

GENERAL NOTES:

1. TKJ ENGINEERING, LLC. HAS NO CONTROL OF THE MANUFACTURING, PERFORMANCE, OR INSTALLATION OF THIS PRODUCT. THESE GENERIC PLANS WERE ENGINEERED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES AND TEST DATA PROVIDED BY THE MANUFACTURER.
2. THE ADVANCED SCREEN SYSTEM SHOWN ON THIS PRODUCT EVALUATION DOCUMENT HAS BEEN DESIGNED IN ACCORDANCE WITH THE 8TH EDITION (2023) FLORIDA BUILDING CODE (FBC). THIS ADVANCED SCREEN SYSTEM SHALL NOT BE INSTALLED IN HIGH VELOCITY HURRICANE ZONES (MIAMI-DADE COUNTY/BROWARD COUNTY). THE ADVANCED SCREEN ZIPPER SYSTEM INSTALLED IN WIND ZONE 4 (SEE FBC SECTION 1609.1.2.2), OR ESSENTIAL FACILITIES SHALL MEET THE MINIMUM SEPARATION TO GLASS. THE ADVANCED SCREEN ROPE SYSTEM INSTALLED IN ANY WIND ZONE SHALL MEET THE MINIMUM SEPARATION TO GLASS. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1609 OF THE ABOVE REFERENCED CODE, IN ACCORDANCE WITH ASCE 7-22, AND FOR A BASIC WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THE ADVANCED SCREEN SYSTEM WILL BE INSTALLED. THE ADVANCED SCREEN SYSTEM ADEQUACY FOR IMPACT, DEFLECTION, AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1609.1.2 OF THE ABOVE REFERENCED CODE AND AS PER ASTM E330, E1886, & E1996 AT FENESTRATION TESTING LABORATORY, INC. PER THEIR REPORTS (SEE LIST OF REPORTS).
3. LIMITATIONS OF USE:

A. THIS PRODUCT SHALL NOT BE USED IN HIGH VELOCITY HURRICANE ZONES (SEE FBC SECTION 202).

B. FOR DETERMINING INTERNAL PRESSURE IN THESE REFERENCED CODES, THE ZIPPER SYSTEM IS CLASSIFIED AS NON-POROUS, HAVING A POROSITY OF LESS THEN 10% AND THE ROPE SYSTEM IS CLASSIFIED AS POROUS, HAVING A POROSITY OF GREATER THAN 10% FOR THE CONDITIONS SHOWN IN THIS PRODUCT EVALUATION DOCUMENTS. SCREEN PANELS MUST COMPLETELY COVER AN OPENING IN ALL DIRECTIONS. GLASS SEPARATION IS NOT REQUIRED EXCEPT FOR THE FOLLOWING CONDITIONS.

• ESSENTIAL FACILITIES AS DEFINED IN ASCE 7-22

• WHERE THE SPECIFYING AUTHORITY HAS SPECIFIED OPTIONAL ADDITIONAL PASS/FAIL CRITERIA IN ACCORDANCE WITH ASTM E1996 FOR WIND ZONE 4 AS DEFINED IN ASTM E1996 WITH MODIFICATION BY THE FBC SECTION 1609.1.2.2 (FBC: LOCATIONS WITH ULTIMATE WIND SPEED GREATER THAN 170 MPH).

• THE ADVANCED SCREEN ZIPPER SYSTEM INSTALLED IN WIND ZONE 4 OR ESSENTIAL FACILITIES AND ADVANCED SCREEN SYSTEM ROPE SYSTEM IN ANY WIND ZONE SHALL MEET THE MINIMUM SEPARATION TO GLASS TABLES ON SHEET 3.

C. INSTALLATION WITH INTERMEDIATE, END, AND CORNER MULLIONS REQUIRE A FLORIDA PRODUCT APPROVAL FOR USE WITH THIS TYPE OF SHUTTER SYSTEM.

D. INSTALLATIONS SHALL NOT EXCEED THE MAXIMUM ALLOWABLE STRESS DESIGN (ASD) DESIGN RATINGS AND SIZE LIMITS PROVIDED IN THIS PRODUCT EVALUATION. ULTIMATE DESIGN WIND LOADS DETERMINED BY THE FLORIDA BUILDING CODE AND ASCE 7-22 SHALL BE REDUCED TO ASD BY MULTIPLYING BY 0.6 (SEE FBC SECTION 1609.1.2.4)

E. IMPACT LEVEL D; 9-1/4 LB LARGE MISSILE IMPACT.

F. ANCHORING OR LOADING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL

G. THIS PRODUCT CAN BE USED AS A WINDBORNE DEBRIS SHUTTER PRODUCT.

H. INCREASE IN ALLOWABLE STRESS (1.33) HAS NOT BEEN INCORPORATED INTO THE DESIGN OF THIS PRODUCT.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE EXISTING STRUCTURE IS ADEQUATE TO SUPPORT THE MINIMUM LOADS SHOWN ON THE TABLES ON SHEET 2. EXISTING STRUCTURES NOT ABLE TO SUPPORT THESE LOADS SHALL BE EVALUATED AS A SITE SPECIFIC PROJECT. SEE NOTE 4 OF PRODUCT EVALUATION NOTES.
5. ALL ALUMINUM EXTRUSION SHALL BE 6063-T6 ALLOY (UNLESS OTHERWISE NOTED OR CAN BE REPLACED WITH 6061-T6).
6. WIND ABATEMENT MANUFACTURE’S LABELS SHALL BE IN ACCORDANCE WITH SECTION 1709.9 OF THE FLORIDA BUILDING CODE.
7. FOR DETERMINING INTERNAL PRESSURE IN THE ABOVE REFERENCED CODES, THIS PRODUCT IS CLASSIFIED AS NON-POROUS, HAVING A POROSITY OF LESS THEN 10%, FOR THE CONDITIONS SHOWN IN THIS PRODUCT EVALUATION DOCUMENT. SCREEN PANELS MUST COMPLETELY COVER AN OPENING IN ALL DIRECTIONS.
8. THE ROLL-UP SCREEN SHALL BE STORED IN THE UP POSITION OR SHALL BE STORED IN A DESIGNATED AND ACCESSIBLE AREA, DURING NORMAL WEATHER CONDITIONS.

PRODUCT EVALUATION NOTES:

1. THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SELECTION, PURCHASE, AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED AND SHALL NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
3. THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
4. SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. THE ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT SITE SPECIFIC DRAWINGS FOR REVIEW.

ANCHOR & FASTENING NOTES:

1. ALL FASTENERS SHALL BE CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018 OR STAINLESS STEEL 304 OR 316 SERIES WITH 50 KSI YIELD POINT AND 90 KSI ULTIMATE TENSILE STRENGTH.
2. NO EMBEDMENT INTO NON-STRUCTURAL COMPONENTS SUCH AS, STUCCO, TILE, SIDING, ETC. SHALL BE CONSIDERED AS PART OF THE EMBEDMENT.
3. THE ANCHOR SPACING AND DESIGN PRESSURES ARE VALID FOR EDGE DISTANCES AND MINIMUM EMBEDMENT ON SHEET 2. FOR EDGE DISTANCES LESS THAN SPECIFIED, THE SCREEN DESIGN PRESSURE SHALL BE REDUCED BY THE EDGE DISTANCE REDUCTION FACTORS SHOWN ON SHEET 2. THE EDGE DISTANCE SHALL NOT BE LESS THAN 1 1/2" IN CONCRETE OR CMU, 3/4" IN WOOD, OR MINIMUM SPECIFIED BY THE MANUFACTURER. THE MINIMUM EDGE DISTANCE FOR THE 1/4-14 DRIL-FLEX SCREW IS 1/2".

