# Architectural Lettering & Plaques

A Green School Presentation

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# **Learning Objectives**

- Why Use Architectural Letters / Logos
- Design / Legibility Concerns
- Contrast / Finishes & Font
- Logo Usage
- Types of Architectural Letters
- Installation



• Value Engineering / Allowance / Estimating

## Why Use Architectural Letters/Logos

#### **To Inform**





## Why Use Architectural Letters/Logos

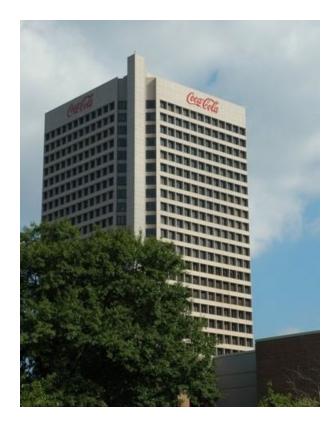
#### **To Direct**

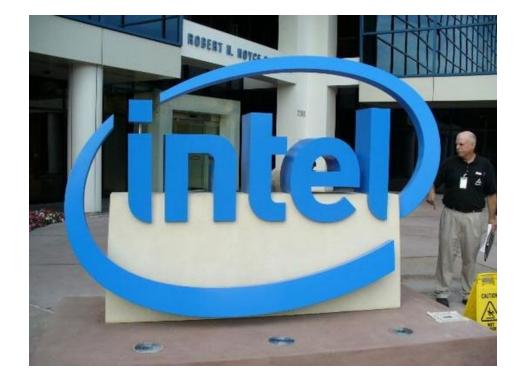




## Why Use Architectural Letters / Logos

#### **To Brand**





- Letter Size / Visibility / Legibility
- Font / Letter Spacing
- Color / Contrast
- Shadow
- Mounting Surface / Texture
- Environmental / Landscaping Issues



		Upper & Lower Case			ALL CAPITAL	
	18 <sup>8</sup> 111	in time	atomum Sibie th	States Light		almin met
	0.5"	14'		0.5"	12'	ĺ
	0.75"	22'		0.75"	19'	
	1"	29'		1"	25'	
	1.25"	36'		1.25"	31'	We hop     chartus
	1.5"	43'		1.5"	37'	size lett
	1.75"	51'		1.75"	43'	and ext
	2"	58'		2"	50'	The info
	2.5"	72'		2.5"	62'	is base( Helvetic
	З"	87'		З"	75'	backgro
	3.5"	101'		3.5"	87'	optimal   lighting
	4"	116'		4"	100'	sign wit
	4.5"	130'		4.5"	112'	thatwo   the sign
	5"	145'		5"	125'	choice,
	6"	174'		6"	150'	otheren
	8"	232'		8"	200'	
	10"	290'		10"	250'	
	12"	348'		12"	300'	
	16"	464'		16"	400'	
	18"	522'		18"	450'	
	20"	580'		20"	500'	
	24"	696'		24"	600'	
	30"	870'		30"	750'	
	36"	1044'		36"	900'	[
	48"	1392'		48"	1200'	

Letter Visibility Chart

#### We hope you find this letter visibility chart useful in determining the proper size lettering for all wayfinding signs and exterior signage.

The information presented in this chart is based on lettering using the font Helvetica as black text on a white background in a composition using optimal negative space seen in natural lighting. This condition represents a sign with maximum legibility. Factors that would decrease the legibility of the sign are: font selection, color choice, lighting, negative space, and other environmental factors.



#### The information presented in this chart represents data interpreted (by Century Sign Builders) from the Pernsylvaria Transportation institute, Pern State University and the United States Sign Council (USSC) **O** 1998. Please refer to the original study, *Sign Legability: The impactor Goar and Nurvina form on Typical On-Premise Sign Forts.* For further details please contact the USSC at (216) 785-1922.

# Design / Legibility Concerns

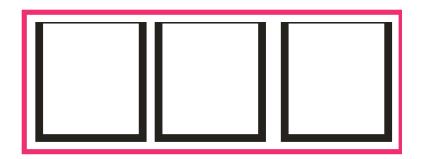
Letter Size / Visibility

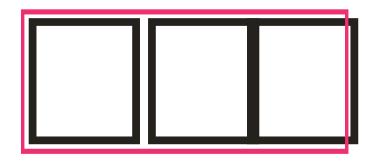
The ultimate goal is to make the sign or lettering LEGIBLE!

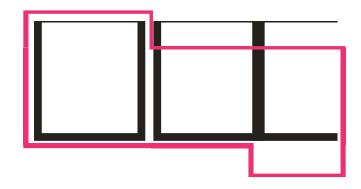
Use all your design tools to accomplish VISIBILITY.

