



MEMORANDUM

DATE: July 28, 2009

TO: Design Review Board

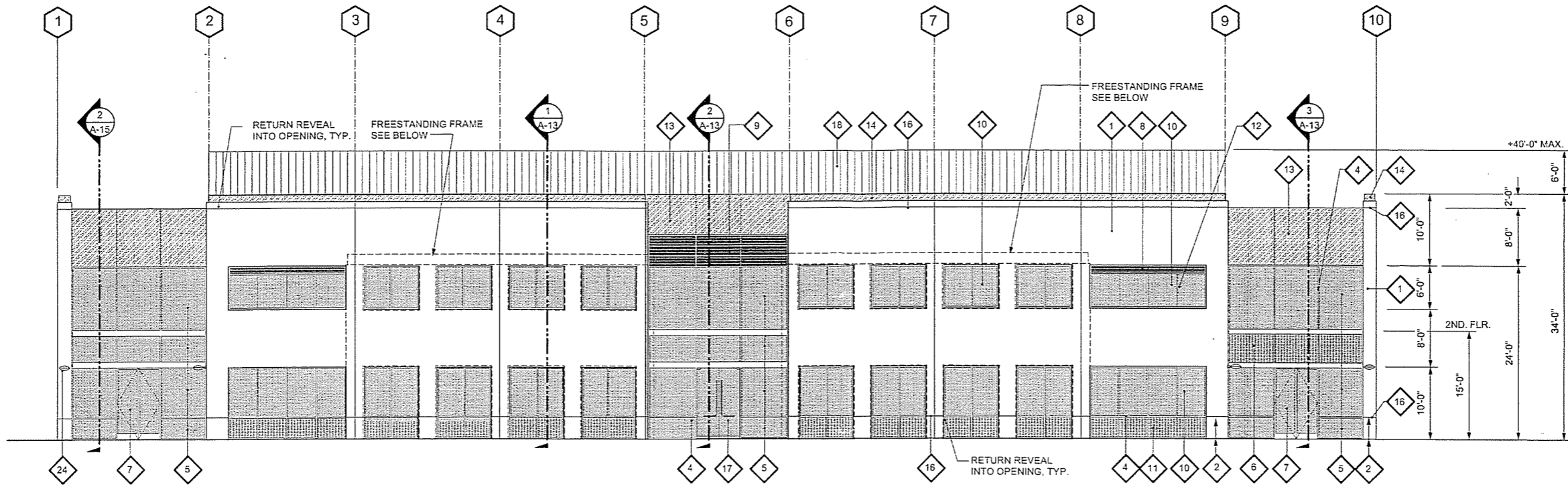
FROM: Cindy Moore, Senior Planner

SUBJECT: DRB Meeting of 08-11-09, Item # I-1, Cabrillo Business Park

Item # I-1 on your agenda for August 11, 2009 includes Revised Final review of Building 2 of the Cabrillo Business Park project for the exterior building lighting. On April 14, 2009, the DRB granted Final approval for Building 2 and associated improvements in the northeast portion of the property including the Hollister Avenue entry and a portion of the internal drive, grading, and Hollister Avenue street and frontage improvements. No exterior building lighting was included in that approval.

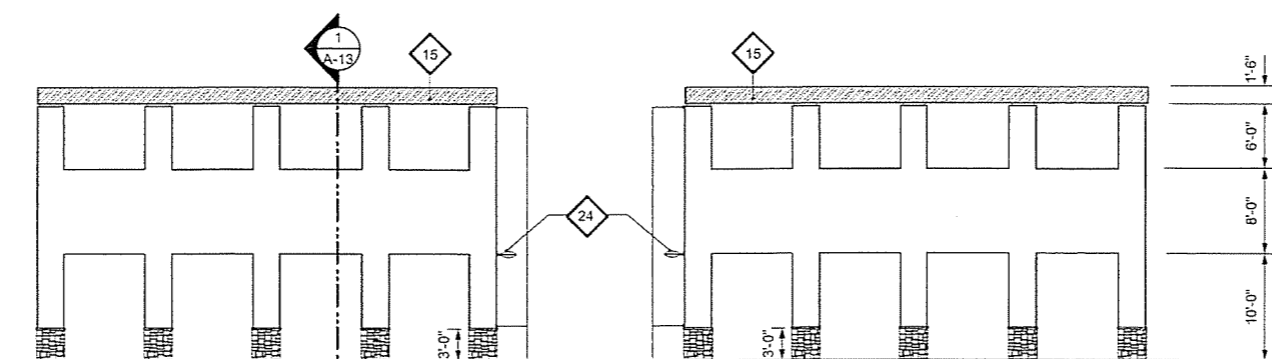
Attachments:

- Project Plans Received July 6, 2009 (Sheets A-2, A-3, E-1.0, E-8.0, E-8.1)
- MiniFlex lighting details
- KIM lighting details
- Hydrel lighting details



SOUTH ELEVATION

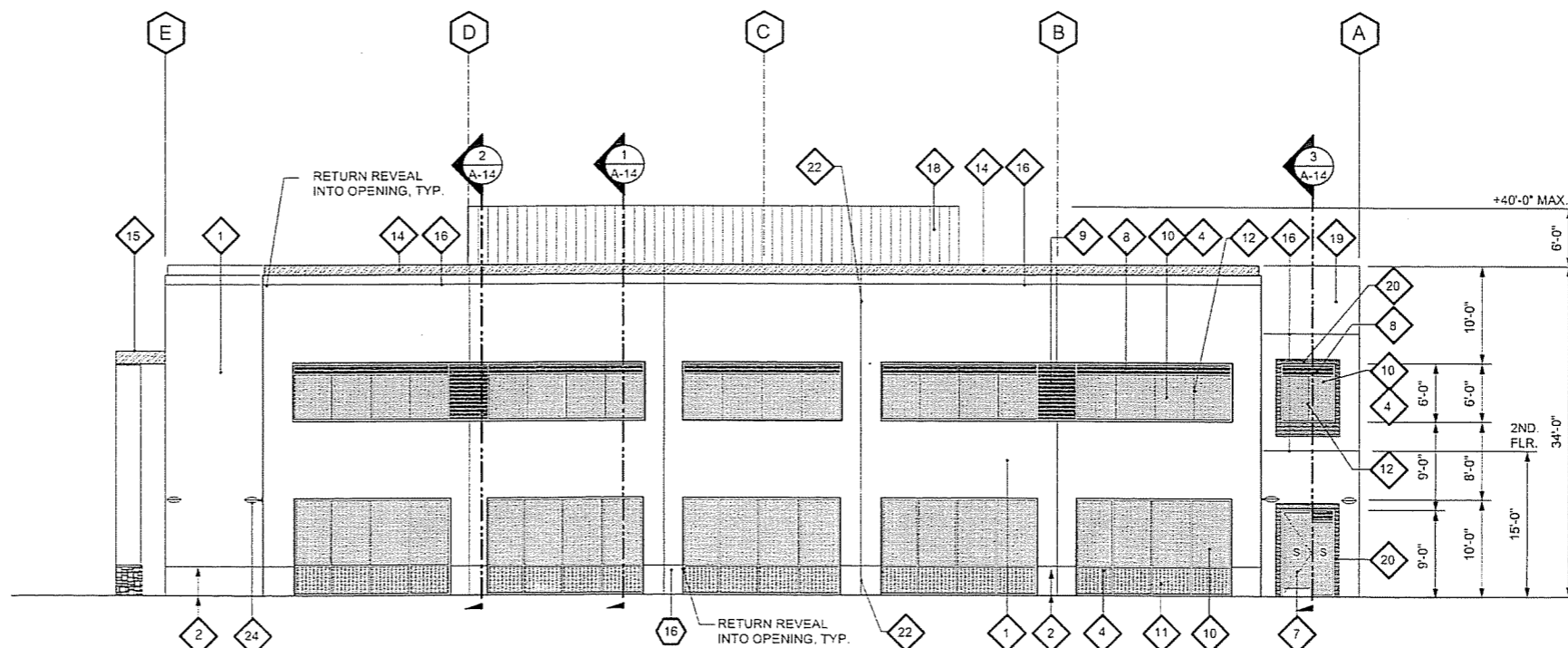
NOTE:
SEE SHEET D-8 FOR STOREFRONT DETAILS, TYPICAL



FREESTANDING FRAME

KEYNOTES

1. CONCRETE TILT UP WALL PANEL (SMOOTH FINISH) PAINTED - FRAZEE NO. CL2802M 'BASOUCHE', TYP.
2. CONCRETE TILT UP WALL PANEL (SMOOTH FINISH) PAINTED - FRAZEE NO. CL2804D 'SHOGUN', TYP.
3. CONCRETE FREESTANDING ENTRY FRAME WALL (SMOOTH FINISH) PAINTED - FRAZEE NO. CL2804D 'SHOGUN', TYP.
4. ALUMINUM STOREFRONT AND WINDOW SYSTEM BY ARCADIA, INC. (OR EQ.) COLOR TO BE #11 / CLEAR AC-2, TYP.
5. GLAZING HIGH PERFORMANCE 'CLEAR' AT ENTRIES - PPG SOLARBAN z50 LOW E (DUAL GLAZED), TYP.
6. GLAZING HIGH PERFORMANCE 'CLEAR' AT ENTRIES - PPG SOLARBAN z50 LOW E WITH GRAY FRIT, TYP.
7. STOREFRONT DOORS, TYP.
8. ACCENT GLAZING - TINTED VISTEON VERSALUX BLUE 2000 (DUAL GLAZED), TYP.
9. SPANDREL GLAZING TINTED VISTEON VERSALUX BLUE 2000 WITH GRAY FRIT, TYP.
10. GLAZING - TINTED PPG SOLEXIA SOLARBAN z50 LOW E (DUAL GLAZED), TYP.
11. SPANDREL GLAZING - TINTED PPG SOLEXIA SOLARBAN z50 LOW E WITH GRAY FRIT, TYP.
12. SILICONE GLAZE (BUTT JOINT), TYP.
13. METAL FASCIA W/ REVEAL AT ENTRIES, TYP. - COLOR TO MATCH STOREFRONT SYSTEM, TYP.
14. METAL CAP OVER 2" RECESS IN CONCRETE, TYP. - COLOR TO MATCH STOREFRONT SYSTEM (BID ALTERNATE - PAINT TO MATCH STOREFRONT SYSTEM), TYP.
15. METAL TRELLIS - COLOR TO MATCH STOREFRONT SYSTEM, TYP.
16. REVEAL IN CONCRETE WALL. RETURN REVEALS AROUND CORNERS AND ON TO ALL EXPOSED SURFACES, TYP.
17. HERCULITE DOORS - HIGH PERFORMANCE CLEAR GLAZING AT CENTER ENTRY.
18. MECHANICAL EQUIPMENT SCREEN - FLUSH SEAM METAL PANELS - COLOR TO MATCH STOREFRONT SYSTEM, TYP.
19. CONCRETE TILT UP PANEL (SMOOTH FINISH) - PAINT - FRAZEE NO. CL 2804D 'SHOGUN', TYP.
20. 2" RECESS IN PANEL, TYP. - PAINTED SMOOTH CONCRETE - FRAZEE NO. CL2895A 'TEASLE'.
21. STONE VENEER AND WAINSCOT CAP BY CORNADO STONE OR EQ. - SANTA BARBARA STONE 'SAND DUNE' (4 - SIDES), TYP.
22. PANEL JOINT, TYP.
23. STEEL AND CORRUGATED METAL GATES AND ROOF AT TRASH ENCLOSURE TO BE PAINTED - FRAZEE NO. 2802M 'BASOUCHE' TYP.
24. WALL MOUNTED LIGHT FIXTURE - SEE ELECTRICAL.



EAST ELEVATION

NOTE:
SEE SHEET D-8 FOR STOREFRONT DETAILS, TYPICAL

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NO. 934

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Revisions

1 BID SET REVISION
06-01-09

RECEIVED

JUL 06 2009

City of Goleta
Planning & Environmental Svcs.

