

TKO DOCK DOORS, INC.

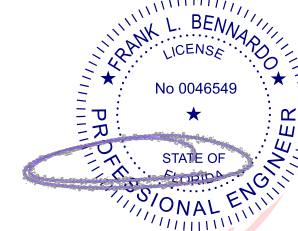
TKO 10 x 10 Welter Weight Door
LARGE MISSILE IMPACT RESISTANT (MISSILE LEVEL D)

VALID FOR USE OUTSIDE THE HVHZ ONLY (SEE LIMITATIONS HEREIN)

THIS IS A NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885

SEPTEMBER 1, 2026



Digitally signed by
Frank Bennardo
Date: 2026.09.01
11:23:12 -04'00'

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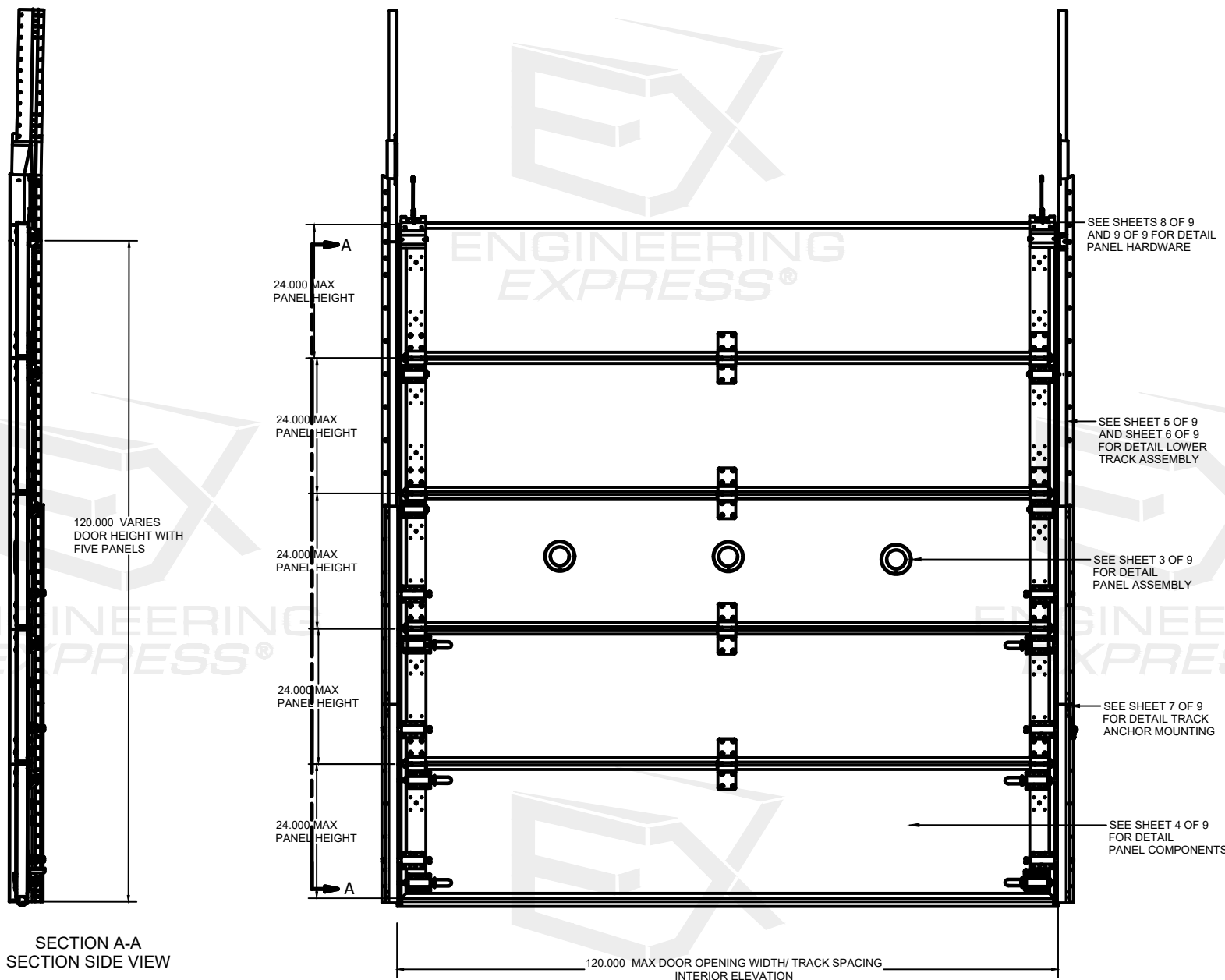
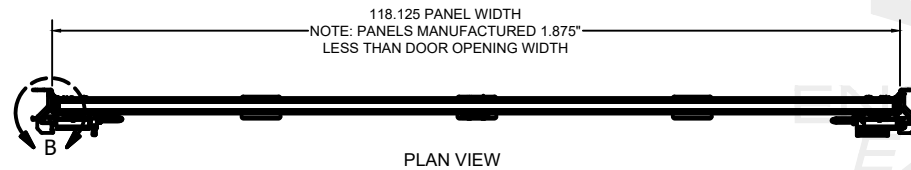
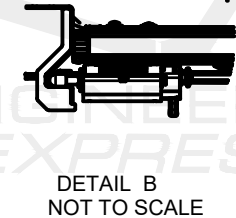
TERMINOLOGY:

