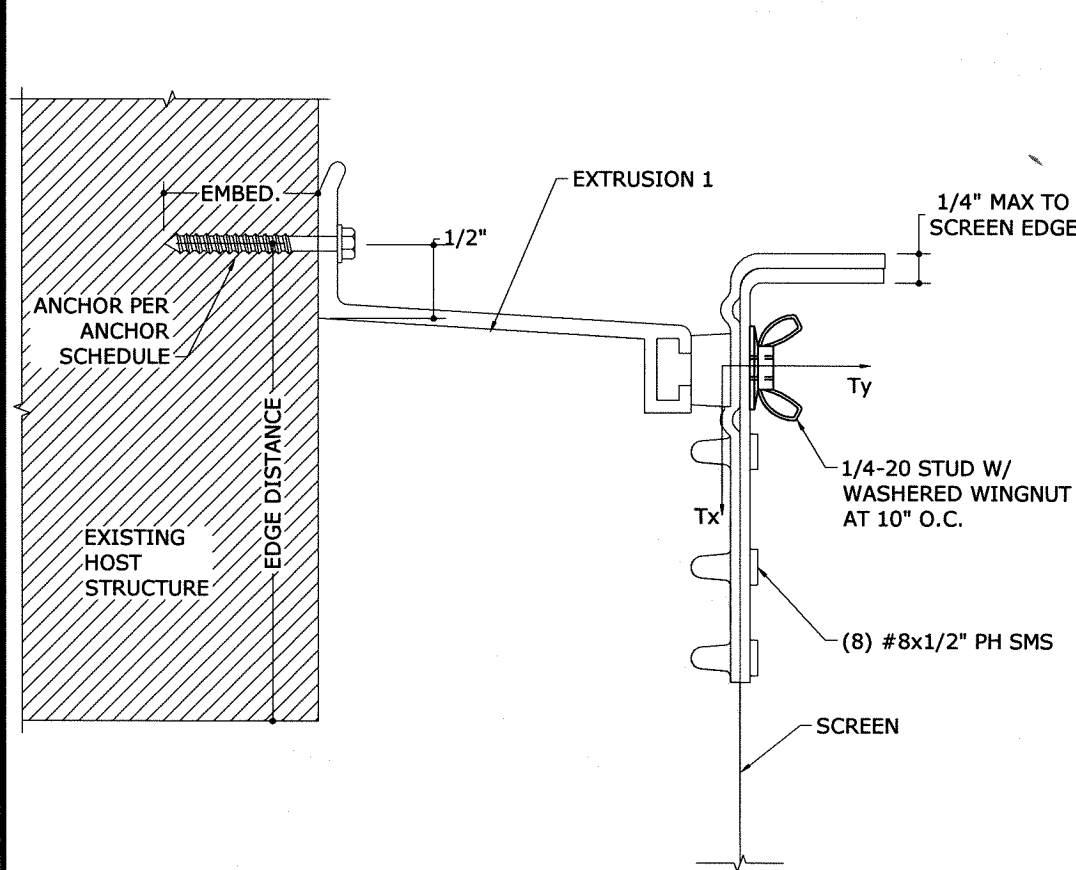
BERTHA ASTROGUARD
WIND ABATEMENT SYSTEM
NON-HVHZ AND HVHZ APPROVED - FL13271.1

REMARKS	DATE	DRWN	CHKD
INIT	10/18/17	JAC	FLB

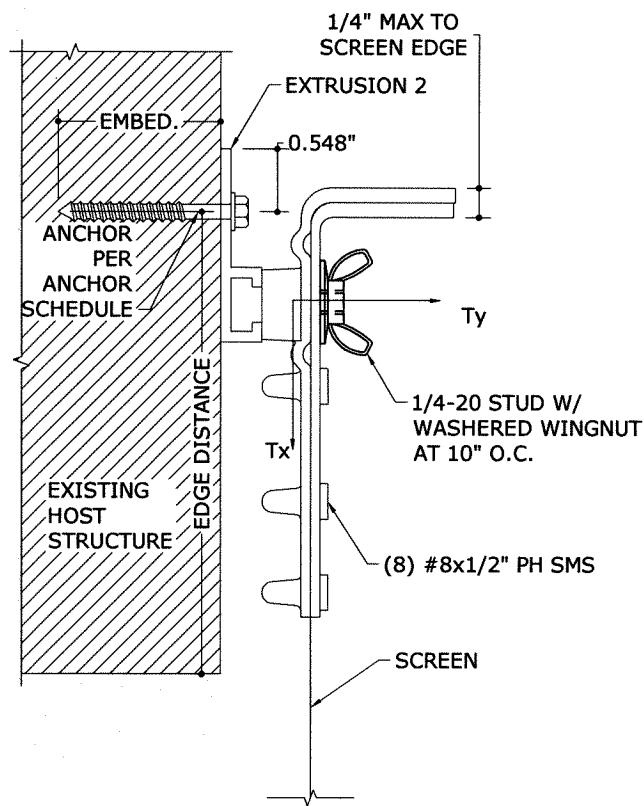
17-4890

SCALE: _____

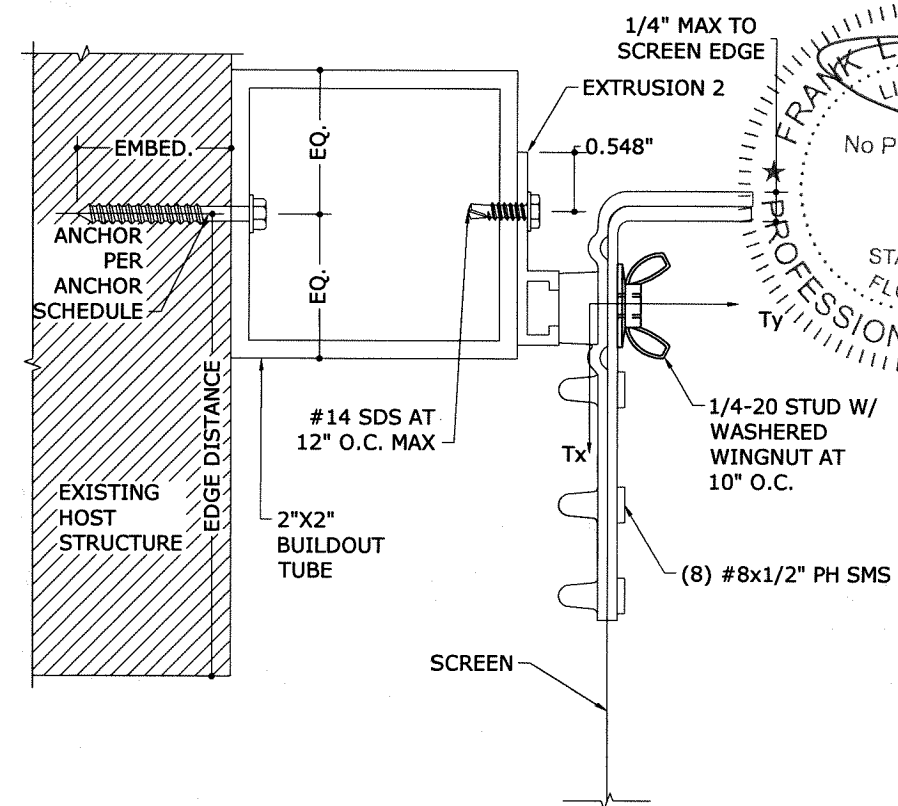
PAGE DESCRIPTION: _____



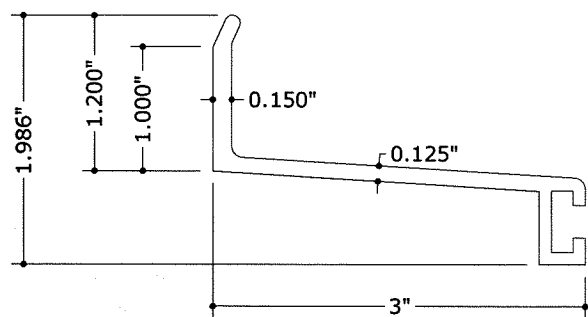
1 ALTERNATE ATTACHMENT EXTRUSION 1 MOUNT
 6 N.T.S. SECTION VIEW



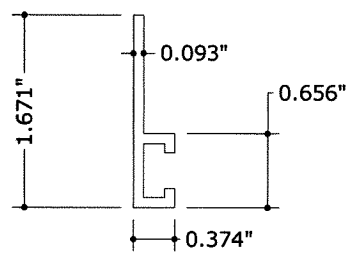
2 ALTERNATE ATTACHMENT EXTRUSION 2 MOUNT
 6 N.T.S. SECTION VIEW



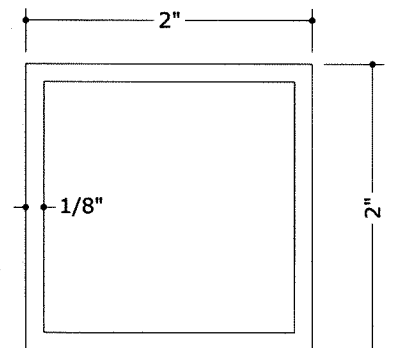
3 ALTERNATE ATTACHMENT BUILD OUT TUBE MOUNT
 6 N.T.S. SECTION VIEW



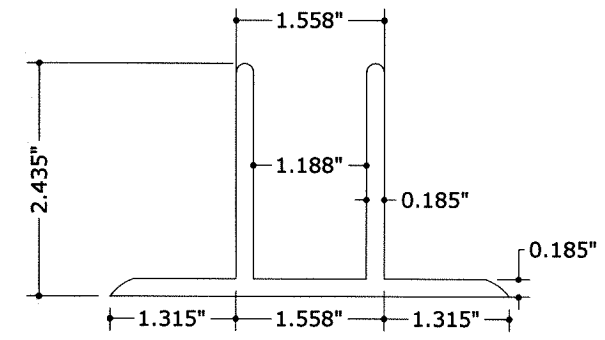
1 BUILD OUT F TRACK
 6 N.T.S. 6063-T6 ALUM



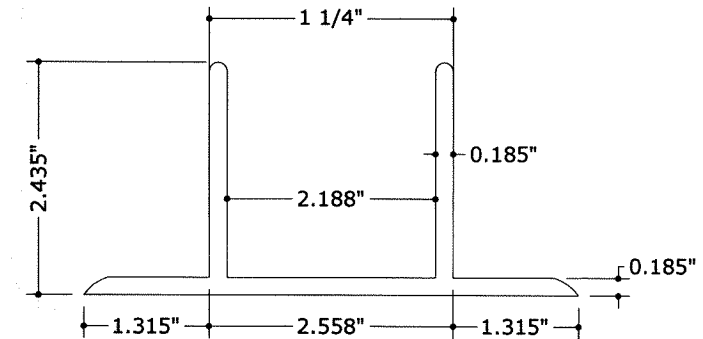
2 F TRACK
 6 N.T.S. 6063-T6 ALUM



3 2\"/>
 6 N.T.S. 6063-T6 ALUM



4 1\"/>
 6 N.T.S. 6063-T6 ALUM



5 2\"/>
 6 N.T.S. 6063-T6 ALUM

FRANK L. BERNARDO, P.E.
 #PED046549
 10/18/2017
 No PE0046549
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA
ENGINEERING EXPRESS
 #106
 160 SW 12th AVENUE, #106
 DEERFIELD BEACH, FL 33442
 Ph: (954) 354-0660 Fax: (954) 354-0643
 E: HELLO@ENGINEERINGEXPRESS.COM
 CERT OF AUTH #9885
 WWW.ENGINEERINGEXPRESS.COM


EASTERN METAL SUPPLY
 4268 WESTROADS DRIVE
 WEST PALM BEACH, FL 33407
 WWW.EASTERNMETAL.COM
 BERTHA ASTROGUARD
 WIND ABATEMENT SYSTEM
 NON-HVHZ AND HVHZ APPROVED - FL13271.1

DRWN	CHKD	DATE
JAC	FLB	10/18/17

