



City of Chicago



Or2014-129

Office of the City Clerk

Document Tracking Sheet

Meeting Date:	4/2/2014
Sponsor(s):	Burke (14)
Type:	Order
Title:	Issuance of permits for sign(s)/signboard(s) at 4537 S Archer Ave
Committee(s) Assignment:	Committee on Zoning, Landmarks and Building Standards

Committee on Zoning, Landmarks, and Building Standards

(Signs)

ORDERED, That the Commissioner of Buildings is hereby directed to issue a sign permit to: (Contractor's name and address)

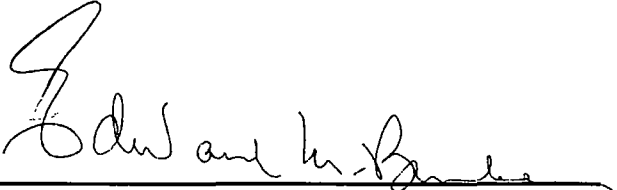
Ad Deluxe Sign Company Incorporated
23856 West Andrew Road, Suite 103
Plainfield, Illinois 60585

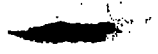
for the erection of a sign/signboard over 24 feet in height and/or over 100 square feet (in area of one face) at: (Business Name & Address)

Car Outlet
4537 South Archer Avenue
Chicago, Illinois 60632

Dimensions: Length 23 inches Height 6 feet 6 inches
Height above grade/roof to top of sign 32 feet
TOTAL SQUARE FOOT AREA: 150 feet

Such sign(s) shall comply with all applicable provisions of TITLE 17 of the Chicago Zoning Ordinance and all other applicable provisions of the Municipal Code of the City of Chicago governing the construction and maintenance of outdoor signs, signboards and structures.


EDWARD M. BURKE
Alderman, 14th Ward



7



Sign Permit Application

APPROVAL NUMBER	APPLICATION NUMBER 100528008	ANNUAL FEE	WORK CODE	DRAWINGS ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO
-----------------	---------------------------------	------------	-----------	--

DATE OF APPLICATION 02/18/2014	
ADDRESS OF SIGN 4537 S ARCHER AVE, 60632-	
BUILDING	ORIGINAL PERMIT NUMBER
TYPE OF PERMIT NEW CONSTRUCTION (SIGN)	
PAYER OF ANNUAL INSPECTION STILLMAN, HOWARD 2917 WEST IRVING PARK ROAD CHICAGO, IL 60618 (773)737-4843	
SIGN MANUFACTURER AD DELUXE SIGN COMPANY	
ADDRESS WHERE SIGN CAN BE SEEN PRIOR TO ERECTION	
TICKET NUMBER 0	REINSPECTION CONTROL NUMBER
TYPE OF SUPPORT FOR SIGN POLE	
SIGN BOARD SUPPORT MEMBERS STEEL	
ANNUAL FEE	_____
CONSTRUCTION FEE	500.00
1017 B FEE	_____
TOTAL FEE	500.00
AMOUNT PAID	500.00
BALANCE DUE	_____

TYPE OF SIGN FLAT OR BOX					
LENGTH	FT. 23	IN. 0	HEIGHT	FT. 6	IN. 6
AREA	SQ. FT. 150	WEIGHT		LBS. 500	
SIGN HEIGHT ABOVE GRADE/ROOF					FT. 32
SHAPE OF SIGN REGULAR					
SIGN WILL READ CAR OUTLET					
NO. OF LAMPS 48			TOTAL WATTAGE 4800		
TYPE OF LAMP FLUORESCENT					
NO. OF BALLAST/TRANSFORMERS 8			INPUT OF TRANSFORMERS 120		
CONTRACTOR WILL INSTALL			<input checked="" type="checkbox"/> FEEDERS <input checked="" type="checkbox"/> CUSTOMER LEADS		
TYPE OF SWITCH KNIFE					
LOCATION OF SWITCH OUTSIDE SIGN					
SIGN LOCATION FURNISH AND INSTALL 6'-6" X 23' DOUBLE FACE POLE SIGN ON TWO POLES 32' FROM GRADE TO BOTTOM OF SIGN, COPY WILL READ "CAR OUTLET"					

The undersigned certify that the statements in this application are true and correct and that all work done under the proposed permit will conform to the requirements of the Chicago Municipal Code

REG. NO.	E68756
ELECT CONTR FULLER-BURRELL ELECTRIC CONTRA	ELECTR
ADDRESS 1424 N. LUNA AVE. CHICAGO, IL 60651-	
SUPERVISOR SIGNATURE <i>Sam Burrell</i>	

BOND. NO.	REG. NO.	N92559
SIGN ERECTOR AD DELUXE SIGN CO INC.	SIGNER	
ADDRESS 23856 W ANDREW RD STE103 PLAINFIELD IL, 60585-		
SIGNATURE <i>Adm Ben</i>		

The permit issued on this application will authorize only signs here applied for. If other signs are to be erected they must be covered by additional permits

City of Chicago
Rahm Emanuel, Mayor



Department of Buildings
Felicia Davis, Commissioner

TYPE OF BUSINESS
COMMERCIAL Other: CAR DEALERSHIP
 Name: 4537 S ARCHER AVE
 LIC #: 66905
 Renewal Date: _____

SIGN BOND REQUIRED? YES

COUNCIL ORDER REQUIRED YES

IS SPECIAL PERMISSION REQUIRED FROM CHIEF ELECTRICAL
 YES

IF YES, ATTACH LETTER OF REQUEST

Projects Over:
 Private Property
 Public Way Grant Permit #: 1110394
 Planned Development/Manufacturing PMD/PD#: _____
 Zoning District: C1 Other: C1-2

TIME STAMP

TYPE OF SIGN:
 ADVERTISING ILLUMINATE MOVEABLE
 BUSINESS FLASHING

TOTAL STREET FRONTAGE OF LOT (IN FEET) 100

TOTAL AREA OF NEW SIGN (SQ.FT.) 150

TOTAL AREA OF ALL SIGNS ON LOT (SQ.FT.) 150

HEIGHT OF SIGN ABOVE GRADE (TO TOP) 38ft 6in

DISTANCE OF CURB LINE OUTER EDGE (ft) 19

DISTANCE OF STRUCTURE INNER EDGE (ft) 30

SIGN CLERK	APPROVED FOR PERMIT
------------	---------------------

DISTANCE FROM (ft):
 A. PUBLIC PARK (OVER 10 ACRES) 1,000
 B. EXPRESSWAY (IF LESS THAN 1,000 FT.) 1,000
 C. RESIDENCE DISTRICT (ADVERTISING SIGNS ONLY) 150

REMARKS

IF REPLACEMENT SIGN OR CHANGE OF FACE, WHAT DOES THE EXISTING SIGN READ?
 Original Payee: _____

Landmark Hold: Status: _____

ZONING (OFFICE USE ONLY)

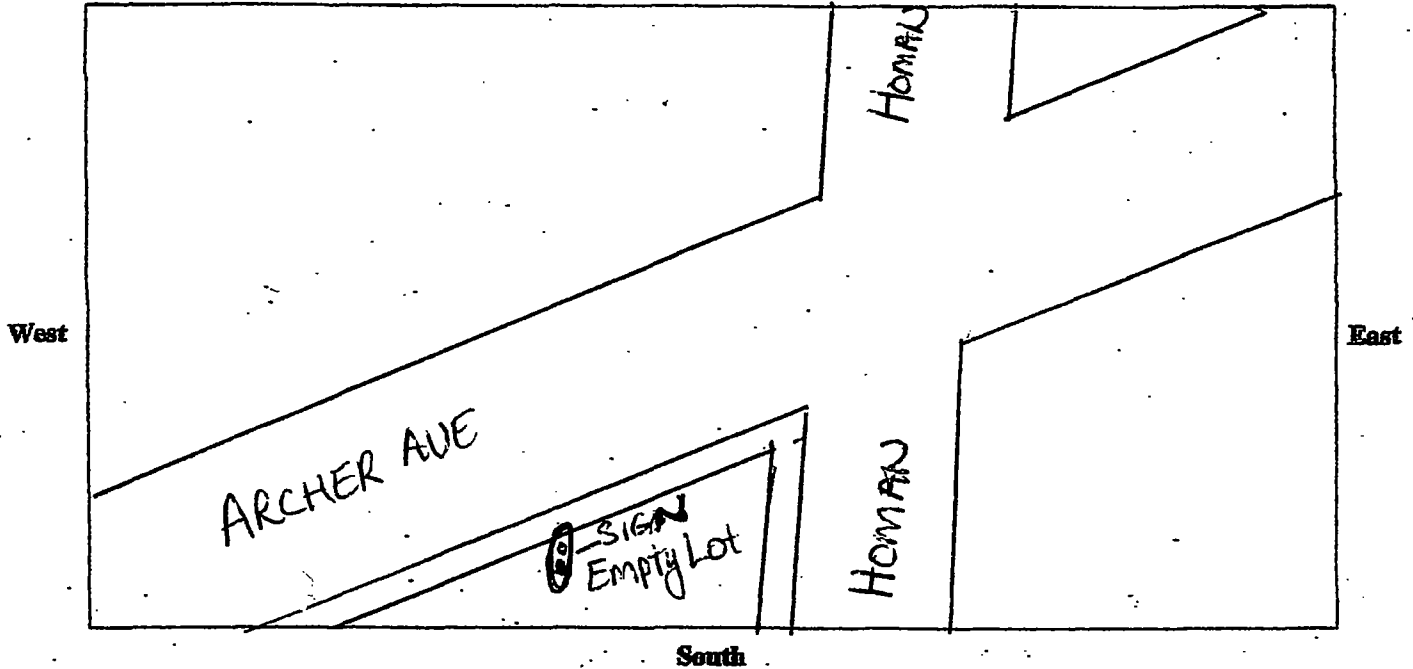
**CITY OF CHICAGO
DEPARTMENT OF ZONING AND LAND USE PLANNING
SIGN SITE PLAN**

(ALL INFORMATION MUST BE COMPLETED AND LEGIBLE)

Site Address: 4537 S ARCHER AVE CHICAGO, IL 60632 of 1 applications

Sign Company: AD DELUXE SIGN CO Rep Name: AHMET DEMIR

Phone (815) 556-8469 EXT NA (Below: Building, streets and location of sign on lot or structure)
North



SIGN USE:

Bus. ID (On-premise)

Business Lic. #

Adv. (On-premise)

TYPE OF SIGN:

Flat Wall

Freestanding

Awning

Marquee

High Rise Building

Projecting Private

Projecting Public Way

Public Way Use - Permit # 1110294

SIGN CHARACTERISTICS:

Non-Illuminated

Illuminated

Changing Image

Video Display

Flashing

PERMIT TYPE:

New Construction

Change of Face

Previous Permit #

DISTANCE FROM:

Curb Line: 9'

Expressway, Toll Roads or Major Route

(n/a if over 1000 ft) 1000

Park (over 10 acres) 1000

Residential Zone 150

Existing Off-premise on same side of street: NO

TOTAL SQUARE FOOTAGE:

