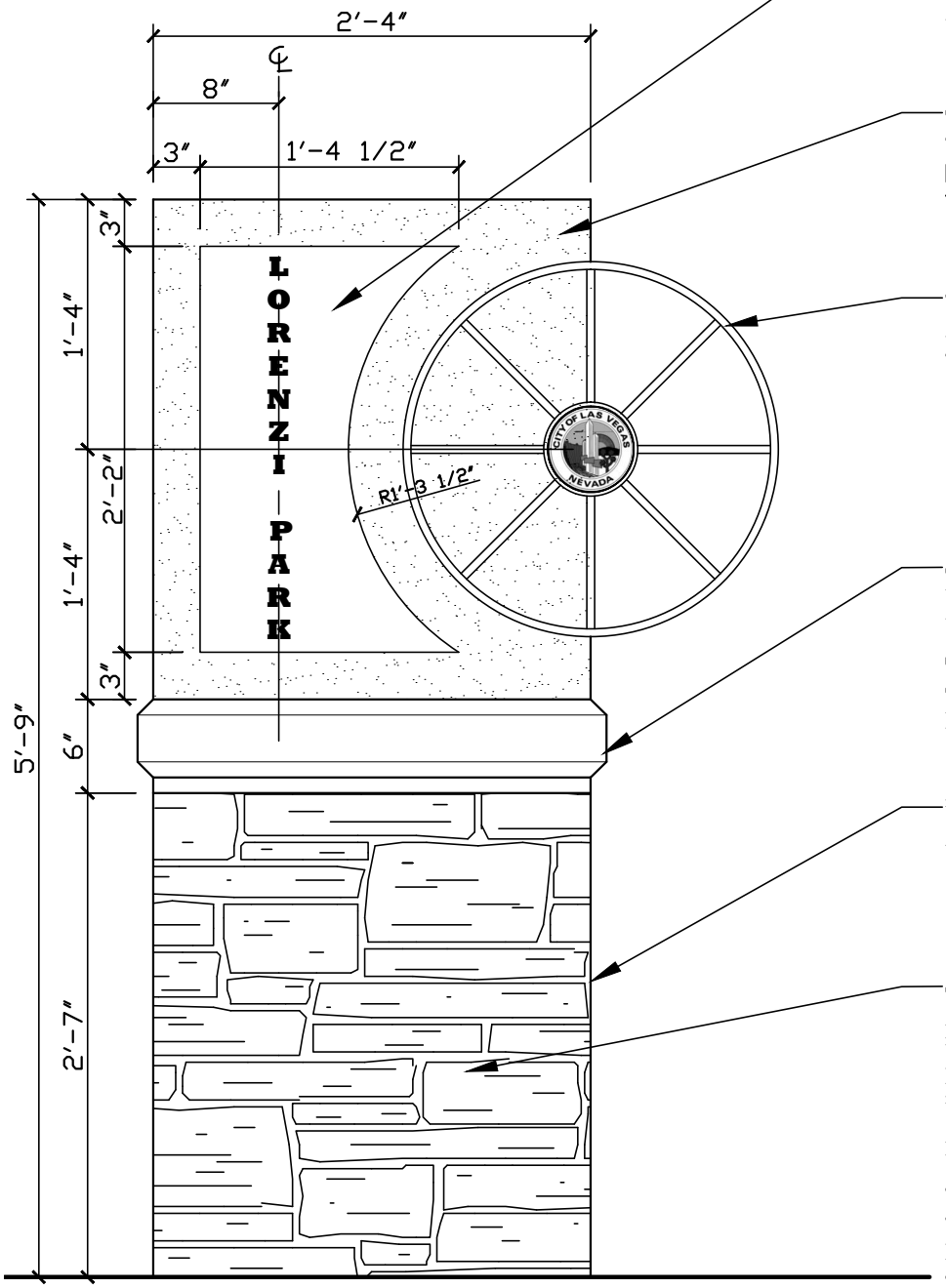
NOTES:
1. EXPOSED AGGREGATE SIZE TO BE 1/4"- 3/8".
2. CONTRACTOR IS NOT TO CONSTRUCT SIGNAGE COLUMN UNTIL INTERPRETIVE PANEL SUBMITTAL HAS BEEN APPROVED.



PARK NAME PLATE FIBERGLASS PANEL. FONT ROCKWELL EXTRA BOLD 1-1/4" HEIGHT. COLOR- PANEL TO MATCH DUNN EDWARDS "RUSTIC TAUPE" DE6129. LETTERS BLACK.

CONCRETE COLUMN WITH MEDIUM SANDBLAST FINISH (ON ALL SIDES INCLUDING TOP) AND DESERT VARNISH. SEE NOTE 1.

STEEL WAGON WHEEL WITH DESERT VARNISH. SEE DETAIL 'A'.

CONCRETE CAP TO MATCH ACCEPTED MOCKUP. (ARCHITECTURAL CONCRETE FINISH, NO DESERT VARNISH)

FORMLINER TO MATCH AT ALL CORNERS, TYP.

CONCRETE COLUMN WITH STACKED STONE FORMLINER AND DESERT VARNISH FINISH. SEE SHEET L17.01 FOR MANUFACTURER AND STYLE. SEE STRUCTURAL DRAWINGS SHEET S6.02 FOR FOOTING

FRONT VIEW

CLV LORENZI PARK PHASE II

LAS VEGAS NV
3191 S. JONES BLVD. | LAS VEGAS, NV 89146
T 702.253.9390 | F 702.253.1016
CARLSBAD CA
2248 FARADAY AVE. | CARLSBAD, CA 92008
JW ZUNINO
LANDSCAPE ARCHITECTURE
jwzunino.com
NV #150 | UT #26394 | NM #282 | AZ #23194 | CA #2738 | TX #1736

