

**Open Market
Lowest Price, Technically Acceptable**

Request for Quotation

RFQ Number: USDC22-0001

This is a request for: **“Replace Ceiling Light System – Chambers 4311”**
BRAND NAME OR EQUAL - WHERE A MANUFACTURER FOR PRODUCT IS SPECIFIED

Provide quote to Ernest Gambrill, at ernest_gambrill@dcd.uscourts.gov by **(Monday, September 12, 2022 - 12:00 PM “NOON”)** local time.

Using the quote sheet provided herein, email your quote no later than the date and time specified above. Late quotes will not be considered unless the judiciary determines, at its own discretion, that considering the late quote is in the judiciary’s best interest and will not unduly delay the procurement.

The U.S. District Court for the District of Columbia intends to make an award based on the **lowest priced, technically acceptable** quote, once all approvals are received from the General Services Administration and the Administrative Office of the United States Courts. All items should be quoted as a **fixed price**. Payment terms will be considered **Net 30** unless more favorable terms are offered.

Questions concerning this RFQ should be submitted by email to: ernest_gambrill@dcd.uscourts.gov no later than 12:00 pm on Friday, September 12, 2022.

The period of performance will be [09/26/2022 – 12/02/22] or will begin approximately 15 days after receipt of award.

The place of performance will be:
E. Barrett Prettyman Courthouse
333 Constitution Ave., NW
4th Floor
Washington, DC 20001

Sincerely,

Ernest Gambrill
Contracting Officer

Attachments:
Appendix A – Lighting Fixtures 4311
Appendix B – ME Drawings 4311
Wage Determination

NOTE: The full project manual and contract drawings report will be made available upon request.

Quote Sheet for RFQ Number: USDC 22-0001

FIRM FIXED PRICE: \$ _____

Vendor's Name

Vendor's Phone Number/fax number/e-mail address

Vendor's Street Address

Vendor's City, State, and Zip Code

Signature of Person Authorized to Sign Quote

Date

DUNS number

Printed or Typed Name of Signator

TERMS – Net 30?

STATEMENT OF WORK (SOW)

1.1 INTRODUCTION:

The U.S. District Court for the District of Columbia is seeking to make a “firm fixed price” award for the replacement of ceiling light system, removal of current lay in ceiling located in Chamber 4311, the chamber is located on the Prettyman side of the E. Barrett Prettyman Courthouse. This project will require installation of a drywall ceiling, lay-in acoustical ceiling tile, lighting, diffusers and a grid system.

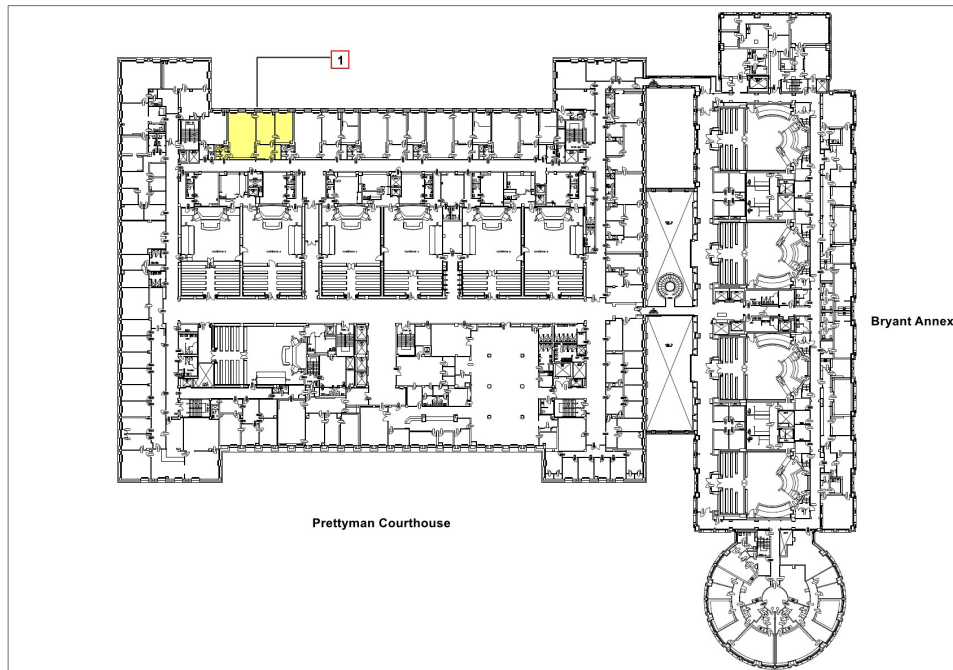
2.1 OBJECTIVES:

The Contractor is expected to get Chamber 4311 to a “ready state” in accord with drawing details and specifications called out in the statement of work.

3 SCOPE:

3.1 – Contractor shall remove and dispose existing ceiling tiles and grid in the chambers.

3.2 – Replace the existing ceiling light system in Chambers 4311 with a new lighting system that includes LED 2'x2' and LED recessed down lights, code compliant wiring, light switches and dimmers, flex duct and diffusers, drywall ceiling, and acoustical ceiling tile grid system to the extent indicated on the attached drawings and specifications. Patch and paint ceilings with lighting work to match existing finish colors.



Location of Chambers 4311 in Prettyman Courthouse

4 SPECIAL REQUIREMENTS/INFORMATION

4.1a – A walk thru of the existing space can be arranged but will need to be scheduled via emailed request to: ernest_gambrill@dcd.uscourts.gov.

4.1b – A preproposal meeting which includes a review of the existing space will be held on September 6, 2022 at 10:30 a.m. Interested contractors should meet at the main elevator lobby of the Prettyman Courthouse near the green marble kiosk.

4.2 – If the Contractor intends to use a **Subcontractor** for any of the services detailed in this project, the Contractor shall include the name of the “**sub**” and provide a description of how the “**sub**” will be managed during performance.

5 REQUIREMENTS

5.1 – Contractor shall review and adhere to project information as shown in the reference attachments below, **(see page 10 below for full attachments)**

NOTE: Where brand names are indicated for deliverables, the contractor shall provide **brand name or Equal**. The contractor shall provide comparative spec sheets for any and all items for which they intend to use an equivalent to the deliverables specified in the attached drawings, no later than the proposal close date.

5.2a - Contractor shall organize and submit a schedule for work to be done according to the following parameters below **within 15 days of award. (5.2b,c)**.

5.2b - Work shall be done between the hours of 6:00 p.m. to 6:00 a.m. Monday through Friday and shall be coordinated with the Contracting Officer or Contracting Officer’s Representatives.

5.2c - Saturdays, Sundays, and federal holidays shall be approved in advance, and shall be coordinated in with the Contracting Officer or Contracting Officer’s Representatives.

5.3a - Contractor shall submit name, date of birth, and social security number of all workers that will be working on site for this work scope. **Submittal of information shall be no later than 15 days after being notified of an award.**

5.3b - A background check will be performed against the information provided. A purchase order will be issued upon notification that workers are suitable to work, unescorted, in the courthouse.