THE FOLLOWING ABBREVIATIONS APPEAR IN THIS APPROVAL: "ALUM" FOR "ALUMINUM", "ASD" FOR "ALLOWABLE STRESS DESIGN", "ASTM" FOR "AMERICAN SOCIETY FOR TESTING AND MATERIALS", "CS" FOR "CARBON STEEL", "CONN" FOR "CONNECTION", "EMBED" FOR "EMBEDMENT", "DIST." FOR "DISTANCE", "GA" FOR "GAUGE", "HVHZ" FOR "HIGH-VELOCITY HURRICANE ZONE", "LB" FOR "POUND", "MAX" FOR "MAXIMUM", "N.T.S." FOR "NOT TO SCALE", "PSF" FOR "POUNDS PER SQUARE FOOT (lb/ft²)", "SPECS" FOR "SPECIFICATIONS", "&" FOR "AND", "MAX" FOR "MAXIMUM", "W/" FOR "WITH". CONTACT ENGINEERING EXPRESS FOR ADDITIONAL ABBREVIATION/TERMINOLOGY CLARIFICATIONS.

VISIT **ECALC.IO/TKODOORS**

FOR SITE-SPECIFIC DEVIATIONS
& MORE INFORMATION ABOUT THIS DOCUMENT
OR SCAN THIS QR CODE

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13850 101st Street, Suite B
Kenosha, WI 53142 | (262) 562-4910

TKO 10 x 10 Welter Weight Door
FBC 8TH & 9TH EDNS. (2023 & 2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#19587.1)

REMARKS	DATE	CHKD	DRWN
PREV. SUBMITTAL (20-26662) CB	06/08/20	RWN	
2023 FBC UPDATE MRT	08/11/23	ER/RN	
2026 FBC UPDATE MRT	08/19/26	EPR	

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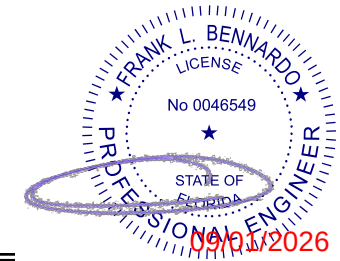
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1 OF 1

+ 23.0 PSF
- 28.0 PSF

POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE-SPECIFIC WIND LOAD REQUIREMENTS SHALL BE DETERMINED IN ACCORDANCE WITH ASCE 7 AND THE GOVERNING BUILDING CODE BY SEPARATE ENGINEERING CERTIFICATION AND SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUE LISTED HEREIN FOR ANY ASSEMBLY WITHIN THE LIMITATIONS STATED HEREIN.

