GENERAL NOTES

1. THESE GENERAL NOTES ARE INTENDED TO ASSIST THE CONTRACTOR DURING EXECUTION OF THE WORK. HOWEVER, THEY DO NOT COVER ALL OF THE SPECIFICATION REQUIREMENTS.
2. INSTALL ALL EQUIPMENT, CONDUITS, OUTLETS, AND FIXTURES IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES,(NEC).
3. DO NOT SCALE ELECTRICAL PLANS FOR FIXTURES, DEVICE, OR APPLIANCE LOCATIONS. USE FIGURED DIMENSIONS IF GIVEN OR CHECK ARCHITECTURAL PLANS.
4. ALL MATERIAL AND EQUIPMENT IS TO BE LISTED AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND NEC 110-3.
5. MOUNT ALL RECEPTACLES OUTLETS AT +15" MIN. UNLESS OTHERWISE INDICATED. COORDINATE WITH ARCHITECTURAL DRAWINGS.
6. MOUNT ALL TOGGLE SWITCHES AT +48" UNLESS OTHERWISE INDICATED. COORDINATE WITH ARCHITECTURAL DRAWINGS.
7. TOTAL IMPEDANCE, CIRCUIT BREAKERS, PANELS, CONDUCTORS, AND ALL OTHER CIRCUIT COMPONENTS AND SHORT CIRCUIT CURRANT RATINGS SHALL BE COORDINATED SO THAT FAULTS CAN BE CLEARED WITHOUT EXTENSIVE DAMAGE TO CIRCUIT COMPONENTS PER CEC 110.10.
8. ALL ELECTRICAL PANEL BOARDS SWITCHBOARDS, INDUSTRIAL CONTROL PANELS AND MOTOR CONTROLS CENTERS REQUIRING EXAMINATION OR SERVICING WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE PER CEC 110.16.
9. PER 2007 CEC 404.8 ALL SPECIFIED SWITCHES, CONTROLS, THERMOSTATS ETC., SHALL BE INSTALLED AT A MAXIMUM HEIGHT OF 48 INCHES ABOVE THE FLOOR.

NOTES

1. NEW SMUD SERVICE WILL INITIALLY BE 240V, 200A, 4 WIRE DELTA CONNECTED. SERVICE WILL CHANGE TO 208V, 200A, 4 WIRE WYE CONNECTION AT FUTURE DATE.
2. NOT USED.
3. NOT USED.

WHEN SERVICE CHANGES AT FUTURE DATE

4. ALL PANELBOARDS SHALL BE RATED FOR SPECIFIED VOLTAGE OR HIGHER
5. ALL ENCLOSURES SHALL BE RAIN PROOF, NEMA 3R
6. GFIC CIRCUIT BREAKERS SHALL BE USED ON BRANCH CIRCUITS WITH RECEPTACLES.
7. ALL RECEPTACLES SHALL BE EQUIPPED WITH IN-USE RAIN COVERS
8. FLOODLIGHTS (FL) WILL BE MOUNTED ON 21' 2" RIGID CONDUIT POLES ATTACHED TO BUILDING CONCRETE WALLS
9. GAS BOND AND WATER BOND SHALL BE #6 CU CONDUCTOR, HOME RUN TO BUILDING GROUND POINT IN FUSED SWTICH
10. EMERGENCY AND EGRESS LIGHTING SHALL HAVE 90 MINUTE BATTERY BACKUP POWER SUPPLY
11. NOT USED.

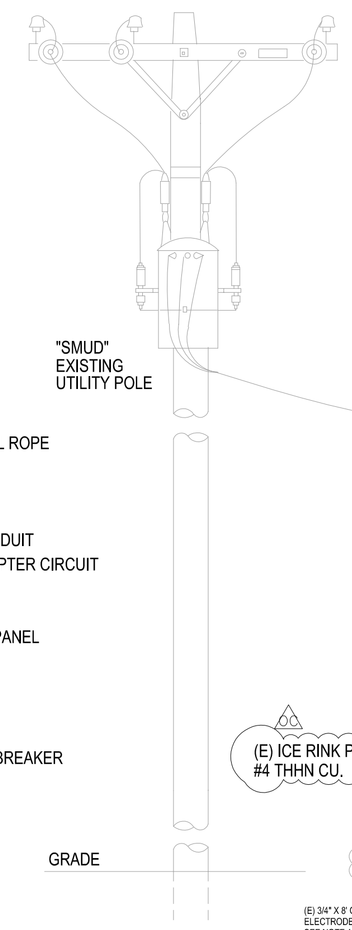
LADDER WILL BE PROVIDED WHERE MAXIMUM SWITCH HEIGHT EXCEEDS 6' 7".

