

# HISTORIC AND DESIGN REVIEW COMMISSION

June 20, 2018

**HDRC CASE NO:** 2018-277  
**ADDRESS:** 928 W COMMERCE ST  
**LEGAL DESCRIPTION:** NCB 265 BLK 84 LOT 26 COMMERCE ST PROJECT  
**ZONING:** D, HS  
**CITY COUNCIL DIST.:** 5  
**DISTRICT:** Cattleman Square Historic District  
**LANDMARK:** Grand Central Hotel  
**APPLICANT:** Kim Ginther/Hardman Signs  
**OWNER:** Bexar County  
**TYPE OF WORK:** Signage  
**APPLICATION RECEIVED:** May 31, 2018  
**60-DAY REVIEW:** July 30, 2018  
**REQUEST:**

The applicant is requesting a Certificate of Appropriateness for approval to:

1. Install two (2), single faced wall signs to feature an overall length of twelve (12) feet and an overall height of three (3) feet for a total square footage of thirty-six (36) square feet. The proposed signage is to feature aluminum cabinets and faces with acrylic, push through lettering. The proposed signage is to feature internal illumination. These signs are referred to as EX.1 in the application documents.
2. Install two (2), single faced wall signs to feature an overall length of twenty (20) feet and an overall height of five (5) feet for a total square footage of 100 square feet. The proposed signage is to feature aluminum cabinets and faces with acrylic, push through lettering. The proposed signage is to feature internal illumination. These signs are referred to as EX.2 in the application documents.
3. Install two (2), single faced wall signs to feature an overall length of 5' – 1 3/8 inches and an overall height of 1' – 1". The proposed signage is to feature brushed aluminum letters. These signs are referred to as EX. 3 in the application documents.

## APPLICABLE CITATIONS:

*Historic Design Guidelines, Chapter 6, Guidelines for Signage*

### 1. General

#### A. GENERAL

- i. Number and size*—Each building will be allowed one major and two minor signs. Total requested signage should not exceed 50 square feet.
- ii. New signs*—Select the type of sign to be used based on evidence of historic signs or sign attachment parts along the building storefront where possible. Design signs to respect and respond to the character and/or period of the area in which they are being placed. Signs should identify the tenant without creating visual clutter or distracting from building features and historic districts.
- iii. Scale*—Design signage to be in proportion to the facade, respecting the building's size, scale and mass, height, and rhythms and sizes of window and door openings. Scale signage (in terms of its height and width) to be subordinate to the overall building composition.

#### B. HISTORIC SIGNS

- i. Preservation*—Preserve historic signs, such as ghost signs or other signs characteristic of the building's or district's period of significance, whenever possible.
- ii. Maintenance*—Repair historic signs and replace historic parts in-kind when deteriorated beyond repair.

#### C. PLACEMENT AND INSTALLATION

- i. Location*—Place signs where historically located and reuse sign attachment parts where they exist. Do not erect signs above the cornice line or uppermost portion of a facade wall, or where they will disfigure or conceal architectural details,

window openings, doors, or other significant details.

*ii. Obstruction of historic features*—Avoid obscuring historic building features such as cornices, gables, porches, balconies, or other decorative elements with new signs.

*iii. Damage*—Avoid irreversible damage caused by installing a sign. For example, mount a sign to the mortar rather than the historic masonry.

*iv. Pedestrian orientation*—Orient signs toward the sidewalk to maintain the pedestrian oriented nature of the historic districts.

#### D. DESIGN

*i. Inappropriate materials*—Do not use plastic, fiberglass, highly reflective materials that will be difficult to read, or other synthetic materials not historically used in the district.

*ii. Appropriate materials*—Construct signs of durable materials used for signs during the period of the building's construction, such as wood, wrought iron, steel, aluminum, and metal grill work.

*iii. Color*—Limit the number of colors used on a sign to three. Select a dark background with light lettering to make signs more legible.

*iv. Typefaces*—Select letter styles and sizes that complement the overall character of the building façade. Avoid hard-to-read or overly intricate styles.

#### E. LIGHTING

*i. Lighting sources*—Use only indirect or bare-bulb sources that do not produce glare to illuminate signs. All illumination shall be steady and stationary. Internal illumination should not be used.

*ii. Neon lighting*—Incorporate neon lighting as an integral architectural element or artwork appropriate to the site, if used.

### 3. Projecting and Wall-Mounted Signs

#### A. GENERAL

*i. Mounting devices*—Construct sign frames and panels that will be used to be attach signs to the wall of a building of wood, metal, or other durable materials appropriate to the building's period of construction.

*ii. Structural supports*—Utilize sign hooks, expansion bolts, or through bolts with washers on the inside of the wall depending upon the weight and area of the sign, and the condition of the wall to which it is to be attached.

*iii. Appropriate usage*—Limit the use of projecting and wall-mounted signs to building forms that historically used these types of signs, most typically commercial storefronts. To a lesser degree, these signage types may also be appropriate in areas where residential building forms have been adapted for office or retail uses, if sized accordingly.

#### B. PROJECTING SIGNS

*i. Placement*—Mount projecting signs perpendicularly to a building or column while allowing eight feet of overhead clearance above public walkways.

*ii. Public right-of-way*—Limit the extension of projecting signs from the building facade into the public right-of-way for a maximum distance of eight feet or a distance equal to two-thirds the width of the abutting sidewalk, whichever distance is greater.

*iii. Area*—Projecting signs should be scaled appropriately in response to the building façade and number of tenants.

#### C. WALL-MOUNTED SIGNS

*i. Area*—Limit the aggregate area of all wall-mounted signs to twenty-five percent of a building facade.

### FINDINGS:

- a. The historic, three story brick structure located at 928 W Commerce was constructed circa 1900 as the Grand Central Hotel. In 2015, the Historic and Design Review Commission issued final approval for rehabilitation and new construction on site as well as the demolition of a one story, historic structure. At this time, the applicant has proposed building signage to be located on a site wall as well as on each façade.
- b. SIGNAGE – The Historic Design Guidelines, Guidelines for Signage notes that each building will be allowed one major and two minor signs to total no more than fifty (50) square feet. Additional square footage and signage may be approved by the Historic and Design Review Commission.
- c. WALL SIGNS (EX. 1) – The applicant has proposed to install two (2), single faced wall signs to feature an

overall length of twelve (12) feet and an overall height of three (3) feet for a total square footage of thirty-six (36) square feet. The proposed signage is to feature aluminum cabinets and faces with acrylic, push through lettering. The proposed signage is to feature internal illumination. These signs are referred to as EX.1 in the application documents. These proposed signs will face north and west and be located sixteen (16) feet above grade. While the proposed square footage of both signs combined is 72 square feet, staff finds the proposed signage to feature an appropriate scale for the building. Additionally, the proposed signage's location adjacent to an automobile overpass will limit its visibility and impact on adjacent properties.

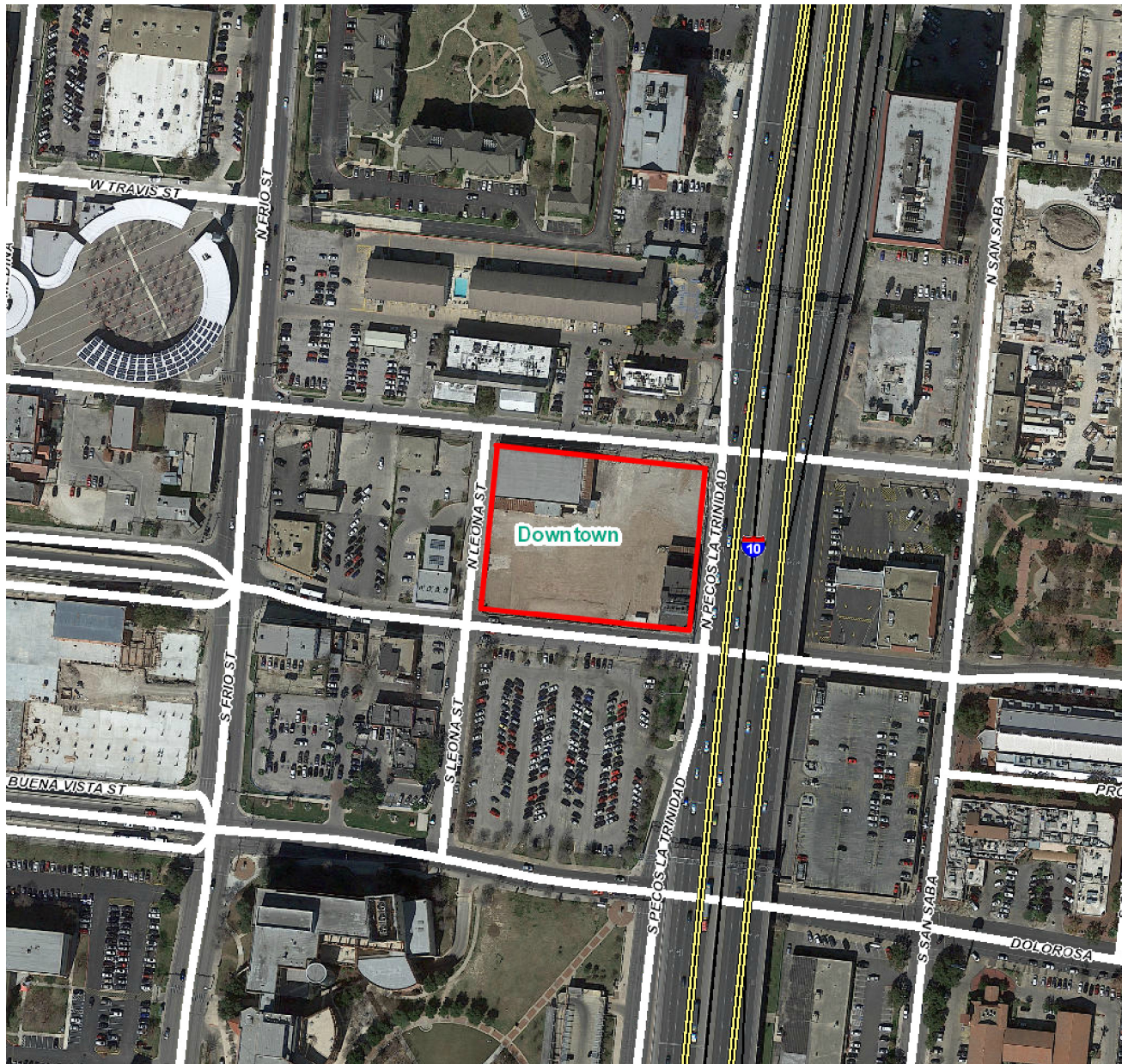
4. WALL SIGNS (EX. 2) – On the east and south façade, the applicant has proposed to install two (2), single faced wall signs to feature an overall length of twenty (20) feet and an overall height of five (5) feet for a total square footage of 100 square feet. The proposed signage is to feature aluminum cabinets and faces with acrylic, push through lettering. The proposed signage is to feature internal illumination. These signs are referred to as EX.2 in the application documents. The proposed total square footage of both signs combined is 200 square feet. The proposed signs will be located 47' – 8" inches above grade. While the proposed signage exceed the amount recommended by the Guidelines for Signage, staff finds the proposed installation to be appropriate.
- d. WALL SIGNS (EX. 3) – At the street level on a site wall, the applicant has proposed to install two (2), single faced wall signs to feature an overall length of 5' – 1 3/8 inches and an overall height of 1' – 1". The proposed signage is to feature brushed aluminum letters. These signs are referred to as EX. 3 in the application documents. The total square footage requested is approximately ten (10) square feet. Staff finds this signage to be appropriate.
- e. ILLUMINATION – The applicant has proposed for signs EX.1 and EX.2 to be internally illuminated. The proposed signage cabinets will feature aluminum faces resulting in illumination for only acrylic letters and logos. The applicant has provided night time renderings for reference. Staff finds the proposed illumination method to be appropriate.