SEPTEMBER 1, 2026



EL

1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 8TH AND 9TH EDITION (2023 AND 2026), FOR USE OUTSIDE THE HIGH VELOCITY HURRICANE ZONE.
2. THIS SYSTEM HAS BEEN TESTED AND EVALUATED AS A LARGE MISSILE IMPACT PROTECTIVE SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE EIGHTH AND NINTH EDITION (2023 AND 2026) FOR USE EXCLUDING THE HIGH VELOCITY HURRICAN ZONE PER TAS 201/202/203 STANDARDS.
3. PRESSURE VALUES ON THIS APPROVAL ARE (ASD) ALLOWABLE DESIGN PRESSURES.
4. WIND LOAD DURATION FACTOR $C_d = 1.6$ HAS BEEN USED FOR WOOD ANCHOR DESIGN.
5. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO EXISTING STRUCTURE.
6. 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 SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
7. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
8. 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.
9. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS.
10. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
11. ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI U.N.O.
12. DOOR HEIGHT MAY VARY UP TO A MAXIMUM HEIGHT OF 120", PROVIDED THAT INDIVIDUAL PANEL HEIGHTS DO NOT EXCEED 24".
13. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.

14. FOR COMPONENTS/HARDWARE SPECIFIED HEREIN: ALTERNATE ALTERNATE STEEL ALLOYS/TYPES (E.G., STAINLESS STEEL) ARE PERMITTED PROVIDED THAT SUBSTITUTE COMPONENTS DEMONSTRATE EQUAL OR GREATER YIELD STRENGTH AND TENSILE STRENGTH THAN THE TESTED STEEL COMPONENTS. ALTERNATE/SUBSTITUTE COMPONENTS SHALL ALSO COMPLY WITH FBC SECTION 1711; SEE FOLLOWING NOTE.
15. FOR PERMANENT OUTDOOR INSTALLATIONS, ALL EXPOSED ANCHORS, FASTENERS, CONNECTORS, AND METAL PLATES SHALL BE CORROSION RESISTANT. CORROSION RESISTANCE MAY BE PROVIDED BY INHERENT MATERIAL COMPOSITION OR, WHERE PERMITTED BY CODE, BY AN APPROVED PROTECTIVE COATING OR GALVANIZATION. WHERE APPLICABLE NEAR A SALTWATER COASTLINE, SUCH COMPONENTS SHALL COMPLY WITH FBC SECTION 1711, INCLUDING APPLICABLE REQUIREMENTS FOR EXPOSED, PROTECTED, OR ENCLOSED CONDITIONS. MATERIALS, COATINGS, AND FINISHES SHALL BE COMPATIBLE WITH CONNECTED MATERIALS, AND PROTECTIVE COATINGS SHALL BE CONTINUOUS OVER EXPOSED SURFACES. FASTENERS USED WITH ALUMINUM MEMBERS SHALL ALSO COMPLY WITH SECTION J.3.7.2 OF THE ALUMINUM DESIGN MANUAL, "SPECIFICATION FOR ALUMINUM STRUCTURES." SUBSTITUTION OF COMPONENTS FROM ALTERNATE MANUFACTURERS, OR WITH DIFFERENT MATERIALS, COATINGS, OR FINISHES, SHALL NOT BE ASSUMED EQUIVALENT AND MAY REQUIRE ADDITIONAL ENGINEERING REVIEW OR SITE-SPECIFIC ANALYSIS.
16. CONCRETE ANCHORS NOTED HEREIN SHALL BE EMBEDDED TO UN-CRAKCED CONCRETE ONLY. INSTALL ALL CONCRETE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.
17. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE AS NOTED HEREIN. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
18. ENGINEER SEAL AFFIXED HERETO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
19. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
20. ALTERATIONS, ADDITIONS, HIGHLIGHTING, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

