

Double faced pole sign with exposed neon in channel letters.

# A

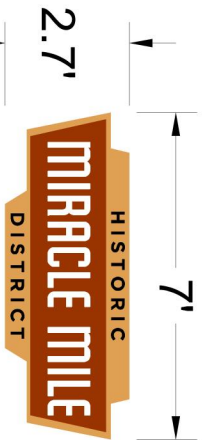
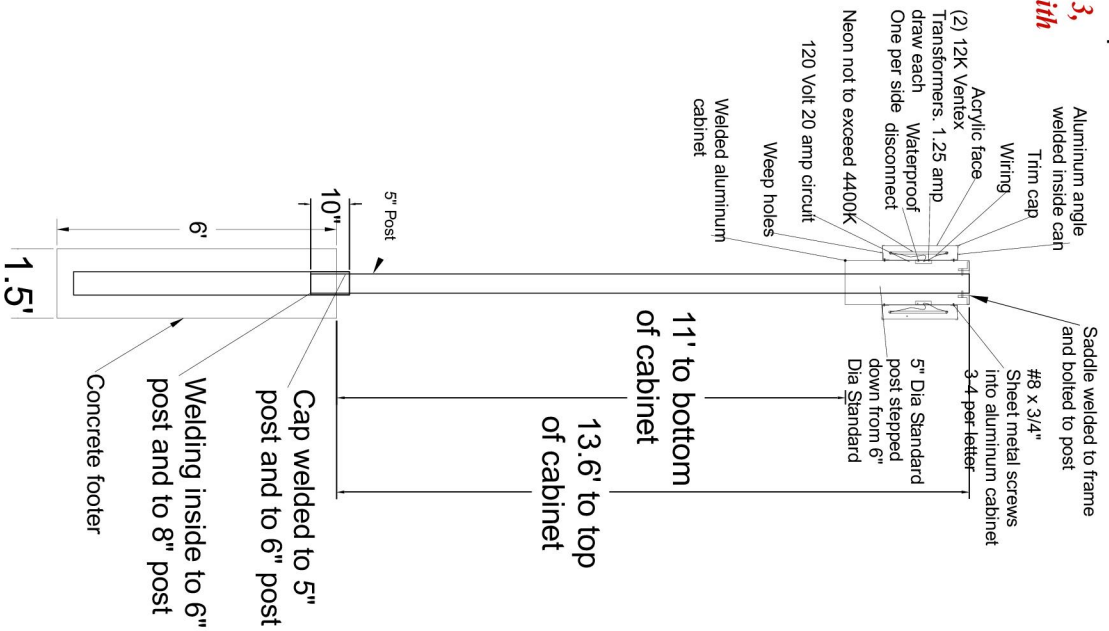
PROPOSED

As per the Outdoor Lighting Code the internally illuminated sign as shown on this page does not exceed the 4400k color temp.

*All Electrical Signs will be Listed per NEC 600.3, Marked per 600.4 and installed in accordance with applicable local codes. This includes proper grounding and bonding of the sign.*



One block south of Speedway on Stone

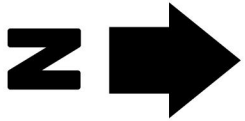
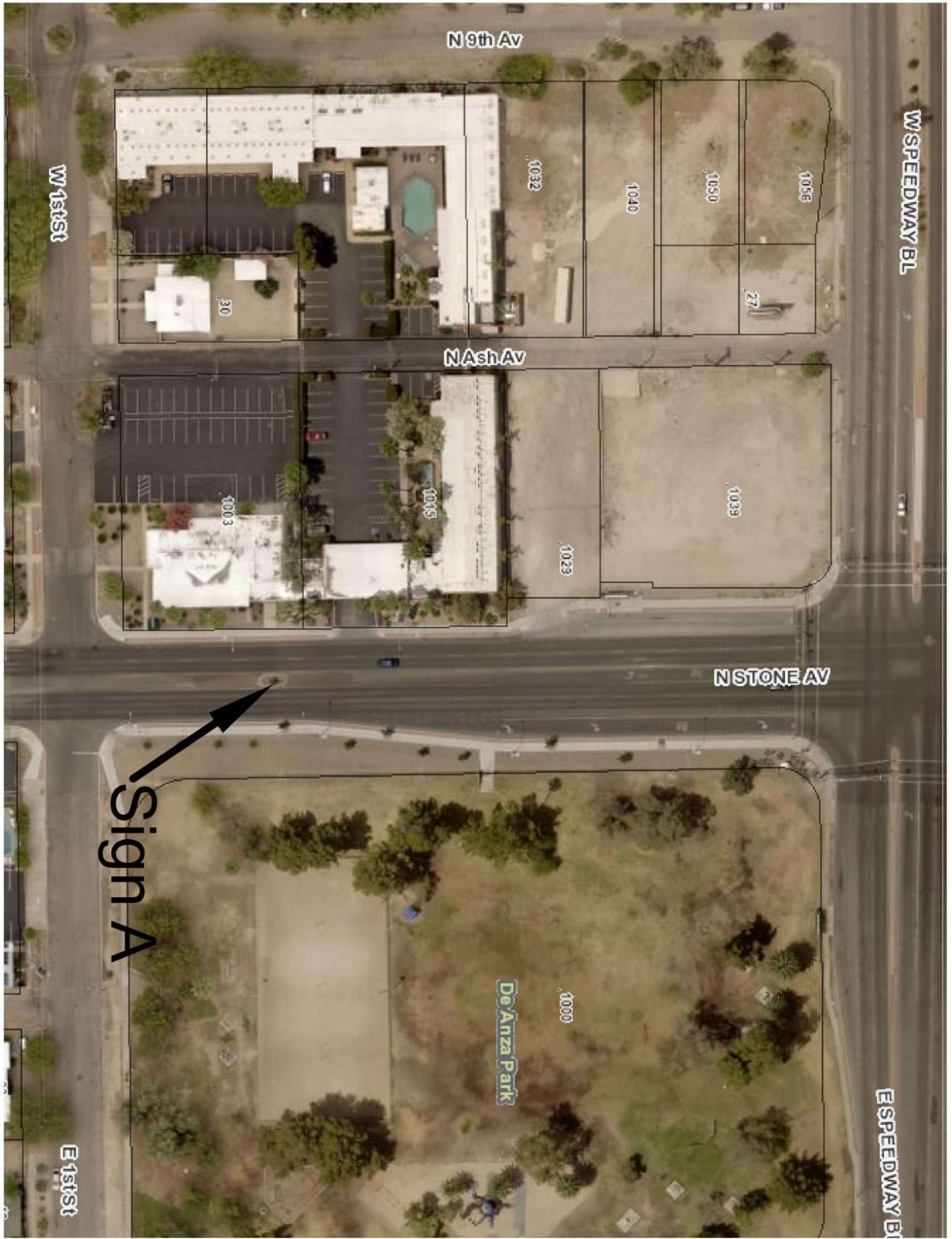


18.9 Square feet  
Scale 1/4" = 1'

SIDE VIEW 1/4" = 1'