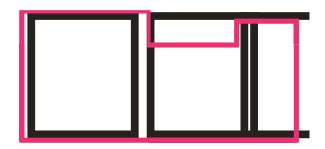
## **UPPER vs. Mixed Case**

#### We see shape first









#### **Getting the Correct Size**

Gemini SignDesigner v2.1							
TEXT ATTRIBUTES BG CAPS SHADOW RES	WIDTH         HEIGHT         ZOOM           ET         112.2         12         229%						
SAMPLE TEXT STYL							
CITY HALL Fia	t Cut Metal  Arial Bold						
	Flat Cut Metal // Arial Bold						

http://www.csbsigns.com/

#### • Font / Letter Spacing



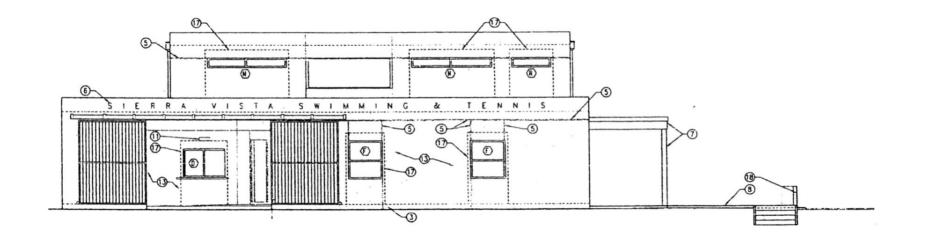
ClientLogic



#### • Font / Letter Spacing



#### • Font / Letter Spacing



SIERRA VISTA SWIMMING & TENNIS SIERRA VISTA SWIMMING & TENNIS

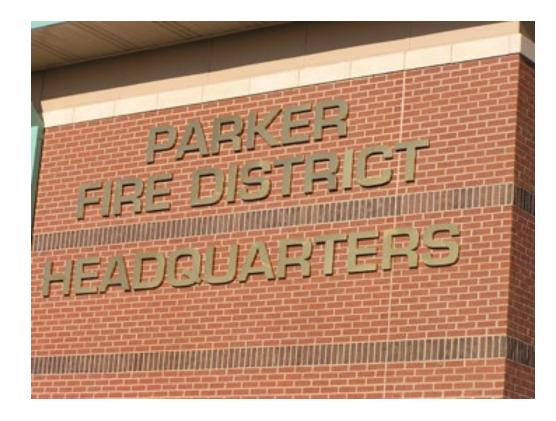
## Color / Contrast

Use Color and Contrast to increase visibility / legibility.