5.3c - Should it be determined that workers are not suitable a purchase order will not be issued. In this event, an explanation will not be provided; all decisions are final. *Not applicable to workers who have already been cleared to work in the building in the preceding six months.*

5.4 – Contractor shall take all necessary steps to protect the existing space and to limit the amount of dust and debris to surrounding areas. This typically includes the contractor’s use of plastic protection surrounding workspace, along with entry and exit points. The contractor shall ensure that all debris is removed from the courthouse and will ensure that debris is not deposited within courthouse dumpsters. Contractors shall work in assigned space only. The waiting area in chambers 4311 may be used as a laydown area if appropriate protection is provided. Finishes in the space are new and any damage must be repaired.

5.5 – Contractor shall move and protect furniture and equipment as necessary to complete work.

6.1 DELIVERABLES

All deliverables, (equipment and supplies) named in the project specifications and those deemed necessary by the Contractor, shall be the responsibility of the Contractor to supply and protect throughout the duration of the project. The Contractor shall coordinate the delivery of all materials and supplies with the Contracting Officer’s Representatives. The courthouse has a standard loading dock and a freight elevator able to accommodate all materials specified in the Statement of Work. The court assumes no responsibility for damaged product, any corrections to defective or damaged product shall be accomplished at no additional cost to the judiciary.

7.1 PERIOD OF PERFORMANCE

The overall period of performance for this contract shall be as stated above on introductory page of this request.

8.1 REVIEW PERIOD & ACCEPTANCE

At the completion of the project, the Contractor shall contact the Contracting Officer to schedule a walk-through of the completed space. The Contracting Officer, the Contractor and the Contracting Officer’s Representatives will walk the space to identify any punch list items still outstanding or certify that the area is deemed to be in a “Ready State.” If accepted, the Contracting Officer will issue a close out notification to the Contractor. If the project, *(or some aspect of)* is rejected, the contractor will have 10 working days to correct the deficiency. Payment will be withheld until the project has been deemed accepted.

9.1 PAYMENT

The Contractor shall submit an invoice for full payment in accordance with Clause 7-125, Invoices, after receiving acceptance notification in writing from Contracting Officer. (Clauses attached).

TERMS AND CONDITIONS

The following judiciary terms and conditions are incorporated into this request and will be included in the resulting order.

SOLICITATION PROVISIONS

Provision 3-5, Taxpayer Identification and Other Offeror Information (APR 2011)

(a) Definitions. "Taxpayer Identification (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a social security number or an employer identification number.

(b) All offerors shall submit the information required in paragraphs (d) and (e) of this provision to comply with debt collection requirements of 31 U.S.C. §§ 7701(c) and 3325(d), reporting requirements of 26 U.S.C. §§ 6041, 6041A, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the government to collect and report on any delinquent amounts arising out of the offeror's relationship with the government (31 U.S.C. § 7701(c)(3)). If the resulting contract is subject to payment recording requirements, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN): _____

TIN has been applied for.

TIN is not required, because:

Offeror is a nonresident alien, foreign corporation or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

Offeror is an agency or instrumentality of a foreign government;

Offeror is an agency or instrumentality of the federal government.

(e) Type of Organization:

sole proprietorship;

partnership;

corporate entity (not tax-exempt);

corporate entity (tax-exempt);

government entity (federal, state or local);

foreign government;

- international organization per 26 CFR 1.6049-4;
- other

(f) Contractor representations. The offeror represents as part of its offer that it is [___], is not [___] 51% owned and the management and daily operations are controlled by one or more members of the selected socio-economic group(s) below:

- Women Owned Business
- Minority Owned Business (if selected then one sub-type is required)
 - Black American Owned
 - Hispanic American Owned
 - Native American Owned (American Indians, Eskimos, Aleuts, or Native Hawaiians)
 - Asian-Pacific American Owned (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru)
 - Subcontinent Asian (Asian-Indian) American Owned (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal)
 - Individual/concern, other than one of the preceding.

(end)

Provision B-1, Solicitation Provisions Incorporated by Reference (SEP 2010)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the contracting officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this address:

<http://www.uscourts.gov/procurement.aspx>.

(end)

The following provisions marked with an 'X' are incorporated by reference:

	2-15	Warranty Information (JAN 2003)
X	2-70	Site Visit (JAN 2003)
	2-85A	Evaluation Inclusive of Options (JAN 2003)
	2-85B	Evaluation Inclusive of Options (JAN 2003)
X	2-85C	Evaluation of Options Exercised at Time of Contract Award (JAN 2003)
	3-185	Evaluation of Compensation for Professional Employees (JAN 2003)

4-155	Alternate Awards (JUN 2014)
4-165	Price Proposal Instruction – Multi-Year Contract (JUN 2014)

CONTRACT CLAUSES

Applicable to both the solicitation and contract

Clause 7-10, Contractor Representative (JAN 2003)

(a) The contractor's representative to be contacted for all contract administration matters is as follows (contractor complete the information):

- Name:**
- Address:**
- Telephone:**
- E-mail:**
- Fax:**

(b) The contractor's representative shall act as the central point of contact with the judiciary, shall be responsible for all contract administration issues relative to this contract, and shall have full authority to act for and legally bind the contractor on all such issues.

(end)

Clause 2-20C, Warranty of Services

1. **Warranty of Services**
2. (a) Definition. "Acceptance," as used in this clause, means the act of an authorized representative of the judiciary by which the judiciary assumes for itself, or as an agent of another, approves specific services, as partial or complete performance of the contract.
3. (b) Notwithstanding inspection and acceptance by the judiciary or any provision concerning the conclusiveness thereof, the contractor warrants that all services performed under this contract will, at the time of acceptance, be free from defects in workmanship and conform to the requirements of this contract. The contracting officer will give written notice of any defect or nonconformance to the contractor *[contracting officer will insert the specific period of time in which notice will be given to the contractor; e.g., "within 30 days from the date of acceptance by the judiciary"; within 1000 hours of use by the judiciary;" or other specified event whose occurrence will terminate the period of notice, or combination of any applicable events or period of time]*. This notice will state either
 1. (1) that the contractor shall correct or re-perform any defective or nonconforming services; or
 2. (2) that the judiciary does not require correction or re-performance.
4. (c) If the contractor is required to correct or re-perform, it shall be at no cost to the judiciary, and any services corrected or re-performed by the contractor shall be subject to

this clause to the same extent as work initially performed. If the contractor fails or refuses to correct or re-perform, the contracting officer may, by contract or otherwise, correct or replace with similar services and charge to the contractor the cost occasioned to the judiciary thereby, or make an equitable adjustment in the contract price.

5. (d) If the judiciary does not require correction or re-performance, the contracting officer will make an equitable adjustment in the contract price.

(end)

Clause B-5, Clauses Incorporated by Reference (SEP 2010)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the contracting officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address:

<http://www.uscourts.gov/procurement.aspx>.