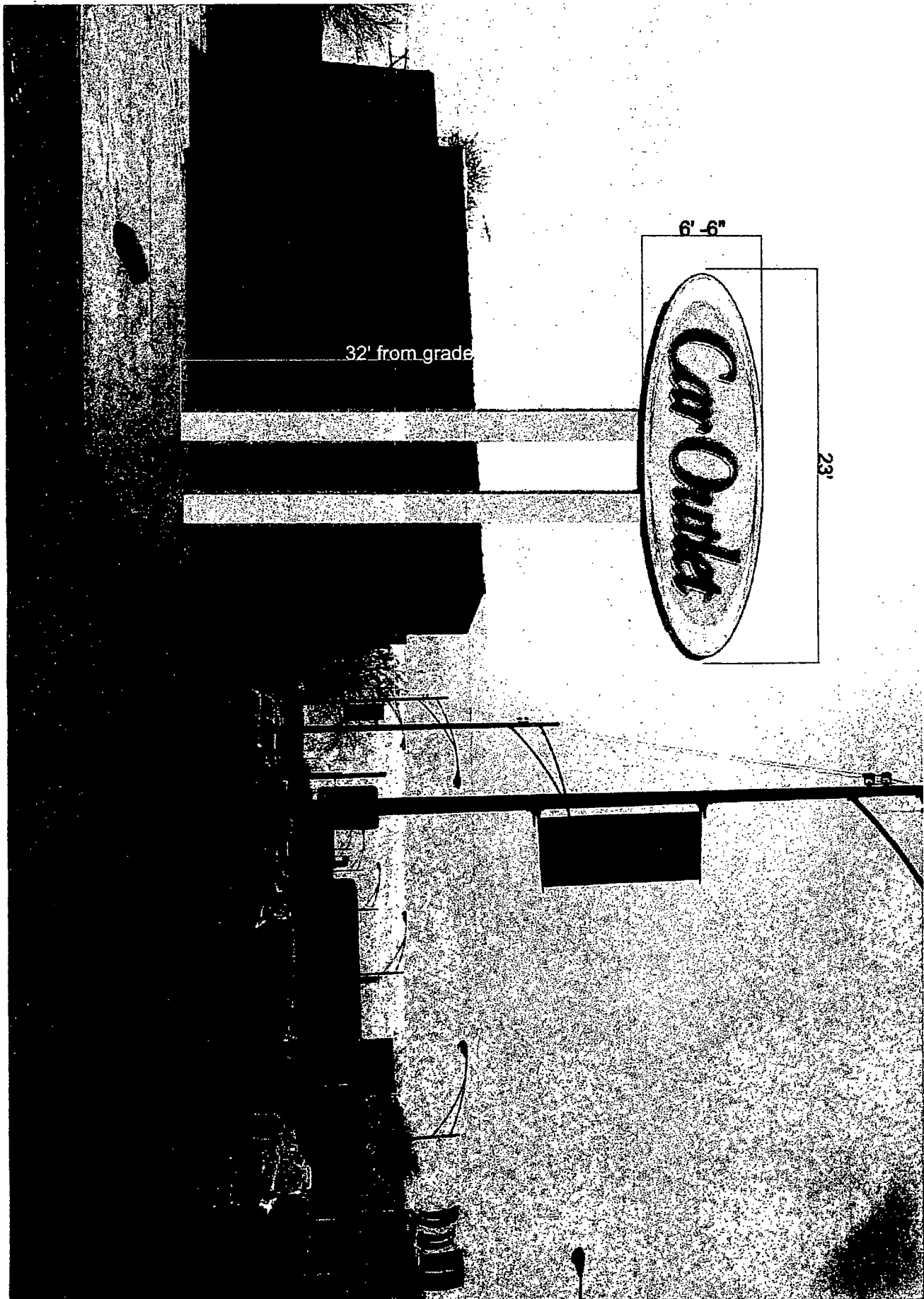
Square footage of this proposed sign 150

Gross area of all proposed signs 0

Area of all existing signs (not including proposed) on Zoning Lot 150

Signature: Ahmet Demir

Date: 1-20-14



32' from grade

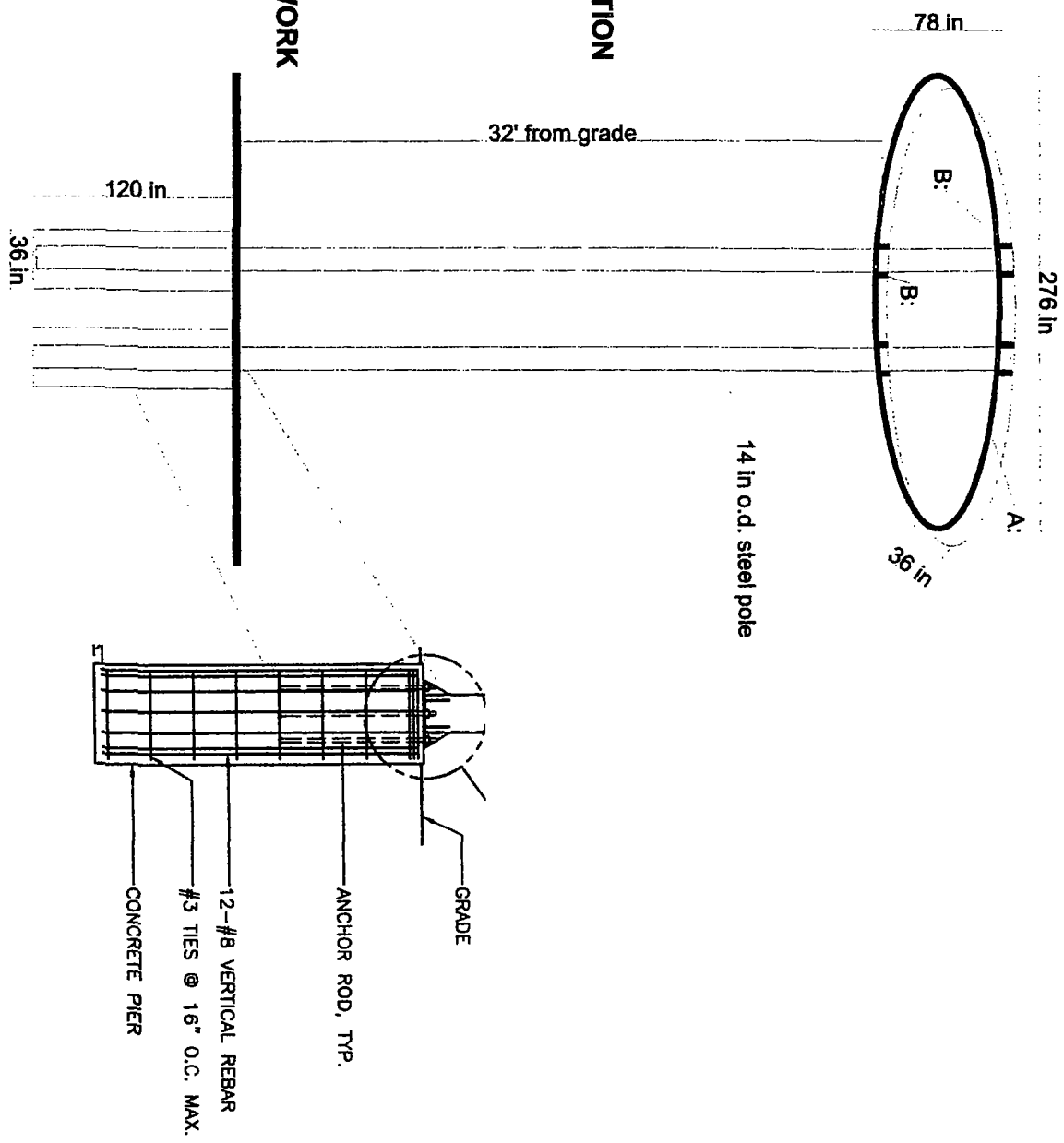
6'-6"

23'

Car Outlet

A: 6" x 23' x 3' OVAL SIGN CABINET
CONSTRUCTED OF 0.90 MILL FINISH
ALUMINUM SHEETS. INNER FRAMEWORK
DOUBLE ROW OF 2" x 2" x 3/16"
GALVANIZED ANGLE IRON. FRAMEWORK
BOLTED TO CABINET WITH 2" x 3/8"
CARRIAGE BOLTS EVERY 18" - 24"
ALL CROSS MEMBERS ARE 2" x 2" x 3/16"
ANGLE IRON WELDED AND BOLTED IN POSITION
ILLUMINATED WITH HIGH OUTPUT
LAMPS AND ELECTRONIC BALLAST
ALL MATERIAL U.L. LISTED
WHITE LEXAN FACE WITH COPY AS PER
APPROVED ARTWORK.

B: 2" x 2" x 3/16" GALVANIZED ANGLE IRON
SUPPORTS UPPER AND LOWER SADDLE
SUPPORTS WELDED TO POLE AND FRAMEWORK





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Building Removed From Location
Empty Lot

Chicago Codes.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Zone Description	Multipier	Lot Frontage	Total Area of Signage	Total Allowable Signage for Proposal	Pole Sign Multipier	Total Allowable Area for Pole Sign	Change of Image Center Video Display Sign Multipier or less than 100 sq.ft.	Total Allowable Area for Change of Image Sign (MESSAGE CENTER)	Total Allowable area for pole and Change of Image (MESSAGE CENTER) Sign	Total Area for flashing signs without pole	Total Area for flashing signs with pole	VIDEO DISPLAY signs without pole	VIDEO DISPLAY signs with pole			
2	B1, B2, Districts 3 x street frontage or 600 whichever is less	3 x	0	0	0	0.5	0	0.25	0	0							
3	C1 Districts 3 x street frontage or 600 whichever is less	3 x	100	300	300	0.5	150	0.25	75	37.5	75	37.5	2812.5	2812.5			
4	DC, DX Districts 4 x street frontage 800 whichever is less	4 x	0	0	0	0.5	0	0.25	0	0	0	0	0	0			
5	B3, C3, D3 Districts 4 x street frontage or 1,500 whichever is less	4 x	0	0	0	0.5	0	0.25	0	0	0	0	0	0			
6	C2, M Districts 5 x street frontage or 1,800 whichever is less	5 x	0	0	0	0.5	0	0.25	0	0	0	0	0	0			
7	DR districts (Downtown Residential)	5 x	0	0	0	0.5	0	0.25	0	0	0	0	0	0			
8	Residential districts RS1, RS2, or RS3 RT 3.5, RT4, RM4.5, RM5, RM5.5 RM6, RM6.5	0	0	0	0	0.5	0	0.25	0	0	0	0	0	0			

01/09/2014 - Stan Adams

DBA Name	<u>4537 S. ARCHER, LLC</u>
Location	<u>4537 S. ARCHER AVE.</u>
Zip Code	<u>60632</u>
Account Number	<u>66905</u>
Site Number	<u>13</u>
Area	<u>PERMIT</u>
Permit Type	<u>SIGN</u>
Permit Number	<u>1110394</u>

