## Goodman Library Lighting Upgrade (Bid Set)

	Sheetlist
Sheet Number	Sheet Name
G 01	Cover
EL 001	General Lighting
EL 200	Demolition
EL 210	Lighting
EL 300	Details and Schedules

General Conditions:

ED - Electrical Demolition EL - Electrical Lighting

EP - Electrical Power

lengths and other amounts may be incorrect and owner is not liable for mismatch.

Notes applied to single items may apply to all like items on view. Before bidding, contractor shall familiarize with existing conditions, scope of work and means and methods required. Contractor shall inquire about any missing or apparently incomplete details and specifications Entire contract includes all specifications, plan sheets and other documents issued by owner. Bid documents don't intend to detail which subcontractor is responsible for what type of work. Any trade shall be familiar with the entire contract. Division of work is responsibility of contractor. UTILITY CONNECTIONS: where work indicated includes installation of utilities (Gas, Power, Water, Sewer, Phone etc.) provide all the required work that normally is not done by the Utility. Contractor shall inquire with Utilities to learn about the Scope of the Utility's work. Drawing Conventions To be demolished items are shown in dashed line and/or colored. Some items necessary for removal may not be shown and removal is part of the contract. Count of devices. lengths, areas and volumes are given for convenience only. Actually required numbers may be different and contractor is responsible to determine the actual need prior bidding. Details will require items that will not be shown for every instance in the model. For example, a shut-off valve may be shown for a specific detail but the plans don't show this valve for every single instance - this valve will be required for each such device. Sheet and view Naming: G - General H - Hazardous Material S - Structural AD - Architectural Demolition A - Architectural FA - Fire Detection and Alarm PD - Plumbing Demolition P - Plumbing MD - Mechanical Demolition M - Mechanical

All scheduled numbers and amounts of material and equipment are for contractor's convenience only. Contractor shall count and measure independently for bidding and ordering purposes. All scheduled numbers,

ceiling as required. SPECIAL SITE CONDITIONS: Library will be in operation and open to public. Contractor shall block off work areas to protect people. Contractor shall make arrangements with local library supervisor to ensure least disruption of library operation. Keep outages to a minimum. Keep the work site in representable condition. Clean up after each work day. Meet requirements of local ordinances, rules and laws. Hours of operation are limited to 7 a.m. to 7 p.m. Monday through Saturday and Sunday 10 a.m. through 7 p.m. unless WORK PROVIDED BY OWNER (DON'T INCLUDE IN BID PRICE): Owner will hire Fire Alarm company to provide dry contact in FA panel and program the relay. EQUIPMENT PROVIDED BY OWNER (DON'T INCLUDE IN BID PRICE): SPECIAL WARRANTIES: PROVISIONS FOR FUTURE WORK PROVISIONS FOR RETROFIT INSTALLATIONS PERMIT REQUIREMENTS: 1. Contractor is responsible to obtain all permits. See specification section 00 31 46 for details. 1. Contractor may use owner's power and water at no cost. CONTINUITY OF SERVICE: SEQUENCING REQUIREMENTS: Local library supervisor will book meeting rooms to allow contractor to work. contractor shall complete booked rooms within

the allotted timeframe.

ALTERNATES:

Demo all XTG light fixtures and controls. Install new lighting, controls and emergency lighting systems. Repair and modify

Designed by: City of Madison Facilites Management City-County Building, Room 115

Madison Library

Goodman Library Lighting Upgrade (Bid Set)

2222 S Park St. Madison, WI 53713

Contract: 9297

ASC	Above Suspended Ceiling
BB	Baseboard
BFF	Below Finished Floor
BFG BLDG	Below Finished Grade
BLUG	Building Below
BO	Bottom of
BOC	Bottom of Concrete
BOS	Bottom of Steel
BPL	Base Plate
СВ	Catch Basin
CBT	Ceramic Tile Base
CF/CI CF/OI	Contractor Furnished / Contractor Installed Contractor Furnished / Owner Installed
CF/OI	Contractor Furnished / Owner Installed  Corner Guard
CIP	Cast-In-Place
CJ	Control Joint
CL	Center Line
CLG	Ceiling
CMU	Concrete Masonry Unit
CO	Cleanout
COL	Column
CONC	Concrete
CONT	Continuous Corridor
CPT	Carpet
CSWK	Casework
CT	Ceramic Tile
CW	Cold Water
DEMO	Demolition
DF	Drinking Fountain
DIA	Diameter
DR	Door
DS	Downspout
DWG	Dishwasher  Drawing
E	Drawing East
EA	East
EJ	Expansion Joint
EL	Elevation
ELEV	Elevator
EPS	Expanded Polystyrene Board
EQ	Equal (Distance)
EST	Estimated
EXP	Expand, Expansion
EXT	Exterior
F	Female
FA FAB	Fire Alarm Fabric
FD	Floor Drain
FEC	Fire Extinguisher Cabinet
FHC	Fire Hose Cabinet
FLR	Floor
FM	Floormat
FND	Foundation
FO	Finished Opening
FP	Fire Protection
FTG	Footing
GA GALV	Gauge Galvanized
GALV	Galvariized Grab Bar
GR	Grade
GT	Grout
GYP	Gypsum Board
HB	Hose Bib
HC	Hollow Core
HGT	Height
HM	Handicapped
HM	Hollow Metal
HVAC	Heating, Ventilation & Air Conditioning Hot Water
ID	Inside Diameter
INT	Interior
JHA	Jurisdiction Having Authority
LAV	Lavatory
LL	Live Load
M	Male
MAX	Maimum
MFR	Manufacturer
MIN	Minimum
MISC	Miscellaneous  Masonry Opening
MO N	Masonry Opening North
NA NA	Not Applicable
NIC	Not in Contract
NM	Nominal
NTS	No to Scale
OC	on center
OD OF / CI	Outside Diameter
OF / CI	Owner Furnished / Contractor Installed
OF / OI OHD	Owner Furnished / Owner Installed Over Head Door
OPNG	Over Head Door Opening
OPP	Opposite
PERP	Perpendicular
POLYISO	Polyisocyanurate Board
PT	Paint, Painted
PTN	Partition
RCP	Reflected Ceiling Plan
RD	Roof Drain
REBAR	Reinforcing Steel Bars
REF REV	Reference Revision
REV	Revision  Rough Opening
S	South
SAN	Sanitary
SST	Stainless Steel
TEMP	Temperature
TFF	Top of Finsihed Floor
ТО	Top of
TOB	Top of Beam
TOC	Top of Concrete
TOJ	Top of Joist
TYP	Typical Unless Noted Otherwise
VIF	Verified in Field
W	West
W/	With
W/O	Without
WC	Water Closet
WD	Wood
WH	Water Heater
XPS XTG	