ZIPPER SCREEN FABRIC SPECIFICATION:

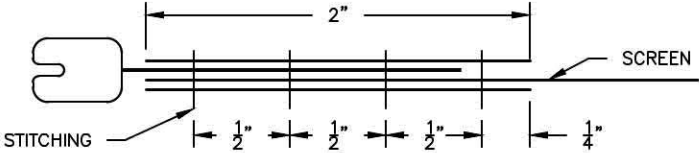
FIBER CONTENT: 100% POLYPROPYLENE
FINISH: CALENDARED
WEIGHT (ASTM D3776): 9.7 -OZ/SQUARE YARD
THICKNESS (ASTM D5199): 21.0 MIL
SELVAGE: HEAT CUT OR WOVEN
TENSILE STRENGTH (GRAB METHOD, ASTM D4632): WARP – 500 lbs., WEFT – 550 lbs.
BURST STRENGTH (ASTM D3786): 750 PSI
TEAR STRENGTH (ASTM D4533): WARP – 200 lbs., WEFT – 250 lbs.
ABRASION RESISTANCE (ASTM D4886): 95% STRENGTH RETAINED
PUNCTURE STRENGTH (ASTM D4833): 200 lbs.
AIR FLOW: 175 CFM
UV RETENTION (ASTM D-G154): 70%
OPEN AREA (COE-02215) 5%

ROPE SCREEN FABRIC SPECIFICATION:

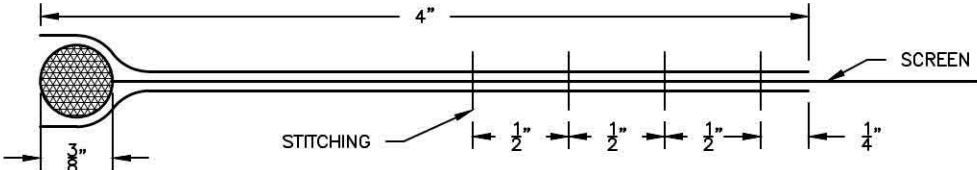
FIBER CONTENT: 100% POLYPROPYLENE
WEAVE: 3/3 BASKETWEAVE
YARN SIZE (ASTM D1907): WARP – 925, FILL – 925 DENIER MONOFILL PP
WEIGHT (ASTM D3776): 10.0 -OZ/SQUARE YARD
THICKNESS (ASTM D5199): 24.0 MIL
SELVAGE: HEAT CUT OR WOVEN
TENSILE STRENGTH (ASTM D4632): WARP – 500 lbs., WEFT – 450 lbs.
BURST STRENGTH (ASTM D3786): 985 PSI
AIR FLOW: 300 CFM
SHADE: 88%

EDGES:

ZIPPER SCREEN: 2" THERMO-SEALED POLYPROPYLENE REINFORCED EDGES
ROPE SCREEN: 4" THERMO-SEALED POLYPROPYLENE REINFORCED EDGES



STITCHING - DETAIL
ZIPPER SCREEN RAIL EDGES - SCALE: 1:1



STITCHING - DETAIL
ROPE SCREEN RAIL EDGES - SCALE: 1:1

LIST OF REPORTS:

FENESTRATION TESTING LABORATORY, INC.

LABORATORY No. 7001
DATE: 2/5/2013
PROJECT No. 12-4031
FILE No. 12-374
TEST PROTOCOL: ASTM E330-02, E1886-05, & E1996-05
MAXIMUM WIDTH TESTED: 294"
DESIGN PRESSURE TESTED: 60 PSF
STRUCTURAL LOAD TESTED: 90 PSF
MINIMUM WIDTH TESTED: 55.5"
DESIGN PRESSURE TESTED: 140 PSF
STRUCTURAL LOAD TESTED: 210 PSF

ARCHITECTURAL TESTING

REPORT No. 97368.01-401-44
DATE: 5/05/2010
TEST PROTOCOL: ASTM E330-02, E1886-05, & E1996-05
MAXIMUM WIDTH TESTED: 296.5"
DESIGN PRESSURE TESTED: 75 PSF
STRUCTURAL LOAD TESTED: 112.5 PSF

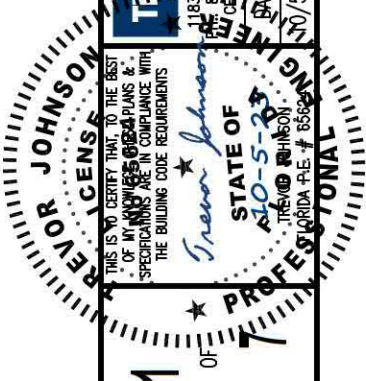
REPORT No. A0255.01-401-36
DATE: 5/07/2010
TEST PROTOCOL: ASTM E330-02
MAXIMUM WIDTH TESTED: 168"
DESIGN PRESSURE TESTED: 75 PSF
MINIMUM WIDTH TESTED: 36"
DESIGN PRESSURE TESTED: 75 PSF

REVISIONS	DATE	#

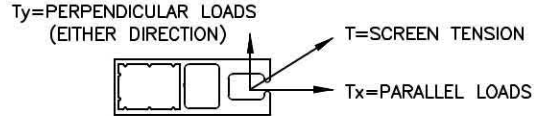


ADVANCED SCREEN
ROLL-UP SYSTEM

TKJ Engineering, LLC.	11332 AUTUMN CREEK DRIVE, RIVERVIEW, FL 33569 TEL: 813.404.7646; FAX: TKJENGINEERING@VERIZON.NET WWW.TKJENGINEERING.COM CERTIFICATE OF AUTHORIZATION NUMBER: 28582	PROJ. #:	23-0803
	DATE: 10/5/23	SCALE: N.T.S.	
	DRAWN BY: TKJ		



Anchor	Concrete & Filled CMU		Hollow CMU (1800 PSI)		Wood (S.G. = .55)	
	Min. Edge	Min Emb.	Min. Edge	Min Emb.	Min. Edge	Min Emb.
5/16" ULTRACON HFH	3 1/4"	2"	3 1/4"	1 1/4"	2"	1 1/2"

