GENERAL NOTES

1. REFER TO SYMBOLS AND ABBREVIATIONS LISTS ON SHEET NO. E-001.
2. REFER TO MOUNTING HEIGHTS, GENERAL AND ELECTRICAL NOTES ON SHEET NO. E-001.
3. REFER TO SPECIFICATIONS FOR ADDITIONAL ELECTRICAL REQUIREMENTS.

COM*check* Software Version 3.7.1

Interior Lighting and Power Compliance Certificate

90.1 (2007) Standard

Section 1: Project Information

Project Type: **New Construction**
Project Title :

Construction Site: Owner/Agent: Designer/Contractor:

Section 2: General Information

Building Use Description by: **Activity Type**

Activity Type(s)	Floor Area
Common Space Types:Active Storage	374
Common Space Types:Classrooms/Lecture/Training	109
Common Space Types:Conference/Meeting/Multipurpose	278
Courthouse/Police Station/Penitentiary:Confinement Cell	88
Common Space Types:Corridor/Transition	1547
Common Space Types:Dressing/Locker/Fitting Room	100
Common Space Types:Electrical/Mechanical	369
Common Space Types:Food Preparation	85
Common Space Types:Office - Enclosed	1125
Common Space Types:Office - Open Plan	752
Common Space Types:Restrooms	130

Section 3: Requirements Checklist

Interior Lighting:

☐ 1. Total proposed watts must be less than or equal to total allowed watts.

Allowed Watts	Proposed Watts	Complies
4563	4050	YES

☐ 2. Exit signs 5 Watts or less per sign.

Controls, Switching, and Wiring:

☐ 3. Independent manual or occupancy sensing controls for each space (remote switch with indicator allowed for safety or security).
☐ 4. Occupant sensing control in class rooms, conference/meeting rooms, and employee lunch and break rooms.
Exceptions:
Spaces with multi-scene control; shop classrooms, laboratory classrooms, and preschool through 12th grade classrooms.
☐ 5. Automatic shutoff control for lighting in >5000 sq.ft buildings by time-of-day device, occupant sensor, or other automatic control.
Exceptions:
24 hour operation lighting; patient care areas; where auto shutoff would endanger safety or security.
☐ 6. Master switch at entry to hotel/motel guest room.
☐ 7. Separate control device for display/accent lighting, case lighting, task lighting, nonvisual lighting, lighting for sale, and demonstration lighting.
☐ 8. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).
Exceptions:
Electronic high-frequency ballasts;
Luminaires not on same switch;

Recessed luminaires 10 ft. apart or surface/pendant not continuous;
Luminaires on emergency circuits.

Voltage Drop:

☐ 9. Feeder conductors have been designed for a maximum voltage drop of 2 percent.
☐ 10.Branch circuit conductors have been designed for a maximum voltage drop of 3 percent.

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 90.1 (2007) Standard requirements in COM*check* Version 3.7.1 and to comply with the mandatory requirements in the Requirements Checklist.

Name - Title Signature Date

Section 5: Post Construction Compliance Statement

Record Drawings and Operating and Maintenance Manuals:

☐ 1. Construction documents with record drawings and operating and maintenance manuals provided to the owner.

Lighting Designer or Contractor Name Signature Date

COM*check* Software Version 3.7.1

Interior Lighting Application Worksheet

90.1 (2007) Standard

Section 1: Allowed Lighting Power Calculation

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B x C)
Common Space Types:Active Storage	374	0.8	299
Common Space Types:Classroom/Lecture/Training	109	1.4	153
Common Space Types:Conference/Meeting/Multipurpose	278	1.3	361
Courthouse/Police Station/Penitentiary:Confinement Cell	88	0.9	79
Common Space Types:Corridor/Transition	1547	0.5	774
Common Space Types:Dressing/Locker/Fitting Room	100	0.6	60
Common Space Types:Electrical/Mechanical	369	1.5	554
Common Space Types:Food Preparation	85	1.2	102
Common Space Types:Office - Enclosed	1125	1.1	1238
Common Space Types:Office - Open Plan	752	1.1	827
Common Space Types:Restrooms	130	0.9	117
		Total Allowed Watts =	4563