**CABRILLO
BUSINESS PARK
BUILDING NO. 2**

HOLLISTER AVE
GOLETA, CA

**EXTERIOR
ELEVATIONS**

Date: 04-06-09

Job: 0824

Drawn by:

Sheet:

A-2

SC: 1/8" = 1'-0"



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Revisions

CABRILLO
BUSINESS PARK
BUILDING NO. 2

HOLLISTER AVE
GOLETA, CA

EXTERIOR
ELEVATIONS

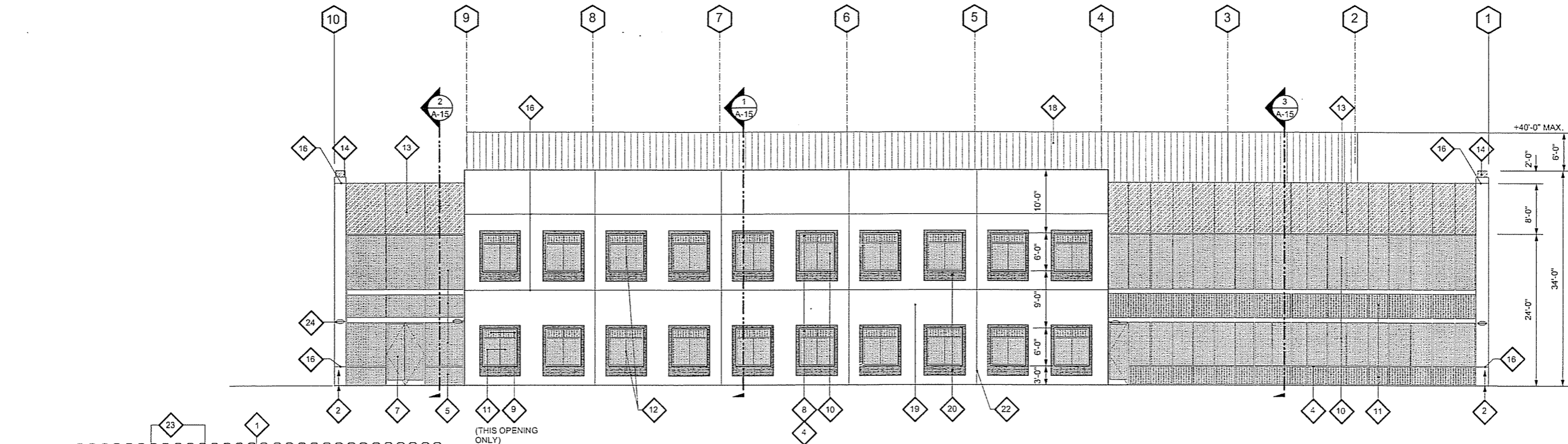
Date: 04-06-09

Job: 0924

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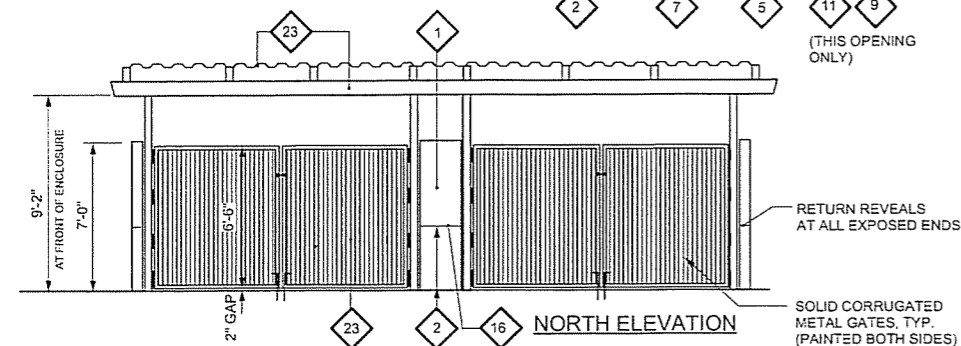
Sheet:

A-3

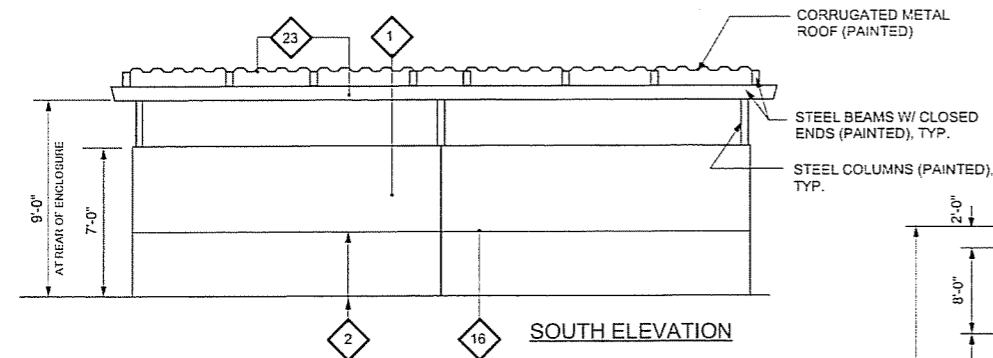


NORTH ELEVATION

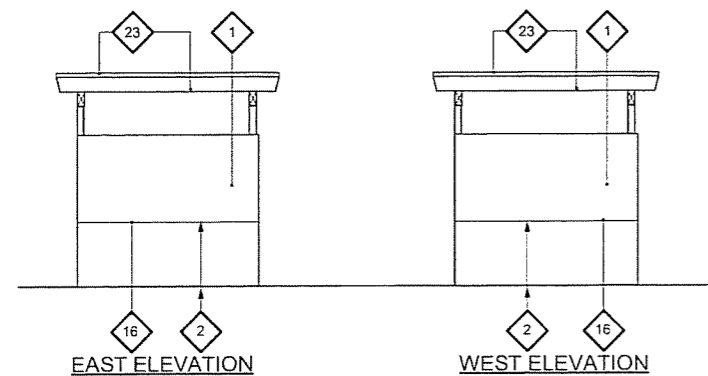
NOTE:
SEE SHEET D-8 FOR STOREFRONT DETAILS, TYPICAL



NORTH ELEVATION



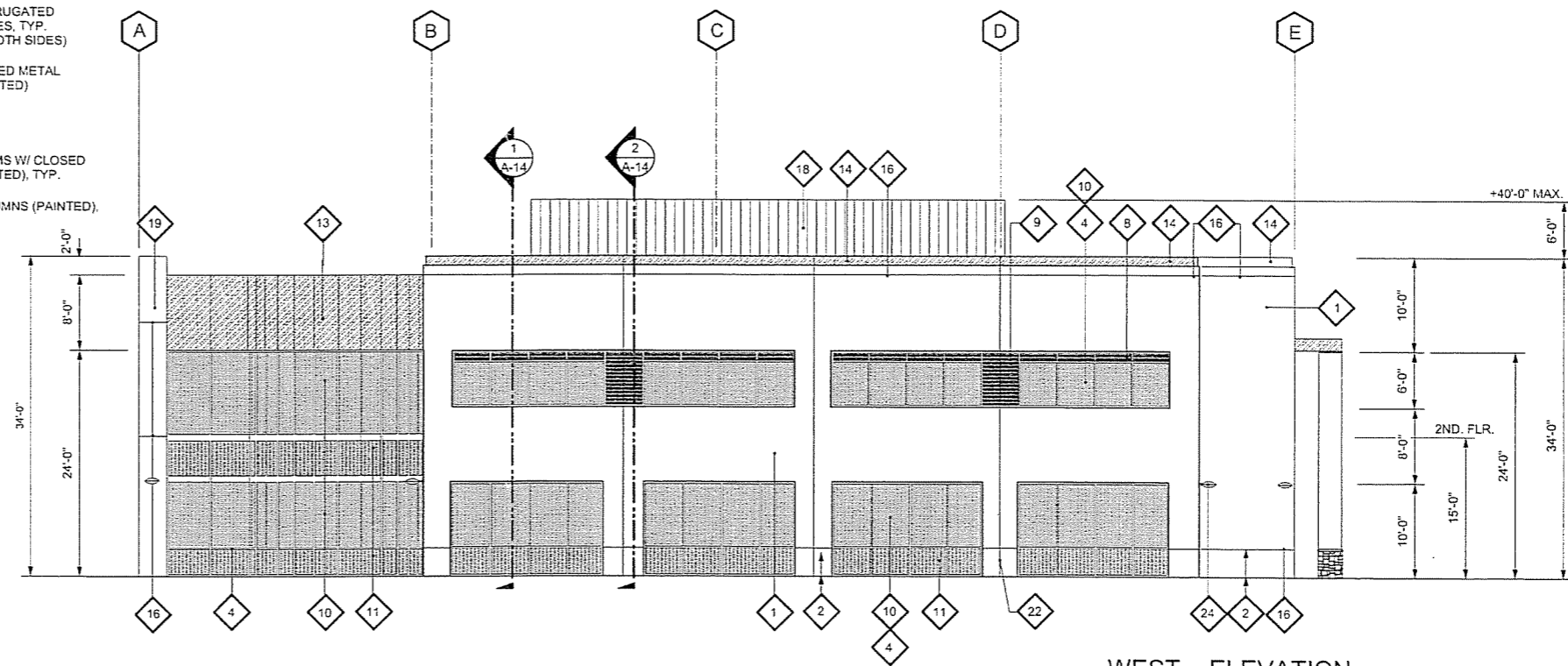
SOUTH ELEVATION



EAST ELEVATION

WEST ELEVATION

TRASH ENCLOSURE ELEVATIONS
SEE SHEET D-15 FOR
CONSTRUCTION DETAILS
SC: 1/4" = 1'-0"



WEST ELEVATION

NOTE:
SEE SHEET D-8 FOR STOREFRONT DETAILS, TYPICAL

NOTE: SEE SHEET A-2 FOR
KEYNOTE LEGEND

SC: 1/8" = 1'-0"