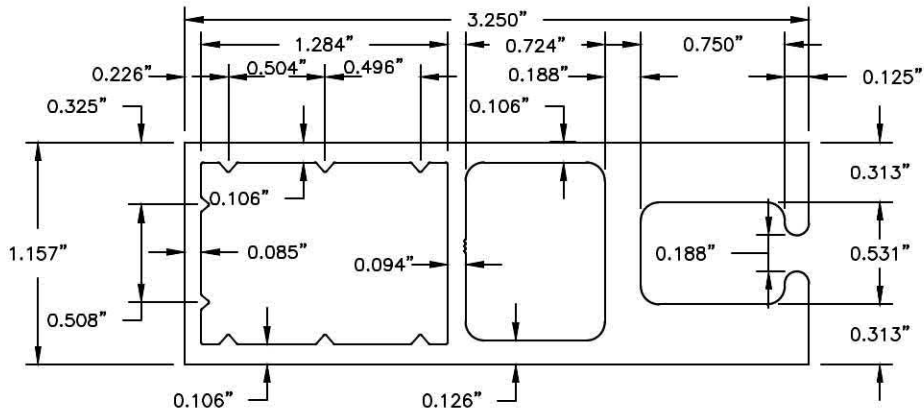


LOADS ON EXISTING STRUCTURE
ROLL-UP INSTALLATIONS

LOADS ON EXISTING STRUCTURE FROM SCREEN SYSTEM																											
Tx = PARALLEL LOADS (PLF)																											
SCREEN SPAN	PRESSURE (PSF)																										
	140	135	130	125	120	115	110	105	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30				
36"	449	441	429	416	404	391	383	370	357	343	330	316	307	293	278	264	249	234	218	202	186	169	146				
42"	534	520	506	491	477	467	452	437	421	406	390	379	363	346	329	312	295	277	259	240	221	201	180				
48"	616	600	583	567	556	539	522	504	487	469	456	438	419	400	381	361	341	321	299	278	256	233	209				
54"	698	680	662	643	630	611	592	572	552	532	518	497	476	455	433	411	388	365	341	316	291	265	239				
60"	781	761	740	720	705	684	662	640	618	596	580	557	533	509	485	460	435	409	382	355	327	298	268				
66"	865	842	819	796	781	757	733	709	685	668	643	617	591	565	538	510	482	453	424	394	363	331	298				
72"	948	924	899	874	856	831	805	778	751	733	705	677	649	620	590	560	530	498	466	433	399	364	328				
78"	1032	1006	979	951	933	905	876	848	819	789	768	738	707	676	644	611	578	543	508	473	436	397	358				
84"	1117	1088	1059	1030	1009	979	948	917	886	854	832	799	766	732	697	662	626	589	551	512	472	431	388				
90"	1202	1171	1140	1108	1076	1054	1021	988	954	920	895	860	824	788	751	713	674	634	594	552	509	465	419				
96"	1277	1254	1221	1187	1153	1129	1094	1058	1022	985	959	922	883	844	805	764	723	680	637	592	546	499	449				
102"	1362	1338	1302	1266	1230	1204	1167	1129	1090	1051	1024	984	943	901	859	816	771	726	680	632	583	533	480				
108"	1448	1422	1384	1346	1307	1280	1240	1200	1159	1118	1088	1046	1002	958	913	867	820	772	723	673	621	567	511				
114"	1534	1506	1466	1426	1385	1343	1314	1271	1228	1184	1140	1108	1062	1016	968	919	870	819	767	713	658	602	543				
120"	1620	1578	1549	1506	1463	1419	1388	1343	1298	1251	1204	1171	1123	1073	1023	972	919	866	811	754	696	636	574				
126"	1707	1663	1632	1587	1541	1495	1463	1415	1367	1319	1269	1234	1183	1131	1078	1024	969	913	855	795	734	671	605				
132"	1794	1748	1715	1668	1620	1572	1538	1488	1437	1386	1334	1297	1244	1189	1134	1077	1019	960	899	837	772	706	637				
138"	1881	1833	1799	1749	1699	1648	1597	1561	1508	1454	1400	1344	1305	1248	1190	1130	1069	1007	944	878	811	741	669				
144"	1969	1918	1867	1831	1779	1726	1672	1634	1579	1522	1465	1408	1366	1306	1246	1183	1120	1055	988	920	849	776	701				
150"	2057	2004	1951	1913	1859	1803	1747	1707	1650	1591	1531	1471	1428	1365	1302	1237	1171	1103	1033	962	888	812	733				
156"	2146	2091	2035	1996	1939	1881	1822	1781	1721	1660	1598	1535	1490	1425	1358	1291	1221	1151	1078	1004	927	847	765				
162"	2235	2178	2119	2079	2019	1959	1898	1836	1793	1729	1664	1599	1532	1484	1415	1345	1273	1199	1123	1046	966	883	797				
168"	2325	2265	2204	2143	2100	2038	1974	1910	1865	1798	1731	1663	1594	1544	1472	1399	1324	1247	1169	1088	1005	919	830				
174"	-	2352	2290	2226	2182	2117	2051	1984	1937	1868	1798	1728	1656	1604	1529	1453	1376	1296	1215	1131	1044	955	863				
180"	-	-	2375	2309	2263	2196	2127	2058	2009	1938	1866	1792	1718	1642	1587	1508	1427	1345	1260	1174	1084	992	896				
186"	-	-	-	2393	2345	2275	2204	2133	2060	2008	1934	1857	1780	1701	1645	1563	1479	1394	1306	1216	1124	1028	929				
192"	-	-	-	-	2405	2355	2282	2208	2132	2079	2002	1923	1843	1761	1703	1618	1532	1443	1353	1260	1164	1065	962				
198"	-	-	-	-	-	-	2360	2283	2205	2150	2070	1988	1906	1821	1761	1674	1584	1493	1399	1303	1204	1101	995				
204"	-	-	-	-	-	-	-	2358	2278	2221	2139	2054	1969	1882	1793	1729	1637	1543	1446	1346	1244	1138	1028				
210"	-	-	-	-	-	-	-	-	2351	2267	2207	2121	2032	1943	1851	1785	1690	1593	1493	1390	1284	1175	1062				
216"	-	-	-	-	-	-	-	-	2425	2338	2277	2187	2096	2003	1909	1841	1743	1643	1540	1434	1325	1212	1096				
222"	-	-	-	-	-	-	-	-	-	2409	2346	2254	2160	2065	1967	1868	1797	1693	1587	1478	1366	1250	1130				
228"	-	-	-	-	-	-	-	-	-	-	2416	2321	2224	2126	2026	1924	1850	1744	1634	1522	1407	1287	1164				
234"	-	-	-	-	-	-	-	-	-	-	-	2388	2289	2188	2085	1980	1904	1794	1682	1567	1448	1325	1198				
240"	-	-	-	-	-	-	-	-	-	-	-	-	2354	2250	2144	2036	1958	1845	1730	1611	1489	1363	1232				
246"	-	-	-	-	-	-	-	-	-	-	-	-	-	2419	2312	2203	2092	1979	1897	1778	1656	1531	1401	1266			
252"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2374	2263	2149	2032	1948	1826	1701	1572	1439	1301			
258"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2437	2322	2206	2086	2000	1875	1746	1614	1477	1336			
264"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2382	2262	2140	2015	1923	1792	1656	1516	1371			
270"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2443	2320	2194	2066	1972	1837	1698	1555	1406			
276"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2377	2248	2117	2021	1883	1740	1593	1441			
282"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2435	2303	2168	2030	1929	1783	1632	1476			
288"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2358	2220	2078	1975	1826	1671	1511			