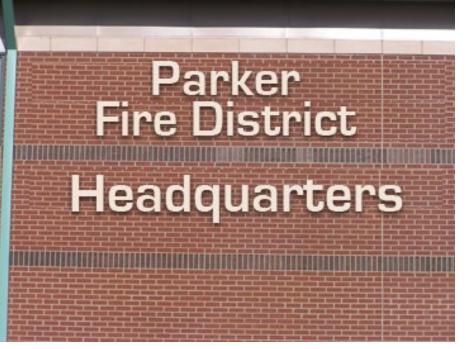












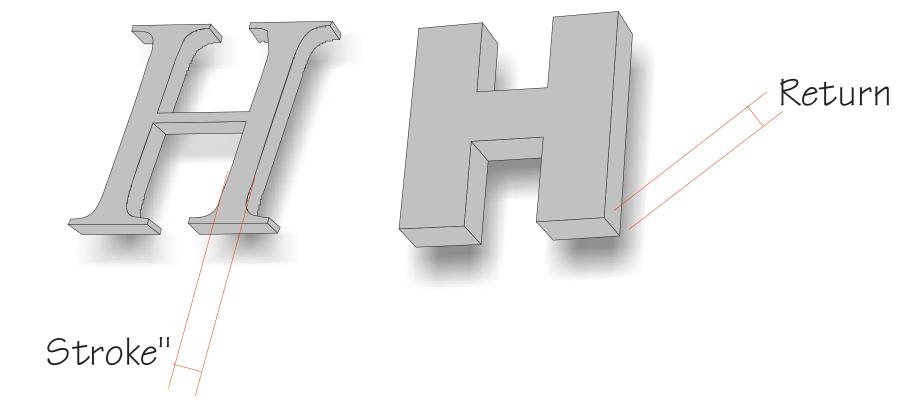
### Shadow







Hello Hello Hello Hello Hello Hello



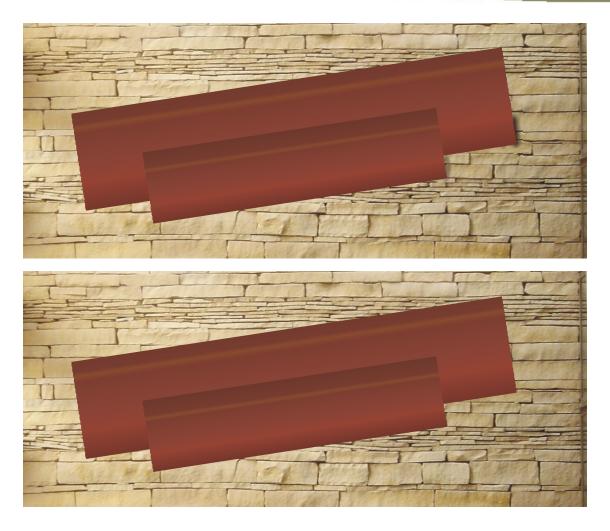
## Mounting Surface / Texture

Match the sign surface with the letter





#### Use Shadow to Negate Texture



## **Environmental / Landscaping Issues**

#### Little Trees Become Big







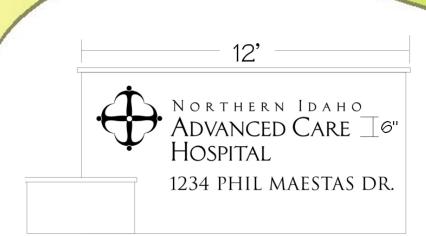
• Logo integrity must be maintained



versus



## Logo Usage



#### Incorrect Logo Usage



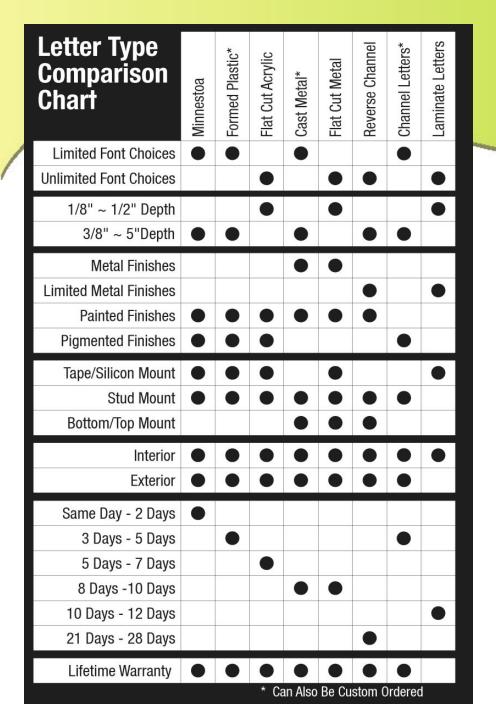
 Logo integrity must be maintained for all logos

Correct Logo Usage

## Types of Architectural Letters

- •Minnesota Letters
- •Formed Plastic
- •Laser Cut Acrylic
- •Cast Metal
- •Flat Cut Metal
  - Router Cut Waterjet Cut
- •Reverse Channel
- •Channel Letters
- •Laminated Letters





# **Types of Letters**

When these things matter...these are your choices.

### **Minnesota Letters**

- Sharp crisp edges
- Fast production
- 2" up to 18" tall letters
- Up to 1  $\frac{1}{2}$ " depth
- Indoors & outdoors





### **Formed Plastic**

- Up to 60" height, 2" depth
- Flat, round or sculptured faces depending on font
- Custom paint matching
- Custom Letters and Logos



## **Laser Cut Acrylic**

- Precision cut
- Up to 1" thick
- Letter is solid color
- For use with multiple layers and colors
- Very intricate cutting possible

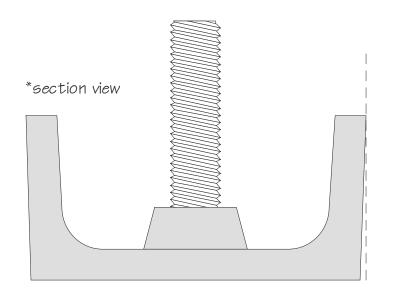


## **Cast Metal**

- Durable & Long Lasting
- Aluminum or Bronze with additional finishes.
- Customs Letters & Logos Available.
- Gives a sense of prestige & permanence.



