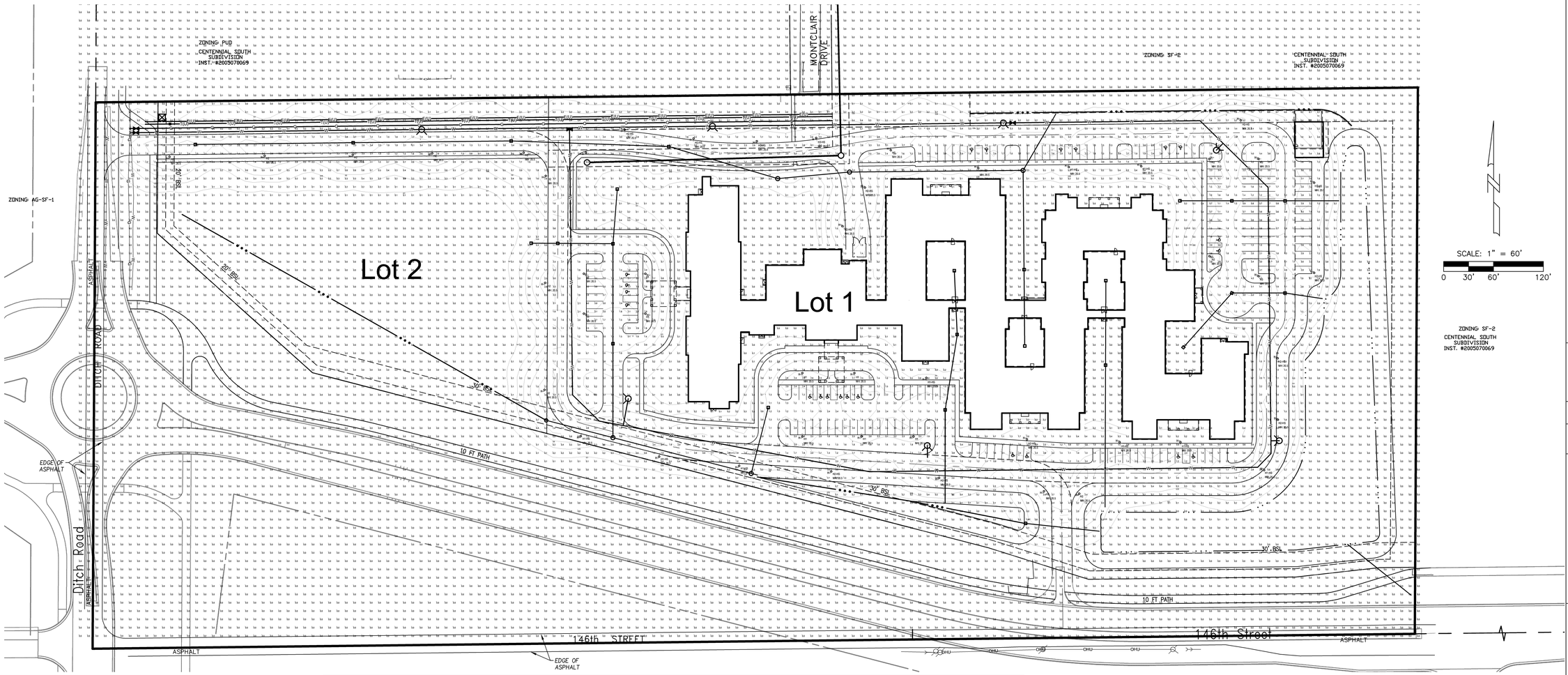


10505 N. College Avenue
Indianapolis, Indiana 46280
weihe.net

317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 *fax*

ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

REVISIONS AND ISSUES	DATE	BY

PROJECT NO.: W13-00239
DWG. NAME: W110381 PRELIMINARY
DESIGNED BY: CRP
DRAWN BY: CRP
CHECKED BY: CRP
DATE: 02/28/2014

PREPARED FOR:
CARDON ASSISTED LIVING
CarDon Development
LIGHTING PLAN
SEC. 15-T18N-R5E, WASHINGTON TWP., HAMILTON CNTY., INDIANA

