PANEL HS , 3 PH , 4 WIRE, 277/480 VOLTS 400 A MCB MOUNTED AS NOTED
MIN INTERRUPTING RATING 50,000 RMS SYM AMPS LOCATION AS SHOWN NEMA 3R

L=LIGHTS, R=RECEPTACLES, M=MECHANICAL EQUIPMENT, SO=SPACE ONLY, SC=SPARE CIRCUIT, E=EXISTING, G=GFI BREAKER
MLO=MAIN LUGS ONLY, MCB=MAIN CIRCUIT BREAKER, N=NEW, R=RELAY

	SPACE CKT #	SPACE CKT #	CIRCUIT USE	CKT BKR RATING	CONNECTED LOAD VA A	CONNECTED LOAD VA B	CONNECTED LOAD VA C	CKT BKR RATING	CIRCUIT USE	POLE SPACE #	POLE SPACE CKT #	
			WEST SOCCER FIELD									
S1	1	1	L - POLE D1 (ADD. ALT. 2)	60/2	9750	-------	-------		EAST SOCCER FIELD			
					9750	-------	-------	60/2	L - POLE D3 (ADD. ALT. 2)	2	2	S5
		3	X	X	-------	9750	-------					
			WEST SOCCER FIELD		-------	9750	-------	X	X	4		
S2	5	5	L - POLE D2 (ADD. ALT. 2)	60/2	-------	-------	9750		EAST SOCCER FIELD			
					-------	-------	9750	60/2	L - POLE D4 (ADD. ALT. 2)	6	6	S6
		7	X	X	9750	-------	-------					
			WEST SOCCER FIELD		9750	-------	-------	X	X	8		
S3	9	9	L - POLE E1 (ADD. ALT. 2)	60/2	-------	9750	-------		EAST SOCCER FIELD			
					-------	9750	-------	60/2	L - POLE E1 (ADD. ALT. 2)	10	10	S3
		11	X	X	-------	-------	9750					
			WEST SOCCER FIELD		-------	-------	9750	X	X	12		
S4	13	13	L - POLE E2 (ADD. ALT. 2)	60/2	9750	-------	-------		EAST SOCCER FIELD			
					9750	-------	-------	60/2	L - POLE E2 (ADD. ALT. 2)	14	14	S4
		15	X	X	-------	9750	-------					
					-------	9750	-------	X	X	16		
	17	17	L - AREA LIGHTS	30/2	-------	-------	3920					
					-------	-------			SO	18		
		19	X	X	3920	-------	-------					
					-------	-------	-------		SO	20		
	21	21	L - PARKING LOT	30/2	-------	2760	-------					
					-------	-------	-------		SO	22		
		23	X	X	-------	-------	2760					
					-------	-------	-------		SO	24		
	25	25	L - SHELTER	20	720	-------	-------					
					-------	-------	-------		SO	26		
		27	SO		-------		-------					
					-------		-------		SO	28		
		29	SO		-------	-------						
					-------	-------	-------		SO	30		
		31	SO			-------	-------					
						-------	-------		SO	32		
		33	SO		-------		-------					
					-------		-------		SO	34		
		35	SO		-------	-------						
					-------	-------			SO	36		
		37	SO		-------		-------		TRANSFORMER T-1			
					10000	-------	-------	45/3	30 KVA	38	38	
		39	SO		-------		-------					
					-------	10000	-------	X	X	40		
		41	SO		-------	-------						
					-------	-------	10000	X	X	42		
			PANEL SHALL BE SERVICE ENTRANCE RATED AND EQUAL TO CUTLER- HAMMER POW-R-LINE 4B OR SQUARE-D I-LINE		79140	71260	55680					
					200080							

COPYRIGHT (C) 1997 BY T J KROB CONSULTING ENGINEERS, INC.

PANEL HB , 3 PH , 4 WIRE, 277/480 VOLTS 400 A MCB SURFACE MOUNTED
MIN INTERRUPTING RATING 50,000 RMS SYM AMPS LOCATION RESTROOM NEMA 1

L=LIGHTS, R=RECEPTACLES, M=MECHANICAL EQUIPMENT, SO=SPACE ONLY, SC=SPARE CIRCUIT, E=EXISTING, G=GFI BREAKER
MLO=MAIN LUGS ONLY, MCB=MAIN CIRCUIT BREAKER, N=NEW, R=RELAY