STONE & SPEEDWAY



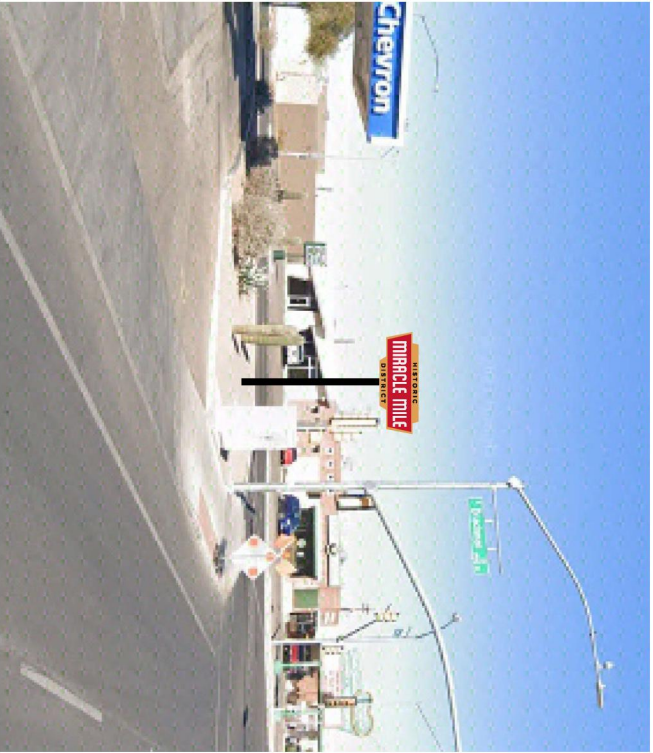


Double faced pole sign with exposed neon in channel letters.

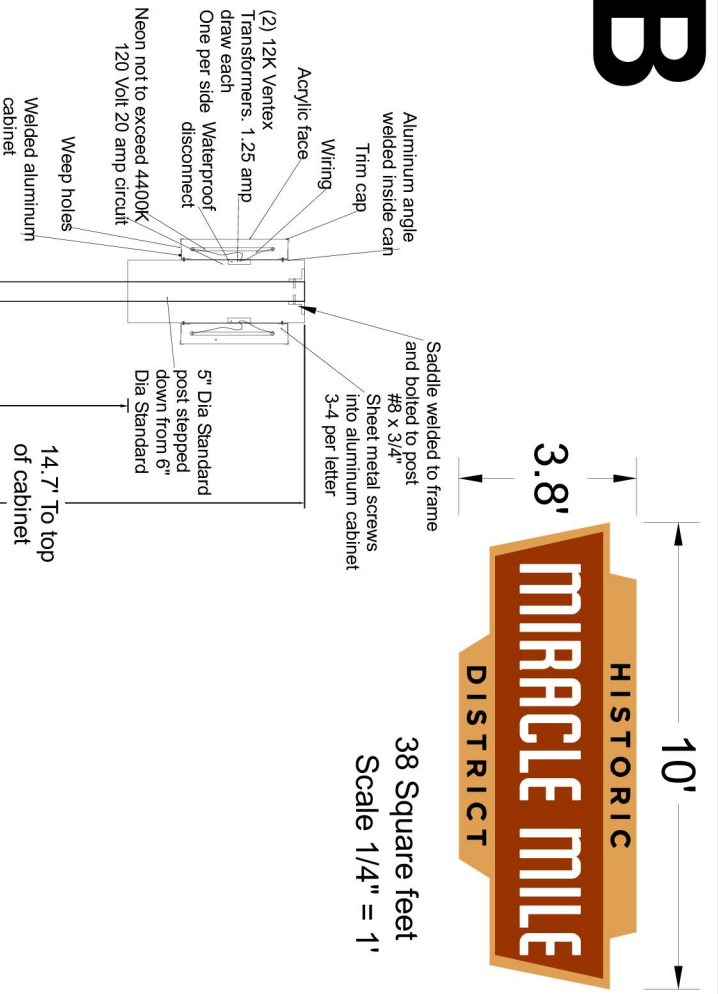
**B**

As per the Outdoor Lighting Code the internally illuminated sign as shown on this page does not exceed the 4400k color temp.

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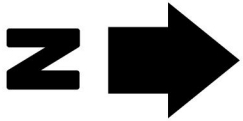
South West Corner Of Stone and Drachman



SIDE VIEW 1/4" = 1'

STONE & DRACHMAN





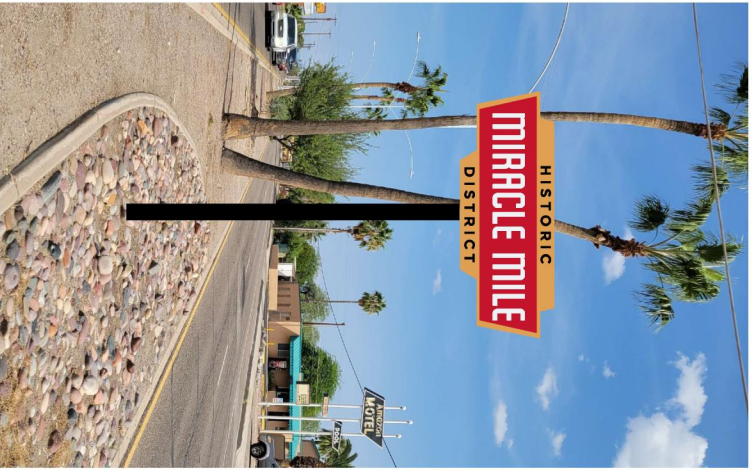
STONE & DRACHMAN

Double faced pole sign with exposed neon in channel letters.

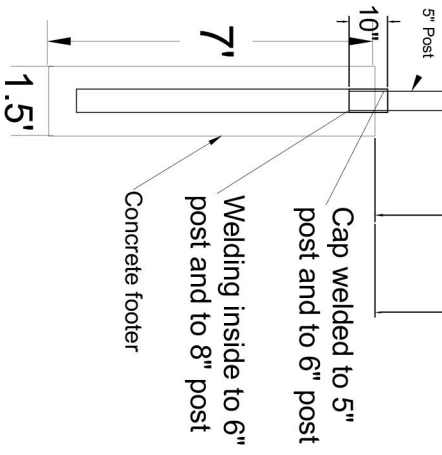
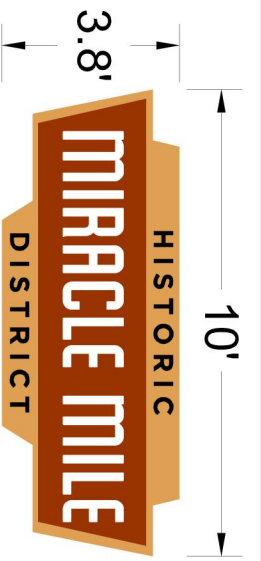
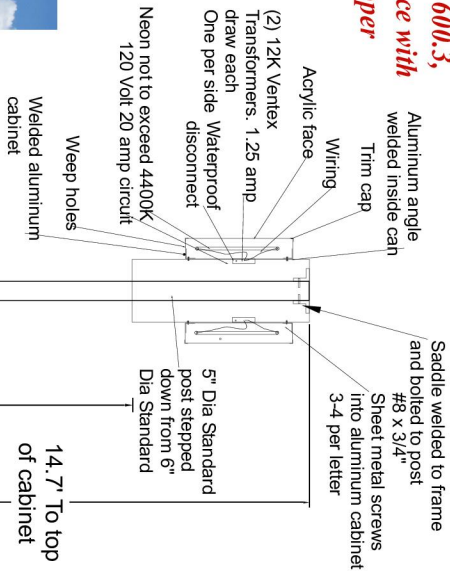


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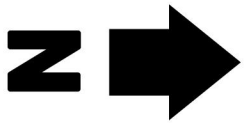
Miracle Mile near Amazon Motel



SIDE VIEW 1/4" = 1'

MIRACLE MILE NEAR AMAZON MOTEL





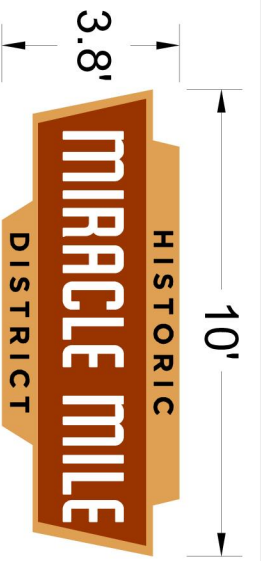
MIRACLE MILE NEAR AMAZON MOTEL

Double faced pole sign with exposed neon in channel letters.