REMARKS
 INIT ISSUE

17-4890
 SCALE:
 PAGE DESCRIPTION:

ANCHOR NOTES:

1. SEE EXTERIOR ELEVATION FOR ANCHOR LOCATIONS AND/OR SPACING.
2. PRESSURES LISTED IN ANCHOR SPACING SCHEDULES REPRESENT BOTH POSITIVE AND NEGATIVE PRESSURES.
3. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
4. UNLESS OTHERWISE NOTED HEREIN, WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, ANCHOR SHALL BE LOCATED IN CENTER OF NOMINAL 2x (MIN) WOOD STUD (i.e. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR ANCHORS TO WOOD FRAMING).
5. WOOD HOST STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY.
6. MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
7. ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.
8. ALL CONCRETE ANCHOR SHALL BE INSTALLED TO NON-CRACKED CONCRETE ONLY. ALL EXISTING BLOCK SHALL BE ASTM C-90 MIN.
9. WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
10. MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD ("SIDEWALK BOLT") U.N.O.
11.  DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE FOR USE.
12. EDGE DISTANCES AND EMBEDMENT REQUIREMENTS ARE AS FOLLOWS:

12.1. 1/4" ITW SAMMY SSC

- 12.1.1. 2-1/4" EMBEDMENT AND 2-1/2" EDGE DISTANCE TO CONCRETE
- 12.1.2. 1-1/4" EMBEDMENT AND 2-1/2" EDGE DISTANCE TO HOLLOW CONCRETE BLOCK
- 12.1.3. 2-1/2" EMBEDMENT AND 2-1/2" EDGE DISTANCE TO GROUT-FILLED CONCRETE BLOCK

12.2. 1/4" ELCO PANELMATE (MALE OR FEMALE)

