

General

1. The Contractor shall verify all dimensions prior to starting construction. The Architect shall be notified of any discrepancies or inconsistencies.

2. Notes and details on the drawings shall take precedence over these general notes, typical details, and the project specifications.

3. All work shall conform to the minimum standards of following codes:

The 2008 edition of the International Building Code (IBC) and other regulating agencies which have authority over any portion of the work, and those codes and standards listed in these notes.

4. The contract Structural drawings and specifications represent the finished structure. They do not indicate the method of construction.

5. All specifications and codes noted shall be the latest approved editions and revisions by the governmental agency having jurisdiction over this project.

6. Contractor shall investigate the site during clearing and earth work operations for filled excavations or buried structures such as cesspools, cisterns, foundations, utilities, etc. If any such structures are found, the Structural Engineer shall be notified immediately.

7. IBC Lateral Loads:

Seismic	I
Importance Factor I _e	1.0
Soil Site Class	C
Spectral Response Coefficients	
S _a	0.4203
S _w	0.1631
Mapped Spectral Response Acceleration	
S _s	0.5309
S ₁	0.1684
Soil Factor Coefficients	
F _a	1.1878
F _v	1.6315

8. IBC Table 1904.3 Sulfate Exposure
(See General Notes - Concrete Item #3 for concrete water cement ratio limits). Negligible

Quality Assurance and Special Inspection

Testing Laboratory: Retained by owner and satisfactory to Architect/Structural Engineer and governing code authority to perform required tests and inspections of this contract and applicable code.

Material Certification: Submit laboratory test reports certifying materials are of identifiable tested stock to owner, testing laboratory, Architect/Structural Engineer and, upon request, to governing code authority. If laboratory test reports cannot be made available, testing laboratory will perform tests as directed by Architect/Structural Engineer. Contractor shall pay testing laboratory for costs related to tests and inspections of unidentifiable materials or materials furnished without laboratory test reports, materials found deficient after initial tests and inspections, or materials replacing deficient materials.

Concrete.

1. Testing laboratory will review concrete mix design data and will perform the following concrete tests at frequency indicated in IBC section 1905.6:
(a) Slump tests in compliance with ASTM C143.
(b) Prepare four test cylinders for compressive strength testing in compliance with ASTM C39, A01 318 and IBC section 1905.6. Test one cylinder at 7 days, two cylinders at 28 days and retain remaining cylinder for tests until completion of project. Determine concrete compressive strength at 28 days based on average of two cylinders tested.
(c) Entrained air content in compliance with ASTM C231 for air entrained concrete.

2. Reinforcing:
(a) During placement

3. Structural masonry.

4. Ten percent of drilled-in, epoxy, or grout set anchors shall be proof tested to 2 times allowable tension. Notify Architect/Structural Engineer of any failures so additional testing of adjacent anchors can be directed.

5. Excavation and back-filling.

All special inspection shall be performed in accordance with the requirements of IBC section 1704.

Reinforcing Steel (for Concrete and Masonry)

1. All reinforcing steel shall be detailed and placed in accordance with the Building Code Requirements for Reinforced Concrete and the Manual of Standard Practice for Reinforced Concrete Construction by CRSI and WCRSI as modified by the project drawings and specifications.

2. Deformed reinforcing bars shall conform to the requirements of ASTM A615 grade 60 and ASTM A706 grade 60 for deformed weldable bars.

3. All reinforcing bar bends shall be made cold.

4. Lap splices shall be made only where shown on the structural drawings.

5. Reinforcing dowels between footings and walls or columns shall be the same number, size, spacing and grade as the specified vertical reinforcing, u.n.o.

6. All reinforcing bars shall be marked so their identification can be made when the final in-place inspection occurs.

RECORD DRAWINGS
NOT FOR CONSTRUCTION

1. TO ALTER THESE DOCUMENTS FOR ANOTHER PROJECT BY ANYONE OTHER THAN THE ORIGINAL ARCHITECT IS A VIOLATION OF NRS 623.

2. THIS RECORD DRAWING HAS BEEN PREPARED IN PART, BASED UPON INFORMATION FURNISHED BY THE GENERAL CONTRACTOR, WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE DESIGN PROFESSIONAL CANNOT ASSURE ITS ACCURACY, AND THEREFORE IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS RECORD DRAWING OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO IT AS A RESULT. THE DESIGN PROFESSIONAL CANNOT AND DOES NOT WARRANT THEIR ACCURACY.

3. INFORMATION THAT MAY BE INCLUDED WOULD BE SIGNIFICANT CHANGES TO PLANTING OR IRRIGATION LAYOUT PLANS AND ASSOCIATED DRAWINGS, MINOR DIMENSION OR CONSTRUCTION DETAIL CHANGES MAY NOT BE INCLUDED.