**General Abbreviations** 

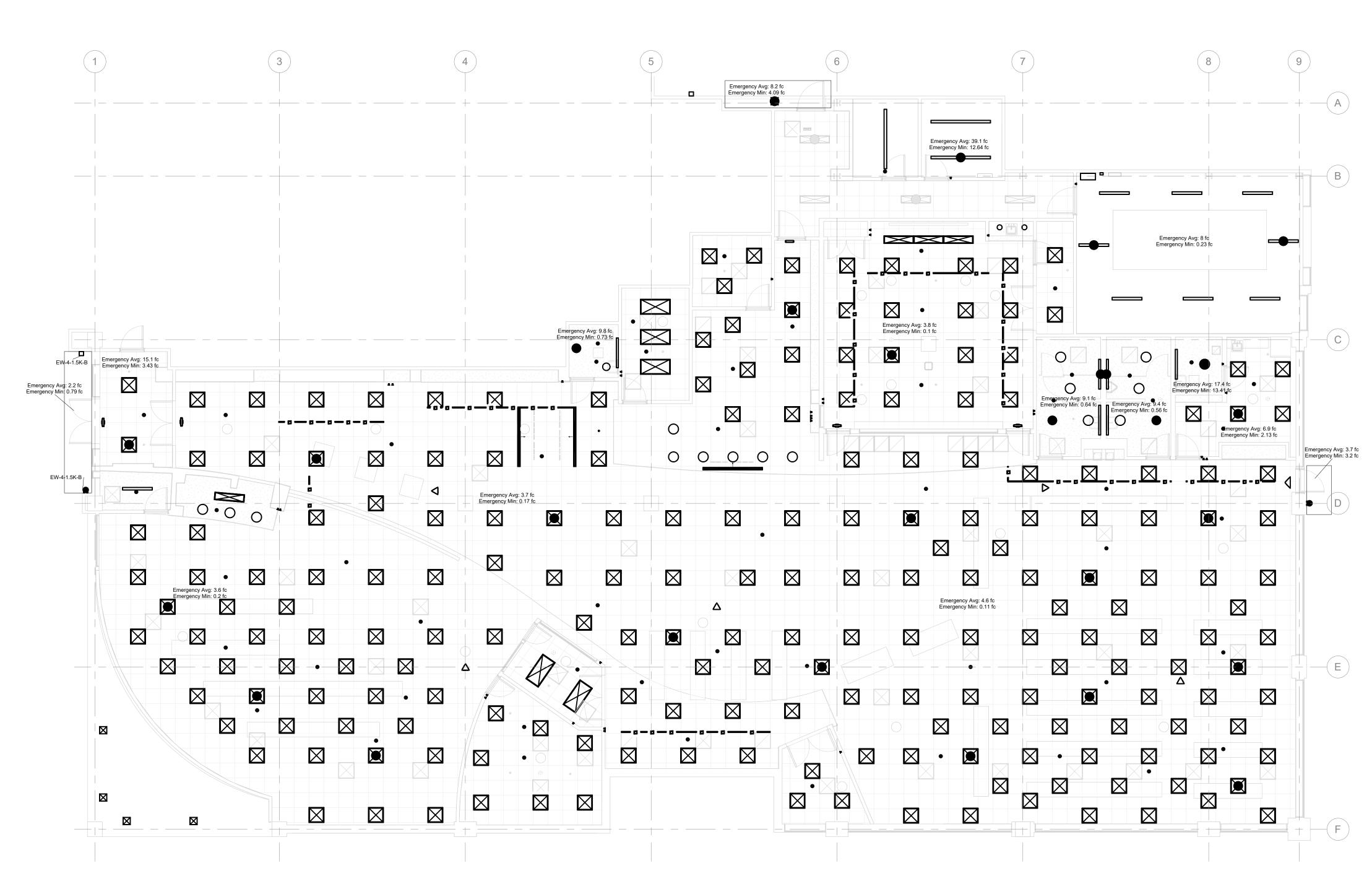
Acoustical Ceiling Tile Additional
Above Finished Counter Above Finished Grade

Revisions

Cover

G 01

Print Date: 5/26/2023 9:17:58 Print in color on 24" x 36"



1 EL Egress - Level 1 1/8" = 1'-0"

IECC 2015 Lighting Levels														
Space Number	Space Name	Area	Space Type	Workplane Height	Min. Required Avgerage Illumination	Actual Average Illumination	Illumination Goal	Max. Allowed Power Density IECC 2015	Actual Power Density	Actual Power Density compared to Code	Allowed Lighting Load	Actual Lighting Load	Space Lightin Contributing t Building Lighti	
100	Lobby	143 ft²	Lobby - otherwise	2' - 6"	20 fc	30.6 fc	153%	0.90 W/ft <sup>2</sup>	0.49 W/ft <sup>2</sup>	54%	129 VA	70 VA	0.01 VA	
101	Stack West	1,904 ft²	Library Stacks	2' - 6"	40 fc	49.9 fc	125%	1.71 W/ft <sup>2</sup>	0.58 W/ft <sup>2</sup>	34%	3,256 VA	1,107 VA	0.09 VA	
102	Stack East	3,374 ft <sup>2</sup>	Library Stacks	2' - 6"	40 fc	52 fc	130%	1.71 W/ft <sup>2</sup>	0.69 W/ft <sup>2</sup>	40%	5,770 VA	2,333 VA	0.2 VA/	
103	Reading	2,731 ft²	Library Reading	2' - 6"	40 fc	51.9 fc	130%	1.06 W/ft <sup>2</sup>	0.61 W/ft <sup>2</sup>	58%	2,895 VA	1,678 VA	0.14 VA	
104	Youth Office	290 ft <sup>2</sup>	Office - enclosed	2' - 6"	40 fc	53.9 fc	135%	1.11 W/ft <sup>2</sup>	0.69 W/ft <sup>2</sup>	62%	322 VA	200 VA	0.02 VA	
105	Study	108 ft²	Conference / Multipurpose	2' - 6"	40 fc	48.7 fc	122%	1.23 W/ft <sup>2</sup>	0.8 W/ft <sup>2</sup>	65%	133 VA	86 VA	0.01 VA	
107	Bookdrop	48 ft²	Warehouse - small Items hand-carried	2' - 6"	30 fc	31.4 fc	105%	0.95 W/ft <sup>2</sup>	0.63 W/ft <sup>2</sup>	66%	46 VA	30 VA	0 VA/f	
108	Family Restroom	47 ft²	Restroom - otherwise	2' - 6"	20 fc	35.2 fc	176%	0.98 W/ft <sup>2</sup>	1.13 W/ft²	115%	46 VA	54 VA	0 VA/ft	
109	Study	137 ft²	Office - enclosed	2' - 6"	40 fc	42.2 fc	105%	1.11 W/ft <sup>2</sup>	0.54 W/ft <sup>2</sup>	49%	152 VA	74 VA	0.01 VA	
110	Office	102 ft²	Office - enclosed	2' - 6"	40 fc	49.1 fc	123%	1.11 W/ft <sup>2</sup>	0.73 W/ft <sup>2</sup>	66%	113 VA	74 VA	0.01 VA	
111	Bathroom Female	130 ft²	Restroom - otherwise	2' - 6"	20 fc	31.3 fc	156%	0.98 W/ft <sup>2</sup>	1.05 W/ft <sup>2</sup>	107%	128 VA	137 VA	0.01 VA	
112A	Meeting	771 ft²	Conference / Multipurpose	2' - 6"	40 fc	53.8 fc	134%	1.23 W/ft <sup>2</sup>	0.84 W/ft <sup>2</sup>	69%	948 VA	651 VA	0.06 VA	
112B	Storage	75 ft²	Warehouse - small Items hand-carried	2' - 6"	30 fc	34.9 fc	116%	0.95 W/ft <sup>2</sup>	0.74 W/ft <sup>2</sup>	78%	72 VA	56 VA	0 VA/ft	
113	Bathroom Staff	45 ft²	Restroom - otherwise	2' - 6"	20 fc	33.4 fc	167%	0.98 W/ft <sup>2</sup>	1.07 W/ft <sup>2</sup>	109%	45 VA	49 VA	0 VA/f	
114	Bathroom Male	130 ft²	Restroom - otherwise	2' - 6"	20 fc	31.3 fc	156%	0.98 W/ft <sup>2</sup>	1.05 W/ft <sup>2</sup>	107%	128 VA	137 VA	0.01 VA	
115	Break	187 ft²	Lounge / Breakroom	2' - 6"	20 fc	36.1 fc	180%	0.73 W/ft <sup>2</sup>	0.52 W/ft <sup>2</sup>	71%	137 VA	97 VA	0.01 VA	
116	Janitor	92 ft²	Electrical / Mechanical	2' - 6"	30 fc	41.6 fc	139%	0.95 W/ft <sup>2</sup>	0.52 W/ft <sup>2</sup>	54%	88 VA	48 VA	0 VA/ft	
117	IT	114 ft²	Electrical / Mechanical	2' - 6"	30 fc	55.1 fc	184%	0.95 W/ft <sup>2</sup>	0.83 W/ft <sup>2</sup>	88%	109 VA	95 VA	0.01 VA	
118	Mechanical	658 ft²	Electrical / Mechanical	2' - 6"	30 fc	35.1 fc	117%	0.95 W/ft <sup>2</sup>	0.37 W/ft <sup>2</sup>	39%	625 VA	242 VA	0.02 VA	
121	Round Corner	719 ft <sup>2</sup>	Exterior Building Surrounding	0' - 0"	1 fc	7.1 fc	707%	0.14 W/ft <sup>2</sup>	0.08 W/ft <sup>2</sup>	58%	101 VA	58 VA	0 VA/ft	