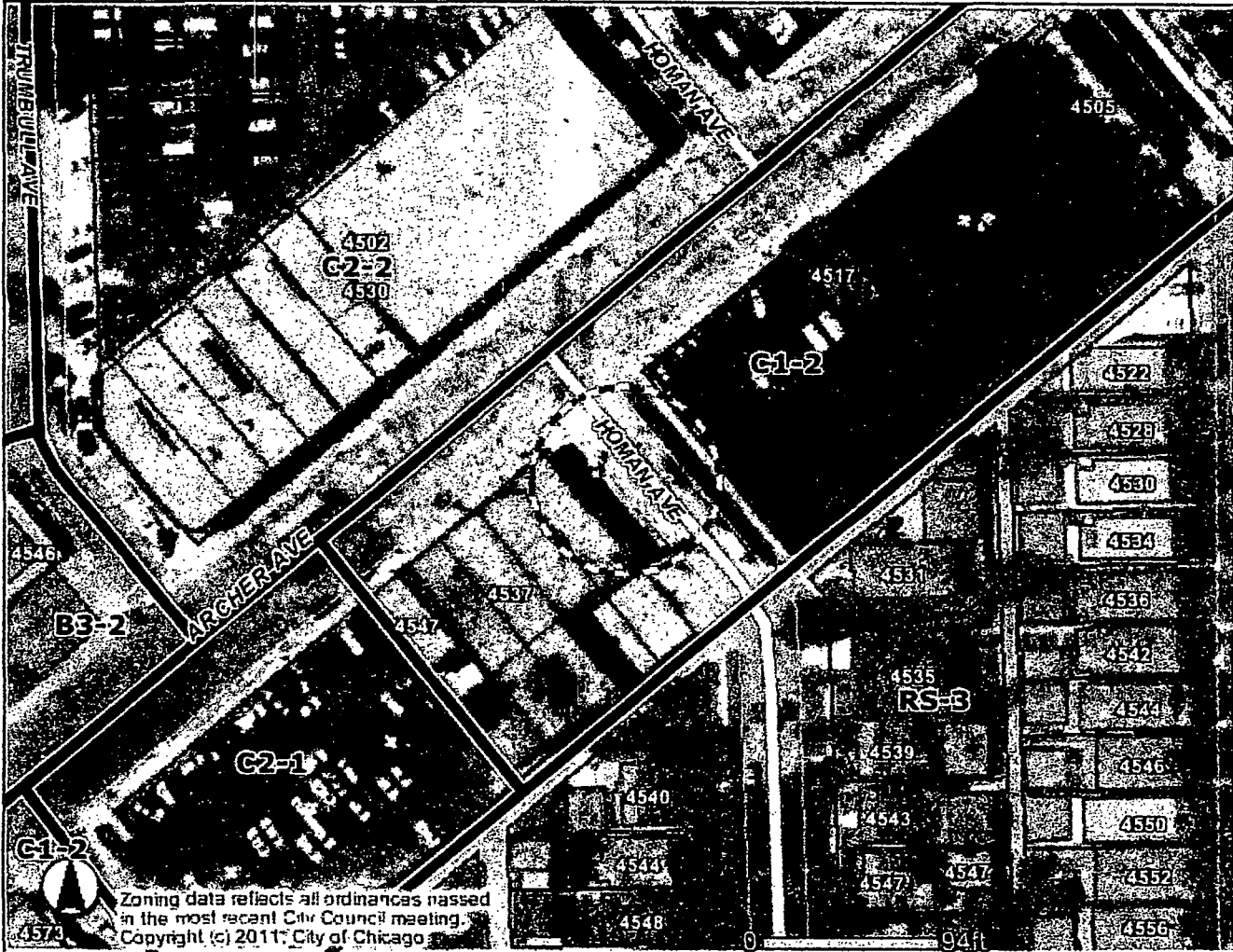
Next steps: Department of Buildings – Permit process for signs

Your Public Way Use permit number is shown above. This number is to be used for each item on your DOB application and is needed for the Buildings (DOB) online sign application located @ www.cityofchicago.org/buildings. All signs, canopies, banners, marquees and awnings require a buildings permit. Only a licensed sign erector may apply for the Buildings permit online. The Buildings permit application will ask for the Public Way Use permit number supplied above. For additional information please contact the Buildings Department at (312) 744-3400.

Please return the completed Public Way Use application to City Hall - 121 N. LaSalle Street, Chicago, IL 60602 Room 800. The completed application package must include a copy of the completed DOB application and the Public Way Use application. The Public Way Use application must contain the Alderman's signature, site plans on 8 1/2 X 11 paper, photos of the item(s), the signed Acceptance letter and a copy of the insurance certificate. For additional information please contact BACP at (312)-74-GOBIZ (312-744-6249).

Zoning Map

Created on: 12/26/2013 4:19 P.M.



Zoning data reflects all ordinances passed in the most recent City Council meeting. Copyright (c) 2011 City of Chicago.

Address

4537 S ARCHER AVE

Zoning

- Business
- Commercial
- Manufacturing
- Residential
- Planned Development
- Planned Manufacturing
- Downtown Core
- Downtown Service
- Downtown Mixed
- Downtown Residential
- Transportation
- Parks & Open Space
- Zoning Boundaries

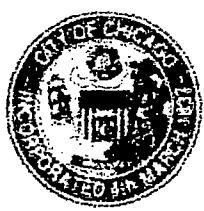
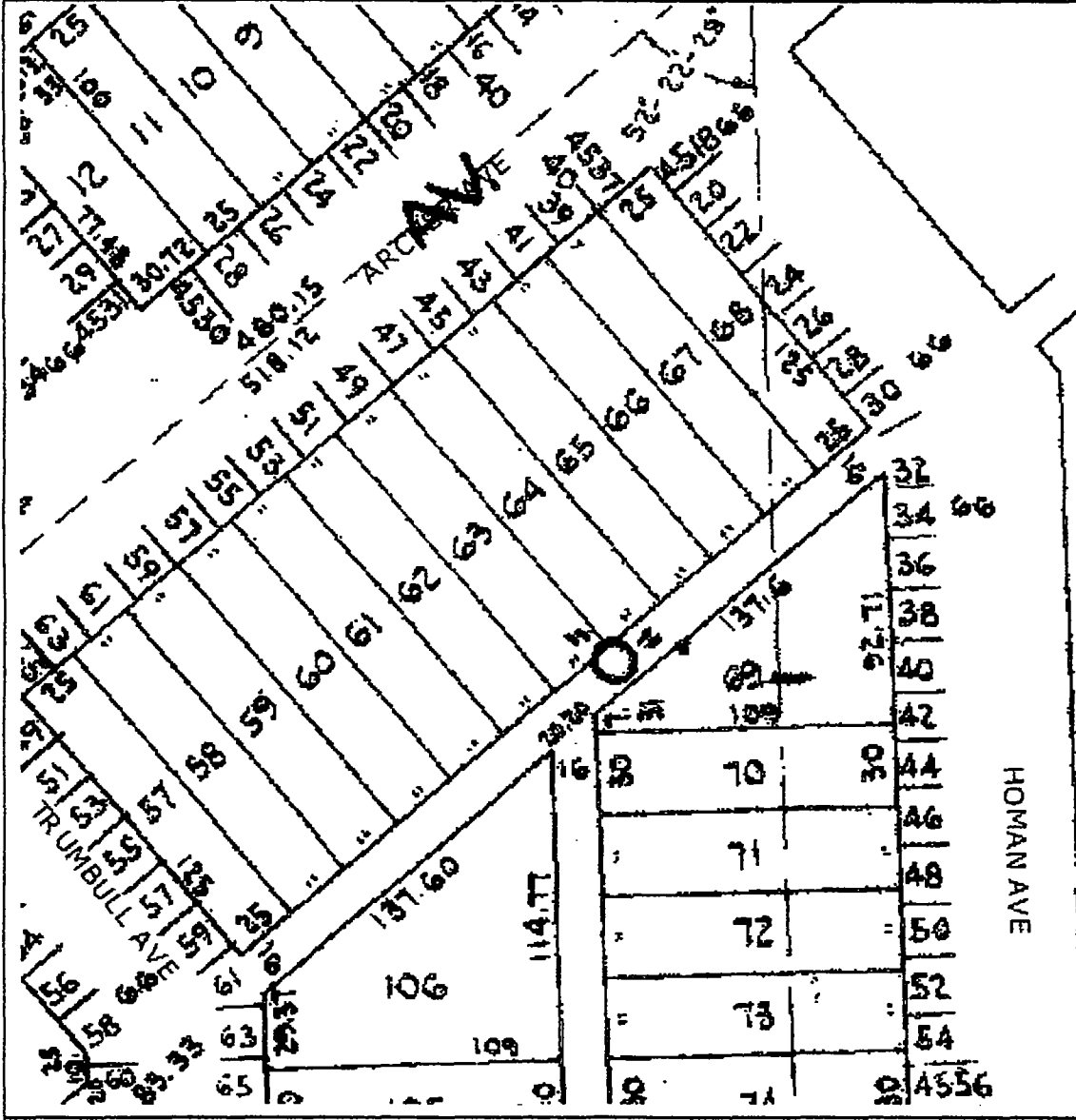
Historic Preservation

- CHICAGO LANDMARKS**
 - Chicago Landmarks
 - Landmark Districts
- Chicago Historic Resources Survey - Buildings subject to Demolition-Delay Ordinance**
 - Red
 - Orange
 - Water
 - Cemetery

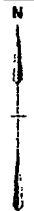
- Lakefront
- Pedestrian Streets
- Buildings
- Parcels
- Streets
- Curbs
- Forest Preserve
- Aerials (April 2008)



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ZONE Classification	Ordinance Number	Ordinance Date
----------------------------	-------------------------	-----------------------

C1-2

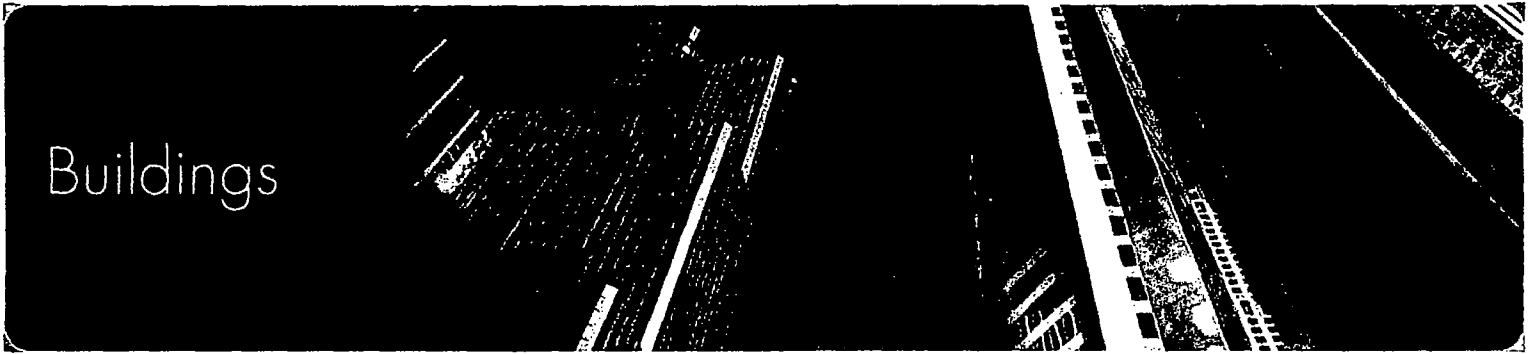
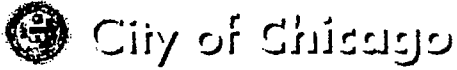
Building Id	From Add	To Add	Dir	Street	Type	Stories	Units	Built	Sq.Ft.	Condition	Vacancy
885493	4537	4537	S	ARCHER AVE							

Map Index	Page Number
10-J	130B

PIN	From Address	To Address	Dir	Street	Type	Suffix
1902418012	4537	4537	S	ARCHER	AVE	

Ward	Alderman	Phone	Address
14	EDWARD M. BURKE	773-471-1414	2650 W. 51st Street

Close Window



Online Permits &
Trade License Renewals

Payment Confirmation

Portal Services

- Online Permits
- Apply For Permit
- View My Applications
- Manage My Eplans
- View My Payments
- Update Account
- Check Application Status
- Logout

Thank you for using the City of Chicago Online Permitting.
Please keep this information as verification of payment.