119219

PROVIDE SASH BLOCKS AT CONTROL JOINTS. FILL WITH POLYSULFIDE SEALANT EACH SIDE. SEE SPECS.

180° STD. HOOK TYP.

SEE NOTE 3

PLAN SINGLE MAT

TYPICAL VERTICAL JOINT FULL HEIGHT

PREFORMED RUBBER FILLER TYP.

STOP EVERY OTHER HORIZ. BAR EXCEPT AS NOTED BELOW TYP.

PLAN DOUBLE MAT

90° STD. HOOK

180° STD. HOOK

MAX. OFFSET BEND

2 1/2" MIN.

4d OR

6d OR 3" MIN.

135° STD. HOOK

STIRRUPS AND TIES

D=6d FOR #3 TO #8
D=8d FOR #9 TO #11
D=10d FOR #14 AND #18

MIN. D=1 1/2" FOR #3
MIN. D=2" FOR #4
MIN. D=2 1/2" FOR #5

Notes:
1. All bends shall be made cold.
2. #14 and #18 bars shall be bend tested and lab approved prior to bending.

1 PLAN DETAIL CMU WALL CONTROL JOINT

NOT TO SCALE

2 BAR BENDS

NOT TO SCALE

VERTICAL REBAR PLACED FOR MAXIMUM d

VERTICAL REBAR IN CENTER OF CELL

SINGLE CURTAIN HORIZONTAL BAR

DOUBLE CURTAIN HORIZONTAL BAR

SINGLE CURTAIN HORIZONTAL BAR

SINGLE CURTAIN HORIZONTAL BAR

CMU (Concrete Masonry Units)						
NOMINAL THICKNESS	ACTUAL THICKNESS (t)	#3-#6	#7	#8	#9	
6" CMU	5 5/8"	3.25	NP	NP	NP	
8" CMU	7 5/8"	5.25	5	4.625	NP	
10" CMU	9 5/8"	7.25	7	6.625	6.25	
12" CMU	11 5/8"	9.25	9	8.625	8.25	
16" CMU	15 5/8"	13.25	13	12.625	12.25	

Concrete Masonry Unit						
NOMINAL THICKNESS	ACTUAL THICKNESS (t)	d (Inches)				
6" CMU	5 5/8"	2.8				
8" CMU	7 5/8"	3.8				
10" CMU	9 5/8"	4.8				
12" CMU	11 5/8"	5.8				
16" CMU	15 5/8"	7.8				

NOTE:
1. Where vertical reinforcing bars occur in a cell, bars shall be secured in place by a bar positioner at the top and bottom, and at the intervals not exceeding 200 diameters.

3 PLAN DETAIL FOR REBAR PLACEMENT IN CMU

NOT TO SCALE

Tension Development and Lap Splice Length (for Masonry only)

CMU THICKNESS	Masonry Design Strength	Placement of Bar	f'm =											
			Center	Edge	Center	Edge	Center	Edge	Center	Edge	Center	Edge	Center	Edge
6"	#3	19	19	17	17	15	15	15	15	15	15	15	15	
	#4	28	30	22	26	20	23	18	21	17	20	16	19	
	#5	32	48	28	42	25	37	23	34	21	32	20	30	
	#6	58	100	50	86	45	77	41	71	38	65	38	61	
	#7	80	124	70	107	62	98	57	88	53	81	49	76	
	#8	114	152	99	131	89	117	81	107	75	99	70	93	
12"	#3	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
	#4	19	19	17	17	15	15	15	15	15	15	15	15	
	#5	28	30	22	26	20	23	18	21	17	20	16	19	
	#6	32	48	28	42	25	37	23	34	21	32	20	30	
	#7	53	100	46	86	41	77	38	71	35	65	33	61	
	#8	62	124	54	107	48	96	44	88	41	81	38	76	
16"	#6	78	152	68	131	59	117	54	107	50	99	47	93	
	#8	92	171	80	148	71	133	65	121	80	112	57	105	

Notes:

1. All lengths are in inches.

2. For bar placement, edge distance (d Dim.) see detail 3/-

3. Where 2 bars per cell occur they shall be placed per edge condition see note 2.

4. 6" CMU 2 bars per cell is not permitted.
8" CMU 2 bars per cell up to #5 are permitted.
10" CMU 2 bars per cell up to #7 are permitted.

5. NP Indicates Not Permitted.

6. #10 and #11 bars where shown on plans or details require a mechanical splice.

ALL STEEL FABRICATION IS TO BE COMPLETE BY AN APPROVED STEEL FABRICATOR.