(end)

The following clauses marked with an 'X' are incorporated by reference:

X	2-5B	Inspection of Services (APR 2013)
X	2-20A	Incorporation of Warranty (JAN 2003)
	2-40B	Delivery of Excess Quantities (JAN 2003)
	2-50	Continuity of Services (JAN 2003)
	2-55	Privacy or Security of Safeguards (JAN 2003)
X	2-80	Judiciary Property (JAN 2003)
	2-90C	Option to Extend Services (APR 2013)
	2-90D	Option to Extend the Term of the Contract (APR 2013)
	2-110	Option to Purchase Equipment (JAN 2003)
	2-125	Security for Advance Payment (APR 2013)
	2-130	Energy Efficiency in Energy-Consuming Products (APR 2013)
	2-135	Acquisition of EPEAT®-Registered Personal Computer Products (MAR 2019)
	2-140	Judiciary IT Security Standards (APR 2013)
	3-1	Contractor Use of Mandatory Sources of Products or Services (JUN 2012)
X	3-3	Provisions, Clauses, Terms and Conditions - Small Purchases (JUN 2014)
	4-150	Cancellation Under Multi-Year Contracts (JUN 2014)
X	5-1	Payments under Personal and Professional Services Contracts (APR 2013)
	5-30	Authorization and Consent (JAN 2003)
	5-30	Alternate I (JAN 2003)
	6-10	Deposit of Assets Requirements (APR 2013)
	6-15	Deposit of Assets Instead of Surety Bonds (JAN 2003)
	6-65	Rights in Data – Special Works (JAN 2010)

	6-75	Rights to Data in an Offer (APR 2013)
	6-80	Rights in Data – Existing Works (JAN 2010)
	6-90	Notice and Assistance Regarding Patent and Copyright Infringement (APR 2010)
	6-110	Deferred Ordering of Technical Data or Computer Software (JUN 2014)
X	7-1	Contract Administration (JAN 2003)
X	7-5	Contracting Officer's Representative (APR 2013)
X	7-15	Observance of Regulations/Standards of Conduct (JAN 2003)
X	7-25	Indemnification (AUG 2004)
	7-45	Travel (APR 2013)
	7-55	Contractor Use of Judiciary Networks (JUN 2014)
	7-70	Judiciary Property Furnished "As Is" (APR 2013)
	7-95	Contractor Inspection Requirements (JAN 2003)
	7-115	Availability of Funds (JAN 2003)
	7-160	Limitation on Withholding of Payments (APR 2013)
	7-170	Notice of Intent to Disallow Costs (JAN 2003)
	7-180	Prohibition of Assignment of Claims (JUN 2012)
X	7-215	Notification of Ownership Changes (JAN 2003)

ATTACHMENTS

1. **Appendix A – Lighting Fixtures 4311**
2. **Appendix B – ME Drawings 4311**
3. **Wage Determination**

DIGITAL NAVIGATION

[Ordering Tree](#) [nLight Platform](#) [SensorSwitch JOT](#) [Photometrics](#) [Performance Data](#)

FEATURES & SPECIFICATIONS

INTENDED USE — The BLTR Best-Value Low Profile LED Relight Assembly is a cost effective solution for renovating existing fluorescent troffer and parabolic fixtures while providing upgraded aesthetics and outstanding performance. The BLTR's popular center basket design offers a clean, versatile style, and volumetric distribution. The wide range of lumen packages and control and driver options make the BLTR a great choice for many applications including offices, schools, hospitals, retail spaces and other general lighting applications. Certain airborne contaminants can diminish integrity of acrylic. [Click here for Acrylic Environmental Compatibility table for suitable uses.](#)

CONSTRUCTION — Universal end brackets are constructed of 22-gauge powder-painted steel and are secured to the host fixture with provided TEKS™ screws. The driver and light engine assembly is integrated in the BLTR door assembly making this an extremely simple, time saving, relight solution. The door frame and reflector assembly is made of cold-rolled steel and is painted after fabrication with a matte white powder paint for improved aesthetics and increased light diffusion. Diffusers are extruded from impact modified acrylic for increased durability. Diffuser trim rings provide an attractive mounting for integral sensors as well as adding a decorative element to the luminaire aesthetics.

LED boards and driver are accessible from below.

OPTICS — Volumetric illumination is achieved by creating an optimal mix of light to walls, partitions and vertical and horizontal work surfaces – rendering the interior space, objects and occupants in a more balanced, complimentary luminous environment. High performance extruded acrylic diffusers conceal LEDs and efficiently deliver light in a volumetric distribution. Four diffuser choices available - curved and square designs with linear prisms or a smooth frosted finish.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. >80% lumen maintenance at 60,000 hours (>L80/60,000). Calculated L70 is greater than 100,000 hours.

Non-Configurable BLTR Relight: Generic 0-10 volt dimming driver. Dims to 10%

Configurable BLTR Relight: available in High Efficiency (HE) versions for applications where a lower wattage (over the standard product) is required. High Efficiency versions deliver >130 LPW and can be specified via the Lumen Package designations in the Ordering Information below.

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Optional integrated nLight® controls make each luminaire addressable - allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, nLight AIR RIO, RES7 occupancy sensors, and photo controls. Simply connect all the nLight enabled control devices and the BLTR Relight assembly using standard Cat-5 cabling. Unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission. Lumen Management: Unique lumen management system (option N80) provides on board intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting. Driver disconnect provided where required to comply with US and Canadian codes.

SENSOR — Integrated sensor (individual control): SensorSwitch MSD7ADCX ((Passive infrared (PIR) or MSDPDT7ADCX ((PIR/Microphonics Dual Tech (PDT)) integrated occupancy sensor/automatic dimming photocell allows the luminaire to power off when the space is unoccupied or enough ambient light is entering the space. See page 4 for more details on the integrated sensor.

Integrated Sensor (nLight Wired Networking): This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software. See page 6 for the nLight sensor options.

Integrated Smart Sensor (nLight Air Wireless Platform): the rES7 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is available with an automatic dimming photocell, and either a digital PIR or microphonics (PDT) dual technology occupancy sensor. It pairs to other luminaires and wall switches through our mobile app, CLAIRITY™, which allows for simple sensor adjustment. See page 6 for more details on the Integrated Smart Sensor.

Integrated Wireless Sensor (single room control): SensorSwitch VERTEX JOT or JOTVTX15 luminaire-embedded occupancy and ambient light sensor allows the luminaire to power off when the space is unoccupied or when enough ambient light is entering the space. See page 4 for more details on the integrated wireless sensor.

INSTALLATION — After existing fluorescent components are removed from the host housing, universal end brackets are secured in place with TEKS™ screws. The BLTR's integrated driver and light engine door assembly can then be hinged to the universal end brackets and will hang in place for completion of assembly plug-in wiring. Rotate the doorframe assembly closed and pivot the cam latches to secure the doorframe in place. Suitable for damp location installations. Damp location not available with sensor versions.

LISTINGS — UL/CUL Listed for use in fluorescent light fixtures. Installing Relight assemblies per instructions will not impact existing fixture UL listing. Tested to LM80 standards.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

BUY AMERICAN — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Catalog Number
Notes
Type

BLTR Relight Series

2BLT2R

2' x 2' Relight LED



Specifications

- Length: 23.9 (60.7)
- Width: 23.9 (60.7)
- Depth: 2.75 (6.9)
- Weight: 10 (25.4)

All dimensions are inches (centimeters) unless otherwise specified.

Embed nLight controls today. Prepare for tomorrow.

Now	Tomorrow
User-friendly install	Scalability
Enhanced energy savings	Space configuration
Code compliance	Future-ready

A+ Capable Luminaire


This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a **shaded background***
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a **shaded background***

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details.