## **RECOMMENDATION:**

Staff recommends approval as submitted based on findings a through e.

## **CASE MANAGER:**

Edward Hall



## Flex Viewer

Powered by ArcGIS Server

Printed: Jun 08, 2018

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May 30, 2018

Office of historic Preservation  
1901 S. Alamo Street  
San Antonio, TX 78204

Hardman Signs and The Center for Health Care Services are proposing signage at the property address:  
928 W. Commerce St.  
San Antonio, TX 78207

Please review the drawings attached for the proposed signs and for further details of design and location of signage. These include (4) illuminated cabinet signs to be installed on (4) different elevations. To provide maximum visibility on the (2) Larger cabinets the additional height and size are needed due to the height of the building. Please take into consideration that visibility is key for our development and to allow for maximum visibility for emergency vehicles, pedestrians and motorists.

Please let me know if you have any questions.

Sincerely

**Kim Ginther**  
Permit Expeditor | **Hardman Signs**



[permitting@hardmansigns.com](mailto:permitting@hardmansigns.com)

Corporate Office: 713.957.2324

Toll Free: 1.866.549.1498

Fax: 713.957.2116

9980 Bammel North Houston

Houston, TX 77086

[www.hardmansigns.com](http://www.hardmansigns.com)



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CLIENT



PROJECT

THE CENTER FOR  
HEALTH CARE SERVICES  
SAN ANTONIO, TEXAS

CREATED: 2-28-2018 | PROJECT NUMBER: 2180385

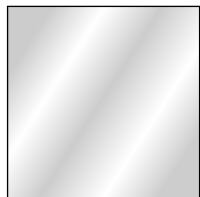


Hardman Signs  
ARCHITECTURAL SIGNAGE & GRAPHICS

REP: SHANNON LINE | DESIGNER: STEVE SIMS

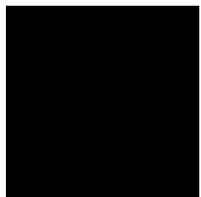
# PALETTE/MATERIALS

## PAINT COLORS:



P1

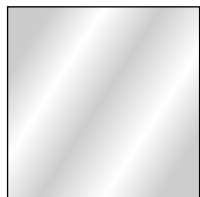
BRUSHED  
ALUMINUM  
MP41342SP



P2

STANDARD  
CARBON BLACK  
N929SP

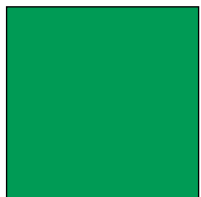
## MATERIALS:



M1

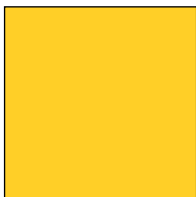
BRUSHED  
ALUMINUM

## VINYL COLORS:



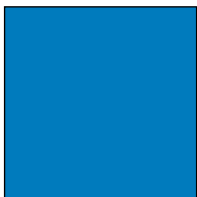
V1

ORACAL 8800  
009 MIDDLE GREEN



V2

ORACAL 8800  
021 YELLOW



V3

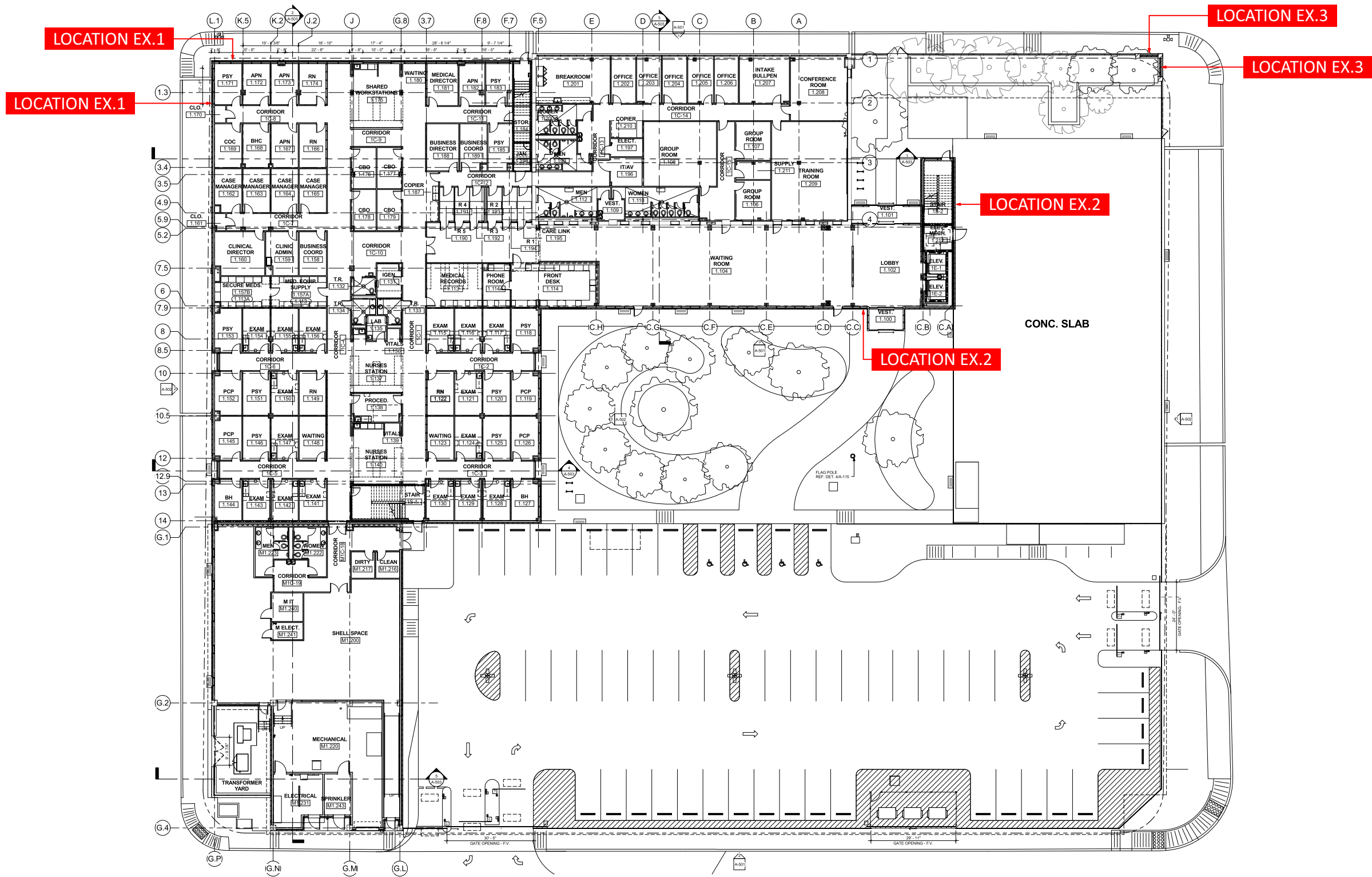
ORACAL 8800  
052 AZURE BLUE

# TYPEFACES

## TREBUCHET:

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
1234567890!@#\$%^&\*()