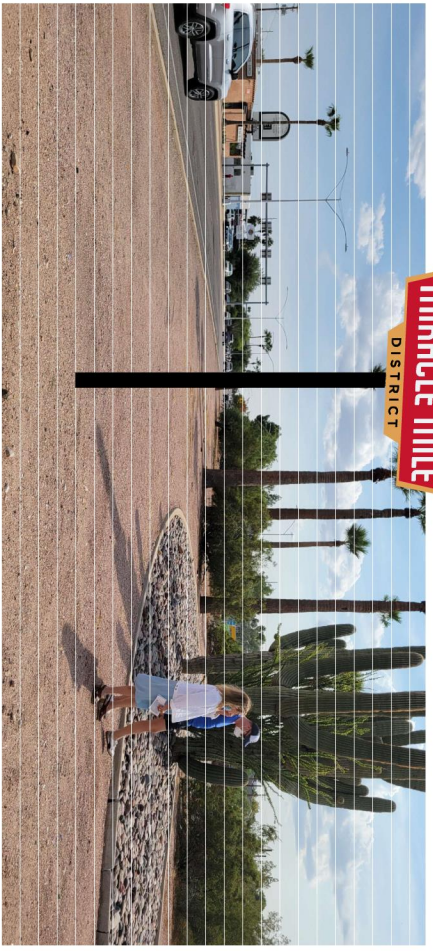
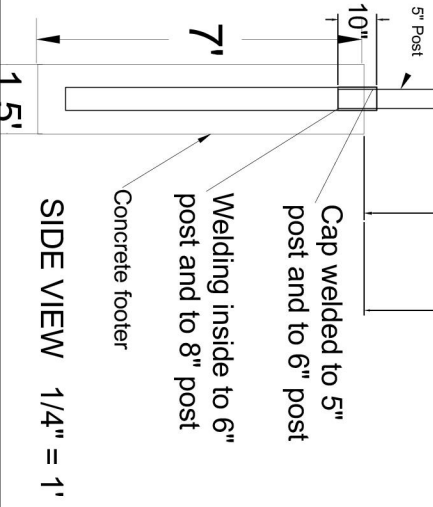
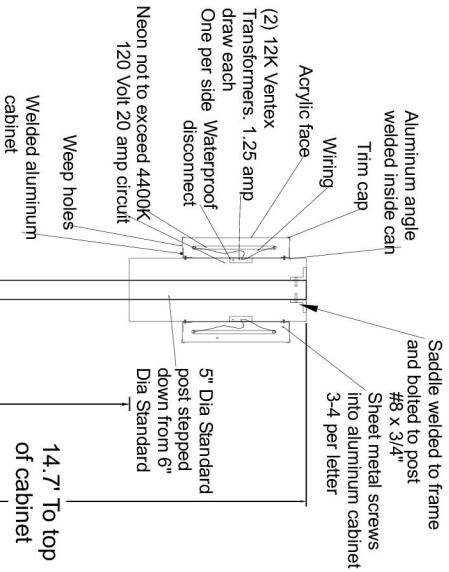


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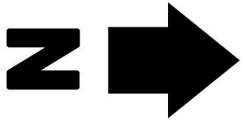
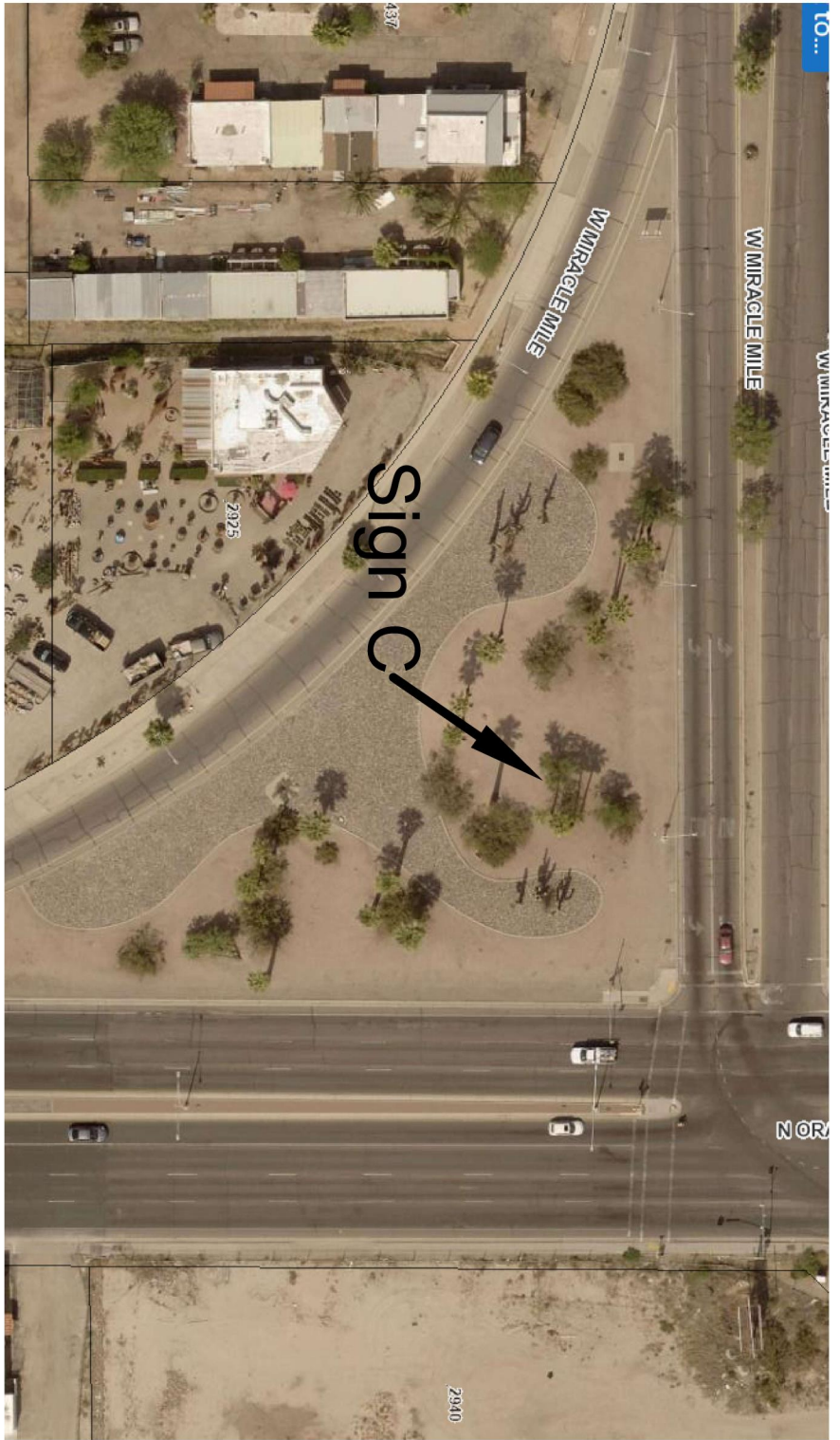
38 Square feet  
Scale 1/4" = 1'