App #	Date	Type	Description	Fee
<input type="checkbox"/> 100528008	2/18/2014	Sign	4537 S ARCHER AVE 60632-	\$500.00

Total: \$500.00

Transaction Number: **176361**
Reference Number: **5790740**
Credit Card Charge Total: **\$500.00**

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**MOSHE CALAMARO
& ASSOCIATES, INC**
STRUCTURAL ENGINEERS
YOUR STRUCTURAL DREAM TEAM

This bound document has been specifically prepared by a Licensed Structural Engineer. Each detail attached herein has been reviewed by a Licensed Structural Engineer who is responsible for the designs.

This bound document is exclusively for the client listed below:

Ad Delux Sign Co.
Mr. John Miller, primary contact
23856 W. Andrew Rd., Ste. #103
Plainfield, IL 60585-8770

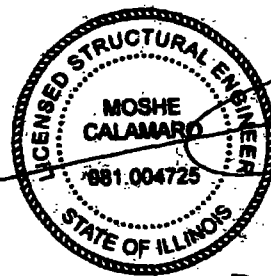
CALCULATIONS

JOB NAME: Car Outlet Sign
Chicago, Illinois

JOB File #: MC# 114004

I hereby verify that this document was prepared by me or under my direct supervision and that I am a duly Licensed Structural Engineer.

THESE DESIGNS HAVE BEEN PREPARED
UNDER MY DIRECT SUPERVISION



Date 1-16-2014
License Expires 11-30-2014

This document is permanently bound. The staples used must not be removed. If any modifications are made, this sealed document is no longer valid.

Loads =

Wind = 30 psf

Sign DL = 20 psf

Dead load =

20 psf - 6.5' - 23' = 2.99 k / 2 cols = 1.50 k

Wind load =

30 psf - 23' = .69 klf / 2 cols = .35 klf top 6.5' of column

Notional Load

Sign = 1.50 k

Column = 72.16 lbs - 38.5' = $\frac{2.778 \text{ k}}{4.278 \text{ k} - .002} = 8.6 \text{ lbs}$

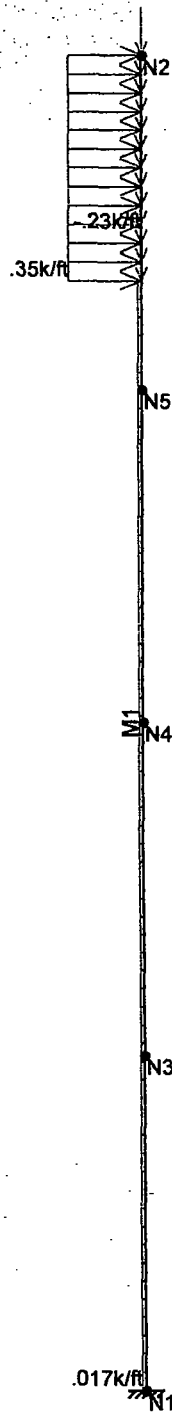
Wind load on column =

$(.7 \cdot 20) \cdot \frac{14''}{12} = 16.3 \text{ plf}$

Loads on outriggers =

DL = 20 psf - 6.5' / 2 = .065 klf

WL = 30 - " = .098 klf



Loads: LC 4, Service: D+W
Results for LC 1, 1.4D

Moshe Calamaro and Ass...

CJG

114004

Car Outlet Sign Post

Member and joint labels with applied loads

SK - 1

Jan 15, 2014 at 2:25 PM

114004 Sign 03.r3d

Column: **M1**

Shape: **HSS14x0.5**

Material: **A500 Gr.42**

Length: **38.5 ft**

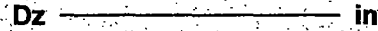
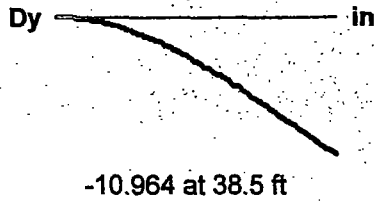
I Joint: **N1**

J Joint: **N2**

LC 2: **1.2D+1.6Wx + 1.6NLX**

Code Check: **0.547 (bending)**

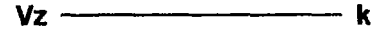
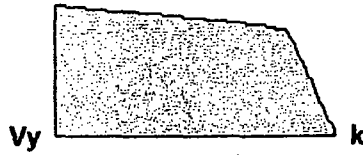
Report Based On **97 Sections**



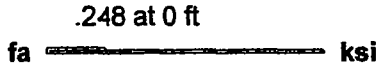
4.907 at 0 ft



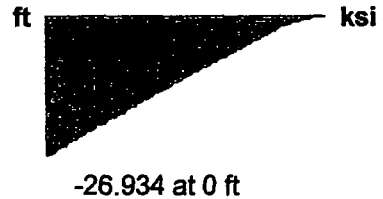
4.564 at 0 ft



145.249 at 0 ft



26.934 at 0 ft



AISC 13th(360-05): LRFD Code Check

Direct Analysis Method

Max Bending Check **0.547**
Location **0 ft**
Equation **H1-1b**

Max Shear Check **0.020 (s)**
Location **0 ft**
Max Defl Ratio **L/42**

Bending Flange **Compact**
Bending Web **Compact**

Compression Flange **Non-Slender**
Compression Web **Non-Slender**

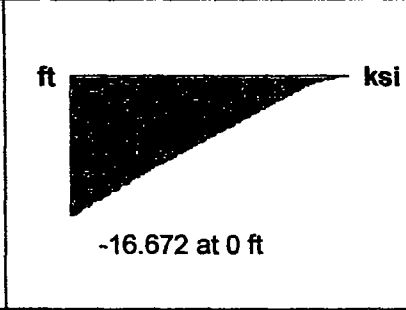
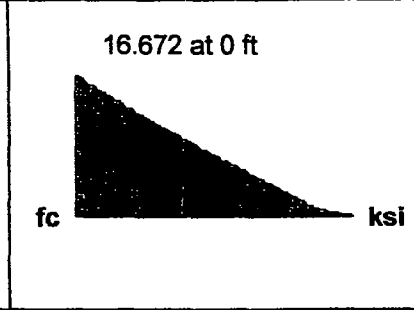
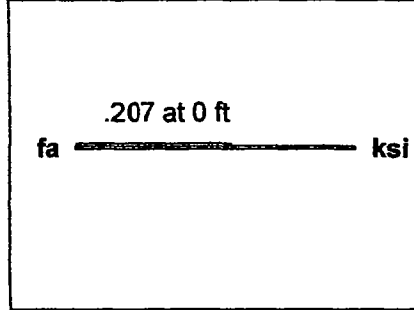
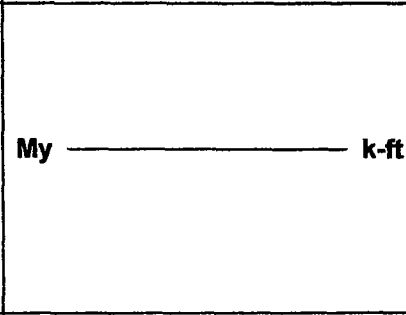
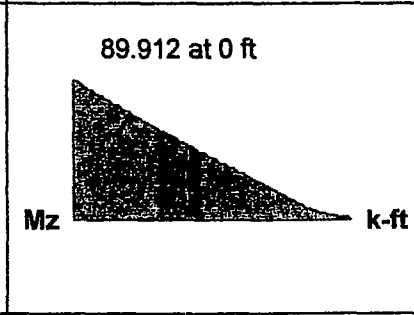
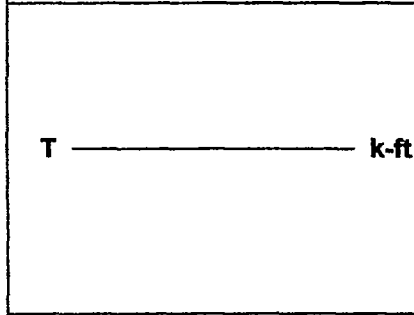
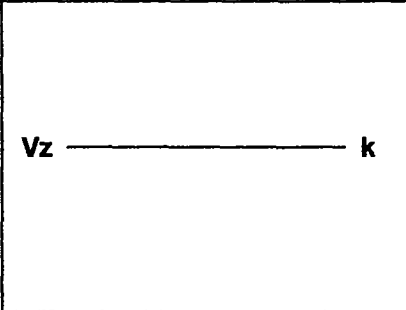
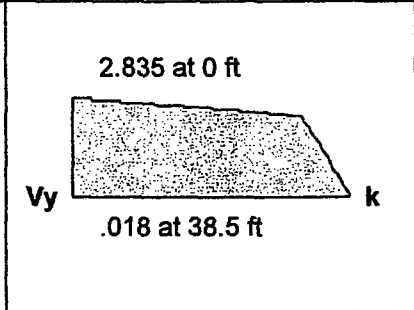
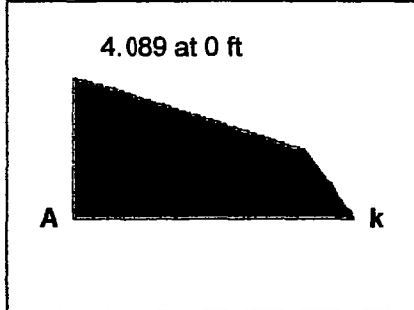
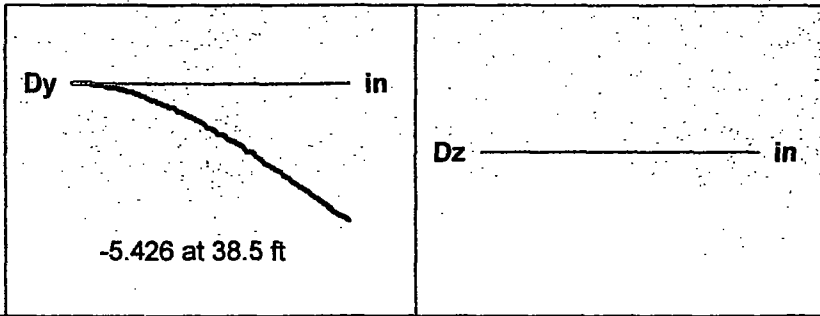
Fy **42 ksi**
phi*Pnc **421.996 k**
phi*Pnt **748.44 k**
phi*Mny **268.38 k-ft**
phi*Mnz **268.38 k-ft**
phi*Vny **224.532 k**
phi*Vnz **224.532 k**
phi*Tn **252.901 k-ft**
Cb **1**