SPACE CKT #	SPACE CKT #	CIRCUIT USE	CKT BKR RATING	CONNECTED LOAD VA A	CONNECTED LOAD VA B	CONNECTED LOAD VA C	CKT BKR RATING	CIRCUIT USE	POLE SPACE #	POLE SPACE CKT #
1	1	L - BALLFIELD POLE A1	30/2	4880	-------	-------				
				4880	-------	-------	30/2	L - BALLFIELD POLE A2	2	2
	3	X	X	-------	4880	-------				
				-------	4880	-------	X	X	4	
5	5	L - BALLFIELD POLE B1	60/2	-------	-------	9750				
				-------	-------	9750	60/2	L - BALLFIELD POLE B2	6	6
	7	X	X	9750	-------	-------				
				9750	-------	-------	X	X	8	
9	9	L - BALLFIELD POLE C1	40/2	-------	6500	-------				
				-------	6500	-------	40/2	L - BALLFIELD POLE C2	10	10
	11	X	X	-------	-------	6500				
				-------	-------	6500	X	X	12	
13	13	TRANSFORMER T-1	165	900	-------	-------	20/	L - AREA	14	
	15			-------		-------	/2			
			3	-------		-------		SO	16	
	17			-------	-------					
				-------	-------			SO	18	
	19	SO			-------	-------				
					-------	-------		SO	20	
	21	SO		-------		-------				
				-------		-------		SO	22	
	23	SO		-------	-------					
				-------	-------			SO	24	
	25	SO			-------	-------				
					-------	-------		SO	26	
	27	SO		-------		-------				
				-------		-------		SO	28	
	29	SO		-------	-------					
				-------	-------			SO	30	
	31	SO			-------	-------				
					-------	-------		SO	32	
	33	SO		-------		-------				
				-------		-------		SO	34	
	35	SO		-------	-------					
				-------	-------			SO	36	
	37	SO		-------		-------				
				10000	-------	-------		SO	38	
	39	SO		-------		-------				
				-------	10000	-------		SO	40	
	41	SO		-------	-------					
				-------	-------	10000		SO	42	
		PANEL SHALL BE SERVICE ENTRANCE RATED AND EQUAL TO CUTLER- HAMMER POW-R-LINE 4B OR SQUARE-D I-LINE		40160	32760	42500				
					115420					

COPYRIGHT (C) 1997 BY T J KROB CONSULTING ENGINEERS, INC.

LIGHTING FIXTURE SCHEDULE

Copyright 1997 by T J Krob Consulting Engineers, Inc.

FIXT ID	TYPE	MANUFACTURER AND CATALOG NO.	LAMPS NO.	LAMPS WATT	LAMPS TYPE	CKT VLTS	REMARKS AND MOUNTING
A	BALLFIELD LIGHT STRUCTURE	MUSCO T320BIR-8-70	6	1500	MHI500 INCLUDED	480	70' MOUNTING HEIGHT EPA=1.00MPH X 1.3
B	BALLFIELD LIGHT STRUCTURE	MUSCO T320BIR-12-70	12	1500	MHI500 INCLUDED	480	70' MOUNTING HEIGHT EPA=1.00MPH X 1.3
C	BALLFIELD LIGHT STRUCTURE	MUSCO T320BIR-8-70	8	1500	MHI500 INCLUDED	480	70' MOUNTING HEIGHT EPA=1.00MPH X 1.3
D	SOCCER FIELD LIGHT STRUCTURE (SINGLE)	MUSCO T330SC2R-12-70 ADD. ALT 2	12	1500	MHI500 INCLUDED	480	70' MOUNTING HEIGHT EPA=1.00MPH X 1.3
E	SOCCER FIELD LIGHT STRUCTURE (DOUBLE)	MUSCO T330SC2R-12/2-70 ADD. ALT 2	24	1500	MHI500 INCLUDED	480	COMMON POLE 70' MOUNTING HEIGHT EPA=1.00MPH X 1.3
F1	DOUBLE ARM MOUNTED HID AREA LIGHT	GARDCO H1923-400MH-480-BRP-LF	2	400	M400/U	480	20 FT POLE 555207111D2BRP
F2	SINGLE ARM MOUNTED HID AREA LIGHT	GARDCO H1913-250MH-480-BRP-LF	1	250	M250/U	480	20 FT POLE 555207111D1BRP
F3	SINGLE ARM MOUNTED HID AREA LIGHT	GARDCO H1913-400MH-480-BRP-LF	1	400	M400/U	480	20 FT POLE 555207111D1BRP
F4	VANDAL RESISTANT 2-LAMP 4 FT. FLUORESCENT	LITHONIA VDC 240-277-GEB10	2	40	F40/D880	277	COLOR TO MATCH SHELTER FINISH MOUNT ON BEAMS
F5	DOUBLE ARM MOUNTED HID AREA LIGHT	GARDCO H1923-250MH-480-BRP-FL	2	250	M250/U	480	20 FT POLE 555207111D2BRP