Type Mark	Space: Number	Space: Name	Apparent Load	Estimated UL Relays requ
EC-2.1K-B	Number	орасс. Наше	15 VA	1
EW-2-1.5K-B			10 VA	1
EW-4-1.5K-B			10 VA	1
EX-AC	100	Lobby	1 VA	
EX-AC	103	Reading	1 VA	
EX-AC	112A	Meeting	1 VA	
EX-AC	112A	Meeting	1 VA	
EX-AC	103	Reading	1 VA	
EX-AC-2	102	Stack East	4 VA	
EX-AC-3	103	Reading	4 VA	
EX-AC-3	102	Stack East	4 VA	
EX-AC-3	101	Stack West	4 VA	
EX-AC-3	102	Stack East	4 VA	
EX-AC-3	103	Reading	4 VA	
P-2x2-2.0K	115	Break	14 VA	1
P-2x2-2.0K	103	Reading	14 VA	1
P-2x2-2.0K	102	Stack East	14 VA	1
P-2x2-2.0K	102	Stack East	14 VA	1
P-2x2-3.4K	112A	Meeting	23 VA	1
P-2x2-3.4K	102	Stack East	23 VA	1
P-2x2-3.4K	102	Stack East	23 VA	1
P-2x2-3.4K-3DP	103	Reading	23 VA	1
P-2x2-3.4K-3DP	102	Stack East	23 VA	1
P-2x2-4.0K	103	Reading	28 VA	1
P-2x2-4.0K	102	Stack East	28 VA	1
P-2x2-4.0K	102	Stack East	28 VA	1
P-2x2-4.0K	103	Reading	28 VA	1
P-2x2-4.0K-3DP	101	Stack West	28 VA	1
P-2x2-4.0K-3DP	101	Stack West	28 VA	1
P-2x2-4.0K-3DP	101	Stack West	28 VA	1
P-2x2-4.8K	100	Lobby	35 VA	1
P-2x2-4.8K	102	Stack East	35 VA	1
S-4-5.0K	118	Mechanical	30 VA	1
S-4-5.0K	118	Mechanical	30 VA	1
S-8-8.0K	117	IT	48 VA	1
SS-12-1.5K	111	Bathroom Female	15 VA	1
SS-12-1.5K	108	Family Restroom	15 VA	1
SS-12-1.5K	114	Bathroom Male	15 VA	1
SS-16-2.2K	113	Bathroom Staff	25 VA	1
V-4-2.8K	111	Bathroom Female	24 VA	1
V-4-2.8K	114	Bathroom Male	24 VA	1
XTG			30 VA	1
XTG			30 VA	1

Demolish all existing lighting fixtures and controls. This includes all items not needed for new installation to function. This includes, but is not limited to, emergency, exit, track, architectural and spot lights, switches, sensors, inverters, batteries and control panels. Demolition drawings may not show all existing items.

Remove all unused raceways, boxes, conduit and wiring Patch wall, ceiling and other surfaces damaged by removal of XTG elements. Use adjacent surface matching cover for electrical boxes that remain.

Installation: Install new raceways, boxes, conduit and wiring as required for new lighting fixtures and controls.

Locations shown are approximate only. Install as required to coordinate with tile patterns, architectural features, sprinklers, mechanical equipment and other obstacles. Center Fixtures and provide even grid wherever possible. Review deviations from plan with designer prior installation.

Install fixtures at indicated height. Provide required suspension. A noted height typically applies to all fixtures in a space, even if only a single fixture has an indicated height shown. If no height is given, ceiling surface mounting or mounting at bottom of fixture can be assumed. Installation in between trusses or beams also is an option. Consult with engineer before determining mounting height.

Surface wiring raceway in finished areas is only allowed where the structure does not allow installation inside ceiling or wall. Raceway shall be neatly routed and hidden in corners to the greatest extend possible. In finished spaces use surface wire molding instead of conduit. Wiremold shall be factory painted to match wall surface. Where matching factory paint is not available, use field-painting.

Support all lighting fixtures adequately and provide all extra support.

All conduit except at fixture entrance shall be 3/4" or larger. Turns between access boxes should not be more than 270°. Grid Ceilings: use flexible metal conduit from a J-box in enough length to allow lifting and 2' lateral move of fixture

Move flexible head sprinklers where required for even layout pattern. Suspended Strip Light Fixtures: use rigid type hangers every 4' or less. Mount multiple fixtures in a row on a uni-strut structure. Cord & Plug Fixtures: Mount on hook for easy replacement and install safety wire. Provide plug within reach of fixture Retrofit Installation:

Maintain all fire ratings while penetrating plenums, walls or ceilings. Install all wiring inside ceiling and wall. If wiring cannot be fished through, provide surface mounted conduit or wire molding in

finished spaces. Modify Grid Ceiling to accommodate new fixtures. Fill in openings with new tiles of existing type. Contractor shall provide tiles and grid elements. Review Special site conditions for information on type of tile. Where sprinkler, diffuser or other permanent

obstruction prevents even layout, relocate after consultation with engineer. Prevent dirt and dust polluting occupied areas and take special care while working in occupied areas and cover equipment and

Canopy: Provide retrofit version of fixtures and/or all retrofit accessories for installing over existing fixture locations. Ensure existing opening is fully covered. Build cover matching surrounding surface.

Locate sensors to enable good detection within controlled zone and in between partitions. In enclosed rooms minimize

detection of motion in adjacent rooms.

Lighting zones are indicated by wire annotations and/or switchleg (SL) numbering. Wire annotations are schematic only to indicate control relationships and don't necessarily equal actually required physical wire runs. Lighting zones can be shown by proximity of sensor and light fixture without wire or switchleg annotation (for example, garage lighting where each fixture has one sensor). In a room with only one sensor (and dimmer/switch), it is assumed all fixtures are controlled by that sensor (and dimmer/switch) even if no wires or switchlegs are indicated. Unless noted otherwise assume the standard lighting control zone

Spaces with electrical panels shall have at least one light be controlled by a manual switch only (no automatic control) per

Fixture-mounted sensors shall be installed to allow 360° detection and bottom of sensor lens shall be at or below bottom of

Size analog 0-10V wiring to limit voltage drop. At 100% position the light fixture shall be 100% bright.

Emergency Lighting:

Light fixtures with a black dot indicate emergency lights. Control fixtures from central inverter or generator. Provide all wiring to emergency power source.

Re-wire fixture internals if fixture has integrated sensor or other lighting control. Install UL 924 relay in accessible location near controlled fixture. Verify location with engineer. Drywall Ceiling: if no easily accessible location is available, install relay above grid ceiling in adjacent area

Outdoor fixtures: Install relay inside above a grid ceiling or other accessible location 5. Retrofit of XTG fixtures: Re-arrange wiring and existing control to allow emergency fixture operation like for new fixtures. Note that schedules that show number of relays required only account for relays of NEW fixtures.