4 TENSION DEVELOPMENT AND LAP SPICE LENGTH (FOR MASONRY ONLY)

NOT TO SCALE

TENNIS COURT

3'-0" MIN OPEN FOR GEAR OF THE POST TENSION CONCRETE SLAB THIS AREA CONCRETE TO BE POURED AFTER PASSED INSPECTION

CONCRETE WALK

1/2" DIA. P.T. TENDON EACH WAY CENTERED IN SLAB. SEE NOTES 2 & 3 FOR SPACING.

1/2" EXPANSION JOINT

1'-0"

GREASED SMOOTH SLIP DOWEL 1/2" X2'-0" AT 18" OC

1'-0"

1/2" EXPANSION JOINT

6" TYPE II AGGREGATE BASE AT 8" COMPACT OVER STRUCTURAL FILL

2" SAND

VAPOR BARRIER

12"

NOTE:
1. CONCRETE AREA 4500 P.S.I. TYPE "B" CONCRETE PER DETAIL #4 SHEET C6.01 2.) TENDONS SPACED @ 36" o.c. TRANSVERSE. 3.) TENDONS SPACED @ 30" o.c. LONGITUDINAL.

5 TENNIS COURT SLAB

1 1/2"=1'-0"

CONSTRUCTION SPECIFICATIONS

VEHICLE BOLLARD

SEE LANDSCAPE PLANS L5.02

FOOTING: 30" # 4'-6" DEEP MINIMUM

REINFORCING: VERTICAL: 8 - #9 BARS EQUALLY SPACED
HORIZONTAL: 2 - #3 BAR AT TOP
2 - #3 BAR AT 3' #
1 - #3 BAR EVERY 18" THEREAFTER
3" CLEARANCE BOTTOM AND SIDES
2" CLEARANCE TOP

VEHICLE GATE BOLLARD

SEE LANDSCAPE PLANS L5.02

FOOTING: 30" # 4'-6" DEEP MINIMUM

REINFORCING: VERTICAL: 8 - #9 BARS EQUALLY SPACED
HORIZONTAL: 2 - #3 BAR AT TOP
2 - #3 BAR AT 3' #
1 - #3 BAR EVERY 18" THEREAFTER
3" CLEARANCE BOTTOM AND SIDES
2" CLEARANCE TOP

VEHICLE GATE HINGE

FOOTING: 24" # 4'-6" DEEP AS SPECIFIED

REINFORCING: VERTICAL: 8 - #7 BARS EQUALLY SPACED
HORIZONTAL: 2 - #3 BAR AT TOP
2 - #3 BAR AT 3' #
1 - #3 BAR EVERY 14" THEREAFTER
3" CLEARANCE BOTTOM AND SIDES
2" CLEARANCE TOP

28" BACKSTOP

10" SCHEDULE 80 PIPE (10.75" O.D.)

36" FOOTING MINIMUM DEPTH 6'-0"

REINFORCING: VERTICAL: 12 - #9 BARS EQUALLY SPACED
HORIZONTAL: 2 - #3 BAR AT TOP
2 - #3 BAR AT 3' #
1 - #3 BAR EVERY 15" THEREAFTER
3" CLEARANCE BOTTOM AND SIDES
2" CLEARANCE TOP

DUGOUT

MAXIMUM RAIL SPACING: TOP 4'-0"

POST SIZE: 5" SCHEDULE 80 PIPE (5.563" O.D.)

FOOTING: 18" # 4'-0" DEEP

REINFORCING: VERTICAL: 4 - #8 BARS EQUALLY SPACED
HORIZONTAL: 2 - #3 BAR AT TOP
2 - #3 BAR AT 3' #
1 - #3 BAR EVERY 18" THEREAFTER

BULL PEN

POST SIZE: 4" SCHEDULE 80 PIPE (4.5" O.D.)

FOOTING: 18" # 3'-0" DEEP

REINFORCING: VERTICAL: 4 - #8 BARS EQUALLY SPACED
HORIZONTAL: 2 - #3 BAR AT TOP
2 - #3 BAR AT 3' #
1 - #3 BAR EVERY 18" THEREAFTER

6" FENCE AND MAN GATE

POST SIZE: 4" SCHEDULE 40 PIPE (3.5" O.D.)

FOOTING: 12" # 3'-0" DEEP

REINFORCING: VERTICAL: 4 - #5 BARS EQUALLY SPACED
HORIZONTAL: 2 - #3 BAR AT TOP
2 - #3 BAR AT 3' #
1 - #3 BAR EVERY 10" THEREAFTER
3" CLEARANCE BOTTOM AND SIDES
2" CLEARANCE TOP

10" FENCE AND MAN GATE

POST SIZE: 4" SCHEDULE 80 PIPE (4.5" O.D.)