SHEET NO.
LT-1
PROJECT NO.
W13-00239

Prepared for:
CarDon Development Company, LLC
JOHN TALBOT
11313 USA PARKWAY
SUITE 148
FISHERS, IN 46037
PHONE: 317-600-2044

Property Owner:
EFH Symphony Real Estate, LLC
PAUL E. ESTRIDGE, JR
12965 Old Meridian Street
CARMEL, IN 46032
PHONE: 317-669-6206

811 Know what's **below.** **Call** before you dig.
Within Indiana Call
811 or 800-382-5544
24 Hours a Day, 7 Days a Week.
PER INDIANA STATE LAW IC 8-1-26, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.

KIM LIGHTING

EKG401
Shoebox Luminaire
revision 3/19/14 • kl_ekg401_spec.pdf

Type:
Job:
Catalog number:

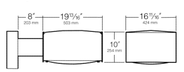
EKG401 / Mtg. / Fixture / Electrical Module / Finish / Options (See page 3) / Pole (See page 2)

Select pole from Kim Arms and Poles Selection Guide. If pole is provided by others indicate O.D. for arm fitting.

Approvals:

Date:
Page: 1 of 3

Specifications



Housing: Fabricated from a one-piece extruded aluminum side panel with mitered corners that are internally welded and sealed for weathertightness. A press-formed aluminum top cover interlocks with housing, and has a continuous seal of silicone rubber resistant to weathering, moisture, UV and ozone. Top is peaked for increased strength and efficient water runoff.

Reflector Module: Specular Alzak® optical segments are rigidly mounted within a die-cast aluminum enclosure that attaches to the housing as a one-piece module. HPS and PMH sockets are porcelain 4KV pulse rated mogul base. All reflector modules are factory prewired with quick-disconnect plug...

Lens Frame Assembly: A ⅛" thick impact resistant clear tempered flat glass lens enclosed by a one piece molded high temperature gasket. Lens and gasket interlocks in an extruded aluminum frame which hinges at the pole end, and closes and tightly seals the optical chamber by four captive fasteners. Lens frame is removable without tools by means of quick-disconnecting hinges.

Electrical Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs. Ballast assembly attaches to fixture using quick-disconnecting key slots. Fast field wiring is provided for by prewiring all electrical components with quick-disconnect plugs. Ballast is high power factor of 90% or better and with starting temperatures of -20°F. Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

Support Arm: One piece rectangular extruded aluminum with internal centering guides. Luminaire-to-pole attachment is by internal mechanical draw bolts, and includes a pole reinforcing plate with wire strain relief.

Finish: Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over a titanated zirconium conversion coating; 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Bronze, Platinum Silver, Stealth Gray™, or White. Custom colors are available and subject to additional charges, minimum quantities and longer lead times. Consult representative.

Optional Anodized Finish: Dark Bronze Architectural Class 1 Anodize over satin polish.

Certification: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Listings and Ratings		
UL cUL 1598 standards[1]	IP66 Rated	25C Ambient

[1]Suitable for wet locations.
KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

HUBBELL LIGHTING, INC.

© 2014 KIM LIGHTING • 16555 EAST GALE AVENUE, CITY OF INDUSTRY, CA 91745-1788 • TEL: 626/968-5666 • FAX: 626/968-5716

KIM LIGHTING

EKG401
Shoebox Luminaire
revision 3/19/14 • kl_ekg401_spec.pdf

Type:
Job:

Page: 2 of 3

Standard Features

Mounting

Plan View: — Wall Mount

EPA:	2.1	4.2	3.5	4.5	5.0	n/a
Cat. No.:	☐ 1A	☐ 2B	☐ 2L	☐ 3T	☐ 4C	☐ 1W

Fixture
Cat. No. designates fixture with standard mounting arm.