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TKO 10 x 10 Welter Weight Door
FBC 8TH & 9TH EDNS. (2023 & 2026)

FLORIDA STATEWIDE APPROVAL (FSA FL#19587.1)

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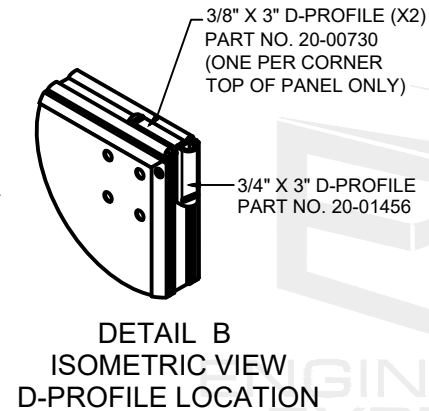
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MILTONRIVERA\shared\projects\26-\26-101314 2026 product fbc update fl19587\work\2026 fbc\drawings & cad\26-101314f - fl19587.1 - dwg.dwg



DETAIL A
CORNER DETAIL



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IKU 10 x 10 Weiter Weight Door
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2026 FBC UPDATE	MRT	EPR	08/19/26
-	-	-	-
-	-	-	-

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4

BRUSH, NYLON FILL —
BACKING, STEEL —

0.813

0.750

EPDM FOAM RUBBER - OZONE RESISTANT (MANUFACTURED BY ACTION INDUSTRIES/ TORSION SOURCE ACE EXTRUSION)

BT '3M' ACRYLIC TAPE SYSTEM

37



EPDM BLADE,
BLACK

4.938

BLADE SEAL EXT.
PART NO. 30-001166 OR
PART NO. 30-001167
MFG BY 4FRONT MUSKGO

**** NOTE:**
- BRUSH, STD #2.5, 1.50" BLK
24.625" PART NO. 20-01579
(BOTTOM AND INTERMEDIATE
PANELS)
- BRUSH, STD #2.5, 1.50" BLK
24.000" PART NO. 20-01578
(TOP PANEL ONLY)

SLIP-COAT
BLACK
85 DUROMETER

FLEX-COAT
TPR WHITE
55 DUROMETER

*NOTE:
-SEAL, WW, SIDE LOOP, 24-3/4"
PART NO. 20-00776
INTERMEDIATE PANEL
-SEAL, WW, SIDE LOOP, 25-1/2"
PART NO. 20-00777
BOTTOM PANEL ONLY



Diagram showing a cross-section of a 2" T-slot seal. The seal is shown in two parts: a top section and a bottom section. The top section is labeled "MAX" and the bottom section is labeled "MIN". The seal is shown in a T-slot profile.

SEAL 2" T-SLOT
PART NO. 20-01612
CUT TO PANEL
HEIGHT DIMENSION

A cross-sectional diagram of the composite material. It shows a central core of RIGID PVC (WHITE) with a thickness of 0.070 THK. This core is sandwiched between two layers of FLEX ALCRYN (BLACK). The total width of the assembly is 2.140. The height of the black layers is 0.930.

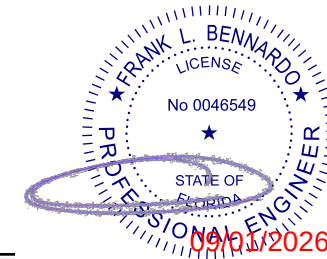
(ETHYLENE PROPYLENE DIENE MONOMER)
BOTTOM LOOP SEAL PART NO. 20-00318
CUT TO DOOR OPENING WIDTH

120.000
EQUALS TRACK SPACING/ DOOR OPENING WIDTH

9/1/2026 10:26 AM MILTONRIVERA\shared\projects\26-101314 2026 product fbc update fl19587\work\2026 fbc\drawings & cad\26-101314f - fl19587.1 - dwg.dwg