Section 2: Proposed Lighting Power Calculation

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Common Space Types:Active Storage (374 sq.ft.)				
Linear Fluorescent: EB1: ARMORY/EVIDENCE / Other / Electronic	3	2	72	144
Linear Fluorescent: ED1: JC / Other / Electronic	2	1	49	49
Linear Fluorescent: FB1: ELEC EQUIP / Other / Electronic	3	1	72	72
Linear Fluorescent: FC1: GENERAL STORAGE / Other / Electronic	2	1	49	49
Common Space Types:Classroom/Lecture/Training (109 sq.ft.)				
Linear Fluorescent: FB2: TRAINING OFFICER / Other / Electronic	2	1	72	72
Common Space Types:Conference/Meeting/Multipurpose (278 sq.ft.)				
Linear Fluorescent: FC2: CONFERENCE / Other / Electronic	2	4	49	196
Compact Fluorescent: CB1: CONFERENCE / Other / Electronic	1	2	36	72
Compact Fluorescent: CC1: CONFERENCE / Other / Electronic	1	2	29	58
Courthouse/Police Station/Penitentiary:Confinement Cell (88 sq.ft.)				
Linear Fluorescent: EB1: HOLDING / Other / Electronic	2	1	72	72
Common Space Types:Corridor/Transition (1547 sq.ft.)				
Linear Fluorescent: FC1: PASSAGES / Other / Electronic	2	11	49	539
Linear Fluorescent: FE1: PASSAGES / Other / Electronic	2	27	29	783
LED - Exit Light: LX1: PASSAGES / Other Exemption:Exit Signs	1	8	5	Exempt
Common Space Types:Dressing/Locker/Fitting Room (100 sq.ft.)				
Compact Fluorescent: CA1: ALCOVE/LOCKER / Other / Electronic	1	3	49	147
Common Space Types:Electrical/Mechanical (369 sq.ft.)				
Linear Fluorescent: FC1: IT EQUIP / Other / Electronic	2	6	49	294
Common Space Types:Food Preparation (85 sq.ft.)				
Linear Fluorescent: FC1: COFFEE/COPY ROOM / Other / Electronic	2	1	49	49
Common Space Types:Office - Enclosed (1125 sq.ft.)				
Linear Fluorescent: FC2: OFFICE 1-5 / Other / Electronic	2	10	49	490

Linear Fluorescent: FB2: REPORT ROOM/DISPATCH / Other / Electronic	2	3	72	216
Linear Fluorescent: FE2: CHIEF OF POLICE OFFICE / Other / Electronic	2	4	29	116
Common Space Types:Office - Open Plan (752 sq.ft.)				
Linear Fluorescent: FC2: OPEN OFFICE/WAITING/RECEPTION / Other / Electronic	2	8	49	392
Linear Fluorescent: FE1: OPEN OFFICE/WAITING/RECEPTION / Other / Electronic	2	3	29	87
Common Space Types:Restrooms (130 sq.ft.)				
Linear Fluorescent: EC1: BF TOILET ROOM / Other / Electronic	2	1	49	49
Compact Fluorescent copy 2: ES1: BF SHOWER / Other / Electronic	2	1	36	36
Compact Fluorescent copy 1: ES2: BF SHOWER / Other / Electronic	2	1	68	68
			Total Proposed Watts =	4050

Section 3: Compliance Calculation

If the Total Allowed Watts minus the Total Proposed Watts is greater than or equal to zero, the building complies.

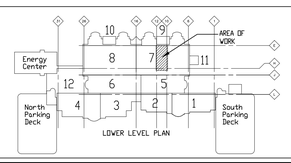
Total Allowed Watts =	4563
Total Proposed Watts =	4050
Project Compliance =	513

Interior Lighting PASSES: Design 11% better than code.

FULLY SPRINKLERED

Revisions:	Date
ISSUE 006 - CD BID	01.20.11
ISSUE 005 - CD OWNER REVIEW	12.17.10
ISSUE 004 - DESIGN DEVELOPMENT RECORD	11.12.10
ISSUE 003 - DESIGN DEVELOPMENT REVIEW	09.08.10

KEY PLAN



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Drawing Title: ENERGY CALCULATIONS

Approved Project Director

Project Title: POLICE SERVICES RELOCATION

Location: DETROIT, MICHIGAN

Date: 01-20-2011 Checked: - Drawn: -

Project Number: 553-11-108

Building Number: 100

Drawing Number: EL-501

Dwg. 37 of 50

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231