Designed by: City of Madison Facilites Management City-County Building, Room 115

Goodman Library Lighting Upgrade (Bid Set)

2222 S Park St. Madison, WI 53713

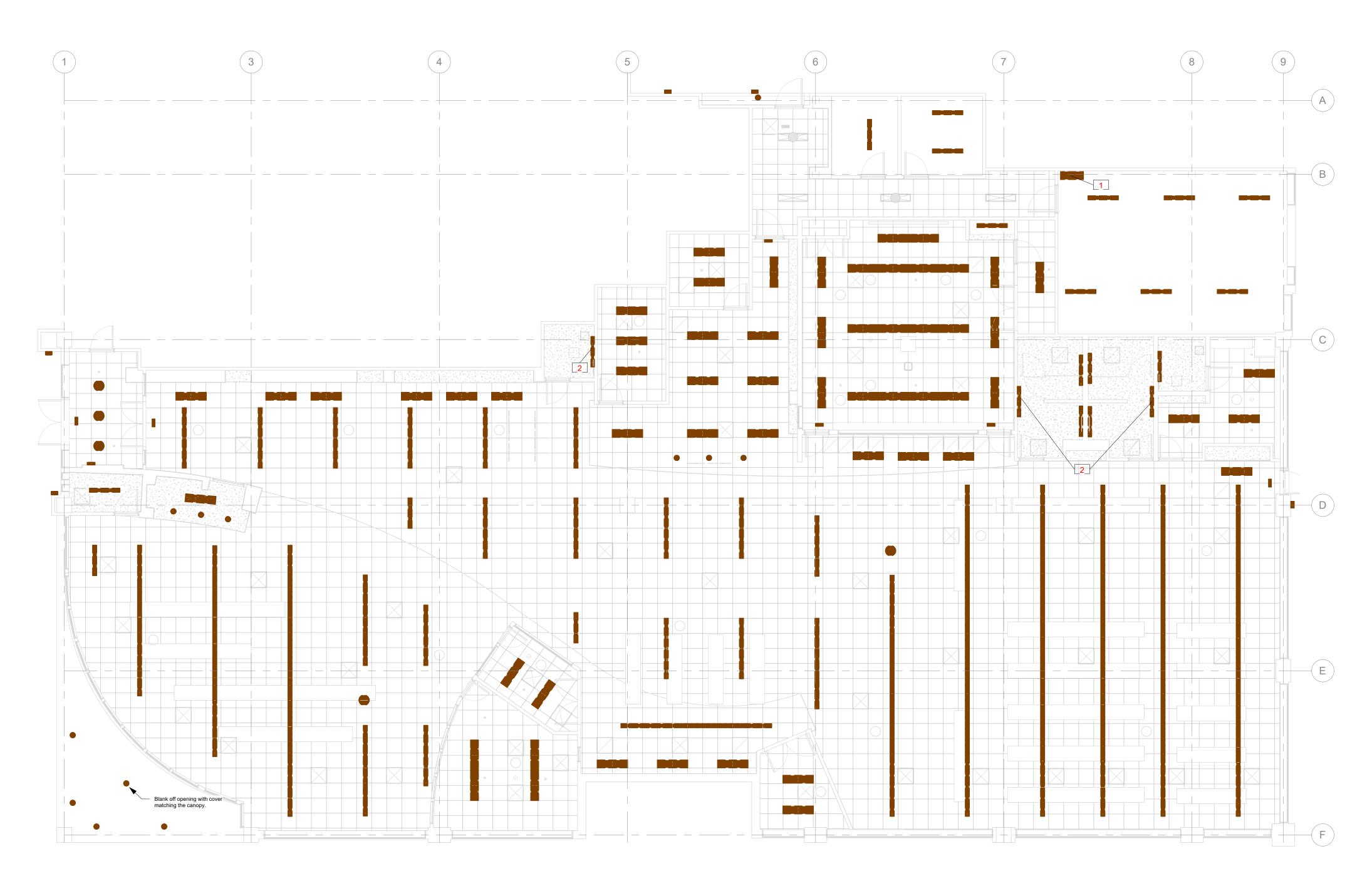
Contract: 9297

Revisions Description

General Lighting

EL 001

Print Date: 5/26/2023 9:18:02 Print in color on 24" x 36"



1 EL Demo - Level 1 1/8" = 1'-0"

Keynote Legend 
 Key Value
 Keynote Text

 1
 Remove existing lighting control panel and/or emergency lighting system.

 2
 Owner will patch drywall after fixture removal. Remove fixture with care to not excessively damage drywall.
 Designed by:
City of Madison
Facilites Management
City-County Building, Room 115
210 Martin Luther King Jr. Boulevard
Madison, WI 53703



Madison Library

Goodman Library Lighting Upgrade (Bid Set)

Location: 2222 S Park St. Madison, WI 53713

Contract: 9297 Project: 12410

Revisions

Project North



Demolition

EL 200

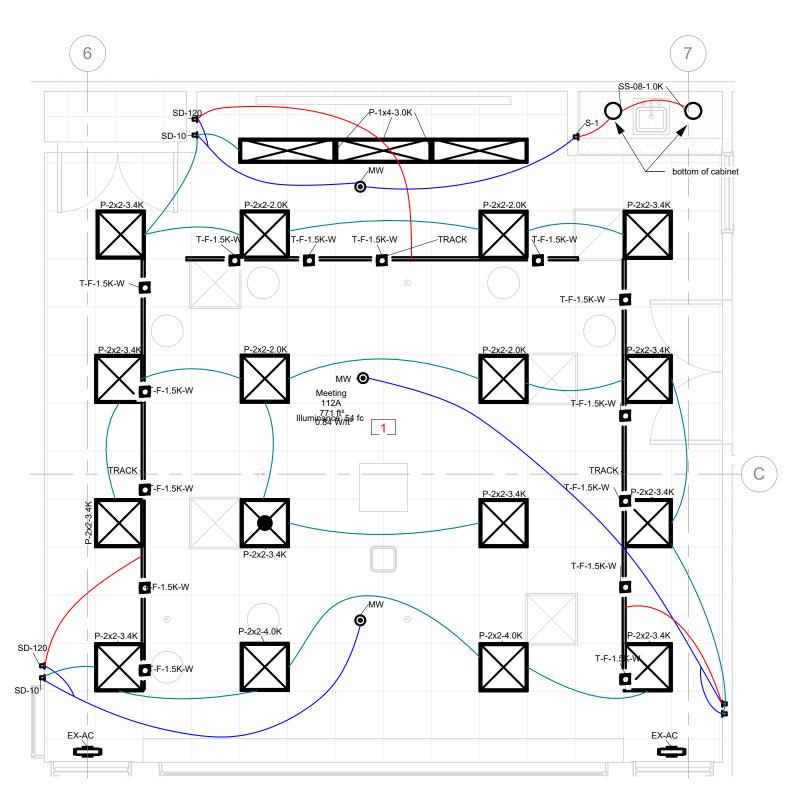
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3/16" = 1'-0" 3/32" = 1'-0" FEET 1/4" = 1'-0" FEET 1/16" = 1'-0" 1/8" = 1'-0" 1" = 20'-0" FEET



	Lighting Device Schedule							Emergency Lighting Inverters												
Type Mark	Description	Est. Count	Model	URL	Type Remark	Specification		Type Mark	Space Number	Space Name	Description	Manufacturer	r Model	URL	Output Rating @ 90 Minutes	In / Out Voltage	Weight	Remark	Specific Remark	Specifications
MS	Motion Sensor short Range	14	Sensorswitch CMR-9-PDT-ADC-VLP	www.acuitybrands.com	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	26 50 00 - Lighting		ELI-1.6kVA	118	Mechanical	Emergency Lighting Inverter		EM-2-S-B-10-03-T-M(BBM)-		1600 VA	120 V	405 lbf		rtomant	26 50 00 - Lighting
MW	Motion Sensor wide Range	39	Sensorswitch CMR-10-PDT-ADC-VLP	www.acuitybrands.com		26 50 00 - Lighting													'	
MW FM	Motion Sensor wide Range; Fixture-mount	2	Sensorswitch LSXR-10-ADC-VLP	www.acuitybrands.com		26 50 00 - Lighting														
S-1	Single Switch	4				26 50 00 - Lighting														
SD-10	Switch w/ 0-10V Dimmer	20	Wattstopper RH4FBL3PW	www legrand us		26 50 00 - Lighting														