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885

SEPTEMBER 1, 2026



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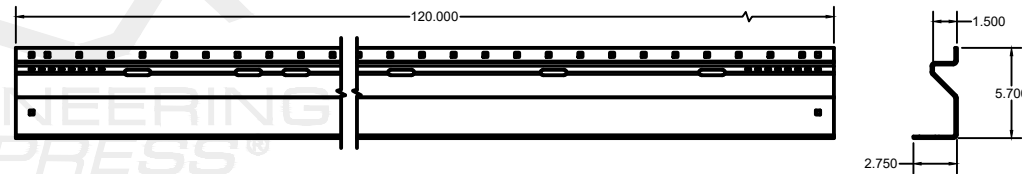
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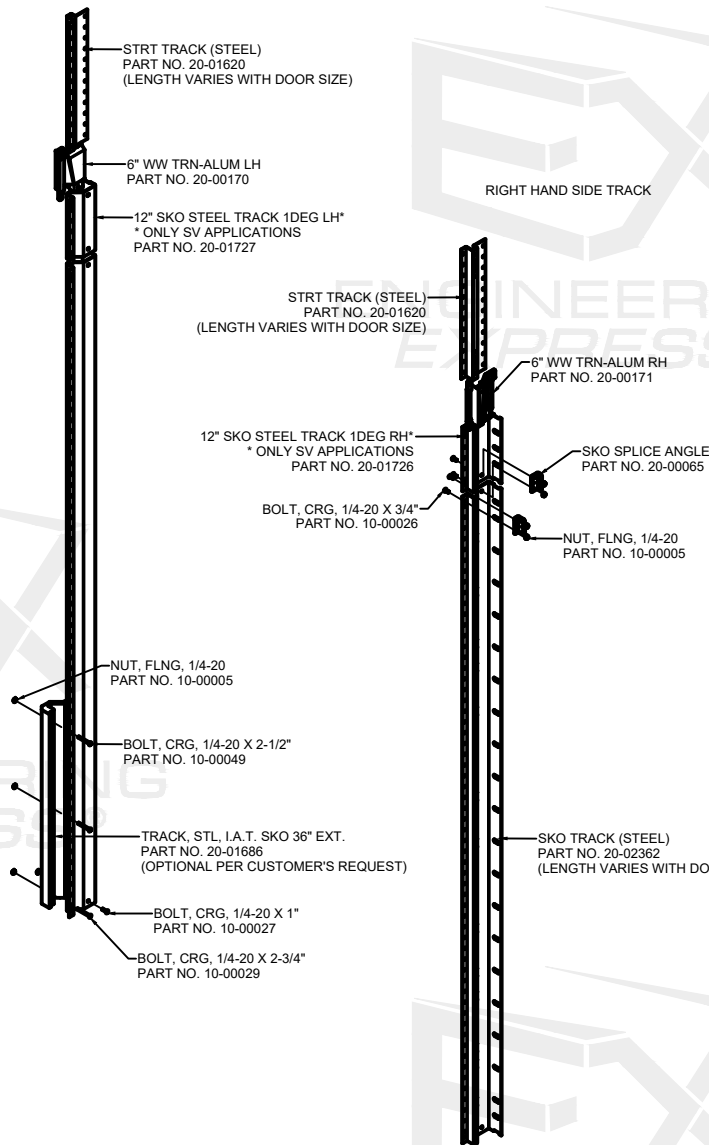


STL WW WL LOWER TRACK ASSEMBLY

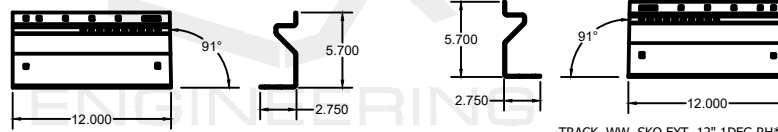


TRACK, WW, SKO EXT. 120" WLD PART NO. 20-02362
(12-GA STEEL, ASTM A653 G90)(Fy=36 Ksi, MIN)