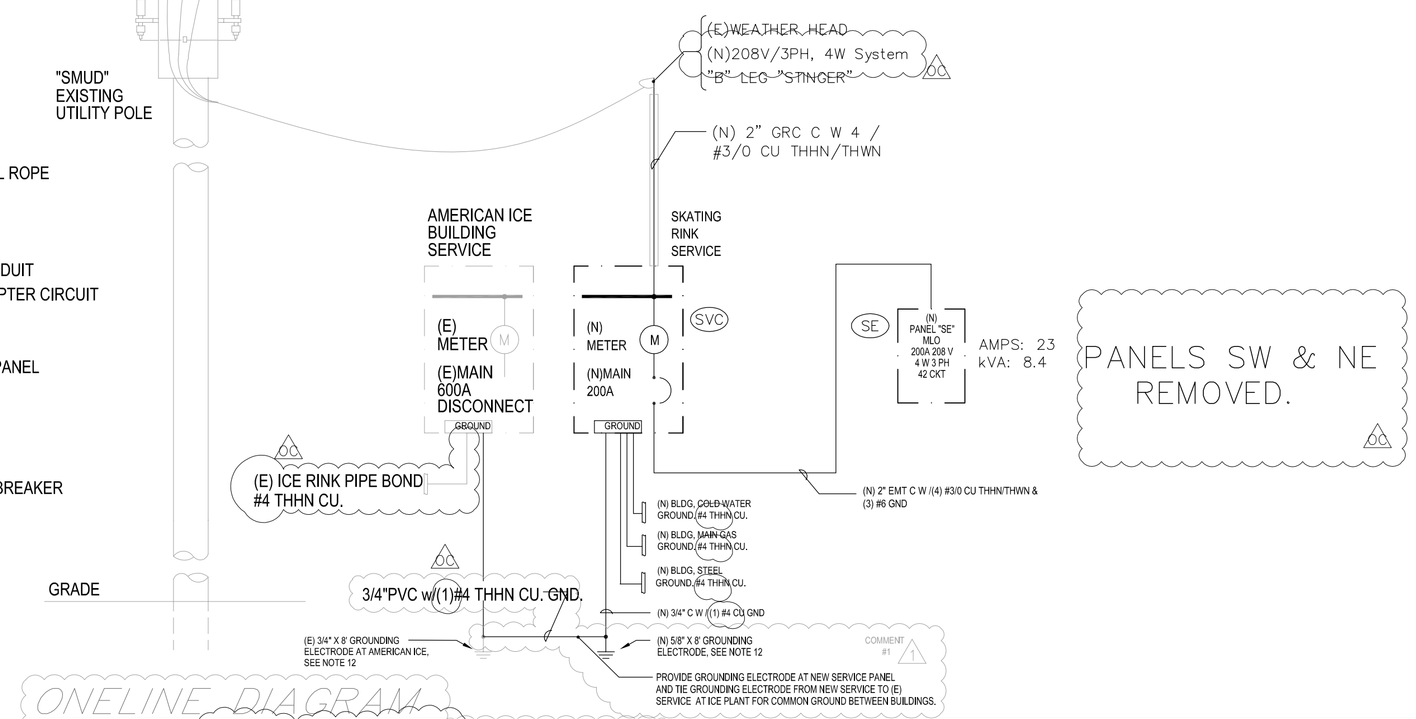
12. A NEW GROUNDING ELECTRODE WILL BE INSTALLED AT ICELAND SERVICE ENTRY POINT. THIS GROUNDING ELECTRODE WILL BE TIED TO AMERICAN ICE GROUNDING ELECTRODE TO ASSURE EQUAL GROUND POTENTIAL EXISTS BETWEEN BOTH BUILDINGS. ICELAND BUILDING GROUND POINT IN MAIN SERVICE PANEL WILL CONNECT TO SHARED GROUNDING CONNECTOR WITH (1) #4 CU CONDUCTOR PROTECTED IN (N) 3/4" PVC CONDUIT.