- 12.2.1. 1-3/4" EMBEDMENT AND 2-1/2" EDGE DISTANCE TO CONCRETE
- 12.2.2. 1-1/4" EMBEDMENT AND 3" EDGE DISTANCE TO HOLLOW AND GROUT-FILLED CONCRETE BLOCK
- 12.2.3. 1-7/8" EMBEDMENT AND 3/4" EDGE DISTANCE TO WOOD

12.3. 1/4" POWERS HOLLOW-SET DROPIN

- 12.3.1. 7/8" EMBEDMENT AND 3-1/2" EDGE DISTANCE TO CONCRETE AND HOLLOW AND GROUT-FILLED CONCRETE BLOCK

12.4. 1/4" ELCO PANELMATE INSERT

- 12.4.1. 1-5/8" EMBEDMENT AND 4" EDGE DISTANCE TO CONCRETE
- 12.4.2. 1-1/4" EMBEDMENT AND 3-1/2" EDGE DISTANCE TO HOLLOW CONCRETE BLOCK
- 12.4.3. 1-1/2" EMBEDMENT AND 3-1/2" EDGE DISTANCE TO GROUT-FILLED CONCRETE BLOCK

12.5. 1/4" ALL POINTS SOLID-SET

- 12.5.1. 7/8" EMBEDMENT AND 3" EDGE DISTANCE TO CONCRETE AND HOLLOW AND GROUT-FILLED CONCRETE BLOCK

12.6. 1/4" POWERS STEEL DROPIN

- 12.6.1. 1" EMBEDMENT AND 3-1/2" EDGE DISTANCE TO CONCRETE

12.7. 3/8" POWERS STEEL DROPIN

- 12.7.1. 1-9/16" EMBEDMENT AND 5-1/4" EDGE DISTANCE TO CONCRETE

12.8. 1/4" POWERS POWER-STUD (STAINLESS STEEL)

- 12.8.1. 2" EMBEDMENT AND 3" EDGE DISTANCE TO CONCRETE
- 12.8.2. 2" EMBEDMENT AND 5-1/4" EDGE DISTANCE TO GROUT-FILLED CONCRETE BLOCK






12.9. 1/4" ELCO PANELMATE TVAS

- 12.9.1. 2" EMBEDMENT AND 2-1/2" EDGE DISTANCE TO CONCRETE
- 12.9.2. 1-1/4" EMBEDMENT AND 3" EDGE DISTANCE TO HOLLOW AND GROUT-FILLED CONCRETE BLOCK
- 12.9.3. 1-7/8" EMBEDMENT AND 3/4" EDGE DISTANCE TO WOOD











12.10. 1/4" ELCO PANELMATE FEMALE ID

- 12.10.1. 1-3/4" EMBEDMENT AND 2-1/2" EDGE DISTANCE TO CONCRETE
- 12.10.2. 1-1/4" EMBEDMENT AND 3" EDGE DISTANCE TO HOLLOW AND GROUT-FILLED CONCRETE BLOCK
- 12.10.3. 1-7/8" EMBEDMENT AND 3/4" EDGE DISTANCE TO WOOD














1/4" ITW SAMMY SSC ANCHOR SCHEDULE - INTERIOR MOUNT CONDITION (IN. O.C.)

SPAN	3295 PSI MIN CONCRETE				HOLLOW CONCRETE BLOCK				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
6'-0"	10.0	10.0	10.0	10.0	8.2	9.4	10.0	10.0	10.0	10.0	10.0	10.0
8'-0"	10.0	10.0	10.0	10.0	6.5	7.5	9.0	10.0	8.8	10.0	10.0	10.0
10'-0"	10.0	10.0	10.0	10.0	5.4	6.3	7.5	9.4	7.2	8.5	10.0	10.0
12'-0"	10.0	10.0	10.0	10.0	4.6	5.4	6.5	8.2	6.1	7.2	8.8	10.0
14'-0"	10.0	10.0	10.0	10.0	4.1	4.7	5.7	7.2	5.3	6.3	7.6	9.9
14'-8"	9.6	10.0	10.0	10.0		4.6	5.5	6.9	5.1	6.0	7.3	9.5
16'-0"	8.9	10.0	10.0	10.0		4.2	5.1	6.5	4.7	5.5	6.8	8.8
17'-0"	8.4	9.9	10.0	10.0		4.0	4.9	6.2	4.4	5.3	6.4	8.3
18'-2"	7.9	9.3	10.0	10.0			4.6	5.8	4.2	4.9	6.1	7.8















1/4" ITW SAMMY SSC ANCHOR SCHEDULE - WALL MOUNT CONDITION (IN. O.C.)

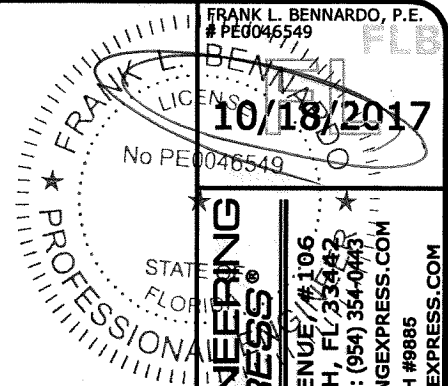
SPAN	3295 PSI MIN CONCRETE				HOLLOW CONCRETE BLOCK				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0	10.0
6'-0"	10.0	10.0	10.0	10.0	7.2	8.2	9.7	10.0	8.3	9.4	10.0	10.0
8'-0"	10.0	10.0	10.0	10.0	5.8	6.7	7.8	9.7	6.8	7.7	9.0	10.0
10'-0"	10.0	10.0	10.0	10.0	4.9	5.6	6.7	8.2	5.8	6.6	7.7	9.4
12'-0"	10.0	10.0	10.0	10.0	4.3	4.9	5.8	7.2	5.1	5.8	6.8	8.3
14'-0"	9.0	10.0	10.0	10.0		4.4	5.2	6.4	4.6	5.2	6.1	7.4
14'-8"	8.7	10.0	10.0	10.0		4.2	5.0	6.2	4.4	5.0	5.9	7.2
16'-0"	8.2	9.4	10.0	10.0			4.7	5.8	4.1	4.7	5.5	6.8
17'-0"	7.8	9.0	10.0	10.0			4.5	5.6		4.5	5.3	6.5
18'-2"	7.4	8.5	10.0	10.0			4.3	5.3		4.3	5.1	6.2

1/4" ELCO PANELMATE (MALE OR FEMALE) ANCHOR SCHEDULE - INTERIOR MOUNT CONDITION (IN. O.C.)