### **Cast Letters**



Bronze, Bronze or aluminum is melted and cast into a mold

Produces thick heavy lettering with a slight bevel to on the return

Limited font options, but can have molds made for custom fonts and logos (this is expensive)

Font size/style are linked to depth of letter

Wide variety of finishes

## Flat Cut Out Metal

- Extremely durable indoors or outdoors
- Very intricate logos & letters
- From  $\frac{1}{2}$ " to 60" height
- Large variety of finishes





Waterjet Cut .02 Inside Radius



Router Cut .06 - .09 inside radius



### **Flat Cut**

Letter shapes are cut from large sheets of metal or acrylic

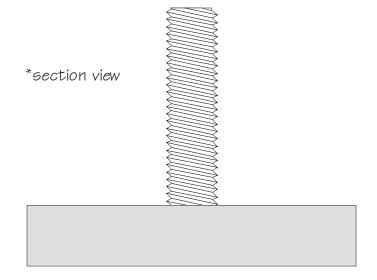
Produces thin to medium depth lettering with no surface incident

Font size/style are independent of depth of letter

Wide variety of finishes

Dimensional effect can be achieved by using a stand-off mount

Thinnest possible letter fabrication



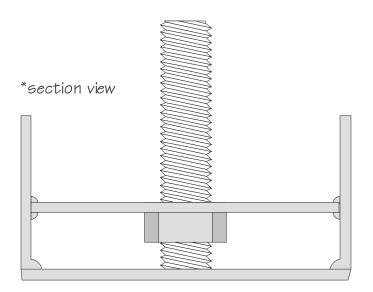
#### **Reverse Channel**

- Great for Depth
- Light Weight
- Custom Fonts
- Lit applications





#### **Reverse Channel**



Face of letters are cut out and return is formed and welded onto face

Produces thick but light weight lettering. Depth can be varied to specification. Two piece face/return construction is visible at very close distances

**Unlimited font options** 

Font size/style are independent of depth of letter

Wide variety of finishes

#### **Channel Letters**

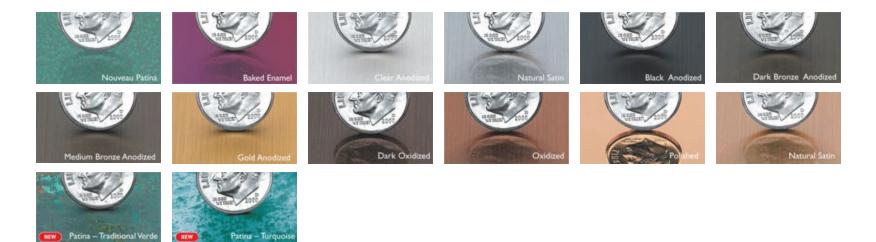
- Lit applications
- Great for Depth
- Can and Face







- Make sure the finish matches the application.
- Some finishes available only on select materials.
- Gloss or Matte?



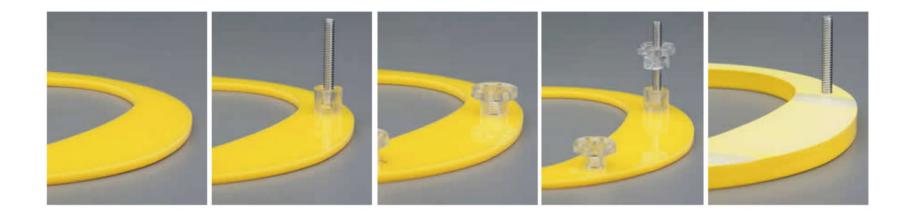


#### • Pantone & Paint Color Matching.



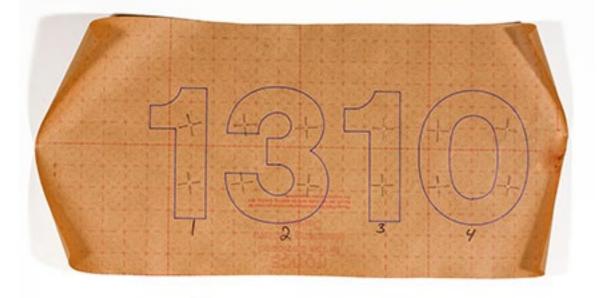


- What are the letters being mounted on?
- Spanning Joints
- Standoff or Flush?