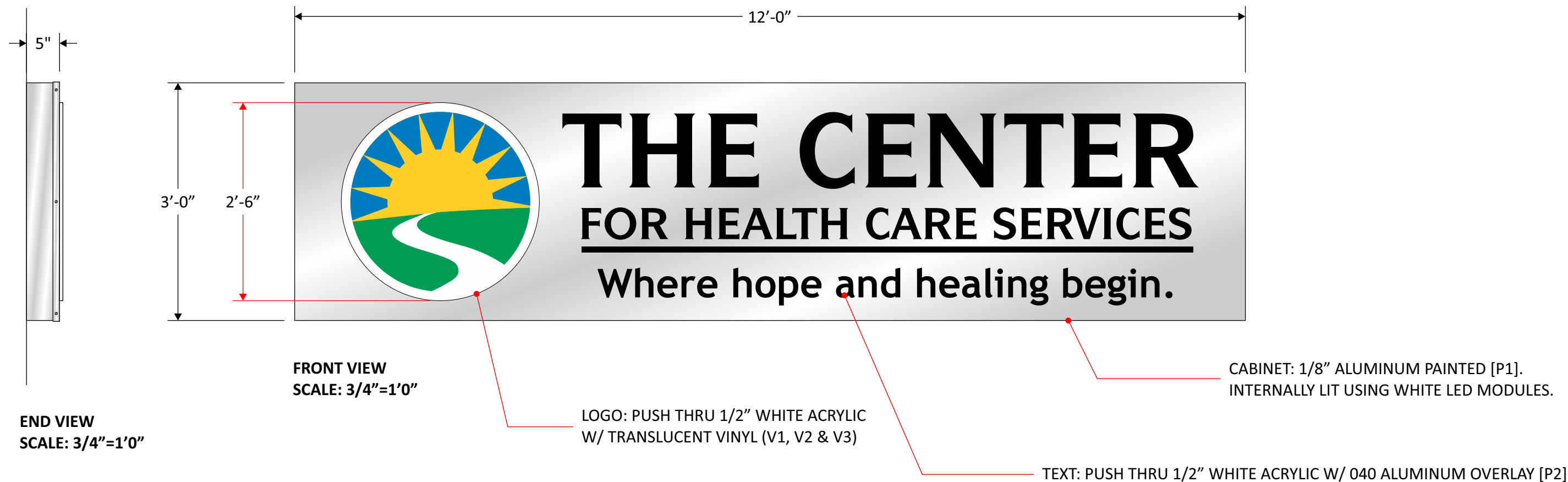
SIGN PLACEMENT



PROJECT FILENAME: CENTER FOR HEALTH CARE SERVICES 2180385



QTY. 2 SINGLE FACE

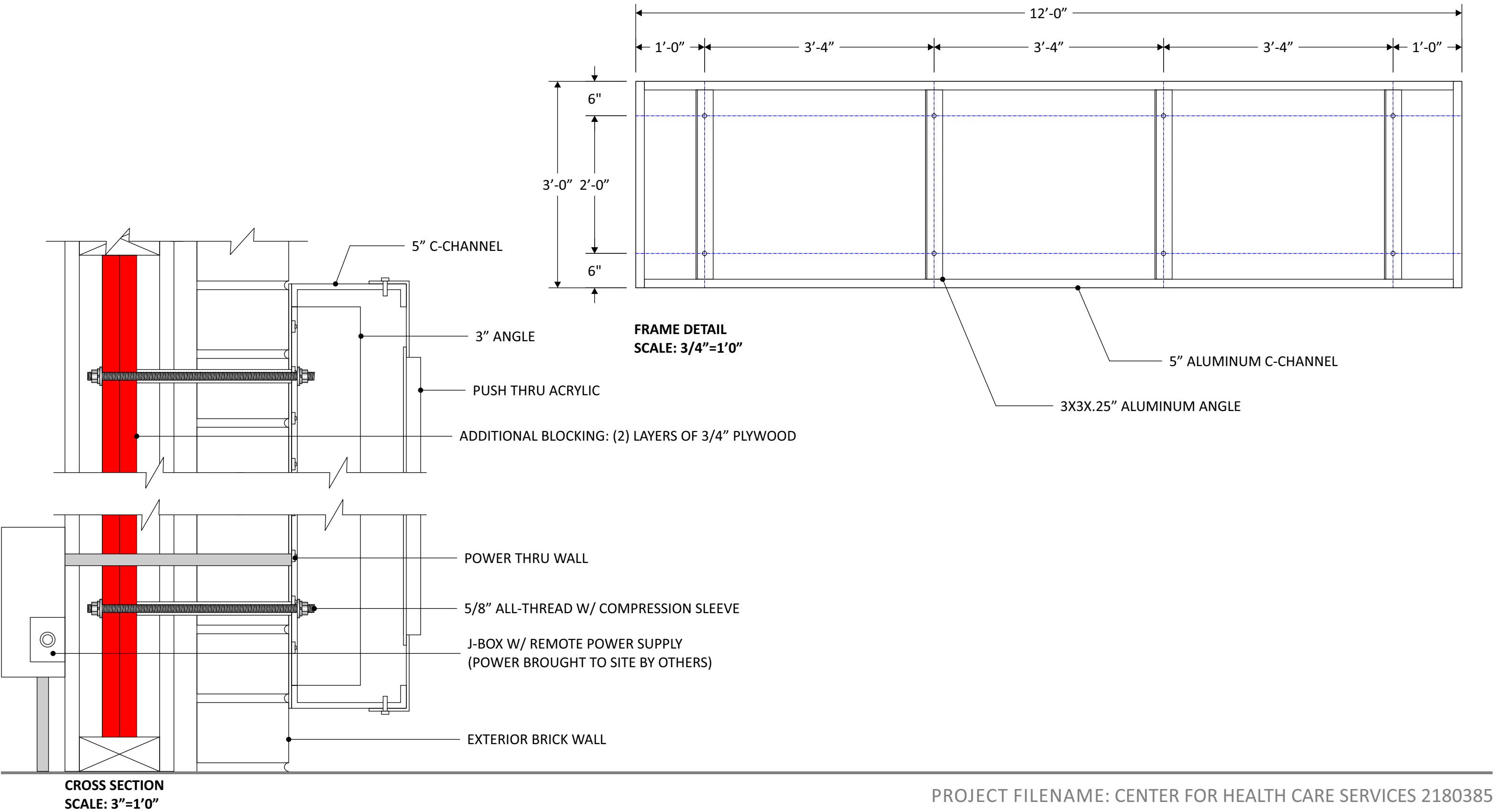


NIGHT VIEW



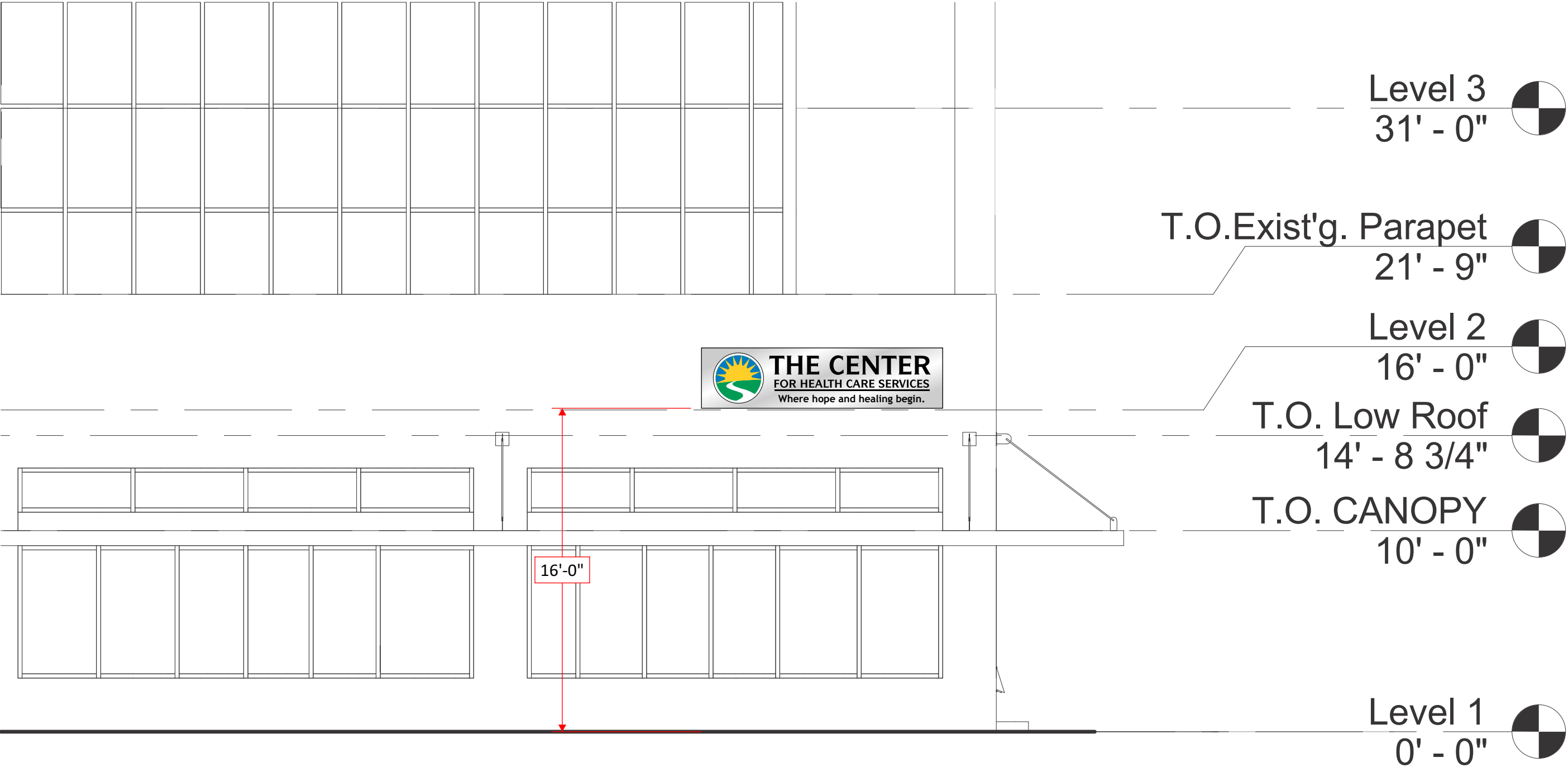
PROJECT FILENAME: CENTER FOR HEALTH CARE SERVICES 2180385

FABRICATION DETAILS



PARTIAL NORTH ELEVATION

DRAWING SCALE: 3/16"=1'0"



CORNER ELEVATION

DRAWING SCALE: N.T.S.





**VOLT: 120V.      LOAD: 2.2A**

HARDMAN SIGNS **MUST** BE NOTIFIED OF **OTHER VOLTAGES** PRIOR TO MANUFACTURE. A **DEDICATED** CIRCUIT CONSISTING OF PRIMARY, NEUTRAL AND GROUND CONDUCTORS ARE TO BE PROVIDED BY CUSTOMER.



**HardmanSigns**  
ARCHITECTURAL SIGNAGE & GRAPHICS

E496516

\_\_\_\_V \_\_\_\_A \_\_\_\_HZ  
DATE: \_\_\_\_\_  
Suitable for wet locations.

TITLE		
S.F. CABINET - 32943		
DATE 4-19-2018	DRAWN BY : MATTHEW	
SIGN HEIGHT 36" X 144"	SIGN DEPTH 5"	FACE MATERIAL ALUMINUM / ACRYLIC

(2) 60W



109

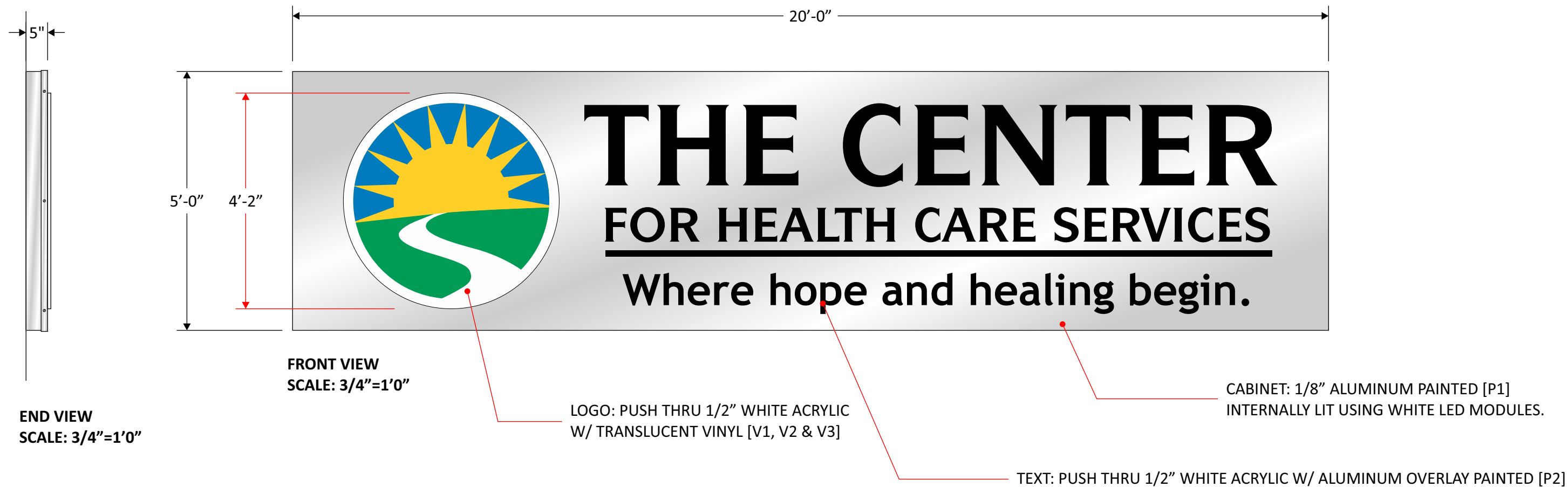
NOTE:  
SPACE ROWS @ 9" O.C.  
MAX MODS PER SERIES: 40  
80 MODULES PER 60W PS

AMP DRAW: 2.2A

ESTIMATED PRODUCT PER SIGN  
FACE LIT  
(109) TRUE WHITE STREET FIGHTER MIDDLE WEIGHT MODULES (PL-OP2-MW2-P-TW)  
49FT TRUE WHITE STREET FIGHTER MIDDLEWEIGHT  
(2) 60W POWER SUPPLIES (PL-60-12-U)

CAUTION: THIS LAYOUT IS ONLY AN ESTIMATE.  
Channel letter depth, face color, material, and thickness can vary which may effect the number of modules required. To ensure accuracy, it is recommended that you test light in a darkened environment prior to installing or shipping to the site to ensure the light output is commercially acceptable. Final material estimates are the responsibility of the sign manufacturer.