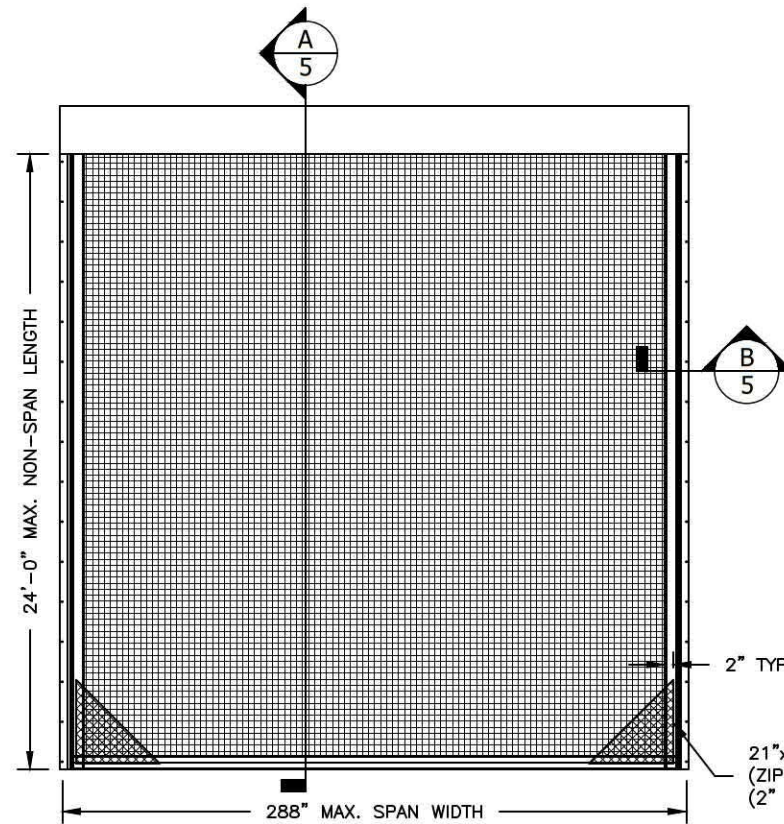
LOADS ON EXISTING STRUCTURE FROM SCREEN SYSTEM Ty = PERPENDIC
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ZIPPER SCREEN MINIMUM SEPARATION TO GLAZING (INCHES) REQUIRED FOR INSTALLATION IN WND ZONE 4 AND ESSENTIAL FACILITIES																										
SCREEN SPAN	PRESSURE (PSF)																									
	140	135	130	125	120	115	110	105	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30			
36"	7.0	6.9	6.8	6.8	6.7	6.6	6.5	6.4	6.3	6.3	6.2	6.1	6.0	5.9	5.8	5.7	5.5	5.4	5.3	5.2	5.0	4.9	4.7			
42"	7.8	7.8	7.7	7.6	7.5	7.4	7.3	7.2	7.1	7.0	6.9	6.8	6.7	6.6	6.4	6.3	6.2	6.0	5.9	5.7	5.6	5.4	5.2			
48"	8.7	8.6	8.5	8.4	8.3	8.2	8.1	8.0	7.8	7.7	7.6	7.5	7.4	7.2	7.1	6.9	6.8	6.6	6.5	6.3	6.1	5.9	5.7			
54"	9.5	9.4	9.3	9.2	9.1	8.9	8.8	8.7	8.6	8.4	8.3	8.2	8.0	7.9	7.7	7.6	7.4	7.2	7.0	6.9	6.6	6.4	6.2			
60"	10.3	10.2	10.1	9.9	9.8	9.7	9.6	9.4	9.3	9.1	9.0	8.8	8.7	8.5	8.4	8.2	8.0	7.8	7.6	7.4	7.2	6.9	6.7			
66"	11.1	11.0	10.8	10.7	10.6	10.4	10.3	10.1	10.0	9.8	9.7	9.5	9.3	9.2	9.0	8.8	8.6	8.4	8.2	7.9	7.7	7.4	7.1			
72"	11.9	11.7	11.6	11.4	11.3	11.2	11.0	10.8	10.7	10.5	10.3	10.1	10.0	9.8	9.6	9.4	9.2	8.9	8.7	8.4	8.2	7.9	7.6			
78"	12.6	12.5	12.3	12.2	12.0	11.8	11.7	11.5	11.3	11.2	11.0	10.8	10.6	10.4	10.2	9.9	9.7	9.5	9.2	8.9	8.7	8.3	8.0			
84"	13.4	13.2	13.0	12.9	12.7	12.5	12.4	12.2	12.0	11.8	11.6	11.4	11.2	11.0	10.7	10.5	10.3	10.0	9.7	9.4	9.1	8.8	8.4			
90"	14.1	13.9	13.8	13.6	13.4	13.2	13.0	12.8	12.6	12.4	12.2	12.0	11.8	11.6	11.3	11.1	10.8	10.5	10.2	9.9	9.6	9.3	8.9			
96"	14.8	14.6	14.5	14.3	14.1	13.9	13.7	13.5	13.3	13.1	12.8	12.6	12.4	12.1	11.9	11.6	11.3	11.0	10.8	10.4	10.1	9.7	9.3			
102"	15.5	15.3	15.1	14.9	14.7	14.5	14.3	14.1	13.9	13.7	13.4	13.2	13.0	12.7	12.4	12.2	11.9	11.6	11.2	10.9	10.5	10.1	9.7			
108"	16.2	16.0	15.8	15.6	15.4	15.2	15.0	14.7	14.5	14.3	14.0	13.8	13.5	13.3	13.0	12.7	12.4	12.1	11.7	11.4	11.0	10.6	10.1			
114"	16.9	16.7	16.5	16.3	16.0	15.8	15.6	15.4	15.1	14.9	14.6	14.3	14.1	13.8	13.5	13.2	12.9	12.5	12.2	11.8	11.4	11.0	10.5			
120"	17.5	17.3	17.1	16.9	16.7	16.4	16.2	16.0	15.7	15.5	15.2	14.9	14.6	14.3	14.0	13.7	13.4	13.0	12.7	12.3	11.9	11.4	10.9			
126"	18.2	18.0	17.8	17.5	17.3	17.1	16.8	16.5	16.3	16.0	15.7	15.5	15.2	14.9	14.5	14.2	13.9	13.5	13.1	12.7	12.3	11.8	11.3			
132"	18.8	18.6	18.4	18.1	17.9	17.7	17.4	17.1	16.9	16.6	16.3	16.0	15.7	15.4	15.1	14.7	14.3	14.0	13.6	13.2	12.7	12.2	11.7			
138"	19.5	19.3	19.0	18.8	18.5	18.2	18.0	17.7	17.4	17.1	16.8	16.5	16.2	15.9	15.5	15.2	14.8	14.4	14.0	13.6	13.1	12.6	12.0			
144"	20.1	19.9	19.6	19.3	19.1	18.8	18.6	18.3	18.0	17.7	17.4	17.1	16.8	16.4	16.0	15.7	15.3	14.9	14.5	14.0	13.5	13.0	12.4			
150"	20.7	20.5	20.2	20.0	19.7	19.4	19.1	18.8	18.5	18.2	17.9	17.6	17.3	16.9	16.5	16.1	15.8	15.3	14.9	14.4	13.9	13.4	12.8			
156"	21.3	21.1	20.8	20.5	20.2	20.0	19.7	19.4	19.1	18.8	18.4	18.1	17.7	17.4	17.0	16.6	16.2	15.8	15.3	14.8	14.3	13.8	13.2			
162"	21.9	21.7	21.4	21.1	20.8	20.5	20.2	19.9	19.6	19.3	18.9	18.6	18.2	17.9	17.5	17.1	16.7	16.2	15.7	15.3	14.7	14.1	13.5			
168"	22.5	22.2	22.0	21.7	21.4	21.1	20.8	20.5	20.1	19.8	19.5	19.1	18.7	18.4	18.0	17.5	17.1	16.6	16.2	15.6	15.1	14.5	13.9			
174"	-	-	22.8	22.5	22.2	21.9	21.6	21.3	21.0	20.7	20.3	20.0	19.6	19.2	18.8	18.4	18.0	17.5	17.1	16.6	16.0	15.5	14.9	14.2		
180"	-	-	-	23.1	22.8	22.5	22.2	21.8	21.5	21.2	20.8	20.5	20.1	19.7	19.3	18.9	18.4	18.0	17.5	17.0	16.4	15.9	15.2	14.6		
186"	-	-	-	-	23.3	23.0	22.7	22.4	22.0	21.7	21.3	21.0	20.5	20.2	19.7	19.3	18.9	18.4	17.9	17.4	16.8	16.2	15.6	14.9		
192"	-	-	-	-	-	23.5	23.2	22.9	22.5	22.2	21.8	21.4	21.0	20.6	20.2	19.8	19.3	18.8	18.3	17.8	17.2	16.6	15.9	15.2		
198"	-	-	-	-	-	-	23.4	23.1	22.7	22.3	21.9	21.5	21.1	20.6	20.2	19.7	19.3	18.7	18.2	17.6	17.0	16.3	15.5			
204"	-	-	-	-	-	-	-	23.5	23.2	22.8	22.4	22.0	21.5	21.1	20.6	20.2	19.7	19.1	18.6	17.9	17.3	16.6	15.9			
210"	-	-	-	-	-	-	-	-	23.7	23.2	22.8	22.4	22.0	21.5	21.1	20.6	20.1	19.5	19.0	18.3	17.7	17.0	16.2			
216"	-	-	-	-	-	-	-	-	-	24.1	23.7	23.3	22.9	22.4	22.0	21.5	21.0	20.4	19.9	19.3	18.7	18.0	17.3	16.5		
222"	-	-	-	-	-	-	-	-	-	-	24.2	23.8	23.3	22.9	22.4	21.9	21.4	20.9	20.3	19.7	19.1	18.4	17.7	16.8		
228"	-	-	-	-	-	-	-	-	-	-	-	24.2	23.8	23.3	22.8	22.3	21.8	21.2	20.6	20.1	19.4	18.7	18.0	17.1		
234"	-	-	-	-	-	-	-	-	-	-	-	-	24.2	23.7	23.2	22.7	22.2	21.6	21.0	20.4	19.7	19.0	18.3	17.5		
240"	-	-	-	-	-	-	-	-	-	-	-	-	-	24.1	23.6	23.1	22.6	22.0	21.4	20.8	20.1	19.4	18.6	17.7		
246"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.5	24.0	23.5	22.9	22.4	21.8	21.1	20.4	19.7	18.9	18.1	
252"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.5	23.9	23.4	22.7	22.1	21.5	20.8	20.1	19.2	18.3	
258"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.9	24.3	23.7	23.1	22.5	21.8	21.1	20.4	19.6	18.7
264"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.7	24.1	23.5	22.9	22.2	21.5	20.7	19.8	19.0	
270"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.1	24.5	23.9	23.2	22.5	21.8	21.0	20.2	19.2	
276"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.9	24.2	23.6	22.8	22.1	21.3	20.4	19.5	
282"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.2	24.6	23.9	23.2	22.5	21.7	20.8	19.8
288"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.9	24.2	23.5	22.8	21.9	21.1	20.1