ABBREVIATIONS

ABBREVIATIONS

C	CONDUIT
C. O.	CONDUIT ONLY WITH PULL ROPE
CKT	CIRCUITS
(E)	EXISTING
EMT	EMT CONDUIT
FC	FLEXIBLE, SEAL-TITE CONDUIT
GFIC	GROUND FAULT INTERRUPTER CIRCUIT
GND	GROUND
GRC	RIGID CONDUIT
MCB	MAIN CIRCUIT BREAKER PANEL
MLO	MAIN LUG ONLY PANEL
(N)	NEW
NEU	NEUTRAL
PVC	PVC CONDUIT, SCH 40
PFB	PROVISION FOR FUTURE BREAKER
RIG	RIGID CONDUIT
WP	WEATHER PROOF





PANELS SW & NE
REMOVED.

ONELINE DIAGRAM

NO SCALE 208/120 VOLTS, 3 PHASE, 4 WIRE

ICELAND SKATING RINK

BUILDING (RENOVATION)

LOAD CALCULATION

Iceland Skating Rink

Total Load	Load Description
5.4	kVA Continuous Non-Motor
1.4	kVA 25% Continuous Non-Motor
0.4	kVA Non-Continuous
2.8	kVA Receptacle (First 10KVA)
0.0	kVA Receptacle(Balance at 50%)
0.0	kVA Motor Loads
0.0	kVA 25% of Largest Motor
0.0	kVA Kitchen Equipment
0.0	kVA Hotel/Motel Demand (NEC 220-11)
0.0	kVA Arc Welders (NEC 630-11b,21b FPN)
0.0	kVA Resistance Welders (NEC 630-31b)
======	
10.0	Load kVA (Per NEC)
27.6	Amps at 208 Volt 3 Phase

PANELS SW & NE
REMOVED.

(SE)

ALLOWED LOAD:	Panel loaded at	% PHASE IMBALANCE
200 amps	12%	<30% Loaded

(INPANEL: "SE" VOLTAGE: 120/208V,3P,4W BUS: 200A MOUNT: SURFACE
TYPE: PANELBOARD AIC: SERIES RATED MAIN: MLO TYPE: NEMA 3R
NOTES: NEW Print Date: 18-Jul-11

LOAD		KVA	CB	NO	A	B	C	NO	CB	KVA		LOAD
(E)Signage	C	1.2	20/1	1	A			2	20/1	0.4	R	(N)Recept-(GFIC)Quad G-use
(E)Signage	C	1.2	20/1	3		B		4	PFB			Space
(E)Signage	C	1.2	20/1	5			C	6	20/1	0.4	R	(N)Recept-(GFIC)Quad G-use
Space			PFB	7	A			8	20/1	0.4	R	(N)Recept-(GFIC)Quad G-use
Space			PFB	9		B		10	PFB			Space
(N)Lighting-LED Controllers	C	0.2	20/1	11			C	12	20/1	0.4	N	(N)Lighting Controller "LCC"
(N)Lighting- Rink Floods	C	0.8	20/1	13	A			14	PFB			Space
Space			PFB	15		B		16	PFB			Space
(N)Lighting- Rink Floods	C	0.8	20/1	17			C	18	PFB			Space
(N)Lighting-NL/EM	C	0.2	20/1	19	A			20	PFB			Space
Space			PFB	21		B		22	PFB			Space
Space			PFB	23			C	24	PFB			Space
Space			PFB	25	A			26	PFB			Space
Space			PFB	27		B		28	PFB			Space
Space			PFB	29			C	30	PFB			Space
Space			PFB	31	A			32	PFB			Space
Space			PFB	33		B		34	PFB			Space
Space			PFB	35			C	36	PFB			Space
Space			PFB	37	A			38	PFB			Space
Space			PFB	39		B		40	PFB			Space
Space			PFB	41			C	42	PFB			Space

LOAD CALCULATIONS:

5.4	kVA Continuous Non-Motor
1.4	kVA 25% Continuous Non-Motor
0.4	kVA Non-Continuous
1.2	kVA Receptacle (First 10KVA NEC 220-13)
0.0	kVA Receptacle(Balance at 50%)
0.0	kVA Motor Loads (NEC 430)
0.0	kVA 25% of Largest Motor
0.0	No Kitchen Equip.
0.0	kVA Hotel/Motel Demand (NEC 220-11)
0.0	kVA Arc Welders (NEC 630-11b,21b FPN)
0.0	kVA Resistance Welders (NEC 630-31b)
0.0	kVA Subpanel(s)
0.0	kVA Thru fed Panel(s)
8.4	Total kVA

LEGEND

PFB = Provision for Future Breaker
<E> = Existing Load
<F> = Future Load
C = Continuous Load (>3 hrs per NEC 100)
N = Non-continuous load
R = Receptacle Load (taken at 180 VA only)
M = Motor Load
K= Kitchen Load (NEC 220-20)
H = Hotel/Motel
A= Arc Welders (MG, AC xfmr, DC rectifier)
W= Resistance Welders
P = Sub-Panel

23 Amps at VOLTAGE: 120/208V,3P,4W | Iceland Skating Rink

SYMBOL LIST

LIGHTING	
	LIGHTING FIXTURE, SURFACE OR PENDANT MOUNTED
	(NL) LIGHTING FIXTURE, SURFACE OR PENDANT MOUNTED
	FLUORESCENT LIGHTING FIXTURE, RECESSED MOUNTED
	(NL) FLUORESCENT LIGHTING FIXTURE, RESESSED MOUNTED
	LIGHTING FIXTURE, WALL MOUNTED
	FLUORESCENT LIGHTING FIXTURE, SURFACE MOUNTED
	LIGHTING FIXTURE, RECESSED MOUNTED
	FLUORESCENT STRIP FIXTURE, SURFACE MOUNTED
	EXIT LIGHT FIXTURE WITH BATTERY BACK-UP, WALL MOUNTED ARROWS SHOWS DIRECTION
	EXIT LIGHT FIXTURE, CEILING MOUNTED
	POLE MOUNTED FIXTURE
	EMERGENCY LIGHT WITH BATTERY BACK-UP
	SINGLE POLE TOGLE SWITCH, 15A 120-277V @ +48" ABOVE FINISHED FLOOR @ CENTER OF DEVICE.
3	THREE WAY TOGGLE SWITCH, 15A 120-277V @ +48" ABOVE FINISHED FLOOR @ CENTER OF DEVICE.
a,b,c	SUBSCRIPT DENOTES OUTLET/FIXTURE CONTROLLED @ +48" ABOVE FINISHED FLOOR @ CENTER OF DEVICE.
OUTLETS	
	FOURPLEX RECEPTACLE OUTLET 15A, 125V, +15" MIN. ABOVE FINISHED FLOOR @ BOTTOM OF DEVICE.
	DUPLEX RECEPTACLE OUTLET 15A, 125V, +15" MIN. ABOVE FINISHED FLOOR @ BOTTOM OF DEVICE.
	208V, 3PH, 1PH RECEPTACLE OUTLET SIZE AS NOTED
	DUPLEX RECEPTACLE FLOOR OUTLET 15A, 125V FLUSH IN FINISH FLOOR COLOR AS NOTED.
IG	DUPLEX RECEPTACLE OUTLET WITH AN ISOLATED GROUND, 15A 125V, +15" ABOVE FINISHED FLOOR @ BOTTOM OF DEVICE.
IG	FOURPLEX RECEPTACLE OUTLET WITH AN ISOLATED GROUND, 15A 125V, +15" ABOVE FINISHED FLOOR @ BOTTOM OF DEVICE.
	TELEPHONE OUTLET ; FLOOR MOUNTED, 3/4"C. MOUNT TO ABOVE CEILING. WITH PULL ROPE, PROVIDE MUD RING.
	DATA OUTLET ; FLOOR MOUNTED, 3/4"C. MOUNT TO ABOVE CEILING, WITH PULL ROPE, PROVIDE MUD RING.
P	PUBLIC TELEPHONE OUTLET
	COMBINATION TELE/DATE OUTLET
	JUNCTION BOX, SIZE AND TYPE AS INDICATED OR REQUIRED
EQUIPMENT	
	MAIN SWITCH BOARD "MSB" SEE ONE LINE DIAGRAM
	BRANCH PANEL SURFACE MOUNTED
	BRANCH PANEL FLUSH MOUNTED
	TERMINAL CABINET
T	DISTRIBUTION TRANSFORMER, SIZE & MOUNTING AS NOTED
	MOTOR STARTER, SEE MP&S CONNECT AS REQUIRED
F	DISCONNECT SWITCH SIZE AND TYPE AS REQUIRED F -> FUSED
	MOTOR MP&S
	EXHAUST FAN - MP&S
AC-1	MECHANICAL EQUIPMENT I.D. TAG - MP&S
1	NUMBERED NOTE SHOWN ON SAME SHEET
E1.1	DETAIL DESIGNATION, TOP LETTER INDICATES DETAIL, BOTTOM LETTER INDICATES SHEET NUMBER
A1 100W MH 277V	FIXTURE DESIGNATION, DENOTES FIXTURE TYPE
	TELEPHONE TERMINAL BOARD "TTB" 4'X8'x3/4" PLYWOOD BACKBOARD W/ FOURPLEX RECEPTACLE AND (1) #6 GND.
DT	WALL MOUNTED SENSOR SWITCH, DUAL TECHNOLOGY
U	CEILING MOUNTED SENSOR SWITCH, ULTRASONIC
P	WALL MOUNTED SENSOR SWITCH, PASSIVE INFRARED
PP	POWER PACK, 120V
WIRING	
	CIRCUIT CONCEALED IN CEILING OR WALL
	CIRCUIT CONCEALED IN FLOOR OR UNDERGROUND
	TANDEM FIXTURE, MASTER SLAVE MAKE-UP
	HOME RUN TO PANELBOARD OR TERMINAL CABINET
	DENOTES # OF #12 WIRES, NO MARKS = 2 #12, 1/2"C. CURVED HATCH DENOTES IG. OTHERS AS NOTED
	CONDUIT RISER
	CONDUIT RISER DOWN
	STUBBED CONDUIT
	FLEX CONDUIT