QTY. 2 SINGLE FACE

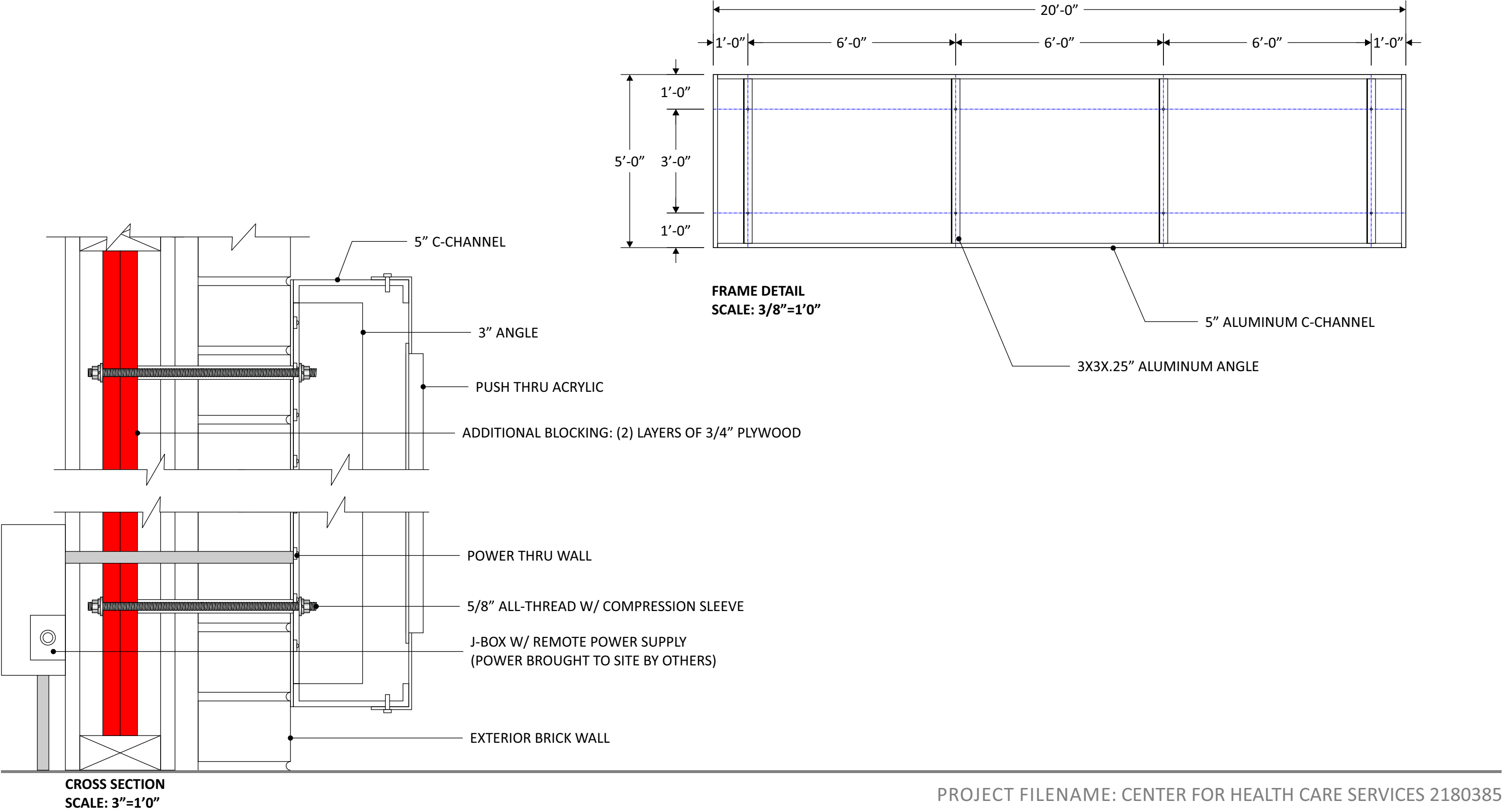


NIGHT VIEW



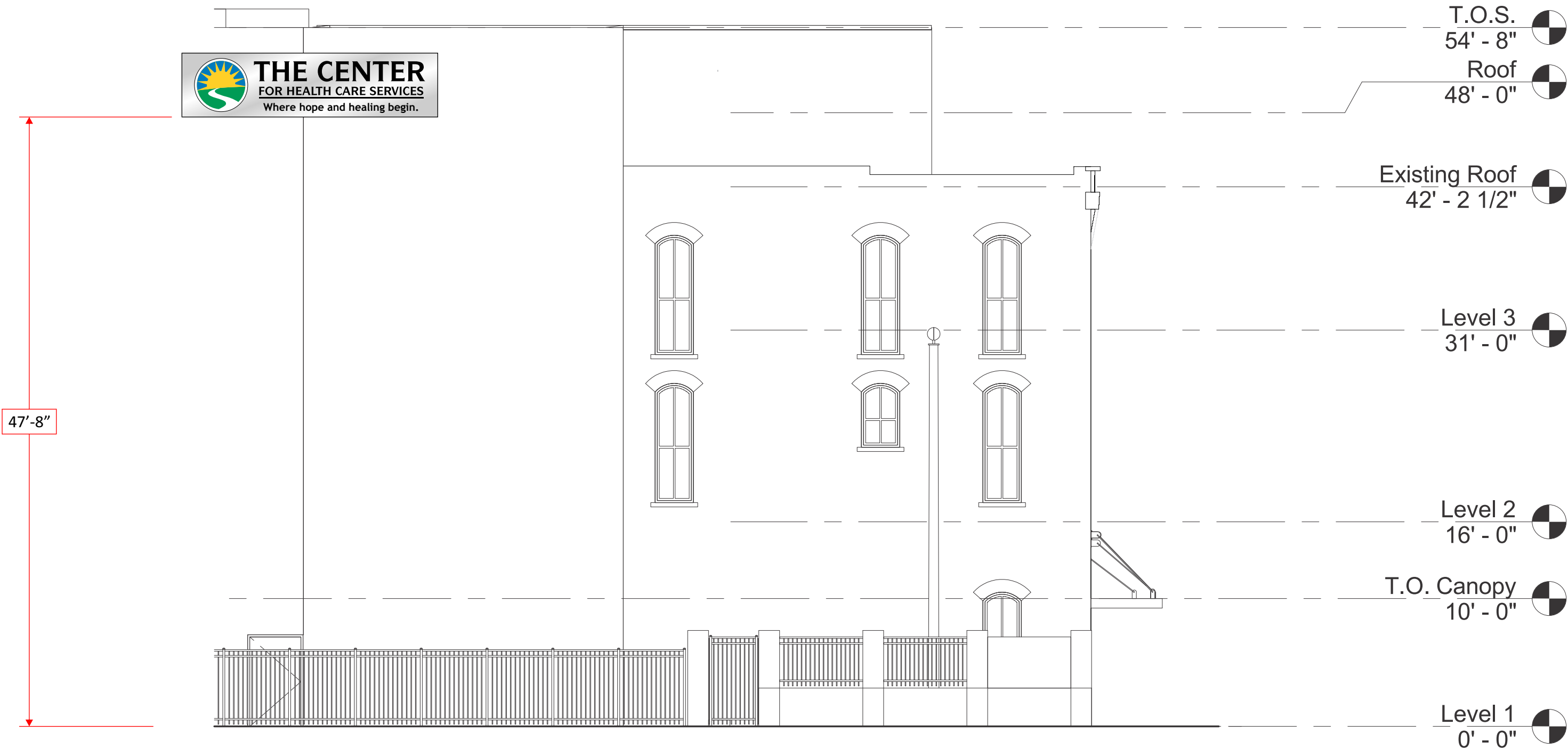
PROJECT FILENAME: CENTER FOR HEALTH CARE SERVICES 2180385

FABRICATION DETAILS



PARTIAL EAST ELEVATION

DRAWING SCALE: 1/8"=1'0"

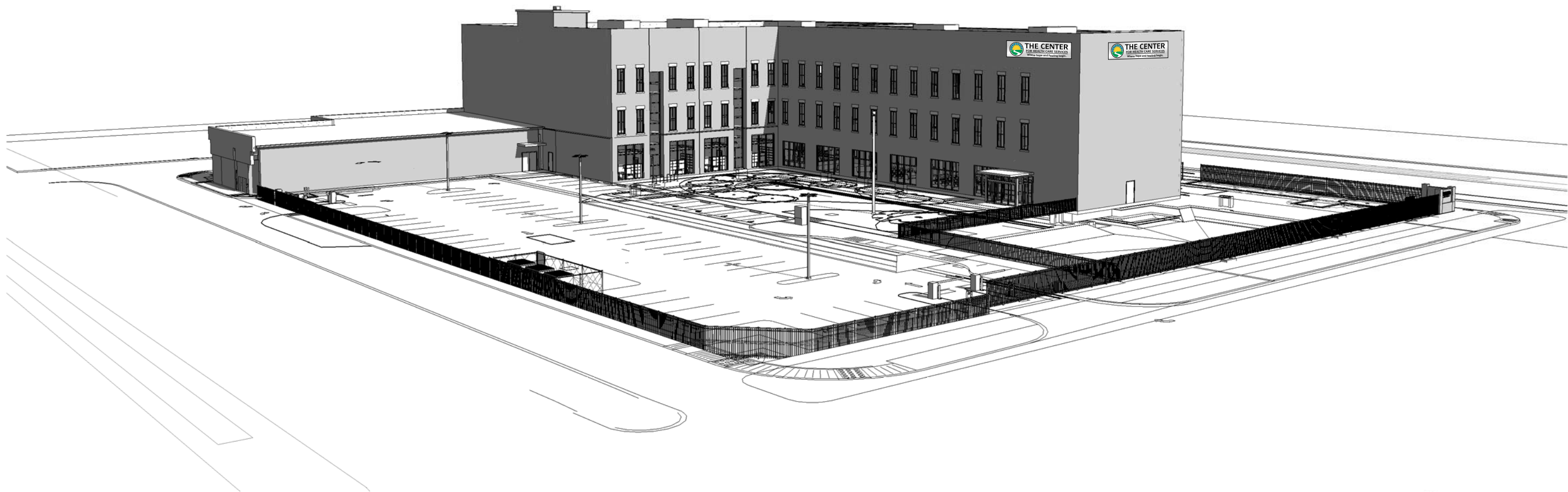


PROJECT FILENAME: CENTER FOR HEALTH CARE SERVICES 2180385



CORNER ELEVATION

DRAWING SCALE: N.T.S.