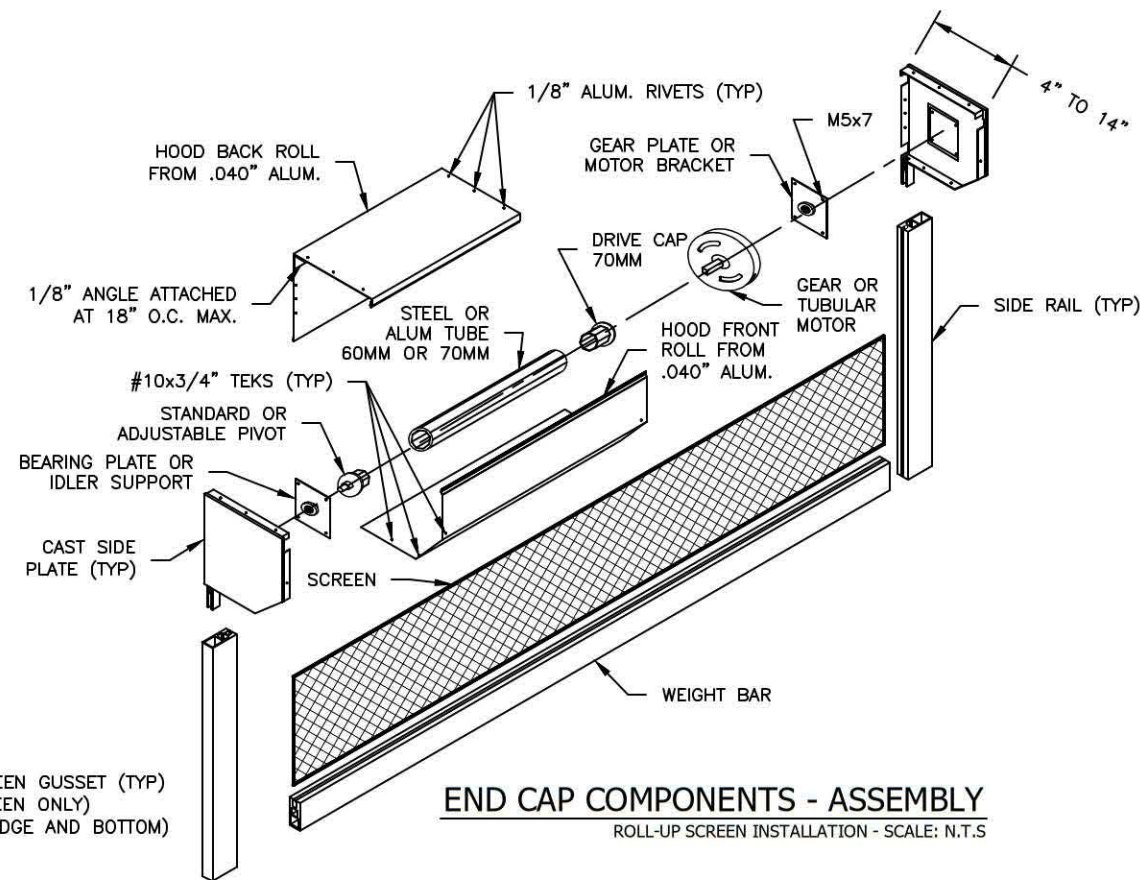


3 1/4" ZIPPER SIDE RAIL TRACK
6063-T6 ALUMINUM - SCALE: 1:1

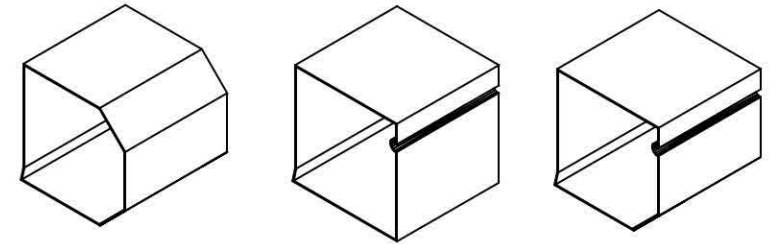
ROPE SCREEN MINIMUM SEPARATION TO GLAZING (INCHES) REQUIRED FOR INSTALLATION IN ALL WIND ZONE											
SCREEN SPAN	PRESSURE (PSF)										
	75	70	65	60	55	50	45	40	35	30	
36"	9.0	8.8	8.6	8.4	8.2	8.0	7.7	7.5	7.2	7.0	
42"	10.1	9.9	9.7	9.5	9.2	9.0	8.7	8.4	8.1	7.8	
48"	11.3	11.0	10.8	10.5	10.3	10.0	9.7	9.3	9.0	8.6	
54"	12.4	12.1	11.9	11.6	11.3	10.9	10.6	10.2	9.9	9.4	
60"	13.5	13.3	12.9	12.6	12.3	11.9	11.5	11.1	10.7	10.2	
66"	14.7	14.3	14.0	13.7	13.3	12.9	12.5	12.0	11.6	11.1	
72"	15.8	15.4	15.0	14.7	14.3	13.8	13.4	12.9	12.4	11.8	
78"	16.9	16.5	16.1	15.7	15.2	14.8	14.3	13.8	13.3	12.6	
84"	18.0	17.6	17.1	16.7	16.2	15.7	15.2	14.7	14.1	13.4	
90"	19.1	18.6	18.2	17.7	17.2	16.7	16.1	15.6	14.9	14.2	
96"	20.2	19.7	19.2	18.7	18.2	17.6	17.0	16.4	15.7	15.0	
102"	21.3	20.8	20.3	19.7	19.2	18.6	17.9	17.3	16.6	15.8	
108"	22.3	21.8	21.3	20.7	20.1	19.5	18.8	18.1	17.4	16.6	
114"	23.4	22.9	22.3	21.7	21.1	20.4	19.7	19.0	18.2	17.3	
120"	24.5	23.9	23.3	22.7	22.0	21.4	20.6	19.9	19.0	18.1	
126"	25.6	25.0	24.3	23.7	23.0	22.3	21.5	20.7	19.8	18.9	
132"	26.6	26.0	25.4	24.7	24.0	23.2	22.4	21.6	20.7	19.7	
138"	27.7	27.1	26.4	25.7	24.9	24.1	23.3	22.4	21.5	20.5	
144"	28.8	28.1	27.4	26.7	25.9	25.1	24.2	23.3	22.3	21.2	
150"	29.9	29.2	28.4	27.7	26.8	26.0	25.1	24.1	23.1	22.0	
156"	31.0	30.2	29.5	28.7	27.8	26.9	26.0	25.0	23.9	22.8	
162"	32.1	31.3	30.5	29.7	28.8	27.9	26.9	25.9	24.8	23.5	
168"	33.1	32.3	31.5	30.7	29.8	28.8	27.8	26.7	25.6	24.3	
174"	34.2	33.4	32.6	31.7	30.7	29.8	28.7	27.6	26.4	25.1	
180"	35.3	34.5	33.6	32.7	31.7	30.7	29.6	28.5	27.3	25.9	
186"	36.4	35.5	34.6	33.7	32.7	31.7	30.6	29.4	28.1	26.7	
192"	37.5	36.6	35.7	34.7	33.7	32.6	31.5	30.2	28.9	27.5	
198"	38.7	37.7	36.7	35.7	34.7	33.6	32.4	31.1	29.8	28.3	
204"	39.8	38.8	37.8	36.8	35.7	34.5	33.3	32.0	30.6	29.1	
210"	40.9	39.9	38.9	37.8	36.7	35.5	34.3	32.9	31.5	29.9	
216"	42.0	41.0	40.0	38.9	37.7	36.5	35.2	33.8	32.3	30.7	
222"	43.2	42.1	41.0	39.9	38.7	37.5	36.1	34.7	33.2	31.5	
228"	44.3	43.2	42.1	41.0	39.7	38.5	37.1	35.6	34.1	32.3	
234"	45.5	44.4	43.2	42.0	40.8	39.4	38.0	36.6	35.0	33.2	
240"	46.7	45.5	44.3	43.1	41.8	40.4	39.0	37.5	35.8	34.0	
246"	47.8	46.7	45.5	44.2	42.9	41.5	40.0	38.4	36.7	34.8	
252"	49.0	47.9	46.6	45.3	44.0	42.5	41.0	39.4	37.6	35.7	
258"	50.2	49.0	47.7	46.4	45.0	43.5	42.0	40.3	38.5	36.6	
264"	51.5	50.2	48.9	47.6	46.1	44.6	43.0	41.3	39.5	37.5	
270"	52.7	51.4	50.1	48.7	47.2	45.7	44.0	42.3	40.4	38.4	
276"	54.0	52.7	51.3	49.8	48.3	46.7	45.1	43.3	41.4	39.2	
282"	55.3	53.9	52.5	51.0	49.5	47.8	46.1	44.3	42.3	40.2	
288"	56.5	55.2	53.7	52.2	50.6	49.0	47.2	45.3	43.3	41.1	



