



- GENERAL NOTES**
- REFER TO SYMBOLS AND ABBREVIATIONS LIST ON SHEET E-001.
  - REFER TO MOUNTING HEIGHTS, GENERAL, AND ELECTRICAL NOTES ON SHEET E-001.
  - REFER TO SPECIFICATIONS FOR ADDITIONAL ELECTRICAL REQUIREMENTS.
  - REFER TO FIXTURE SCHEDULE ON SHEET EL-400.
- SHEET NOTES**
- LIGHTING CALCULATIONS PERFORMED BY ACUTITY LIGHTING GROUP'S (LITHONIA, ILLINOIS) VISUAL PROFESSIONAL EDITION VERSION 2.6 SOFTWARE.
  - REFER TO LUMINAIRE SCHEDULE ON THIS SHEET FOR FIXTURE MANUFACTURER, CATALOG NUMBER, LUMENS, MOUNTING HEIGHT, AND LIGHT LOSS FACTORS USED TO BASE THESE CALCULATIONS.
  - CALCULATED ILLUMINANCE VALUES ARE SHOWN IN MAINTAINED FOOT CANDLES AND MEASURED AT A WORK PLANE HEIGHT AS INDICATED IN THE SPACE ILLUMINANCE CATEGORIES AND DESIGN GUIDE SCHEDULE SHOWN ON THIS SHEET.
  - THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE TOLERANCE IN LAMPS, TEMPERATURE, AND OTHER VARIABLE FIELD CONDITIONS.
  - REFER TO FIXTURE SCHEDULE AND NOTES ON SHEET EL-601 FOR ADDITIONAL FIXTURE DESCRIPTION AND OPTIONS.

SPACE ILLUMINANCE CATEGORIES AND DESIGN GUIDE SCHEDULE					
ROOM NUMBER	ROOM NAME	IES ILLUMINANCE CATEGORY	IES LIGHT LEVEL		WORKPLANE HEIGHT
			Ambient	Task	
First Floor					
CLL105	PASSAGE	Service Spaces - Stairways and Corridors	20 fc		0.0 ft
CLL106	PASSAGE	Service Spaces - Stairways and Corridors	20 fc		0.0 ft
CLL107	PASSAGE	Service Spaces - Stairways and Corridors	20 fc		0.0 ft
CLL108	PASSAGE	Service Spaces - Stairways and Corridors	20 fc		0.0 ft
CLL109	PASSAGE	Service Spaces - Stairways and Corridors	20 fc		0.0 ft
LL800	DISPATCH	Offices - Private Office	30 fc	50 fc	2.5 ft
LL801	REPORT ROOM	Offices - Private Office	30 fc	50 fc	2.5 ft
LL802	HOLDING	Correctional Facilities - Cells	20 fc	30 fc	2.5 ft
LL803	EVIDENCE	Service Spaces - Active - Small Items, Small labels	10 fc		2.5 ft
LL804	ARMORY	Service Spaces - Active - Small Items, Small labels	10 fc		2.5 ft
LL805	ELEC. EQUIP	Service Spaces - Active - Small Items, Small labels	10 fc		2.5 ft
LL806	GENERAL STORAGE	Service Spaces - Active - Small Items, Small labels	10 fc		2.5 ft
LL807	COFFEE/COPY ROOM	Offices - Copy Rooms	30 fc	50 fc	2.5 ft
LL810	ALCOVE	Service Spaces - Stairways and Corridors	20 fc		0.0 ft
LL811	LOCKER	Service Spaces - Toilets and Washrooms	20 fc		2.5 ft
LL812	JC	Service Spaces - Active - Small Items, Small labels	10 fc		2.5 ft
LL8120	CHIEF OF POLICE OFFICE	Offices - Private Office	30 fc	50 fc	2.5 ft
LL813	BF SHOWER	Service Spaces - Toilets and Washrooms	10-15 fc		2.5 ft
LL814	BR TOILET ROOM	Service Spaces - Toilets and Washrooms	10-15 fc		2.5 ft
LL815	TRAINING OFFICER	Educational Facilities - Classroom (Reading, Handwritten and Printed Tasks)	30 fc	50 fc	2.5 ft
LL821	OFFICE	Offices - Private Office	30 fc	50 fc	2.5 ft
LL822	OFFICE	Offices - Private Office	30 fc	50 fc	2.5 ft
LL823	OFFICE	Offices - Private Office	30 fc	50 fc	2.5 ft
LL824	OFFICE	Offices - Private Office	30 fc	50 fc	2.5 ft
LL825	OFFICE	Offices - Private Office	30 fc	50 fc	2.5 ft
LL826	WAITING	Offices - Lobbies, Lounges and Reception Areas	30 fc		0.0 ft
LL827	RECEPTION	Offices - Lobbies, Lounges and Reception Areas	30 fc		0.0 ft
LL830	IT EQUIP	Basic Industrial Tasks - Maintenance	50 fc		2.5 ft
LL831	OPEN OFFICE	Offices - Open Plan Office - Intensive VDT Use	30 fc	50 fc	2.5 ft
LL836	CONFERENCE	Conference Rooms - Meeting	30 fc	50 fc	2.5 ft
NOTES:					
1. VALUES IN TABLE BASED ON IESNA REFERENCE AND APPLICATION LIGHTING HANDBOOK NINTH EDITION					