VOLT: 120V.      LOAD: 3.3A

HARDMAN SIGNS **MUST** BE NOTIFIED OF **OTHER VOLTAGES** PRIOR TO MANUFACTURE. A **DEDICATED** CIRCUIT CONSISTING OF PRIMARY, NEUTRAL AND GROUND CONDUCTORS ARE TO BE PROVIDED BY CUSTOMER.



Hardman**Signs**

ARCHITECTURAL SIGNAGE & GRAPHICS

E496516

\_\_\_\_\_V    \_\_\_\_\_A    \_\_\_\_\_HZ

DATE: \_\_\_\_\_

Suitable for wet locations.

TITLE		
S.F. CABINET - 32943		
DATE 4-19-2018	DRAWN BY : MATTHEW	
SIGN HEIGHT 60" X 240"	SIGN DEPTH 5"	FACE MATERIAL ALUMINUM / ACRYLIC

(3) 60W



232

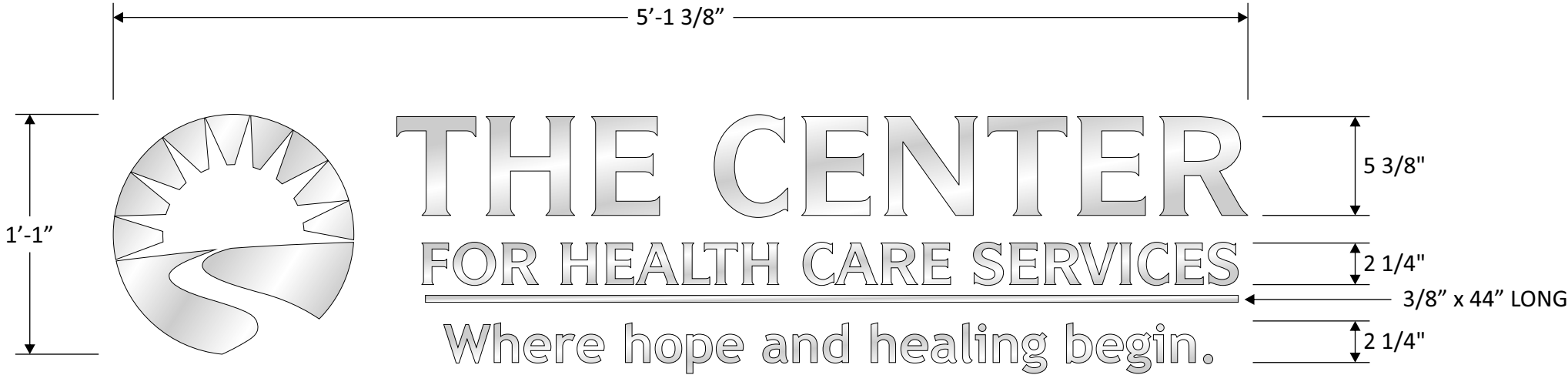
NOTE:  
SPACE ROWS @ 10" O.C.  
MAX MODS PER SERIES: 40  
80 MODULES PER 60W PS

AMP DRAW: 3.3A

ESTIMATED PRODUCT PER SIGN  
FACE LIT  
(232) TRUE WHITE STREET FIGHTER MIDDLE WEIGHT MODULES (PL-OP2-MW2-P-TW)  
104FT TRUE WHITE STREET FIGHTER MIDDLEWEIGHT  
(3) 60W POWER SUPPLIES (PL-60-12-U)

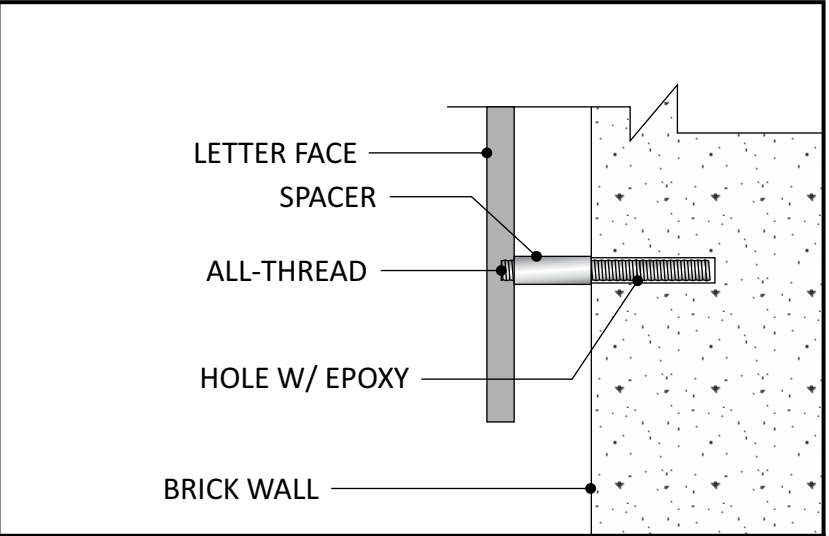
CAUTION: THIS LAYOUT IS ONLY AN ESTIMATE.  
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QTY. 2 SETS OF LETTERS/LOGOS


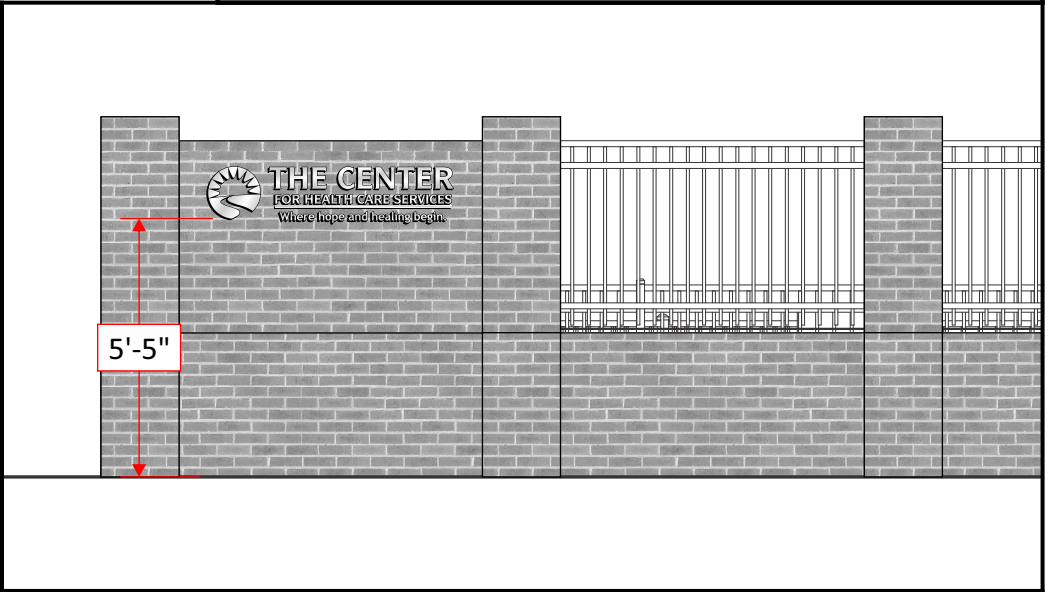


FRONT VIEW  
SCALE: 1.5"=1'0"

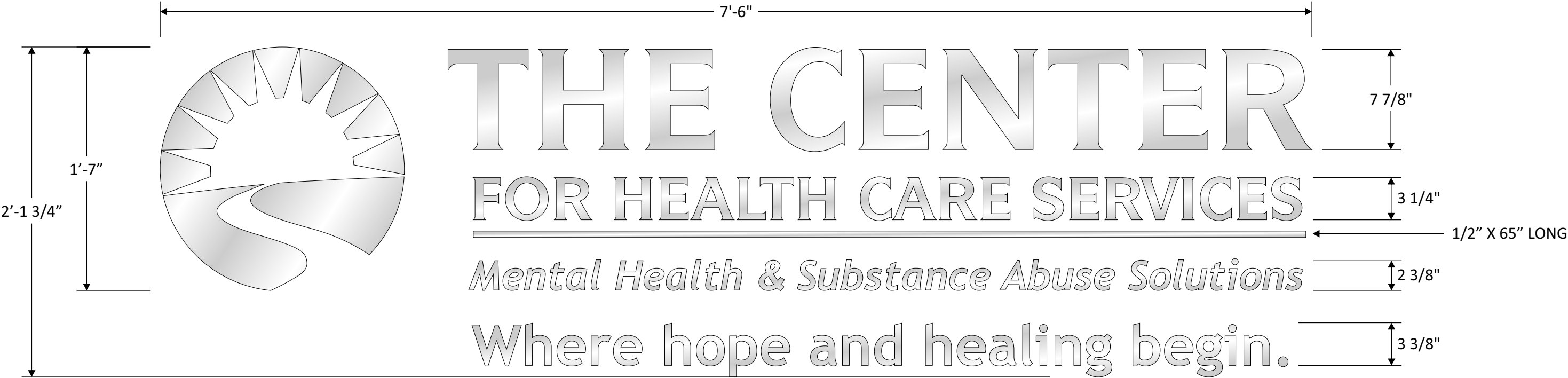
LETTERS/LOGO: FLAT CUT 1/2" BRUSHED ALUMINUM [M1] (HORIZONTAL GRAIN).  
INSTALLED WITH 2" STAND-OFF FROM EXISTING BRICK WALL.



ATTACHMENT METHOD N.T.S.