South West Corner Of Oracle And Miracle Mile

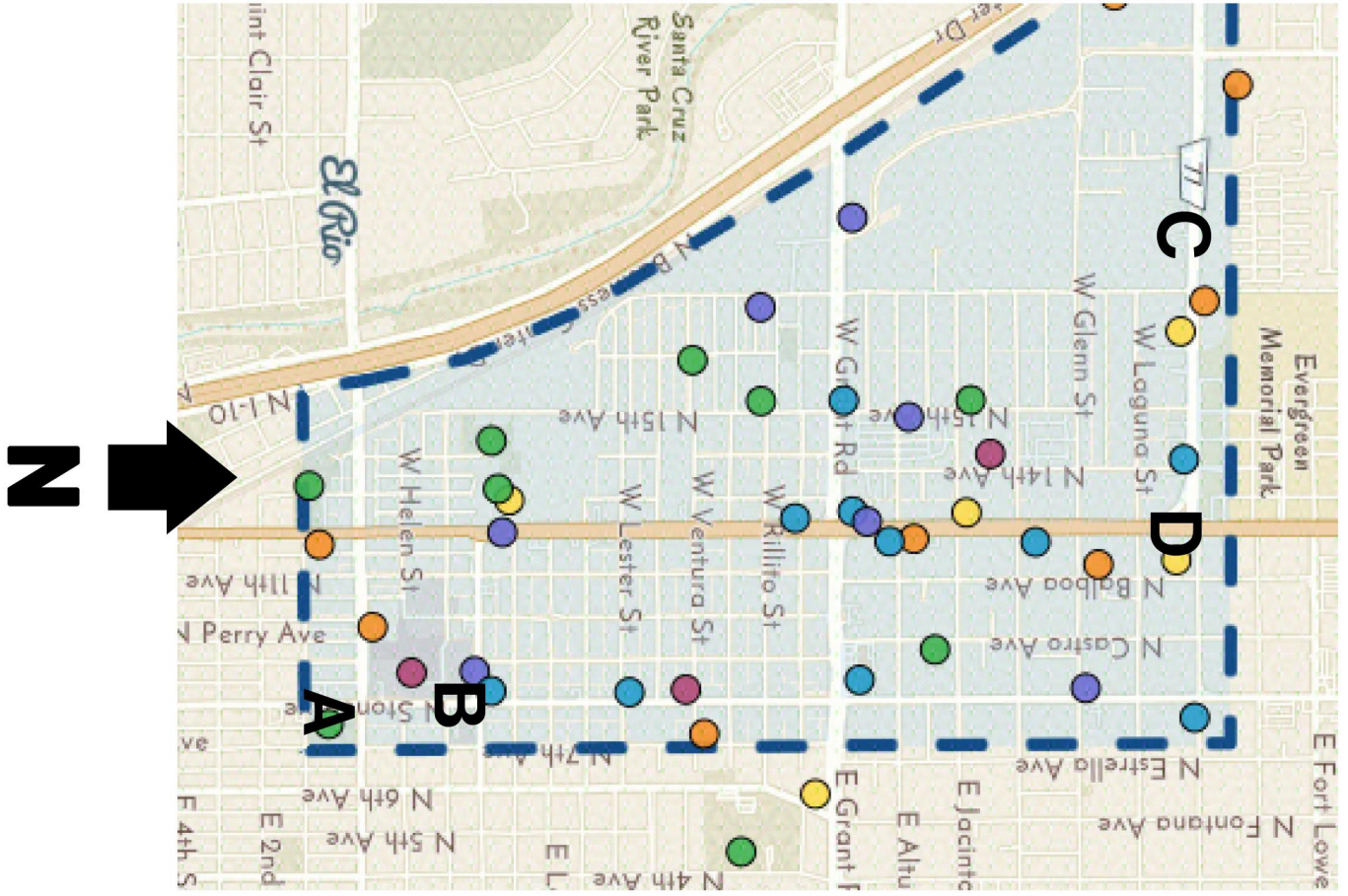
SOUTHWEST CORNER OF ORACLE & MIRACLE MILE





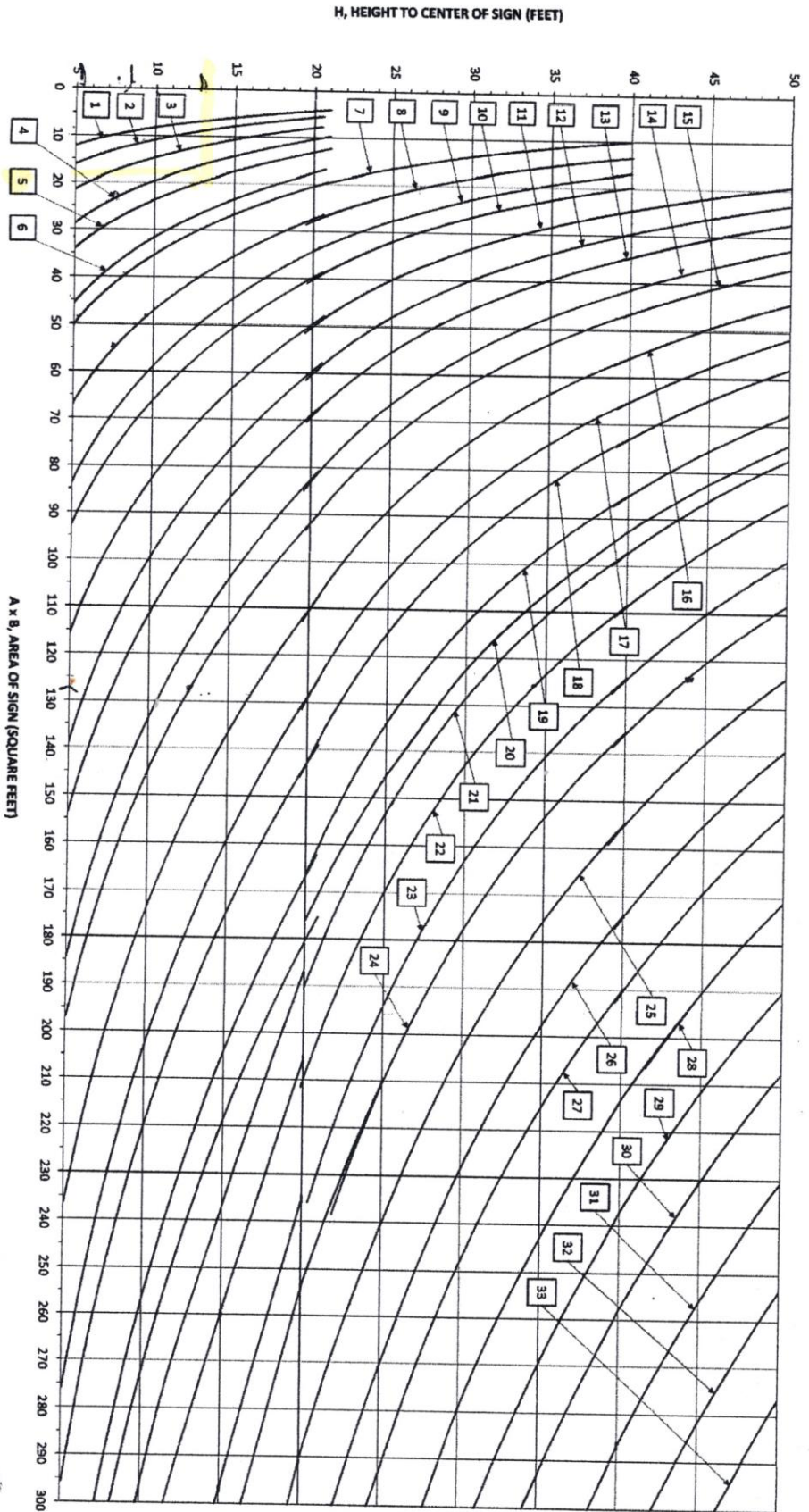
SOUTHWEST CORNER OF ORACLE & MIRACLE MILE





# Engineering Sign A

CAISSON FOOTING CHART  
REQUIRED FOOTING SIZE FOR AREA AND HEIGHT OF SIGN



ARIZONA SIGN ASSOCIATION  
SIGN STANDARDS FOR 2015 INTERNATIONAL BUILDING CODE

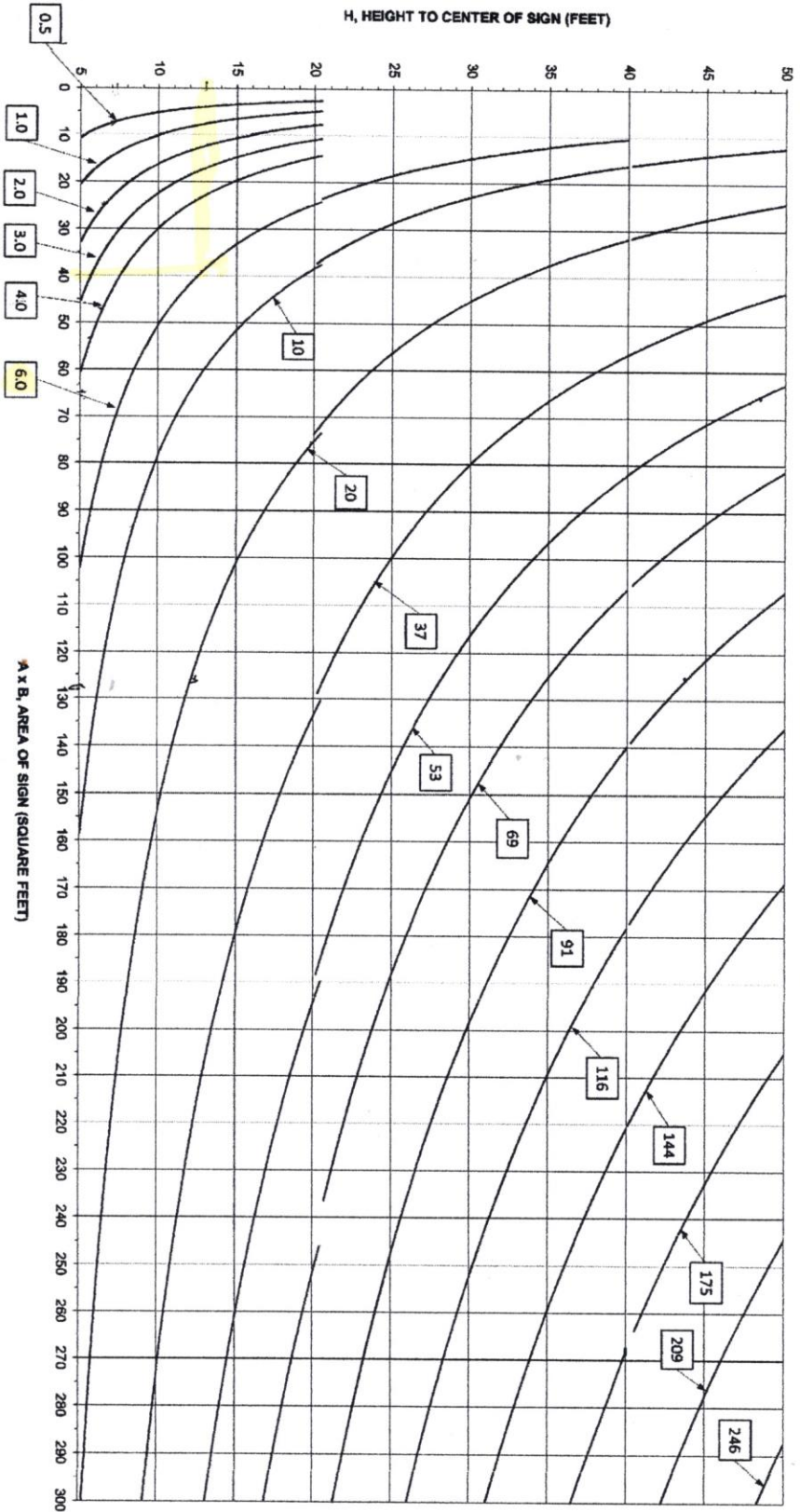
SHEET	ASA 04-1
DATE	10/10/2017
REVISIONS	

**SCHNEIDER**  
STRUCTURAL ENGINEERS  
PROFESSIONAL ENGINEERS  
444 EAST WASHINGTON | SUITE 1100 | PHOENIX, AZ 85001  
PH: 602.441.1100 | FAX: 602.441.1101 | WWW.SCHNEIDER-SE.COM

THIS ELECTRONIC SIGNATURE  