INTERPRETIVE SIGNAGE COLUMN OPTION

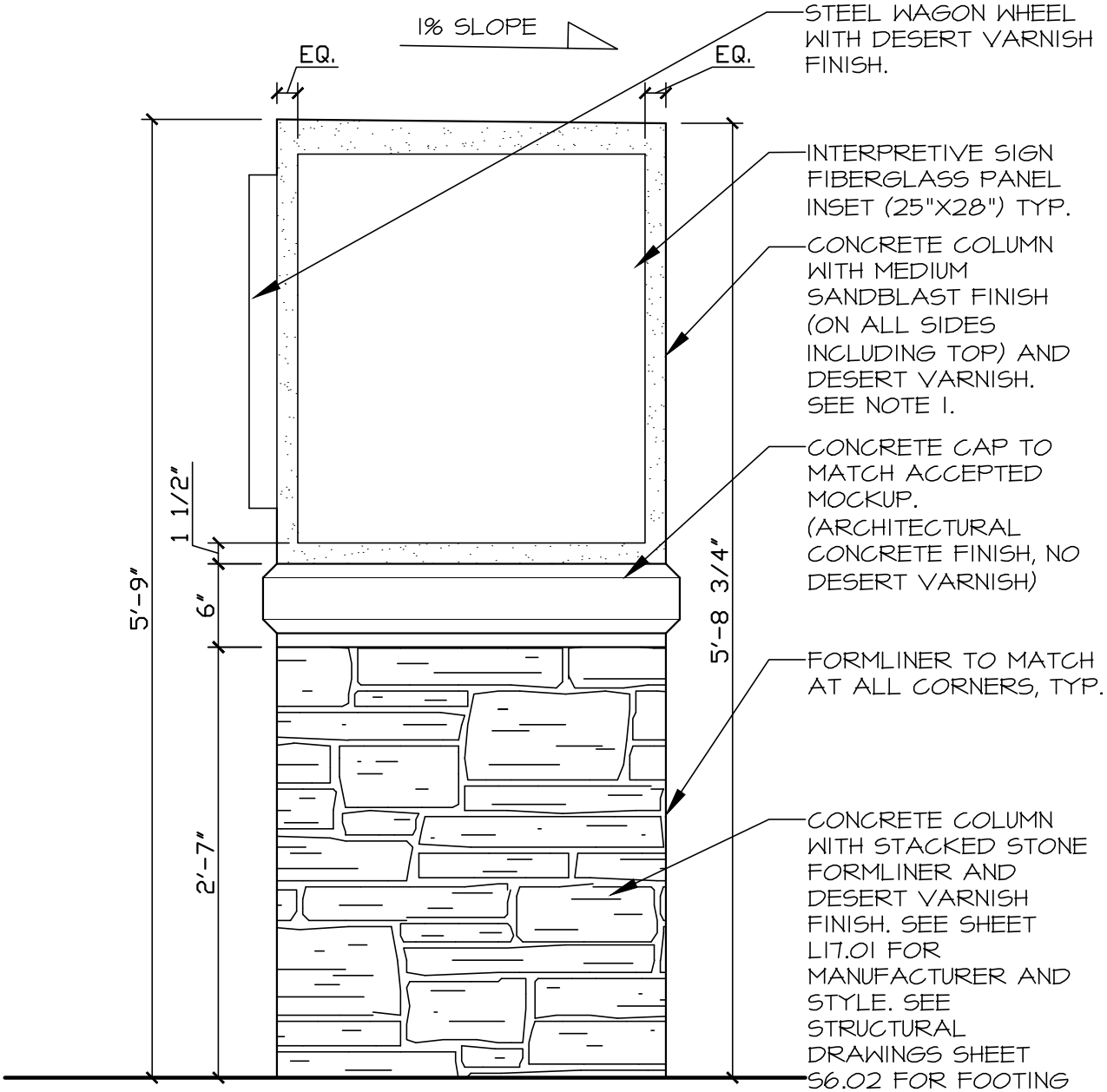
SKETCH # SKL-11..01

REF. DETAIL 'A'
SHEET L5.12

SCALE: 1"=1'-0"

DATE: 10-22-12

NOTES:
1. EXPOSED AGGREGATE SIZE TO BE 1/4"- 3/8".
2. CONTRACTOR IS NOT TO CONSTRUCT SIGNAGE COLUMN UNTIL INTERPRETIVE PANEL SUBMITTAL HAS BEEN APPROVED.



RIGHT VIEW

CLV LORENZI PARK PHASE II

SKETCH # SKL-11.01

LAS VEGAS NV
3191 S. JONES BLVD. | LAS VEGAS, NV 89146
T 702.253.9390 | F 702.253.1016
CARLSBAD CA
2248 FARADAY AVE. | CARLSBAD, CA 92008
jwzunino.com
NV #150 | UT #26394 | NM #262 | AZ #23194 | CA #2738 | TX #1736
JW ZUNINO
LANDSCAPE ARCHITECTURE

