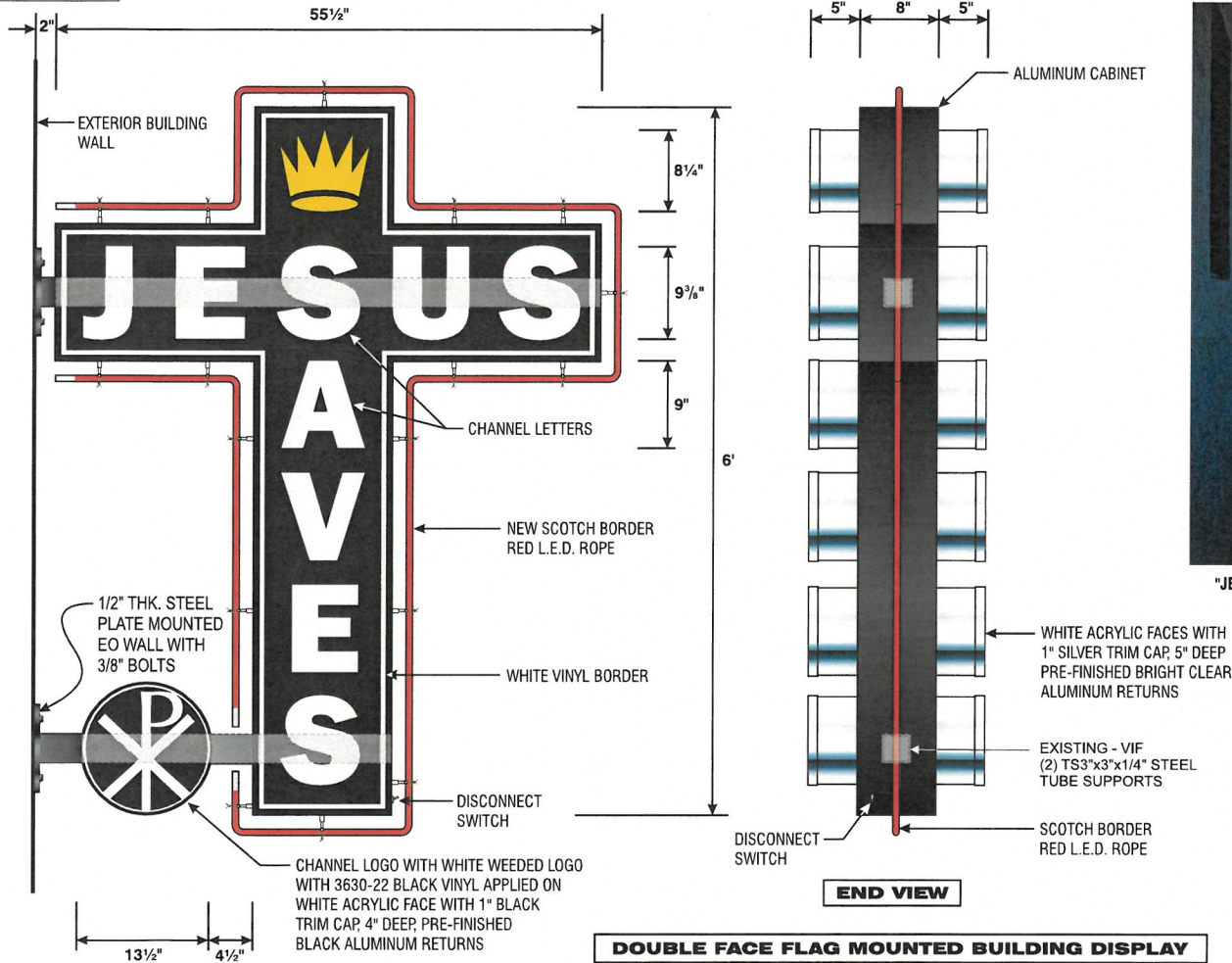




ME #: 70340

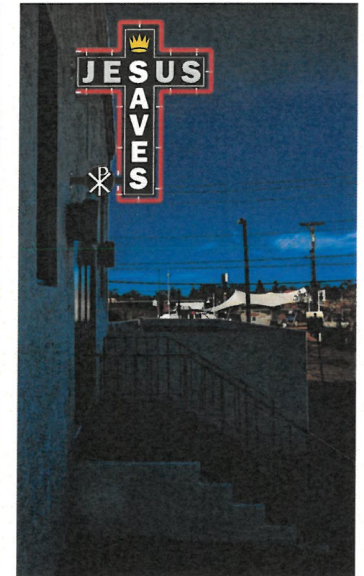


**DOUBLE FACE FLAG MOUNTED BUILDING DISPLAY**

EXISTING METAL CROSS SHAPED CABINET REPAINTED BLACK  
WITH NEW ILLUMINATED CHANNEL LETTERS AND LOGO



"JESUS" FLASHES ON AND "SAVES" IS OFF.