SPAN	3323 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.0	10.0	10.0	10.0	8.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0
6'-0"	10.0	10.0	10.0	10.0	6.5	7.5	8.9	10.0	10.0	10.0	10.0	10.0
8'-0"	10.0	10.0	10.0	10.0	5.2	6.0	7.2	8.9	8.6	10.0	10.0	10.0
10'-0"	10.0	10.0	10.0	10.0	4.4	5.1	6.0	7.5	7.1	8.3	10.0	10.0
12'-0"	8.8	10.0	10.0	10.0		4.4	5.2	6.5	6.0	7.1	8.6	10.0
14'-0"	7.7	9.0	10.0	10.0			4.6	5.8	5.3	6.2	7.5	9.6
14'-8"	7.4	8.7	10.0	10.0			4.5	5.6	5.0	5.9	7.2	9.2
16'-0"	6.9	8.1	9.7	10.0			4.2	5.2	4.7	5.5	6.7	8.6
17'-0"	6.6	7.7	9.2	10.0				5.0	4.4	5.2	6.3	8.1
18'-2"	6.2	7.2	8.7	10.0				4.7	4.2	4.9	6.0	7.7

1/4" ELCO PANELMATE (MALE OR FEMALE) ANCHOR SCHEDULE - WALL MOUNT CONDITION (IN. O.C.)

SPAN	3323 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.0	10.0	10.0	10.0	8.7	9.9	10.0	10.0	10.0	10.0	10.0	10.0
6'-0"	10.0	10.0	10.0	10.0	6.4	7.3	8.7	10.0	8.9	10.0	10.0	10.0
8'-0"	10.0	10.0	10.0	10.0	5.1	5.9	7.0	8.7	7.2	8.3	9.7	10.0
10'-0"	9.4	10.0	10.0	10.0	4.3	5.0	5.9	7.3	6.1	7.0	8.3	10.0
12'-0"	8.2	9.4	10.0	10.0		4.3	5.1	6.4	5.3	6.1	7.2	8.9
14'-0"	7.3	8.3	9.9	10.0			4.6	5.7	4.8	5.5	6.4	8.0
14'-8"	7.0	8.1	9.5	10.0			4.4	5.5	4.6	5.3	6.2	7.7
16'-0"	6.6	7.5	8.9	10.0			4.1	5.1	4.3	4.9	5.8	7.2
17'-0"	6.3	7.2	8.5	10.0				4.9	4.1	4.7	5.6	6.9
18'-2"	6.0	6.8	8.1	10.0				4.7		4.5	5.3	6.6



ENGINEERING EXPRESS
 160 SW 12th AVENUE, #106
 DEERFIELD BEACH, FL 33442
 PH: (954) 354-0660 FAX: (954) 354-0443
 E: HELLO@ENGINEERINGEXPRESS.COM
 CERT OF AUTH #9885
 WWW.ENGINEERINGEXPRESS.COM

EASTERN METAL SUPPLY
 4268 WESTROADS DRIVE
 WEST PALM BEACH, FL 33407
 WWW.EASTERNMETAL.COM
 BERTHA ASTROGUARD
 WIND ABATEMENT SYSTEM
 NON-HVHZ AND HVHZ APPROVED - FL13271.1

DATE	INIT	ISSUE
10/18/17		

17-4890
 SCALE:
 PAGE DESCRIPTION:

1/4" POWERS POWER-STUD ANCHOR SCHEDULE - INTERIOR MOUNT CONDITION (IN. O.C.)

SPAN	4000 PSI MIN CONCRETE				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
6'-0"	10.0	10.0	10.0	10.0	9.5	10.0	10.0	10.0
8'-0"	10.0	10.0	10.0	10.0	7.5	8.8	10.0	10.0
10'-0"	10.0	10.0	10.0	10.0	6.3	7.3	8.8	10.0
12'-0"	8.6	10.0	10.0	10.0	5.4	6.3	7.5	9.5
14'-0"	7.6	8.9	10.0	10.0	4.7	5.5	6.7	8.4
14'-8"	7.3	8.5	10.0	10.0	4.6	5.3	6.4	8.1
16'-0"	6.8	7.9	9.5	10.0	4.2	4.9	6.0	7.5
17'-0"	6.5	7.5	9.1	10.0	4.0	4.7	5.7	7.2
18'-2"	6.1	7.1	8.6	10.0	4.4	5.4	6.8	

1/4" POWERS POWER-STUD ANCHOR SCHEDULE - WALL MOUNT CONDITION (IN. O.C.)

SPAN	4000 PSI MIN CONCRETE				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
6'-0"	10.0	10.0	10.0	10.0	8.4	9.6	10.0	10.0
8'-0"	10.0	10.0	10.0	10.0	6.8	7.7	9.1	10.0
10'-0"	9.3	10.0	10.0	10.0	5.7	6.6	7.7	9.6
12'-0"	8.1	9.3	10.0	10.0	5.0	5.7	6.8	8.4
14'-0"	7.2	8.3	9.8	10.0	4.5	5.1	6.0	7.5
14'-8"	7.0	8.0	9.5	10.0	4.3	4.9	5.8	7.2
16'-0"	6.5	7.5	8.9	10.0	4.0	4.6	5.5	6.8
17'-0"	6.2	7.2	8.5	10.0	4.4	5.2	6.5	
18'-2"	5.9	6.8	8.1	10.0	4.2	5.0	6.2	

1/4" ELCO PANELMATE TVAS ANCHOR SCHEDULE - INTERIOR MOUNT CONDITION (IN. O.C.)

SPAN	3350 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.0	10.0	10.0	10.0	9.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0
6'-0"	10.0	10.0	10.0	10.0	7.0	8.0	9.5	10.0	10.0	10.0	10.0	10.0
8'-0"	10.0	10.0	10.0	10.0	5.7	6.5	7.7	9.5	8.6	10.0	10.0	10.0
10'-0"	10.0	10.0	10.0	10.0	4.8	5.5	6.5	8.0	7.1	8.3	10.0	10.0
12'-0"	10.0	10.0	10.0	10.0	4.2	4.8	5.7	7.0	6.0	7.1	8.6	10.0
14'-0"	9.7	10.0	10.0	10.0	4.3	5.0	6.3	5.3	6.2	7.5	9.6	
14'-8"	9.4	10.0	10.0	10.0	4.1	4.9	6.1	5.0	5.9	7.2	9.2	
16'-0"	8.7	10.0	10.0	10.0	4.6	5.7	4.7	5.5	6.7	8.6		
17'-0"	8.3	9.6	10.0	10.0	4.4	5.4	4.4	5.2	6.3	8.1		
18'-2"	7.9	9.1	10.0	10.0	4.1	5.2	4.2	4.9	6.0	7.7		

1/4" ELCO PANELMATE TVAS ANCHOR SCHEDULE - WALL MOUNT CONDITION (IN. O.C.)

SPAN	3350 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
6'-0"	10.0	10.0	10.0	10.0	7.7	8.9	10.0	10.0	8.9	10.0	10.0	10.0
8'-0"	10.0	10.0	10.0	10.0	6.1	7.1	8.4	10.0	7.2	8.3	9.7	10.0
10'-0"	10.0	10.0	10.0	10.0	5.1	5.9	7.1	8.9	6.1	7.0	8.3	10.0
12'-0"	10.0	10.0	10.0	10.0	4.4	5.1	6.1	7.7	5.3	6.1	7.2	8.9
14'-0"	9.6	10.0	10.0	10.0	4.5	5.4	6.8	4.8	5.5	6.4	8.0	
14'-8"	9.2	10.0	10.0	10.0	4.3	5.2	6.6	4.6	5.3	6.2	7.7	
16'-0"	8.6	9.9	10.0	10.0	4.0	4.8	6.1	4.3	4.9	5.8	7.2	
17'-0"	8.2	9.5	10.0	10.0	4.6	5.8	4.1	4.7	5.6	6.9		
18'-2"	7.8	9.0	10.0	10.0	4.4	5.5	4.5	5.3	6.6			

1/4" ELCO PANELMATE FEMALE ID ANCHOR SCHEDULE - INTERIOR MOUNT CONDITION (IN. O.C.)