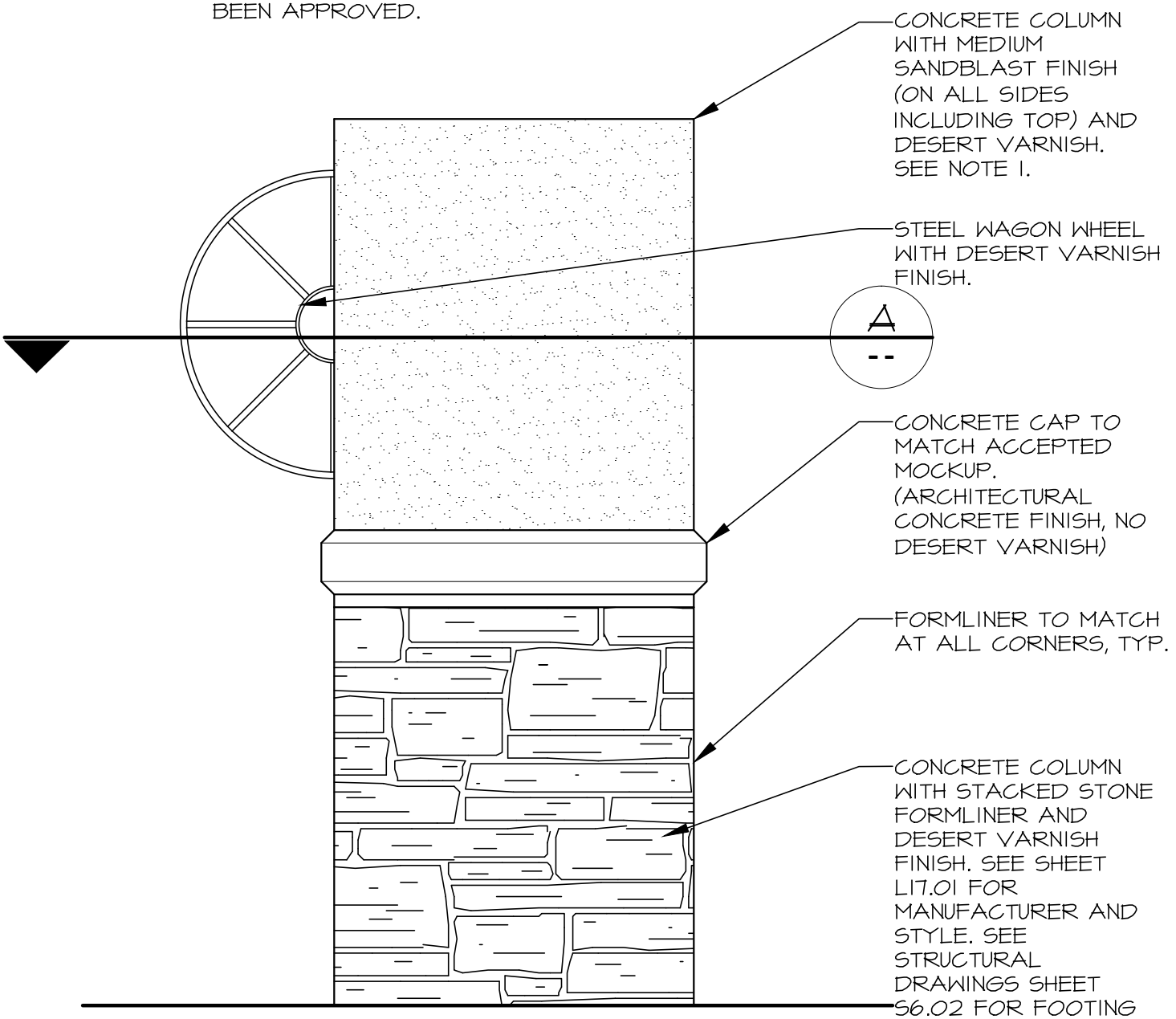
INTERPRETIVE SIGNAGE COLUMN OPTION

REF. DETAIL 'A'
SHEET L5.12

SCALE: 1"=1'-0"

DATE: 10-22-12

NOTES:
1. EXPOSED AGGREGATE SIZE TO BE 1/4"- 3/8".
2. CONTRACTOR IS NOT TO CONSTRUCT SIGNAGE COLUMN UNTIL INTERPRETIVE PANEL SUBMITTAL HAS BEEN APPROVED.



BACK VIEW

CLV LORENZI PARK PHASE II

LAS VEGAS NV
3191 S. JONES BLVD. | LAS VEGAS, NV 89146
T 702.253.9390 | F 702.253.1016
CARLSBAD CA
2248 FARADAY AVE. | CARLSBAD, CA 92008
JW ZUNINO
LANDSCAPE ARCHITECTURE
jwzunino.com | JWZ# 09136.00 | DATE: 04-05-12 | DRAWN BY: ME | CHECKED BY: CL
NV #150 | UT #26394 | NM #262 | AZ #23194 | CA #2738 | TX #1736

INTERPRETIVE SIGNAGE COLUMN OPTION

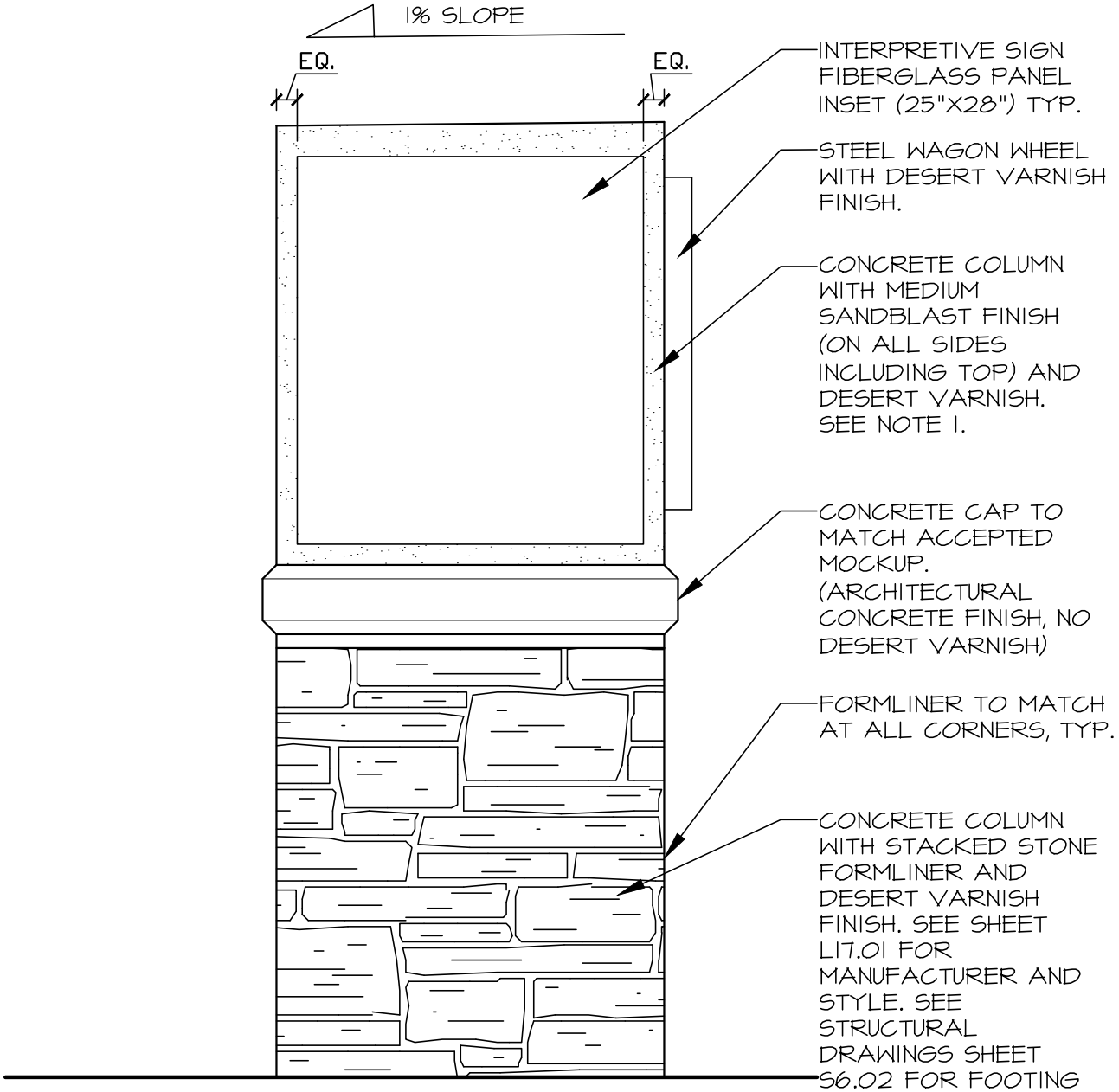
SKETCH # SKL-11..01

REF. DETAIL 'A' SHEET L5.12

SCALE: 1"=1'-0"

DATE: 10-22-12

NOTES:
1. EXPOSED AGGREGATE SIZE TO BE 1/4"- 3/8".
2. CONTRACTOR IS NOT TO CONSTRUCT SIGNAGE COLUMN UNTIL INTERPRETIVE PANEL SUBMITTAL HAS BEEN APPROVED.



