

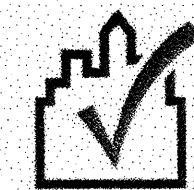
- 7. Automatic lighting shut-off control in buildings larger than 5,000 sq.ft.
- 8. Photocell/retentional time switch on exterior lights.
Exceptions:
Lighting intended for 24 hour use.
- 9. Tandem wired one-lamp and three-lamp ballasted luminaires (no single-lamp ballasts).
Exceptions:
Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

Section 4: Compliance Statement

Compliance Statement: The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2004 IECC, Chapter 6, requirements in COMcheck Version 3.2.1 and to comply with the mandatory requirements in the Requirements Checklist.

Everardo
Principal Lighting Designer-Name
Signature
Date 1/6/2007

Project Notes:
OFFICE LIGHTING
AND WAREHOUSE LIGHTING



**COMcheck Software Version 3.2.1
Lighting Compliance Certificate**

2004 IECC

Report Date: 12/18/06
Data filename: X:\06685 Hughes Supply #NW52706685 IECC.CCK.cck

Section 1: Project Information

Project Title:
Construction Site: _____ Owner/Agent: _____ Designer/Contractor:
Eduardo Ibarra
Hawkins Design Group

Section 2: General Information

Building Use Description by Activity Type: _____
Project Type: _____
Activity Levels: _____ Floor Area: _____
Office: 4115
Storage, Industrial and Commercial: 6140

Section 3: Requirements Checklist

- Interior Lighting:**
- 1. Total actual watts must be less than or equal to total allowed watts.
Allowed Watts: 9438 Actual Watts: 8143 Complies: YES
- Exterior Lighting:**
- 2. Efficacy greater than 45 lumens/W.
Exceptions:
Specialized lighting highlighting features of historic buildings; signage; safety or security lighting; low-voltage landscape lighting.
- Controls, Switching, and Wiring:**
- 3. Independent controls for each space (switch/occupancy sensor).
Exceptions:
Areas designated as security or emergency areas that must be continuously illuminated.
Lighting in stairways or corridors that are elements of the means of egress.
 - 4. Master switch at entry to hotel/motel guest room.
 - 5. Individual dwelling units separately metered.
 - 6. Each space provided with a manual control to provide uniform light reduction by at least 50%.
Exceptions:
Only one luminaire in space;
An occupant-sensing device controls the area;
The area is a corridor, storeroom, restroom, public lobby or guest room;
Areas that use less than 0.5 Watts/sq.ft.

LUMINAIRE SCHEDULE

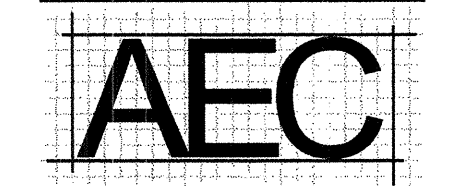
1. PROVIDE 1400 LUMEN OR FULL OUTPUT, 90 MINUTE EMERGENCY BATTERY BALLAST FOR ALL EMERGENCY FIXTURES.
2. MODULAR WIRING FOR LIGHT FIXTURES IS AN ACCEPTABLE ALTERNATE.
3. BASE BID FOR LUMINAIRES SHALL BE BASED ON MANUFACTURERS LISTED "IN CONTRACT DOCUMENTS" UPON AWARD OF PROJECT. ALTERNATE LUMINAIRES NOT LISTED AND PROPOSED BY CONTRACTOR SHALL BE SUBMITTED WITH WRITTEN OWNER APPROVAL AND A DEDUCT TO THE BASE BID IF APPLICABLE.