SPAN	3350 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.0	10.0	10.0	10.0	8.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0
6'-0"	10.0	10.0	10.0	10.0	6.5	7.5	8.9	10.0	10.0	10.0	10.0	10.0
8'-0"	10.0	10.0	10.0	10.0	5.2	6.0	7.2	8.9	8.6	10.0	10.0	10.0
10'-0"	10.0	10.0	10.0	10.0	4.4	5.1	6.0	7.5	7.1	8.3	10.0	10.0
12'-0"	8.8	10.0	10.0	10.0	4.4	5.2	6.5	6.0	7.1	8.6	10.0	
14'-0"	7.7	9.0	10.0	10.0	4.6	5.8	5.3	6.2	7.5	9.6		
14'-8"	7.4	8.7	10.0	10.0	4.5	5.6	5.0	5.9	7.2	9.2		
16'-0"	6.9	8.1	9.7	10.0	4.2	5.2	4.7	5.5	6.7	8.6		
17'-0"	6.6	7.7	9.2	10.0	5.0	4.4	5.2	6.3	8.1			
18'-2"	6.2	7.2	8.7	10.0	4.7	4.2	4.9	6.0	7.7			

1/4" ELCO PANELMATE FEMALE ID ANCHOR SCHEDULE - WALL MOUNT CONDITION (IN. O.C.)

SPAN	3350 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.0	10.0	10.0	10.0	8.7	9.9	10.0	10.0	10.0	10.0	10.0	10.0
6'-0"	10.0	10.0	10.0	10.0	6.4	7.3	8.7	10.0	8.9	10.0	10.0	10.0
8'-0"	10.0	10.0	10.0	10.0	5.1	5.9	7.0	8.7	7.2	8.3	9.7	10.0
10'-0"	9.4	10.0	10.0	10.0	4.3	5.0	5.9	7.3	6.1	7.0	8.3	10.0
12'-0"	8.2	9.4	10.0	10.0	4.3	5.1	6.4	5.3	6.1	7.2	8.9	
14'-0"	7.3	8.3	9.9	10.0	4.6	5.7	4.8	5.5	6.4	8.0		
14'-8"	7.0	8.1	9.5	10.0	4.4	5.5	4.6	5.3	6.2	7.7		
16'-0"	6.6	7.5	8.9	10.0	4.1	5.1	4.3	4.9	5.8	7.2		
17'-0"	6.3	7.2	8.5	10.0	4.9	4.1	4.7	5.6	6.9			
18'-2"	6.0	6.8	8.1	10.0	4.7	4.5	5.3	6.6				

1/4" ITW SAMMY SSC ANCHOR SCHEDULE - EXTRUSION 1 MOUNT (IN. O.C.)

SPAN	3295 PSI MIN CONCRETE				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	6.1	6.9	8.0	9.8	4.4	5.1	6.2	
6'-0"	4.6	5.2	6.1	7.4	4.7			
8'-0"	4.2	5.0	6.1					
10'-0"	4.2	5.2						
12'-0"	4.6							

1/4" ELCO PANELMATE (MALE OR FEMALE) ANCHOR SCHEDULE - EXTRUSION 1 MOUNT (IN. O.C.)

SPAN	3323 PSI MIN CONCRETE				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	4.3	4.9	5.7	7.0	4.5	5.3	6.4	
6'-0"	4.3	5.3			4.9			
8'-0"	4.3							

1/4" ELCO PANELMATE INSERT ANCHOR SCHEDULE - EXTRUSION 1 MOUNT (IN. O.C.)

SPAN	2700 PSI MIN CONCRETE				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	4.4	5.0	5.9	7.2	4.3			
6'-0"	4.4	5.4						
8'-0"	4.4							

NOTE: SEE SHEET 7 FOR ANCHOR NOTES

FRANK L. BENNARDO, P.E.
#PE0046549

10/18/2017

PROFESSIONAL ENGINEER

ENGINEERING EXPRESS
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 Fax: (954) 354-0443
E: HELLO@ENGINEERINGEXPRESS.COM

EASTERN METAL SUPPLY
4266 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
WWW.EASTERNMETAL.COM

BERTHA ASTROGUARD
WIND ABATEMENT SYSTEM
NON-HVHZ AND HVHZ APPROVED - FL13271.1

DRWN	CHKD	DATE
JAC	FLB	10/18/17

REMARKS

INIT ISSUE

17-4890

SCALE:

PAGE DESCRIPTION:

12

1/4" ALL POINTS SOLID-SET ANCHOR SCHEDULE - EXTRUSION 1 MOUNT (IN. O.C.)

SPAN	3000 PSI MIN CONCRETE			
	DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	4.4	5.0	5.8	7.1
6'-0"			4.4	5.4
8'-0"				4.4

3/8" POWERS STEEL DROPIN ANCHOR SCHEDULE EXTRUSION 1 MOUNT (IN. O.C.)

SPAN	4000 PSI MIN CONCRETE			
	DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	8.5	9.6	11.2	12.0
6'-0"	6.4	7.3	8.5	10.4
8'-0"	5.2	5.9	6.9	8.5
10'-0"		5.1	5.9	7.3
12'-0"			5.2	6.4
14'-0"			4.7	5.7
14'-8"			4.5	5.6
16'-0"				5.2
17'-0"				5.0
18'-2"				4.8

1/4" POWERS STEEL DROPIN ANCHOR SCHEDULE EXTRUSION 1 MOUNT (IN. O.C.)

SPAN	4000 PSI MIN CONCRETE			
	DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	4.0	4.6	5.3	6.5
6'-0"			4.0	4.9

1/4" POWERS POWER-STUD ANCHOR SCHEDULE - EXTRUSION 1 MOUNT (IN. O.C.)

SPAN	4000 PSI MIN CONCRETE				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	4.1	4.7	5.5	6.7				4.3
6'-0"			4.1	5.1				

1/4" ELCO PANELMATE TVAS ANCHOR SCHEDULE - EXTRUSION 1 MOUNT (IN. O.C.)

SPAN	3350 PSI MIN CONCRETE				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	4.9	5.6	6.6	8.0		4.5	5.3	6.4
6'-0"		4.2	4.9	6.0				4.9
8'-0"			4.1	4.9				
10'-0"				4.2				

1/4" ELCO PANELMATE FEMALE ID ANCHOR SCHEDULE - EXTRUSION 1 MOUNT (IN. O.C.)