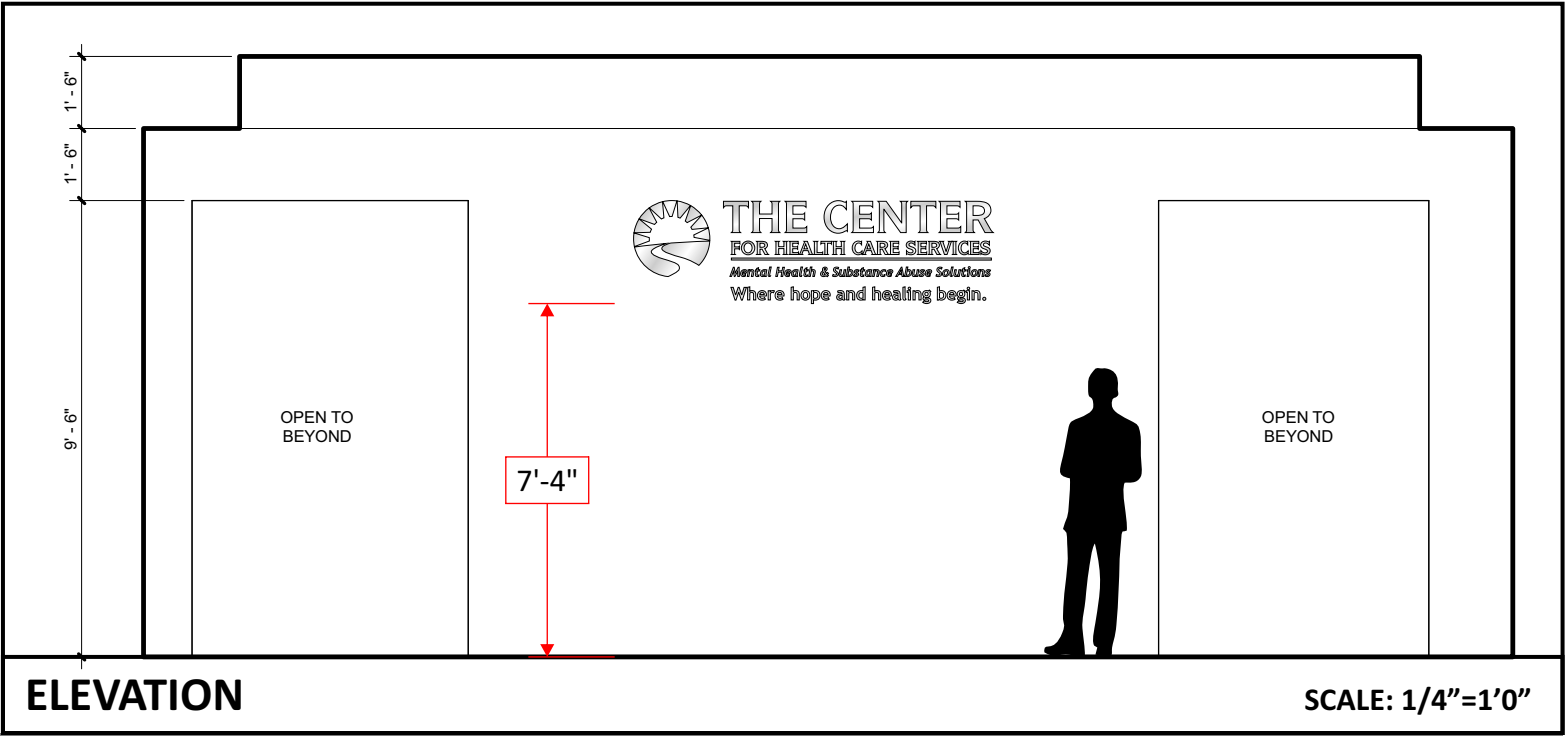
 <p>Left elevation view of the sign on a brick wall. The sign is mounted on a brick wall with a fence in the background. A height dimension of 5'-5" is shown for the sign face.</p>	 <p>Right elevation view of the sign on a brick wall. The sign is mounted on a brick wall with a fence in the background. A height dimension of 5'-5" is shown for the sign face.</p>
ELEVATION	ELEVATION
SCALE: 1/4"=1'0"	SCALE: 1/4"=1'0"

QTY. 1 SET OF LETTERS/LOGOS



FRONT VIEW  
SCALE: 1.5"=1'0"

LETTERS/LOGO: FLAT CUT 1/2" ACRYLIC PAINTED [P1]  
INSTALLED FLUSH TO INTERIOR WALL W/ VHB TAPE AND SILICONE



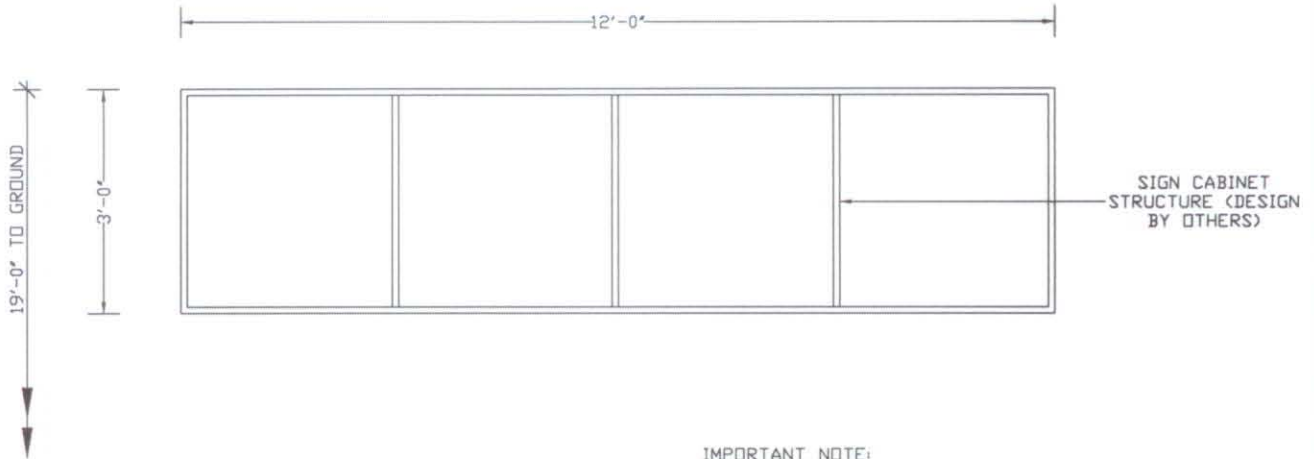
ELEVATION

SCALE: 1/4"=1'0"

PROJECT FILENAME: CENTER FOR HEALTH CARE SERVICES 2180385



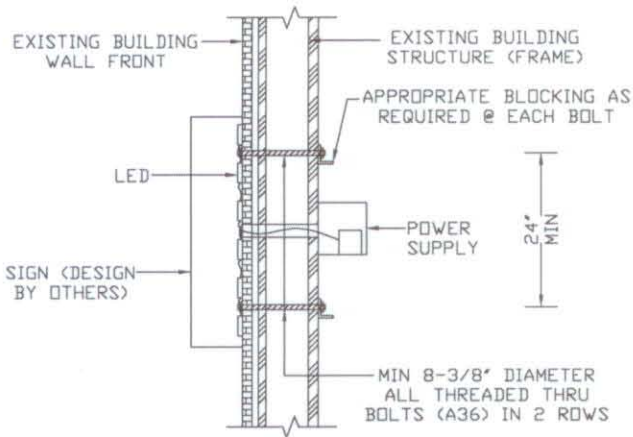
## EX1-SIGN 1



### IMPORTANT NOTE:

BOLTS SHALL NOT BE CONNECTED TO EXISTING BUILDING FACIA, BRICK OR STONE VENEER (EXISTING BUILDING FACADE) AT ANY LOCATION.

### SECTION



### Design Wall Connection (BOLTS)

Section	Area (sq ft)	Shape Factor	Wind (psf)	Force	Moment
Area	36.00	1	25	900	1350
				900	1350
Bolt Tension = $1350 \times 12 \times 1.5 \text{ (SF)} / 4 \text{ (bolts/side)} \times 24 \text{ in (spc)} = 203$					
Bolt Area (required) $> 203 / 36000 = 0.01 \text{ sq in}$					
Try 3/8 in Diameter Bolts ; A = 0.11 sq in ; C = 1.17 in					
Use Min 8 - 3/8 in Diameter All Threaded Thru Bolts (A36) in 2 Rows					

### NOTES:

- DESIGN IS BASED ON 2015 IBC - WIND SPEED OF 115 MPH (3-SEC GUST), EXPOSURE C.
- THIS DESIGN IS INTENDED TO BE INSTALLED AT THE ADDRESS SHOWN AND SHALL NOT BE USED AT ANY OTHER LOCATIONS UNLESS CERTIFIED BY A PROFESSIONAL ENGINEER.
- ENGINEER IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT AND SHALL ONLY BE RESPONSIBLE FOR THE DESIGN OF SIGN STRUCTURE FOR WHICH CALCULATIONS ARE SHOWN ON THIS PAGE. (SIGN CABINET STRUCTURE DESIGN SHALL BE PROVIDED BY OTHERS).
- ALL HSS TUBE SECTIONS SHALL MEET ASTM A500 GRADE-B WITH MINIMUM YIELD STRESS  $F_y=46$  KSI.
- ALL OTHER STEEL INCLUDING CONNECTION PLATES, ANGLES, ETC. SHALL MEET ASTM A36 WITH MINIMUM YIELD STRESS  $F_y=36$  KSI.
- ALL ALUMINUM USED SHALL BE GRADE 6053 OR 6061 OR EQUIVALENT WITH MINIMUM YIELD STRESS  $F_y=20$  KSI.
- STRUCTURAL BOLTS SHALL CONFORM TO ASTM A325 UNLESS OTHERWISE NOTED AND SHALL BE GALVANIZED.
- ALL STEEL WELDING SHALL BE MADE WITH E70xx ELECTRODES AND SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS STANDARDS.
- ALL ALUMINUM WELDING SHALL BE MADE WITH E40xx ELECTRODES AND SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE AWS STANDARDS.
- SIZE, LENGTH AND NUMBER OF BOLTS ARE MINIMUM RECOMMENDED AND SHALL BE INCREASED DEPENDING ON FIELD CONDITIONS TO SECURE SIGN FIRMLY ONTO EXISTING BUILDING STRUCTURE.
- BOLTS SHALL BE CONNECTED TO EXISTING BUILDING STRUCTURE (FRAME) AT ALL LOCATIONS.
- EXISTING BUILDING STRUCTURE INFORMATION NOT PROVIDED BY SIGN CONTRACTOR.
- ANALYSIS OF EXISTING BUILDING STRUCTURE TO SUPPORT PROPOSED LOADS NOT IN SCOPE OF SMB ENGINEERING, LLC AND DESIGN ENGINEER AND HENCE NOT PERFORMED AND PROVIDED.
- SMB ENGINEERING, LLC AND DESIGN ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR DAMAGE CAUSED TO EXISTING BUILDING DUE TO ADDITION OF PROPOSED LOADS.