LEFT HAND SIDE TRACK

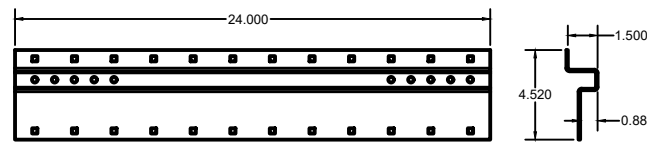


RIGHT HAND SIDE TRACK

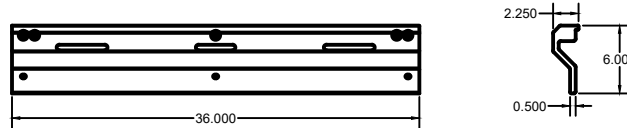


TRACK, WW, SKO EXT. 12" 1DEG LH*
(12-GA A653 G90 STEEL)
* ONLY SV APPLICATIONS
PART NO. 20-01727

TRACK, WW, SKO EXT. 12" 1DEG RH*
(12-GA A653 G90 STEEL)
* ONLY SV APPLICATIONS
PART NO. 20-01726

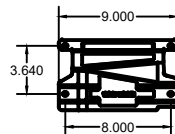


TRACK, WW, STRT EXT. 24" PART NO. 20-01620
(14-GA STEEL, ASTM A653 G90)(Fy=36 Ksi, MIN)

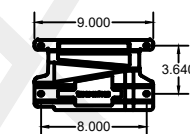
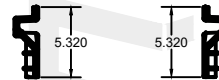


TRACK, STL, IMPACT-A-TRACK 36" (UHMW**)
PART NO. 20-01686

UHMW** (ULTRA-HIGH-MOLECULAR-WEIGHT POLYETHYLENE)

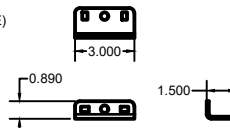


TRACK, WW, 6" TRN LH (ALUMINUM)
PART NO. 20-00170

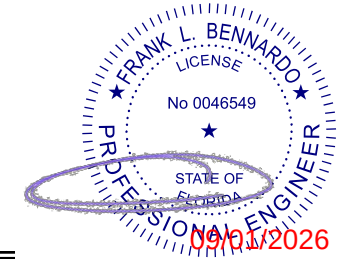


TRACK, WW, 6" TRN RH (ALUMINUM)
PART NO. 20-00171

NOTE: SEE SHEET 6 OF 9 FOR FH I-A-T LOWER TRACK ASSEMBLY.



