PANELBOARD: A

480/ VOLTS, 1 PHASE, 3 WIRE
30 AMP MAIN BKR, SURFACE MTD.
S.E. RATED W/GRD. BUS
22000 AIC LABELED

CIRC NO	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	P	AMP SIZE	POLE	POLE	AMP SIZE	P	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO	
① 1	2700	GEN	STREET LIGHTING	2	20	A		20	2	STREET LIGHTING	GEN	3150	2	①
3	———		———————			B				———————		———	4	
5	———	SPARE		2	20	A		20	2	SPARE	SPARE	———	6	
7	———		———————			B				———————		———	8	
9	———		SPACE			A				SPACE		———	10	
11	———		SPACE			B				SPACE		———	12	

① CIRCUITS SHALL BE ROUTED VIA MERCURY CONTACTOR AND CONTROLLED BY PHOTOCELL.

PANELBOARD: B

480/ VOLTS, 1 PHASE, 3 WIRE
100 AMP MAIN BKR, SURFACE MTD.
S.E. RATED W/GRD. BUS
22000 AIC LABELED

CIRC NO	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	P	AMP SIZE	POLE	POLE	AMP SIZE	P	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO	
① 1	3150	GEN	STREET LIGHTING	2	20	A		20	2	STREET LIGHTING	GEN	3150	2	①
3	———		———————			B				———————		———	4	
5	———	SPARE		2	20	A		20	2	SPARE	SPARE	———	6	
7	———		———————			B				———————		———	8	
9	———		SPACE			A				SPACE		———	10	
11	———		SPACE			B				SPACE		———	12	

① CIRCUITS SHALL BE ROUTED VIA MERCURY CONTACTOR AND CONTROLLED BY PHOTOCELL.

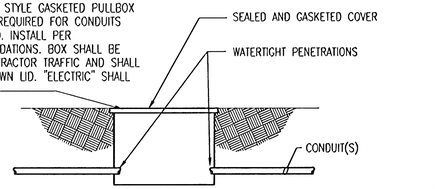
PANELBOARD: C

480/ VOLTS, 1 PHASE, 3 WIRE
100 AMP MAIN BKR, SURFACE MTD.
S.E. RATED W/GRD. BUS
22000 AIC LABELED

CIRC NO	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	P	AMP SIZE	POLE	POLE	AMP SIZE	P	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO	
① 1	1350	GEN	STREET LIGHTING	2	20	A				SPACE			2	
3	———		———————			B				SPACE			4	
① 5	1350	GEN	STREET LIGHTING	2	20	A				SPACE			6	
7	———		———————			B				SPACE			8	
9	———		SPACE			A				SPACE			10	
11	———		SPACE			B				SPACE			12	

① CIRCUITS SHALL BE ROUTED VIA MERCURY CONTACTOR AND CONTROLLED BY PHOTOCELL.

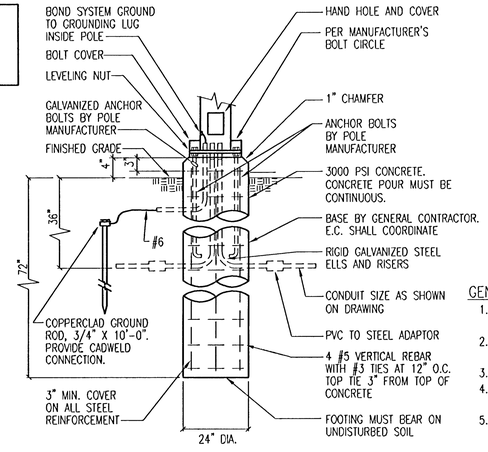
NOTE:
FIXTURE LAYOUT IS BASED ON THE PHOTOMETRIC CHARACTERISTIC OF THE GARDCO GULLWING 400 WATT METAL HALIDE ON A 25' POLE. OBTAIN POLE ANCHOR BOLTS FROM DEVELOPER.



PROVIDE DEEP QUAZITE 'PC' STYLE GASKETED PULLBOX WITH SOLID BASE. SIZE AS REQUIRED FOR CONDUITS AND CONDUCTORS INSTALLED. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. BOX SHALL BE RATED FOR RIDING MOWER/TRACTOR TRAFFIC AND SHALL BE PROVIDED WITH BOLT DOWN LID. "ELECTRIC" SHALL BE MOLDED INTO LID.

NOTE: ELECTRICAL CONTRACTOR SHALL PROVIDE A PULLBOX WHERE NECESSARY SO NO RUN OF CONDUIT BETWEEN POLES OR HOMERUNS EXCEED 300'. ALL CONNECTIONS IF REQUIRED IN PULL BOX SHALL BE WATERTIGHT.