ABBREVIATIONS	
C	CONDUIT
C.O.	CONDUIT ONLY WITH PULL ROPE
(E)	EXISTING
EM	EMERGENCY BATTERY PACK
EL	EVENING LIGHT
GFI	GROUND FAULT INTERRUPTER
GFIC	GROUND FAULT CIRCUIT INTERRUPTER
IG	ISOLATED GROUND
MP&S	SEE MECHANICAL PLANS AND SPECIFICATIONS
MT	EMPTY CONDUIT WITH NYLON PULL ROPE
(N)	NEW
NIC	NOT IN CONTRACT
NIES	NOT IN ELECTRICAL SECTION OF THESE PLANS AND SPECIFICATIONS
NL	NIGHT LIGHT
PFB	PROVISION FOR FUTURE BREAKER
PNL	PANELBOARD
(R)	EXISTING TO BE REMOVED OR RELOCATED
RE:	REFERENCE, REFER TO AND COORDINATE WITH
TTB	TELEPHONE TERMINAL BOARD
UON	UNLESS OTHERWISE NOTED
WP	WEATHER PROOF
NOTE	SYMBOLS INDICATES ABOVE MAY NOT NECESSARILY APPEAR AS PART OF THESE DRAWINGS IF NOT REQUIRED

ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL ELECTRICAL EQUIPMENT TO THE 2011 CALIFORNIA ELECTRICAL CODE AND THE 2011 CALIFORNIA ENERGY CODE PER TITLE 24 STANDARDS.

COOPER
CONSULTING
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DESIGN & DRAFTING SERVICES

STAMP

RESTORATION
ICELAND SKATING RINK
1430 DEL PASO ROAD
SACRAMENTO, CA 95815

PROJECT NAME/ADDRESS

July 19, 2011
PROJECT DATE

G. COOPER –
DRAWN/DESIGNER CHECKED

PLAN CHECK COMMENTS JANUARY 11, 2011
OWNER CHANGES JULY 19, 2011

REVISIONS/DATES

ELECTRICAL
ONELINE
SYMBOLS, NOTES
& SCHEDULES

SHEET TITLE

NEW SHEET
E0.1

SHEET 1 OF 5