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THIS 10th DAY OF OCTOBER 2017



SECTION MODULUS CHART (Zx)  
 REQUIRED SECTION MODULUS FOR AREA AND HEIGHT OF SIGN



ARIZONA SIGN ASSOCIATION  
 SIGN STANDARDS FOR 2015 INTERNATIONAL BUILDING CODE

SHEET	ASA 04-2
DATE	10/10/2017
REVISIONS	

**SCHNEIDER**  
 STRUCTURAL ENGINEERS  
 400 N. CENTRAL AVENUE, SUITE 1000  
 PHOENIX, ARIZONA 85004  
 PHONE: 602.254.1100  
 FAX: 602.254.1101  
 WWW.SCHNEIDER-SE.COM



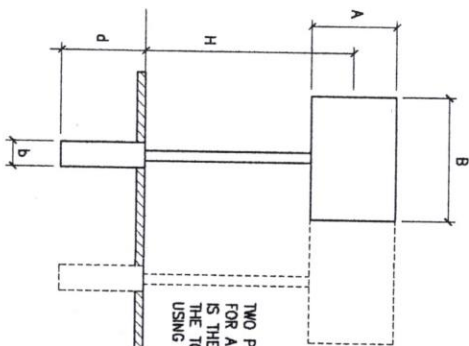
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SECTION MODULUS GROUPS

THE FOLLOWING ARE THE MOST COMMONLY USED MEMBERS, GROUPED ACCORDING TO THEIR SECTION MODULUS LINE ON THE CHART.