GENERAL NOTES

1. THE WORK DONE UNDER THIS SECTION INCLUDES THE FURNISHING OF ALL LABOR AND MATERIALS FOR THE COMPLETE INSTALLATION OF ELECTRICAL SYSTEMS AND EQUIPMENT REFERRED TO, IMPLIED, OR SHOWN HEREIN ON THE DRAWINGS EXCEPT SUCH MATERIAL AND EQUIPMENT AS MAY BE SPECIFICALLY MENTIONED TO BE PROVIDED BY OTHERS.
2. FOR THE PURPOSE OF CLARIFICATION AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIMENSIONAL. THE SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE, BUT THE ELECTRICAL CONTRACTOR SHALL MAKE USE OF THE DATA ON ALL THE CONTRACT DOCUMENTS TO VERIFY THIS INFORMATION.
3. ARCHITECTURAL AND STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER THE ELECTRICAL DRAWINGS IN THE REPRESENTATION OF THE GENERAL CONSTRUCTION WORK. THE DRAWINGS OF THE VARIOUS TRADES TAKE PRECEDENCE IN THE PREPARATION OF THE WORK OF THOSE TRADES. THE ELECTRICAL CONTRACTOR SHALL REFER TO ALL DRAWINGS TO COORDINATE THE ELECTRICAL WORK WITH THE WORK OF THE OTHER TRADES.
4. THE LOCATION OF ALL ELECTRICAL EQUIPMENT AND OUTLETS, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE ONLY, EXCEPT WHERE DIRECTED DIMENSIONS, HEIGHTS, OR DETAILS CORRELATE LOCATIONS BY REFERENCE TO ARCHITECTURAL DETAILS OR VERIFIED WITH THE ARCHITECT AND/OR OWNER.
5. THE ELECTRICAL CONTRACTOR SHALL CAREFULLY EXAMINE THE BUILDING AND SITE, AND COMPARE THE DRAWINGS WITH EXISTING CONDITIONS. HE WILL FURTHER VERIFY ALL REQUIREMENTS WITH THE PROPER COMPANIES INVOLVED. BY THE ACT OF SUBMITTING A BID, THE ELECTRICAL CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH EXAMINATION, TO HAVE ACCEPTED SUCH CONDITIONS, AND TO HAVE MADE ALLOWANCES THEREFORE IN PREPARING HIS PRICES.
6. THE ELECTRICAL CONTRACTOR SHALL BE LICENSED TO PERFORM THE WORK OUTLINED, SHALL BE FAMILIAR WITH ALL LOCAL CODES HAVING JURISDICTION, AND SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS AND VERIFY THAT ALL SYSTEMS CONTAINED THEREIN ARE IN COMPLIANCE WITH THOSE CODES HAVING JURISDICTION. BY THE ACT OF SUBMITTING A BID, THE ELECTRICAL CONTRACTOR SHALL BE DEEMED TO HAVE ACCEPTED SUCH CONDITIONS AND RESPONSIBILITIES, AND TO HAVE MADE ALLOWANCES THEREFORE IN PREPARING HIS PRICES SO THAT THERE WILL BE NO ADDITIONAL COSTS INCURRED FOR ANY ADDITIONAL REQUIREMENTS MADE BY THOSE AGENCIES HAVING JURISDICTION.
7. THE ELECTRICAL CONTRACTOR SHALL INFORM HIMSELF, PRIOR TO SUBMISSION OF BID, AS TO THE ELECTRICAL WORK REQUIRED BY OTHER SECTIONS OF THE PLANS OR THE SPECIFICATIONS, SUCH AS MECHANICAL, PLUMBING, ELEVATORS, ETC., AND SHALL INCLUDE THOSE ITEMS INDICATED TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR OR BY OTHERS.
8. REQUIREMENTS AND AVAILABILITY OF SERVICES HAVE BEEN DETERMINED AS ACCURATELY AS POSSIBLE AND INDICATED ON THE DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABILITY OF SERVICES AND DETERMINE ACTUAL DETAILS PERTAINING TO EXACT LOCATIONS AND REQUIREMENTS BEFORE SUBMITTING HIS BID. NO CONSIDERATIONS FOR EXTRA COSTS WILL BE GIVEN RESULTING FROM FAILURE OF THE ELECTRICAL CONTRACTOR TO COMPLY WITH THIS REQUIREMENT.
9. THE OWNER RESERVES THE RIGHT TO MOVE ANY OUTLET WITHIN THE RADIUS OF SIX FEET WITHOUT ADDITIONAL EXPENSE TO THE OWNER. NO ALLOWANCE WILL BE MADE FOR EXTRAS FOR ANY CHANGES IN LOCATIONS, EXCEPT WHERE EQUIPMENT HAS BEEN SET AND CONNECTED BEFORE ANY CHANGE IS ORDERED, AND THEN ONLY WHEN SUCH CHANGE IS ORDERED IN WRITING.
10. THE DRAWINGS SHOW THE REQUIRED SIZE AND POINTS OF TERMINATION OF THE CONDUITS, THE NUMBER AND SIZE OF WIRES THEREIN, AND SUGGEST THE PROPER ROUTE FOR THE CONDUITS. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO INSTALL THE CONDUITS WITH A MINIMUM NUMBER OF BENDS IN SUCH A MANNER AS SHOWN TO CONFORM TO THE STRUCTURE, AVOID OBSTRUCTION, PRESERVE HEADROOM, KEEP CORRIDORS AND PASSAGEWAYS CLEAR, AND MEET ALL STRUCTURAL CODE REQUIREMENTS.
11. VERIFY THAT A PERMANENT MEANS OF ACCESS TO ALL ELECTRICALLY OPERATED EQUIPMENT HAS BEEN PROVIDED BY OTHERS, OR BY ELECTRICAL CONTRACTORS.
12. THE ELECTRICAL CONTRACTOR SHALL FURNISH THE SERVICES OF AN EXPERIENCED SUPERINTENDENT WHO SHALL BE CONSTANTLY IN CHARGE OF THE WORK, TOGETHER WITH QUALIFIED JOURNEYMEN, HELPERS AND LABORERS REQUIRED FOR THE SATISFACTORY COMPLETION OF THE WORK TO BE DONE.
13. THE ELECTRICAL CONTRACTOR SHALL REMOVE, STORE, AND INSTALL ALL LIGHTING FIXTURES, LAMPS, APPLIANCES AND THE ELECTRICAL ITEMS FURNISHED BY OWNER.
14. IN THE EVENT OF FAILURE OF ANY ELECTRICAL WORK DURING THE LIFE OF THE GUARANTEE, THE ELECTRICAL CONTRACTOR SHALL REPAIR OR REPLACE THE DEFECTIVE WORK AND SHALL REMOVE, REPLACE OR RESTORE, AT NO COST TO THE OWNER, ANY PART OF THE STRUCTURE OR BUILDING WHICH MAY BE DAMAGED AS THE DIRECT RESULT OF THE CONTRACTOR'S FAILURE TO REPLACE THE DEFECTIVE WORK.
15. ALL CONDUITS SHALL BE COPPER WITH THIN/THIN INSULATION, UNLESS OTHERWISE NOTED ON THE DRAWINGS OR SPECIFICATIONS. ALL CONDUIT TERMINATIONS SHALL BE RATED AT 75°C, MINIMUM.
16. ALL METALLIC GAS AND/OR WATER PIPES WHICH PASS IN CLOSE PROXIMITY TO THE ELECTRICAL CONDUITS, OUTLETS, EQUIPMENT, ETC. SHALL BE BONDED TO THE ELECTRICAL SYSTEM.
17. ALL ELECTRICAL EQUIPMENT, FUSES AND CIRCUIT BREAKERS SHALL HAVE AN INTERRUPTING RATING OF NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBMITTED.
18. THE COMPLETE INSTALLATION, INCLUDING THE NEUTRAL, CONDUCTOR, METALLIC CONDUIT AND RACEWAYS, BOXES, CABINETS AND EQUIPMENT SHALL BE PERMANENTLY AND EFFECTIVELY GROUNDING IN ACCORDANCE WITH ALL CODE REQUIREMENTS, WHETHER OR NOT SUCH CONDUITS ARE SPECIFICALLY SHOWN AND/OR SPECIFIED. GROUND RESISTANCE AT ANY POINT SHALL NOT EXCEED FIVE OHMS.
19. THE ELECTRICAL EQUIPMENT SHALL BE TESTED AND BE PLACED IN WORKING ORDER BEFORE THE INSTALLATION SHALL BE CONSIDERED COMPLETE. ALL PARTS OF THE ELECTRICAL SYSTEM SHALL BE GUARANTEED TO PERFORM THE REQUIRED FUNCTIONS IN ACCORDANCE WITH THE PERFORMANCE REQUIREMENTS WHICH ARE INDICATED OR SPECIFIED, OR WHERE SUCH PARTICULAR REQUIREMENTS ARE NOT STATED, SHALL PERFORM IN ACCORDANCE WITH THE PREVALENT RECOGNIZED TRADE STANDARDS OR REQUIREMENTS. DURING THE PERIOD OF ONE YEAR FOLLOWING COMPLETION, THE ELECTRICAL CONTRACTOR SHALL MAKE ALL REPAIRS OR REPLACEMENTS NECESSARY TO ACCOMPLISH THE REQUIRED PERFORMANCE.
20. ALL ELECTRICAL MATERIALS, FIXTURES, WIRING DEVICES, APPARATUS AND EQUIPMENT SHALL BE NEW AND OF THE TYPE AND CONSTRUCTION SPECIFIED BY THE FIRE UNDERWRITERS AND BY THE ELECTRICAL SAFETY CODES ISSUED BY THE STATE DEPARTMENT OF INDUSTRIAL RELATIONS. MATERIALS SHALL BEAR THE LABEL OF THE UNDERWRITERS' LABORATORIES, INC. WHERE APPLICABLE.
21. ALL INFORMATION CONTAINED ON THE DRAWINGS AND SPECIFICATIONS ARE BASED ON INFORMATION FURNISHED BY OTHERS. ALTHOUGH THERE IS NO REASON TO DOUBT THE SOURCE OF THIS INFORMATION, SILVER ENGINEERING DOES NOT GUARANTEE ITS ACCURACY.
22. ALL ELECTRICAL OUTLETS, MOTORS, DEVICES, APPARATUS, EQUIPMENT, FIXTURE AND APPLIANCES, WHETHER INSTALLED BY THE, OR BY OTHER TRADES, SHALL BE FULLY CONNECTED TO THE PROPER ELECTRICAL SOURCE AND CONTROLS BY THE ELECTRICAL CONTRACTOR AND LEFT IN OPERATING CONDITION, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATIONS.



SYMBOL LIST

LIGHTING

- OUTLET AND LIGHT FIXTURE, CEILING OR PENDANT MOUNTED
- OUTLET AND LIGHT FIXTURE, WALL MOUNTED
- RECESSED LIGHT FIXTURE WITH JUNCTION BOX
- FLUORESCENT STRIP LIGHT, SURFACE MOUNTED
- FLUORESCENT LIGHT FIXTURE, RECESSED
- OUTLET OR JUNCTION BOX AND FLUORESCENT LIGHT FIXTURE
- ⊙ EXT LIGHT
- OUTLET, TRACK AND LIGHT FIXTURES
- ⊕ BATTERY EMERGENCY LIGHT
- ⊙ LIGHTING FIXTURE ON NIGHT LIGHT CIRCUIT
- ⊕ INDICATES TYPE OF LIGHT FIXTURE, PER FIXTURE SCHEDULE
- 2 INDICATES QUANTITY OF LIGHT FIXTURE

RECEPTACLES

- ⊕ DUPLEX CONVENIENCE RECEPTACLE OUTLET AT 48", OR AS NOTED.
- ⊕ DUPLEX RECEPTACLE 1/2 HOT, 1/2 SWITCHED
- ⊕ DUPLEX RECEPTACLE 1 ON TWO INDEPENDENT 120 VOLT CIRCUITS
- ⊕ DUPLEX RECEPTACLE ISOLATED GROUND TYPE, 20 AMP OR AS NOTED
- ⊕ DOUBLE DUPLEX RECEPTACLE OUTLET, 2-GANG BOX OR AS NOTED
- ⊕ SINGLE RECEPTACLE CONVENIENCE OUTLET, 20 AMP OR AS NOTED
- ⊕ CLOAK (RECESSED) SINGLE RECEPTACLE OUTLET, 15 AMP OR AS NOTED
- ⊕ FLUSH FLOOR RECEPTACLE OUTLET
- ⊕ SURFACE FLOOR RECEPTACLE OUTLET

MISCELLANEOUS

- ⊕ TELEPHONE OUTLET, 48", OR AS NOTED
- ⊕ DATA OUTLET, 48", OR AS NOTED
- ⊕ TELEVISION OUTLET, 48", OR AS NOTED
- ⊕ FLUSH OR SURFACE FLOOR TELEPHONE OUTLET
- ⊕ SPEAKER OUTLET
- ⊕ SMOKE DETECTOR
- ⊕ JUNCTION BOX 4" SQUARE x 2-1/8" DEEP, OR AS NOTED
- ⊕ EXHAUST FAN

POWER

- SWITCHBOARD
- PANELBOARD, SURFACE MOUNTED, WITH DOOR
- PANELBOARD, RECESSED, WITH DOOR
- ⊕ TRANSFORMER
- ⊕ MOTOR, NUMBER INDICATES HORSEPOWER
- XXX DRY TYPE TRANSFORMER
- ⊕ UTILITY COMPANY METER, WITH CURRENT TRANSFORMERS
- ⊕ UTILITY COMPANY METER, SELF-CONTAINED
- ⊕ METER, SELF-CONTAINED

CONTROL

- ⊕ SINGLE POLE SWITCH 48", OR AS NOTED
- ⊕ TWO POLE SWITCH
- ⊕ THREE WAY SWITCH
- ⊕ FOUR WAY SWITCH
- ⊕ LETTER INDICATES LIGHTS CONTROLLED
- ⊕ DIMMER SWITCH
- ⊕ DISCONNECT SWITCH
- ⊕ MAGNETO MOTOR STARTER
- ⊕ COMBINATION MOTOR STARTER AND DISCONNECT SWITCH
- ⊕ THERMOSTAT 48", OR AS NOTED
- ⊕ RELAY
- ⊕ GROUND FAULT PROTECTION