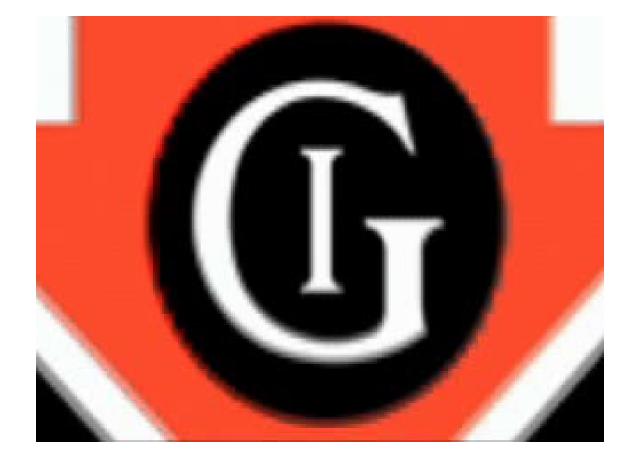


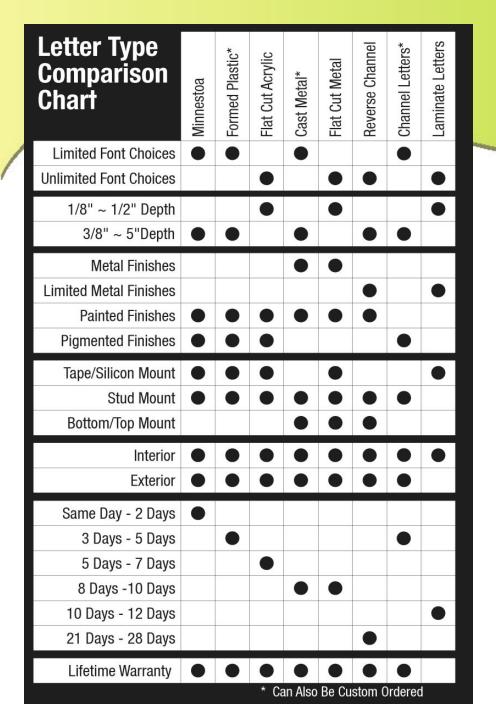
#### Installation

#### • Importance of Mounting Templates



#### **Stud Mounting**





## **Types of Letters**

When these things matter...these are your choices.

## **Value Engineering**

• Can the same (or better) look be accomplished with a less expensive letter?

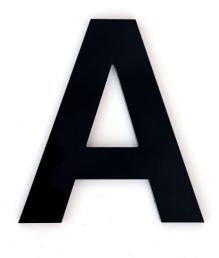




\$3944% Price Difference\$5610" Cast Aluminum Helvetica LetterNatural Satin Finish vs. Clear Anodized Finish

### **Value Engineering**





1/2" return with 1/4" spacer

3/4" return

#### \$22.40

29% Price Difference

**\$29** 

8" Pigmented Acrylic versus 8" Painted Cast

### **Value Engineering**





1/2" return with 1/4" spacer

**\$27.51** 5% Price Difference **\$29** 

8" Painted Acrylic versus 8" Painted Cast



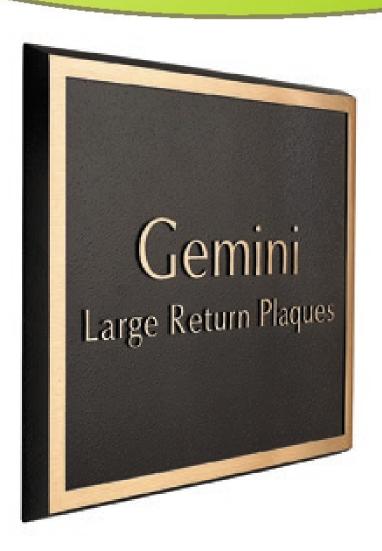
#### You will often specify a plaque in a public building.



### **Cast Plaques**

- Cast Bronze or Aluminum
- Raised Text
- "Typical" Plaque
- No small text or graphics (Under <sup>1</sup>/<sub>2</sub>")





#### **Engraved Plaques**

- Bronze or Aluminum
- Recessed text
- Larger text or graphics



### **Etched Plaques**

- Stainles Steel, Bronze, Brass or Copper
- Recessed or Raised Text (low depth)
- Good for small text or detailed graphics & photos