SYMBOLS: Zx = SECTION MODULUS; HSS = STRUCTURAL TUBE;  
 DA, STD. = STANDARD PIPE SECTION

Zx = 0.5	Zx = 1.0	Zx = 2.0	Zx = 3.0
2" DA, STD.	2 1/2" DA, STD.	3" DA, STD.	3 1/2" DA, STD.
HSS 2" x 2" x 3/16"	HSS 2 1/2" x 2 1/2" x 3/16"	HSS 3" x 3" x 3/16"	HSS 3 1/2" x 3 1/2" x 3/16"
Zx = 4	Zx = 6	Zx = 10	Zx = 20
4" DA, STD.	5" DA, STD.	6" DA, STD.	8" DA, STD.
HSS 4" x 4" x 3/16"	HSS 4" x 4" x 5/16"	HSS 5" x 5" x 5/16"	HSS 6" x 6" x 1/2"
	HSS 5" x 5" x 3/16"	HSS 6" x 6" x 3/16"	HSS 7" x 7" x 5/16"
Zx = 37	Zx = 53	Zx = 69	Zx = 91
10" DA, STD.	12" DA, STD.	14" DA, STD.	16" DA, STD.
HSS 8" x 8" x 3/8"	HSS 12" x 12" x 1/4"	HSS 12" x 12" x 5/16"	HSS 14" x 14" x 5/16"
HSS 10" x 10" x 1/4"			
Zx = 116	Zx = 144	Zx = 175	Zx = 209
18" DA, STD.	20" DA, STD.	22" DA, STD.	24" DA, STD.
HSS 14" x 14" x 3/8"	HSS 14" x 14" x 1/2"	HSS 14" x 14" x 5/8"	HSS 16" x 16" x 1/2"
HSS 16" x 16" x 5/16"	HSS 16" x 16" x 3/8"	HSS 16" x 16" x 1/2"	
Sx = 246	Sx = 286	Sx = 324	
26" DA, STD.	28" DA, STD.	30" DA, STD.	
HSS 16" x 16" x 5/8"			



TWO POLES MAY BE USED FOR A SINGLE SIGN. IF THIS IS THE CASE, USE HALF OF THE TOTAL SIGN AREA WHEN USING THE CHARTS.

EXAMPLE

GIVEN: A = 10'-0", B = 14'-6", H = 36'-0" (HEIGHT TO CENTER OF SIGN).  
 SECTION MODULUS CHART: FIND A x B = 145 S.F. AND DRAW A VERTICAL LINE UP TO INTERSECT A HORIZONTAL LINE DRAWN FROM H = 36'.  
 THIS INTERSECTION POINT FALLS BELOW Zx = 91. USE THE LINE ABOVE AND TO THE RIGHT OF THE INTERSECTION POINT. THEREFORE USE Zx = 91.  
 GO TO SECTION MODULUS LIST FOR Zx = 91 AND PICK A POLE SIZE OF 16" DA, STD. PIPE OR 14" x 14" x 5/16" STRUCTURAL TUBE.

ARIZONA SIGN ASSOCIATION  
 SIGN STANDARDS FOR 2015 INTERNATIONAL BUILDING CODE

SHEET	ASA 04-3
DATE	10/10/2017
REVISIONS	

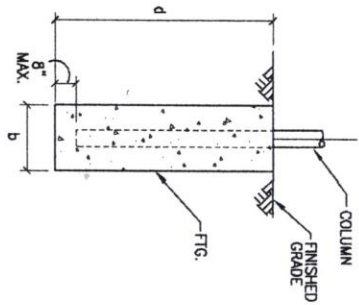
**SCHNEIDER**  
 STRUCTURAL ENGINEERS  
 1000 W. WASHINGTON AVENUE, SUITE 100  
 PHOENIX, ARIZONA 85001  
 (602) 998-1100  
 www.schneider-engineers.com

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 THIS 10th DAY OF OCTOBER 2017



CAISSON FOOTINGS

- ① 1'-6" DIA. x 4'-0" DEEP
- ② 2'-0" DIA. x 4'-0" DEEP
- ③ 1'-6" DIA. x 5'-0" DEEP
- ④ 2'-0" DIA. x 5'-0" DEEP
- ⑤ 1'-6" DIA. x 6'-0" DEEP
- ⑥ 2'-0" DIA. x 6'-0" DEEP
- ⑦ 1'-6" DIA. x 7'-0" DEEP
- ⑧ 2'-0" DIA. x 7'-0" DEEP
- ⑨ 2'-6" DIA. x 7'-0" DEEP
- ⑩ 2'-0" DIA. x 8'-0" DEEP
- ⑪ 2'-6" DIA. x 8'-0" DEEP
- ⑫ 3'-0" DIA. x 8'-0" DEEP
- ⑬ 2'-6" DIA. x 9'-0" DEEP
- ⑭ 3'-0" DIA. x 9'-0" DEEP
- ⑮ 2'-6" DIA. x 10'-0" DEEP
- ⑯ 3'-0" DIA. x 10'-0" DEEP
- ⑰ 3'-6" DIA. x 10'-0" DEEP
- ⑱ 3'-0" DIA. x 11'-0" DEEP
- ⑲ 3'-6" DIA. x 11'-0" DEEP
- ⑳ 4'-0" DIA. x 11'-0" DEEP
- ㉑ 3'-0" DIA. x 12'-0" DEEP
- ㉒ 3'-6" DIA. x 12'-0" DEEP
- ㉓ 4'-0" DIA. x 12'-0" DEEP
- ㉔ 3'-6" DIA. x 13'-0" DEEP
- ㉕ 4'-0" DIA. x 13'-0" DEEP
- ㉖ 4'-6" DIA. x 13'-0" DEEP
- ㉗ 4'-0" DIA. x 14'-0" DEEP
- ㉘ 4'-6" DIA. x 14'-0" DEEP
- ㉙ 5'-0" DIA. x 14'-0" DEEP
- ㉚ 4'-6" DIA. x 15'-0" DEEP
- ㉛ 5'-0" DIA. x 15'-0" DEEP
- ㉜ 5'-6" DIA. x 15'-0" DEEP
- ㉝ 6'-0" DIA. x 15'-0" DEEP



NOTES

1. POLES AND FOOTINGS ARE DESIGNED FOR SINGLE AND DOUBLE FACED SIGNS.
2. ALL INTERSECTION POINTS ON THE CHARTS MUST USE THE LINE ABOVE AND TO THE RIGHT UNLESS THE POINT FALLS ON A LINE.
3. SEE SHEET ASA 04-0 FOR SPECIFICATIONS AND DESIGN CRITERIA

EXAMPLE

GIVEN: SIGN DIMENSIONS OF = 10'-0", B = 14'-6", AND H = 36'-0" (HEIGHT TO CENTER OF SIGN).

CAISSON FOOTING CHART: FIND A x B = 145 S.F. AND DRAW A VERTICAL LINE UP TO INTERSECT A HORIZONTAL LINE DRAWN FROM H = 36'.

USE THE LINE ABOVE AND TO THE RIGHT OF THE INTERSECTION POINT AND PICK OUT A ⑲ CAISSON, GO TO CAISSON FOOTINGS LIST FOR ⑲ CAISSONS AND SEE THAT THIS IS A 3'-6"x13'-0" DEEP CAISSON.