LUMINAIRE SCHEDULE						
Symbol	Label	Qty	Catalog Number	Description	Lamp	File
EB1	3	2VRT G 3.28 VL MVOLT GEB10S	VANDAL RESISTANT TROFFER 2' X 4', THREE (3) LAMP T8, VANDAL RESISTANT LENS, MULTIVOLT ELECTRONIC BALLASTS, MATL PAINT REFL. = .91	THREE (3) 28-WATT T8 LINEAR FLUORESCENT.	2VRT_G_3_32_VL_MVOLT_GEB10S.ies	2645
EC1	1	2VRT G 3.28 VL MVOLT GEB10S	VANDAL RESISTANT TROFFER 2' X 4', TWO (2) LAMP T8, VANDAL RESISTANT LENS, MULTIVOLT ELECTRONIC BALLAST, MATL PAINT REFL. = .913	TWO 28-WATT T8 LINEAR FLUORESCENT.	2VRT_G_2_32_VL_MVOLT_GEB10S.ies	2645
ED1	1	VRT G 2.28 VL MVOLT GEB10S	VANDAL RESISTANT TROFFER 1' X 4', TWO (2) LAMP T8 VANDAL RESISTANT LENS, MULTIVOLT ELECTRONIC BALLAST MATL PAINT REFL. = .907	TWO 28-WATT T8 LINEAR FLUORESCENT.	VRT_G_2_32_VL_MVOLT_GEB10S.ies	2645
ES1	1	CATALOG NO.: PHSG12-132T-EB-C73	MOTOROLA BALLAST 4M2-CF-263242-8-M-UNIV. WATTS=71		PHSG12-132T-EB-C73.ies	2400
ES2	1	CATALOG NO.: PHSG12-232T-EB-C73 w/PHILIPS LAMP	MOTOROLA BALLAST 4M2-CF-263242-8-M-UNIV. WATTS=87		PHSG12-232T-EB-C73 w/PHILIPS LAMP.ies	2400
FB1	1	2SP8 3.28 A12125 1/3 ADDE	SP8 SPECIFICATION PREMIUM T8 TROFFER 2'X4 3 LP T8 A12125 120° LENS 1/3 ELEC	THREE 28-WATT T8 LINEAR FLUORESCENT.	2SP8_3_32_A12125_1_3_ADDE.ies	2645
FB2	4	2PMO 3.28 27LS	OPTIMAX LIGHT CONTROL SYSTEM 2'X4 2 LP T8 27 CELL SPEC LVR	THREE 28-WATT T8 LINEAR FLUORESCENT.	2PMO_3_32_27LS.ies	2645
FC1	19	2SP8 2.28 A12125	PREMIUM ENERGY SAVING T8 2'X4 RECESSED, 2 LAMP, A12125 LENS, ELECTRONIC BALLAST.	TWO 28-WATT LINEAR FLUORESCENT T8, HORIZONTAL POS.	2SP8_2_32_A12125.ies	2645
FC2	22	2PMO 2.28 27LS ADDE	OPTIMAX LIGHT CONTROL SYSTEM 2'X4 2 LP T8 27 CELL SPEC LVR ELEC	TWO 28-WATT T8 LINEAR FLUORESCENT.	2PMO_2_32_27LS_ADDE.ies	2645
FE1	27	2SP8 2.17 A12 1/4 ADDE	SP8 SPECIFICATION PREMIUM T8 TROFFER 2'X2 2 LP T8 A12 LENS 1/4 ELEC	TWO 17-WATT T8 LINEAR FLUORESCENT.	2SP8_2_17_A12_1_4_ADDE.ies	675
FE2	4	20PMO 2.17 8LS	OPTIMAX LIGHT CONTROL SYSTEM 2'X2 2 LP T8 8 CELL SPEC LVR	TWO 17-WATT T8 LINEAR FLUORESCENT.	20PMO_2_17_8LS.ies	1350
CA1	3	AFV 6" APERTURE OPEN DOWNLIGHT 42TRT	AFV 6" APERTURE OPEN DOWNLIGHT 42TRT	ONE 42-WATT TRIPLE TUBE COMPACT FLUORESCENT, VERTICAL BASE-UP POSITION.	AFV_42TRT_8.ies	3200
CB1	2	AFV 32TRT BAR	AFV 6" APERTURE OPEN DOWNLIGHT 32TRT	ONE 32-WATT TRIPLE TUBE COMPACT FLUORESCENT, VERTICAL BASE-UP POSITION.	AFV_32TRT_8.ies	2400
CC1	2	AFV 26TRT BAR	AFV 6" APERTURE OPEN DOWNLIGHT 26TRT	ONE 26-WATT TRIPLE TUBE COMPACT FLUORESCENT, VERTICAL BASE-UP POSITION.	AFV_26TRT_8.ies	1800

STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
ALCOVE LL810	+	32.8 fc	43.2 fc	10.7 fc	4.0:1	3.1:1
ARMORY	+	20.3 fc	24.5 fc	15.6 fc	1.6:1	1.3:1
BF SHOWER LL813	+	42.3 fc	54.2 fc	19.2 fc	2.8:1	2.2:1
BF TOILET ROOM	+	21.7 fc	33.5 fc	12.6 fc	2.7:1	1.7:1
CHIEF OF POLICE OFFICE	+	22.7 fc	35.0 fc	11.3 fc	3.1:1	2.0:1
COFFEE/COPY ROOM	+	23.2 fc	30.9 fc	16.3 fc	1.9:1	1.4:1
CONFERENCE	+	42.5 fc	67.1 fc	14.2 fc	4.7:1	3.0:1
DISPATCH	+	35.1 fc	52.5 fc	16.8 fc	3.1:1	2.1:1
ELEC EQUIP	+	28.3 fc	31.8 fc	24.9 fc	1.3:1	1.1:1
EVIDENCE	+	20.4 fc	24.2 fc	17.2 fc	1.4:1	1.2:1
GENERAL STORAGE	+	17.5 fc	20.7 fc	15.0 fc	1.4:1	1.2:1
HOLDING	+	20.6 fc	24.4 fc	17.4 fc	1.4:1	1.2:1
IT EQUIP	+	36.0 fc	50.1 fc	21.1 fc	2.4:1	1.7:1
JC LL812	+	20.1 fc	22.2 fc	18.7 fc	1.2:1	1.1:1
LOCKER/ALCOVE	+	32.9 fc	43.2 fc	10.7 fc	4.0:1	3.1:1
OFFICE 1	+	27.3 fc	43.1 fc	14.7 fc	2.9:1	1.9:1
OFFICE 2	+	27.8 fc	43.6 fc	10.2 fc	4.3:1	2.7:1
OFFICE 3	+	28.3 fc	43.6 fc	14.8 fc	2.9:1	1.9:1
OFFICE 4	+	28.3 fc	43.6 fc	14.8 fc	2.9:1	1.9:1
OFFICE 5	+	28.3 fc	43.6 fc	14.7 fc	3.0:1	1.9:1
OPEN OFFICE	+	37.4 fc	58.4 fc	15.7 fc	3.7:1	2.4:1
PASSAGE CLL105	+	21.2 fc	26.2 fc	12.5 fc	2.1:1	1.7:1
PASSAGE CLL106	+	18.7 fc	25.4 fc	12.1 fc	2.1:1	1.5:1
PASSAGE CLL107	+	14.3 fc	20.9 fc	6.2 fc	3.4:1	2.3:1
PASSAGE CLL108	+	14.9 fc	22.0 fc	12.3 fc	1.8:1	1.2:1
PASSAGE CLL109	+	27.2 fc	32.4 fc	9.8 fc	3.3:1	2.8:1
REPORT ROOM	+	24.7 fc	28.7 fc	21.2 fc	1.4:1	1.2:1
TRAINING OFFICER	+	32.0 fc	63.2 fc	7.3 fc	8.7:1	4.4:1
WAITING/RECEPTION	+	24.1 fc	28.7 fc	12.6 fc	2.4:1	1.9:1

POLICE SERVICES - PHOTOMETRIC CALCULATION PLAN  
1/8" = 1'-0"

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

Revisions: \_\_\_\_\_

KEY PLAN

Energy Center

North Parking Deck

South Parking Deck

ARC A OF VDRK

LOWER LEVEL PLAN

US DEPARTMENT OF VETERANS AFFAIRS  
JOHN D. DINGELL  
VA MEDICAL CENTER  
4646 JOHN R. STREET  
DETROIT, MI 48202

ARCHITECT/ENGINEERS:  
**Kahn**  
Albert Kahn Associates, Inc.  
Albert Kahn Building  
7430 Second Ave.  
Detroit, Michigan 48202-2798  
Albert Kahn Associates, Inc. is a member of the Albert Kahn Family of Companies.  
ALBERT KAHN JOB # 0398-00-000 © 2007

Drawing Title  
**ENLARGED LOWER LEVEL NORMAL PHOTOMETRIC 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-401**

Dwg. 34 of 50

Office of Construction and Facilities Management

Department of Veterans Affairs