MARK	MANUFACTURER MODEL NUMBER	VOLTS	LAMPS/	REMARKS/MOUNTING
SA	SPALDING (2)1000MH T4 (4) RCL-A-HIK-H4-F	277	(4) 1000W M.H.	POLE MOUNTED LIGHT FIXTURE WITH (4) HEADS
SB	NULITE EULG-175MH-277-WT-B2	277	(1) 175W M.H.	EXTERIOR WALL MOUNTED WALL PACK AT 12'-6" AFF
SC	NULITE EULG-175MH-277-FT-B2	277	(1) 175W M.H.	EXTERIOR WALL MOUNTED WALL PACK AT 12'-6" AFF
A	HUBBELL BL-250-H-277-B1-BL-LR-14	277	(1) 250W M.H.	LOW-BAY METAL HALIDE LIGHT FIXTURE
B	COLUMBIA CS4-232-EBB-ELB50	277	(2) 32W T8	4' FLUORESCENT STRIP LIGHT FIXTURE WITH BATTERY BACK-UP
C	COLUMBIA JTB24-432C-FSA12-125-EBB-277	277	(4) 32W T8	2x4 FLUORESCENT LIGHT FIXTURE
CE	COLUMBIA JTB24-432C-FSA12-125-EBB-277-ELB50	277	(4) 32W T8	2x4 FLUORESCENT LIGHT FIXTURE
D	COLUMBIA JTB24-332C-FSA12-125-EBB-277	277	(3) 32W T8	2x4 FLUORESCENT LIGHT FIXTURE
DE	COLUMBIA JTB24-332C-FSA12-125-EBB-277-ELB50	277	(3) 32W T8	2x4 FLUORESCENT LIGHT FIXTURE
EM	LUMINAIRE YP-1212-HD-242PL-277-8RZ-REMOTE - B34LG	277	INCLUDED	EXTERIOR EMERGENCY LIGHT FIXTURE MOUNTED ABOVE DOOR
X1	DIAZ-LITE LXURWE	277	INCLUDED	EMERGENCY EXIT SIGN

GENERAL NOTES - LIGHTING

1. REFER TO ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND COMPLETE CONTRACTUAL OBLIGATIONS.
2. THE ELECTRICAL CONTRACTOR SHALL (PRIOR TO HIS BID) VISIT THE SITE AND FIELD VERIFY ALL EXISTING CONDITIONS AND b) TAKE ALL CONSIDERATIONS INTO ACCOUNT AT THE TIME OF BID. NO CONSIDERATIONS WILL BE GRANTED THE CONTRACTOR AFTER THE BID IS ACCEPTED.
3. ALL ELECTRICAL METALLIC TUBING (EMT), RIGID NON-METALLIC CONDUIT, FLEXIBLE METALLIC CONDUIT, FLEXIBLE NON-METALLIC CONDUITS, "SEALTIGHT" TYPE CONDUITS AND ALL OTHER CONDUITS THAT DO NOT CONTAIN A CODE SIZED GROUND WIRE SHALL HAVE A CODE SIZED BOND WIRE INSTALLED WITH THE CIRCUIT CONDUCTORS.
4. ALL NIGHTLIGHT/EMERGENCY LIGHT (NL/EM) FIXTURES SHALL BE CONNECTED UNSWITCHED. IF NO EMERGENCY LIFE SAFETY SYSTEM IS INSTALLED (ie: GENERATOR, etc.), THE OUTER LAMPS SHALL BE CONNECTED UNSWITCHED TO LOCAL LIGHTING CIRCUIT AND CONNECTED VIA AN EMERGENCY BALLAST - 1400 LUMEN OR FULL LUMEN OUTPUT MINIMUM. PROVIDE NEW IF NOT ALREADY EXISTING.
5. ALL FIXTURES INSTALLED OUTDOORS SHALL BE RATED FOR DAMP/WET LOCATIONS AS REQUIRED. THE CONTRACTOR SHALL COORDINATE DAMP/WET LOCATION RATING AND INSTALLATION PER NEC ARTICLE "FIXTURE LOCATIONS".
6. ALL RECESSED LIGHT FIXTURES SHALL BE I.C. RATED OR A MINIMUM OF 3" FROM COMBUSTIBLE MATERIAL PER NEC ARTICLE "LUMINAIRES, LAMP HOLDERS AND LAMPS - CLEARANCE AND INSTALLATION".
7. ELECTRICAL CONTRACTOR TO VERIFY A MINIMUM OF 1 FOOT-CANDLE AT 1 FOOT ABOVE FLOOR ALONG EXIT PATH PER IBC ARTICLE "MEANS OF EGRESS ILLUMINATION".
8. LIGHT SWITCHES SHALL BE INSTALLED TO CONFORM TO NEC ARTICLE "SWITCHES - ACCESSIBILITY AND GROUPING".