"JESUS" IS OFF AND "SAVES" FLASHES ON.



**OPPOSITE FACE**

**McFarland Engineering**

183 Edgewater Ct.  
Mocksville, NC 27028

Structural Sign Design  
&  
Engineering Services

Ph: (281) 813-7439  
Email: sean@signstructures.com  
Web: www.signstructures.com

**CITY ON THE HILL CHURCH**

Address: 3715 SILVER AVE SE  
City/State: ALBUQUERQUE, NM

Client: EPNM INC / ZEON SIGNS

ENGINEERING OF  
ATTACHMENT TO WALL ONLY.  
NO CABINET ENGINEERING  
OR EVALUATION OF AS  
BUILT WALL CONDITIONS  
PROVIDED OR IMPLIED.

Initial Drawing: (70340) DS

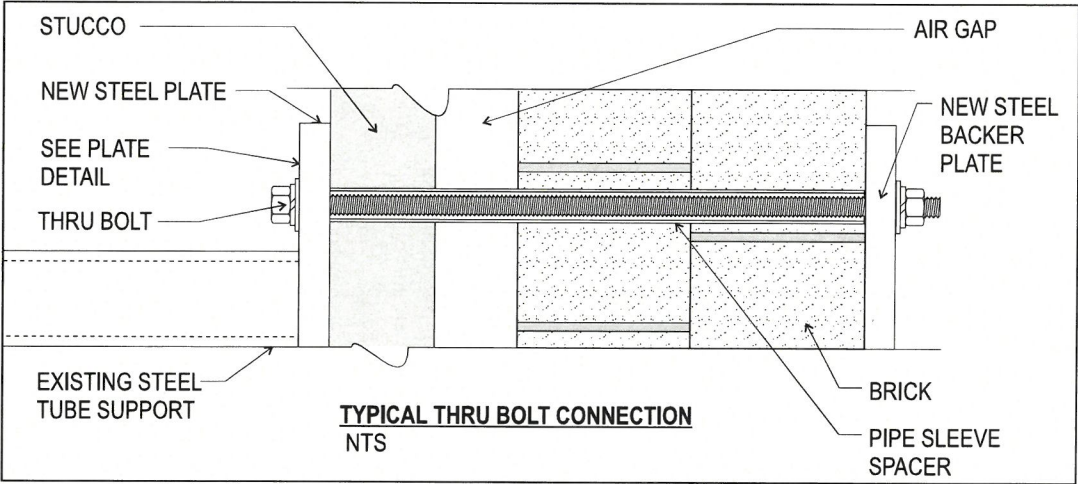
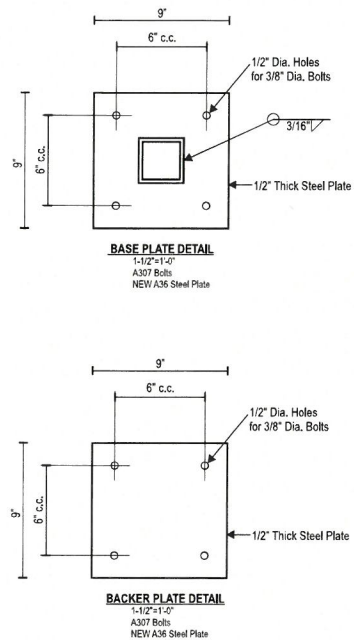


The electronic seal appearing on this document was  
authorized by Sean M. McFarland, PE on March 17, 2025.