③ PULLBOX DETAIL
NO SCALE



② POLE BASE DETAIL FOR TYPES 'S2' AND 'S4'
N.T.S.

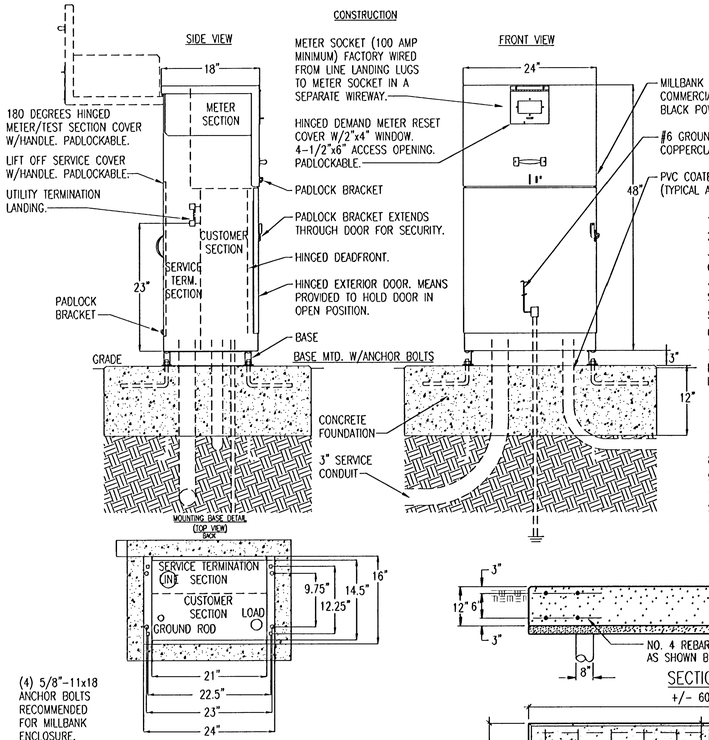
SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING
S4O	LIGHT FIXTURE & FIXTURE LETTER	POLE
WP	WEATHERPROOF	
	PULL BOX	
	ELECTRICAL DISTRIBUTION EQUIPMENT	
	CONDUIT RUN 2 CIRCUITS, 3#12 & 1#12 GRD.- 3/4"C	EARTH/FLOOR
	CONDUIT RUN TWO (2) CIRCUITS PHASE CONDUCTORS (#12 U.O.N.) NEUTRAL CONDUCTOR (#12 U.O.N.) SWITCH LEGS (#12 U.O.N.) GROUND CONDUCTOR (#12 U.O.N.)	CEILING/WALL

