



ELECTRICAL LINES LEGEND

- ELECTRICAL WIRING
- E.C. SUPPLIED WIRING
- DEVICE BORDERS
- LOCATION BORDERS
- WIRE SHIELDS
- FUTURE WIRING

PRELIMINARY LAYOUT PROVIDED BY PERENNIAL ENERGY, INC.

PHASE A BROWN
 PHASE B ORANGE
 PHASE C YELLOW

COLOR OF WIRE	COLOR SYMBOL	VOLTAGE	NUMBER RANGE
GREEN	G	GROUND	
WHITE	W	NEUTRAL	
GRAY SHLD		4-20ma	1000-99099
YELLOW SHLD		K THERMOPL	001-049
PURPLE SHLD		E THERMOPL	001-049
BLACK SHLD		J THERMOPL	001-049
GRAY SHLD		RTD	050-099
BROWN	B	5VDC	100-199
YELLOW	Y	*	200-299
BLUE	U	24-32VDC	300-399
PURPLE	P	32VAC	300-399
RED	R	120VAC	400-599
BLACK	K	208VAC	600-699
BLACK	K	480VAC	700-799
BLACK	K	4160VAC	800-849

* POWERED FROM EXTERNAL SOURCE
 *BASED ON ART. 310-16 NEC, 3 75°C CONDUCTORS IN SINGLE CONDUIT, DERATE 0.82 FOR 110°F ASHRE AMBIENT REF. 1% TAMPA, FL.

REFERENCED PARTS

Part ID	Section	Drawing ID	RefDes	RefDesQty	UnitQty	TotalQty	Component	MFG / Material / Type	Description
XXXX	CP	EE-003-0246	CP-AC-1	1 ea	1 ea	1 ea	Air Conditioner	Bard	WA-362-A-00-B-XXXX, 3 Ton
4845	CP	EE-003-0246	CP-CBL-1..3	3 ea	1 ea	3 ea	Ethernet Cable	Communication Cable Co.	4545C5..12, 12ft, Cat 5e Patch Cable, RJ45-RJ45
XXXX	CP	EE-003-0246	CP-EDP-1	1 ea	1 ea	1 ea	Load Center	Cutler-Hammer	Pow-R-Line3a, 300A Main Breaker, 480V, 3ph, w/grnd bar, Nema3R, 35 kAIC series rated, Spec#P0831
646	CP	EE-003-0246	CP-EDP-2	1 ea	1 ea	1 ea	Breaker	Cutler-Hammer	CH220, 20A, 2 pole
24	CP	EE-003-0246	CP-EDP-2	2 ea	1 ea	2 ea	Breaker	Cutler-Hammer	CH115, 15 Amp
1302	CP	EE-003-0246	CP-EDP-2	1 ea	1 ea	1 ea	Breaker	Cutler-Hammer	CH120GF, 20A, 1 pole, GFCI
647	CP	EE-003-0246	CP-EDP-2	1 ea	1 ea	1 ea	Breaker	Cutler-Hammer	CH280, 80A, 2 pole
25	CP	EE-003-0246	CP-EDP-2	1 ea	1 ea	1 ea	Breaker	Cutler-Hammer	CH120, 20 Amp
1373	CP	EE-003-0246	CP-EDP-2	1 ea	1 ea	1 ea	Breaker Retainer	Cutler-Hammer	CH125R8
1015	CP	EE-003-0246	CP-EDP-2	1 ea	1 ea	1 ea	Cover	Cutler-Hammer	CH88F
645	CP	EE-003-0246	CP-EDP-2	1 ea	1 ea	1 ea	Load Center	Cutler-Hammer	CH16L125B MLD
129	CP	EE-003-0246	CP-SSR-1	1 ea	1 ea	1 ea	Arrestor-Surge	Square D	SDSA 3650
5050	CP	EE-003-0246	CP-TSH-1	1 ea	1 ea	1 ea	Thermostat	Bard	8403-057, heat/cool, auto/on, digital
XXXX	CP	EE-003-0246	CP-VFD-1..3	3 ea	1 ea	3 ea	Variable Frequency Drive	ABB	ACS550-UI-077A-4(N), 60 HP Variable Torque, 480 V, 3 Phase, Nema 1
5434	GCS	EE-003-0246	GCS-E/E-1	1 ea	1 ea	1 ea	Transformer	Hammond	NMF015LE, 15KVA, 480 to 120/240 VAC single phase, floor mount, Energy Efficient

REV	DATE	DESCRIPTION	BY
1	4/15/10	REVISED FOR THE RECORD	CMO
2			
3			
4			

DRAWING TITLE
 ELECTRICAL LINE DIAGRAM

PROJECT TITLE
 SOUTHEAST COUNTY LANDFILL GAS COLLECTION AND CONTROL SYSTEM

CLIENT
 HILLSBOROUGH COUNTY
 SOLID WASTE
 MANAGEMENT DEPARTMENT
 TAMPA, FLORIDA

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS
 400 PARK COLONY BLVD., SUITE 600, TAMPA, FL 33610
 813.874.9888 FAX 813.874.9767
 FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004882
 EXPIRES 12/31/10
 03/27/05 \$5,000
 CMO

CADD FILE:
 075500P&ID

DATE:
 JULY 7, 2008

SCALE:
 AS SHOWN

DRAWING NO.
E-3 of 30

RECORD DRAWING
 DATE: APRIL 15, 2010

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FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 APR 16 2010
 SOUTHWEST DISTRICT TAMPA