Cat. No.: **EKG401**

Electrical Module
HPS = High Pressure Sodium
PMH = Pulse Start Metal Halide

Lamp Lamp Line
Watts Type Volts
250 HPS 277

Cat. Nos. for Electrical Modules available:

High Pressure Sodium

☐ 70HPS120	☐ 100HPS120	☐ 150HPS120	☐ 200HPS120	☐ 250HPS120
☐ 70HPS208	☐ 100HPS208	☐ 150HPS208	☐ 200HPS208	☐ 250HPS208
☐ 70HPS240	☐ 100HPS240	☐ 150HPS240	☐ 200HPS240	☐ 250HPS240
☐ 70HPS277	☐ 100HPS277	☐ 150HPS277	☐ 200HPS277	☐ 250HPS277
☐ 70HPS347	☐ 100HPS347	☐ 150HPS347	☐ 200HPS347	☐ 250HPS347
☐ 70HPS480	☐ 100HPS480	☐ 150HPS480	☐ 200HPS480	☐ 250HPS480

Lamp	E-23½, Clear	E-23½, Clear	E-23½, Clear	E-23½, Clear	E-18, Clear
Socket	Mogul Base	Mogul Base	Mogul Base	Mogul Base	Mogul Base
ANSI Ballast	S-62	S-54	S-55	S-66	S-50

Pulse Start Metal Halide

☐ 200PMH120	☐ 250PMH120
☐ 200PMH208	☐ 250PMH208
☐ 200PMH240	☐ 250PMH240
☐ 200PMH277	☐ 250PMH277
☐ 200PMH347	☐ 250PMH347
☐ 200PMH480	☐ 250PMH480

Lamp	T-15, Clear	BT-28 or ED-28, Clear
Socket	Mogul Base	Mogul Base
ANSI Ballast	M-136	M-138, M-153

NOTE: Due to the Energy Independence and Security Act (EISA) of 2007, Kim Lighting can no longer supply probe start metal halide ballasts with its luminaires, effective January 1, 2009. Contact Kim Lighting for availability of replacement ballasts for warranty service claims.
(Visit www.aboutlightingcontrols.org or the Library of Congress website for more details).

Finish
Super TGIC powder coat paint over titanated zirconium conversion coating.
Optional Architectural Class 1 anodized finish is available at extra cost.

Standard Finishes:
Color: Black ☐ **BL** Dark Bronze ☐ **DB** Stealth Gray™ ☐ **SG** Platinum Silver ☐ **PS** White ☐ **WH** Custom Color[1] ☐ **CC**
Cat. No.:

[1]Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description:

Optional Anodized Finish: (Available at extra cost.)
Color: Dark Bronze Anodize
Cat. No.: ☐ **DB-A**

© 2014 KIM LIGHTING • 16555 EAST GALE AVENUE, CITY OF INDUSTRY, CA 91745-1788 • TEL: 626/968-5666 • FAX: 626/968-5716

KIM LIGHTING

EKG401
Shoebox Luminaire
revision 3/19/14 • kl_ekg401_spec.pdf

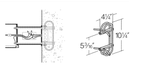
Type:
Job:

Page: 3 of 3

Optional Features

Wall Mounting
Cat. No. ☐ **1W** ☐ **No Option**

A modified arm containing an access hole to allow field splices within the arm. A wall embedment bracket **(WEB)** is provided to accept fixture mounting rods, and a trim plate shall be provided to cover the wall embedded junction box (j-box by others.) All exposed parts are finished to match the fixture. For concrete mounting only.



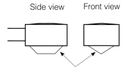
Wall mount using wall embedment bracket - J-box in wall (by others)

Polycarbonate Shield
Cat. No. ☐ **LS** ☐ **No Option**

Optional Polycarbonate Shield replaces standard tempered glass lens. One-piece vacuum formed clear polycarbonate. Polycarbonate Shield is semi-pyramidical in shape for high thermal resistance, impact resistance and light transmission. 250 watt maximum.

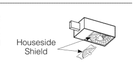
NOTE: May be used with 400 HPS in outdoor locations where ambient air temperature during fixture operation will not exceed 85°F.