GENERAL NOTES

1. E.C. SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS AND THE REQUIREMENTS CALLED OUT ON THE PLANS.
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH NATIONAL, STATE, AND LOCAL ELECT. CODES OR REGULATIONS OF THE UTILITY COMPANY.
3. REFER TO SPECIFICATIONS FOR DATA NOT SHOWN ON DRAWINGS.
4. E.C. SHALL PAY FOR ALL FEES AND PERMITS FOR ELECTRICAL WORK ON THIS PROJECT.
5. E.C. IS RESPONSIBLE FOR DAMAGE TO CITY PROPERTY OR THE WORK BY OTHERS THAT MAY BE CAUSED BY THE E.C.'S WORK OR ACTIVITY IN THE AREA.
6. ALL ELECTRICAL WORK SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER. UNSIGHTLY INSTALLATION WORK SHALL BE REMOVED AND REWORKED AT THE DIRECTION OF THE FIELD ENGINEER OR THE ARCHITECT WITHOUT ADDITIONAL COST TO THE OWNER.
7. THE G.C. SHALL BE RESPONSIBLE FOR: PAYING ALL UTILITY BILLS FOR OPERATION OF THE ELECTRICAL SYSTEM THROUGH FINAL ACCEPTANCE. ALL SLEEVES, RUBBLE EXCAVATION AND REMOVAL, CONCRETE WORK, REINFORCING, STEEL SUPPPORTS AND BRACKETS, SEAL AND GROUT ALL OPENINGS AFTER E.C. HAS COMPLETED ELECTRICAL WORK OR PORTIONS THEREOF, AREA CLEAN UP OF OWN WORK, PAINTING OF SURFACES REQUIRED BY CITY SPECS. OR UTILITY CO., AND ALL WORK REQUIRED FOR THE E.C. THAT IS NOT ELECTRICAL RELATED.
8. E.C. SHALL FURNISH AND INSTALL A SURGE ARRESTER: SQUARE 'D' #SDSA1175 OR APPROVED EQUAL AND INSTALL AT EACH SERVICE ENTRANCE.
9. E.C. SHALL PROVIDE, FURNISH AND INSTALL ALL PARTS, EQUIPMENT, SUPPLIES AND LABOR TO CONSTRUCT AND INSTALL A COMPLETE LIGHTING SYSTEM.
10. E.C. SHALL SHALL VERIFY ALL EQUIPMENT SPECIFIED ON THE LIGHTING PLAN AND COORDINATE MANUFACTURER'S CHANGES WITH PLAN INFORMATION AFTER NOTICE TO PROCEED IS GIVEN. THESE CHANGES SHALL NOT ACCRUE ADDITIONAL COST TO THE OWNER.
11. E.C. SHALL RECORD SYSTEM LOAD PER PHASE OF DISTRIBUTION PANEL AND SUBMIT FINAL READINGS TO OWNER WITH PRODUCT INFORMATION.
12. E.C. SHALL TEST COMPLETE SYSTEM TO INSURE CIRCUITS ARE FREE FROM SHORT CIRCUITS AND TO MAKE ALL NECCESSARY ADJUSTMENTS TO ELECTRICAL EQUIPMENT. INSTALLED FIXTURES AND POLES SHALL BE CLEAN, FREE OF SCRATCHES AND MARKS.
13. E.C. SHALL DELIVER TO THE OWNER BEFORE FINAL ACCEPTANCE IN TRIPLICATE: SHOP DRAWINGS, CATALOGUE DATA, PRODUCT INFORMATION, OPERATION AND MAINTENANCE INSTRUCTIONS, AND PARTS LIST. DELIVER TWO RED LINE 'AS BUILT' BLUEPRINTS OF THE LIGHTING PLAN, ADDENDA AND CHANGE ORDERS THAT PERTAIN TO THIS WORK.
14. E.C. SHALL FULLY INSTRUCT THE OWNER OR IT'S REPRESENTATIVE AS TO THE PROPER OPERATION, CARE, MAINTENANCE AND CHARACTERISTICS OF THE LIGHTING SYSTEM AND IT'S EQUIPMENT.
15. ALL CONDUCTOR SIZES ARE FOR COPPER CONDUCTORS.
16. REFER TO SHEET 43 FOR ELECTRICAL SPECIFICATIONS.

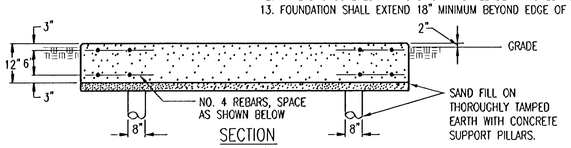
CONSTRUCTION



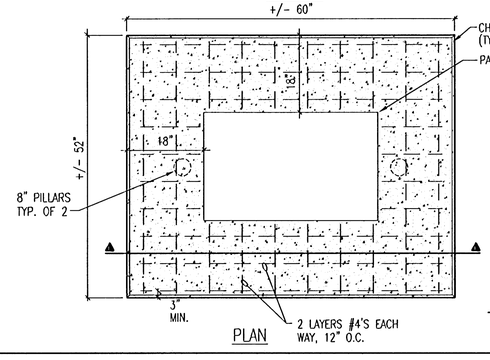
NOTE:
1. UTILITY METER SHALL BE LOCATED PER WESTAR REQUIREMENTS. USE PULL BOX IF LOCATION PANEL OVER 300' FROM FIRST POLE. SEE DETAIL 3 ON THIS SHEET. VERIFY ALL SERVICE REQUIREMENTS WITH WESTAR.
2 THIS DETAIL APPLIES TO 3 LOCATIONS. SEE SITE PLANS FOR APPROXIMATE LOCATIONS.

① TYPICAL ELECTRICAL SERVICE PEDESTAL DETAIL
NO SCALE VOLATEGE: 480V, 1ø, 3-WIRE

PEDESTAL NOTES
1. CONTROL CABINET SHALL BE U/L LISTED "INDUSTRIAL CONTROL PANEL" PER UL 508.
2. CONSTRUCTION SHALL BE NEMA 3R.
3. PROVIDE 100A METER, SOCKET, PANELBOARD PER PANELBOARD SCHEDULE. EACH PEDESTAL SHALL CONTAIN 4 MERCURY 480V 2 POLE CONTACTORS WITH HAND-OFF-AUTO SELECTOR SWITCH. PROVIDE PHOTO CELL RECEPTACLE. E.C. TO PROVIDE PHOTO CELL FOR DUSK TO DAWN OPERATION. EQUAL TO INTERMATIC #K4121.
4. SERVICE EQUIPMENT ENCLOSURE AND METERING EQUIPMENT SHALL MEET THE REQUIREMENTS OF THE SERVING UTILITY. WHEN THE SERVING UTILITY PROVIDES BOTH METERED AND UNMETERED CIRCUITS, A SEPARATE BUS SHALL BE PROVIDED FOR EACH CIRCUIT. THE METER AREA SHALL HAVE A SEALABLE, LOCKABLE, RAINTIGHT COVER THAT CAN BE REMOVED WITHOUT THE USE OF TOOLS.
5. SERVICE EQUIPMENT SHALL BE FACTORY WIRED AND CONFORM TO NEMA STANDARDS.
6. THE EXTERIOR DOOR SHALL HAVE PROVISIONS FOR PADLOCKING. THE PADLOCK HOLE SHALL BE A MINIMUM DIAMETER OF 11mm.
7. ALL TERMINALS FOR INCOMING SERVICE CONDUCTORS SHALL BE COMPATIBLE WITH EITHER COPPER OR ALUMINUM CONDUCTORS SIZED TO SUIT THE CONDUCTORS SHOWN ON THE PLAN. TERMINAL LUGS SHALL BE COPPER OR TIN-PLATED ALUMINUM. SOLID NEUTRAL TERMINAL STRIP SHALL BE RATED 125A UNLESS OTHERWISE SPECIFIED AND FOR USE WITH COPPER OR ALUMINUM CONDUCTORS. THE TERMINAL SHOULD INCLUDE BUT NOT BE LIMITED TO:
   A) INCOMING TERMINALS (LANDING LUGS)
   B) NEUTRAL LUGS
   C) SOLID NEUTRAL TERMINAL STRIP.
   D) TERMINAL STRIPS FOR CONDUCTORS WITHIN THE ENCLOSURE.
8. PROVIDE PANELBOARD PER PANELBOARD SCHEDULES.
9. PLUG-IN CIRCUIT BREAKERS MAY BE MOUNTED IN THE VERTICAL OR HORIZONTAL POSITION. CABLE-IN/ CABLE-OUT CIRCUIT BREAKERS SHALL BE MOUNTED IN THE VERTICAL POSITION.
10. FASTENERS ON THE EXTERIOR OF THE ENCLOSURE SHALL BE VANDAL RESISTANT AND SHALL NOT BE REMOVABLE FROM THE EXTERIOR. ALL NUTS, BOLTS, SCREWS, WASHERS, AND HINGES SHALL BE STAINLESS STEEL.
11. PHENOLIC NAME PLATES SHALL BE PROVIDED AS REQUIRED.
12. A PLASTIC COVERED WIRING DIAGRAM SHALL BE ATTACHED TO THE INSIDE OF THE FRONT DOOR.
13. FOUNDATION SHALL EXTEND 18" MINIMUM BEYOND EDGE OF ENCLOSURE.



SECTION



PLAN

PAD BY CONTRACTOR, VERIFY ALL REQUIREMENTS WITH EQUIPMENT PROVIDED PRIOR TO PLACING CONCRETE PAD.

NOTES:
1. THE TOP OF THE PAD SHALL RECEIVE A SMOOTH TROWEL FINISH. THE CORNERS AND EDGES SHALL BE CHAMFERED.
2. THE CONCRETE SHALL BE A MINIMUM OF 4,000 LB. MIX.
3. CONTRACTOR SHALL EXTEND FORMS DOWN TO AT LEAST 3" BELOW AVERAGE GROUND LINE.
4. TOP OF CONDUITS SHALL BE FLUSH WITH TOP OF PAD.
5. THE CONDUIT OPENING SHALL BE FREE AND CLEAR OF CONCRETE.
6. CONCRETE FILLED PILLARS ARE FORMED BY AUGERING AN 8" DIAMETER HOLE TO A DEPTH OF UNDISTURBED EARTH (MIN. 36"). A SEPARATOR, SUCH AS TAR PAPER, SHOULD BE PLACED BETWEEN THE PILLAR AND THE PAD SO THE PAD CAN BE LEVELLED AT A LATER TIME IF NECESSARY.

PAD DETAIL
NO SCALE

ROBERT C. GRIFFITH 17443 LICENSED PROFESSIONAL ENGINEER KANSAS

No.	Revision	By	Date

OAK CREEK - PHASE 1

ELECTRICAL SCHEDULES AND DETAILS

JAMES L. ARMOUR, P.E.- CITY ENGINEER
CITY OF WICHITA PROJECT NO. 472-84209

Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Designed by	DCG	Job No.	20-04688-000	Sheet 40 of 86
Drawn by	MDB	Date	August 2004	

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