#### **Allowance Formula For Architectural Letters**

#### **BRONZE Pricing Table**

LONGEST DIMENSION

									LONG	ESI DI	MENSI	UN								
		2"	3	4	5	6	7	8	9	10	12	14	15	16	18	20	22	24	26	28
	2'	\$103	\$103	\$103	\$103	\$103	\$103	\$103	\$103	\$103	\$103	\$119	\$125	\$129	\$135	\$146	\$279	\$279	\$400	\$400
	3	103	103	103	103	103	103	103	116	125	135	198	215	215	231	253	279	279	400	400
	4	103	103	103	103	103	119	129	131	146	169	203	215	215	231	253	279	279	400	403
	5	103	103	103	109	125	131	146	154	173	210	260	306	306	306	306	406	453	459	459
	6	103	103	103	125	131	169	169	194	210	231	260	306	306	306	328	406	453	459	459
	7	103	103	119	131	169	213	213	215	253	279	328	354	354	404	434	453	453	463	498
-	8	103	103	129	146	169	213	231	231	253	279	328	354	354	404	434	453	453	528	559
NO	9	103	116	131	154	194	215	231	254	284	306	366	384	400	431	454	496	498	594	640
S	10	103	125	146	173	210	253	253	284	284	328	366	384	400	431	454	496	546	660	678
T DIMENSIO	12	103	135	169	210	231	279	279	306	328	378	415	434	488	490	546	596	650	791	815
Σ	14	119	198	203	260	260	328	328	366	366	415	444	509	509	573	634	759	759	923	996
	15	125	215	215	306	306	354	354	384	384	434	509	553	578	609	723	838	869	990	1,066
ST	16	129	215	215	306	306	354	354	400	400	488	509	578	578	648	723	869	869	1056	1138
ш	18	135	231	231	306	306	404	404	431	431	490	573	609	648	731	815	975	975	1,140	1,140
RT	20	146	253	253	306	328	434	434	454	454	546	634	723	723	815	904	1,084	1,084	1,321	1,354
오	22	279	279	279	406	406	453	453	496	496	596	759	838	869	975	1,084	1,229	1,300	1,453	1,565
S	24	279	279	279	453	453	453	453	498	546	650	759	869	869	975	1,084	1,300	1,300	1,584	1,628
	26	400	400	400	459	459	463	528	594	660	791	923	990	1,056	1,140	1,321	1,453	1,584	1,738	1,871
	28	400	400	403	459	459	498	559	640	678	815	996	1,066	1,138	1,140	1,354	1,565	1,628	1,871	2,015
	30	400	400	403	459	459	534	559	678	678	815	1,066	1,141	1,219	1,223	1,354	1,625	1,628	2,005	2,018
	32	403	403	403	471	488	566	650	731	813	975	1,138	1,219	1,300	1,463	1,625	1,788	1,950	2,013	2,303
	34	471	471	471	471	506	604	666	778	863	975	1,209	1,294	1,381	1,463	1,625	1,900	1,950	2,019	2,446
	36	471	471	471	471	506	640	666	821	913	975	1,279	1,371	1,463	1,463	1,625	1,950	1,950	2,405	2,450
	38	484	484	484	484	579	675	771	869	965	1,159	1,350	1,448	1,544	1,738	1,929	2,066	2,316	2,539	2,544
	40	509	509	509	509	609	710	813	913	1,015	1,219	1,421	1,523	1,625	1,828	2,031	2,235	2,438	2,550	2,560