Lb **38.5 ft**
KL/r **96.589**
y-y **38.5 ft**
z-z **38.5 ft**

L Comp Flange **38.5 ft**
Warp Length **NC**
L-torque **38.5 ft**
Tau_b **1**

Column: **M1**

Shape: **HSS14x0.5**
 Material: **A500 Gr.42**
 Length: **38.5 ft**
 I Joint: **N1**
 J Joint: **N2**
 LC 4: Service: **D+W**
 Code Check: **0.340 (bending)**
 Report Based On **97 Sections**



AISC 13th(360-05): LRFD Code Check

Max Bending Check	0.340	Max Shear Check	0.013 (s)
Location	0 ft	Location	0 ft
Equation	H1-1b	Max Defl Ratio	L/85
Bending Flange	Compact	Compression Flange	Non-Slender
Bending Web	Compact	Compression Web	Non-Slender

Fy	42 ksi	y-y	38.5 ft	z-z	38.5 ft
phi*Pnc	421.996 k	Lb	38.5 ft	KL/r	96.589
phi*Pnt	748.44 k				
phi*Mny	268.38 k-ft	L Comp Flange	38.5 ft		
phi*Mnz	268.38 k-ft	Warp Length	NC		
phi*Vny	224.532 k				
phi*Vnz	224.532 k				
phi*Tn	252.901 k-ft				
Cb	1				

Moshe Calamaro & Associates

Structural Engineers

930 Pitner Ave., Ste. #7, Evanston, IL 60202

Phone: (847) 733-0015 Fax: (847) 733-0018

© Moshe Calamaro & Associates

Job: Car Outlet Sign

MC # 114004

Calc by: CJG

Check by:

Date: 1/15/2014

Date:

Pier Embedment based on IBC 2006 1805.7.2.1

IBC 2012 1807.3.2-1

Mark: Minimum pier for sign columns

Description:



P= 2819 lbs

M= 89912.0 lb-ft

equiv. h= 31.89 ft

A= 2.87

Total d= 11.52 ft

b= 2.00 ft

Trial d= 11.50 ft

Lateral Bearing 300 psf/ft

S₁= 1150 psf

Assume 2,000 psf soil

∴ lateral bearing is

150 psf - 2 = 300 psf

per IBC 2012 table

1806.2

S₁ is based on 1/3 d

1/3 - 11.5 = 3.83' which is below

frost ∴ OK

Pier: Try 36" ∅ A_{pier} = $\frac{\pi \cdot 36^2}{4} = 1018 \text{ in}^2$ A_{s min} = .005 - 1018 = 5.09

9-#7, min

Check pier as inscribed rectangle

w/ 3 bars acting d = 28 - 2 = 26"

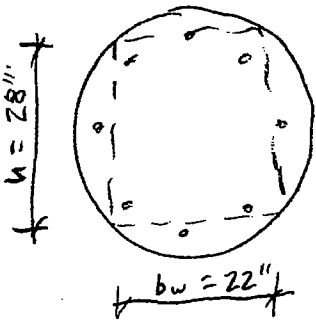
$$A_s = 3 \cdot .6 = 1.8 \text{ in}^2 \quad a = \frac{1.8 \cdot 60}{.85 \cdot 3 \cdot 22} = 1.93 \quad c = 2.26$$

$$e_c = \frac{26 - 2.26}{2.26} \cdot .003 = .031 \quad \therefore \phi = .9$$

$$\phi M_u = .9 \cdot 1.8 \cdot 60 \left(26 - \frac{1.93}{2} \right)$$

$$= 202.8 \text{ k-ft}$$

$$M_u = 145 \text{ k-ft } \underline{OK}$$





www.hilti.us

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Page: 1
 Project: Car Outlet Sign
 Sub-Project / Pos. No.: 114004
 Date: 1/15/2014

Specifier's comments:

1 Input data

Anchor type and diameter: Heavy Hex Head ASTM F 1554 GR. 36 1 1/4

Effective embedment depth: $h_{ef} = 24.000$ in.

Material: ASTM F 1554

Proof: design method ACI 318-08 / CIP

Stand-off installation: $e_b = 0.000$ in. (no stand-off); $t = 0.750$ in.

Anchor plate: $l_x \times l_y \times t = 22.000$ in. x 22.000 in. x 0.750 in.; (Recommended plate thickness: not calculated)

Profile: S shape (AISC); (L x W x T x FT) = 3.000 in. x 2.330 in. x 0.170 in. x 0.260 in.

Base material: cracked concrete, 2500 , $f'_c = 2500$ psi; $h = 420.000$ in.

Reinforcement: tension: condition B, shear: condition B;
edge reinforcement: none or < No. 4 bar
no

Seismic loads (cat. C, D, E, or F) no



Geometry [in.] & Loading [kip, ft.kip]

$T_u = 27.9$ k (bolts 1, 4, 6)

$0.9 \cdot 60 \cdot A_s > 27.9$

$A_s > .517 \rightarrow$ use #7 bars
 $A_s = .6$ in²

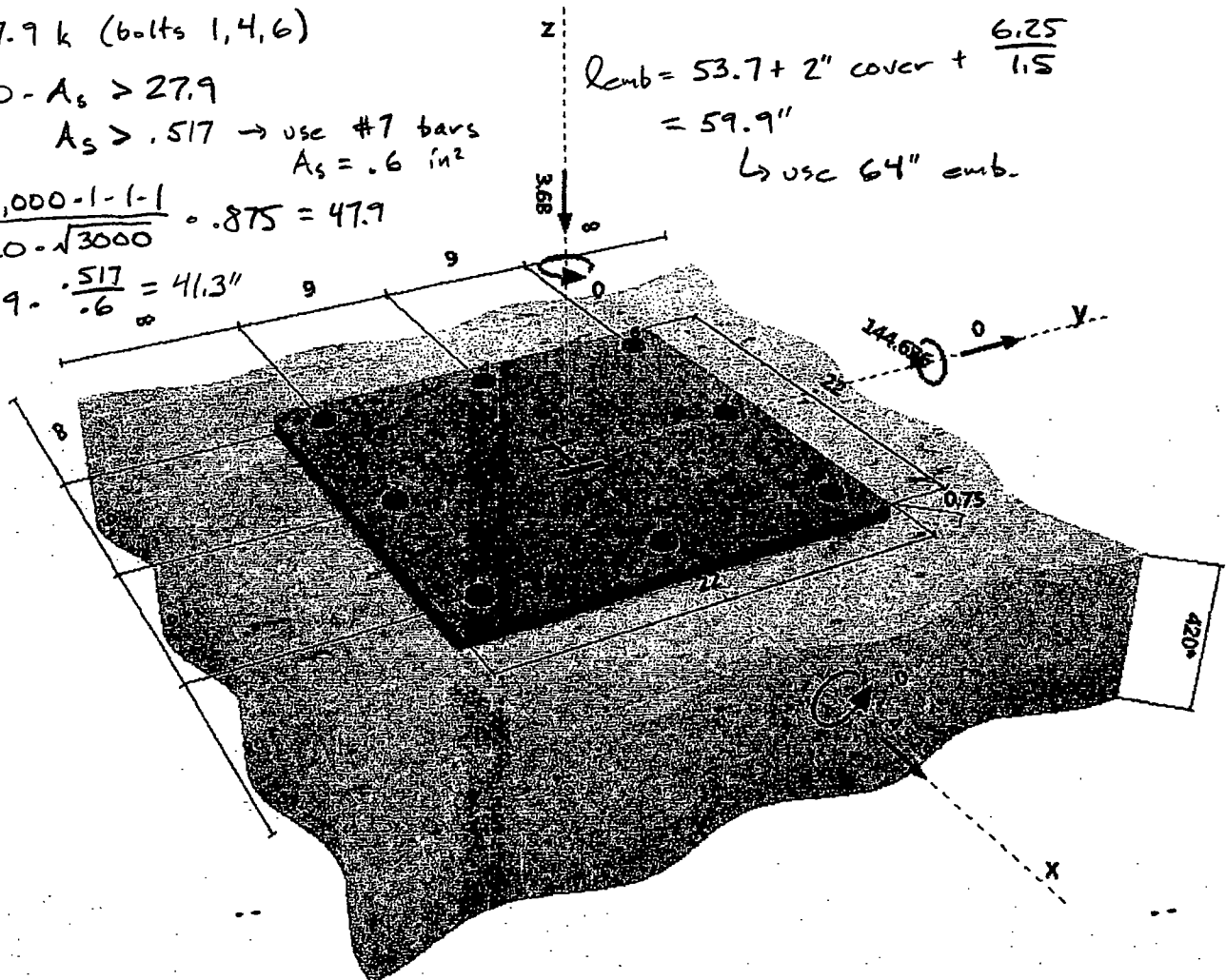
$l_d = \frac{60,000 - 1 - 1}{20 \cdot \sqrt{3000}} \cdot .875 = 47.9$

$l_d' = 47.9 \cdot \frac{.517}{.6} = 41.3''$

$l_{splice} = 1.3 \cdot 41.3 = 53.7$

$l_{emb} = 53.7 + 2'' \text{ cover} + \frac{6.25}{1.5}$
 $= 59.9''$

\rightarrow use 64" emb.