CONDUIT

- 1/2" 0-2 # 12 CONCEALED IN CEILING OR WALL
- 1/2" 0-2 # 12
- 1/2" 0-4 # 12
- 3/4" 0-2 # 12
- 3/4" 0-4 # 12
- 3/4" 0-7 # 12
- 3/4" 0-8 # 12
- 1/2" 0-2 # 12 x 1 # 12 GROUND
- CONDUIT IN OR UNDER FLOOR, OR UNDERGROUND
- GROUND TO COLD WATER PIPE OR OTHER APPROVED GROUNDING ELECTRODE
- CONDUIT RISER UP
- CONDUIT RISER DOWN
- CONDUIT HOME RUN TO PANELBOARD

ABBREVIATIONS

- U.G. UNDERGROUND
- W.P. WEATHERPROOF
- T.O. TIME CLOCK
- M.H. MOUNTING HEIGHT
- D.E. DUAL ELEMENT
- A.F. AMP. FUSE
- A.S. AMP. SWITCH
- N.T.S. NOT TO SCALE
- N.L.O. NOT IN CONTRACT
- U.O.M. UNLESS OTHERWISE NOTED
- U.G.P.S. UNDERGROUND FULL SECTION
- A.I.C. AMP. INTERRUPTING CAPACITY
- 4/S DP 4" x 4" x 2-1/8" BOX
- 48" HEIGHT FROM FINISHED FLOOR TO CENTER LINE OF OUTLET
- C.O. CONDUIT ONLY
- V.L. VERIFY LOCATION
- E.O. ELECTRICAL CONTRACTOR
- L.O.L. LONG CONTINUOUS LOAD
- E.D.F. ELECTRIC DRINKING FOUNTAIN
- F.B.O. FURNISHED BY OTHERS
- G.F.I. GROUND FAULT INTERRUPTER
- N.L. NIGHT LIGHT
- S.N. SOLID NEUTRAL
- P.H. W. PHASE, WIRES
- E.C. EXISTING
- S.P.D. SURGE PROTECTION DEVICE
- 5/S DP 4-1/4" x 4-1/4" x 2-1/8" BOX

SHEET INDEX

LATEST CHANGE	ISSUED WITH THIS SET	SHEET NUMBER	SHEET TITLE
ΔΔ	○	E-1.0	GENERAL NOTES AND SYMBOLS LIST
ΔΔ	○	E-2.0	FIRST FLOOR PLAN
Δ	○	E-2.1	FIRST FLOOR EGRESS PATH LIGHTING
			PHOTOMETRIC PLAN
ΔΔ	○	E-3.0	SECOND FLOOR PLAN
Δ	○	E-3.1	SECOND FL EGRESS PATH LIGHTING
			PHOTOMETRIC PLAN
Δ	○	E-4.0	ROOF PLAN
ΔΔ	○	E-5.0	SERVICE DETAILS
ΔΔ	○	E-5.1	PANEL SCHEDULES
Δ	○	E-6.0	DETAILS
ΔΔ	○	E-7.0	TITLE 24 - INTERIOR
ΔΔ	○	E-7.1	TITLE 24 - INTERIOR
Δ	○	E-7.2	TITLE 24 - EXTERIOR
Δ	○	E-8.0	PARTIAL SITE LIGHTING PLAN
Δ	○	E-8.1	PARTIAL SITE PHOTOMETRIC PLAN

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Revisions

- Δ 06-01-09 BID SET
- Δ BLDG. DEPT. CORRECTIONS

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CABRILLO
BUSINESS PARK
BUILDING NO. 2

8767 HOLLISTER AVE.
GOLETA, CA

GENERAL NOTES
& SYMBOLS LIST

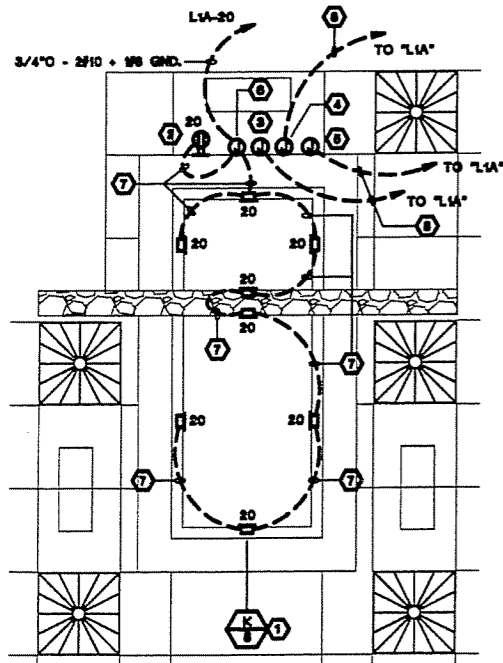
Date: 06-APR-09

Job: SE20901

Drawn by: SE

Sheet :

E-1.0



1 ENLARGED WATER FEATURE AREA
SCALE 3/8" = 1'-0"

- NOTES:
- 1 UNDERWATER LIGHT FIXTURE. VERIFY LOCATION WITH LANDSCAPE ARCHITECT.
 - 2 WEATHERPROOF 125V, 15A, RATED GFI DUPLEX RECEPTACLE IN BRONZE BOX. VERIFY LOCATION IN FIELD.
 - 3 WEATHERPROOF BRONZE BOX FOR CONNECTION TO FUTURE WATER FEATURE PUMP. VERIFY LOCATION.
 - 4 WEATHERPROOF BRONZE BOX FOR CONNECTION TO FUTURE WATER FEATURE PUMP CONTROLLER. VERIFY LOCATION.
 - 5 WEATHERPROOF BRONZE BOX FOR CONNECTION TO FUTURE EQUIPMENT. VERIFY LOCATION.
 - 6 WEATHERPROOF BRONZE BOX LOCATED ABOVE WATER LINE. VERIFY LOCATION.
 - 7 1/2"Ø (RED BRASS) - 2" x 1/2" Ø GROUND.
 - 8 3/4"Ø.O. WITH FULLSTRING.

- NOTES (continued):
- 9 WEATHERPROOF JUNCTION BOX AT +18" ABOVE FINISHED GRADE FOR FUTURE USE. VERIFY EXACT LOCATION WITH LANDSCAPE ARCHITECT.
 - 10 CONNECT TO LED LIGHTING FIXTURE IN CONCRETE BENCH AS REQUIRED. VERIFY POINT OF CONNECTION AND ALL REQUIREMENTS WITH LANDSCAPE ARCHITECT.
 - 11 3/4"Ø - 2" x 1/2" Ø GROUND.
 - 12 3/4"Ø - 2" x 1/2" Ø GROUND.
 - 13 1/2"Ø - 3"Ø.
 - 14 ROUTE BRANCH CIRCUITS THROUGH LIGHTING CONTROL PANEL "RP1".

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REVISIONS

Revisions

06-01-09 BID SET

CABRILLO
BUSINESS PARK
BUILDING NO. 2

6767 HOLLISTER AVE.
GOLETA, CA

PARTIAL
SITE PLAN

Date: 01-JUN-09

Job: SE20001

Drawn by: SE

Sheet :



SC: 3/32" = 1'-0"
PARTIAL SITE PLAN

E-8.0

Symbol	Qty	Label	Description	Lumens	No. Lamps	LLF	Filename
	5	J1	FMSS-100MH-L	8500	1	0.720	FMSS-100MH-LIES
	2	J2	FMSS-100MH-L	8500	1	0.720	FMSS-100MH-LIES
	10	H	FMSX-100MH-L	8500	1	0.720	FMSS-100MH-LIES
	7	G	3096_07GMH-ED17_RS	5500	1	0.720	3096-070p-rs.asx

Label	CalcType	Units	Avg	Max	Min
CalcPs	Illuminance	Fc	0.62	11.9	0.0

Revisions

06-01-09

BID SET

CABRILLO

BUSINESS PARK

BUILDING NO. 2

6767 HOLLISTER AVE.

GOLETA, CA

PARTIAL SITE

PHOTOMETRIC

PLAN

Date:

11-JUN-09

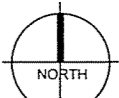
Job:

SE20901

Drawn by:

SE

Sheet :

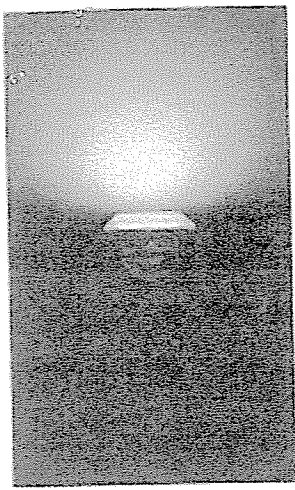


SC: 1" = 10'-0"

PARTIAL SITE

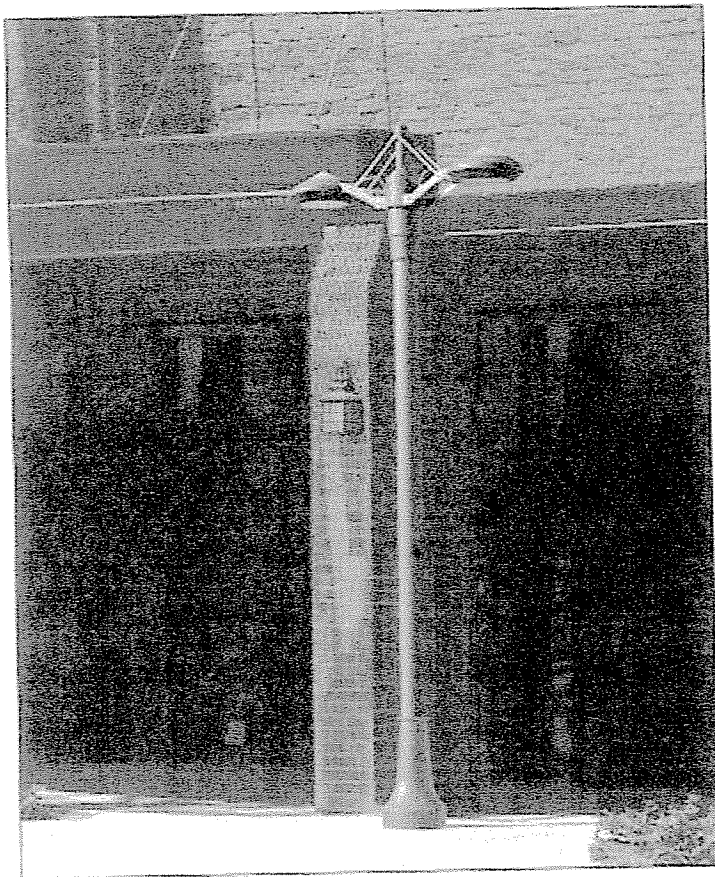
PHOTOMETRIC PLAN

E-8.1



All miniFlex fixtures can be configured as an uplight, downlight and uplight/downlight. The miniFlex design makes it easy to change the direction of the light.

The internal lens cover blocks either the uplight or downlight component of light. Or the cover can be easily removed to create a 50% uplight - 50% downlight luminaire.



FM-

FIXTURE
INCLUDES ARM

BALLAST

COLOR

UPPER
OPTION

LOWER
OPTION

INTERNAL
OPTION

BASE-POLE

1

2

3

4

5

6

7

1 WALL MOUNTED**Remote Ballast**

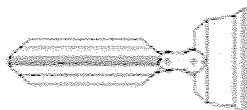
Short stainless steel yoke arm with a 25'8M waterproof cable for connection to a remote ballast. Ballast enclosure by others.

Includes a 5"/125mm round cover plate for the wall if required.