LEFT VIEW

CLV LORENZI PARK PHASE II

SKETCH # SKL-11.01

LAS VEGAS NV
3191 S. JONES BLVD. | LAS VEGAS, NV 89146
T 702.253.9390 | F 702.253.1016
CARLSBAD CA
2248 FARADAY AVE. | CARLSBAD, CA 92008
jwzunino.com
NV #150 | UT #26394 | NM #262 | AZ #23194 | CA #2738 | TX #1736
JW ZUNINO
LANDSCAPE ARCHITECTURE

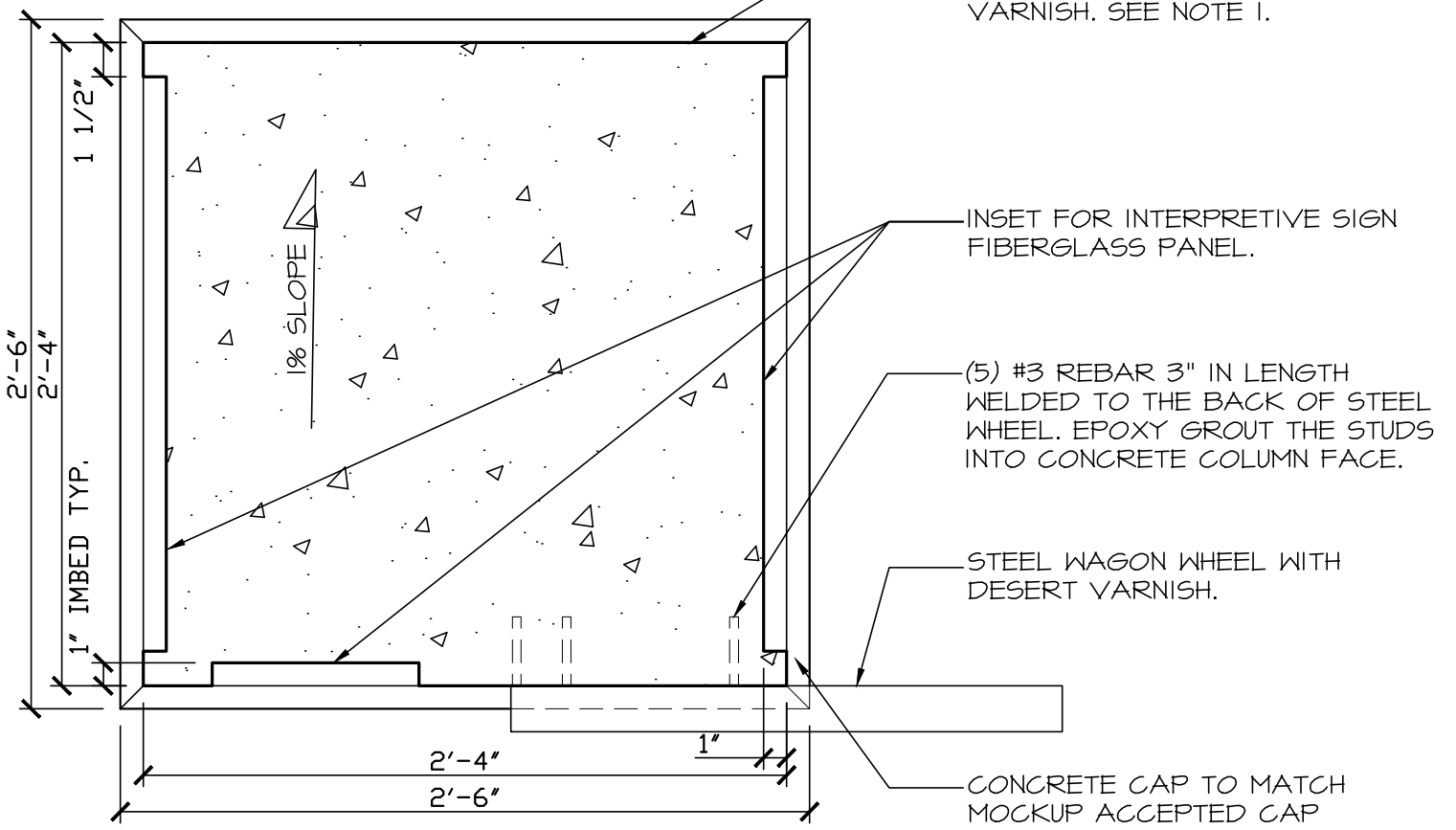
INTERPRETIVE SIGNAGE COLUMN OPTION

REF. DETAIL 'A'
SHEET L5.12

SCALE: 1"=1'-0"

DATE: 10-22-12

NOTES:
1. EXPOSED AGGREGATE SIZE TO BE 1/4"-3/8".



SECTION 'A'