2BLT2R Volumetric Recessed Lighting 2'x2' Relight

 A+ Capable options indicated by this color background.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: 2BLT2R 33L ADP EZ1 LP835

2BLT2R		Trim Type/ Air Function		Lumens ²		Diffuser		Voltage		Driver		Color temperature		
2BLT2R	2X2 BLTR	(blank)	Standard white two-piece flanged bracket	Standard efficiency (>125 LPW)	High efficiency³ (>130 LPW)	ADP	Curved, linear prisms	(blank)	MVOLT	EZ1	eldoLED dims to 1% (0-10 volt dimming)	LP830	82CRI, 3000 K	
		A	Standard two-piece flanged bracket painted black to match parabolic / air-handling reveals	20L 2000	20LHE 2000	ADSM	Curved, smooth	120	120V	GZ1	Dims to 1% (0-10V dimming) ⁶	LP835	82CRI, 3500 K	
		F	Flangeless two-piece bracket for installation in drywall / "hard lid" ceilings	33L 3300	33LHE 3300	SDP	Square, linear prisms	277	277V	GZ10	Dims to 10% (0-10V dimming) ⁶	LP840	82CRI, 4000 K	
		LPB	One-piece low profile bracket for installation in some obstructed housings (consult factory)	40L 4000	40LHE 4000	SDSM	Square, smooth	347	347V ^{4,5}	SLD	Step-level dimming ⁷	LP850	82CRI, 5000 K	
						Diffusers w/ trim rings				EOHN		On/Off (non-dim)	LP930	90CRI, 3000K
						ADPT						LP935	90CRI, 3500K	
						ADSMT						LP940	90CRI, 4000K	
						SDPT						LP950	90CRI, 5000K	
						SDSMT								

nLight Interface	Control ¹⁰	Individual Control	Standby Mode	Options
nLight Wired (blank) no nLight [®] interface	nLight Wired (blank) No sensor control	MSD7ADCX PIR integral occupancy sensor with automatic dimming control photocell ¹²	NOC Occupancy sensor disabled ¹³	EL7L 700 lumen battery pack EL14L 1400 lumen battery pack
N80 nLight with 80% lumen management	NES7 nLight™ nES 7 PIR integral occupancy sensor ¹¹	MSDPDT7ADCX PDT integral occupancy sensor with automatic dimming control photocell ¹²		E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS
N80EMG nLight with 80% lumen management. For use with generator supply EM power ⁸	NESPDT7 nLight™ nES PDT 7 dual technology integral occupancy control ¹¹	JOT Wireless room control with "Just One Touch" pairing ¹⁸		BGTD Bodine Generator Transfer Device ¹⁴
N100 nLight without lumen management	NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ¹¹	JOTVTX15 Wireless occupancy sensor with "Just One Touch" pairing ¹⁸		GLR Fast-blowing fuse ¹⁵
N100EMG nLight without lumen management. For use with generator supply EM power ⁸	NESPDT7ADCX nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ¹¹			GMF Slow-blowing fuse ¹⁵
nLight Wireless (blank) no nLight [®] interface	nLight Wireless			NPLT Narrow pallet
NLTAIR2 nLight AIR Generation 2 enabled ⁹	RES7 nLight AIR PIR integral occupancy sensor with automatic dimming photocell for Networking Capabilities Individual Control			FAO Field adjustable output ¹⁶
	RES7PDT nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell for Zone Control			USPOM US Point of Manufacture
	RIO nLight AIR radio module without sensor			JP32 Job Pack
	RES7EM nLight AIR PIR integral occupancy sensor with automatic dimming photocell and UL924 Emergency Operation, via power interrupt detection ¹⁷			
	RES7PDETM nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell and UL924 Emergency Operation, via power interrupt detection ¹⁷			
	RIOEM nLight AIR radio module less sensor, with UL924 Emergency Operation, via power interrupt detection ¹⁷			

Notes

- Consult factory for airflow data.
- Approximate lumen output.
- All versions may not achieve 130+ LPW. Refer to photometry on www.acuitybrands.com.
- Not available with EL7L or EL14L battery packs.
- 347 not available with SLD
- GZ1, GZ10 not available with any Control or Sensor options.
- Not available with N80, N80EMG, N100, N100EMG, NLTAIR2, or occupancy control.
- nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
- Must order with RES7, RES7PDT, or RIO sensor. Only available with EZ1 driver.
- Must specify diffuser with trim rings. See sensor options on page 4.
- Requires N80, N80EMG, N100, or N100EMG.
- Only available with EZ1 driver option. 0-10V dimming wires not accessible via access plate. Not available with Controls options.
- Can only be ordered in conjunction with EZ1, NLTAIR2, RES7/RES7PDT. Occupancy sensor disabled at factory but can be re-enabled upon commissioning.
- Requires BSE labeling. Consult factory for options.
- Must specify voltage, 120 or 277 with GLR & GMF fusing.
- Consult factory.
- See UL924 Sequence of Operation chart on page 3.
- Wired 0-10V dimming control not available. Not available with nLight Interface or Controls options. Not available with SLD, NOC, BGTD, or FAO. Must specify diffuser with trim rings.

Multiple Diffuser Options



ADP
Curved Ribbed



ADSM
Curved Smooth



SDP
Square Ribbed



SDSM
Square Smooth

Non-Configurable BLTR

Non-Configurable BLTR								
Stock	Catalog Description*	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	2BLT2R 33L ADP LP835	190887550900	3313	27	124	3500K/80 CRI	120-277	52
	2BLT2R 33L ADP LP840	190887550931	3404	27	127	4000K/80 CRI	120-277	52

UL924 Sequence of Operation

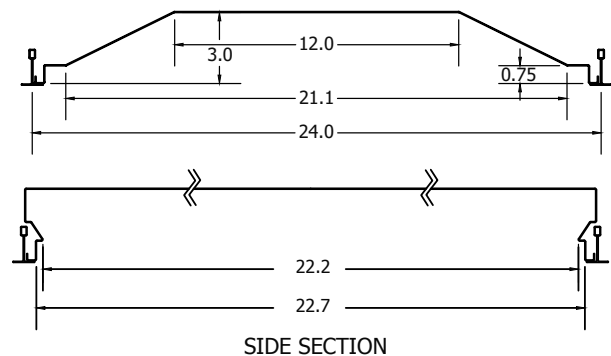
- For 90 minutes following any complete AC power interruption >200 ms:
- Digital dimming is commanded to high end trim level.
 - Device ignores wireless lighting control commands.

Accessories & Replacement Parts

Replacement Parts: <i>Order as separate catalog number.</i>	
DBLTR24 ADP LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDP LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 ADSM LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDSM LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 ADPT LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDPT LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 ADSMT LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDSMT LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 ADPT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDPT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 ADSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
U10528B	2 ft. replacement troffer trim strip

Fit & Compatibility

The 2BLT2R Relight Assembly was designed to upgrade recessed 2x2 fixtures, including most parabolic and lensed troffers from all major manufacturers. Dimensional requirements are below, but Lithonia Lighting recommends a trial installation prior to purchasing project quantities.



Emergency Battery Pack Options - Field Installable

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
ILB CP07 2H A	7W	120	840	Storm Shelter / 2 Hour Runtime
ILB CP10 A	10W	90	1200	
ILBLP CP10 HE SD A	10W	90	1200	Title 20, Self Diagnostic
ILBLP CP15 HE SD A	15W	90	1800	Title 20, Self Diagnostic
ILB CP20 HE A	20W	90	2400	Title 20
ILB CP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field install external/remote to the fixture.

*Minimum delivered lumen output to assist in product selection for increased fixture mounting height.

The CP10 delivered emergency illumination outperforms legacy 1400 lumen fluorescent emergency ballast.

Please contact us at productsupportemergency@acuitybrands.com for any Emergency Battery related questions.