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Page: 2
 Project: Car Outlet Sign
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2 Load case/Resulting anchor forces

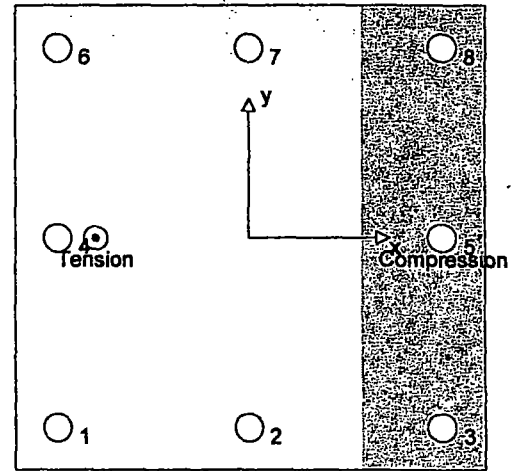
Load case: Design loads

Anchor reactions [kip]

Tension force: (+Tension, -Compression)

Anchor	Tension force	Shear force	Shear force x	Shear force y
1	27.883	0.566	0.566	0.000
2	10.332	0.566	0.566	0.000
3	0.000	0.566	0.566	0.000
4	27.883	0.566	0.566	0.000
5	0.000	0.566	0.566	0.000
6	27.883	0.566	0.566	0.000
7	10.332	0.566	0.566	0.000
8	0.000	0.566	0.566	0.000

max. concrete compressive strain: 0.40 [%]
 max. concrete compressive stress: 1721 [psi]
 resulting tension force in (x/y)=(-7.217/0.000): 104.314 [kip]
 resulting compression force in (x/y)=(9.099/0.000): 107.994 [kip]



3 Tension load

	Load N_{ua} [kip]	Capacity ϕN_n [kip]	Utilization $\beta_u = N_{ua}/\phi N_n$	Status
Steel Strength*	27.883	42.151	67	OK
Pullout Strength*	27.883	31.318	90	OK
Concrete Breakout Strength**	104.314	149.698	70	OK
Concrete Side-Face Blowout, direction **	N/A	N/A	N/A	N/A

* anchor having the highest loading **anchor group (anchors in tension)

3.1 Steel Strength

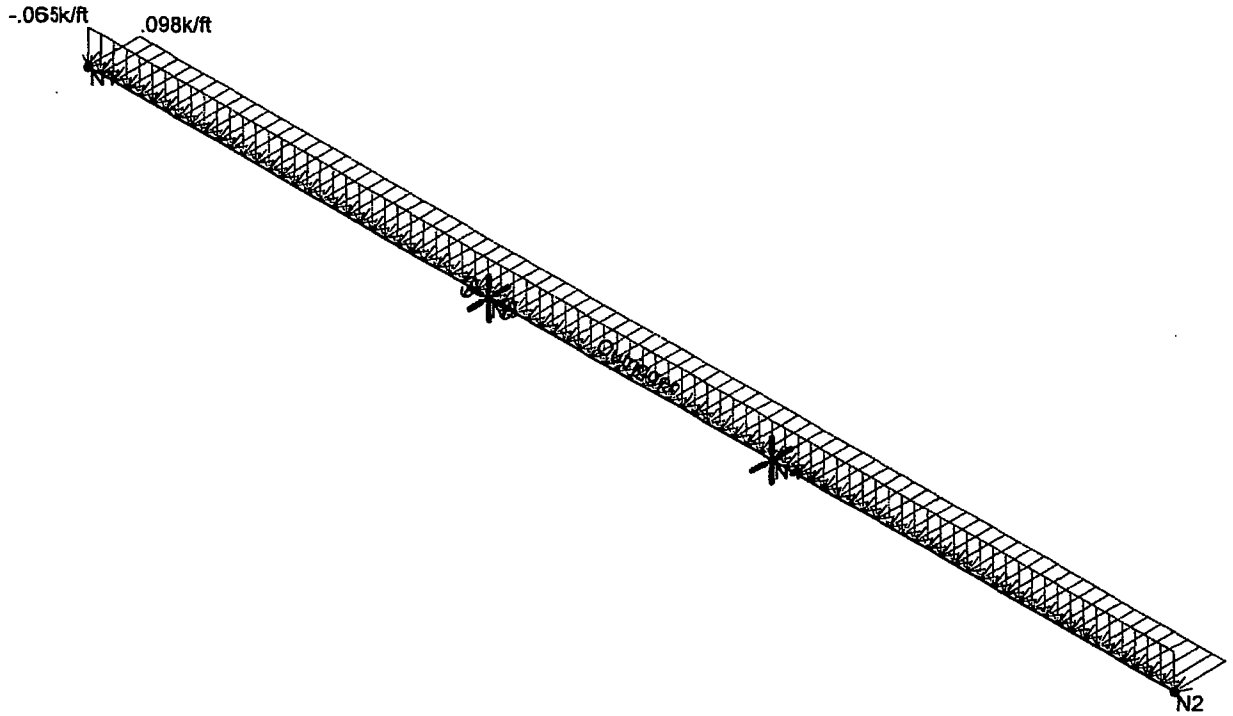
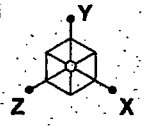
N_{sa} [kip]	ϕ	ϕN_{sa} [kip]	N_{ua} [kip]
56.202	0.750	42.151	27.883

3.2 Pullout Strength

N_p [kip]	ψ_{cp}	ϕ	ϕN_{pn} [kip]	N_{ua} [kip]
44.740	1.000	0.700	31.318	27.883

3.3 Concrete Breakout Strength

A_{Nc} [in. ²]	A_{Ncd} [in. ²]	$c_{a,min}$ [in.]	c_{ac} [in.]	$\psi_{c,N}$	$\psi_{cp,N}$
7290.00	5184.00	∞	0.000	1.000	1.000
$e_{c1,N}$ [in.]	$\psi_{ec1,N}$	$e_{c2,N}$ [in.]	$\psi_{ec2,N}$	$\psi_{sd,N}$	k_{cr}
1.817	0.952	0.000	1.000	1.000	16
N_b [kip]	ϕ	ϕN_{cbg} [kip]	N_{ua} [kip]		
159.750	0.700	149.698	104.314		