CLV LORENZI PARK PHASE II

JW ZUNINO
LANDSCAPE ARCHITECTURE

LAS VEGAS NV
3191 S. JONES BLVD. | LAS VEGAS, NV 89146
T 702.253.9390 | F 702.253.1016

CARLSBAD CA
2248 FARADAY AVE. | CARLSBAD, CA 92008

jwzunino.com
NV #150 | UT #26394 | NM #262 | AZ #23194 | CA #2738 | TX #1736

INTERPRETIVE SIGNAGE COLUMN OPTION

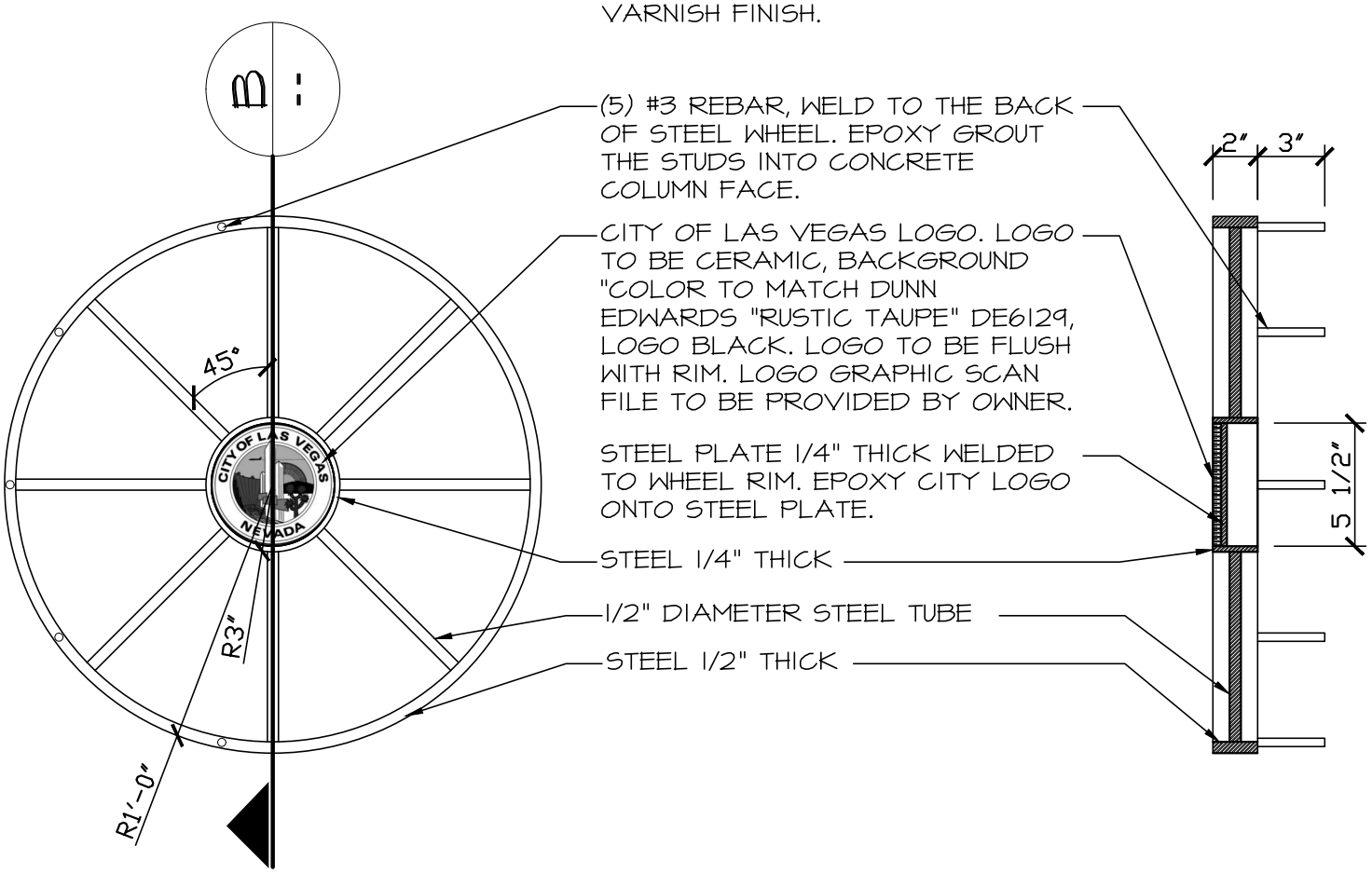
SCALE: 1-1/2"=1'-0"

SKETCH # SKL-11.01

REF. DETAIL 'A'
SHEET L5.12

DATE: 10-22-12

NOTES:
1. STEEL WHEEL TO BE HOT DIP GALVANIZED AFTER FABRICATION THEN APPLY DESERT VARNISH FINISH.



ELEVATION

SECTION 'B'

DETAIL 'A'

CLV LORENZI PARK PHASE II

LAS VEGAS NV
3191 S. JONES BLVD. | LAS VEGAS, NV 89146
T 702.253.9390 | F 702.253.1016
CARLSBAD CA
2248 FARADAY AVE. | CARLSBAD, CA 92008
jwzunino.com
JW ZUNINO
LANDSCAPE ARCHITECTURE
NV #150 | UT #26394 | NM #262 | AZ #23194 | CA #2738 | TX #1736

INTERPRETIVE SIGNAGE COLUMN OPTION

SKETCH # SKL-11..01

REF. DETAIL 'A'
SHEET L5.12

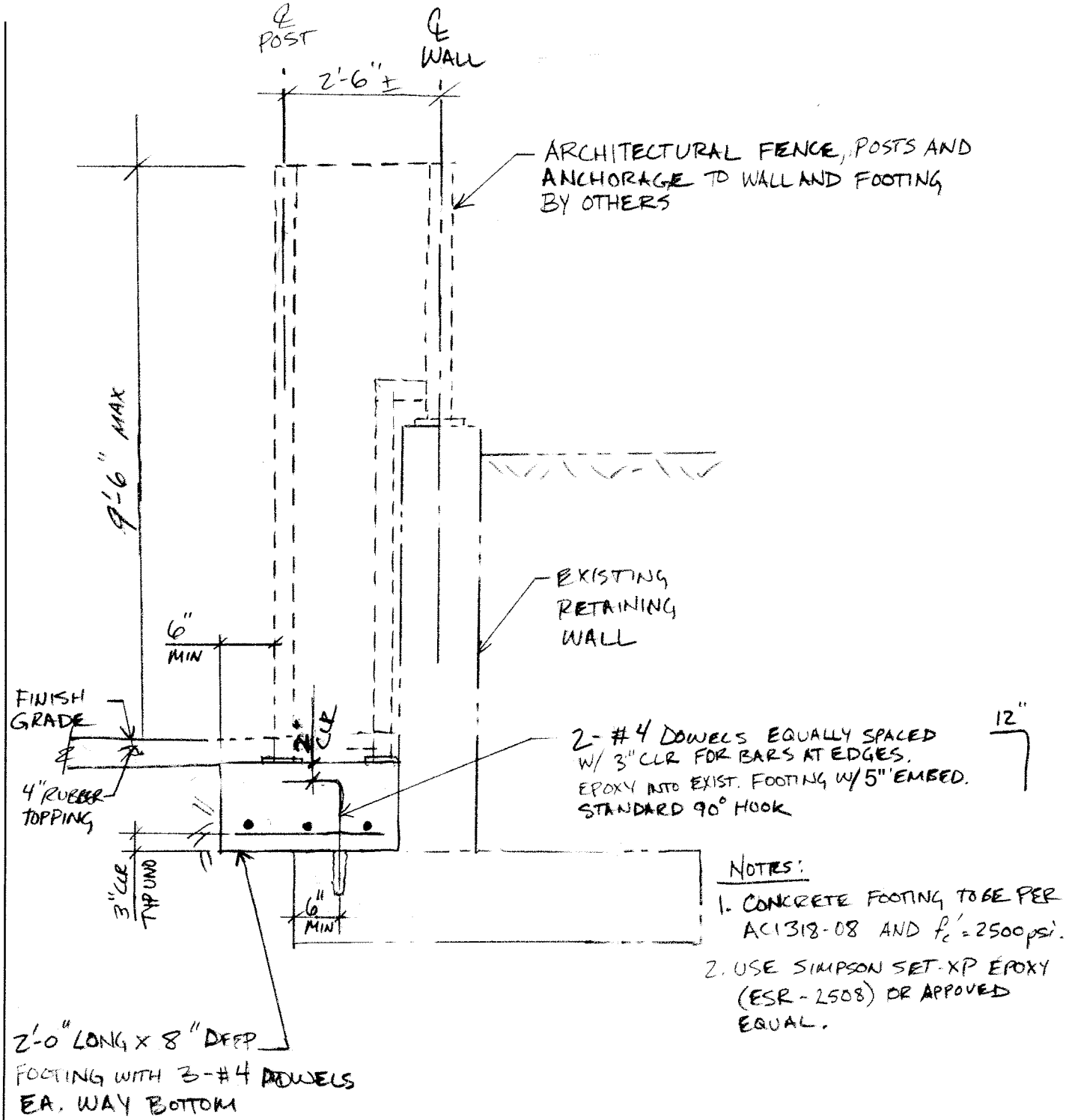
SCALE: 1-1/2"=1'-0"

DATE: 10-22-12

John A. Martin & Associates of Nevada
STRUCTURAL ENGINEERS

Client JW ZUNINO
Project LORENZI PARK PH. 2

Sheet ___ of ___
Job No. 6821
Date 3/8/13
Engineer RB



NOTES:
1. CONCRETE FOOTING TO BE PER ACI 318-08 AND $f_c' = 2500$ psi.
2. USE SIMPSON SET-XP EPOXY (ESR-2508) OR APPROVED EQUAL.