THE DRAWING, SPECIFICATIONS AND OTHER DOCUMENTS PREPARED BY THE ARCHITECT FOR THIS PROJECT ARE INSTRUMENTS OF THE ARCHITECT'S SERVICE FOR USE SOLELY WITHIN THE PROJECT AND SITE. THE ARCHITECT SHALL BE DEEMED THE AUTHOR OF THESE DOCUMENTS AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RIGHTS, INCLUDING THE COPYRIGHT.



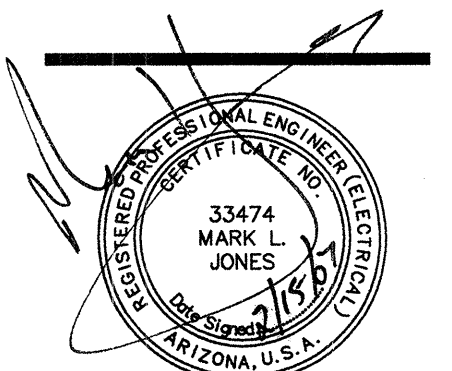
design building concepts
29756 Desert Willow Blvd
Queen Creek, Arizona 85243
ph. 480.882.9833
fax. 480.445.9795
www.aecdesigns.com
email:brian@aecdesigns.com

Architecture Plus L.L.C.
GARDEN CITY • DODGE CITY • DENVER

402 E. HILTON 630.274.2872
GARDEN CITY, KANSAS 67846
FAX 630.276.7679
archplus@architectureplus.net

date

drawn by



NATIONAL WATER WORKS
NORTH PHOENIX BRANCH
Parcel #209-03-104 A
2140 W Williams Drive
Phoenix, Arizona

job number

title
ELECTRICAL LIGHTING PLAN

at 10:00

sheet number

E4.1

**COMcheck Software Version 3.2.1
Lighting Application Worksheet**

2004 IECC
Report Date:
Data filename: X:\06685 Hughes Supply #NW52706685 IECC.CCK.cck

Section 1: Allowed Lighting Power Calculation

A	B	C	D
Area Category	Floor Area (sq ft)	Allowed Watts / sq ft	Allowed Watts (A x C)
Office	4115	1.1	4526
Storage, Industrial and Commercial	6140	0.8	4912
Total Allowed Watts =			9438