SPAN	3350 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	4.3	4.9	5.7	7.0					4.5	5.3	6.4	
6'-0"			4.3	5.3								4.9
8'-0"				4.3								

1/4" ITW SAMMY SSC ANCHOR SCHEDULE - EXTRUSION 2 MOUNT (IN. O.C.)

SPAN	3295 PSI MIN CONCRETE				HOLLOW CONCRETE BLOCK				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	12.0	12.0	12.0	12.0	6.9	8.0	9.6	12.0	9.2	10.6	12.0	12.0
6'-0"	12.0	12.0	12.0	12.0	5.0	5.8	6.9	8.8	6.8	7.8	9.2	11.2
8'-0"	9.7	11.3	12.0	12.0		4.5	5.5	6.9	5.4	6.2	7.4	9.2
10'-0"	8.1	9.4	11.3	12.0			4.5	5.8	4.5	5.2	6.2	7.8
12'-0"	6.9	8.1	9.7	12.0				5.0		4.5	5.4	6.8
14'-0"	6.1	7.1	8.6	10.9				4.4		4.0	4.8	6.0
14'-8"	5.9	6.8	8.3	10.5				4.2			4.6	5.8
16'-0"	5.4	6.4	7.7	9.7							4.3	5.4
17'-0"	5.2	6.0	7.3	9.3							4.1	5.2
18'-2"	4.9	5.7	6.9	8.8								4.9

1/4" ELCO PANELMATE (MALE OR FEMALE) ANCHOR SCHEDULE - EXTRUSION 2 MOUNT (IN. O.C.)

SPAN	3323 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	12.0	12.0	12.0	12.0	5.7	6.6	8.0	10.1	9.1	10.4	12.0	12.0
6'-0"	9.4	11.0	12.0	12.0	4.0	4.7	5.7	7.2	6.6	7.6	9.1	11.3
8'-0"	7.4	8.6	10.4	12.0			4.4	5.7	5.2	6.1	7.2	9.1
10'-0"	6.1	7.1	8.6	11.0				4.7	4.4	5.1	6.1	7.6
12'-0"	5.2	6.1	7.4	9.4				4.0		4.4	5.2	6.6
14'-0"	4.6	5.4	6.5	8.3							4.6	5.8
14'-8"	4.4	5.1	6.2	8.0							4.5	5.6
16'-0"	4.1	4.8	5.8	7.4							4.2	5.2
17'-0"		4.5	5.5	7.0								5.0
18'-2"		4.3	5.2	6.6								4.7

1/4" POWERS HOLLOW-SET DROPIN ANCHOR SCHEDULE EXTRUSION 2 MOUNT (IN. O.C.)

SPAN	4000 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	8.5	9.9	12.0	12.0		4.3	5.2	6.8
6'-0"	5.9	6.9	8.5	10.9				4.7
8'-0"	4.6	5.4	6.6	8.5				
10'-0"		4.4	5.4	6.9				
12'-0"			4.6	5.9				
14'-0"				5.1				
14'-8"				4.9				
16'-0"				4.6				
17'-0"				4.3				
18'-2"				4.1				

1/4" ELCO PANELMATE INSERT ANCHOR SCHEDULE - EXTRUSION 2 MOUNT (IN. O.C.)

SPAN	2700 PSI MIN CONCRETE				HOLLOW CONCRETE BLOCK				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	11.1	12.0	12.0	12.0	8.4	9.8	11.8	12.0	8.6	10.0	12.0	12.0
6'-0"	8.1	9.3	11.1	12.0	6.0	7.0	8.4	10.7	6.1	7.1	8.6	10.9
8'-0"	6.4	7.4	8.9	11.1	4.6	5.4	6.6	8.4	4.8	5.6	6.7	8.6
10'-0"	5.4	6.2	7.4	9.3		4.5	5.4	7.0		4.6	5.6	7.1
12'-0"	4.7	5.4	6.4	8.1			4.6	6.0			4.8	6.1
14'-0"	4.1	4.8	5.7	7.2			4.1	5.2			4.2	5.3
14'-8"		4.6	5.5	6.9				5.0				5.1
16'-0"		4.3	5.1	6.4				4.6				4.8
17'-0"		4.1	4.9	6.1				4.4				4.5
18'-2"			4.6	5.8				4.2				4.3

NOTE: SEE SHEET 7 FOR ANCHOR NOTES

FRANK L. BENNARDO, P.E.
#PE0046549

10/18/2017

PE0046549

ENGINEERING EXPRESS

160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
PH: (954) 354-0660 FAX: (954) 354-0443
E: HELLO@ENGINEERINGEXPRESS.COM
CERT OF AUTH #9886
WWW.ENGINEERINGEXPRESS.COM

EASTERN METAL SUPPLY

4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
WWW.EASTERNMETAL.COM

BERTHA ASTROGUARD
WIND ABATEMENT SYSTEM
NON-HVHZ AND HVHZ APPROVED - FL13271.1

DATE	10/18/17
DRWN	JAC
CHKD	FLB
REMARKS	INIT
ISSUE	

17-4890

SCALE:

PAGE DESCRIPTION:

1/4" ALL POINTS SOLID-SET ANCHOR SCHEDULE - EXTRUSION 2 MOUNT (IN. O.C.)								
SPAN	3000 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	12.0	12.0	12.0	12.0	8.7	10.2	12.0	12.0
6'-0"	10.7	12.0	12.0	12.0	6.1	7.2	8.7	11.1
8'-0"	8.3	9.7	11.8	12.0	4.8	5.6	6.8	8.7
10'-0"	6.8	8.0	9.7	12.0		4.6	5.6	7.2
12'-0"	5.8	6.8	8.3	10.7			4.8	6.1
14'-0"	5.0	5.9	7.2	9.3			4.2	5.4
14'-8"	4.8	5.7	6.9	9.0				5.2
16'-0"	4.5	5.3	6.4	8.3				4.8
17'-0"	4.2	5.0	6.1	7.9				4.5
18'-2"		4.7	5.7	7.4				4.3

1/4" ELCO PANELMATE TVAS ANCHOR SCHEDULE - EXTRUSION 2 MOUNT (IN. O.C.)												
SPAN	3350 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	12.0	12.0	12.0	12.0	6.2	7.3	8.8	11.3	9.1	10.4	12.0	12.0
6'-0"	11.6	12.0	12.0	12.0	4.3	5.1	6.2	8.0	6.6	7.6	9.1	11.3
8'-0"	9.1	10.6	12.0	12.0			4.8	6.2	5.2	6.1	7.2	9.1
10'-0"	7.4	8.7	10.6	12.0				5.1	4.4	5.1	6.1	7.6
12'-0"	6.3	7.4	9.1	11.6				4.3		4.4	5.2	6.6
14'-0"	5.5	6.5	7.9	10.2							4.6	5.8
14'-8"	5.3	6.2	7.6	9.8							4.5	5.6
16'-0"	4.9	5.8	7.0	9.1							4.2	5.2
17'-0"	4.6	5.5	6.7	8.6								5.0
18'-2"	4.4	5.1	6.3	8.1								4.7