PROVIDE ADDITIONAL 2 EACH OF F1, F2, F3 AND F5 COMPLETE WITH POLES DELIVERED TO 300 E. BONANZA ROAD (TRAFFIC / ELECTRICAL FIELD OPERATIONS DIVISION) AS SPARE PARTS. EXTRA POLES AND LUMINAIRES TO BE BID AS ADD. ALTERNATE NO. 3 FOR PURCHASE AND DELIVERY ONLY, NOT TO BE INSTALLED.

TORREY PINES PARK NORTH - SOCCER

CONTACTOR SCHEDULE

CONTACTOR #	RATING	NO. POLES	CONTROLLED BY	CIRCUITS CONTROLLED
C1	30	4	P.E.	HS - 17, 25, SP
C2	30	2	TC2	HS - 21
C3	60	8	TC3	HS - 1, 5, 9, 13
C4	60	8	TC4	HS - 2, 6, 10, 14

CONTROL SCHEDULE

CONTROL	DESCRIPTION	CONTACTORS CONTROLLED	AREA
TC1	PHOTO EYE	C1	PATHWAY, SHELTER AND AREA LIGHTING
TC2	ASTRONOMICAL TIMECLOCK (DUSK / MIDNIGHT)	C2	PARKING LOT LIGHTS
TC3,4	SOCCER LIGHTING CONTROLLERS (ADD. ALT. 2)	C3, C4	SOCCER FIELD LIGHTS (ADD. ALT. 2)

TORREY PINES PARK SOUTH - BALLFIELD

CONTACTOR SCHEDULE

CONTACTOR #	RATING	NO. POLES	CONTROLLED BY	CIRCUITS CONTROLLED
C5	20	2	P.E.	HB - 13
C6	60	12	TC6	HB - 1, 2, 3, 6, 9, 10

CONTROL SCHEDULE

CONTROL	DESCRIPTION	CONTACTORS CONTROLLED	AREA
TC5	PHOTO EYE	C5	PATHWAY AND AREA LIGHTING
TC6	BALLFIELD LIGHTING CONTROLLER	C6	BALLFIELD LIGHTS

ELECTRICAL LEGEND

- PANELBOARD SURFACE MOUNTED
- SWITCHBOARD
- T — TRANSFORMER
- F — DISCONNECT SWITCH F INDICATES FUSIBLE (DASHED LINES = EXISTING)
- TTB — TELEPHONE TERMINAL BOARD 4 X 8 X 3/4" FIRE TREATED PLYWOOD
- WP — DUPLEX RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE WP INDICATES WEATHERPROOF OUTLET
- S — SWITCH (48" AFF UNLESS NOTED OTHERWISE)
- 2 — ELECTRIC SHEET NOTE DESIGNATION
- MECHANICAL EQUIPMENT DESIGNATION
- BRANCH CIRCUIT CONSISTING OF 2#12 IN MINIMUM SIZE 1" CONDUIT NOT INCLUDING GROUND WIRE, OR AS NOTED ON DRAWINGS
- HOME RUN TO PANELBOARD OR DEVICE - NUMBER OF ARROW HEADS INDICATES NUMBER OF CIRCUITS
- BRANCH CIRCUIT - SHORT SLASHES INDICATE NUMBER OF PHASE OR SWITCH LEGS, LONG SLASHES INDICATE NUMBER OF NEUTRALS, LONG SLASH W/ A DOT INDICATES A SEPARATE ISOLATED GROUND WIRE.
- CONDUIT IN SLAB OR UNDERGROUND
- INTERRUPTER SWITCH
- J — JUNCTION BOX
- FUSE
- CIRCUIT BREAKER
- M — METERING (DASHED LINES = EXISTING)
- C — CONDUIT
- C.O. — CONDUIT ONLY
- U.N.O. — UNLESS NOTED OTHERWISE
- PULLBOX, SIZE No. 3-1/2 UNLESS NOTED OTHERWISE
- IRRIGATION CONTROLLER
- CONTACTOR
- SHUNT TRIP OR CONTROL STATION
- PAY TELEPHONE OUTLET 48" AFF UNO
- SURFACE MOUNTED FLUORESCENT FIXTURE
- SURFACE MOUNTED HID OR INCANDESCENT
- ARM MOUNTED HID AREA FIXTURES
- FLUORESCENT SIGN LIGHT (GRADE MOUNTED)
- POST TOP HID AREA FIXTURE
- TC — ASTRONOMICAL TIMECLOCK
- LOCATION OF BALLFIELD POLE/SOCCER FIELD POLE
- TCB — BALLFIELD/SOCCERFIELD LIGHT CONTROLLER
- PC — PHOTO-EYE MOUNTED ON LUMINAIRE