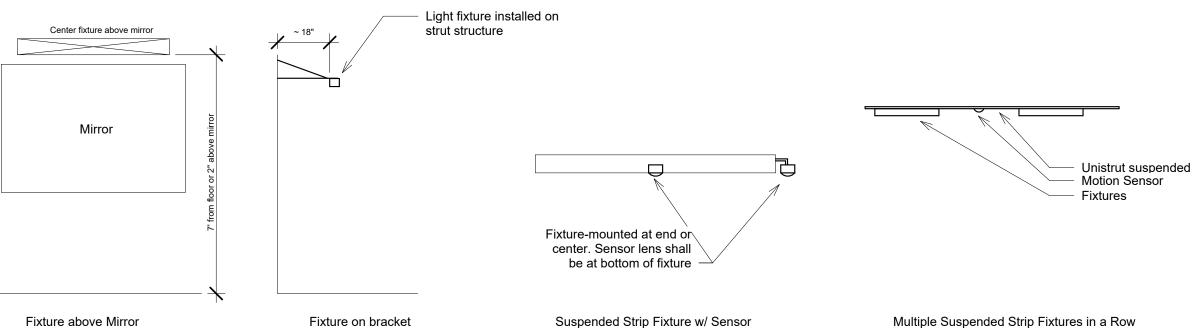
Column   Light Florate Clarified Control and Service   Light Florate Floration   Column   C		Lighting Fixture Schedule														
EVA   1-Feb   Color	Type Mark	Type Comments		Count		URL	1 11	Flux		e Efficacy	Lumen Maintenance	Environemntal Rating	Rating (highest		Specific Remark	Specification
CM-21-56-6   Light Failure Ediction   Ediction Wellpack   1   Spirity OWS-4017-95/124-MV-OK   execution   19 VA   1961 in   5000 K   10 m/s   17 g (100K tools)   19 VA   1961 in   5000 K   10 m/s   19 VA					-	www.rablighting.com										26 50 00 - Lighting
EW-15-15-08 Light Findum Edution Valuables. 1 Signify GVS-A-P1-TO-TAMAN-WR www.signify.com 10 VA 166 in 500 K 166 in WV 170 gi 1026 hours 1 P6 Will Loadien 1 Add photocoling GVS PC 16 for certain cortical as specified 25 93 00 - Light Education 1 P6 Will Loadien 2 P6 Will Loadien 1 P6 Will Loadien 2			- 17	4	-	www.rablighting.com	_									
Extend   Light Filture heiring   Filture heiri			•	1		www.signify.com										
EXAC   Light Fixture Interforc   Ext Sign - no Bettery   5   Lifford (LAM S-A)-C-A/-C-A/-C-A/-C-A/-C-A/-C-A				1												26 50 00 - Lighting
EAR.O.2   Light Fixture Interior   EAR Sign Timeguilar - no failary   1   Big Ream TRIX_ACCIED.9-GW   www.bigheem.com   4 V/A   26 000 - Lighting Fixture Interior   Parel 1st   3   Limona SPY-1st-4000L4-900CH-HOK-FRE-LUGR-Z-1-MOUL-HOM   www.acuightenas.com   22 V/A   3137 lm   4000 K   13 lmW   150 g 50 N hours   PXS, NSF Splats Zom   17.7   1.5 lmW				2		www.signify.com		1646 lm	5000 K	165 lm/W	L70 @ 102K hours			Add photocell option PCB if no central control is specified		
Ext.AC-3				5		, , ,						Damp Location				26 50 00 - Lighting
P-164-3 GK		Light Fixture Interior		1		www.bigbeam.com										26 50 00 - Lighting
P-14-3 OK-3 OF   Uph Fixture Instance   Panel 1x4				5	<u> </u>	www.bigbeam.com										26 50 00 - Lighting
P2-22-2-0.0.   Light Fixture Interior   Parel 2/2		<u> </u>		3		www.acuitybrands.com	1					- /				
P-222-24-0K-30P   Light Fixture Inferior   P-amel 22   6   Lithonia SPX-222-200LM-9CR-I-MOCIT-VH   www.acultybrands.com   14 VA   211 lm   400 K   15 lm/W   L90 @ 90 known   P/SS. SP Splash Zone   17.8		J		1		<u> </u>									1 Spare Fixture	
P-22/3-4.K   Light Fixture Interior   Panel 2/2   46   Lithonia SPX-23-4300LM-80CR-IA/GR-RF-ILUGR.ZT-MVOLT-WH   www.acuitybrands.com   23 VA   338 lm   4000 K   149 lmW   L50@ £05 K hours   PX5, INSF Splash Zone   21.5   1.5				23		,										
P-222-3.4K-3DP   Light Flatter Interior   Panel 22   27   Lithonia SPX-22-4000LM-90CR140/K-BFR-3DP-ZT MVOLT-WH   www.acuthyrands.com   23 VA   4880 lm   4000 K   149 lmW   190 g 50K hours   192K NSF Splash Zone   21.5   25.000 Lighting   22.4   25.000 Lighting   22.4   25.000 Lighting   22.4   26.000 K   149 lmW   190 g 50K hours   192K NSF Splash Zone   21.5   25.000 Lighting   22.4   25.000 Lighting   22.4   25.000 Lighting   22.4   22				6		, , , , , , , , , , , , , , , , , , , ,	1								1 Spare Fixture	
P-22-4 0K   Ught Fixture Interior   Panel 2/2   69   Lithonia SPX-22-4000LM-80CR-IAVG-RFR-LUGR-ZT-MVOLT-WH   www.acultybrands.com   28 VA   4880 lm   4000 K   146 lmW   L90 @ 50K hours   PKS; NSF Splash Zone   18.4						www.acuitybrands.com										26 50 00 - Lighting
P-202-4 (NK-3DP   Light Fixture Interior   Panel 2:2   28   Lithonia SPX-222-4000LM-8DCR-I40K-BFR-LUGR-ZT-MVOLT-WH   www.acuitybrands.com   28 VA   4980 im   4900 K   142 imW   L90 @ 50K hours   FXS, NSF Splash Zone   19.1		<u> </u>		27		www.acuitybrands.com						- /			5 Spare Fxitures	26 50 00 - Lighting
P-2x2-4.8K		<u> </u>		69		<b>,</b>										
P.2x4-3.0K				28		<b>,</b>									5 Spare Fxitures	26 50 00 - Lighting
P-2x4-4.0K   Light Fixture Interior   Panel 2x4   2   Lithonia SPX-2x4-4000LM-80CRI-40K-BFR-LUGR-ZT-MVOLT-WH   www.acuitybrands.com   27 VA   4044 lm   4000 K   150 lm/W   L90 @ 50K hours   PX5; NSF Splash Zone   15.8   26 500 - Lighting Piol-16   Light Fixture Interior   Panel 2x4   2   Lithonia SPX-2x4-6000LM-80CRI-40K-BFR-LUGR-ZT-MVOLT-WH   www.acuitybrands.com   43 VA   6258 lm   4000 K   146 lm/W   L90 @ 50K hours   PX5; NSF Splash Zone   17.3   Mount to expose Tip of Light only   26 500 O - Lighting Piol-16   Light Fixture Interior   Panel 2x4   2   Lithonia SPX-2x4-4000LM-80CRI-40K-BFR-LUGR-ZT-MVOLT-WH   www.acuitybrands.com   43 VA   6258 lm   4000 K   146 lm/W   L90 @ 50K hours   PX5; NSF Splash Zone   17.3   Mount to expose Tip of Light only   26 500 O - Lighting Pixture Interior   Panel 2x4   2   Lithonia SPX-2x4-4000LM-80CRI   www.acuitybrands.com   43 VA   6258 lm   4000 K   146 lm/W   L90 @ 50K hours   PX5; NSF Splash Zone   17.3   Mount to expose Tip of Light only   26 500 O - Lighting Pixture Interior   Panel 2x4   Lithonia SPX-2x4-4000LM-80CRI   www.acuitybrands.com   30 VA   694 lm   4000 K   168 lm/W   L90 @ 50K hours   PX5; NSF Splash Zone   17.3   Mount to expose Tip of Light only   26 500 O - Lighting Pixture Interior   Sit pix of Light Fixture Interior   Sim Sufface - Round - Wet Location   4 TGS 88-1215-RW-TM-CC4000K-90CRI   www.trulygreensolutions.com   10 VA   1500 lm   4000 K   100 lm/W   36K hours   19 44 / Wet Location   26 500 O - Lighting Tx-15.6   Light Fixture Interior   Sim Sufface - Round - Wet Location   4 TGS 88-1215-RW-TM-CC4000K-90CRI   www.trulygreensolutions.com   15 VA   1500 lm   4000 K   100 lm/W   36K hours   19 44 / Wet Location   4 TGS 88-1215-RW-TM-CC4000K-90CRI   www.trulygreensolutions.com   15 VA   1500 lm   4000 K   100 lm/W   36K hours   19 44 / Wet Location   4 TGS 88-1215-RW-TM-CC4000K-90CRI   www.trulygreensoluti				6		www.acuitybrands.com										
P-2x4-6.0K				1		<b>,</b>										26 50 00 - Lighting