TRACK, WW, SPLICE ANGLE, SKO
(12-GA HRP&O*, .1046)
PART NO. 20-00065
* HOT ROLLED STEEL, PICKLED & OILED



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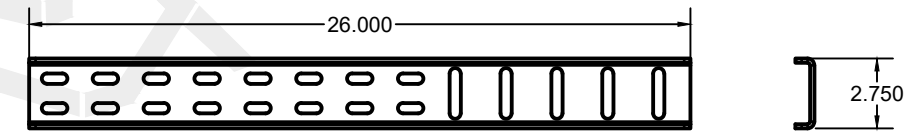
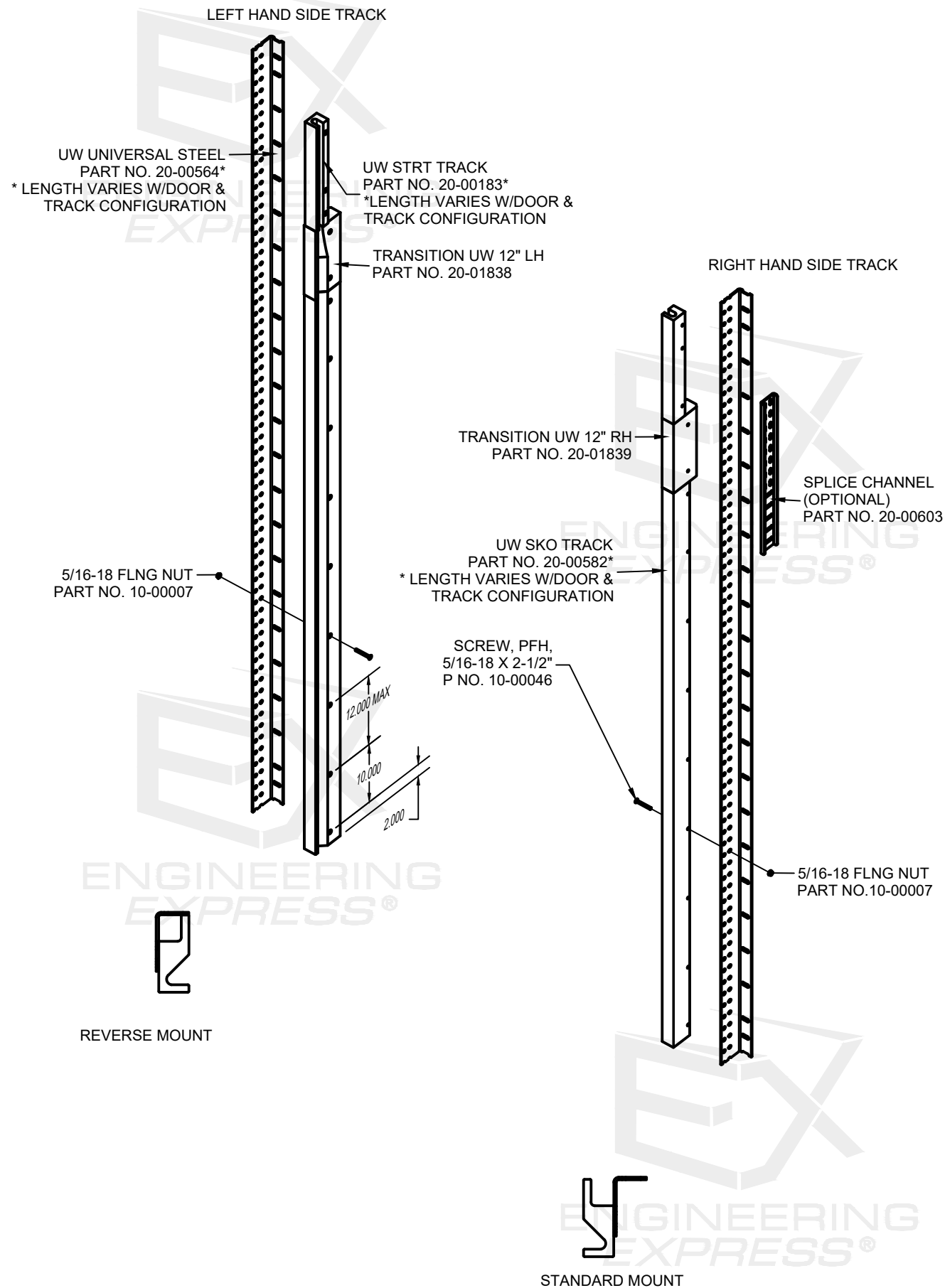
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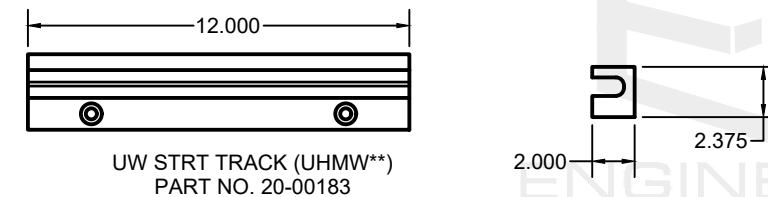
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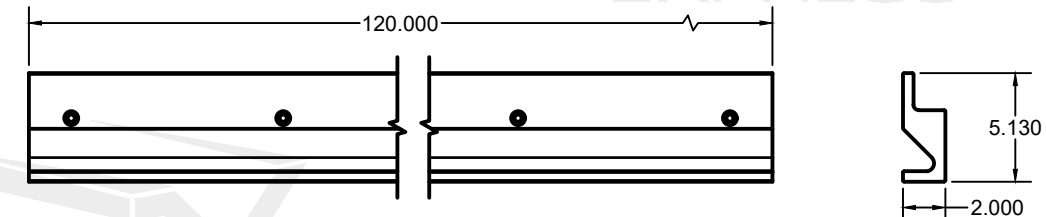