CAUTION: Use only when vandalism is anticipated to be high. Useful life is limited by discoloration caused by UV from sunlight and metal halide lamps.



Houseside Shield
Cat. No. ☐ **HS** ☐ **No Option**

For highly reduced light on houseside. Two shielding components permanently installed at the Kim factory. One component reduces light directly from the lamp; the other component reduces reflected light. Recommended for use with clear lamps only.



Photocell Receptacle
Cat. No. ☐ **A-25** ☐ **No Option**

A fully gasketed receptacle installed above the electrical compartment for NEMA base photocell (by others). For all multiple-fixture pole mountings, one fixture has a receptacle to operate the others.

Mounting (see page 2)

★ Fixture with photocell receptacle
s slave unit(s)

	1A, 1W	2B	
	2L	3T	4C
Allowable wattage per fixture:	70-250W		

Poles
See Kim Arms and Poles Selection Guide for a complete selection of square and round poles in aluminum or steel.

© 2014 KIM LIGHTING • 16555 EAST GALE AVENUE, CITY OF INDUSTRY, CA 91745-1788 • TEL: 626/968-5666 • FAX: 626/968-5716

PHOTOMETRIC PLAN DESIGNED BY ESL-SPECTRUM
WWW.ESL-SPECTRUM.COM
PHONE: 317.951.2300

Luminaire Schedule									
Project: ASPEN TRACE - BARGERSVILLE, IN - SITE LIGHTING 20140102-KC									
Symbol	Qty	Label	Arrangement	Lum. Watts	Lumens/Lamp	LLF	IES Class	Cutoff Class	Description
	9	H1	SINGLE	175	16000	0.750	Type III	Full Cutoff	1A-EKG401-3/250PMH-ED28-18' POLE
	10	H1-HS	SINGLE	175	16000	0.750	Type III	Full Cutoff	1A-EKG401-3/175PMH-ED28/HS-18' POLE
	13	H2	SINGLE	175	16000	0.750	Type II	Full Cutoff	1A-EKG401-2/175PMH-ED28-18' POLE
	14	H2-HS	SINGLE	175	16000	0.750	Type II	Full Cutoff	1A-EKG401-2/175PMH-ED28/HS-18' POLE
	2	H3	BACK-BACK	175	16000	0.750	Type III	Full Cutoff	2B-EKG401-3/250PMH-ED28-18' POLE

CALCULATIONS ARE MAINTAINED HORIZONTAL ILLUMINANCE FIGURES IN FOOT-CANDLES
POINTS SHOWN ARE AT GRADE
FIXTURES ARE MOUNTED ON 18'-0" POLES
OVERALL FIXTURES MOUNTING HEIGHTS A.F.G. ARE SPECIFIED NEXT TO FIXTURES AS "MH"

Calculation Summary							
Project: ASPEN TRACE - BARGERSVILLE, IN - SITE LIGHTING 20140102-KC							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Lot & Drives_Grade	Illuminance	Fc	1.71	5.9	0.2	8.55	29.50
Perimeter_Grade	Illuminance	Fc	0.10	3.9	0.0	N.A.	N.A.

ESL-Spectrum's services are for estimation purposes only, and are not warranties.
Final design and illumination levels must be determined and specified by an electrical engineer.
Field results may differ from computer predictions because of many uncontrollable factors and adverse test conditions such as:
line voltage variations, lamp performance, product manufacturing tolerances, jobsite conditions, and other unrecoverable light-loss factors.

THE FIXTURE TYPE(S) AND LAMP(WGS) SPECIFIED ON THIS LAYOUT MUST BE USED IN ORDER TO MEET THE EXACT CRITERIA AND PERFORMANCE DATA SHOWN.
IES RECOMMENDED ILLUMINANCE TARGETS USED WHERE APPLICABLE.

LOCATION: P:\2013\W13002539\Engineering\Design\Lighting\W13002539 Lighting Plan.dwg
LAYOUT: Layout1
DATE/TIME: April 02, 2014 - 1:38pm
PLOTTED BY: Brendan