Application Guide

2BLT2R — Typically used for lensed troffer installations. Assembly contains white end brackets and is supplied with white trim strips for use in closing gaps down fixture sides (installer's choice - not required).

**Note: This kit will fit in Lithonia's Avante non-air fixture.*



2BLT2R A — Typically used for parabolic installations with black reveal. Assembly contains black end brackets to match black reveal around host housing. Does not interfere with host housing air supply/return if present (along fixture sides).



JOT Wireless



SensorSwitch JOT Enabled Wireless Solution

Designed with contractors in mind, the SensorSwitch JOT enabled wireless solution offers a straightforward approach to the installation and pairing of lighting fixtures and controls. Absolutely no 0-10V control wires and no mobile apps are needed with JOT enabled products, allowing for lightning speed installation right out of the box.

- 1. Power:** Install JOT enabled fixtures and controls as instructed.
- 2. Pair:** Insert the pairing tool into the pinhole on the wall switch; press and hold any button for 6 seconds.
- 3. Play:** Once paired, each fixture will individually dim down to 10% brightness. All products will be fully functional.



BLTR Series



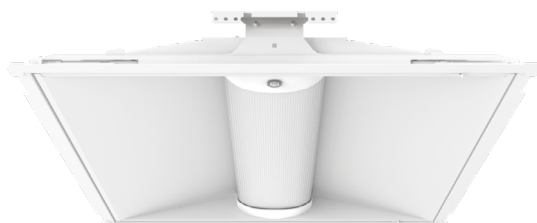
BLTR Series with integrated JOT OCC Sensors



SensorSwitch WSXA JOT



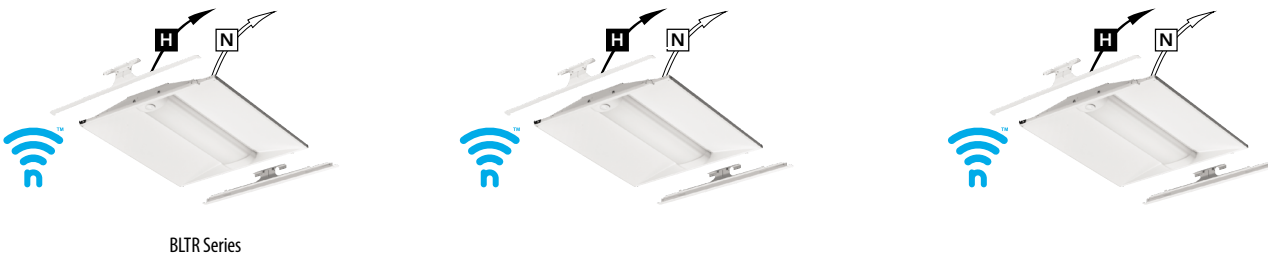
SensorSwitch SPODMRA JOT



nLight Platform

nLight embedded fixtures offer:	Customers get:
Manual Dimming	Convenience and visual comfort for occupants
Motion Sensing and/or Daylight Harvesting	Energy savings and code compliance
Fixture or Group Level Control	Ability to configure lighting to the space requirements
Flexibility	Ease of fixture moves, adds and changes
Wireless Wall Switch (nLight AIR Only)	Ease and flexibility of placement
Astronomical and Time of Day Scheduling	Energy savings and building security
Scalable Solution	nLight controls to grow with your business
Future-Ready	nLight platform to set foundation for future upgrades and capabilities

nLight Air Wireless

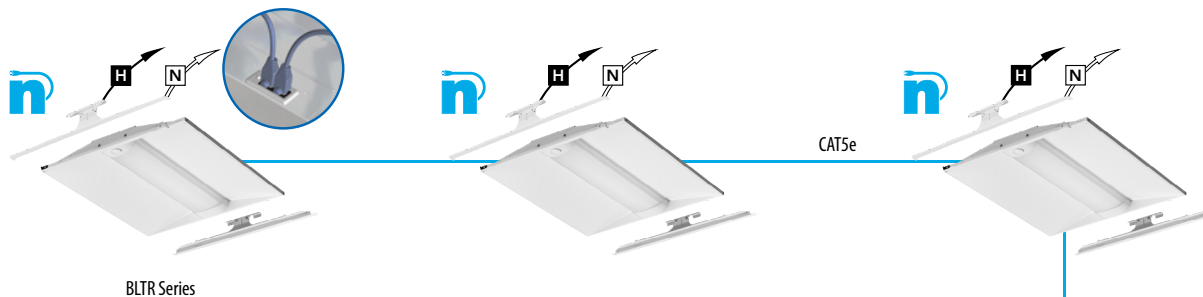


Simple as 1,2,3

1. Install the nLight® AIR fixtures with embedded smart sensor
2. Install the wireless battery-powered wall switch
3. With CLAIRITY app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome



nLight Wired Networking



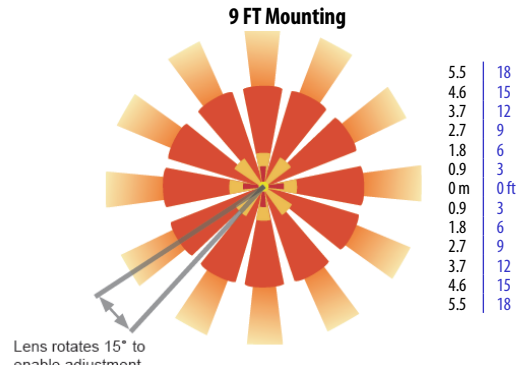
Simple as 1,2,3

1. Install the nLight® Wired fixtures with embedded control
2. Install the nLight Wired wall switch
3. Connect the fixtures using standard CAT5e cables and the devices will automatically discover each other and work (plug and play)

Sensor Options					
Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking	nLight AIR Networking
		PIR	PDT		
MSD7ADCX	X	X			
MSDPDT7ADCX	X		X		
NES7		X		X	
NES7ADCX	X	X		X	
NESPDT7			X	X	
NESPDT7ADCX	X		X	X	
RES7	X	X			X
RESPDT7	X	X	X		X

Sensor Coverage Pattern Mini 360° Lens

- Recommended for walking motion detection from mounting heights between 8 ft (2.44 m) and 20 ft (6.10 m)
- Initial detection of walking motion along sensor axes at distances of 2x the mounting height up to 15 ft (4.57 m) and
- 1.75x up to 20 ft (6.10 m).
- Provides 12 ft (3.66 m) radial detection of small motion when mounted at 9 ft (2.74 m)
- Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor



Integrated Sensor with Individual Control

The MSD7ADCX PIR occupancy sensor/automatic dimming photocell is ideal for areas without obstructions and where daylight harvesting may be desired. Suggested applications include, but not limited to, hallways, corridors, storage rooms, and breakrooms or other areas where people are typically moving.