ARCHITECTURAL WALL BARRIER
NTS

SK1

John A. Martin & Associates of Nevada
STRUCTURAL ENGINEERS

Client JW ZININO
Project LORENZI PARK PH2
Sheet ___ of ___
Job No. 6821
Date 3/8/13
Engineer RB

DETERRENT FENCE AT WALL - WIND DESIGN

WIND LOAD — 2009 IBC → ASCE 7-05:

PER ASCE 7 6.5 METHOD 2 ANALYTICAL PROCEDURE:

EXPOSURE CATEGORY = C

$I_w = 1.0$ $\quad h \simeq 10$ ft (fence wall)

$V = 90$ mph

$q_z = 0.00256\, K_z K_{zt} K_d V^2 I$; $K_d = 0.85$ (SIGNS/FENCES) — TBL 6-4

$K_z = 0.85$ (TBL 6-3)

$K_{zt} = 1.0$

$q_z = 0.00256(0.85)(1)(0.85)(90^2)\,1.0$

$q_z = 14.98$ psf $= q_h$

$\frac{F}{A_s} = q_h G C_f = 14.98\text{psf}(0.85)(1.65)$ where: $C_f = 1.65$ from TBL

$= 21.0$ psf $\quad \frac{B}{s} = \frac{2.5\text{ft}}{12.5\text{ft}}$ ← conservative

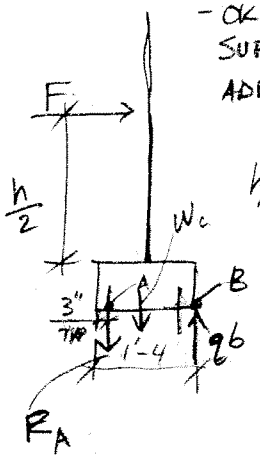
$F = 21\text{psf}(2.5\text{ft})(10\text{ft}) = 525$ lb reacting at 5ft up.

$F/2 = \frac{525\text{lb}}{2} = 263$ lb AT NEW FOOTING

FOOTING FOR FENCE

PROVIDE A 16" WIDE x 2'-0" (OUT FROM WALL) FOOTING —

- OK FOR GRAVITY BY INSPECTION; HOWEVER, NEED ADDITIONAL SUPPORT FOR OVERTURNING. DESIGN FOR OVER TURNING BY ADDING EPOXY DOWELS AT EDGES



$h/2 = 5$ft

$b = 2$ft

$\sum M_B = 0 = 263\text{lb}(5\text{ft}) - R_A(2.0\text{ft} - .25\text{ft}) - W_c\left(\frac{1.33}{2}\text{ft}\right)$

$R_A = \frac{1312.5 - 150(2)(2.0)\left(\frac{8}{12}\right)\text{lb}}{1.0833} = 842$ lb

$q_b = 842$ lb

$q = 421\ \text{lb/ft} < q_A = 1500\ \text{plf/ft}$ (per IBC CL 18) ✓ OK for bearing on soil.

→ SEE SIMPSON CALCS for EPOXY CONNECTION CALCS.

∴ OK TO USE 2'-0" x 2'-0" WIDE FOOTING WITH SIMPSON SET-XP (ESR-2508) ← WITH 2-#4 DOWELS INTO EXISTING FOOTING. (SEE SK1)

Anchor Calculations

Anchor Selector (Version 4.11.0.0)

Job Name : 6821 Lorenzi Park PH2 Date/Time : 3/11/2013 12:10:40 PM

1) Input

Calculation Method : ACI 318 Appendix D For Uncracked Concrete

Code : ACI 318-08

Calculation Type : Analysis

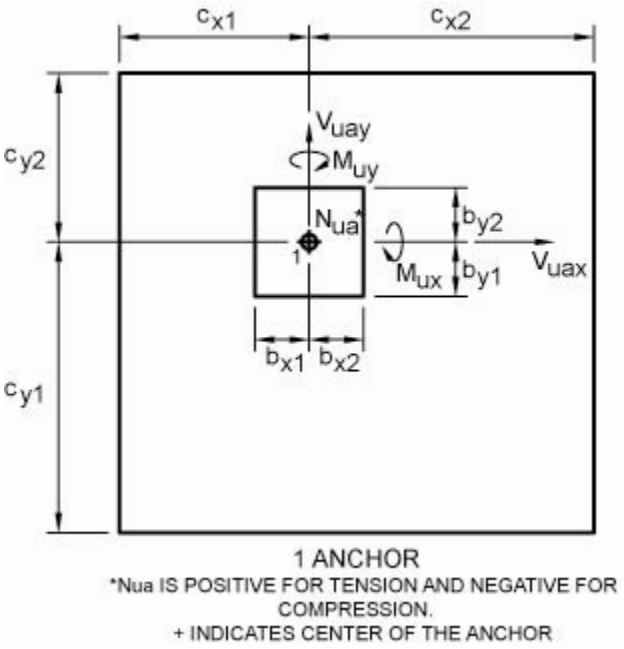
Code Report : ICC-ES ESR-2508

a) Layout

Anchor : 3/8" SET-XP Number of Anchors : 1

Steel Grade: A615 GR. 60 Embedment Depth : 4 in

Built-up Grout Pads : No



Anchor Layout Dimensions :

c_{x1} : 3 in

c_{x2} : 12 in

c_{y1} : 6 in

c_{y2} : 12 in

b) Base Material

Concrete : Normal weight f'_c : 2500.0 psi

Cracked Concrete : No $\psi_{c,V}$: 1.40

Condition : B tension and shear

iF_p : 1381.3 psi

Thickness, h_a : 8 in

Supplementary edge reinforcement : No

Hole Condition : Dry Concrete

Inspection : Continuous

Temperature Range : 1 (Maximum 110 ^oF short term and 75 ^oF long term temp.)