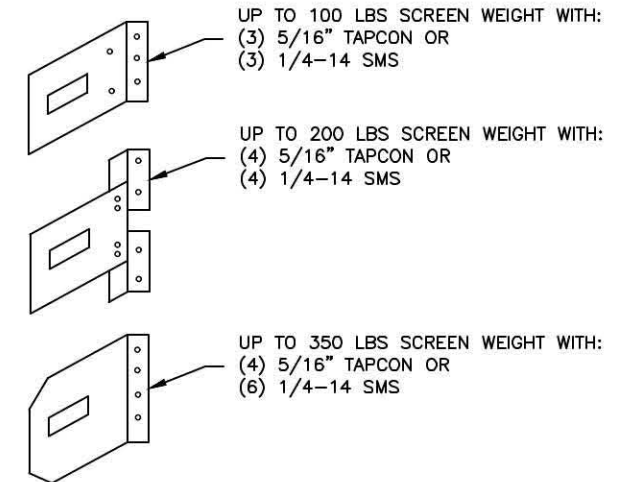
ROLL-UP SCREEN SINGLE UNIT - ELEVATION
TYPICAL SINGLE SPAN INSTALLATION - N.T.S.



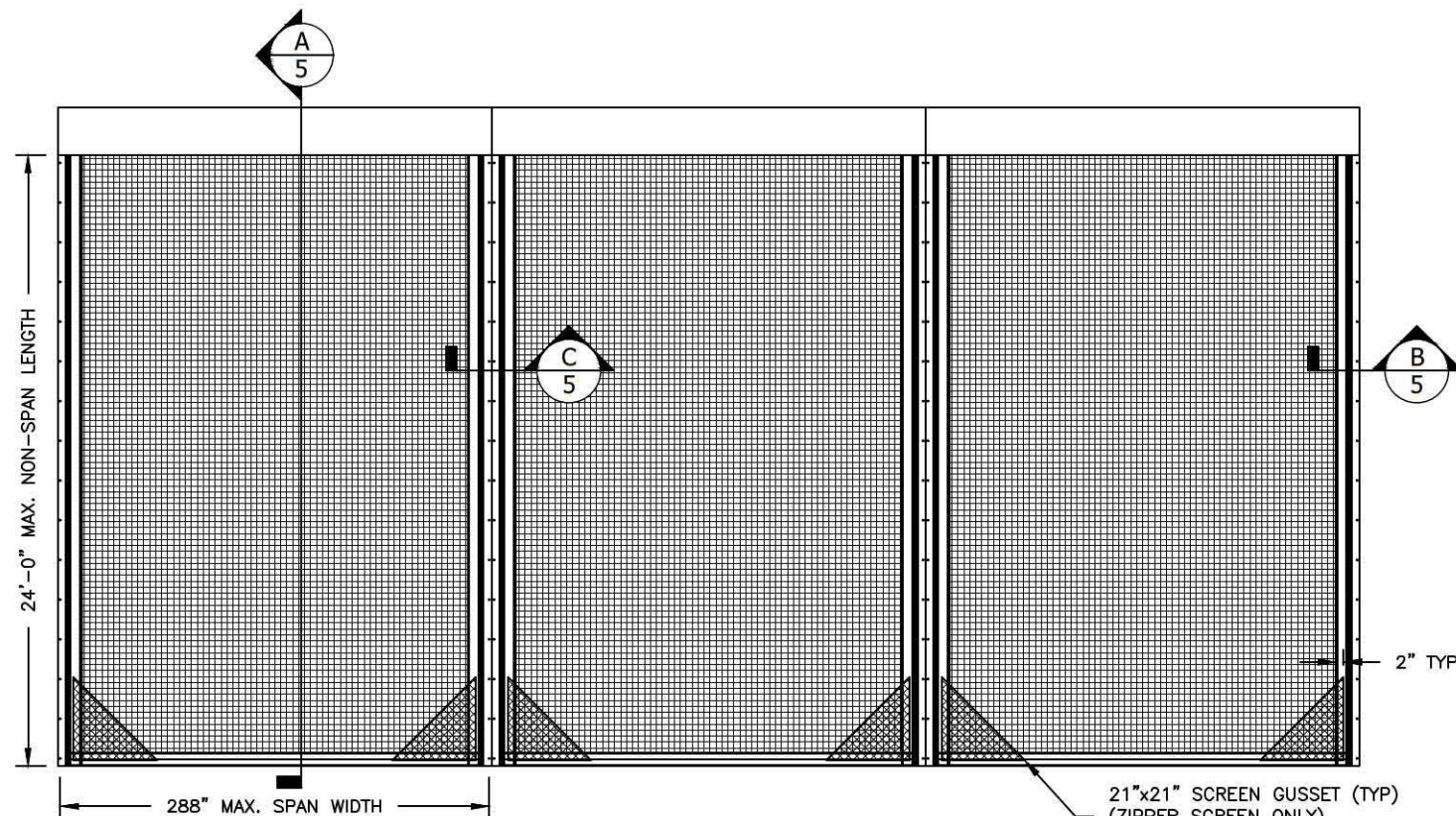
END CAP COMPONENTS - ASSEMBLY
ROLL-UP SCREEN INSTALLATION - SCALE: N.T.S.



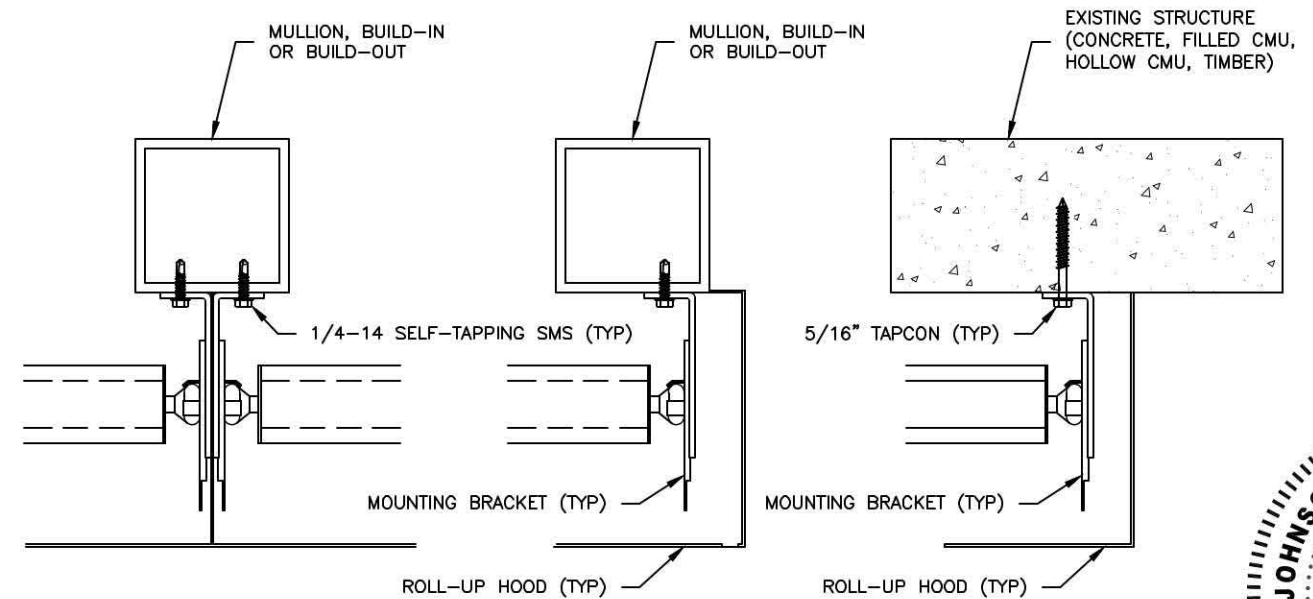
ALUMINUM BOX COVER
ROLL-UP SCREEN INSTALLATION - SCALE: N.T.S.