FOOTING: 18" # 3'-0" DEEP

REINFORCING: VERTICAL: 4 - #8 BARS EQUALLY SPACED
HORIZONTAL: 2 - #3 BAR AT TOP
2 - #3 BAR AT 3' #
1 - #3 BAR EVERY 14" THEREAFTER
3" CLEARANCE BOTTOM AND SIDES
2" CLEARANCE TOP

FIELD C - 28" FENCE

POST SIZE: 10" SCHEDULE 40 PIPE (10.75" O.D.)

FOOTING: 24" # 6'-0" DEEP

REINFORCING: VERTICAL: 8 - #7 BARS EQUALLY SPACED
HORIZONTAL: 2 - #3 BAR AT TOP
2 - #3 BAR AT 3' #
1 - #3 BAR EVERY 14" THEREAFTER
3" CLEARANCE BOTTOM AND SIDES
2" CLEARANCE TOP

FIELD A & B - 20" FENCE

POST SIZE: 8" SCHEDULE 40 PIPE (8.625" O.D.)

FOOTING: 24" # 5'-0" DEEP

REINFORCING: VERTICAL: 8 - #7 BARS EQUALLY SPACED
HORIZONTAL: 2 - #3 BAR AT TOP
2 - #3 BAR AT 3' #
1 - #3 BAR EVERY 14" THEREAFTER
3" CLEARANCE BOTTOM AND SIDES
2" CLEARANCE TOP

BARBECUE GRILL

USE 3 - #5 REBAR EACH WAY BOTTOM
3" CLEARANCE BOTTOM AND SIDES

TENNIS NET POST

USE 5" SCHEDULE 40 PIPE
MAX. NET TENSION 500± 25#

FOOTING: 12" # 4'-0" DEEP

REINFORCING: VERTICAL: (4) #5
HORIZONTAL: (2) #3 TOP, (2) #3 SPACED, (2) #10" THEREAFTER

SHADE SHELTER FOOTING FOR RELOCATED SHELTER

STEEL COLUMN

4 (FOUR) STEEL ANCHOR #1 1/4" X 3'-0"

LOCK NUT

(2) #3

#3 @ 3' O.C.

(9) #8 VERTICAL REBARS

#3 @ 12" O.C.

#3 TIES REST @ 12" O.C.

3" TYP.

2'-6"

1'-0" MIN.

1 1/2" N.S. GROUT

MATCH WITH EXISTING SURFACE MATERIALS

BASE PLATE

3" TYP.

2'-6"

SECTION VIEW

1'-5" TYP.

BASE PLATE

PIER PROJECTION

1'-3/4" TYP.

PLAN VIEW

CITY OF LAS VEGAS

City of Las Vegas, Planning & Development Department

Bolted Light Pole Base Detail

731 South 4th Street, Las Vegas, Nevada 89101 PH: 220-8016 FAX: 474-7360

Light Pole Requirements:

1 Pole Surface Area < 8 inches (Pd)

2 Arm Length < 10 feet (L)

3 Lamp Dimensions < 3 sq ft

4 Bolt Circle Diameter < 12.5 in (BC)

12" ABOVE FINISH GRADE IN LANDSCAPE AREAS

30" ABOVE FINISH GRADE IN PARKING AREAS

FINISH GRADE IN TENNIS AREAS

LIGHT POLE

HANDHOLE COVER

GROUND LUG

BASE PLATE & ANCHOR BOLTS WITH LEVELING NUT & DRY PACK

BASE COVER

3 - #3 TIES WITEN 8" FROM TOP

24" # MINIMUM VERTICAL REINFORCING 12 - #4 REBAR OR 8 - #5 REBAR

GROUNDING CONNECTURE

FINISH GRADE

#4 COPPER GROUND WIRE

2,500 PSI (minimum)

CONDUIT & WIRING

#3 TIES @ 12" o.c.

#15 FELT (2 LAYERS)

GROUND PLATE (COPPER) OR 10-TURNS OF #4 BARE COPPER WIRE PANCAKE (20" Minimum)

24"

Table:
Pole Height | Footing Depth
18" | 3'-0"
20" | 4'-0"
25" | 4'-6"
30" | 5'-0"
40" | 6'-0"

SHADE SHELTER FOOTING FOR RELOCATED SHELTER

REVISIONS

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BY

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LOCHSA ENGINEERING

6345 S. JONES BLVD., SUITE 100

LAS VEGAS, NV 89118

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Lorenzi Park Renovations

Phase 1

STRUCTURAL DETAIL SHEET

OWNER: CITY OF LAS VEGAS

DEPARTMENT OF PUBLIC WORKS

ARCHITECTURAL SERVICES

400 EAST STEWART AVENUE

LAS VEGAS, NEVADA 89101

PHONE: (702) 529-8535

FAX: (702) 529-8535

TDD: (702) 529-8535

DRAWN

FILE

DATE

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REVISED

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