c) Factored Loads

Load factor source : ACI 318 Section 9.2

N_{ua} : 842 lb

V_{uax} : 263 lb

V_{uay} : 0 lb

M_{ux} : 0 lb*ft

M_{uy} : 0 lb*ft

e_x : 0 in

e_y : 0 in

Moderate/high seismic risk or intermediate/high design category : No

Anchor w/ sustained tension : No

Anchors only resist wind and/or seismic loads : No

Apply entire shear load at front row for breakout : No

d) Anchor Parameters

From ICC-ES ESR-2508 :

Anchor Model = SETXP d_a = 0.375 in

Category = 1 h_{ef} = 4 in

h_{min} = 5.875 in c_{ac} = 12 in

c_{min} = 1.75 in s_{min} = 3 in

Ductile = No

2) Tension Force on Each Individual Anchor

Anchor #1 N_{ua1} = 842.00 lb

Sum of Anchor Tension ∇N_{ua} = 842.00 lb

e'_{Nx} = 0.00 in

e'_{Ny} = 0.00 in

3) Shear Force on Each Individual Anchor

Resultant shear forces in each anchor:

Anchor #1 V_{ua1} = 263.00 lb (V_{ua1x} = 263.00 lb , V_{ua1y} = 0.00 lb)

Sum of Anchor Shear ∇V_{uax} = 263.00 lb, ∇V_{uay} = 0.00 lb

e'_{Vx} = 0.00 in

e'_{Vy} = 0.00 in

4) Steel Strength of Anchor in Tension [Sec. D.5.1]

$N_{sa} = nA_{se} f_{uta}$ [Eq. D-3]

Number of anchors acting in tension, n = 1

N_{sa} = 9900 lb (for a single anchor) [ICC-ES ESR-2508]

ϕ = 0.65 [D.4.4]

ϕN_{sa} = 6435.00 lb (for a single anchor)

5) Concrete Breakout Strength of Anchor in Tension [Sec. D.5.2]

$N_{cb} = A_{Nc}/A_{Nco} \psi_{ed,N} \psi_{c,N} \psi_{cp,N} N_b$ [Eq. D-4]

Number of influencing edges = 1

h_{ef} = 4 in

A_{Nco} = 144.00 in^2 [Eq. D-6]

A_{Nc} = 108.00 in^2

Smallest edge distance, $c_{a,min}$ = 3.00 in

$\psi_{ed,N}$ = 0.8500 [Eq. D-10 or D-11]

$\psi_{c,N}$ = 1.4100 [Sec. D.5.2.6]

$\psi_{cp,N}$ = 0.5000 [Eq. D-12 or D-13]

$N_b = k_c \lambda_a \sqrt{f'_c} h_{ef}^{1.5}$ = 6800.00 lb [Eq. D-7]

k_c = 17 [Sec. D.5.2.6]

N_{cb} = 3056.18 lb [Eq. D-4]

ϕ = 0.65 [D.4.4]

ϕN_{cb} = 1986.51 lb (for a single anchor)

6) Adhesive Strength of Anchor in Tension [Sec. D.5.3 (AC308 Sec.3.3)]

$\tau_{k,uncr}$ = 1770 psi [ICC-ES ESR-2508]

k_{uncr} = 24 [ICC-ES ESR-2508]

h_{ef} (unadjusted) = 4 in

$N_{ao} = \tau_{k,uncr} \pi d_a h_{ef}$ = 8340.93 lb [Eq. D-16f]

$s_{cr,Na} = \min[20 d_a \sqrt{(\tau_{k,uncr}/1450)}, 3h_{ef}]$ = 8.286 in [Eq. D-16d]

$c_{cr,Na} = s_{cr,Na}/2$ = 4.143 in [Eq. D-16e]

$N_a = A_{Na}/A_{Nao} \psi_{ed,Na} \psi_{p,Na} N_{ao}$ [Eq. D-16a]

A_{Nao} = 68.66 in^2 [Eq. D-16c]

A_{Na} = 59.19 in^2

Smallest edge distance, $c_{a,min}$ = 3.00 in

$\psi_{ed,Na}$ = min[0.7+0.3$c_{a,min}/c_{cr,Na}$, 1.0] = 0.9172 [Eq. D-16m]

$\psi_{p,Na}$ = 0.3453 [Sec. D.5.3.14]

N_a = 2277.04 lb [Eq. D-16a]

ϕ = 0.65 [ICC-ES ESR-2508]

ϕN_a = 1480.08 lb (for a single anchor)

7) Side Face Blowout of Anchor in Tension [Sec. D.5.4]

Concrete side face blowout strength is only calculated for headed anchors in tension close to an edge, $c_{a1} < 0.4h_{ef}$. Not applicable in this case.

8) Steel Strength of Anchor in Shear [Sec D.6.1]

V_{sa} = n0.6A_{se} f_{uta} [Eq. D-20]

V_{sa} = 4950.00 lb (for a single anchor) [ICC-ES ESR-2508]

ϕ = 0.60 [D.4.4]

ϕV_{sa} = 2970.00 lb (for a single anchor)

9) Concrete Breakout Strength of Anchor in Shear [Sec D.6.2]

Case 1: Anchor checked against total shear load

In x-direction...

$V_{cbx} = A_{vcx}/A_{vcox} \psi_{ed,V} \psi_{c,V} \psi_{h,V} V_{bx}$ [Eq. D-21]

c_{a1} = 8.00 in (adjusted for edges per D.6.2.4)

A_{vcx} = 144.00 in^2

A_{vcox} = 288.00 in^2 [Eq. D-23]

$\psi_{ed,V}$ = 0.8500 [Eq. D-27 or D-28]

$\psi_{c,V}$ = 1.4000 [Sec. D.6.2.7]

$\psi_{h,V} = \sqrt{(1.5c_{a1} / h_a)}$ = 1.2247 [Sec. D.6.2.8]

$V_{bx} = 7(l_e/ d_a)^{0.2} \sqrt{d_a} \circ \sqrt{f'_c}(c_{a1})^{1.5}$ [Eq. D-24]

l_e = 3.00 in

V_{bx} = 7350.83 lb

V_{cbx} = 5356.72 lb [Eq. D-21]

ϕ = 0.70

ϕV_{cbx} = 3749.71 lb (for a single anchor)

In y-direction...