**FMR SHORT ARM**

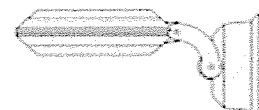
PROJECTION: 13.25"/340MM

HEIGHT: 3.5"/90MM

Integral Ballast**FMSS SHORT STRAIGHT ARM**

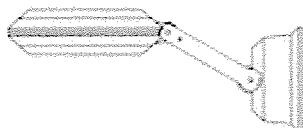
PROJECTION: 17.2"/440MM

HEIGHT: 7.8"/200MM

**FMSC SHORT CURVED ARM**

PROJECTION: 17.9"/445MM

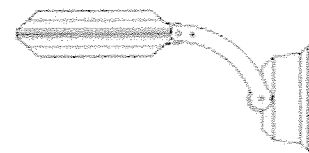
HEIGHT: 7.8"/200MM

**FMLS LONG STRAIGHT ARM**

PROJECTION: 22.5"/570MM

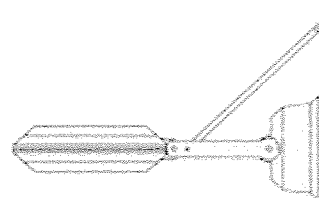
HEIGHT: 7.8"/200MM

arm can be tilted up 30 degrees

**FMLC LONG CURVED ARM**

PROJECTION: 21.3"/540MM

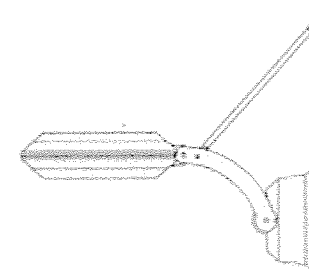
HEIGHT: 10.1"/260MM

**FMLSX LONG STRAIGHT ARM & EXTENSION**

HEIGHT: 14.2"/360MM

PROJECTION: 22.5"/570MM

HEIGHT: 14.2"/360MM

**FMLCX LONG CURVED ARM & EXTENSION**

HEIGHT: 14.2"/360MM

PROJECTION: 21.3"/540MM

SOLD TO

PO #

JOB NAME

Architectural Area Lighting

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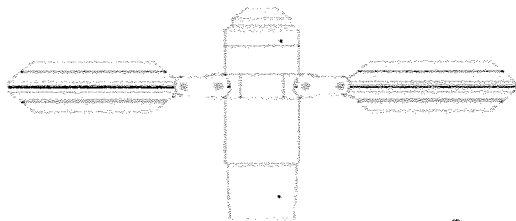
714.994.2700 / fax 714.994.0522 / www.aal.net

Ref: miniFlex.pdf copyright 2005, design patented

Approvals

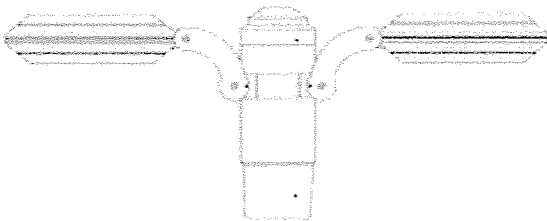
POLE MOUNTED

Ballast is located in the post top fitter. Slips over a 4 inch/100mm pole.



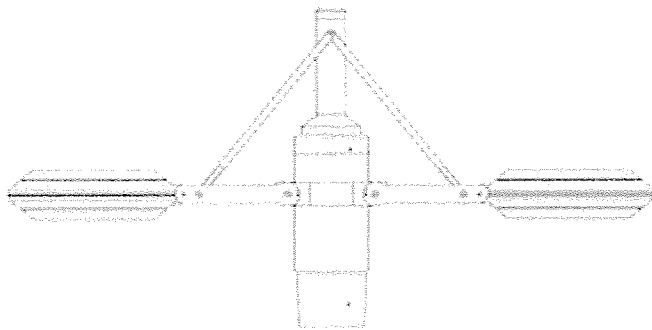
SHORT STRAIGHT ARM

CAT NO	DESCRIPTION
<input type="checkbox"/> FMSS4	single, short straight arm
<input type="checkbox"/> FMTSS4	twin, short straight arm



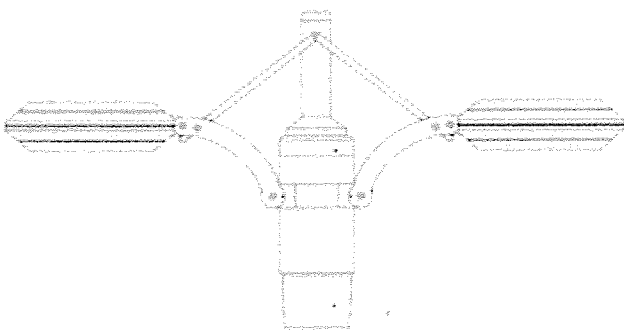
SHORT CURVED ARM

CAT NO	DESCRIPTION
<input type="checkbox"/> FMSC4	single, short curved arm
<input type="checkbox"/> FMTSC4	twin, short curved arm



LONG STRAIGHT ARM

CAT NO	DESCRIPTION
<input type="checkbox"/> FMLS4	single, long straight arm
<input checked="" type="checkbox"/> FMLS4XP	single, long straight arm with extension
<input type="checkbox"/> FMTLS4	twin, long straight arm
<input checked="" type="checkbox"/> FMTLS4XP	twin, long straight arm with extension



SHORT CURVED ARM

CAT NO	DESCRIPTION
<input type="checkbox"/> FMLC4	single, long curved arm
<input type="checkbox"/> FMLC4XP	single, long curved arm with extension
<input type="checkbox"/> FMTLC4	twin, long curved arm
<input type="checkbox"/> FMTLC4XP	twin, long curved arm with extension

2 BALLAST

CAT. NO.	DESCRIPTION
<input type="checkbox"/> INC	For use with medium base incandescent lamps, up to 100 watts.
<input type="checkbox"/> INCT4	For use with mini-cand base T-4 halogen lamps, up to 150 watts.
<input type="checkbox"/> CF	Compact fluorescent, electronic ballast, 120/277 volt. Use 4 pin lamps, 26, 32 or 42 watt.
<input type="checkbox"/> 39MHT6EB	39 watt electronic metal halide ballast, 120 thru 277 volt. Uses a G12 base, clear T-6 ceramic lamp.
<input type="checkbox"/> 50MH	50 watt metal halide 120/277 volt ballast. Use medium base, clear ED-17 lamps.
<input type="checkbox"/> 50MHEB	50 watt electronic metal halide ballast, 120 thru 277 volt. Use medium base, clear ED-17 lamps.
<input type="checkbox"/> 70MH	70 watt metal halide 120/208/240/277 volt ballast. Use medium base, clear ED-17 lamps.
<input type="checkbox"/> 70MHEB	70 watt electronic metal halide ballast, 120 thru 277 volt. Use medium base, clear ED-17 lamps.
<input type="checkbox"/> 70MHT6	70 watt metal halide 120/277 volt ballast. Uses a G12 base, clear T-6 ceramic lamp.
<input type="checkbox"/> 70MHT6EB	70 watt electronic metal halide ballast, 120 thru 277 volt. Uses a G12 base, clear T-6 ceramic lamp.
<input type="checkbox"/> 100MH	100 watt metal halide 120/208/240/277 volt ballast. Use medium base, clear ED-17 lamps.
<input checked="" type="checkbox"/> 100MHEB	100 watt electronic metal halide ballast, 120 thru 277 volt. Use medium base, clear ED-17 lamps.
<input type="checkbox"/> 50HPS	50 watt high pressure sodium 120/277 volt ballast. Use medium base, clear ED-17 lamps.
<input type="checkbox"/> 70HPS	70 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, clear ED-17 lamps.
<input type="checkbox"/> 100HPS	100 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, clear ED-17 lamps.

All ballasts are multi-tap, prewired for 277 volts. Lamps not included.

All magnetic ballasts use the extended back plate.

3 COLORS (MATCH PARKING LOT FIXTURES)

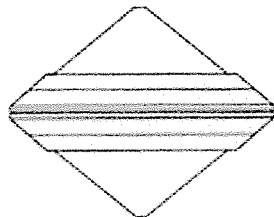
<input type="checkbox"/> WHT White	<input type="checkbox"/> DGN Dark Green
<input type="checkbox"/> LGY Light Grey	<input type="checkbox"/> CRT Corten
<input type="checkbox"/> MAL Matte Aluminium	<input type="checkbox"/> BRM Metallic Bronze
<input type="checkbox"/> MDG Medium Grey	<input type="checkbox"/> DBZ Dark Bronze
<input type="checkbox"/> ATG Antique Green	<input type="checkbox"/> BLK Black
<input type="checkbox"/> VGR Verde Green	<input type="checkbox"/> MTB Matte Black
<input type="checkbox"/> WRZ Weathered Bronze	<input type="checkbox"/> RAL # Provide a RAL 4 digit color number
<input type="checkbox"/> DGN Dark Green	<input type="checkbox"/> CUSTOM Please provide a color chip for matching

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miniFlex is a registered trademark of AAL. Design patents. Copyright 2005.

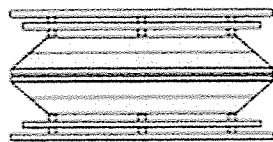
The conical glass lens, angled shade, flared shade, flared cone, and solid ring options can be ordered to attach to the upper and/or lower lens frame. These options can be used separately or in combination with the other. All of the options, except for the conical glass, are field installed to the lens frame with three stainless steel screws.



- ☐ **CGL-U** upper
☐ **CGL-L** lower

CONICAL GLASS

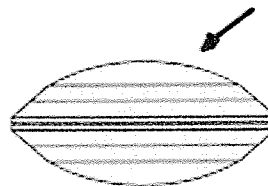
Molded, tempered, frosted glass lens. Can be used on either the upper or lower lens frame, or both.



- ☐ **SR-U** upper
☐ **SR-L** lower

SOLID RINGS

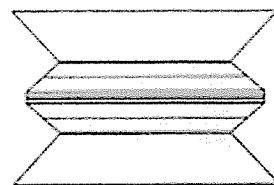
Two cast aluminum rings. Can be used on either the upper or lower lens frame, or both.



- ☒ **DMC-U** upper
☐ **DMC-L** lower

DOMED COVER

Spun aluminum dome mimics the design of the Flex. Can be used on either the upper or lower lens frame, or both.



- ☐ **ANG-U** upper
☐ **ANG-L** lower

ANGLED SHADE

12.75"/325MM DIAMETER

2.50"/64MM HIGH

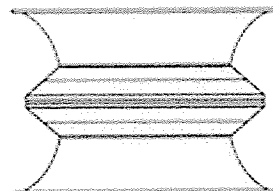
Spun aluminum shade with hemmed edge. Painted the same color as the fixture.

- ☐ **ANGCOP-U** upper
☐ **ANGCOP-L** lower

Spun copper shade with hemmed edge. Unfinished, will patina over time.

- ☐ **ANGSTS-U** upper
☐ **ANGSTS-L** lower

Spun stainless steel shade with hemmed edge. Brushed finish.



- ☐ **FLR-U** upper
☐ **FLR-L** lower

FLARED SHADE

12.87"/330MM DIAMETER

2.75"/70MM HIGH

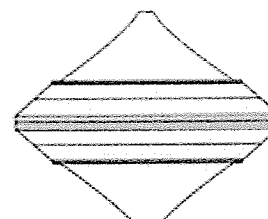
Spun aluminum shade with rolled edge. Painted the same color as the fixture.

- ☐ **FLRCOP-U** upper
☐ **FLRCOP-L** lower

Spun copper shade with rolled edge. Unfinished, will patina over time.

- ☐ **FLRSTS-U** upper
☐ **FLRSTS-L** lower

Spun stainless steel shade with rolled edge. Brushed finish.



- ☐ **CON-U** upper
☐ **CON-L** lower

FLARED CONE

3.4"/86MM HIGH

Spun aluminum cone. Painted the same color as the fixture.

- ☐ **CONCOP-U** upper
☐ **CONCOP-L** lower

Spun copper cone. Unfinished, will patina over time.

- ☐ **CONSTS-U** upper
☐ **CONSTS-L** lower

Spun stainless steel cone. Brushed finish.

INTERNAL OPTIONS

- ☐ **QL** internal

AUXILIARY LAMP

Socket for a mini-cand T-4 halogen lamp, maximum 100 watts. Must be wired to a separate 120 volt circuit.

- ☐ **CFH** internal

COLOR FILTER HOLDER

Aluminum ring with three key hole slots to hold a color filter (by others). The holder accepts a filter that is 7 1/8"/181mm in diameter. The filter can be used on either the upper or lower lens frame, or both.

- ☐ **CFH-2**

Two color filter holders.

Filters are available from SpecialFX, or other filter providers.