1/4" POWERS STEEL DROPIN ANCHOR SCHEDULE EXTRUSION 2 MOUNT (IN. O.C.)				
SPAN	4000 PSI MIN CONCRETE			
	DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	12.0	12.0	12.0	12.0
6'-0"	9.8	11.5	12.0	12.0
8'-0"	7.6	8.9	10.9	12.0
10'-0"	6.2	7.3	8.9	11.5
12'-0"	5.3	6.2	7.6	9.8
14'-0"	4.6	5.4	6.6	8.6
14'-8"	4.4	5.2	6.4	8.2
16'-0"	4.1	4.8	5.9	7.6
17'-0"		4.6	5.6	7.2
18'-2"		4.3	5.2	6.8

1/4" ELCO PANELMATE FEMALE ID ANCHOR SCHEDULE - EXTRUSION 2 MOUNT (IN. O.C.)												
SPAN	3350 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	12.0	12.0	12.0	12.0	5.7	6.6	8.0	10.1	9.1	10.4	12.0	12.0
6'-0"	9.4	11.0	12.0	12.0	4.0	4.7	5.7	7.2	6.6	7.6	9.1	11.3
8'-0"	7.4	8.6	10.4	12.0			4.4	5.7	5.2	6.1	7.2	9.1
10'-0"	6.1	7.1	8.6	11.0				4.7	4.4	5.1	6.1	7.6
12'-0"	5.2	6.1	7.4	9.4				4.0		4.4	5.2	6.6
14'-0"	4.6	5.4	6.5	8.3							4.6	5.8
14'-8"	4.4	5.1	6.2	8.0							4.5	5.6
16'-0"	4.1	4.8	5.8	7.4							4.2	5.2
17'-0"		4.5	5.5	7.0								5.0
18'-2"		4.3	5.2	6.6								4.7

3/8" POWERS STEEL DROPIN ANCHOR SCHEDULE EXTRUSION 2 MOUNT (IN. O.C.)				
SPAN	4000 PSI MIN CONCRETE			
	DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	12.0	12.0	12.0	12.0
6'-0"	12.0	12.0	12.0	12.0
8'-0"	12.0	12.0	12.0	12.0
10'-0"	12.0	12.0	12.0	12.0
12'-0"	11.2	12.0	12.0	12.0
14'-0"	9.8	11.5	12.0	12.0
14'-8"	9.4	11.0	12.0	12.0
16'-0"	8.6	10.2	12.0	12.0
17'-0"	8.2	9.7	11.8	12.0
18'-2"	7.7	9.1	11.1	12.0

1/4" POWERS POWER-STUD ANCHOR SCHEDULE - EXTRUSION 2 MOUNT (IN. O.C.)								
SPAN	4000 PSI MIN CONCRETE				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	12.0	12.0	12.0	12.0	8.1	9.4	11.2	12.0
6'-0"	9.2	10.8	12.0	12.0	5.8	6.7	8.1	10.2
8'-0"	7.2	8.4	10.2	12.0	4.5	5.3	6.4	8.1
10'-0"	6.0	7.0	8.4	10.8		4.4	5.3	6.7
12'-0"	5.1	6.0	7.2	9.2			4.5	5.8
14'-0"	4.5	5.2	6.3	8.1				5.1
14'-8"	4.3	5.0	6.1	7.8				4.9
16'-0"		4.6	5.6	7.2				4.5
17'-0"		4.4	5.4	6.9				4.3
18'-2"		4.2	5.1	6.5				4.1

NOTE: SEE SHEET 7 FOR ANCHOR NOTES

FRANK L. BENNARDO, P.E.
#PF0046549
10/18/2017
No. PF0046549

ENGINEERING EXPRESS
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
PH: (954) 354-0660 FAX: (954) 354-0443
E: HELLO@ENGINEERINGEXPRESS.COM
CERT OF AUTH #8888
WWW.ENGINEERINGEXPRESS.COM

EASTERN METAL SUPPLY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
WWW.EASTERNMETAL.COM
BERTHA ASTROGUARD
WIND ABATEMENT SYSTEM
NON-HVHZ AND HVHZ APPROVED - FL13271.1

DRWN	CHKD	DATE
JAC	FLB	10/18/17

17-4890
SCALE:
PAGE DESCRIPTION:

1/4" ITW SAMMY SSC ANCHOR SCHEDULE - BUILD OUT TUBE MOUNT (IN. O.C.)

SPAN	3295 PSI MIN CONCRETE				HOLLOW CONCRETE BLOCK				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	11.8	12.0	12.0	12.0	4.6	5.2	6.1	7.5	7.0	7.9	9.2	11.3
6'-0"	8.8	10.1	11.8	12.0			4.6	5.6	5.2	5.9	7.0	8.5
8'-0"	7.2	8.2	9.6	11.8				4.6	4.3	4.9	5.7	7.0
10'-0"	6.1	7.0	8.2	10.1						4.1	4.9	5.9
12'-0"	5.4	6.1	7.2	8.8							4.3	5.2
14'-0"	4.8	5.5	6.4	7.9								4.7
14'-8"	4.6	5.3	6.2	7.7								4.5
16'-0"	4.3	5.0	5.8	7.2								4.3
17'-0"	4.2	4.8	5.6	6.9								4.1
18'-2"		4.5	5.3	6.6								

1/4" ALL POINTS SOLID-SET ANCHOR SCHEDULE - BUILD OUT TUBE MOUNT (IN. O.C.)

SPAN	3000 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	9.3	10.6	12.0	12.0	5.4	6.1	7.2	8.8
6'-0"	6.9	7.9	9.3	11.4	4.0	4.6	5.4	6.6
8'-0"	5.6	6.4	7.6	9.3			4.4	5.4
10'-0"	4.8	5.5	6.4	7.9				4.6
12'-0"	4.2	4.8	5.6	6.9				4.0
14'-0"		4.3	5.0	6.2				
14'-8"		4.1	4.9	6.0				
16'-0"			4.6	5.6				
17'-0"			4.4	5.4				
18'-2"			4.2	5.1				

1/4" ELCO PANELMATE (MALE OR FEMALE) ANCHOR SCHEDULE - BUILD OUT TUBE MOUNT (IN. O.C.)

SPAN	3323 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	8.7	9.9	11.6	12.0		4.0	4.7	5.8	6.7	7.6	8.9	10.9
6'-0"	6.5	7.4	8.7	10.7				4.4	5.1	5.8	6.7	8.2
8'-0"	5.3	6.0	7.1	8.7					4.1	4.7	5.5	6.7
10'-0"	4.5	5.1	6.0	7.4						4.0	4.7	5.8
12'-0"		4.5	5.3	6.5							4.1	5.1
14'-0"		4.0	4.7	5.8								4.5
14'-8"			4.6	5.6								4.4
16'-0"			4.3	5.3								4.1
17'-0"			4.1	5.1								
18'-2"				4.8								

1/4" POWERS STEEL DROPIN ANCHOR SCHEDULE BUILD OUT TUBE MOUNT (IN. O.C.)

