Innovation – New Technology – Better Products – Global Reach

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December 23, 2021

RIGID S.O. NO.:	71872
CUSTOMER:	Cross Development LLC
ADDRESS:	9461 Kenwood Dr Cincinnati, OH 45242
END-USER:	Caliber Collision-Lee Summit, MO/ Proto 115
JOBSITE:	710 Se Blue Pkwy Lees Summit, MO 64002
COUNTY:	Jackson
BUILDING END-USE:	Commercial

Gentlemen:

Rigid Global Buildings, LLC, an IAS accredited manufacturer of metal building systems under accreditation criteria AC472, certifies that the above structures were designed in accordance with the A.I.S.C. standards, *Specification for Structural Steel Buildings – Allowable Strength Design, ANSI/AISC 360-**16*** and *Seismic Provisions for Structural Steel Buildings, ANSI/AISC 341-**10***; the A.I.S.I. standard, *North American Specification for the Design of Cold-Formed Steel Structural Members, S100-**16** Edition*; the A.W.S. D1.1-10 *Structural Welding Code-Steel* and A.W.S. D1.3-08 *Structural Welding Code – Sheet Steel*, and generally accepted engineering practices. Loads applied to design the building/s are no less than the requirements prescribed in the order document and the design satisfies the requirements of the **2018 International Building Code**.

(Refer to Building Description and Design Loads on succeeding pages)

Accessories provided by others are to sustain the design wind load. Likewise, the customer is to ensure that the above loads comply with the requirements of local regulatory authorities. Open web joists, if used and supplied by RGB shall be from a Steel Joist Institute (SJI) approved manufacturer.

This Letter of Certification covers only the steel building and its components furnished and fabricated by Rigid Global Buildings, in its approved facility at Houston, Texas. It specifically excludes accessories, anchor bolts, foundation, masonry, or general contract work as well as erection certification.

Sincerely,

1/14/22

STATE OF MISSOURI
CARLITO M. DAYAG
NUMBER PE-2015003990
PROFESSIONAL ENGINEER

Professional Engineer

BUILDING DESCRIPTION

BUILDING		: 71872A
FRAME TYPE		: RF (SINGLE-SLOPE)
WIDTH	(ft)	: 81.5
LENGTH	(ft)	: 141.5
EAVE HEIGHT @ BACK SIDEWALL	(ft)	: 17.4
EAVE HEIGHT @ FRONT SIDEWALL	(ft)	: 14
ROOF SLOPE @ BACK SIDEWALL		: 0.5:12
ROOF SLOPE @ FRONT SIDEWALL		:
BAY SPACING FROM LEFT TO RIGHT (ft)		: 1 at 28.42, 2 at 27, 1 at 28, 1 at 31.08

DESIGN LOADS

DESIGN CODE	: IBC 18
DEAD LOAD (psf)	: Metal building structure only by RGB
COLLATERAL LOAD (psf)	: 6
WIND LOAD	
Basic Design Wind Speed	: V (3 sec. gust) = 109 mph mph
Allowable Stress Wind Speed	: Vasd (3 sec. gust) = 84.430 mph
Risk Category	: II - Normal
Wind Exposure	: C
Enclosure Classification	: Closed
Internal Pressure Coefficient, GCPi	: 0.180 / -0.180
Design Wind Pressure For Wall	: Based on Nominal Design Wind Speed
Components Wind Pressure (psf) asd	: 11.751
Components Wind Suction (psf) asd	: -12.899
Claddings Wind Pressure (psf) asd	: 13.779
Claddings Wind Suction (psf) asd	: -14.927
LIVE LOAD	
Primary Framing (psf)	: 20.00
Tributary Area Reduction	: No
Secondary Framing (psf)	: 20.00
SNOW LOAD	
Ground Snow Load, Pg (psf)	: 20.000
Roof Snow Load, Pf (psf)	: 20
Sloped Roof Snow Load, Ps (psf)	: 20
Snow Exposure Factor, Ce	: 1.000
Snow Importance Factor, Is	: 1.000
Thermal Factor, Ct	: 1.000
Slope Factor, Cs	: 1.000