ARIZONA SIGN ASSOCIATION  
SIGN STANDARDS FOR 2015 INTERNATIONAL BUILDING CODE

SHEET	ASA 04-4
DATE	10/10/2017
REVISIONS	

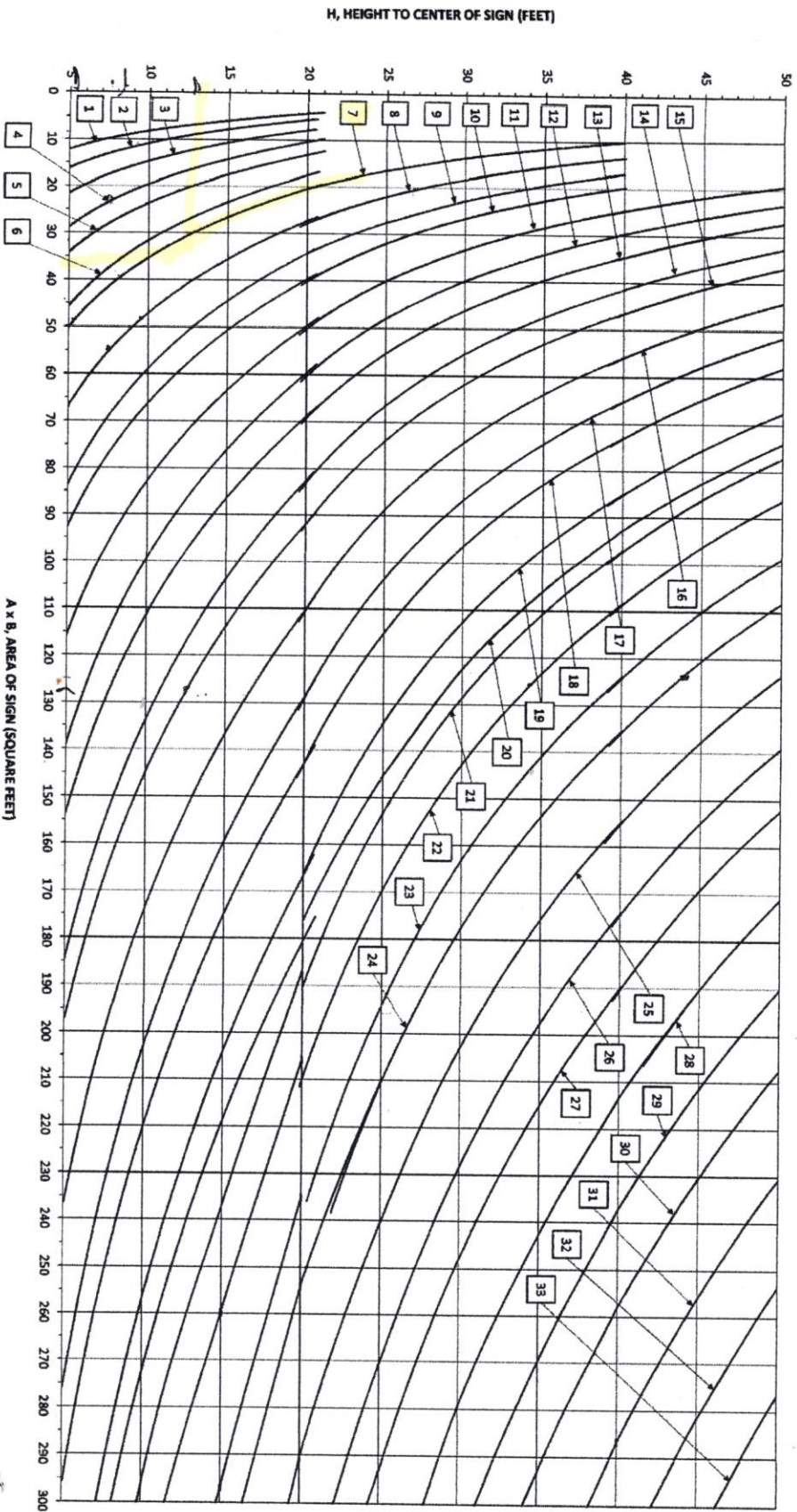
**SCHNEIDER**  
STRUCTURAL ENGINEERS  
1000 W. WASHINGTON AVENUE, SUITE 100  
PHOENIX, ARIZONA 85001  
TEL: 602.254.1111 FAX: 602.254.1112  
WWW.SCHNEIDERENGINEERS.COM



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THIS 10th DAY OF OCTOBER 2017

# Engineering Signs ~~A~~ B, and C and D

CAISSON FOOTING CHART  
REQUIRED FOOTING SIZE FOR AREA AND HEIGHT OF SIGN



ARIZONA SIGN ASSOCIATION  
SIGN STANDARDS FOR 2015 INTERNATIONAL BUILDING CODE

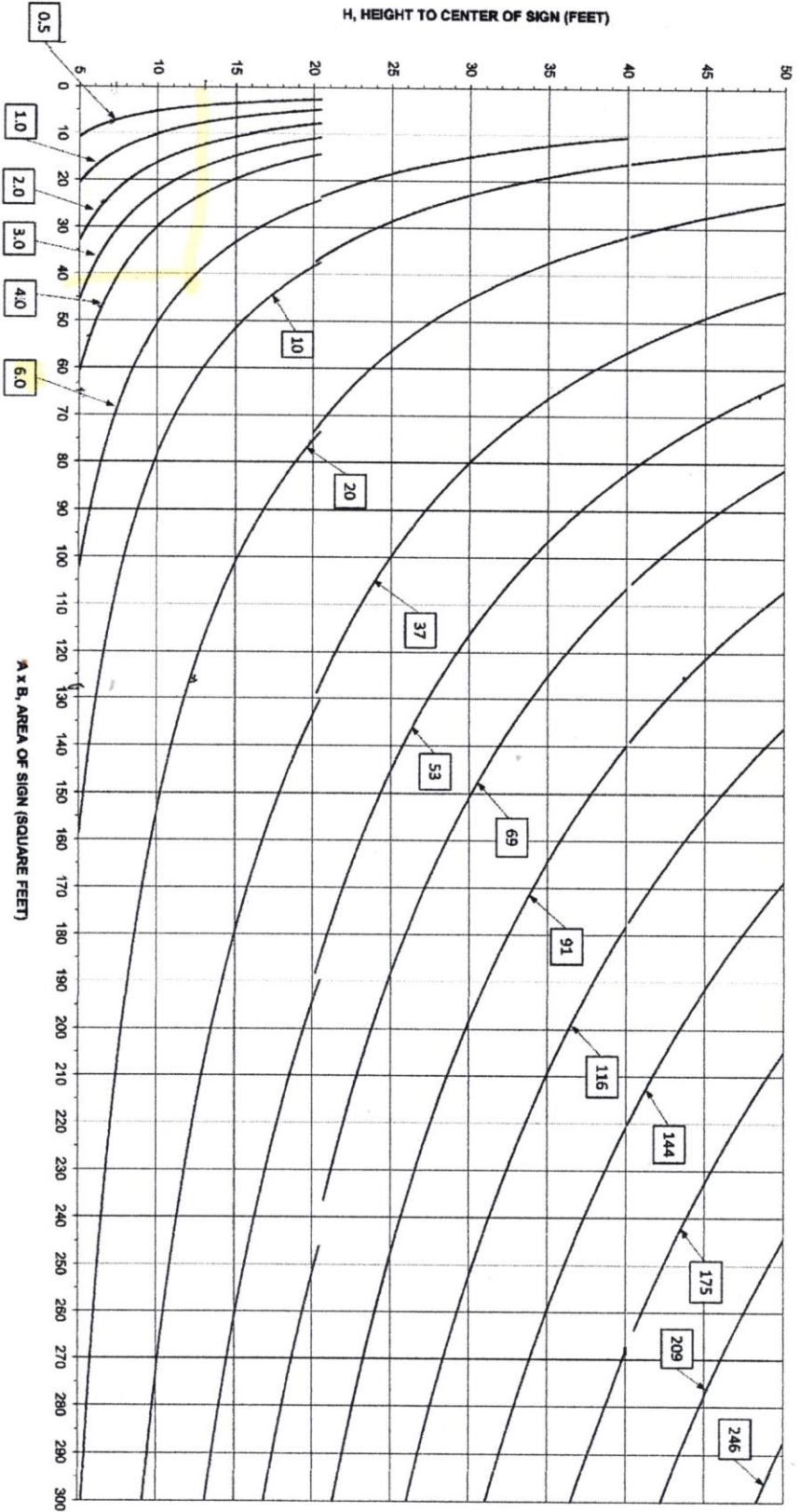
SHEET	ASA 04-1
DATE	10/10/2017
REVISIONS	