Loads: LC 4, Service: D+W
Results for LC 1, 1.4D

Moshe Calamaro and Ass.
CJG
114004

Car Outlet Sign ~~Post~~ *Outrigger*

SK - 1
Jan 16, 2014 at 1:05 PM
114004 Pipe 01.r3d

Beam: **Outrigger**

Shape: **PIPE_4.0**

Material: **A53 Gr.B**

Length: **23 ft**

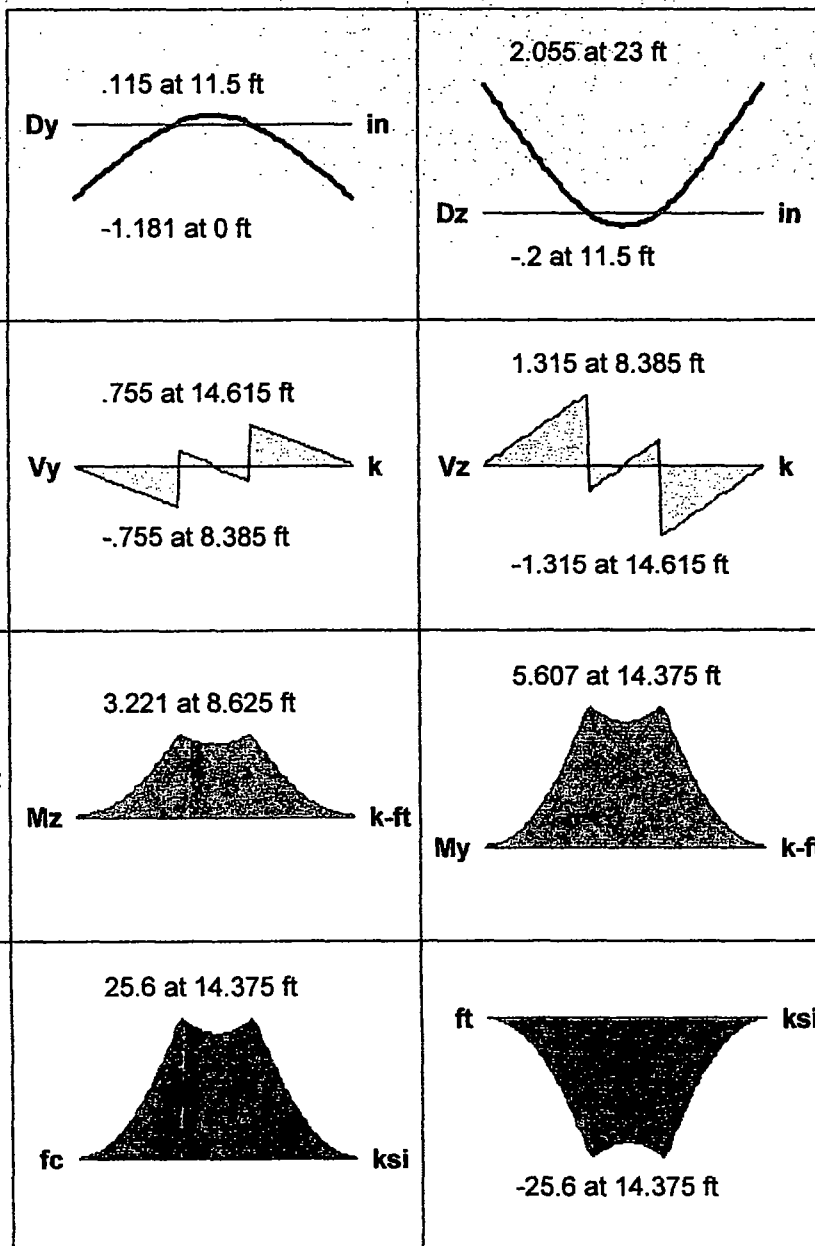
I Joint: **N1**

J Joint: **N2**

LC 2: **1.2D+1.6Wx**

Code Check: **0.608 (bending)**

Report Based On 97 Sections



AISC 13th(360-05): LRFD Code Check

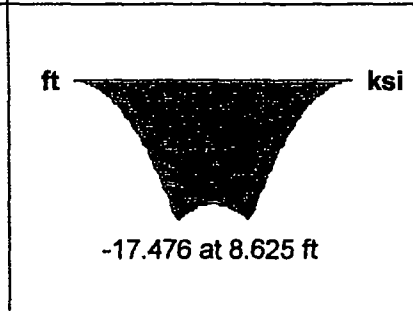
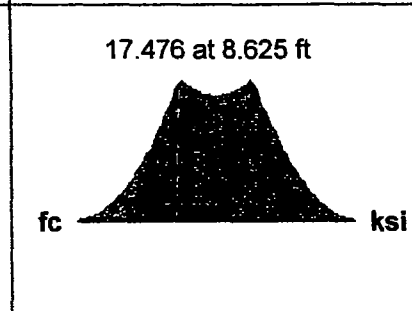
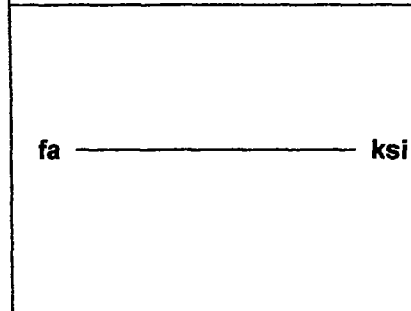
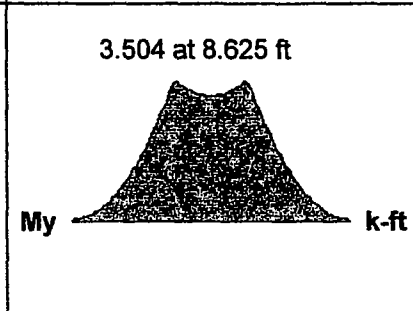
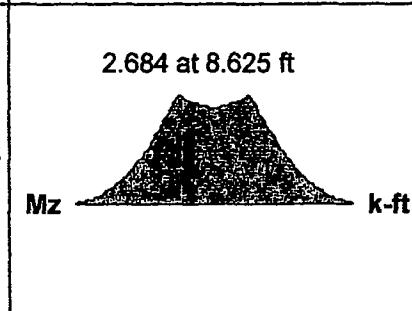
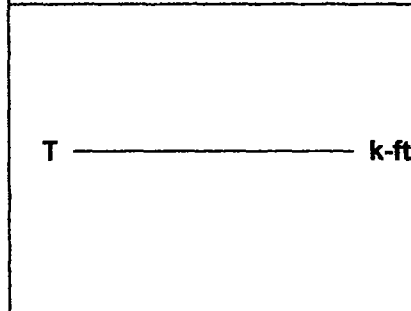
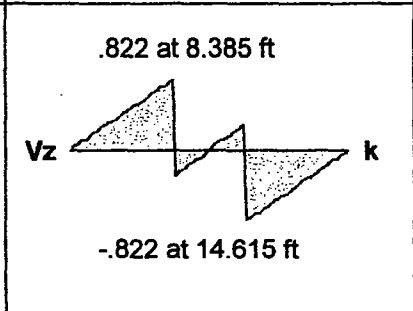
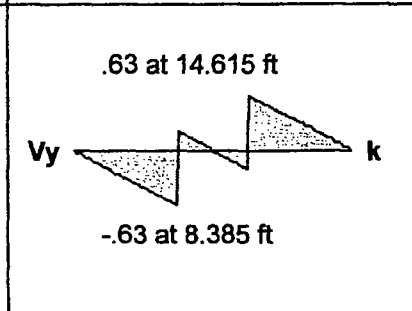
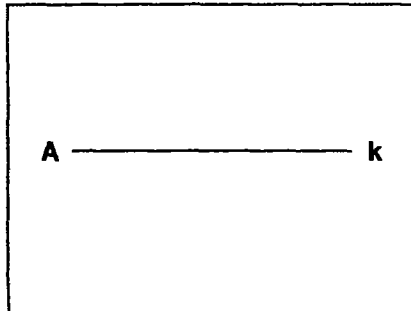
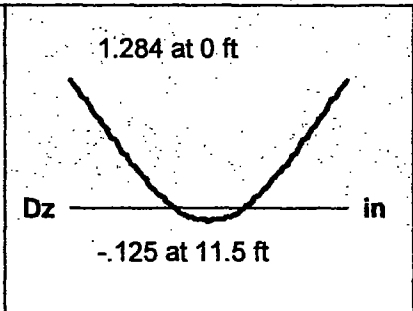
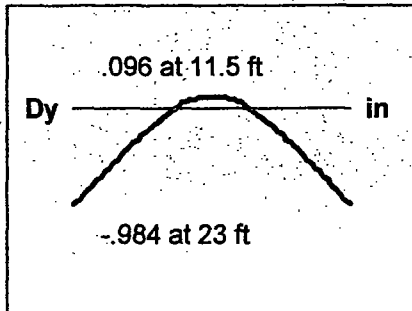
Direct Analysis Method

Max Bending Check	0.608	Max Shear Check	0.054 (s)
Location	14.375 ft	Location	8.385 ft
Equation	H1-1b	Max Defl Ratio	L/122
Bending Flange	Compact	Compression Flange	Non-Slender
Bending Web	Compact	Compression Web	Non-Slender

Fy	35 ksi	y-y	23 ft	z-z	23 ft
phi*Pnc	20.226 k	Lb	181.829	KL/r	181.829
phi*Pnt	93.24 k				
phi*Mny	10.631 k-ft				
phi*Mnz	10.631 k-ft	L Comp Flange	23 ft		
phi*Vny	27.972 k	Warp Length	NC		
phi*Vnz	27.972 k	L-torque	23 ft		
phi*Tn	10.011 k-ft	Tau_b	1		
Cb	1				

Beam: **Outrigger**

Shape: **PIPE 4.0**
 Material: **A53 Gr.B**
 Length: **23 ft**
 I Joint: **N1**
 J Joint: **N2**
 LC 4: Service: **D+W**
 Code Check: **0.415 (bending)**
 Report Based On 97 Sections

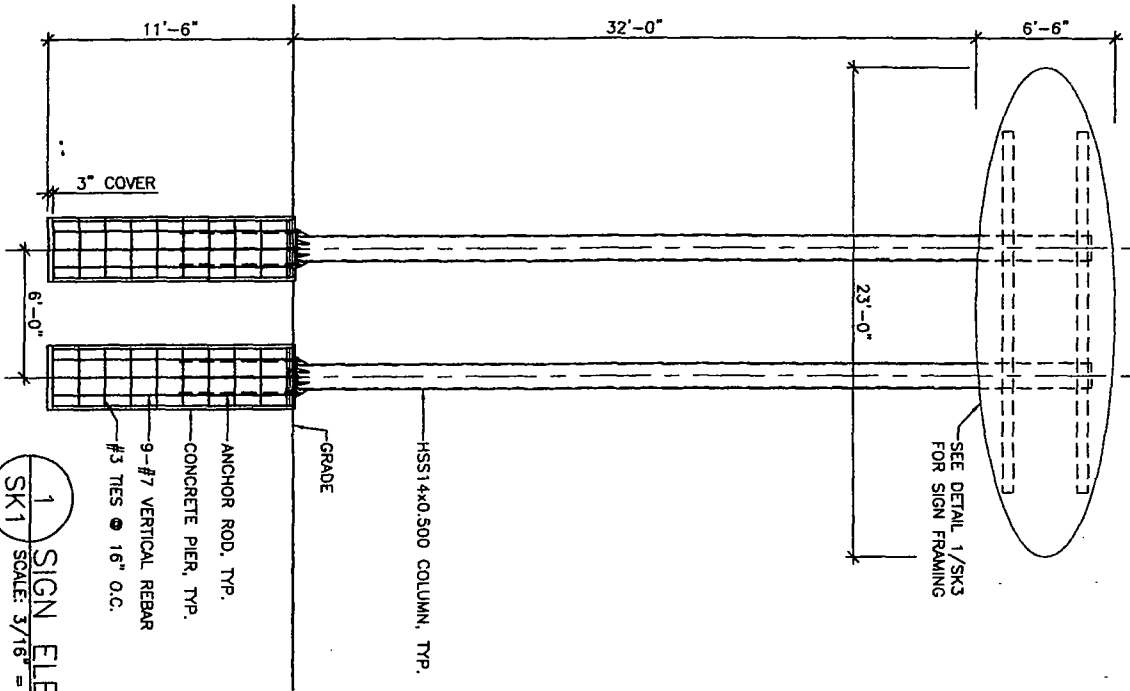


AISC 13th(360-05): LRFD Code Check

Direct Analysis Method

Max Bending Check	0.415	Max Shear Check	0.037 (s)
Location	8.625 ft	Location	14.615 ft
Equation	H1-1b	Max Defl Ratio	L/196
Bending Flange	Compact	Compression Flange	Non-Slender
Bending Web	Compact	Compression Web	Non-Slender

Fy	35 ksi	y-y	23 ft	z-z	23 ft
phi*Pnc	20.226 k	Lb	23 ft	KL/r	181.829
phi*Pnt	93.24 k				
phi*Mny	10.631 k-ft	L Comp Flange	23 ft		
phi*Mnz	10.631 k-ft	Warp Length	NC		
phi*Vny	27.972 k	L-torque	23 ft		
phi*Vnz	27.972 k	Tau_b	1		
phi*Tn	10.011 k-ft				
Cb	1				



1 SIGN ELEVATION
SK1 SCALE: 3/16" = 1'-0"

Date: 1-16-2014
License Expires 11-30-2014



SK1
DRAWN BY: DJB
MC NUMBER:
114004
DRAWING DATE:
01-16-2014
SHEET

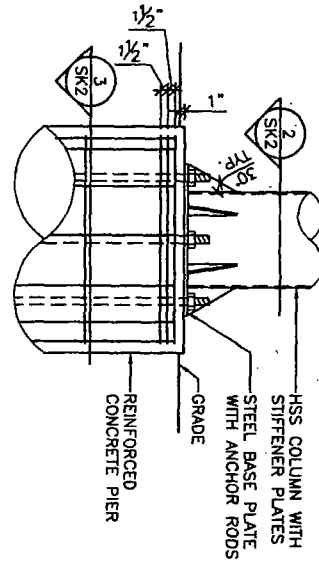
SIGN ELEVATION

NEW SIGN
CAR OUTLET
CHICAGO, ILLINOIS

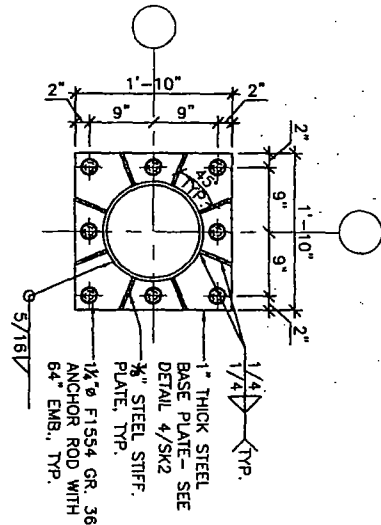
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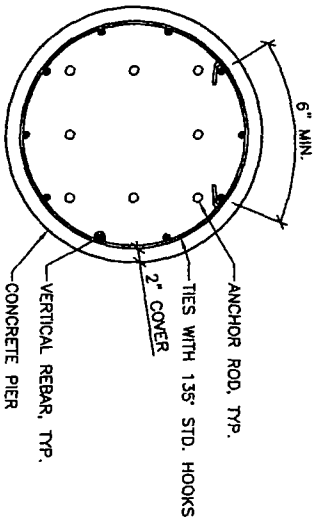
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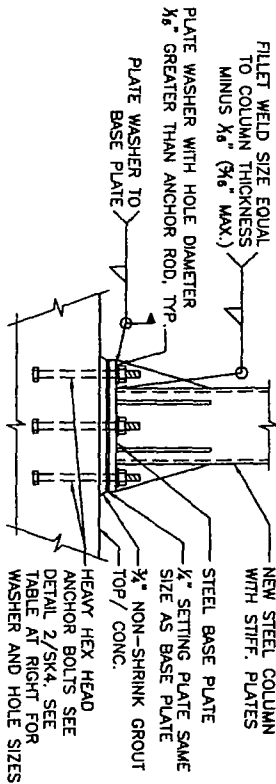
1 COLUMN BASE DETAIL
SK2 NO SCALE



2 BASE PLATE PLAN VIEW
SK2 SCALE: 3/4" = 1'-0"



3 PIER SECTION
SK2 SCALE: 3/4" = 1'-0"

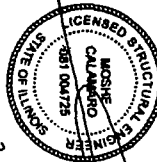


Anchor Rod Hole and Washer Sizes			
Rod Diameter	Hole Diameter	Washer Width	Washer Thickness
1/4"	2 1/8"	3"	1/2"

NOTE: WASHERS CAN BE CIRCULAR OR SQUARE SO LONG AS MINIMUM WIDTHS AND THICKNESSES ARE MAINTAINED.