- ☐ **347**

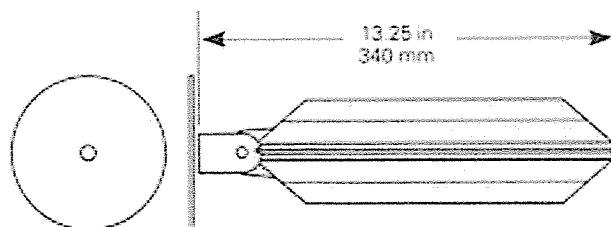
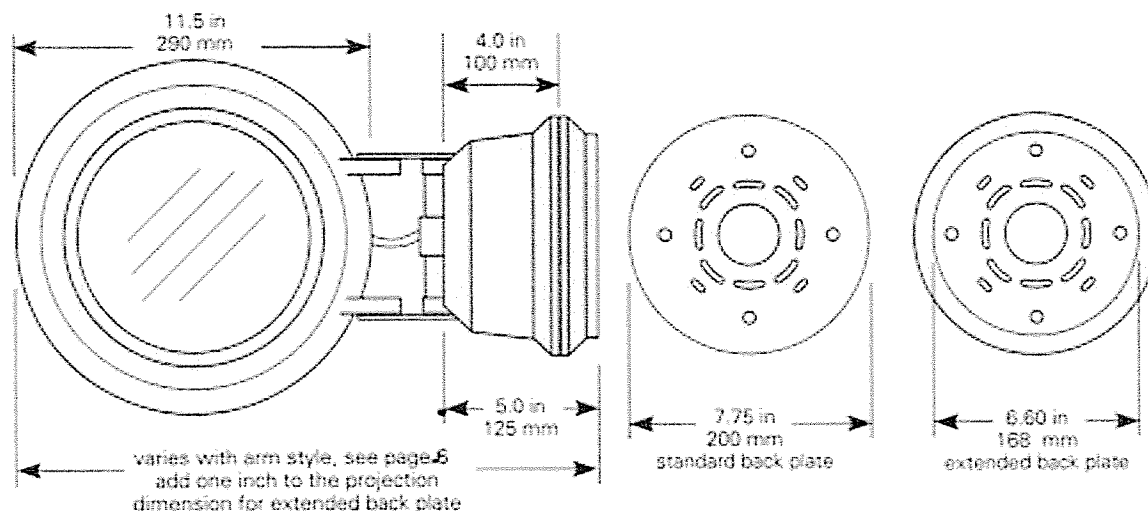
120/277/347 volt magnetic ballast for all HID lamps, except the 50HPS and 50MH which are 347 volts only.

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 www.aal.net 714.994.2700 fax 714.994.0522

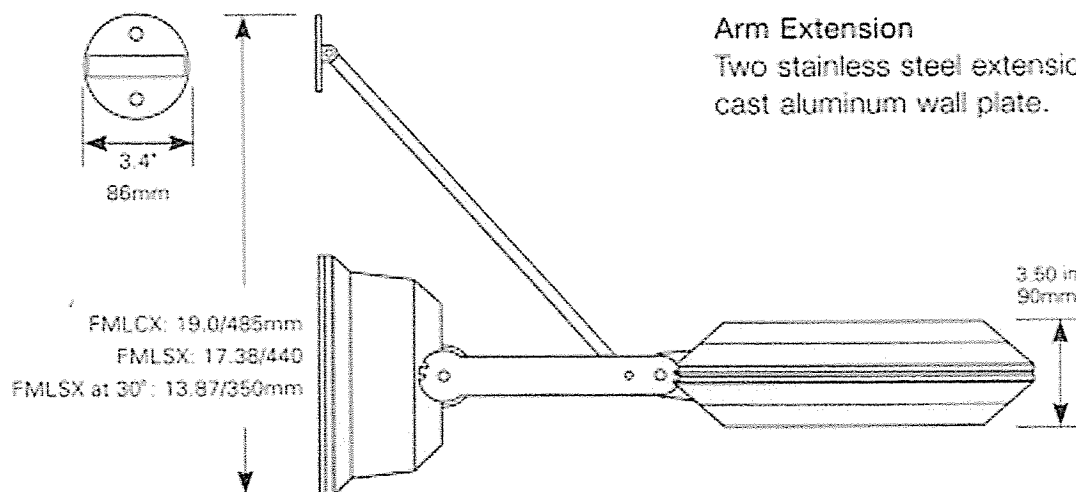
miniFlex is a registered trademark of AAL. Design patents. Copyright 2005

The standard backplate is for incandescent, compact fluorescent and electronic metal halide ballasts. The extended backplate is required for metal halide and high pressure sodium magnetic ballasts.



Remote Ballast

Short stainless steel yoke arm with a 25'/8M waterproof cable for connection to a remote ballast. Ballast enclosure by others. Includes a 5"/125mm round cover plate for the wall if required.

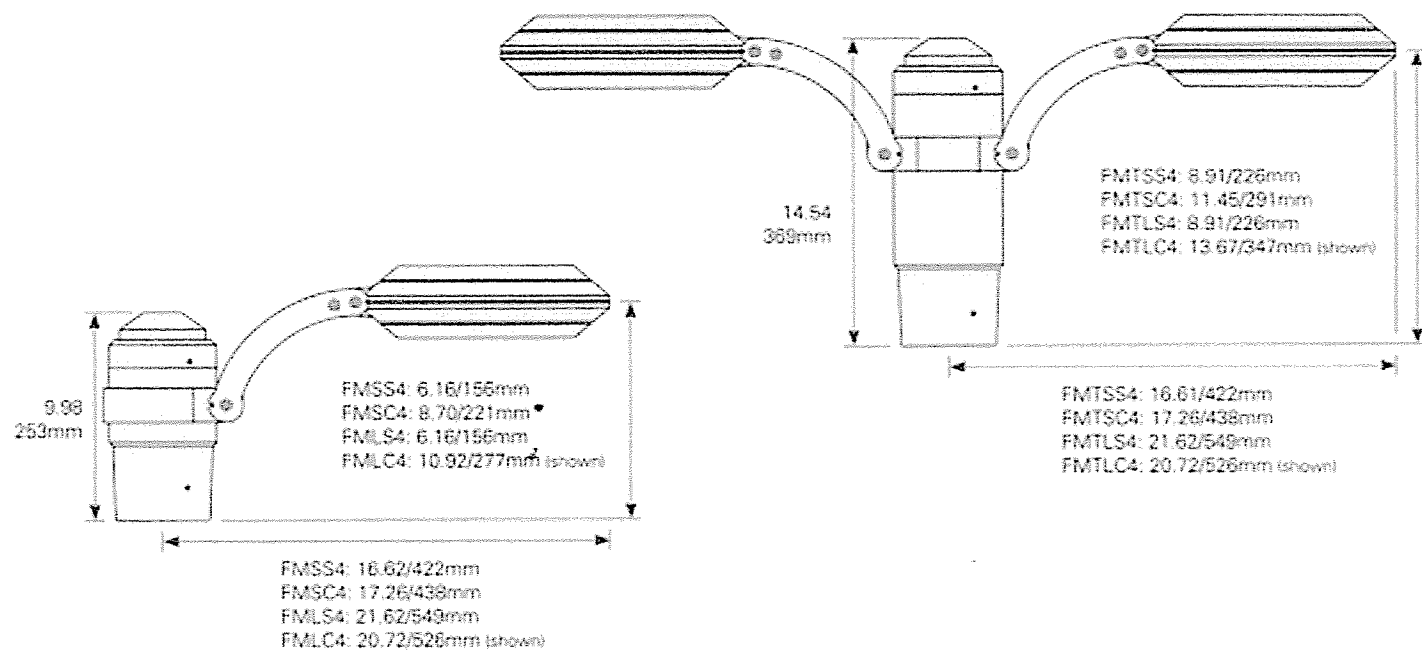


Arm Extension

Two stainless steel extension arms attach to a cast aluminum wall plate.

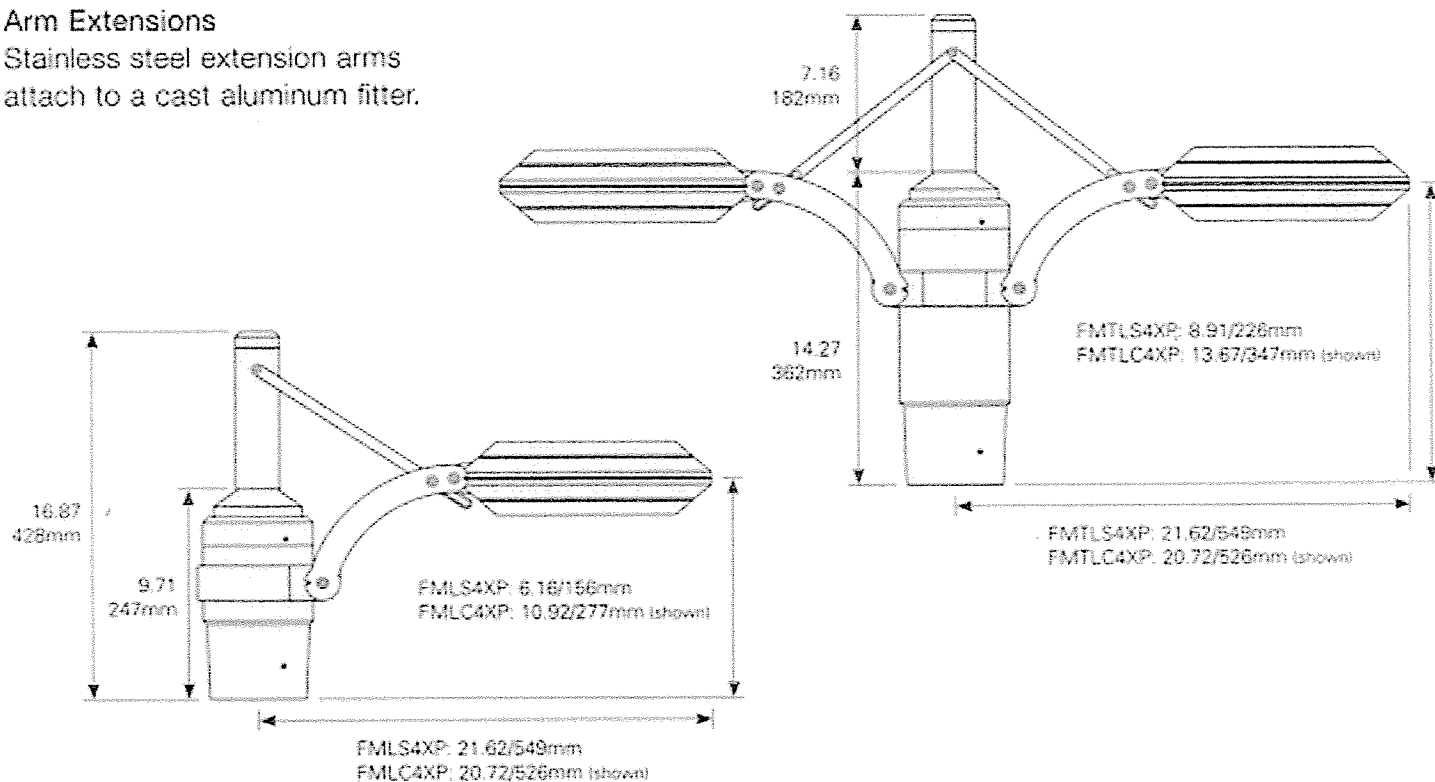
Architectural Area Lighting

Ballast is located in the post top fitter.
Slips over a 4 inch/100mm pole.



Arm Extensions

Stainless steel extension arms
attach to a cast aluminum fitter.



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LAMP MODULE

The lamp housing is two piece die cast aluminum. Two stainless steel arms join the lamp module and ballast module with four stainless steel bolts. The cable between the lamp and ballast modules is sheathed in a flexible stainless steel hose with watertight stainless steel fittings.

An internal lens cover is preinstalled on the upper lamp housing. The cover is movable to the lower housing to change the fixture to an uplight luminaire, or removed for a 50/50 uplight/downlight configuration.

The lens, flat or conical, is tempered glass with a lightly diffused finish to obscure the lamp image and eliminate striations on the wall surface.

The housing is sealed with a molded silicone gasket. One captive stainless steel screw is loosened to swing the door open to allow access to the lamp. ✓

WALL MOUNTED

The ballast housing is a two piece die cast aluminum. The back plate is mounted to an electrical box or fastened directly to the wall surface. The ballast housing holds the ballast components and attaches to the back plate with three captive stainless steel cap screws.