GENERAL NOTE:

1. BASE BID SHALL INCLUDE ELECTRICAL SERVICE, TELEPHONE SERVICE, AREA LIGHTING, BALLFIELD LIGHTING, CONDUIT ONLY FOR SOCCER FIELD LIGHTING.
2. ADDITIVE ALTERNATE #1 SHALL INCLUDE RESTROOM BUILDING IN SOCCER FIELD.
3. ADDITIVE ALTERNATE #2 SHALL INCLUDE SOCCER FIELD LIGHTING.

ELECTRICAL LOAD CALCULATION
TORREY PINES PARK - SOCCER

	LOAD	DF	DEMAND
LIGHTING - (2) SOCCER FIELDS (ADD. ALT. 2) (96) 1500W LUMINAIRES: 96 X 1,625VA =	156,000VA	1.25	195,000 VA
LIGHTING - PARKING LOT / AREA (18) 400W LUMINAIRES: 18 X 460VA =	8,280VA	1.25	10,350 VA
LIGHTING - PATHWAY (20) 250W LUMINAIRES: 20 X 300VA =	6,000VA	1.25	7500 VA
LIGHTING - SHELTER (8) 2-LAMP LUMINAIRES: 8 X 90VA =	720VA	1.25	900 VA
RESTROOM BUILDING - 2400 SF (BY OTHERS) (ADD. ALT. 1)			
LIGHTING: 2400 SF X 3.0 W/SF =	7,200VA	1.25	9,000 VA
MISC. ELEC.: 2400 SF X 1.0 W/SF =	2,400VA	1.00	2,400 VA
			225,150 VA

225,150 / (480V X 1.732) = 271 AMPS

USE 400 AMP SERVICE (PANEL HS)

ELECTRICAL LOAD CALCULATION
TORREY PINES PARK - BALLFIELD

	LOAD	DF	DEMAND
LIGHTING - BALLFIELD (52) 1500W LUMINAIRES: 52 X 1,625VA =	84,500VA	1.25	105,625 VA
LIGHTING - AREA (2) 250W LUMINAIRES: 2 X 300VA =	600VA	1.25	750 VA
RESTROOM BUILDING - 2400 SF (BY OTHERS)			
LIGHTING: 2400 SF X 3.0 W/SF =	7,200VA	1.25	9,000 VA
MISC. ELEC.: 2400 SF X 1.0 W/SF =	2,400VA	1.00	2,400 VA
			117,775 VA

117,775 / (480V X 1.732) = 142 AMPS

USE 400 AMP SERVICE (PANEL HB)

4 ENTIRE SHEET

AS-BUILTS
3/22/99

TJ KROB CONSULTING ENGINEERS, INC.
1919 S. [illegible]ES BLVD. SUITE B
LAS VEGAS, NEVADA 89102
(702) 871-3621
ELECTRICAL ENGINEERING

REVISIONS	DATE
1 ADD NOTE FOR ADD. ALT. NO. 3	10-11-97
2 ADD NOTES FOR BASE BID	12-11-97

SCALE (H) AS SHOWN | JOB NO. 71C041/LEGEND | CHECK BY TOM KROB
FLD. BK. # | DATE 07/15/97 | DESIGN BY DSN/KM

GLANVILLE ASSOCIATES
LANDSCAPE ARCHITECTURE
29 MAGNOLIA AVE.
SAN ANSELMO, CA 94960
PH. 415/453-9006

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PARKS & LEISURE ACTIVITIES

PROJECT: TORREY PINES PARK AND BALLFIELD

SHEET: ELECTRICAL LEGEND

DRAWING NO. E-1 | 15/83

16066

LIGHTING FIXTURE SCHEDULE

ELECTRICAL LEGEND

GENERAL NOTES:

DEPARTMENT OF PARKS & LEISURE ACTIVITIES

TURKEY PARK PARK AND BALLFIELD

ELECTRICAL LEGEND

As-Builts 3/20/97

KROB CONSULTING ENGINEERS, INC.

ELECTRICAL ENGINEERS