**SMB**  
ENGINEERING, LLC

WWW.SMBENGINEERING.NET  
TEL: 832-443-7328

TEXAS REGISTRATION NUMBER : F-10116

**HARDMAN**  
**SIGNS**

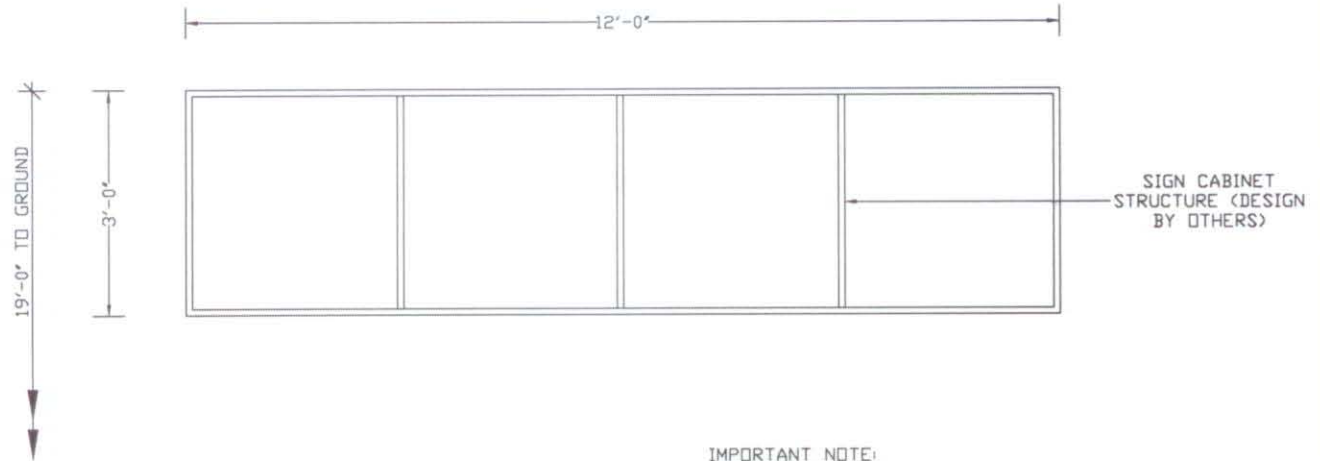
4913 WEEPING WILLOW,  
HOUSTON, TX

**THE CENTER FOR**  
**HEALTH CARE**  
**SERVICES**

928 W. COMMERCE STREET,  
SAN ANTONIO, TX

SCALE : NTS  
DRAWN BY : HMN  
DATE : APR 2018  
PROJECT : 18-508A  
REV: 0  
PAGE : 1 OF 1

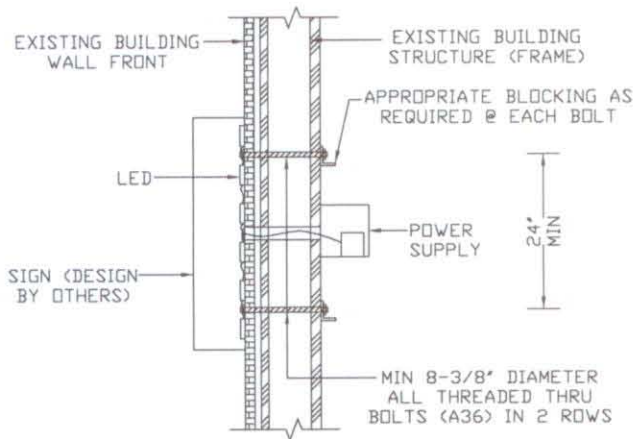
## EX1-SIGN 2



### IMPORTANT NOTE:

BOLTS SHALL NOT BE CONNECTED TO EXISTING BUILDING FACIA, BRICK OR STONE VENEER (EXISTING BUILDING FACADE) AT ANY LOCATION.

### SECTION



### Design Wall Connection (BOLTS)

Section	Area (sq ft)	Shape Factor	Wind (psf)	Force	Moment
Area	36.00	1	25	900	1350
				900	1350
Bolt Tension = $1350 \times 12 \times 1.5 \text{ (SF)} / 4 \text{ (bolts/side)} \times 24 \text{ in (spc)} = 203$					
Bolt Area (required) $> 203 / 36000 = 0.01 \text{ sq in}$					
Try 3/8 in Diameter Bolts ; A = 0.11 sq in ; C = 1.17 in					
Use Min 8 - 3/8 in Diameter All Threaded Thru Bolts (A36) in 2 Rows					

### NOTES:

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- ENGINEER IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT AND SHALL ONLY BE RESPONSIBLE FOR THE DESIGN OF SIGN STRUCTURE FOR WHICH CALCULATIONS ARE SHOWN ON THIS PAGE. (SIGN CABINET STRUCTURE DESIGN SHALL BE PROVIDED BY OTHERS).
- ALL HSS TUBE SECTIONS SHALL MEET ASTM A500 GRADE-B WITH MINIMUM YIELD STRESS  $F_y=46 \text{ KSI}$ .
- ALL OTHER STEEL INCLUDING CONNECTION PLATES, ANGLES, ETC. SHALL MEET ASTM A36 WITH MINIMUM YIELD STRESS  $F_y=36 \text{ KSI}$ .
- ALL ALUMINUM USED SHALL BE GRADE 6053 OR 6061 OR EQUIVALENT WITH MINIMUM YIELD STRESS  $F_y=20 \text{ KSI}$ .
- STRUCTURAL BOLTS SHALL CONFORM TO ASTM A325 UNLESS OTHERWISE NOTED AND SHALL BE GALVANIZED.
- ALL STEEL WELDING SHALL BE MADE WITH E70xx ELECTRODES AND SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS STANDARDS.
- ALL ALUMINUM WELDING SHALL BE MADE WITH E40xx ELECTRODES AND SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS STANDARDS.
- SIZE, LENGTH AND NUMBER OF BOLTS ARE MINIMUM RECOMMENDED AND SHALL BE INCREASED DEPENDING ON FIELD CONDITIONS TO SECURE SIGN FIRMLY ONTO EXISTING BUILDING STRUCTURE.
- BOLTS SHALL BE CONNECTED TO EXISTING BUILDING STRUCTURE (FRAME) AT ALL LOCATIONS.
- EXISTING BUILDING STRUCTURE INFORMATION NOT PROVIDED BY SIGN CONTRACTOR.
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4/30/18

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TEL: 832-443-7328

TEXAS REGISTRATION NUMBER : F-10116

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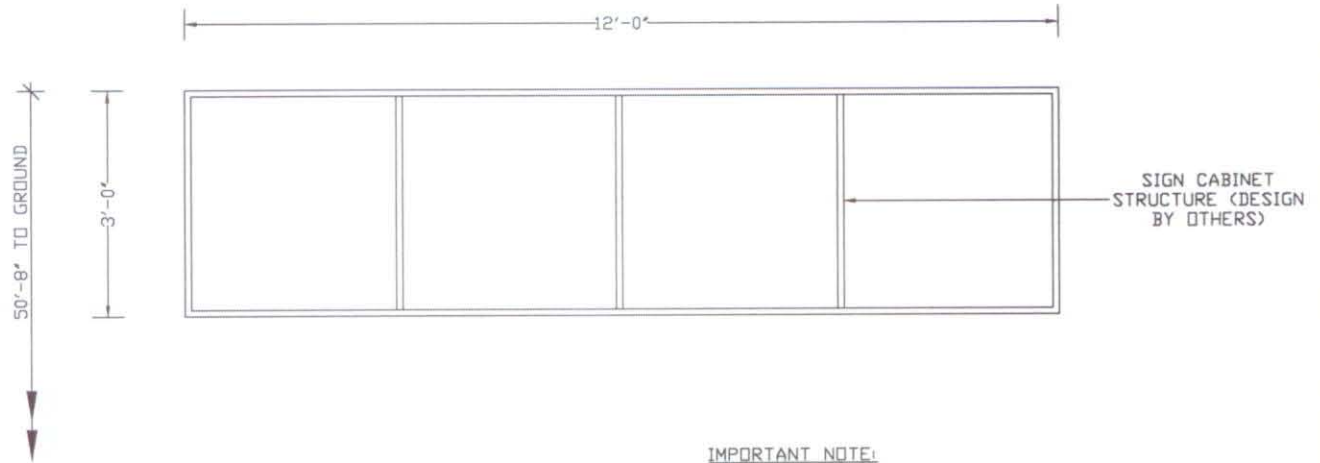
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**SERVICES**

928 W. COMMERCE STREET,  
SAN ANTONIO, TX

SCALE : NTS  
DRAWN BY : HMN  
DATE : APR 2018  
PROJECT : 18-508B  
REV: 0  
PAGE : 1 OF 1



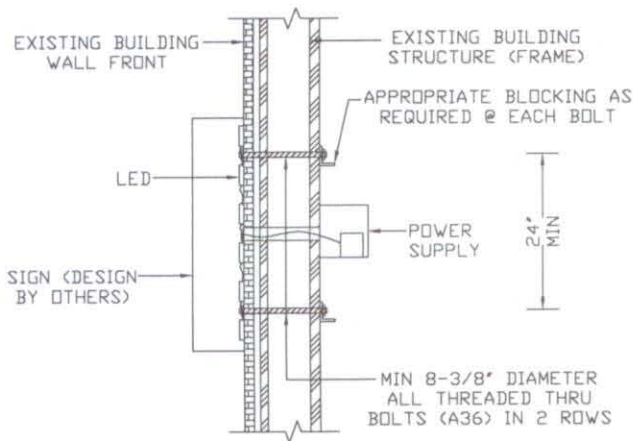
## EX2-SIGN 1



### IMPORTANT NOTE:

BOLTS SHALL NOT BE CONNECTED TO EXISTING BUILDING FACIA, BRICK OR STONE VENEER (EXISTING BUILDING FACADE) AT ANY LOCATION.