POLE MOUNTED

The ballast is mounted to a strap within the post top fitter. The fitter has a removable top cap for access and removal of the ballast assembly.

ELECTRICAL

Magnetic HID ballasts are high power factor, rated for -30°F starting.

Electronic ballasts for metal halide lamps are sound rated A, 120 through 277 volt. Electronic ballasts have thermal protection and an end of (lamp) life detection and shutdown circuit.

Compact fluorescent transformers are electronic, 120 through 277 volt for 26, 32 or 42 watt 4 pin lamps.

Sockets are pulse rated, medium base for ED-17 lamps, G12 for use with T6 lamps. Incandescent lamps are medium base or mini-cand screw base for T-4 lamps. All sockets are porcelain.

The miniFlex is factory supplied as a complete, prewired assembly including the lamp and ballast module. Ballasts are prewired to 277 volts. Fixture weight is 13 pounds.

FINISH

Fixture finish consists of a five stage pretreatment regimen with a polymer primer sealer, oven dry off and top coated with a thermoset TGIC polyester powder coat finish. The finish meets the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

The fixture is listed with ETL for outdoor, wet location use, UL1598 and Canadian CSA Std. C22.2 no.250. The lamp module has an IP rating of 65.

WARRANTY

The fixture is warranted for three years. Ballast components carry the ballast manufacturer's limited warranty.

Made in the USA with 100% US content.

Type: "G"

Job:

Fixture Catalog number:

Approvals:

3096

Fixture

Lamp Mode

Finish

Date:

Page: 1 of 1

Specifications

Lens Ring: One-piece cast aluminum, painted finish. Eight captive $\frac{3}{8}$ " blackened stainless steel hex-socket cap screws.

Lens: Molded borosilicate prismatic glass with removable 180° reflector shield.

Lens Gasket: One-piece molded silicone, U-channel wraps completely around lens flange.

Housing: High temperature, compression molded, fiberglass impregnated, $\frac{1}{8}$ " min. wall composite. Charcoal gray. No top lip to trap dirt and moisture. Molded-in solid brass knurled inserts to receive lens cover screws. Separate ballast and splice compartments, individual cast aluminum internal covers, with silicone gaskets. Two $\frac{3}{4}$ " NPT in bottom, 24 cu. in. splice area. Body and ballast modules epoxy bonded.

Socket: H.I.D. and incandescent are 4KV medium base. Fluorescent is GX24q-3 (For 26 or 32 watt triple tube lamp).

Ballast Module: H.I.D. ballast is high power factor -20° F starting. Fluorescent ballast is electronic with multi-voltage (108V to 305V) input, 50/60HZ, .98 power factor (-0° F). Will operate 26 or 32 watt lamp. Electrical components factory mounted to gasketed compartment cover.

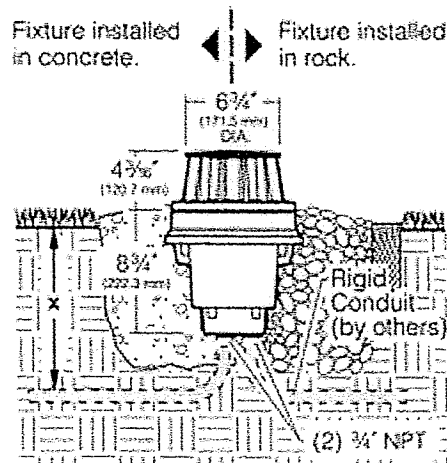
Wiring: Anti-siphon barriers on all wiring to and from ballast compartment. All components wire linked for ground. Quick disconnect provided for removal of lamp bracket.

Finish: Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over an anodized pre-treatment and titanated zirconium conversion coating; 2500 hour salt spray test endurance rating. Standard colors are: Black (BL), Dark Bronze (DB), and Verde Green (GR).

Certification: UL Listed to U.S. and Canadian safety standards for wet locations. Fixture manufacturer shall employ a quality program that is certified to meet the ISO 9001:2000 standard.



Hubbell
Lighting, Inc.



"x" = required depth of conduit per local code.

ORDERING INFORMATION

Fixture

3096

Lamp Mode

<input type="checkbox"/> 50PMH120	<input type="checkbox"/> 70PMH120	<input type="checkbox"/> 50HPS120
<input type="checkbox"/> 50PMH208	<input type="checkbox"/> 70PMH208	<input type="checkbox"/> 50HPS208
<input type="checkbox"/> 50PMH240	<input type="checkbox"/> 70PMH240	<input type="checkbox"/> 50HPS240
<input type="checkbox"/> 50PMH277	<input checked="" type="checkbox"/> 70PMH277	<input type="checkbox"/> 50HPS277
<input type="checkbox"/> 50PMH347	<input type="checkbox"/> 70PMH347	<input type="checkbox"/> 50HPS347

Lamp	ED-17	ED-17	ED-17
Socket	Medium Base	Medium Base	Medium Base
ANSI Ballast Type	M-110	M-98	S-68

<input type="checkbox"/> 70HPS120	<input type="checkbox"/> 32PL
<input type="checkbox"/> 70HPS208	
<input type="checkbox"/> 70HPS240	
<input type="checkbox"/> 70HPS277	
<input type="checkbox"/> 70HPS347	

Lamp	ED-17	Compact Fluorescent
Socket	Medium Base	GX24q-3
ANSI Ballast Type	S-62	

Finish

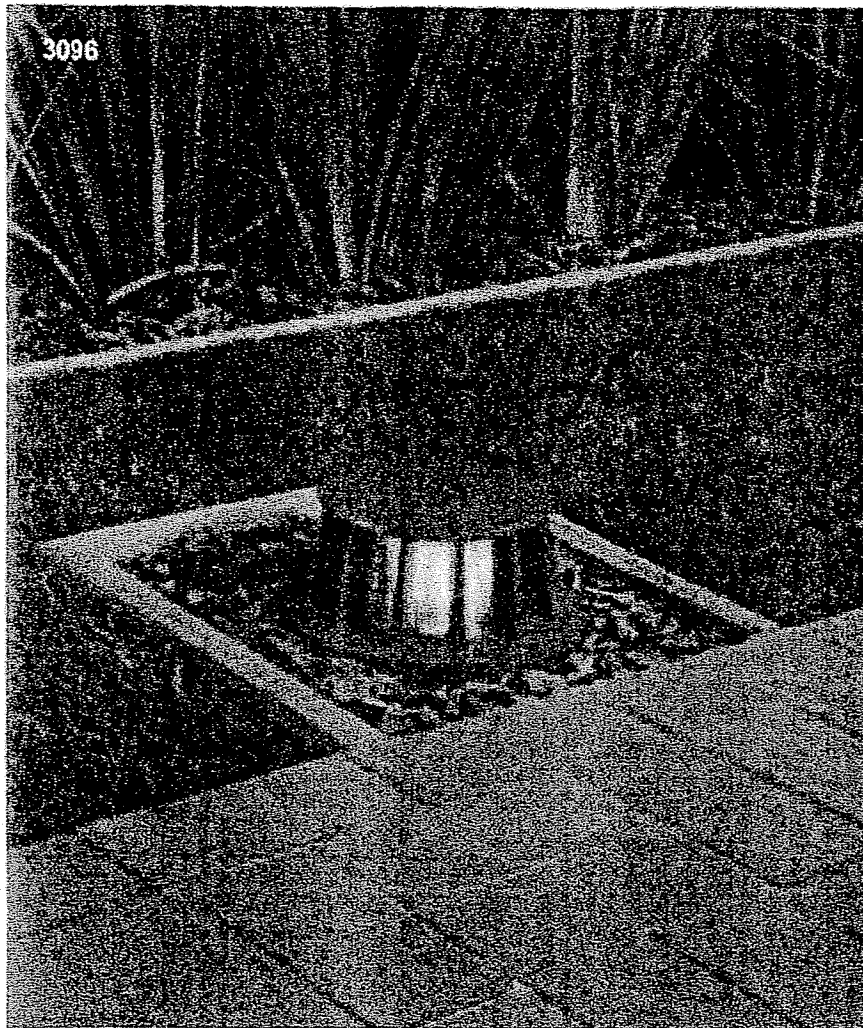
<input type="checkbox"/> BL	Black
<input checked="" type="checkbox"/> DB	Dark Bronze
<input type="checkbox"/> GR	Verde Green

50 PMH 120

Line Volts	
Lamp Type:	
PMH = Pulse Start	
Metal Halide	
HPS = High Pressure	
Sodium	
PL = Fluorescent	
Lamp Watts	



KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE

**SPECIFICATIONS**

Lens Ring: One-piece cast aluminum, painted finish. Eight captive $\frac{1}{4}$ " blackened stainless steel hex-socket cap screws.

Lens: Molded borosilicate prismatic glass with removable 180° reflector shield.

Lens Gasket: One-piece molded silicone. U-channel wraps completely around lens flange.

Housing: High temperature, compression molded, fiberglass impregnated, $\frac{3}{4}$ " min. wall composite. Charcoal gray. No top lip to trap dirt and moisture. Molded-in solid brass knurled inserts to receive lens cover screws. Separate ballast and splice compartments, individual cast aluminum internal covers, with silicone gaskets. Two $\frac{1}{2}$ " NPT in bottom, 24 cu. in. splice area. Body and ballast modules epoxy bonded.

Socket: H.I.D. and incandescent are 4KV medium base. Fluorescent is GX24q-3 (For 26 or 32 watt triple tube lamp).

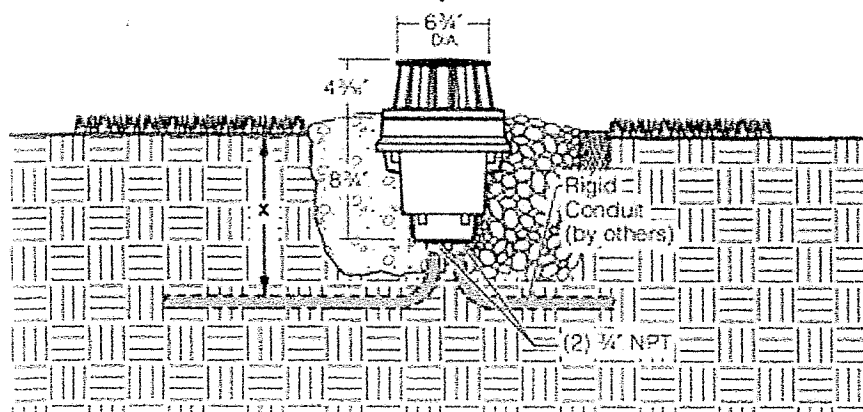
Ballast Module: H.I.D. ballast is High Power Factor -20° F starting. Fluorescent ballast is electronic with multi-voltage (108V to 305V) input, 50/60-HZ, .98 Power Factor (-0° F). Will operate 26 or 32 watt lamp. Electrical components factory mounted to gasketed compartment cover.

Wiring: Anti-siphon barriers on all wiring to and from ballast compartment. All components wire linked for ground. Quick disconnect provided for removal of lamp bracket.

Finish: Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over an anodized pre-treatment and Titanated Zirconium conversion coating; 2500 hour salt spray test endurance rating. Standard colors are: Black (BL), Dark Bronze (DB), and Verde Green (GR).

Certification: UL Listed to U.S. and Canadian safety standards for wet locations. Fixture manufacturer shall employ a quality program that is certified to meet the ISO 9001:2000 standard.

Fixture installed in concrete. Fixture installed in rock.



x = required depth of conduit for wiring entry

H.I.D.

Metal Halide / High Pressure Sodium Compact Fluorescent

Catalog Number - See Ordering Example Below

1 FIXTURE	2 LAMP MODE ¹	3 FINISH
3096 Cast Aluminum H.I.D. In-grade	50PMH120 50HPS120 50PMH208 50HPS208 50PMH240 50HPS240 50PMH277 50HPS277 50PMH347 50HPS347 70PMH120 70HPS120 70PMH208 70HPS208 70PMH240 70HPS240 70PMH277 70HPS277 70PMH347 70HPS347 32PL (multi-voltage, see specs on page 28) ED-17 or PL lamp by others.	BL Black DB Dark Bronze GR Verde Green

Lamps by others - see pages 51-53 for lamp guide.