Pilot B   Light Fixture Interior   Pilot Light Blue   1   Peerless OPRW-G-LOP-8FT-80CRI-40K-800LMF-MINI-ZT-MVOLT-SCT   www.acuitybrands.com   102 VA   6904 lm   4000 K   680 lm/W   L70 @ 100K hours   Damp Location   27   26 500 o - Lighting   Light Fixture Interior   Strip 4' 9   Lithonia CLX-148-5000LM-HEF-RDL-MVOLT-EZ1-40K-80CRI   www.acuitybrands.com   30 VA   5019 lm   4000 K   168 lm/W   L70 @ 100K hours   Damp Location   27   26 500 o - Lighting   Light Fixture Interior   Strip 8' 3   Lithonia CLX-148-5000LM-HEF-RDL-MVOLT-EZ1-40K-80CRI   www.acuitybrands.com   48 VA   8181 lm   4000 K   172 lm/W   L70 @ 100K hours   Damp Location   26 50 00 - Lighting   Light Fixture Interior   Strip 8' 3   Lithonia CLX-196-8000LM-HEF-RDL-MVOLT-EZ1-40K-80CRI   www.trulygreensolutions.com   48 VA   8181 lm   4000 K   172 lm/W   L70 @ 100K hours   Light Fixture Interior   Strip 8' 3   Lithonia CLX-196-8000LM-HEF-RDL-MVOLT-EZ1-40K-80CRI   www.trulygreensolutions.com   48 VA   8181 lm   4000 K   172 lm/W   L70 @ 100K hours   Light Fixture Interior   Strip 8' 3   Lithonia CLX-196-8000LM-HEF-RDL-MVOLT-EZ1-40K-80CRI   www.trulygreensolutions.com   10 VA   1000 lm   4000 K   172 lm/W   L70 @ 100K hours   Light Fixture Interior   Strip 8' 3   Lithonia CLX-196-8000LM-HEF-RDL-MVOLT-EZ1-40K-80CRI   www.trulygreensolutions.com   10 VA   1000 lm   4000 K   172 lm/W   L70 @ 100K hours   Light Fixture Interior   Strip 8' 1   Light Fixture Interior   Light Fixture   Light Fixture   Light Fixture   Light Fixture   Light Fixture   Light Fixture   Light Fixture Interior   Light Fixture Interior   Light Fixture Interior   Light Fixture Interior   Light Fixture   Light Fixture Interior   Light Fi	P-2x4-4.0K	Light Fixture Interior		2		www.acuitybrands.com		4044 lm	4000 K	150 lm/W		- /				
RL-8-6.9K   Light Fixture Interior   Recessed Linear 8'   3   Peerless OPRW-G-LOP-8FT-80CRI-40K-800LMF-MIN1-ZT-MVOLT-SCT   www.acuitybrands.com   102 VA   690 km   4000 K   68 lm/W   L90 @ 50K hours   IPX5; NSF Splash Zone   26 50 00 - Lighting   S4-5.0K   Light Fixture Interior   Strip 4'   9   Lithonia CLX-L49-5000LM-HEF-RDL-MVOLT-EZ1-40K-80CRI   www.acuitybrands.com   30 VA   5019 lm   4000 K   166 lm/W   L70 @ 100K hours   Damp Location   27   26 50 00 - Lighting   48 VA   818 lm   4000 K   172 lm/W   172	P-2x4-6.0K	Light Fixture Interior	Panel 2x4	2	Lithonia SPX-2x4-6000LM-80CRI-40K-BFR-LUGR-ZT-MVOLT-WH	www.acuitybrands.com	43 VA	6258 lm	4000 K	146 lm/W	L90 @ 50K hours	IPX5; NSF Splash Zon	e 17.3			26 50 00 - Lighting
S-4-5.0K         Light Fixture Interior         Strip 4'         9         Lithonia CLX-L48-5000LM-HEF-RDL-MVOLT-E21-40K-80CRI         www.acuitybrands.com         30 VA         5019 lm         4000 K         166 lm/W         L70@ 100K hours         Damp Location         27           S-8-8.0K         Light Fixture Interior         Strip 8'         3         Lithonia CLX-L48-5000LM-HEF-RDL-MVOLT-E21-40K-80CRI         www.acuitybrands.com         48 VA         8181 lm         4000 K         107 lm/W         L70@ 100K hours         Damp Location         26 50 00 - Lighting           SS-08-1.0K         Light Fixture Interior         Slim Surface - Round - Wet Location         2         TGS 88-0810-RW-TM-CC4000K-90CRI         www.trulygreensolutions.com         10 VA         100 lm         4000 K         100 lm/W         36K hours         IP 44 / Wet Location         26 50 00 - Lighting           SS-12-1.5K         Light Fixture Interior         Slim Surface - Round - Wet Location         4         TGS 88-1215-RW-TM-CC4000K-90CRI         www.trulygreensolutions.com         15 VA         1500 lm         4000 K         100 lm/W         36K hours         IP 44 / Wet Location         26 50 00 - Lighting           SS-16-2.2K         Light Fixture Interior         Slim Surface - Round - Wet Location         16         TGS 88-1215-RW-TM-CC4000K-90CRI         www.trulygreensolutions.com         25 VA         2200	Pilot-B	Light Fixture Interior	Pilot Light Blue	1										Mount to expose Tip of Light only		26 50 00 - Lighting
S-4-5.0K         Light Fixture Interior         Strip 4'         9         Lithonia CLX-L48-5000LM-HEF-RDL-MVOLT-E21-40K-80CRI         www.acuitybrands.com         30 VA         5019 lm         4000 K         166 lm/W         L70@ 100K hours         Damp Location         27           S-8-8.0K         Light Fixture Interior         Strip 8'         3         Lithonia CLX-L48-5000LM-HEF-RDL-MVOLT-E21-40K-80CRI         www.acuitybrands.com         48 VA         8181 lm         4000 K         107 lm/W         L70@ 100K hours         Damp Location         26 50 00 - Lighting           SS-08-1.0K         Light Fixture Interior         Slim Surface - Round - Wet Location         2         TGS 88-0810-RW-TM-CC4000K-90CRI         www.trulygreensolutions.com         10 VA         100 lm         4000 K         100 lm/W         36K hours         IP 44 / Wet Location         26 50 00 - Lighting           SS-12-1.5K         Light Fixture Interior         Slim Surface - Round - Wet Location         4         TGS 88-1215-RW-TM-CC4000K-90CRI         www.trulygreensolutions.com         15 VA         1500 lm         4000 K         100 lm/W         36K hours         IP 44 / Wet Location         26 50 00 - Lighting           SS-16-2.2K         Light Fixture Interior         Slim Surface - Round - Wet Location         16         TGS 88-1215-RW-TM-CC4000K-90CRI         www.trulygreensolutions.com         25 VA         2200	RL-8-6.9K	Light Fixture Interior	Recessed Linear 8'	3	Peerless OPRW-G-LOP-8FT-80CRI-40K-800LMF-MIN1-ZT-MVOLT-SCT	www.acuitybrands.com	102 VA	6904 lm	4000 K	68 lm/W	L90 @ 50K hours	IPX5; NSF Splash Zon	е			26 50 00 - Lighting