#### **BRONZE Pricing Table**

LONGEST DIMENSION

		30"	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64
-	2"	\$400	\$403	\$471	\$471	\$484	\$509	\$533	\$559	\$584	\$609	\$619	\$685	\$721	\$770	\$804	\$858	\$886	\$915
	3	400	403	471	471	484	509	533	559	584	609	631	700	726	791	830	873	900	928
-	4	403	403	471	471	484	509	533	559	584	609	700	728	744	800	861	883	910	940
	5	459	471	471	471	484	509	533	559	584	609	725	738	750	844	878	913	941	970
	6	459	488	506	506	579	609	640	670	700	731	771	801	833	864	894	925	956	985
	7	534	566	604	640	675	710	746	781	818	853	900	935	971	1,008	1,044	1,079	1,109	1,145
z	8	559	650	666	666	771	813	853	894	934	975	1,028	1,069	1,110	1,151	1,193	1,234	1,268	1,309
ō	9	678	731	778	821	869	913	959	1,005	1,050	1,096	1,156	1,203	1,249	1,295	1,341	1,388	1,426	1,473
NS	10	678	813	863	913	965	1,015	1,066	1,116	1,168	1,218	1,285	1,336	1,388	1,439	1,490	1,543	1,585	1,636
Ē	12	815	975	975	975	1,159	1,219	1,279	1,340	1,401	1,461	1,543	1,604	1,665	1,728	1,789	1,850	1,903	1,964
DIME	14	1,066	1,138	1,209	1,279	1,350	1,421	1,493	1,563	1,634	1,705	1,799	1,871	1,943	2,015	2,086	2,159	2,219	2,291
	15	1,141	1,219	1,294	1,371	1,448	1,523	1,599	1,675	1,751	1,828	1,928	2,005	2,081	2,159	2,236	2,313	2,377	2,455
Ś	16	1,219	1,300	1,381	1,463	1,544	1,625	1,705	1,786	1,868	1,949	2,056	2,139	2,220	2,303	2,385	2,468	2,536	2,618
μ	18	1,223	1,463	1,463	1,463	1,738	1,828	1,919	2,010	2,101	2,193	2,313	2,405	2,498	2,590	2,683	2,775	2,853	2,945
B	20	1,354	1,625	1,625	1,625	1,929	2,031	2,131	2,233	2,335	2,436	2,570	2,673	2,775	2,879	2,981	3,084	3,170	3,273
<b>T</b>	22	1,625	1,788	1,900	1,950	2,066	2,235	2,345	2,456	2,568	2,680	2,826	2,940	3,053	3,166	3,279	3,393	3,488	3,600
S	24	1,628	1,950	1,950	1,950	2,316	2,438	2,558	2,680	2,801	2,924	3,084	3,208	3,330	3,454	3,578	3,700	3,805	3,927
	26	2,005	2,013	2,019	2,405	2,539	2,550	2,806	2,940	3,074	3,208	3,341	3,475	3,608	3,741	3,875	4,009	4,122	4,255
	28	2,018	2,303	2,446	2,450	2,544	2,560	3,023	3,166	3,,310	3,454	3,598	3,741	3,886	4,060	4,174	4,318	4,439	4,582
	30	2,019	2,468	2,469	2,470	2,871	2,901	3,238	3,393	3,546	3,700	3,855	4,009	4,164	4,318	4,471	4,626	4,756	4,909
	32	2,469	2,631	2,796	2,960	3,125	3,290	3,454	3,619	3,783	3,948	4,111	4,276	4,441	4,605	4,770	4,934	5,073	5,236
	34	2,469	2,796	2,971	3,025	3,320	3,495	3,670	3,845	4,019	4,169	4,369	4,544	4,719	4,893	5,068	5,243	5,390	5,564
	36	2,470	2,960	3,025	3,061	3,515	3,681	3,694	4,071	4,125	4,194	4,626	4,811	4,996	5,181	5,366	5,551	5,707	5,891
	38	2,871	3,125	3,320	3,515	3,711	3,906	4,101	4,296	4,493	4,688	4,883	5,078	5,274	5,469	5,664	5,859	6,024	6,218
	40	2,901	3,290	3,495	3,681	3,906	4,111	4,318	4,523	4,729	4,934	5,140	5,345	5,551	5,756	5,963	6,168	6,341	6,545

#### **ALUMINUM Pricing Table**

LONGEST DIMENSION

		2"	3	4	5	6	7	8	9	10	12	14	15	16	18	20	22	24	26	28
	2*	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$77	\$81	\$84	\$88	\$94	\$181	\$181	\$256	\$259
	3	70	70	70	70	70	70	70	76	81	88	128	139	139	150	163	181	181	259	259
-	4	70	70	70	70	70	77	84	85	94	109	131	139	139	150	163	181	181	259	260
	5	70	70	70	70	81	85	94	100	112	136	169	198	198	198	198	263	293	297	297
	6	70	70	70	81	85	109	109	125	136	150	169	198	198	198	212	263	293	297	297
	7	70	70	77	85	109	138	138	139	163	181	212	229	229	262	281	293	293	300	322
-	8	70	70	84	94	109	138	150	150	163	181	212	229	229	262	281	293	293	341	362
NO	9	70	76	85	100	125	139	150	165	184	198	237	248	259	279	294	321	322	385	414
S	10	70	81	94	112	136	163	163	184	184	212	237	248	259	279	294	321	354	428	439
DIMENS	12	70	88	109	136	150	181	181	198	212	244	269	281	316	317	354	386	421	513	528
≥	14	77	128	131	169	169	212	212	237	237	269	287	329	329	371	410	491	491	598	645
	15	81	139	139	198	198	229	229	248	248	281	329	358	374	394	468	542	563	641	691
ST	16	84	139	139	198	198	229	229	259	259	316	329	374	374	420	468	563	563	684	737
μ	18	88	150	150	198	198	262	262	279	279	317	371	394	420	474	528	631	631	738	738
ж.	20	94	163	163	198	212	281	281	294	294	354	410	468	468	528	586	702	702	855	877
НОН	22	181	181	181	263	263	293	293	321	321	386	491	542	563	631	702	796	842	940	1,013
S	24	181	181	181	293	293	293	293	322	354	421	491	563	563	631	702	842	842	1,025	1,054
	26	259	259	259	297	297	300	341	385	428	513	598	641	684	738	855	940	1,025	1,124	1,211
	28	259	259	260	297	297	322	362	414	439	528	645	691	737	738	877	1,013	1,054	1,211	1,304
	30	259	259	260	297	297	345	362	439	439	528	691	739	789	792	877	1,052	1,054	1,297	1,306
	32	260	260	260	305	316	367	421	474	526	631	737	789	842	947	1,052	1,158	1,263	1,302	1,490
	34	305	305	305	305	328	391	432	503	559	631	783	838	895	947	1,052	1,231	1,263	1,307	1,583
	36	305	305	305	305	328	414	432	532	591	631	828	888	947	947	1,052	1,263	1,263	1,557	1,586
	38	313	313	313	313	375	437	499	563	625	750	874	938	1,000	1,125	1,249	1,339	1,500	1,643	1,646
_	40	329	329	329	329	394	460	526	591	657	789	920	986	1,052	1,183	1,316	1,448	1,579	1,650	1,657