$V_{cby} = A_{vcy}/A_{vcoy} \psi_{ed,V} \psi_{c,V} \psi_{h,V} V_{by}$ [Eq. D-21]

c_{a1} = 8.00 in (adjusted for edges per D.6.2.4)

A_{vcy} = 120.00 in^2

A_{vcoy} = 288.00 in^2 [Eq. D-23]

$\psi_{ed,V}$ = 0.7750 [Eq. D-27 or D-28]

$\psi_{c,V}$ = 1.4000 [Sec. D.6.2.7]

$\psi_{h,V} = \sqrt{(1.5c_{a1} / h_a)}$ = 1.2247 [Sec. D.6.2.8]

$V_{by} = 7(l_e/ d_a)^{0.2} \sqrt{d_a} \sqrt{f'_c} (c_{a1})^{1.5}$ [Eq. D-24]

l_e = 3.00 in

V_{by} = 7350.83 lb

V_{cby} = 4070.06 lb [Eq. D-21]

ϕ = 0.70

ϕV_{cby} = 2849.04 lb (for a single anchor)

Case 2: This case does not apply to single anchor layout

Case 3: Anchor checked for parallel to edge condition

Check anchors at c_{x1} edge

$V_{cbx} = A_{vcx}/A_{vcox} \psi_{ed,V} \psi_{c,V} \psi_{h,V} V_{bx}$ [Eq. D-21]

c_{a1} = 3.00 in

A_{vcx} = 40.50 in^2

A_{vcox} = 40.50 in^2 [Eq. D-23]

$\psi_{ed,V}$ = 1.0000 [Sec. D.6.2.1(c)]

$\psi_{c,V}$ = 1.4000 [Sec. D.6.2.7]

$\psi_{h,V} = \sqrt{(1.5c_{a1} / h_a)}$ = 1.0000 [Sec. D.6.2.8]

$V_{bx} = 7(l_e/ d_a)^{0.2} \sqrt{d_a} \sqrt{f'_c} (c_{a1})^{1.5}$ [Eq. D-24]

l_e = 3.00 in

V_{bx} = 1688.04 lb

V_{cbx} = 2363.26 lb [Eq. D-21]

$V_{cby} = 2 * V_{cbx}$ [Sec. D.6.2.1(c)]

V_{cby} = 4726.52 lb

ϕ = 0.70

ϕV_{cby} = 3308.56 lb (for a single anchor)

Check anchors at c_{y1} edge

$V_{cby} = A_{vcy}/A_{vcoy} \psi_{ed,V} \psi_{c,V} \psi_{h,V} V_{by}$ [Eq. D-21]

c_{a1} = 6.00 in

A_{vcy} = 96.00 in^2

A_{vcoy} = 162.00 in^2 [Eq. D-23]

$\psi_{ed,V}$ = 1.0000 [Sec. D.6.2.1(c)]

$\psi_{c,V}$ = 1.4000 [Sec. D.6.2.7]

$\psi_{h,V} = \sqrt{(1.5c_{a1} / h_a)}$ = 1.0607 [Sec. D.6.2.8]

$V_{by} = 7(l_e/ d_a)^{0.2} \sqrt{d_a} \sqrt{f'_c}(c_{a1})^{1.5}$ [Eq. D-24]

l_e = 3.00 in

V_{by} = 4774.51 lb

V_{cby} = 4201.35 lb [Eq. D-21]

$V_{cbx} = 2 * V_{cby}$ [Sec. D.6.2.1(c)]

V_{cbx} = 8402.70 lb

ϕ = 0.70

ϕV_{cbx} = 5881.89 lb (for a single anchor)

Check anchors at c_{x2} edge

$V_{cbx} = A_{vcx}/A_{vcox} \psi_{ed,V} \psi_{c,V} \psi_{h,V} V_{bx}$ [Eq. D-21]

c_{a1} = 8.00 in (adjusted for edges per D.6.2.4)

A_{vcx} = 144.00 in^2

A_{vcox} = 288.00 in^2 [Eq. D-23]

$\psi_{ed,V}$ = 1.0000 [Eq. D-27 or D-28] [Sec. D.6.2.1(c)]

$\psi_{c,V}$ = 1.4000 [Sec. D.6.2.7]

$\psi_{h,V} = \sqrt{(1.5c_{a1} / h_a)}$ = 1.2247 [Sec. D.6.2.8]

$V_{bx} = 7(l_e/ d_a)^{0.2} \sqrt{d_a} \sqrt{f'_c}(c_{a1})^{1.5}$ [Eq. D-24]

l_e = 3.00 in

V_{bx} = 7350.83 lb

V_{cbx} = 6302.03 lb [Eq. D-21]

$V_{cby} = 2 * V_{cbx}$ [Sec. D.6.2.1(c)]

V_{cby} = 12604.06 lb

ϕ = 0.70

ϕV_{cby} = 8822.84 lb (for a single anchor)

Check anchors at c_{y2} edge

$V_{cby} = A_{vcy}/A_{vcoy} \psi_{ed,V} \psi_{c,V} \psi_{h,V} V_{by}$ [Eq. D-21]

c_{a1} = 8.00 in (adjusted for edges per D.6.2.4)

A_{vcy} = 120.00 in^2

A_{vcoy} = 288.00 in^2 [Eq. D-23]

$\psi_{ed,V}$ = 1.0000 [Sec. D.6.2.1(c)]

$\psi_{c,V}$ = 1.4000 [Sec. D.6.2.7]

$\psi_{h,V} = \sqrt{(1.5c_{a1} / h_a)}$ = 1.2247 [Sec. D.6.2.8]

$V_{by} = 7(l_e/ d_a)^{0.2} \sqrt{d_a} \circ \sqrt{f'_c}(c_{a1})^{1.5}$ [Eq. D-24]

l_e = 3.00 in

V_{by} = 7350.83 lb

V_{cby} = 5251.69 lb [Eq. D-21]

$V_{cbx} = 2 * V_{cby}$ [Sec. D.6.2.1(c)]

V_{cbx} = 10503.38 lb

ϕ = 0.70

ϕV_{cbx} = 7352.37 lb (for a single anchor)

10) Concrete Pryout Strength of Anchor in Shear [Sec. D.6.3]

$V_{cp} = \min[k_{cp}N_a, k_{cp}N_{cb}]$ [Eq. D-30a]

k_{cp} = 2 [Sec. D.6.3.2]

N_a = 2277.04 lb (from Section (6) of calculations)

N_{cb} = 3056.18 lb (from Section (5) of calculations)

V_{cp} = 4554.08 lb

ϕ = 0.70 [D.4.4]

ϕV_{cp} = 3187.85 lb (for a single anchor)

11) Check Demand/Capacity Ratios [Sec. D.7]

Tension

- Steel : 0.1308
- Breakout : 0.4239
- Adhesive : 0.5689
- Sideface Blowout : N/A

Shear

- Steel : 0.0886
- Breakout (case 1) : 0.0701
- Breakout (case 2) : N/A
- Breakout (case 3) : 0.0447
- Pryout : 0.0825

V.Max(0.09) <= 0.2 and T.Max(0.57) <= 1.0 [Sec D.7.1]

Interaction check: PASS

Use 3/8" diameter A615 GR. 60 SET-XP anchor(s) with 4 in. embedment