**SCHNEIDER**  
STRUCTURAL ENGINEERS  
1001 N. CENTRAL AVENUE, SUITE 1000  
PHOENIX, ARIZONA 85004  
TEL: 602.254.1100 FAX: 602.254.1101  
WWW.SCHNEIDER-SE.COM



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**SECTION MODULUS CHART (Zx)**  
**REQUIRED SECTION MODULUS FOR AREA AND HEIGHT OF SIGN**



ARIZONA SIGN ASSOCIATION  
 SIGN STANDARDS FOR 2015 INTERNATIONAL BUILDING CODE

SHEET	ASA 04-2
DATE	10/10/2017
REVISIONS	

**SCHNEIDER**  
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 PHONE: 602.254.1100  
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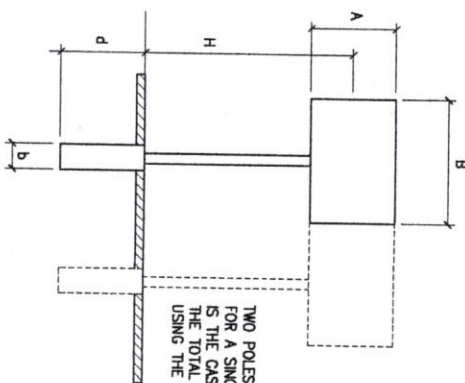
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SECTION MODULUS GROUPS

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2" DA, STD.	2 1/2" DA, STD.	3" DA, STD.	3 1/2" DA, STD.
HSS 2" x 2" x 3/16"	HSS 2 1/2" x 2 1/2" x 3/16"	HSS 3" x 3" x 3/16"	HSS 3 1/2" x 3 1/2" x 3/16"
Zx = 4	Zx = 6	Zx = 10	Zx = 20
4" DA, STD.	5" DA, STD.	6" DA, STD.	8" DA, STD.
HSS 4" x 4" x 3/16"	HSS 4" x 4" x 5/16"	HSS 5" x 5" x 5/16"	HSS 6" x 6" x 1/2"
	HSS 5" x 5" x 3/16"	HSS 6" x 6" x 3/16"	HSS 7" x 7" x 5/16"
Zx = 37	Zx = 53	Zx = 69	Zx = 91
10" DA, STD.	12" DA, STD.	14" DA, STD.	16" DA, STD.
HSS 8" x 8" x 3/8"	HSS 12" x 12" x 1/4"	HSS 12" x 12" x 5/16"	HSS 14" x 14" x 5/16"
HSS 10" x 10" x 1/4"			
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Sx = 246	Sx = 286	Sx = 324	
26" DA, STD.	28" DA, STD.	30" DA, STD.	
HSS 16" x 16" x 5/8"			



TWO POLES MAY BE USED FOR A SINGLE SIGN. IF THIS IS THE CASE, USE HALF OF THE TOTAL SIGN AREA WHEN USING THE CHARTS.

EXAMPLE

GIVEN: A = 10'-0", B = 14'-6", H = 36'-0" (HEIGHT TO CENTER OF SIGN).  
 SECTION MODULUS CHART: FIND A x B = 145 S.F. AND DRAW A VERTICAL LINE UP TO INTERSECT A HORIZONTAL LINE DRAWN FROM H = 36'.  
 THIS INTERSECTION POINT FALLS BELOW Zx = 91. USE THE LINE ABOVE AND TO THE RIGHT OF THE INTERSECTION POINT. THEREFORE USE Zx = 91.  
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ARIZONA SIGN ASSOCIATION  
 SIGN STANDARDS FOR 2015 INTERNATIONAL BUILDING CODE

SHEET	ASA 04-3
DATE	10/10/2017
REVISIONS	

**SCHNEIDER**  
 STRUCTURAL ENGINEERS  
 1000 WEST WASHINGTON AVENUE, SUITE 100  
 PHOENIX, ARIZONA 85001  
 PHONE: 602.254.1111 FAX: 602.254.1112  
 WWW.SCHNEIDERENGINEERS.COM

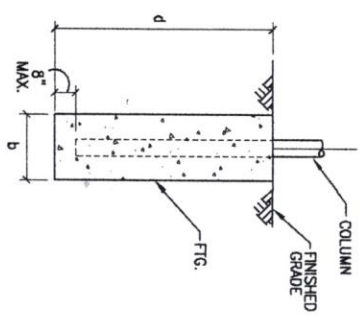
Registered Professional Engineer  
 No. 27349  
**RONALD H. SCHNEIDER**  
 ARIZONA, U.S.A.  
 Exp. 12/31/20

THIS ELECTRONIC SIGNATURE HAS BEEN AUTHORIZED BY ME THIS 10th DAY OF OCTOBER 2017



CAISSON FOOTINGS

- ① 1'-6" DIA. x 4'-0" DEEP
- ② 2'-0" DIA. x 4'-0" DEEP
- ③ 1'-6" DIA. x 5'-0" DEEP
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- ㉜ 5'-6" DIA. x 15'-0" DEEP
- ㉝ 6'-0" DIA. x 15'-0" DEEP



- NOTES
1. PILES AND FOOTINGS ARE DESIGNED FOR SINGLE AND DOUBLE FACED SIGNS.
  2. ALL INTERSECTION POINTS ON THE CHARTS MUST USE THE LINE ABOVE AND TO THE RIGHT UNLESS THE POINT FALLS ON A LINE.
  3. SEE SHEET ASA 04-0 FOR SPECIFICATIONS AND DESIGN CRITERIA.

EXAMPLE  
 GIVEN: SIGN DIMENSIONS OF  $d = 10'-0"$ ,  $b = 14'-6"$ , AND  $h = 36'-0"$   
 (HEIGHT TO CENTER OF SIGN).

CAISSON FOOTING CHART: FIND A x B = 145 S.F. AND DRAW A VERTICAL LINE UP TO INTERSECT A HORIZONTAL LINE DRAWN FROM  $h = 36'$ .  
 USE THE LINE ABOVE AND TO THE RIGHT OF THE INTERSECTION POINT AND PICK OUT A # 29 CAISSON. GO TO CAISSON FOOTINGS LIST FOR 29 CAISSONS AND SEE THAT THIS IS A 3'-6"x13'-0" DEEP CAISSON.

ARIZONA SIGN ASSOCIATION  
 SIGN STANDARDS FOR 2015 INTERNATIONAL BUILDING CODE

SHEET	ASA 04-4
DATE	10/10/2017
REVISIONS	

**SCHNEIDER**  
 STRUCTURAL ENGINEERS  
 1000 WEST WASHINGTON AVENUE  
 PHOENIX, ARIZONA 85001  
 (602) 998-1111 | www.schneideraz.com

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 HAS BEEN AUTHORIZED BY ME  
 THIS 10th DAY OF OCTOBER 2017