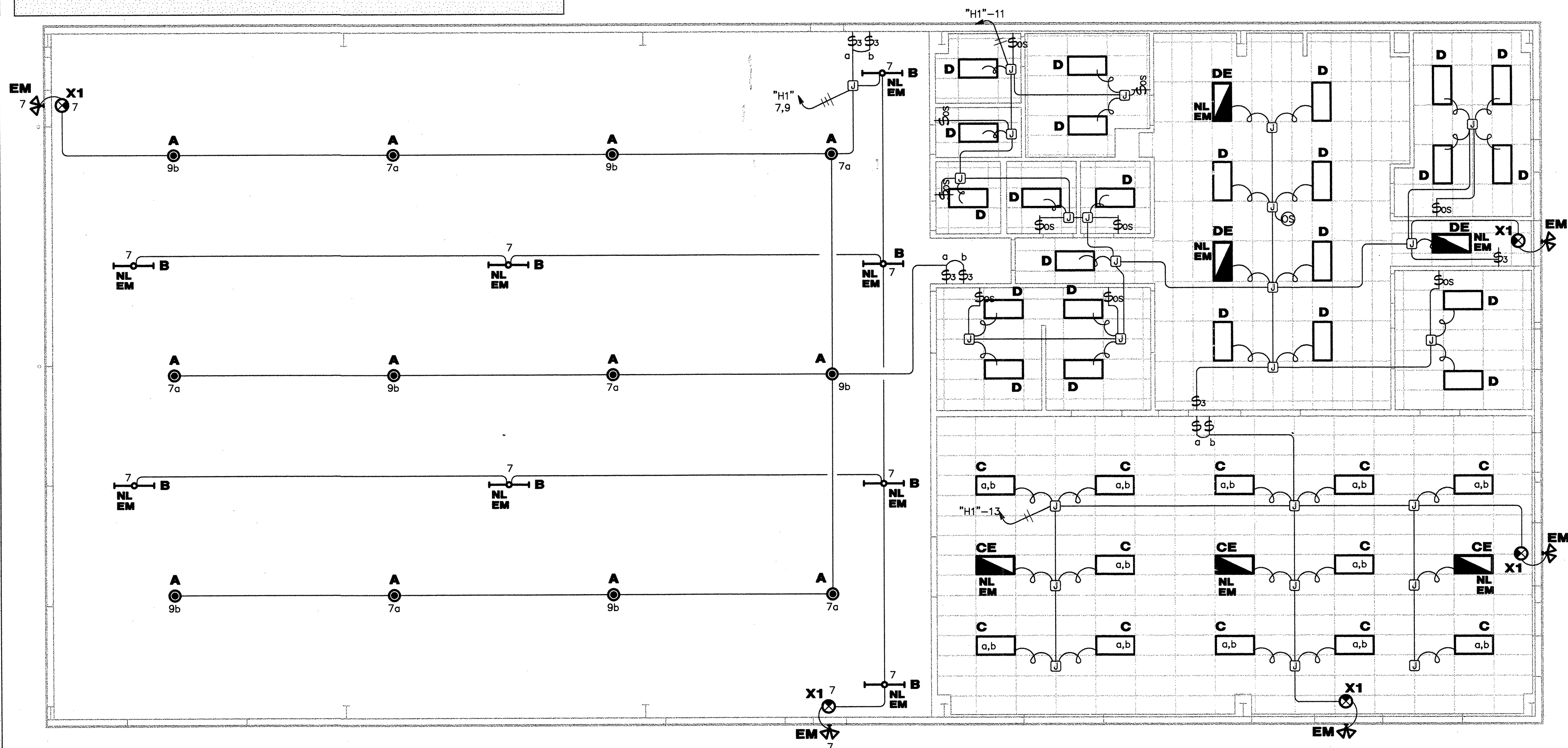
Section 2: Actual Lighting Power Calculation

A	B	C	D	E
Fixture ID / Description / Lamp / Wattage Per Lamp / Ballast	Lamps / Fixture	# of Fixtures	Fixture Watt. (C x D)	Total Actual Watts (A x B x E)
OFFICE				
T6 / T12 Fluorescent 1: C: 2x4 / 48" T8 32W / Electronic	4	12	113	1356
Linear Fluorescent 5: CE: 2x4 / 48" T8 32W / Electronic	4	3	113	339
Linear Fluorescent 6: D: 2x4 / 48" T8 32W / Electronic	3	24	88	2112
Linear Fluorescent 7: CE: 2x4 / 48" T8 32W / Electronic	3	3	88	264
STORAGE				
HID 1: A: LOW BAY / Metal Halide 250W / Electronic	1	12	300	3600
Linear Fluorescent 8: B: 4' strip / 48" T8 32W / Electronic	2	8	56	472
Total Actual Watts =				8143

Section 3: Compliance Calculation

If the Total Allowed Watts minus the Total Actual Watts is greater than or equal to zero, the building complies.
Total Allowed Watts = 9438
Total Actual Watts = 8143
Project Compliance = 1296

Lighting PASSES: Design 14% better than code



Electrical Lighting Plan
North 1/8" = 1'-0"

CITY OF PHOENIX
Development Services Department
BY: (KEN GRAVES)
MAY 17 2007

Project Contact/Designer: Everardo Ibarra
Project # 06685
HAWKINS DESIGN GROUP INC.
ELECTRICAL CONSULTING ENGINEERS
252 SOUTH VINEYARD AVE, SUITE 100
MESA, ARIZONA 85201
PH 480.813.9000 FAX 480.813.9001
EMAIL: email@hawkinsdsg.com

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