SS-08-1.0K Light Fixture Interior Slim Surface - Round - Wet Location 2 TGS 88-0810-RW-TM-CC4000K-90CRI www.trulygreensolutions.com 10 VA 1000 lm 4000 K 100 lm/W 36K hours 1P 44 / Wet Location SS-12-1.5K Light Fixture Interior Slim Surface - Round - Wet Location 4 TGS 88-1215-RW-TM-CC4000K-90CRI www.trulygreensolutions.com 15 VA 1500 lm 4000 K 100 lm/W 36K hours 1P 44 / Wet Location SS-16-2.2K Light Fixture Interior Slim Surface - Round - Wet Location 16 TGS 88-1215-RW-TM-CC4000K-90CRI www.trulygreensolutions.com 25 VA 2200 lm 4000 K 88 lm/W 36K hours 1P 44 / Wet Location 16 T-F-1.5K-W Light Fixture Track 38° - White 21 Juno T262L-G2-40K-97CRI-PDIM-FL-WH juno.acuitybrands.com 16 VA 1454 lm 4000 K 91 lm/W L70 @ 50K hours 17-SP-1.5K-W Light Fixture Track 23° - White Track 23° -		Light Fixture Interior		9		www.acuitybrands.com		5019 lm		166 lm/W	L70 @ 100K hours	Damp Location				26 50 00 - Lighting
SS-12-1.5K         Light Fixture Interior         Slim Surface - Round - Wet Location         4         TGS 88-1215-RW-TM-CC4000K-90CRI         www.trulygreensolutions.com         15 VA         150 lm         400 K         100 lm/W         36K hours         IP 44 / Wet Location           SS-16-2.2K         Light Fixture Interior         Slim Surface - Round - Wet Location         16         TGS 88-1215-RW-TM-CC4000K-90CRI         www.trulygreensolutions.com         25 VA         2200 lm         4000 K         88 lm/W         36K hours         IP 44 / Wet Location           T-F-1.5K-W         Light Fixture         Track 38° - White         21         Juno T262L-G2-40K-97CRI-PDIM-FL-WH         juno.acuitybrands.com         16 VA         1456 lm         4000 K         91 lm/W         L70 @ 50K hours         92 lm/W         L70 @ 50K hours         10 Light Fixture         10 Light Fixture </td <td>S-8-8.0K</td> <td>Light Fixture Interior</td> <td>Strip 8'</td> <td>3</td> <td>Lithonia CLX-L96-8000LM-HEF-RDL-MVOLT-EZ1-40K-80CRI</td> <td>www.acuitybrands.com</td> <td>48 VA</td> <td>8181 lm</td> <td>4000 K</td> <td>172 lm/W</td> <td>L70 @ 100K hours</td> <td>Damp Location</td> <td>26.5</td> <td></td> <td></td> <td>26 50 00 - Lighting</td>	S-8-8.0K	Light Fixture Interior	Strip 8'	3	Lithonia CLX-L96-8000LM-HEF-RDL-MVOLT-EZ1-40K-80CRI	www.acuitybrands.com	48 VA	8181 lm	4000 K	172 lm/W	L70 @ 100K hours	Damp Location	26.5			26 50 00 - Lighting
SS-16-2.2K Light Fixture Interior Slim Surface - Round - Wet Location T-F-1.5K-W Light Fixture Track 38° - White 21 Juno T262L-G2-40K-97CRI-PDIM-FL-WH juno.acuitybrands.com 16 VA 1454 Im 4000 K 91 Im/W L70 @ 50K hours 26 50 00 - Lighting 50 00	SS-08-1.0K	Light Fixture Interior	Slim Surface - Round - Wet Location	2	TGS 88-0810-RW-TM-CC4000K-90CRI	www.trulygreensolutions.com	10 VA	1000 lm	4000 K	100 lm/W	36K hours	IP 44 / Wet Location				26 50 00 - Lighting
T.F-1.5K-W         Light Fixture         Track 38° - White         21         Juno T262L-G2-40K-97CRI-PDIM-FL-WH         juno.acuitybrands.com         16 VA         1454 lm         4000 K         91 lm/W         L70 @ 50K hours           T-NF-1.5K-W         Light Fixture         Track 23° - White         19         Juno T262L-G2-40K-97CRI-PDIM-NFL-WH         juno.acuitybrands.com         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         26 50 00 - Lighting           T-SP-1.5K-W         Light Fixture         Track 10° - White         4         Juno T262L-G2-40K-97CRI-PDIM-SP-WH         juno.acuitybrands.com         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         26 50 00 - Lighting           TRACK         Light Fixture Interior         Track         11         Compatible with track fixtures; color-match         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         26 50 00 - Lighting	SS-12-1.5K	Light Fixture Interior		4	TGS 88-1215-RW-TM-CC4000K-90CRI	www.trulygreensolutions.com	15 VA	1500 lm	4000 K	100 lm/W	36K hours	IP 44 / Wet Location				26 50 00 - Lighting
T-NF-1.5K-W         Light Fixture         Track 23° - White         19         Juno T262L-G2-40K-97CRI-PDIM-NFL-WH         juno.acuitybrands.com         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours           T-SP-1.5K-W         Light Fixture         Track 10° - White         4         Juno T262L-G2-40K-97CRI-PDIM-SP-WH         juno.acuitybrands.com         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         26 50 00 - Lighting           TRACK         Light Fixture Interior         Track         11         Compatible with track fixtures; color-match         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         16 VA         1466 lm         4000 K         92 lm/W         L70 @ 50K hours         16 VA         1466 lm         4000 K         <	SS-16-2.2K	Light Fixture Interior	Slim Surface - Round - Wet Location	16	TGS 88-1215-RW-TM-CC4000K-90CRI	www.trulygreensolutions.com	25 VA	2200 lm	4000 K	88 lm/W	36K hours	IP 44 / Wet Location				26 50 00 - Lighting
T-SP-1.5K-W Light Fixture Track 10° - White 4 Juno T262L-G2-40K-97CRI-PDIM-SP-WH juno.acuitybrands.com 16 VA 1466 lm 4000 K 92 lm/W L70 @ 50K hours 26 50 00 - Lightington SP-WH 26 50 00 - Li	T-F-1.5K-W	Light Fixture	Track 38° - White	21	Juno T262L-G2-40K-97CRI-PDIM-FL-WH	juno.acuitybrands.com	16 VA	1454 lm	4000 K	91 lm/W	L70 @ 50K hours					26 50 00 - Lighting
TRACK Light Fixture Interior Track 11 Compatible with track fixtures; color-match 26 50 00 – Lightin	T-NF-1.5K-W	Light Fixture	Track 23° - White	19	Juno T262L-G2-40K-97CRI-PDIM-NFL-WH	juno.acuitybrands.com	16 VA	1466 lm	4000 K	92 lm/W	L70 @ 50K hours					26 50 00 - Lighting
	T-SP-1.5K-W	Light Fixture	Track 10° - White	4	Juno T262L-G2-40K-97CRI-PDIM-SP-WH	juno.acuitybrands.com	16 VA	1466 lm	4000 K	92 lm/W	L70 @ 50K hours					26 50 00 - Lighting
V-4-2.8K Light Fixture Interior Vanity 4' 6 Birchwood NOL-LED-HLO-40-4-MW-MVOLT-D1-SM www.birchwoodlighting.com 24 VA 2792 lm 4000 K 118 lm/W L70 @ 60K hours Damp Location 0 26 50 00 - Lighting.com	TRACK	Light Fixture Interior	Track	11	Compatible with track fixtures; color-match											26 50 00 - Lighting
	V-4-2.8K	Light Fixture Interior	Vanity 4'	6	Birchwood NOL-LED-HLO-40-4-MW-MVOLT-D1-SM	www.birchwoodlighting.com	24 VA	2792 lm	4000 K	118 lm/W	L70 @ 60K hours	Damp Location	0			26 50 00 - Lighting