SEISMIC LOAD	
Seismic Importance Factor, Ie	: 1.00
Seismic Occupancy Category	: II - Normal
Site Class	: C
Mapped Spectral Response Acceleration	: Ss=0.100 :S1=0.068
Spectral Response Coefficient	: Sds=0.087 :Sd1=0.068
Seismic Design Category	: B
Basic Force Resisting Systems Used	: Steel System Not Specifically Detailed For Seismic Resistance
	: Rigid Frames
	: Braced Frames
Total Design Base Shear, V (kips)	: Longiudinal= 7.70 Transverse= 6.37
Response Modification Factors, R	: Rigid Frames = 3.00
	: SW X-Bracing = 3.00
	: EW X-Bracing = 3.00

Seismic Response Coefficients, Cs	: Rigid Frames = 0.029 : SW X-Bracing = 0.029 : EW X-Bracing = 0.029
Analysis Procedure Used	: Equivalent Lateral Force Procedure
Rainfall Intensity (in/hr)	: 7.000
DESIGN and DETAIL REQUIREMENTS	
Roof Panels	: 24Ga. Hi-Tech (Minor Rib) with Quad-Lok seam type
Structural Coating	: Gray Oxide Primaries & Secondaries
Deflection Limit	: Vertical = L/240 (LL) at Office Area = L/180 (LL) at Workshop = L/180 (DL + LL) = L/600 (DL) Stone Veneer (Lintel) Roof Panel = L/180 : Horizontal = L/120 Endwall Column = L/360 Endwall Column @ Stucco = H/120 RF Sidesway = H/200 RF Sidesway @ Stucco = L/360 Headers/Girts @ Stucco
Wall Extension	: Top of Parapet 26ft & 23.75ft (See Plan)
Misc Loads	: (2) Big Ass Fans = 250 lbs/Unit : RTU-1 & RTU-2 = 2,400 lbs/unit RTU-3 = 1,105 lbs : EF-4 & EF-5 = 200 lbs/unit : Snowdrift from Parapet Walls
OTHERS	: Flange brace clips @ roof/walls due to Liner Insulation : Clearance at haunch= 11' AFF : Straight Column depth @ 4/A & 5/A to be 12" max

BUILDING DESCRIPTION

BUILDING		: 71872B
FRAME TYPE		: LEAN-TO
WIDTH	(ft)	: 18.08
LENGTH	(ft)	: 27.33
EAVE HEIGHT @ BACK SIDEWALL	(ft)	: 13.13
EAVE HEIGHT @ FRONT SIDEWALL	(ft)	: 14.63
ROOF SLOPE @ BACK SIDEWALL		: 1.0:12
ROOF SLOPE @ FRONT SIDEWALL		:
BAY SPACING FROM LEFT TO RIGHT	(ft)	: 1 at 27.33

DESIGN LOADS

DESIGN CODE	: IBC 18
DEAD LOAD (psf)	: Metal building structure only by RGB
COLLATERAL LOAD (psf)	: 3
WIND LOAD	
Basic Design Wind Speed	: V (3 sec. gust) = 109 mph mph
Allowable Stress Wind Speed	: Vasd (3 sec. gust) = 84.430 mph
Risk Category	: II - Normal
Wind Exposure	: C
Enclosure Classification	: Closed
Internal Pressure Coefficient, GCPi	: 0.180 / -0.180
Design Wind Pressure For Wall	: Based on Nominal Design Wind Speed
Components Wind Pressure (psf) asd	: 11.751
Components Wind Suction (psf) asd	: -12.899
Claddings Wind Pressure (psf) asd	: 13.779
Claddings Wind Suction (psf) asd	: -14.927
LIVE LOAD	
Primary Framing (psf)	: 20.00
Tributary Area Reduction	: No
Secondary Framing (psf)	: 20.00
SNOW LOAD	
Ground Snow Load, Pg (psf)	: 20.000
Roof Snow Load, Pf (psf)	: 20
Sloped Roof Snow Load, Ps (psf)	: 20
Snow Exposure Factor, Ce	: 1.000
Snow Importance Factor, Is	: 1.000
Thermal Factor, Ct	: 1.000
Slope Factor, Cs	: 1.000