4 BASE PLATE ASSEMBLY
SK2 SCALE: 1" = 1'-0"

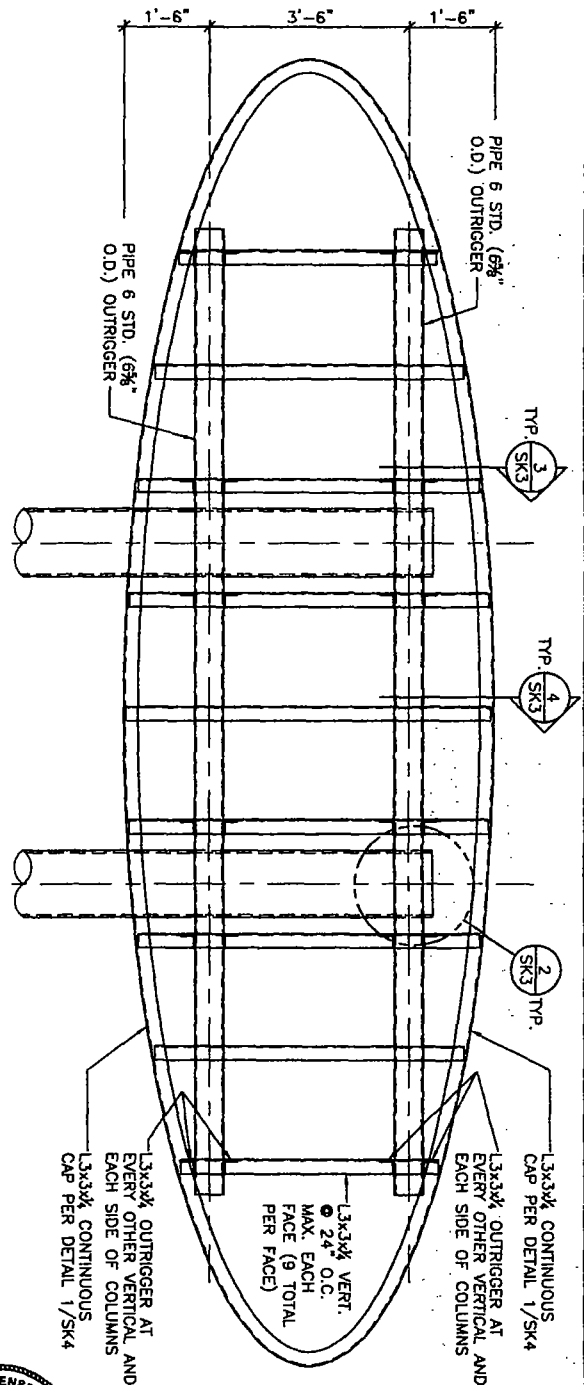
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License Expires 11-30-2014



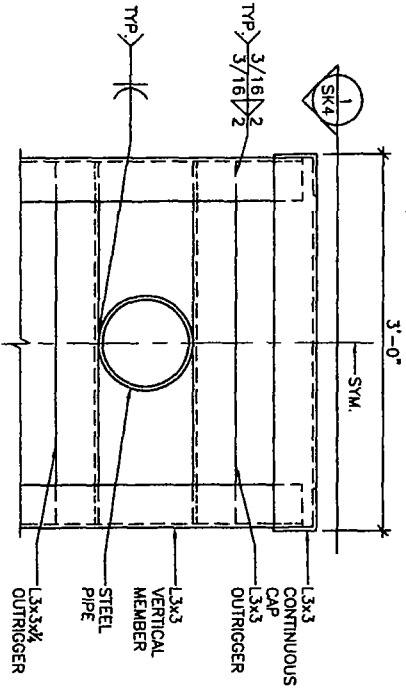
DETAILS
NEW SIGN
CAR OUTLET
CHICAGO, ILLINOIS

DRAWN BY: CJB
NC NUMBER: 114004
DRAWING DATE: 01-16-2014
SHEET: SK2

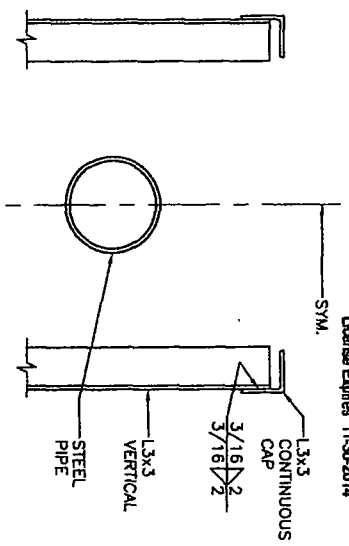
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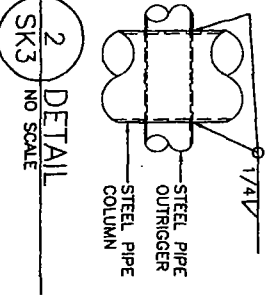
1 SIGN FRAMING ELEVATION
SCALE: 1/2" = 1'-0"



3 SECTION AT OUTRIGGER
NO SCALE



4 SECTION
NO SCALE



2 DETAIL
NO SCALE

Date: 1-16-2014
License Expires 11-30-2014

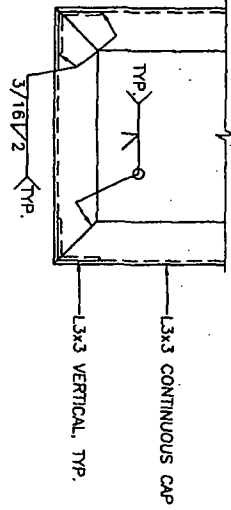
MOSHE CALAMARO
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STATE OF ILLINOIS
681 004725

DRAWING DATE: 01-16-2014
DRAWING NO: 114004
SHEET: SK3

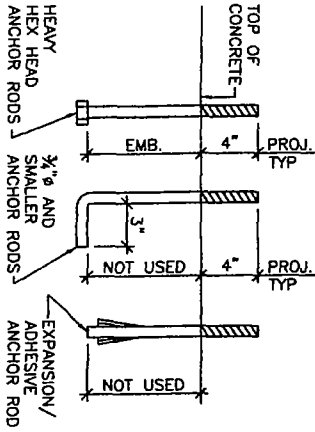
SIGN DETAILS
NEW SIGN
CAR OUTLET
CHICAGO, ILLINOIS

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1 PLAN VIEW DETAIL
SK4 NO SCALE



2 ANCHOR ROD DETAIL
SK4 NO SCALE

GENERAL STRUCTURAL NOTES

GOVERNING CODES AND SPECIFICATIONS:

- CHICAGO BUILDING CODE
- WIND LOADS: SOLID SIGN..... 30 PSF

DESIGN LOADINGS:

- EXISTING CONDITIONS:
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL SIZES, DIMENSIONS, AND CONDITIONS AS SHOWN ON THE DRAWINGS.
- IF CONDITIONS IN THE FIELD ARE DIFFERENT FROM WHAT IS SHOWN ON THE DRAWINGS, NOTIFY ENGINEER IMMEDIATELY.

ALLOWABLE SOIL BEARING PRESSURE:

- ALL FOUNDATIONS HAVE BEEN DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF. IF FOR ANY REASON THE INDICATED ALLOWABLE BEARING IS NOT ATTAINABLE AT ELEVATIONS SHOWN ON THE DRAWINGS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- BEARING SHALL BE ON VIRGIN, UNDISTURBED SOILS OR, IF FILL IS REQUIRED, SHALL BE APPROVED FOR USE BY AN APPROVED TESTING LABORATORY, AND SHALL BE COMPACTED IN ACCORDANCE WITH APPROPRIATE ASTM STANDARDS TO OBTAIN THE REQUIRED ALLOWABLE BEARING PRESSURE.

CONCRETE AND REINFORCEMENT:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE "AMERICAN CONCRETE INSTITUTE BUILDING CODE" (ACI 318) AND WITH "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301), LATEST EDITIONS.
- ALL CONCRETE SHALL OBTAIN THE FOLLOWING 28 DAY ULTIMATE COMPRESSIVE STRENGTHS:
 - FOOTINGS, FOUNDATION WALLS, PIERS..... 3000 PSI NORMAL WEIGHT
 - SLABS ON GRADE..... 4000 PSI NORMAL WEIGHT
- REINFORCEMENT GRADES: BAR REINFORCEMENTS SHALL CONFORM TO ASTM A615, GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A653.
- CENTER OF GRADE AIR ADJUSTMENTS CONTAINING SAKE, SHALL NOT BE PERMITTED IN ANY CONCRETE.
- ALL CONCRETE SUBJECTED TO FREEZE-THAW SHALL BE 5% AIR-ENHANCED.

STRUCTURAL STEEL:

- ASTM A36 FOR ALL MISCELLANEOUS STEEL, $F_y = 36$ KSI.
- ASTM A500 GRADE B FOR ALL ROUND HSS, $F_y = 42$ KSI.
- ASTM A53 GRADE B FOR ALL PIPE SHAPES, $F_y = 35$ KSI.
- ASTM A325 FOR ALL 3/4" DIAMETER BOLTS IN BEARING FOR ALL CONNECTIONS (EXCLUDING ANCHOR RODS/BOLTS), EXCEPT AS NOTED.
- ASTM F1554 GR. 36 (OR EQUAL) FOR ALL ANCHOR RODS.
- ALL WELDING ELECTRODES SHALL BE E-70XX AND SHALL BE DONE BY WELDERS QUALIFIED IN ACCORDANCE WITH AWS STANDARDS AND RECOMMENDATIONS.
- ALL STEEL SHALL BE FABRICATED, DETAILED, AND ERECTED IN ACCORDANCE WITH AWS CODE OF STANDARD PRACTICE.
- ALL CONNECTIONS SHALL BE WELDED OR BOLTED, EXCEPT WHERE SHOWN OTHERWISE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MEANS NECESSARY TO INSURE THE STABILITY OF THE STEEL FRAME DURING CONSTRUCTION UNTIL ALL SHOP CONNECTIONS HAVE BEEN MADE AND THE FRAME IS SELF-SUPPORTING AND STABLE.
- ALL STEEL SHALL RECEIVE AN ADEQUATE RUST INHIBITING GALV. PRIMER.
- PROVIDE SHOP DIMENSIONS PRIOR TO FABRICATION.

COORDINATION:

- ALL DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE CHECKED BY THE GENERAL CONTRACTOR AND ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE ENGINEER.
- THE INFORMATION CONTAINED IN THE STRUCTURAL DRAWINGS IS IN ITSELF INCOMPLETE AND VOID UNLESS USED IN CONJUNCTION WITH ALL OF THE CONTRACT DOCUMENTS AND ALL SPECIFICATIONS, TRADE PRACTICES, APPLICABLE STANDARDS, CODES, ETC. INCORPORATED THEREIN BY REFERENCE.



Date 1-16-2014
License Expires 11-30-2014

DETAILS - GENERAL STRUCTURAL NOTES

NEW SIGN
CAR OUTLET
CHICAGO, ILLINOIS

MOSHE CALAMARDO & ASSOCIATES, INC.
STRUCTURAL ENGINEERS
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P: (847) 733-0210 F: (847) 733-0212 WWW.GENERAL-CONTRACTOR.COM INFO@MOSHECALAMARDO.COM

DRAWN BY: EJD
DATE: 11.4.004
DRAWING DATE: 01-16-2014

SK4 SHEET