MOUNTING BRACKET
ROLL-UP SCREEN - SCALE: N.T.S.



ROLL-UP SCREEN MULTIPLE UNIT - ELEVATION
APPROVED INTERMEDIATE MULLION REQUIRED FOR INSTALLATION - N.T.S.



MOUNTING BRACKET - DETAILS
ROLL-UP SCREEN INSTALLATION - SCALE: N.T.S.

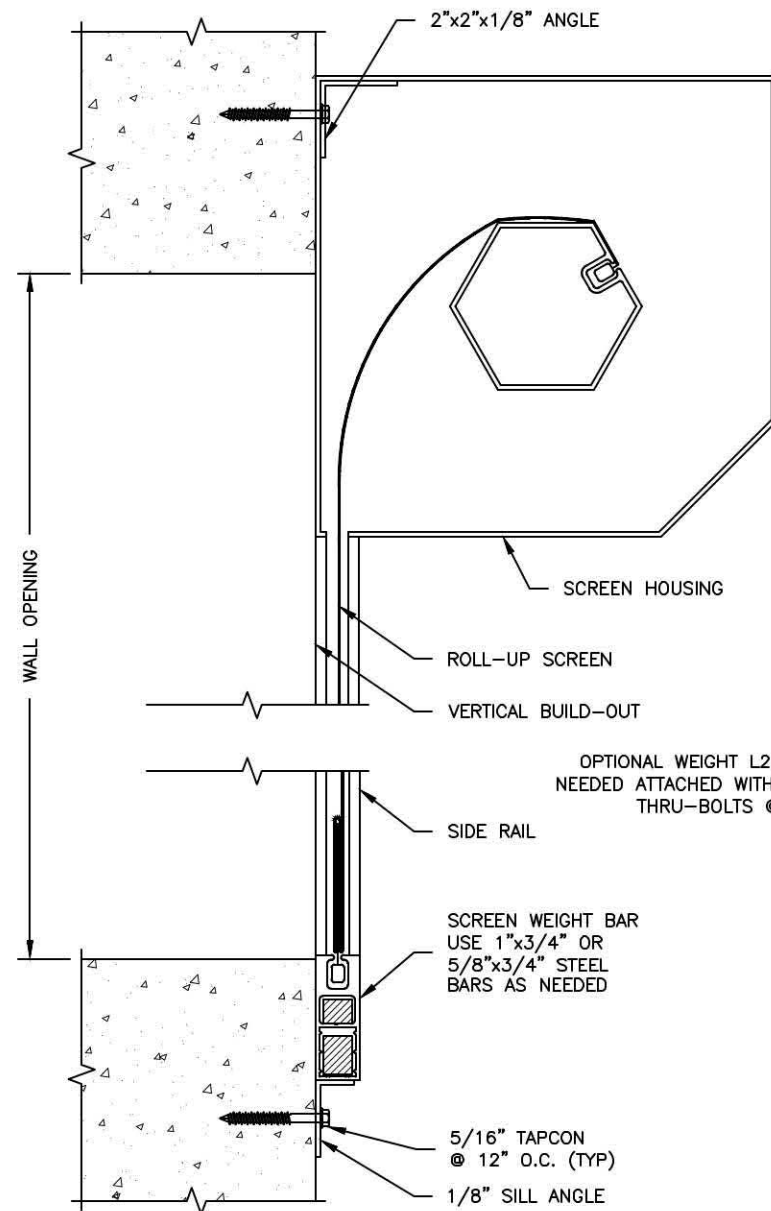
#	DATE	REVISIONS

HT
ADVANCED HURRICANE TECHNOLOGY
16501 OLD AIRPORT HALL RD. FORT MYERS, FL 33913
PHONE: 239.260.0020; SALES@AHT-US.NET
AHTWORLDWIDE.COM

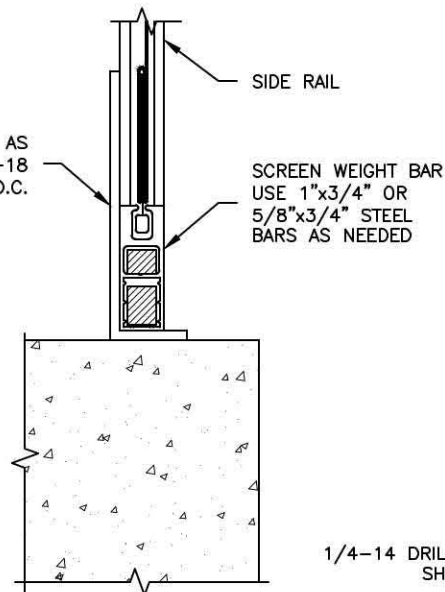
**ADVANCED SCREEN
ROLL-UP SYSTEM**

TKJ Engineering, LLC.	11533 AUTUMN CREEK DRIVE, RIVERVIEW, FL 33569 TEL: 813.404.7648; EM: TKJENGINEERING@GMAIL.COM PROF. CERTIFICATE OF AUTHORIZATION NUMBER: 28582	PROJ. #:	23-0803
DATE:	10/5/23	SCALE:	N.T.S.
DRAWN BY:	TKJ	PROJ. #:	23-0803

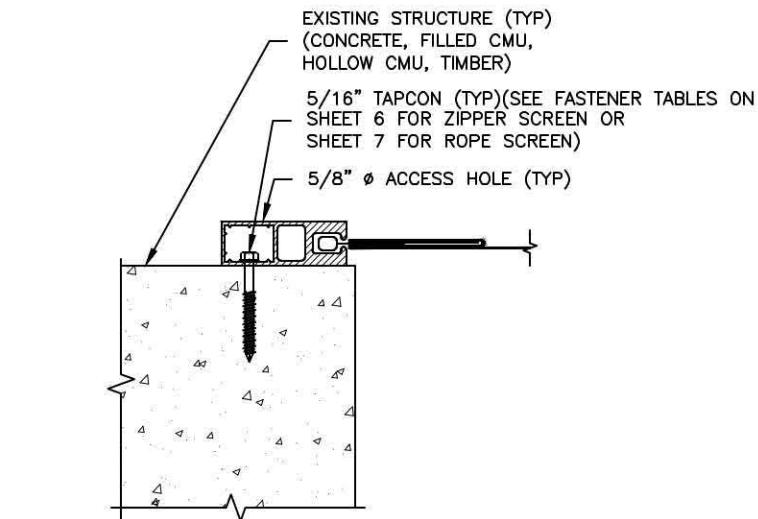




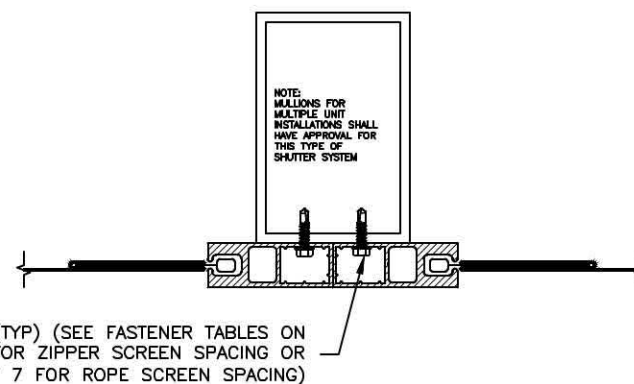
A1 TYPICAL DIRECT MOUNT
ROLL-UP SCREEN AT WALL - SCALE: N.T.S.



A2 TYPICAL DIRECT MOUNT
ROLL-UP SCREEN AT FLOOR - SCALE: N.T.S.



B DIRECT MOUNT - SECTION
ROLL-UP SCREEN AT WALL - SCALE: N.T.S.



C MULLION MOUNT - SECTION
ROLL-UP SCREEN AT MULLIONS - SCALE: N.T.S.