### SECTION



### Design Wall Connection (BOLTS)

Section	Area (sq ft)	Shape Factor	Wind (psf)	Force	Moment
Area	36.00	1	30	1080	1620
				1080	1620

Bolt Tension =  $1620 \times 12 \times 1.5 \text{ (SF)} / 4 \text{ (bolts/side)} \times 24 \text{ in (spc)} = 243$

Bolt Area (required)  $> 243 / 36000 = 0.01 \text{ sq in}$

Try 3/8 in Diameter Bolts ; A = 0.11 sq in ; C = 1.17 in

Use Min 8 - 3/8 in Diameter All Threaded Thru Bolts (A36) in 2 Rows

### NOTES:

- DESIGN IS BASED ON 2015 IBC - WIND SPEED OF 115 MPH (3-SEC GUST), EXPOSURE C.
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- ALL HSS TUBE SECTIONS SHALL MEET ASTM A500 GRADE-B WITH MINIMUM YIELD STRESS  $F_y=46 \text{ KSI}$ .
- ALL OTHER STEEL INCLUDING CONNECTION PLATES, ANGLES, ETC. SHALL MEET ASTM A36 WITH MINIMUM YIELD STRESS  $F_y=36 \text{ KSI}$ .
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**HEALTH CARE**  
**SERVICES**

928 W. COMMERCE STREET,  
SAN ANTONIO, TX

SCALE : NTS

DRAWN BY : HMN

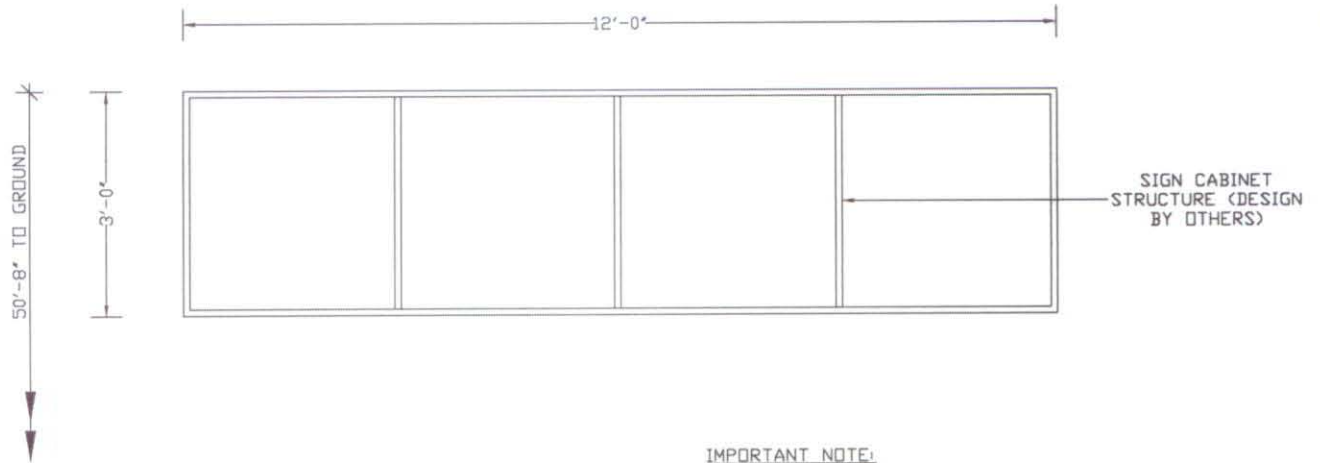
DATE : APR 2018

PROJECT : 18-509A

REV: 0

PAGE : 1 OF 1

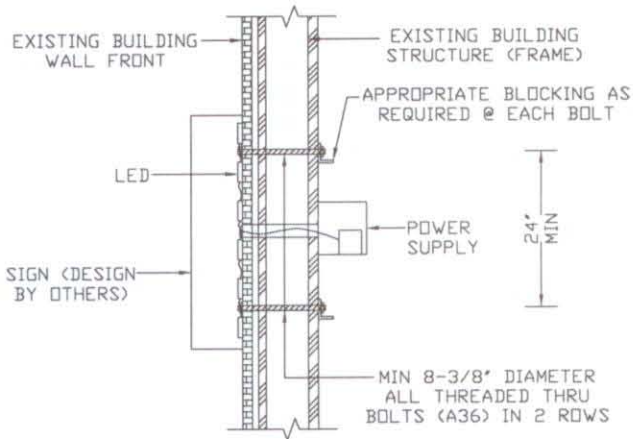
## EX2-SIGN 2



### IMPORTANT NOTE:

BOLTS SHALL NOT BE CONNECTED TO EXISTING BUILDING FACIA, BRICK OR STONE VENEER (EXISTING BUILDING FACADE) AT ANY LOCATION.

### SECTION



### Design Wall Connection (BOLTS)

Section	Area (sq ft)	Shape Factor	Wind (psf)	Force	Moment
Area	36.00	1	30	1080	1620
				1080	1620
Bolt Tension = $1620 \times 12 \times 1.5 \text{ (SF)} / 4 \text{ (bolts/side)} \times 24 \text{ in (spc)} = 243$					
Bolt Area (required) $> 243 / 36000 = 0.01 \text{ sq in}$					
Try 3/8 in Diameter Bolts ; A = 0.11 sq in ; C = 1.17 in					
Use Min 8 - 3/8 in Diameter All Threaded Thru Bolts (A36) in 2 Rows					

### NOTES:

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- ALL OTHER STEEL INCLUDING CONNECTION PLATES, ANGLES, ETC. SHALL MEET ASTM A36 WITH MINIMUM YIELD STRESS  $F_y=36$  KSI.
- ALL ALUMINUM USED SHALL BE GRADE 6053 OR 6061 OR EQUIVALENT WITH MINIMUM YIELD STRESS  $F_y=20$  KSI.
- STRUCTURAL BOLTS SHALL CONFORM TO ASTM A325 UNLESS OTHERWISE NOTED AND SHALL BE GALVANIZED.
- ALL STEEL WELDING SHALL BE MADE WITH E70xx ELECTRODES AND SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS STANDARDS.
- ALL ALUMINUM WELDING SHALL BE MADE WITH E40xx ELECTRODES AND SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS STANDARDS.
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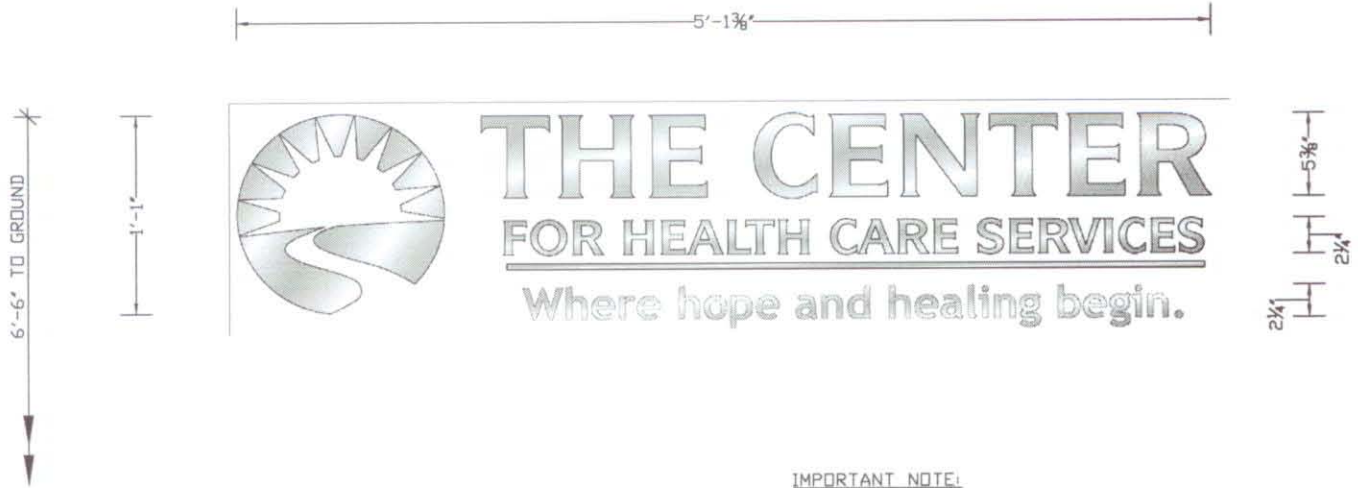
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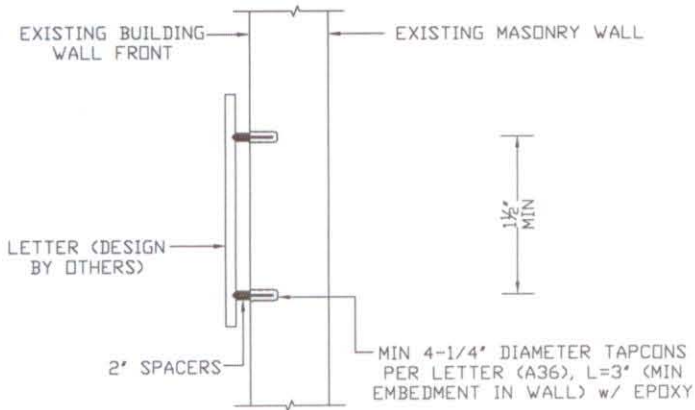
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PROJECT : 18-509B  
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# EX3-SIGN 1



## SECTION



### IMPORTANT NOTE:

BOLTS SHALL NOT BE CONNECTED TO EXISTING BUILDING FACIA, BRICK OR STONE VENEER (EXISTING BUILDING FACADE) AT ANY LOCATION.

Design Wall Connection (BOLTS)					
Section	Area (sq ft)	Shape Factor	Wind (psf)	Force	Moment
Area	1.00	1	25	25	12.5
				25	12.5
Bolt Tension = $12.5 \times 12 \times 1.5 \text{ (SF)} / 2 \text{ (bolts/side)} \times 1.5 \text{ in (spc)} = 75$					
Bolt Area (required) $> 75 / 36000 = 0.01 \text{ sq in}$					
Try 1/4 in Diameter Bolts ; A = 0.04 sq in ; C = 0.78 in					
Bolt Length (required) $> 12 \times d = 12 \times 0.25 = 3 \text{ in}$					
Use Min 4 - 1/4 in Dia Tapcons (A36) @ Ea Letter, L=3 in (min embed)					

### NOTES:

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- STRUCTURAL BOLTS SHALL CONFORM TO ASTM A325 UNLESS OTHERWISE NOTED AND SHALL BE GALVANIZED.
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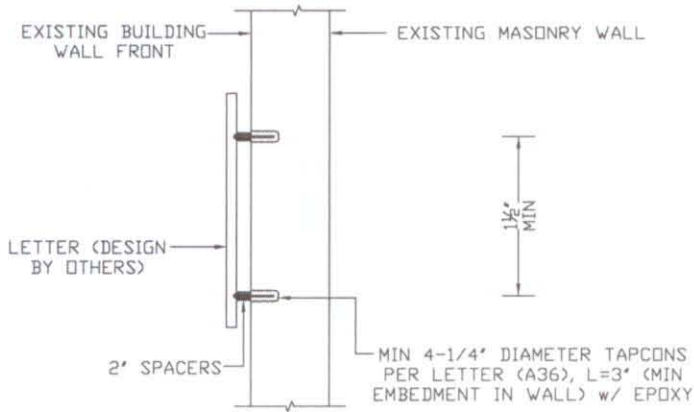
# EX3-SIGN 2



## IMPORTANT NOTE:

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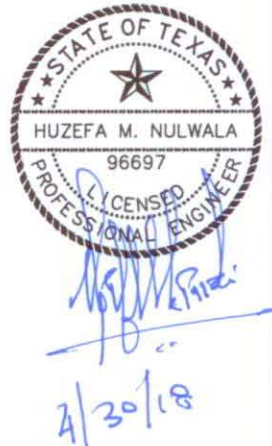
## SECTION



Design Wall Connection (BOLTS)					
Section	Area (sq ft)	Shape Factor	Wind (psf)	Force	Moment
Area	1.00	1	25	25	12.5
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Try 1/4 in Diameter Bolts ; A = 0.04 sq in ; C = 0.78 in					
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