The MSDPDT7ADCX PIR/Microphonics Dual Tech occupancy sensor/automatic dimming photocell is ideal for areas with obstructions and where daylight harvesting is desired. Suggested applications include, but not limited to, open offices, private offices, classrooms, public restrooms, and conference rooms.

nLight AIR Wireless

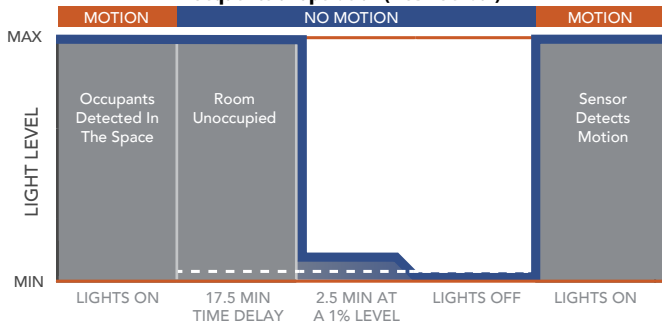
nLight AIR is the ideal solution for retrofit or new construction spaces where adding additional wiring can be labor intensive and nLight AIR is available with or without an integral sensor. The integrated rES7 or rES7PDT smart sensors are part of each luminaire in the nLight AIR network, which can be grouped to control multiple luminaires. The granularity of control with the digital PIR occupancy detection and daylight sensing makes a great solution for any application.

nLight Wired Networking

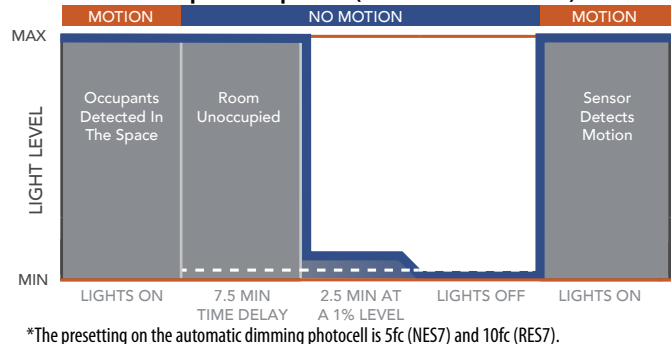
The nES7 is ideal for small rooms without obstructions or areas with primarily walking motion. Ideal areas include hallways, corridors, storage rooms, and breakrooms. Additionally, the nES7ADCX includes an integrated photocell, which enables daylight harvesting controls.

For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the nESPDT7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.

Sequence of Operation (MSD7 Sensor)



Sequence of Operation (nES7 and rES7 and Sensor)



Controls Accessories

nLight® Wired Control Accessories:

Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight.

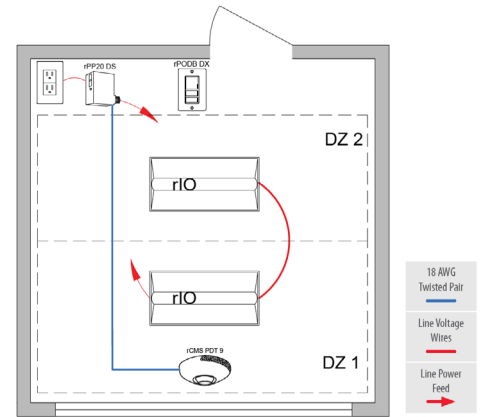
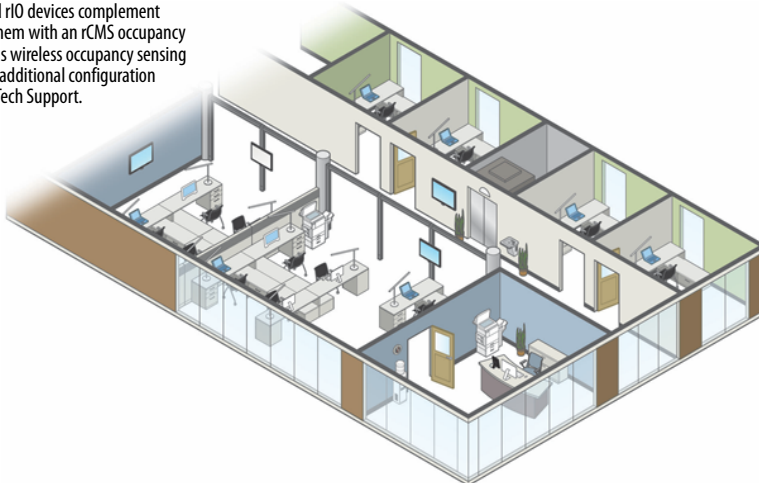
WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODMA [Color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODMA DX [Color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD TOUCH [Color]	Wall switch with raise/lower	nWSX PDT LV DX [color]
Photocell controls	Model number	Cat-5 cable (plenum rated)	Model number
Full range dimming	nCM ADCX RJB	10' cable	CATS 10FT J1
		30' cable	CATS 30FT J1

nLight® AIR Control Accessories:

Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair.

Wall switches	Model number
On/Off single pole	rPODBA [color] G2
On/Off two pole	rPODB A2P [color] G2
On/Off & raise/lower single pole	rPODBA DX [color] G2
On/Off & raise/lower two pole	rPODBA 2P DX [color] G2

BLTR fixtures with integrated rIO devices complement any small office space. Pair them with an rCMS occupancy sensor and the space now has wireless occupancy sensing and dimming capability. For additional configuration options please consult with Tech Support.



rCMS ¹						Example: RCMS PDT 10 AR G2	
Series / Detection	Power Supply ¹	Occupancy Detection	Lens (Required)	Operating Mode	Generation		
RCMS nLight AIR occupancy and daylight sensor	[blank] Power Supply ordered separately PS 150 Standard 150 mA Power Supply	[blank] PIR Detection PDT Dual Tech PIR/ Microphonics	10 Large Motion/ Extended Range 360° 9 Small Motion/ Extended Range 360° 6 High Bay 360° Lens	[BLANK] None AR Auxiliary Relay	G2	Generation 2 compatibility	

Notes

1 RCMS requires low voltage power from either RPP20 DS 24V G2 or PS150.



SensorSwitch
WSX



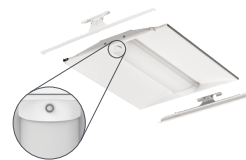
nLight WIRED
NPOD UNITOUCH



nLight WIRED
nPODMA DX



nLight AIR
rPODBA



BLTR with rIO



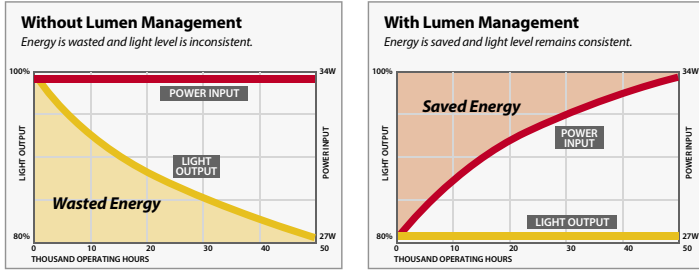
rPODBA



RCMS

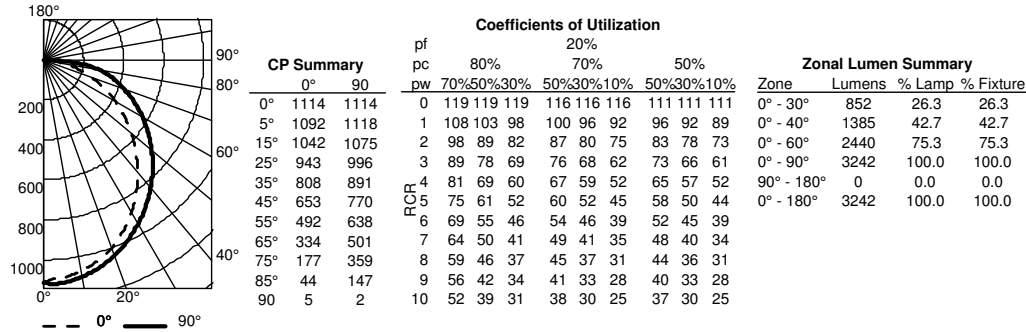
Constant Lumen Management

Enabled by the embedded nLight control, the BLT actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.