SPAN	4000 PSI MIN CONCRETE			
	DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	8.5	9.7	11.4	12.0
6'-0"	6.3	7.2	8.5	10.5
8'-0"	5.1	5.9	6.9	8.5
10'-0"	4.4	5.0	5.9	7.2
12'-0"		4.4	5.1	6.3
14'-0"			4.6	5.7
14'-8"			4.4	5.5
16'-0"			4.2	5.1
17'-0"				4.9
18'-2"				4.7

3/8" POWERS STEEL DROPIN ANCHOR SCHEDULE BUILD OUT TUBE MOUNT (IN. O.C.)

SPAN	4000 PSI MIN CONCRETE			
	DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	12.0	12.0	12.0	12.0
6'-0"	12.0	12.0	12.0	12.0
8'-0"	10.9	12.0	12.0	12.0
10'-0"	9.2	10.6	12.0	12.0
12'-0"	8.1	9.2	10.9	12.0
14'-0"	7.2	8.3	9.7	12.0
14'-8"	7.0	8.0	9.4	11.6
16'-0"	6.5	7.5	8.8	10.9
17'-0"	6.2	7.1	8.4	10.4
18'-2"	5.9	6.8	8.0	9.9

1/4" ELCO PANELMATE INSERT ANCHOR SCHEDULE - BUILD OUT TUBE MOUNT (IN. O.C.)

SPAN	2700 PSI MIN CONCRETE				HOLLOW CONCRETE BLOCK				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	8.2	9.3	10.9	12.0	5.3	6.1	7.1	8.7	5.5	6.3	7.3	9.0
6'-0"	6.1	7.0	8.2	10.0		4.5	5.3	6.6	4.1	4.7	5.5	6.7
8'-0"	5.0	5.7	6.7	8.2			4.3	5.3			4.5	5.5
10'-0"	4.3	4.9	5.7	7.0				4.5				4.7
12'-0"		4.3	5.0	6.1								4.1
14'-0"			4.5	5.5								
14'-8"			4.3	5.3								
16'-0"			4.1	5.0								
17'-0"				4.8								
18'-2"				4.6								

1/4" POWERS POWER-STUD ANCHOR SCHEDULE - BUILD OUT TUBE MOUNT (IN. O.C.)

SPAN	4000 PSI MIN CONCRETE				GROUT-FILLED CONCRETE BLOCK			
	DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	8.4	9.6	11.3	12.0	5.4	6.1	7.1	8.8
6'-0"	6.3	7.2	8.4	10.4	4.0	4.6	5.4	6.6
8'-0"	5.1	5.8	6.9	8.4			4.4	5.4
10'-0"	4.4	5.0	5.8	7.2				4.6
12'-0"		4.4	5.1	6.3				4.0
14'-0"			4.6	5.6				
14'-8"			4.4	5.5				
16'-0"			4.2	5.1				
17'-0"				4.9				
18'-2"				4.7				

1/4" POWERS HOLLOW-SET DROPIN ANCHOR SCHEDULE BUILD OUT TUBE MOUNT (IN. O.C.)

SPAN	4000 PSI MIN CONCRETE			
	DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	5.0	5.7	6.7	8.2
6'-0"		4.3	5.0	6.2
8'-0"			4.1	5.0
10'-0"				4.3

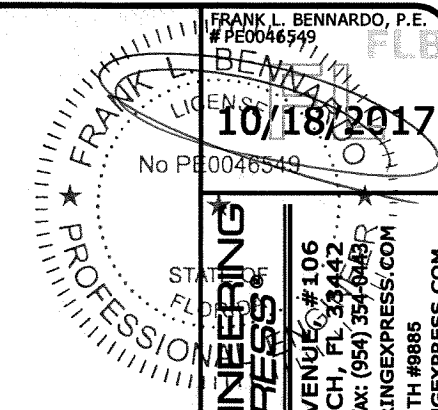
1/4" ELCO PANELMATE FEMALE ID ANCHOR SCHEDULE - BUILD OUT TUBE MOUNT (IN. O.C.)

SPAN	3350 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	8.7	9.9	11.6	12.0		4.0	4.7	5.8	6.7	7.6	8.9	10.9
6'-0"	6.5	7.4	8.7	10.7				4.4	5.1	5.8	6.7	8.2
8'-0"	5.3	6.0	7.1	8.7					4.1	4.7	5.5	6.7
10'-0"	4.5	5.1	6.0	7.4						4.0	4.7	5.8
12'-0"		4.5	5.3	6.5							4.1	5.1
14'-0"		4.0	4.7	5.8								4.5
14'-8"			4.6	5.6								4.4
16'-0"			4.3	5.3								4.1
17'-0"			4.1	5.1								
18'-2"				4.8								

1/4" ELCO PANELMATE TVAS ANCHOR SCHEDULE - BUILD OUT TUBE MOUNT (IN. O.C.)

SPAN	3350 PSI MIN CONCRETE				HOLLOW AND GROUT-FILLED CONCRETE BLOCK				G=0.55 MIN. WOOD			
	DESIGN PRESSURE				DESIGN PRESSURE				DESIGN PRESSURE			
	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF	60 PSF	50 PSF	40 PSF	30 PSF
4'-0"	10.3	11.8	12.0	12.0		4.2	4.9	6.1	6.7	7.6	8.9	10.9
6'-0"	7.7	8.8	10.3	12.0				4.5	5.1	5.8	6.7	8.2
8'-0"	6.2	7.1	8.4	10.3					4.1	4.7	5.5	6.7
10'-0"	5.3	6.1	7.1	8.8						4.0	4.7	5.8
12'-0"	4.6	5.3	6.2	7.7							4.1	5.1
14'-0"	4.1	4.7	5.6	6.9								4.5
14'-8"	4.0	4.6	5.4	6.7								4.4
16'-0"		4.3	5.1	6.2								4.1
17'-0"			4.1	4.8	6.0							
18'-2"				4.6	5.7							

NOTE: SEE SHEET 7 FOR ANCHOR NOTES



ENGINEERING EXPRESS
 160 SW 12th AVENUE #106
 DEERFIELD BEACH, FL 33442
 Ph: (954) 354-0660 Fax: (954) 354-0439
 E: HELLO@ENGINEERINGEXPRESS.COM
 WWW.ENGINEERINGEXPRESS.COM
 CERT OF AUTH #9885

EASTERN METAL SUPPLY
 4268 WESTROADS DRIVE
 WEST PALM BEACH, FL 33407
 WWW.EASTERNMETAL.COM
 BERTHA ASTROGUARD
 WIND ABATEMENT SYSTEM
 NON-HVHZ AND HVHZ APPROVED - FL13271.1

DRWN	CHKD	DATE
JAC	FLB	10/18/17

REMARKS
 INIT ISSUE

17-4890
 SCALE:
 PAGE DESCRIPTION: