

LEGAL DESCRIPTION:  
COM14SECCORONWESTBDYOFSEC34TH S0930"W841.58FTALGWESTBDY OF  
SW14FORPOBTHS89DEG29'30"E1471.77FTTHN50DEGE495.34FTTHN8DEG  
Parcel ID 34-26-17-0000-00700-0020 (Card: 001 of 001)

WIND LOAD:  
DESIGNED FOR 130 MPH

WIND EXPOSURE:  
EXPOSURE CATEGORY B

COMPATIBLE WITH BOTH:  
ASCE 7-02 & ASCE 7.05

APPLICABLE CODE:  
2004 W/06 SUPPLEMENT FBC, FMC, FPC  
& FBC, FPC, FMC 2007

OWNER:  
SOLAR CITY INC  
4305 W ALVA ST. TAMPA, FL 336147636

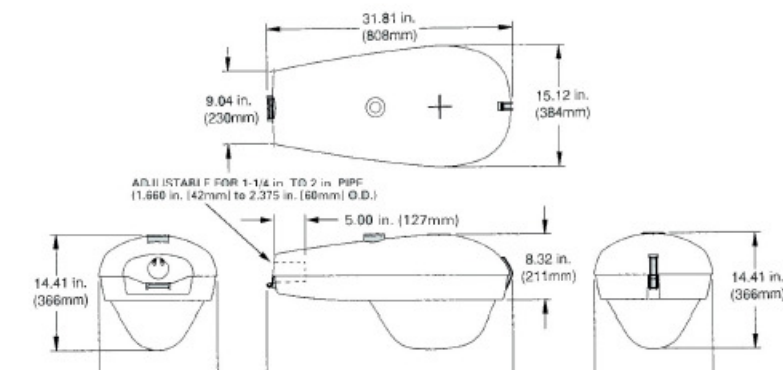
ENGINEERED:  
ALLEN GEZELMAN  
16502 HANNA RD.  
LUTZ, FLORIDA 33549

PH. 813 650 7246  
FX. 866 397 9050  
BOLSON1@TAMPABAY.RR.COM  
PE. # 59180

SEPCO™  
SEPCO Fixture  
Part Number SLR

## Street Light Refractor Fixture

The SEPCO™ street light refractor fixture is a roadway "Cobra-Head" style fixture using the Lexan refractor to provide a large oval pattern of illumination for a roadway, parking lot, and many other applications. The fixture can be ordered with 12 different lamps, depending on the desired illumination. The lamp operates directly from the internal 12 VDC inverter ballast. The fixtures are constructed of die cast aluminum and feature a deep bowl reflector with mirror finish. It can be mounted to many different brackets, however, most popular is our 4", 6", or 8" upsweep tapered elliptical aluminum fixture bracket, see SP bracket cut sheet. Also available is part number SLC street light outfit, see SLC fixture cut sheet.



SEPCO - SOLAR ELECTRIC POWER COMPANY  
7986 SW Jack James Drive • Stuart, FL 34997  
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04 FIGURE 4  
SCALE: N.T.S.

## SEPCO™ Solar Electric Lighting System Single Shoe Box Lighting System

SEPCO™ offers over 2,000 models of commercial lighting. Below is a typical single, solar electric shoe box lighting system. See the "Design Guide" for the specifications or your individual part number.

### Light Fixtures and Brackets

SEPCO™ Fixture Part Number (SB) is a large, dark anodized bronze Shoe Box Style fixture featuring a deep bowl reflector to provide a large oval pattern of illumination for a roadway, parking lot, or other application. The illumination is provided through a polished lens crystal lens using cut-off optics. A Lexan lens is available. The Shoe Box fixture can be ordered with 15 different lamps, depending on the desired illumination intensity. The lamp operates directly from the internal 12VDC inverter ballast. The fixtures are constructed of diecast aluminum and feature a deep bowl reflector with mirror finish. As shown, the fixture is attached to the pole using our SEPCO™ Part Number (ST) Side of Pole Tension Bracket. See the "Design Guide" for information on this and other fixtures and brackets.

### Tapered Pole (FP)

A favored pole is SEPCO™ Part Number: (FP). This Dark Bronze, 24" tapered fiberglass pole is designed for direct embedment to provide a strong, neat appearance at the lowest installation and maintenance cost. These direct burial poles have modifications as to additional strengthening and torsion control to support a SEPCO™ Lighting system in high winds.

SEE Color Photos and the "Design Guide" on the WEB!

### Solar Power Assembly

Solar Electric Lighting System (SELS) Power Assembly. SEPCO™ manufactures 17 sizes of mass produced Solar Electric Power Assemblies. Power Assemblies are sized by the lamp power times the amount of run hours and taking into account how much sun there is in each geographic area. Each self contained Power Assembly uses the best, single crystal solar electric modules which are bonded into a single array with full cover, vented aluminum Panel Plans with welded rear channel mounting brackets. The aluminum, vented, Battery Storage Assembly includes single or double, sealed GEL batteries and all control electronics. All components attach to our unique 15x45 degree welded aluminum Power Bracket which bolts to any pole or wall. See the SEPCO™ "Design Guide" for specifications.

### Poles

SEPCO™ also supplies other poles for foundation bases or direct burial, and our systems can fit directly on any pole or wall, customer furnished.

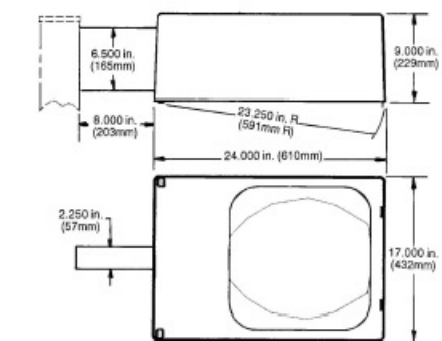
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email: sepc@fdn.com • web: sepconet.com

05 FIGURE 5  
SCALE: N.T.S.

SEPCO™  
SEPCO Fixture  
Part Number SB

## Shoebox Fixture

The SEPCO™ shoebox fixture is dark bronze and constructed of cast aluminum with rounded corners and tapered sides. It features front opening slide latches for "no tool" lamp replacement. It is deep in height to provide for a deep parabolic reflector. This provides the largest circle of even illumination. The special crystal lens provides high light transmission while insuring cut off optics. With a deep bowl reflector, a single lamp provides more intense illumination with a larger pattern when compared to a two lamp and two ballast arrangement often found in a flat, square sided, shallow shoebox fixture. Our fixture design is more efficient and less maintenance. The fixture lamp choices are from 18 to 65 Watts using high intensity compact fluorescent lamps with white colors, to 6,500° Kelvin. Please see the fixture information pages for photometrics, EPA, weight, dimensions, and specifications.



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06 FIGURE 06  
SCALE: N.T.S.

### Installation Details

**Direct Embedded Poles**

**Suggested Burial Depth for Embedded Poles**

Height above grade	Burial Depth
9/2.4m to 14/4.3m	3/1m
14/4.3m to 24/7.3m	4/1.2m
25/7.6m to 35/10.7m	5/1.5m
36/10.9m to 39/11.9m	6/1.8m

**Specifications**

- Refer to individual pole spec sheets for wind loading data and recommended burial depth.
- POLE SHAFT—R54 The shaft shall be round, smooth, 4 1/2" (114mm) outside diameter with a minimum wall thickness of .287" (7mm). Hand hole shall be 2 1/2" (64mm) in diameter with a cover. The shaft shall be constructed of continuous fiberglass filament combined with a thermosetting polyester resin. The glass filament shall be helically wound at alternating high and low angle layers for maximum compressive and bending strength. The hand hole area and hardware attachment areas shall be reinforced. The poles shall be designed with a minimum safety factor of 2:1 and have a maximum deflection of 10% under full wind loading conditions.
- POLE SHAFT—RT35, RT45 and RT50 The pole shaft shall be round tapered, smooth with a 1.47/35mm per foot taper. The hand hole shall be 2.5/64mm x 5 1/2/139mm with a cover. The shaft shall be constructed of continuous fiberglass filament combined with a thermosetting polyester resin. The glass filament shall be helically wound at alternating high and low angle layers for maximum compressive and bending strength. The hand hole area and hardware attachment areas shall be reinforced. The poles shall be designed with a minimum safety factor of 2:1 and have a maximum deflection of 10% under full wind loading conditions.

Whatley 16 COMPOSITE POLES

01 FIGURE 1  
SCALE: N.T.S.

### RT50

20'/6.1M to 39'/11.9M mounting heights

- Pole top diameter is 5.07/125mm, .14 inch per foot taper
- Direct embedded option for lower installation cost
- Anchor base with one piece base cover
- Decorative XTREME™ base covers available

**Ordering Information**

RT50	36	DE	MTB	TXT	40	-50	
RT50	25	AB	HTG	SMT	35	-40	DTC
POLE	ABOVE GRADE	INSTALLATION METHOD	COLOR	SURFACE FINISH	TENSION TOWER	TENSION TOWER	OPTIONS

**Wind Loading Data**

Pole Height - Above Grade	W	C	D	E	F	G	H
20	20	17.1	13.7	11.1	9.2	7.9	6.6
21	21	17.0	13.6	11.1	9.2	7.7	6.6
22	22	17.0	13.6	11.0	9.2	7.7	6.5
23	23	16.9	13.5	11.0	9.1	7.6	6.5
24	24	16.8	13.4	10.9	9.0	7.6	6.4
25	25	16.8	13.3	10.8	9.0	7.5	6.4
26	26	16.7	13.2	10.8	8.9	7.4	6.3
27	27	16.6	13.1	10.7	8.8	7.4	6.3
28	28	16.5	13.0	10.6	8.8	6.9	5.8
29	29	16.4	12.9	10.5	8.7	6.8	5.7
30	30	16.3	12.8	10.4	8.6	6.7	5.6
31	31	16.2	12.7	10.3	8.5	6.7	5.6
32	32	16.1	12.6	10.2	8.4	6.6	5.5
33	33	16.0	12.5	10.1	8.3	6.5	5.4
34	34	15.9	12.4	10.0	8.2	6.5	5.2
35	35	15.8	12.3	9.9	8.1	6.4	5.1
36	36	15.7	12.2	9.8	8.0	6.3	5.0
37	37	15.6	12.1	9.7	7.9	6.2	4.9
38	38	15.5	12.0	9.6	7.8	6.1	4.8
39	39	15.4	11.9	9.5	7.7	6.0	4.7

Whatley 13 COMPOSITE POLES

02 FIGURE 2  
SCALE: N.T.S.

### SEPCO™ ST Bracket

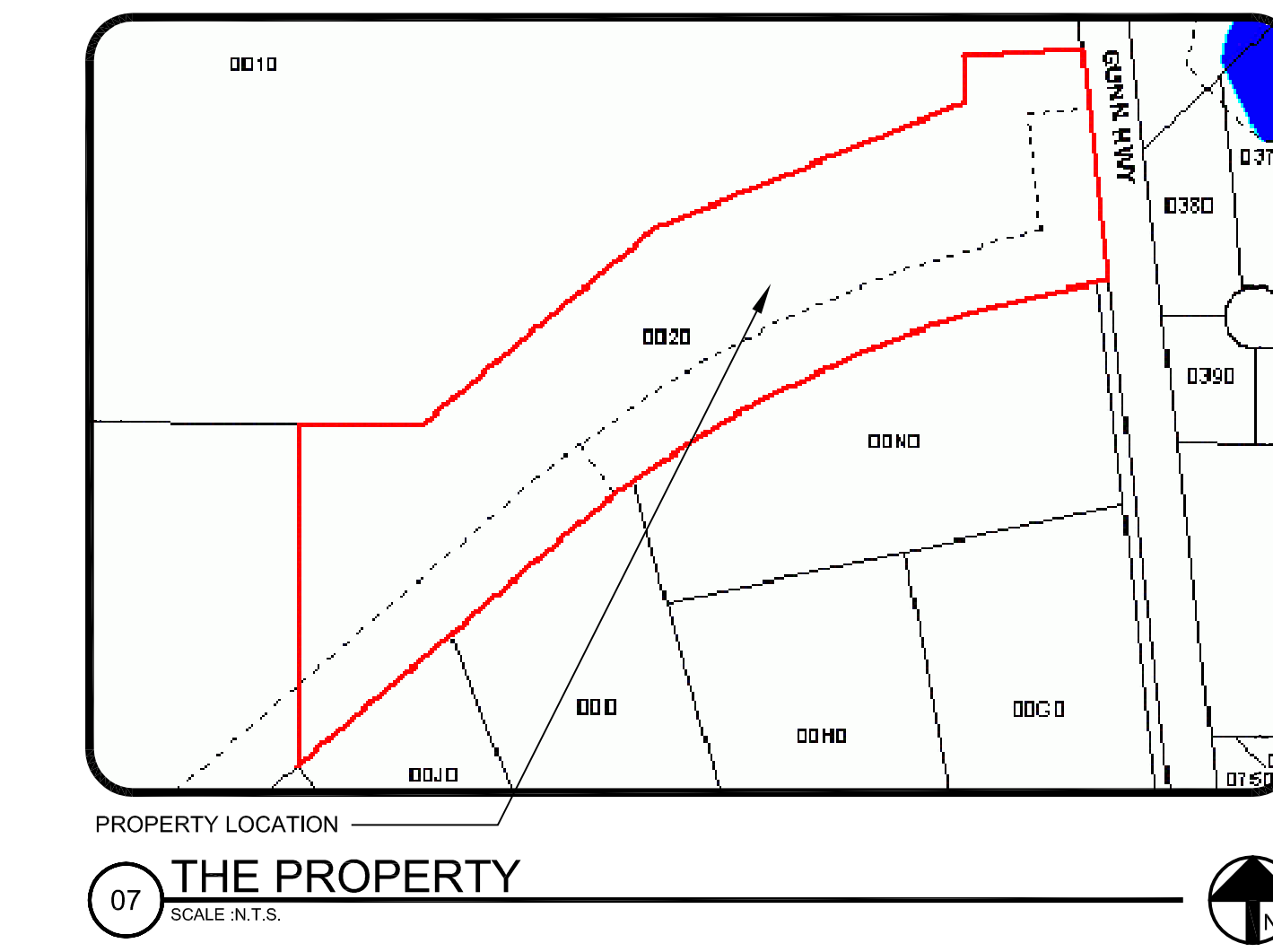
Use to mount a PowerFlood or Shoebox fixture to a pole or wall.

**Specifications**

- 4" x 1.625 Sched. 40 Channel (Alum.)
- 1.50" height
- 2.75" height
- 6.50" width
- 3.125" width
- 1.00" height

Whatley 13 COMPOSITE POLES

03 FIGURE 3  
SCALE: N.T.S.



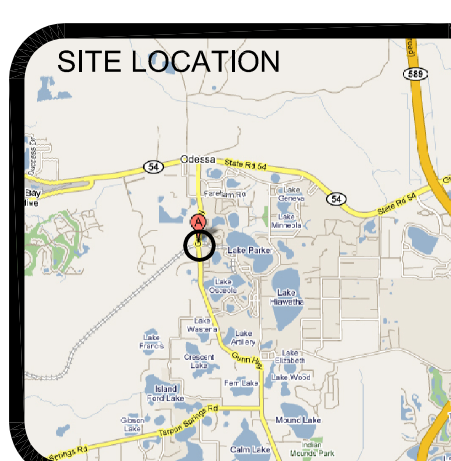
08 SAMPLE INSTALLATION PHOTOGRAPH  
SCALE: N.T.S.

### ENGINEER SPECIFICATIONS & COMMENTS

THIS DRAWING SHEET, ES2, PROVIDES THE ADDITIONAL INFORMATION NEEDED TO SUPPLEMENT ACCOMPANYING DRAWING SHEET ES1 (ELECTRICAL SITE PLAN) TO PROVIDE A 2-SHEET, PERMIT-READY, PLAN SET AND THE NEEDED INSTALLATION INSTRUCTIONS FOR A SOLAR FLOOD (PV-PHOTOVOLTAIC) PARKING LOT LIGHTING SYSTEM AT SOLAR WORLD, ISPC, LEVEREDGE FACILITY ON GUNN HIGHWAY IN ODESSA, FLORIDA. PRESENTLY, ALL LIGHTS WILL BE MOUNTED ON 20-FOOT, TOTAL LENGTH, WHATLEY FIBERGLASS LIGHT-POLES AS SHOWN IN SHEET ES1, FIGURE 2, SOLAR POLE DETAIL, AND SHEET ES2, FIGURE 1 (INSTALLATION DETAILS), FIGURE 2 (RT50 ADDITIONAL DETAILS). EACH POLE SHALL BE DIRECTLY BURIED A MINIMUM POLE DEPTH OF 4-FEET IN A MINIMUM 3-FEET DIAMETER HOLE AND BACK-FILLED WITH WELL-CONSOLIDATED, #57 OR #60 AASHTO GRADE AGGREGATE. INSTALLATION PER THIS SPECIFICATION WILL RESULT IN A MINIMUM WIND RESISTANCE OF 130 MPH EXPOSURE CATEGORY B. NOTE THAT THE SYMBOLS SLR AND SB ON ES1, FIGURE 1, SITE PLAN, DESIGNATE STREET LIGHT REFRACTOR (SLR) AS SHOWN IN FIGURE 4 AND SHOE BOX (SB) AS SHOWN IN FIGURES 5 & FIGURE 6 ON THIS DRAWING SHEET - ES2. WHILE IT IS NOT CURRENTLY PLANNED TO USE THE POWER FLOOD OR WALL-MOUNT FIXTURES (ST BRACKET) AS SHOWN IN FIGURE 3 OF THIS DRAWING SHEET (ES2), THESE (POWER FLOOD & ST BRACKET) ARE APPROVED BY THIS PLAN SET FOR THE JOB AND MAY BE INSTALLED AS NEEDED OR DESIRED BY THE OWNER. ALL LIGHT LOCATIONS SHOWN ARE TENTATIVE AND MAY BE RELOCATED OR ELIMINATED OR ADDED TO AS NECESSARY TO PROVIDE NEEDED LIGHT AND/OR TO MINIMIZE LIGHT POLLUTION SO LONG AS THE INSTALLATION LOCATIONS CONFORM TO THE CURRENT FLORIDA BUILDING CODE.

09 ENGINEERING COMMENTS  
SCALE: N.T.S.

SOLAR CITY, INSTALLATION OF A  
PV. PARKING LOT LIGHTING SYSTEM  
1423 GUNN HWY ODESSA FL, 33556



DATE: 01/15/2009  
REVISION NO./DATE:  
THIS SHEET IS  
A SUPPLEMENTAL  
SHEET TO ES1  
AND PART OF THIS PERMIT SET

SHEET NAME:  
PERMIT SET 2 SHEETS

JOB #: 013

SHEET NO:  
ES2