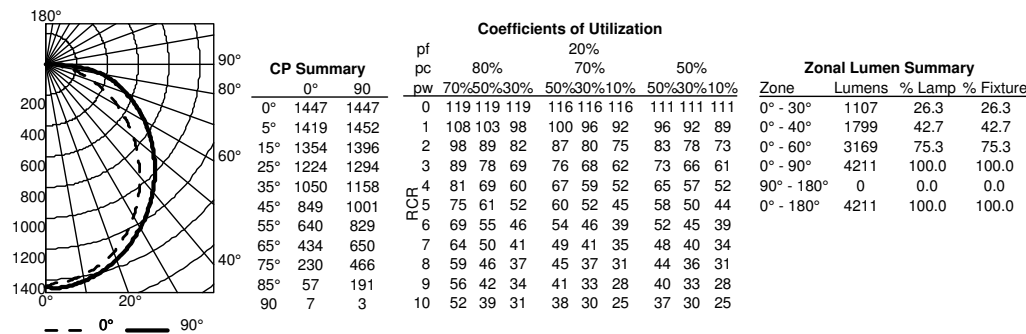


PHOTOMETRICS

2BLT2R 33L ADP LP835, 3241 delivered lumens

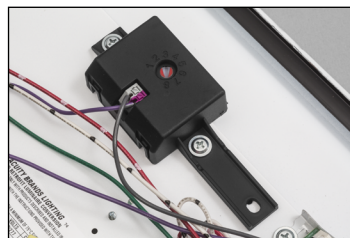


2BLT2R 40L ADP LP835, 4210 delivered lumens



FAO SETTINGS (Field Adjustable Output)

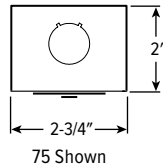
	0-10 Voltage Dimmer	% Lumen Output (approximate)	% Wattage (approximate)
Step 8	Full Output	100%	100%
Step 7	9.0 VDC	98%	100%
Step 6	8.0 VDC	88%	86%
Step 5	7.0 VDC	86%	82%
Step 4	6.0 VDC	82%	80%
Step 3	5.0 VDC	76%	75%
Step 2	4.0 VDC	71%	72%
Step 1	3.0 VDC	67%	71%



Simple adjustment of output through the use of a flat head screwdriver.

Performance Data			
Lumen Package	Lumens	Input Watts	LPW
20L ADP LP830	1981	16	127
20L ADP LP835	2051	16	132
20L ADP LP840	2084	16	134
20L ADP LP850	2143	16	138
33L ADP LP830	3237	26	125
33L ADP LP835	3351	26	130
33L ADP LP840	3404	26	132
33L ADP LP850	3502	26	135
40L ADP LP830	3900	31	125
40L ADP LP835	4038	31	130
40L ADP LP840	4102	31	132
40L ADP LP850	4220	31	136

HE Performance Data			
Lumen Package	Lumens	Input Watts	LPW
20LHE ADP LP830	2008	16	129
20LHE ADP LP835	2079	16	134
20LHE ADP LP840	2112	16	136
20LHE ADP LP850	2173	16	140
33LHE ADP LP830	3068	24	128
33LHE ADP LP835	3176	24	133
33LHE ADP LP840	3227	24	135
33LHE ADP LP850	3319	24	139
40LHE ADP LP830	3797	29	129
40LHE ADP LP835	3931	29	133
40LHE ADP LP840	3994	29	135
40LHE ADP LP850	4108	29	139
48LHE ADP LP830	4532	36	126
48LHE ADP LP835	4692	36	130
48LHE ADP LP840	4767	36	132
48LHE ADP LP850	4903	36	136



CATALOG #: _____

TYPE: _____

PROJECT: _____

FEATURES

- Available with Avi-on wireless fixture controls
- Small fixture profile allows inconspicuous placement in coves or confined spaces
- Round and square lensed fixtures provide a clean look for architectural environments
- Row applications produce continuous light with minimal interruption between fixtures
- Diffuse acrylic lens on 75R and 75S enhances uniformity and minimizes glare
- Variety of mounting accessories for surface and suspended applications
- Special reflectors are available to provide precise light distribution (75 only)
- Maximize energy savings with efficacies as high as 164 lm/W
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING** – 22-gauge die-formed C.R.S.
- FINISH** – 92% minimum average reflective white polyester powder coat bonded to phosphate-free, multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- ELECTRICAL** – High quality mid-power LED board. See fixture performance data for lumen maintenance. 25°C maximum ambient operating temperature. 40°C maximum ambient operating temperature with HA Option, lumen restrictions apply, consult Fixture Performance Data.
- MOUNTING** – Surface (ceiling or wall) or suspended (hanging hardware required).
- LISTINGS** –
 - cETLus conforms to UL STD 1598. Certified to CAN/CSA STD C22.2 No. 250.0. Suitable for damp locations
- WARRANTY** – 5-year limited warranty, see hew.com/warranty.



ORDERING EXAMPLE: 75 - 4 - L85/835 - OPTIONS - CONTROL - DIM - UNV

ORDERING INFO

SERIES	LENGTH ^[1]	LUMENS ^[2]				CRI	CCT
75	2' 2'	2'	3'	4'	8'	8 80	27 2700K
75R	3' 3'	L15 1,500lm	L40 4,000lm	L30 3,000lm	L60 6,000lm	9 90 ^[7]	30 3000K
75S	4' 4'	L25 2,500lm	L64 6,400lm	L50 5,000lm	L100 10,000lm		35 3500K
	8' 8' ^[3]	L32 3,200lm	L42 4,200lm	L65 6,500lm	L130 13,000lm		40 4000K
		L60 6,000lm ^[4]		L85 8,500lm	L170 17,000lm		50 5000K
				L100 10,000lm	L200 20,000lm		
				L120 12,000lm ^[5]	L240 24,000lm ^[6]		

OPTIONS ^[8]

EM/7WRM	Remote mount 7-watt emergency battery	45AMB (L_)	(2) 45° adjustable mounting brackets ^[13] Additional lower lumen packages available. ^[14] Example: 7,000 nominal lumens = 75-4-L85/835-(L70)-DIM-UNV
EM/10WLP	Low-profile 10-watt emergency battery ^[9]	HA	High ambient operating temperature, 40°C ^[15]
EM/10WRM	Remote mount 10-watt emergency battery		
QC_	Quick-connect wiring harness. ^[10]		
WG-75	11-gauge white powder coat wireguard		
315	1-1/2" ceiling spacer		
VBV	(2) Y-hangers		
VBV-2	(2) Y-hangers and (2) 2' chains		
RA-75	Row aligner ^[11]		
ZLSOR-RA1	Remote controller for Leviton sensor ZLS05 ^[12]		

AIRCRAFT CABLES (EXAMPLE: ACF/D48) ^[16]

Prefix	Type	Length
ACF/	Feeder	D 1" grid & hardpan 24 24"
ACJ/	Joiner	N 9/16" grid 48 48"
	S	Slot grid 96 96"