#	DATE	REVISIONS

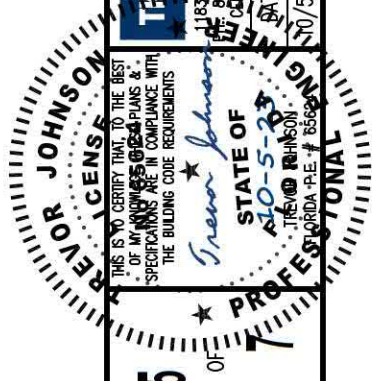
AHT
ADVANCED HURRICANE TECHNOLOGY
16501 OLD AIRPORT HALL RD. FORT MYERS, FL 33913
PHONE: 239.260.0020; SALES@AHT-USA.NET
AHTWORLDWIDE.COM

ADVANCED SCREEN ROLL-UP SYSTEM

TKJ Engineering, LLC.

11332 AUTUMN CREEK DRIVE, RIVERVIEW, FL 33569
TEL: 813.404.7649; EM: TKJENGINEERING@VERIZON.NET
CERTIFICATE OF AUTHORIZATION NUMBER: 28562

DATE: 10/5/23
DRAWN BY: TKJ
SCALE: N.T.S.
PROJ. #: 23-0803



ROPE SCREEN DIRECT MOUNT				
MAXIMUM DESIGN PRESSURE OF A SIDE RAIL SCREEN FOR ANY LENGTH ATTACHED WITH 5/16" ELCO ULTRACON HFH @ 6" O.C.				
SCREEN SPANS UP TO	CONC. & FILLED CMU (3500 PSI)	CONC. & FILLED CMU (2500 PSI)	HOLLOW CMU (1800 PSI)	TIMBER (S.G. = .55)
	PRESSURE (PSF)	PRESSURE (PSF)	PRESSURE (PSF)	PRESSURE (PSF)
90"	75	75	49	75
96"	75	75	46	75
102"	75	75	43	75
108"	75	75	41	74
114"	75	75	38	70
120"	75	75	36	66
126"	75	75	35	62
132"	75	75	32	59
138"	75	75	31	56
144"	75	75	29	53
150"	75	72	29	51
156"	75	68	27	48
162"	75	66	26	47
168"	75	64	25	45
174"	74	61	24	43
180"	72	60	23	41
186"	68	57	22	40
192"	67	55	22	38
198"	64	53	21	37
204"	63	51	20	36
210"	61	50	20	35
216"	59	49	19	34
222"	58	47	19	33
228"	56	46	18	32
234"	54	45	18	32
240"	52	44	18	31
246"	52	42	17	30
252"	51	41	17	29
258"	49	40	16	28
264"	48	39	16	27
270"	47	39	15	27
276"	46	38	15	26
282"	45	37	15	26
288"	44	36	14	25

ROPE SCREEN DIRECT MOUNT				
MAXIMUM DESIGN PRESSURE OF A SIDE RAIL SCREEN FOR ANY LENGTH ATTACHED WITH 5/16" ELCO ULTRACON HFH @ 4" O.C.				
SCREEN SPANS UP TO	CONC. & FILLED CMU (3500 PSI)	CONC. & FILLED CMU (2500 PSI)	HOLLOW CMU (1800 PSI)	TIMBER (S.G. = .55)
	PRESSURE (PSF)	PRESSURE (PSF)	PRESSURE (PSF)	PRESSURE (PSF)
90"	75	75	75	75
96"	75	75	73	75
102"	75	75	68	75
108"	75	75	63	75
114"	75	75	60	75
120"	75	75	57	75
126"	75	75	54	75
132"	75	75	51	75
138"	75	75	48	75
144"	75	75	47	75
150"	75	75	44	75
156"	75	75	43	75
162"	75	75	41	75
168"	75	75	40	72
174"	75	75	38	69
180"	75	75	37	67
186"	75	75	36	64
192"	75	75	34	62
198"	75	75	33	60
204"	75	75	32	58
210"	75	75	31	57
216"	75	75	30	54
222"	75	74	29	53
228"	75	72	28	52
234"	75	71	28	50
240"	75	69	27	49
246"	75	67	27	47
252"	75	65	26	47
258"	75	64	25	46
264"	75	63	25	45
270"	74	61	24	44
276"	72	60	23	42
282"	71	59	23	42
288"	69	57	22	41

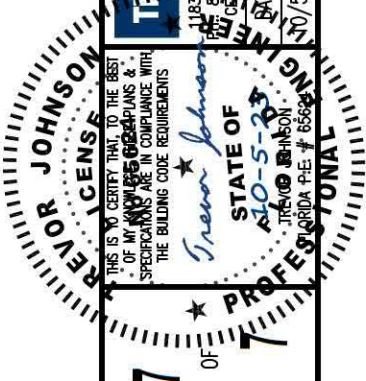
ROPE SCREEN DIRECT MOUNT				
MAXIMUM DESIGN PRESSURE OF A SIDE RAIL SCREEN FOR ANY LENGTH ATTACHED WITH 1/4"-14 ELCO DRIL-FLEX HWH TO ALUMINUM OR STEEL				
SCREEN SPANS UP TO	@ 6" O.C. 1/8" AL/ST	@ 6" O.C. 1/4" AL/ST	@ 4" O.C. 1/8" AL/ST	@ 4" O.C. 1/4" AL/ST
	PRESSURE (PSF)	PRESSURE (PSF)	PRESSURE (PSF)	PRESSURE (PSF)
90"	65	75	75	75
96"	61	75	75	75
102"	58	75	75	75
108"	54	75	75	75
114"	51	75	75	75
120"	48	75	75	75
126"	46	75	71	75
132"	44	75	67	75
138"	42	75	65	75
144"	40	75	63	75
150"	38	75	59	75
156"	37	75	57	75
162"	36	75	55	75
168"	34	73	53	75
174"	33	71	51	75
180"	32	67	49	75
186"	30	66	47	75
192"	29	63	46	75
198"	29	61	44	75
204"	28	59	43	75
210"	27	57	42	75
216"	26	56	41	75
222"	25	54	39	75
228"	25	52	38	75
234"	24	51	37	75
240"	24	50	37	75
246"	23	49	36	75
252"	22	47	35	75
258"	22	46	34	73
264"	21	45	33	71
270"	21	44	32	70
276"	20	43	32	68
282"	20	42	31	67
288"	19	41	30	66

ROPE SCREEN DIRECT MOUNT				
MAXIMUM DESIGN PRESSURE OF A SIDE RAIL SCREEN FOR ANY LENGTH ATTACHED WITH 5/16"-24 ELCO DRIL-FLEX HWH TO ALUMINUM OR STEEL				
SCREEN SPANS UP TO	@ 6" O.C. 1/8" AL/ST	@ 6" O.C. 1/4" AL/ST	@ 4" O.C. 1/8" AL/ST	@ 4" O.C. 1/4" AL/ST
	PRESSURE (PSF)	PRESSURE (PSF)	PRESSURE (PSF)	PRESSURE (PSF)
90"	67	75	75	75
96"	62	75	75	75
102"	58	75	75	75
108"	55	75	75	75
114"	52	75	75	75
120"	50	75	75	75
126"	47	75	73	75
132"	44	75	69	75
138"	43	75	66	75
144"	40	75	63	75
150"	39	75	60	75
156"	37	75	58	75
162"	36	75	55	75
168"	34	75	54	75
174"	33	75	51	75
180"	32	75	50	75
186"	31	73	48	75
192"	30	70	46	75
198"	29	69	45	75
204"	29	66	44	75
210"	27	64	42	75
216"	26	63	41	75
222"	25	61	40	75
228"	25	59	39	75
234"	24	58	38	75
240"	24	56	37	75
246"	24	55	36	75
252"	23	53	35	75
258"	22	52	35	75
264"	22	51	34	75
270"	21	50	33	75
276"	21	49	32	75
282"	20	48	32	75
288"	20	47	31	73

TKJ Engineering, LLC.

11032 AUTUMN CREEK DRIVE, RIVERVIEW, FL 33569
TEL: 813.404.7649; EM: TKJENGINEERING@VERIZON.NET
PROFESSIONAL ENGINEER CERTIFICATE OF AUTHORIZATION NUMBER: 28582

DATE: 10/5/23
DRAWN BY: TKJ
SCALE: N.T.S.
PROJ. #: 23-0803



ADVANCED SCREEN
ROLL-UP SYSTEM



#

DATE

REVISIONS