SPLICE CHANNEL (8-GA, ASTM A653 G90)
PART NO. 20-00603
SPLICE CHANNEL STAINLESS STL (8-GA, TYPE 304 SS)
PART NO. 20-01083

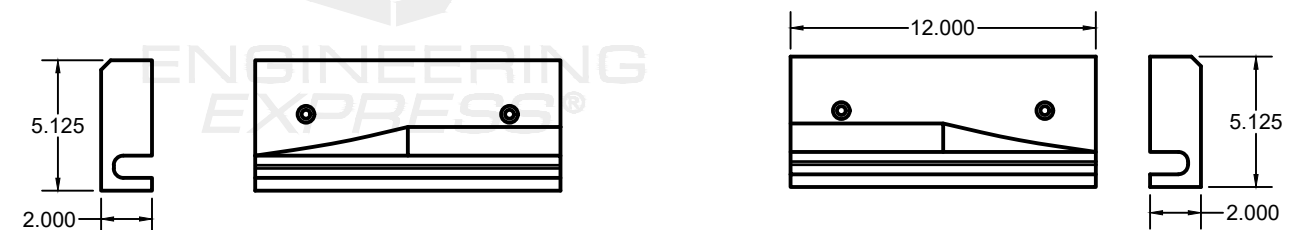
UHMW** (ULTRA-HIGH-MOLECULAR-WEIGHT POLYETHYLENE)



UW STRT TRACK (UHMW**)
PART NO. 20-00183

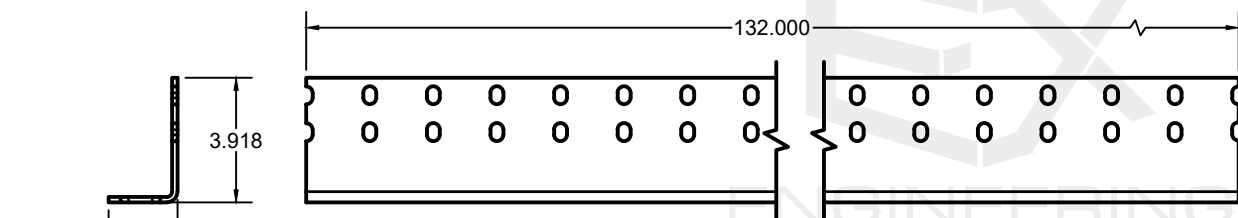


UW SKO TRACK (UHMW**)
PART NO. 20-00582

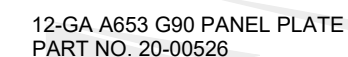
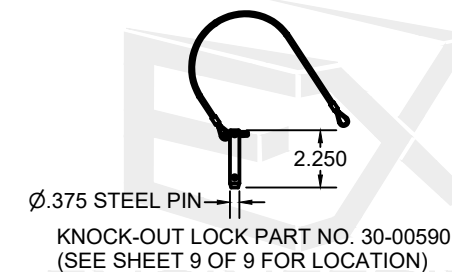


UW LH TRANSITION (UHMW**)
PART NO. 20-01838

UW RH TRANSITION (UHMW**) PART NO. 20-01839



UW UNIVERSAL STEEL (8-GA, ASTM A653 G90)
PART NO. 20-00564
UW UNIVERSAL STAINLESS STL (8-GA, TYPE 304 SS)
PART NO. 20-01539

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*	*	*	*

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