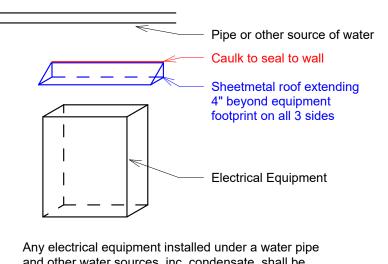


9 Acuity ISD-400E-ELV-120-WH
1 Intermatic 2800 Series

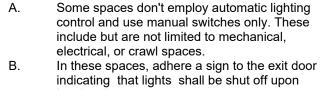
www.acuity.com

(3) EL - Level 1 - Callout Meeting Room 1/4" = 1'-0"





and other water sources, inc. condensate, shall be protected by a roof deflecting water Install roof high enough to maintain all required clearances



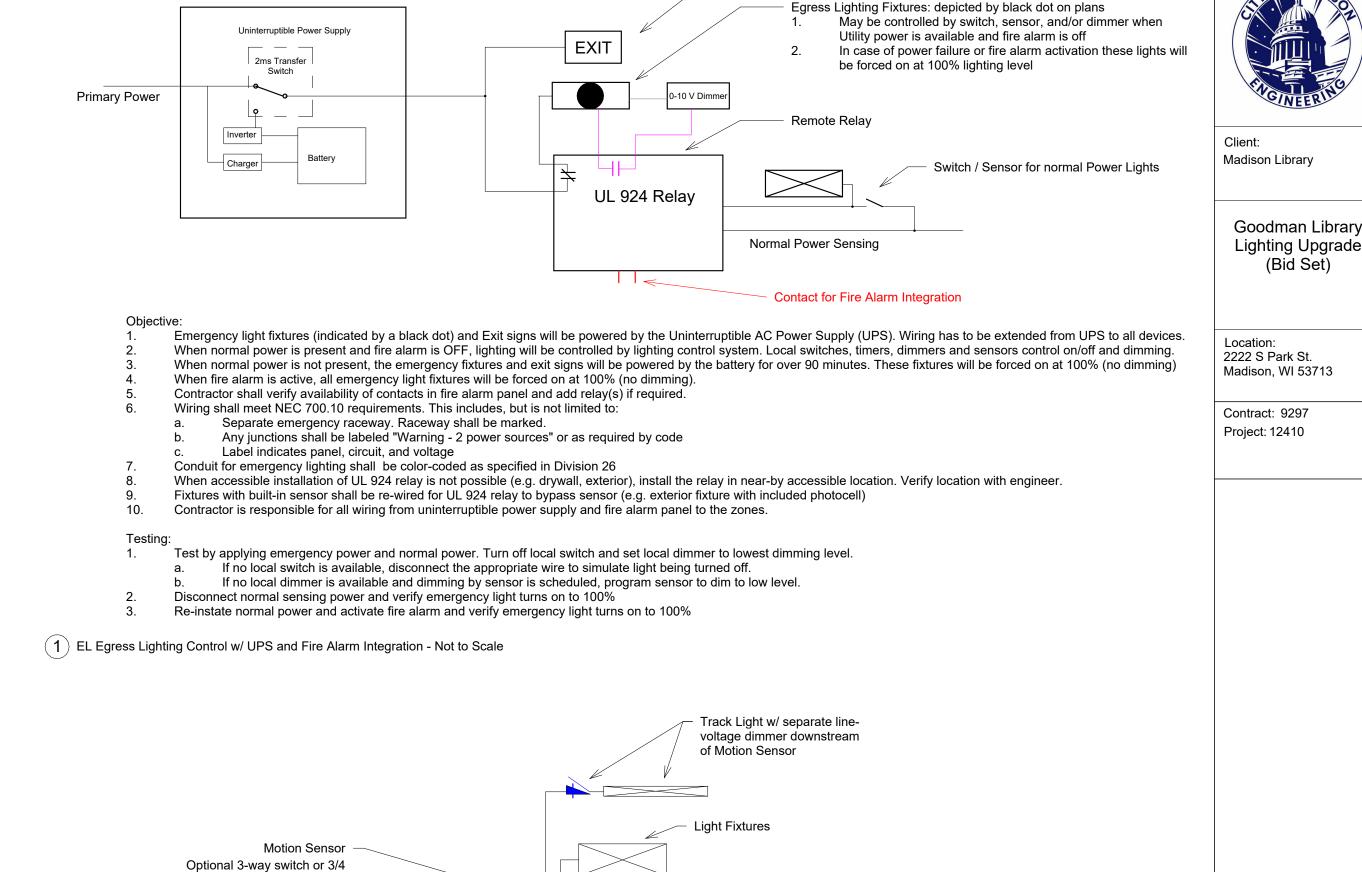
Please

**Turn off lights** 

when leaving

room empty.

leaving the space. Above sign is an example and similar signs can be used upon approval.



Permanently lit Fixtures (e.g. EXIT signs)

Lighting zones with lighting-devices and light-fixtures are indicated by wire lines and/or switch leg (SL) numbers.

Where devices allow, dimming shall be accomplished by 0-10V wiring of all devices. Where shown on plans, a zone may have 3-way and 4-way switches. Enable 3-way function on dimmer switch and wire appropriately to enable control from all switch locations. Fixtures and devices in the same above zone are denoted by the same switchleg (SL) number. Motion sensor with local switch will be de-energized when switch is off (sensor downstream of switch):

Light will be on upon activation of local switch regardless of actual motion detection (sensor is ON upon power-up)

Sensors will not click when local switch is off (nuisance avoidance in quiet rooms) If the order of switching is different at a specific location, plans will indicate so. Examples include, but are not limited to sensors controlling line-voltage dimmers or other track lighting control.

0-10V Control for dimming to all fixtures with 0-10V input. Wire from sensor to Fixtures. Optional manual

dimmer wired in parallel.

Line-voltage dimmers (i.e. track lighting) shall be downstream of local motion sensor. Notes on plans or switchleg naming will indicate exceptions. For example:

Disable Switchleg: A dimmer will only dim the lighting level to the allowable minimum. The line voltage switch in the dimmer will not be used. This prevents lights turning off entirely. Hallways are an example.

One light fixture shall be controlled by switch only: Switchleg parameters indicate that some lights are controlled by switch and sensor, and some lights by switch only. This prevents the latter lights from turning off upon loss of motion detection. Electrical or mechanical rooms are examples. Sensor Programming Instructions:

The below is based on Sensorswitch Instructions at the time of design. Amend if different sensors are used or if manufacturer changes procedure. Confirm any deviation with engineer. Sensorswitch support#: 1-800-535-2465

If sensors are equipped with VLC programming option, a smartphone app shall be used. Note that sensors needs to be initialized and set with a PIN within 45 minutes of powering up. Program is sent to sensor via flashlight. Lights will blink to acknowledge successful programming.

Verify settings with engineer prior programming. Certain settings may be different in certain zones. Sensors shall be programmed depending on availability of daylight. Save presets to avoid deviations.

No daylight available: Enable "Time Delay" - Set to 15 minutes

Disable Trim Enable "Dim to Off Delay" - set to 5 minutes

Disable Photocell Daylight available (inc. spaces with overhead doors, skylights, windows within 20' of sensor)

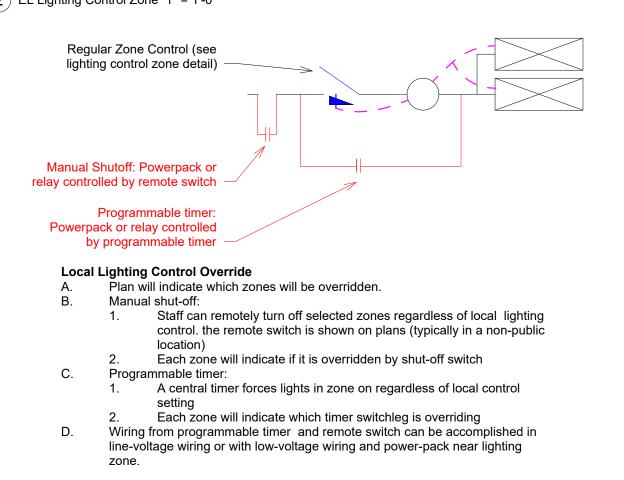
Enable "Photocell" and set to "On/Off and Auto Dimming" Enable "Auto Set Point"

After programming, all functions shall be tested to verify desired function. Adjust as required for intended function. Discuss

## 2 EL Lighting Control Zone 1" = 1'-0"

way witch system -

Optional Room Switch and/or Dimmer upstream of Sensors



Details and

Schedules

Revisions

No. Description

Designed by: City of Madison Facilites Management
City-County Building, Room 115 10 Martin Luther King Jr. Boulevard Madison, WI 53703

(Bid Set)

EL 300

Print Date: 5/26/2023 9:18:08 Print in color on 24" x 36"

Protection of Inverters and other Electrical Lighting Equipment (4) EL Typical Installation Details 1" = 1'-0"

(5) EL Local Lighting Control Overrides 1" = 1'-0"