Date: 3-17-2025  
Sheet #: 1 OF 2

NC Firm Registration: F-1136  
New Mexico License Number: 16540  
New Mexico Expiration Date: 12/31/2026

ME #: 70340



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Initial Drawing: (70340) DS  
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Date:	3-17-2025
Sheet #:	2 OF 2
NC Firm Registration: F-1136 New Mexico License Number: 16540 New Mexico Expiration Date: 12/31/2026	

Date:	3/17/25	City, State:	Albuquerque, NM	SHEET: 1 OF 2
Client:	EPNM Inc / Zeon Signs	Overall Height:	15'-0" Max.	Sean M. McFarland, P.E.
Sign:	City On The Hill Church	Wind Speed	105 mph	McFarland Engineering

Project Description	3715 Silver Ave SE	Table of Contents
ME Job:	70340	Content: Page
		Design Loads..... 1
		Connection Design..... 1-2
Overall Size:	6'-0" x 54"	
Mounting Height:	15'-0" Max.	
Mounting Style:	Cantilevered Wall Sign	
Structural Variables and Code Loading Specifications		

Sign Type:	Cantilevered Wall Sign	Code:	2021 IBC / 2021 NMCBC
Existing Wall Material:	Other	Wind Speed:	105
Sign Weight Per Foot:	15	Wind Exposure:	C
Wind Loads Per ASCE 7-16			

Connection Design

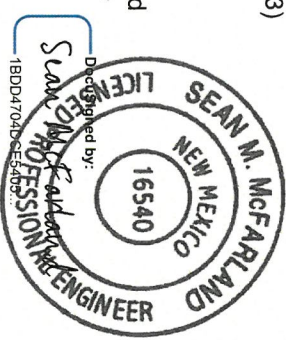
Using ASCE 7-16 (Simplified Procedure)				
Topography:	Homogeneous	I =	1.15 (Table 6-1)	
Exposure:	C	lambda =	1.21 (Figure 6-3, Exp. C, height = 15 ft)	
Enclosure:	Enclosed			
Structure:	Components and Cladding	Zone =	5 (End-Wall - Worst Case)	
Building:	Category II	Effective Wind Area :	10 Sq. Ft.	
		Net Wind Pressure =	-19.5 (Figure 6-3)	
Total Load	Pnet = (lambda)*I*Pnet			
	Pnet (15) =	-27.13	PSF	
Sign Loads				
Total Projected Area	Area	Pressure (Suction)	Force	Dead Load
	12.66 FT^2	-27.13 PSF	-343 LBF	190 LBF
Horizontal Supports (2)				
Moment Arm - 2.48 FT				
Total Moment - 851 LB FT (WL)				
Sxx Req'd - 0.21 in^3 (Top Support (65% of Total Load Approx)				
Sxx Provided - 1.97 in^3 (OK) (USE: (2) Existing TS3x3x1/4" Steel Square Tubes, 46 KSI)				

Scanned by: 18DD4704D5E5A07

16540

SEAN M. McFARLAND  
NEW MEXICO  
LICENSED PROFESSIONAL ENGINEER

Disciplined by:





Date:	3/17/25	City, State:	Albuquerque, NM	SHEET: 2 OF 2
Client:	EPNM Inc / Zeon Signs	Overall Height:	15'-0" Max.	Sean M. McFarland, P.E.
Sign:	City On The Hill Church	Wind Speed	105 mph	McFarland Engineering

3715 Silver Ave SE

ME Job: 70340

Baseplate Design - New

	A36 Steel	Fy= 36ksi
D = 3.00 IN	E70 Electrodes	Fw= 928 #/in/16th
e = 1.50 IN	A307 A.B.'s	Ft=20 ksi
b = 3.00 IN	# of Bolts = 4	Dia. Bolt
d = 3.00 IN	Column Mom = 554 #-FT	0.375
Baseplate t = 0.50 IN		

P Bolt =	$\frac{M * 12 \text{ (in/ft)}}{2 \text{ bolts (D + e + t)}}$	664 #	<	2,600 #
t req'd =	$[(6 * P * e * 2 \text{ bolts}) / (.75 * F_y (D + 2 * t))]^{1/2}$	.333 IN	<	0.50 IN
Weld =	$\frac{M * 12 \text{ (in/ft)}}{F_w (b * d + D * 2/3)}$	0.60 16th's	<	3.00 16th's

USE: (4) 3/8" Dia. Thru Bolts w/ Backer Plates w/ 1/2" Baseplate. Weld to Support with (1) 3/16" Fillet Weld. Backer Plates Needs to be As Same Size as Baseplate.