#### **ALUMINUM Pricing Table**

LONGEST DIMENSION

		30'	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64
	2"	\$259	\$260	\$305	\$305	\$313	\$329	\$347	\$363	\$380	\$396	\$400	\$443	\$467	\$498	\$520	\$555	\$572	\$591
	3	259	260	305	305	313	329	347	363	380	396	409	453	470	512	537	565	582	600
	4	260	260	305	305	313	329	347	363	380	396	453	471	481	518	557	570	587	606
	5	297	305	305	305	313	329	347	363	380	396	469	477	485	546	568	591	610	630
	6	297	316	328	328	375	394	416	436	455	475	499	519	539	559	579	599	617	637
	7	345	367	391	414	437	460	485	508	531	554	582	605	629	652	675	699	720	743
	8	362	421	432	432	499	526	554	581	607	634	665	692	719	745	772	798	823	850
	9	439	474	503	532	563	591	624	653	683	713	748	778	808	838	868	898	926	956
	10	439	526	559	591	625	657	693	726	759	792	832	865	898	931	965	998	1,029	1,062
	12	528	631	631	631	750	789	832	871	911	950	998	1,038	1,078	1,118	1,158	1,198	1,235	1,274
	14	691	737	783	828	874	920	970	1,016	1,063	1,109	1,164	1,211	1,257	1,304	1,351	1,397	1,440	1,487
	15	739	789	838	888	928	986	1,040	1,089	1,139	1,188	1,247	1,297	1,347	1,397	1,447	1,497	1,543	1,593
	16	789	842	895	947	1,000	1,052	1,109	1,162	1,214	1,267	1,331	1,384	1,437	1,490	1,543	1,597	1,646	1,699
	18	792	947	947	947	1,125	1,183	1,247	1,307	1,366	1,426	1,497	1,557	1,617	1,677	1,736	1,796	1,852	1,912
	20	877	1,052	1,052	1,052	1,249	1,316	1,386	1,452	1,518	1,584	1,663	1,730	1,796	1,863	1,929	1,996	2,058	2,124
	22	1,052	1,158	1,231	1,263	1,339	1,448	1,525	1,597	1,670	1,742	1,830	1,903	1,976	2,049	2,122	2,195	2,264	2,337
	24	1,054	1,263	1,263	1,263	1,500	1,579	1,663	1,742	1,822	1,901	1,996	2,076	2,156	2,235	2,315	2,395	2,470	2,549
	26	1,297	1,302	1,307	1,557	1,643	1,650	1,816	1,903	1,989	2,076	2,162	2,249	2,335	2,422	2,508	2,595	2,675	2,762
	28	1,306	1,490	1,583	1,586	1,646	1,657	1,956	2,049	2,142	2,235	2,329	2,422	2,515	2,608	2,701	2,794	2,881	2,974
	30	1,307	1,597	1,598	1,599	1,858	1,878	2,096	2,195	2,295	2,395	2,495	2,595	2,694	2,794	2,894	2,994	3,087	3,187
	32	1,597	1,703	1,810	1,916	2,022	2,129	2,235	2,342	2,448	2,555	2,661	2,768	2,874	2,980	3,087	3,193	3,293	3,399
	34	1,598	1,810	1,923	1,958	2,149	2,262	2,375	2,488	2,601	2,698	2,827	2,941	3,054	3,167	3,280	3,393	3,499	3,612
	36	1,599	1,916	1,958	1,981	2,275	2,383	2,390	2,635	2,670	2,714	2,994	3,114	3,233	3,353	3,473	3,593	3,705	3,824
	38	1,858	2,022	2,149	2,275	2,402	2,528	2,655	2,781	2,907	3,034	3,160	3,287	3,413	3,539	3,666	3,792	3,910	4,037
	40	1,878	2,129	2,262	2,383	2,528	2,661	2,794	2,927	3,060	3,193	3,326	3,460	3,593	3,726	3,859	3,992	4,117	4,249

SHORTEST DIMENSION

**Questions?** 

# Thank you for your time!

Please feel free to ask any questions you may have at this time.

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