Also available in 120 Volt lamping. See Kim 12 Volt / 120 Volt Landscape Catalog.

ORDERING EXAMPLE: 3096 / 50PMH120 / BL

Fixture Lamp Mode Finish
 1 2 3

¹Lamp Mode

50 PMH 120

Line Volts

Lamp Type:

PMH = Pulse Start
 Metal Halide

HPS = High Pressure Sodium

PL = Fluorescent

Lamp Watts

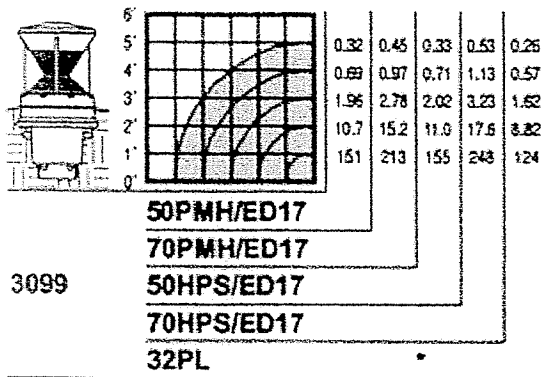
PHOTOMETRIC DATA
 See page 49



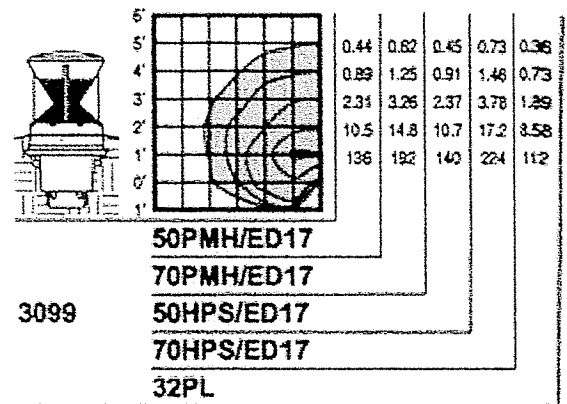
ED-17 In-grade Lighting

FOOTCANDLE LEVELS ARE INITIAL UNLESS OTHERWISE NOTED.

HORIZONTAL FOOTCANDLE CHART • TYPICAL QUADRANT



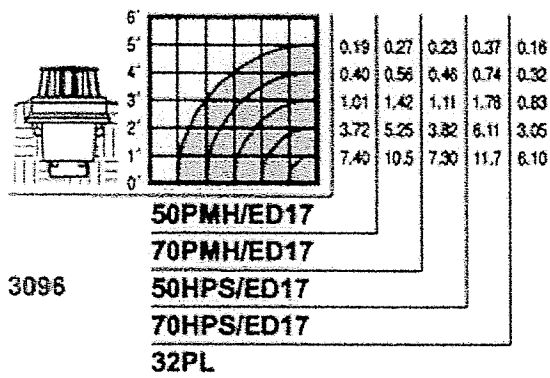
HORIZONTAL FOOTCANDLE CHART • TYPICAL HALF
WITH 180° REFLECTOR SHIELD INSTALLED



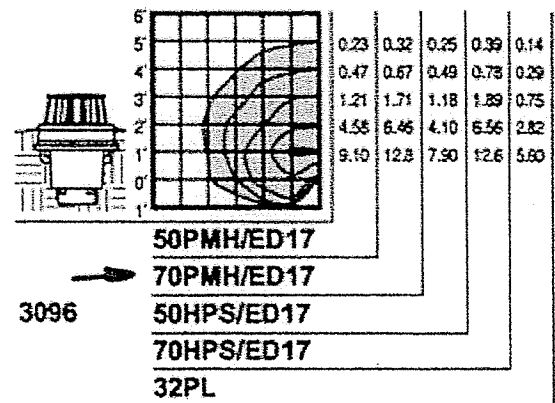
ED-17 In-grade Lighting

FOOTCANDLE LEVELS ARE INITIAL UNLESS OTHERWISE NOTED.

HORIZONTAL FOOTCANDLE CHART • TYPICAL QUADRANT



HORIZONTAL FOOTCANDLE CHART • TYPICAL HALF
WITH 180° REFLECTOR SHIELD INSTALLED



4800 ORDERING INFORMATION

50 Hz Application

Choose the boldface catalog nomenclature that best suits your needs.

PART NO.

EXAMPLE:

4800	RD	B	M75	12	FL	CLS	NM	1645B	CSL35	SWM	LP	IEC
Model		Material		Voltage				Conduit Entries		Application		Options
<input type="checkbox"/> 4800		<input type="checkbox"/> B Bronze <input type="checkbox"/> SS Stainless Steel		<input type="checkbox"/> 12 ²				<input type="checkbox"/> 1645B PG16 at 45°		<input type="checkbox"/> SWM Swimming Pool Fixture		Listing: <input type="checkbox"/> IEC International Electro-technical Commission
	Door Type				Distribution		Mounting		Cord Set Length			
	<input type="checkbox"/> RD Round <input type="checkbox"/> SQ Square				<input type="checkbox"/> FL ³ Flood		<input type="checkbox"/> NM Niche Mt		<input type="checkbox"/> CSL ⁵ 35'(10m)-50'(15m) of cord available in 5'(1.5m) increments			
			LampType			Lens					Lamp	
			<input type="checkbox"/> M75 ¹ MR16 GX5.3			<input type="checkbox"/> CLS ⁴ Convex Lens Swim <input type="checkbox"/> CLA Convex Lens Amber <input type="checkbox"/> CLB Convex Lens Blue <input type="checkbox"/> CLG Convex Lens Green <input type="checkbox"/> CLR Convex Lens Red <input type="checkbox"/> CLC Convex Lens Clear					<input type="checkbox"/> LP Lamp Installed	

Notes:

¹ Other wattages available upon request.

² Transformer not included, sold separately.

³ Other Distributions available upon request

⁴ CLS will be used if no lens is chosen.

⁵ CSL specified in feet, metric equivalents are approximated.

4800 ORDERING INFORMATION

60 Hz Application

Choose the boldface catalog nomenclature that best suits your needs.

PART NO.

EXAMPLE:

4800	RD	B	150Q	120	CLS	NM	3445B	CSL35	SWM	LP
Model	Door Type			Voltage			Conduit Entries		Application	Options
<input type="checkbox"/> 4800	<input type="checkbox"/> RD Round <input type="checkbox"/> SQ Square			<input type="checkbox"/> 12 ² <input type="checkbox"/> 120			<input type="checkbox"/> 3445B 3/4" NPT at 45°		<input type="checkbox"/> SWM Swimming Pool Fixture	Listing: <input type="checkbox"/> CSA Canadian Standard Association
				Distribution		Mounting		Cord Set Length		
				<input type="checkbox"/> FL ³ Flood		<input type="checkbox"/> NM Niche Mt		<input type="checkbox"/> CSL ⁶ 35' - 120' of cord available in 5' increments		
	Material					Lens				Lamp
	<input type="checkbox"/> B Bronze <input type="checkbox"/> SS Stainless Steel					<input type="checkbox"/> CLS ⁴ Convex Lens Swim <input type="checkbox"/> CLA Convex Lens Amber <input type="checkbox"/> CLB ⁵ Convex Lens Blue <input type="checkbox"/> CLG ⁵ Convex Lens Green <input type="checkbox"/> CLR Convex Lens Red <input type="checkbox"/> CLC Convex Lens Clear				<input type="checkbox"/> LP Lamp Installed
			LampType							
			LOW VOLTAGE <input type="checkbox"/> M75 ¹ MR16 GX5.3 INCANDESCENT <input type="checkbox"/> 100Q T4 MC <input type="checkbox"/> 150Q T4 MC							

Notes:

- ¹ Other wattages available by request.
- ² Transformer not included, sold separately.
- ³ Distribution only required on Low voltage MR-16 fixtures.
Other distributions available upon request.
- ⁴ CLS will be used if no lens is chosen.
- ⁵ CLB and CLG not available with 150Q.
- ⁶ CSL50 is the maximum cord length for 12V fixtures.



IP68 4M

4800 SWM

LINE OR LOW VOLTAGE SWIMMING POOL FIXTURE

DESCRIPTION

The 4800 Series wet niche swimming pool light is smaller in size than other conventional units. They are available with round or square bezel and use a 120V, 150W Max., T-4 mini-can or 12V, 75W Max., MR16 quartz halogen lamp. The lamp housing is stainless steel with a cast bronze or stainless steel door. The stainless steel niche includes a bonding lug and a 3/4" or PG16 conduit hub. A clear fresnel tempered borosilicate lens is standard.

FEATURES & SPECIFICATIONS

FIXTURE HOUSING & DOOR: Stainless steel housing with cast bronze or stainless steel door.

NICHE: Stainless steel with cast bronze mounting assembly, which has provision for positive locking of the fixture in position. The unit includes a grounding lug and a 3/4" conduit hub with 1/2" reducer or PG16 conduit hub.

LAMP: **Low voltage:** 12V, MR-16 quartz halogen to 75W Max.
Incandescent: 120V, T-4 quartz halogen to 150W Max.
Lamp included.

SOCKET: 120V, mini-can, screw base; 12V, bi-pin mount GX5.3.

LENS: 3 1/8" (80mm) diameter tempered borosilicate, clear fresnel standard. Clear, amber, blue, green or red lenses also available. (Colored lenses are not Fresnel)

NOTE: Blue or green lens available to 100W Max.

GASKET: Single piece U-shaped molded silicone.

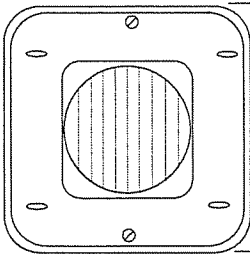
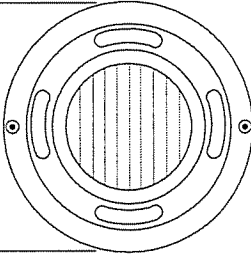
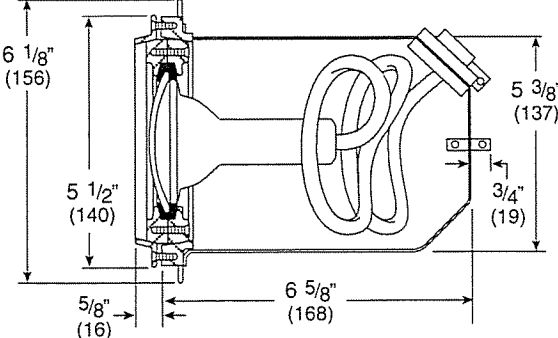
CORD: Minimum of 35' of #16-3ST for US standard, 10m of H07RN-F-2x4 for European standard, submersible rated cord with ground wire positively grounded inside the fixture. **Cord length must be specified.** **NOTE:** Sufficient cord should be coiled in the fixture niche to allow for the removal of fixture to above water level for re-lamping.

LOW WATER CUT-OFF: Temperature sensing low water cut-off standard.

FASTENERS: Stainless steel.

LISTING: U.L., C.S.A., CE, CB, NEMKO

NOTE: HYDREL RESERVES THE RIGHT TO MODIFY SPECIFICATION WITHOUT NOTICE. Any dimension on this sheet is to be assumed as a reference dimension: "Used for information purposes only. It does not govern manufacturing or inspection requirements." (ANSI Y14.5-1973)

TYPE		JOB NAME					
PART NUMBER							
Model	Door Type	Material	Lamp Type	Voltage	Distribution		
Lens	Mounting	Conduit	Cord	Applications	Lamp	Option	
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Square Bezel</p>  </div> <div style="text-align: center;"> <p>Round Bezel</p>  </div> </div> <div style="text-align: center; margin-top: 20px;">  </div>							
<p>WARNING: The use of a Ozone generators, Chlorine generators, Copper/Silver Ion generators or certain chemicals for water purification may cause damage to the fixture if not properly used. When such water purification methods are used, be sure to monitor water conditions. Subjecting the fixtures to "extreme conditions"/ "harsh environments" may cause corrosion and premature failure of components.</p>							
APPROVALS							