SEISMIC LOAD	
Seismic Importance Factor, Ie	: 1.00
Seismic Occupancy Category	: II - Normal
Site Class	: C
Mapped Spectral Response Acceleration	: Ss=0.100 :S1=0.068
Spectral Response Coefficient	: Sds=0.087 :Sd1=0.068
Seismic Design Category	: B
Basic Force Resisting Systems Used	: Steel System Not Specifically Detailed For Seismic Resistance
	: Rigid Frames
Total Design Base Shear, V (kips)	: Longiudinal= 0.00 Transverse= 0.32
Response Modification Factors, R	: Rigid Frames = 3.00
Seismic Response Coefficients, Cs	: Rigid Frames = 0.029
Analysis Procedure Used	: Equivalent Lateral Force Procedure
Rainfall Intensity (in/hr)	: 7
DESIGN and DETAIL REQUIREMENTS	
Structural Coating	: Gray Oxide Primaries & Secondaries
Roof Panels	: PBR
Others	: Snowdrift

: Torsional Bracing at Low Sidewall due to Walkdoor.
: Full height wall liner panels @ Endwalls & Low Sidewall

BUILDING DESCRIPTION

BUILDING		: 71872C
FRAME TYPE		: LEAN-TO
WIDTH	(ft)	: 10.25
LENGTH	(ft)	: 14.67
EAVE HEIGHT @ BACK SIDEWALL	(ft)	: 10.79
EAVE HEIGHT @ FRONT SIDEWALL	(ft)	: 11.65
ROOF SLOPE @ BACK SIDEWALL		: 1.0:12
ROOF SLOPE @ FRONT SIDEWALL		:
BAY SPACING FROM LEFT TO RIGHT	(ft)	: 1 at 14.67

DESIGN LOADS

DESIGN CODE	: IBC 18
DEAD LOAD (psf)	: Metal building structure only by RGB
COLLATERAL LOAD (psf)	: 3
WIND LOAD	
Basic Design Wind Speed	: V (3 sec. gust) = 109 mph mph
Allowable Stress Wind Speed	: Vasd (3 sec. gust) = 84.430 mph
Risk Category	: II - Normal
Wind Exposure	: C
Enclosure Classification	: Closed
Internal Pressure Coefficient, GCPi	: 0.180 / -0.180
Design Wind Pressure For Wall	: Based on Nominal Design Wind Speed
Components Wind Pressure (psf) asd	: 11.865
Components Wind Suction (psf) asd	: -12.504
Claddings Wind Pressure (psf) asd	: 13.779
Claddings Wind Suction (psf) asd	: -14.927
LIVE LOAD	
Primary Framing (psf)	: 20.00
Tributary Area Reduction	: No
Secondary Framing (psf)	: 20.00
SNOW LOAD	
Ground Snow Load, Pg (psf)	: 20.000
Roof Snow Load, Pf (psf)	: 20
Sloped Roof Snow Load, Ps (psf)	: 20
Snow Exposure Factor, Ce	: 1.000
Snow Importance Factor, Is	: 1.000
Thermal Factor, Ct	: 1.000
Slope Factor, Cs	: 1.000

SEISMIC LOAD	
Seismic Importance Factor, Ie	: 1.00
Seismic Occupancy Category	: II - Normal
Site Class	: C
Mapped Spectral Response Acceleration	: Ss=0.100 :S1=0.068
Spectral Response Coefficient	: Sds=0.087 :Sd1=0.068
Seismic Design Category	: B
Basic Force Resisting Systems Used	: Steel System Not Specifically Detailed For Seismic Resistance
	: Rigid Frames
Total Design Base Shear, V (kips)	: Longiudinal= 0.00 Transverse= 0.12
Response Modification Factors, R	: Rigid Frames = 3.00
Seismic Response Coefficients, Cs	: Rigid Frames = 0.029
Analysis Procedure Used	: Equivalent Lateral Force Procedure
Rainfall Intensity (in/hr)	: 7
DESIGN and DETAIL REQUIREMENTS	
Structural Coating	: Gray Oxide Primaries & Secondaries
Roof Panels	: PBR
Others	: Snowdrift

: Torsional Bracing at Low Sidewall to match Bldg. B.
: No liner