CONTROL ^[17]

–	None
AVI-LVFA	Avi-on wireless fixture control ^[19]
AVI-LVFA-PIR	Avi-on wireless fixture control with PIR motion and daylight sensor, bottom mount ^[20]
VDO	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC) ^[21]
VRF	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) ^[22]
LV-OSFHU-ITW-120-347	Leviton PIR motion sensor, 120-347V
LV-ZLS05-ILW	Leviton PIR motion and daylight sensor ^[23]
WS-FSP-311-L_-120/277	Wattstopper PIR motion and daylight sensor, 120/277V ^[24]

DRIVER ^[18]

DIM	Driver with external dimming wires	120 120V 277 277V
DRV	Driver without external dimming wires	UNV 120-277V 347 347V ^[27]
DA	Driver with 12V auxiliary power, without external dimming wires ^[25]	
DSR	Sensor-ready driver without external dimming wires ^[26]	

QUICKSHIP

4'	75R-4-L50/835-QS-DIM-UNV	75S-4-L50/835-QS-DIM-UNV	75R-4-L50/840-QS-DIM-UNV	75S-4-L50/840-QS-DIM-UNV	8'	75R-8-L100/835-QS-DIM-UNV	75S-8-L100/835-QS-DIM-UNV	75R-8-L100/840-QS-DIM-UNV	75S-8-L100/840-QS-DIM-UNV
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NOTES

- For actual length, see page 6 for FIXTURE DETAILS
- Lumen output based on 3500 CCT. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
- 75R and 75S ships with (2) 4' lenses.
- 75 only.
- 75 only.
- 75 only.
- Extended lead times may apply. Consult factory for availability.
- See page 7 for FINISH OPTIONS. See page 6 for MOUNTING DETAILS. See page 7 for SPECIAL REFLECTORS.
- 4' and 8' only; Not available with 4' L120 and 8' L240 lumen packages.
- See page 7 for QUICK CONNECT OPTIONS.
- Required when row mounting with aircraft cables.
- Please specify quantity required per project, ordered separately.
- Cord recommended, ships separately. See page 6 for MOUNTING DETAILS. Field-adjustable up and down in 7-1/2" increments.
- Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
- Not available with 2' L60, 4' L120 and 8' L240 lumen packages. Lumen restrictions apply. See page 2 for FIXTURE PERFORMANCE DATA.
- Units specified with aircraft cable require cord. See page 6 for MOUNTING DETAILS. Requires RA-75 row aligner. See page 6 for MOUNTING ACCESSORIES DETAILS.
- See page 4 for CONTROL DETAILS.
- See page 5 for ADDITIONAL DRIVER OPTIONS.
- DA Driver only. SDT required when specified with 347V or 480V.
- DA Driver only. SDT required when specified with 347V or 480V.
- DSR or LDE Drivers only. LDE drivers require driver interface.
- DSR or LDE Drivers only. LDE drivers require driver interface.
- DA Driver only. Adjustable via remote. Optional ZLSOR-RA1 remote controller available, ordered separately, see options.
- Must specify lens: L2 or L3. Factory installed.
- Avi-on and LV-ZLS05 Controls only.
- VDO and VRF Controls only.
- Not available with EM batteries.



FIXTURE PERFORMANCE DATA

	LED PACKAGE	WATTAGE	75 (NO LENS)		75R & 75S		LUMEN MAINTENANCE				AMBIENT TEMPERATURE ¹	
			DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)	L70	L80	L85	L90	EM	NO EM
2'	L15	10.8	1592	147.5	1511	140.1	>72000	>72000	>72000	50,000	40	40
	L25	18.2	2602	142.7	2470	135.5	>72000	>72000	>72000	50,000	40	40
	L32	21.3	3092	145.5	2936	138.1	>72000	>72000	58,000	36,000	40	40
	L42	31.4	4344	138.5	4124	131.5	>72000	>72000	58,000	36,000	35	40
	L60	43.6	6052	138.9	—	—	>72,000	53,000	38,000	24,000	—	—
3'	L40	28.2	4092	145.2	3885	137.9	>72000	>72000	58,000	36,000	35	40
	L64	48.2	6593	136.9	6259	130.0	>72,000	53,000	38,000	24,000	30	35
	L30	19.7	3071	155.8	2916	147.9	>72000	>72000	>72000	50,000	40	40
4'	L50	33.0	5126	155.5	4867	147.6	>72000	>72000	>72000	50,000	40	40
	L65	42.3	6313	149.3	5994	141.7	>72000	>72000	58,000	36,000	40	40
	L85	56.2	8530	151.7	8098	144.0	>72,000	53,000	38,000	24,000	35	40
	L100	68.3	10154	148.8	9640	141.2	>72000	>72000	58,000	36,000	30	30
	L120	85.9	12105	141.0	—	—	>72,000	53,000	38,000	24,000	—	—
8'	L60	35.3	5814	164.9	5520	156.6	>72000	>72000	>72000	50,000	40	40
	L100	65.9	10078	152.9	9568	145.1	>72000	>72000	>72000	50,000	35	35
	L130	87.9	13011	148.1	12353	140.6	>72000	>72000	58,000	36,000	35	35
	L170	112.4	17060	151.7	16197	144.0	>72,000	53,000	38,000	24,000	35	35
	L200	136.5	20309	148.8	19281	141.2	>72000	>72000	58,000	36,000	30	30
	L240	171.7	24209	141.0	—	—	>72,000	53,000	38,000	24,000	—	—

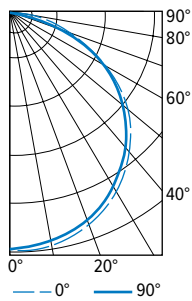
MULTIPLIER TABLE

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	2700K	0.97
	3000K	0.99
	3500K	1.00
	4000K	1.03
	5000K	1.06
90 CRI	2700K	0.80
	3000K	0.82
	3500K	0.83
	4000K	0.86
	5000K	0.89

- Maximum ambient operating temperature (°C) when specified with HA option.
 - Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
 - Wattage shown is average for 120V through 277V input.
 - Results based on 3500K, 80 CRI, actual lumens may vary +/-5%
 - Predicted lumen maintenance calculated from LED manufacturer IES LM-80 data and In situ temperature measurement.
 - Predicted lumen maintenance calculated in accordance with IES TM-21 per Energy Star (R) TM-21 Calculator rev. 02.08.16.
 - Use multiplier table to calculate additional options.

PHOTOMETRY

75-4-L85/835-DIM Total Luminaire Output: 8530 lumens; 56.2 Watts | Efficacy: 152 lm/W | 80 CRI; 3500K CCT



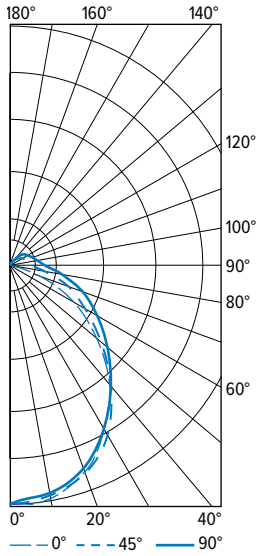
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	2896	2896	2896	
5	2917	2887	2876	275
15	2837	2799	2791	792
25	2663	2624	2610	1213
35	2415	2366	2338	1484
45	2066	2006	1990	1552
55	1634	1580	1560	1415
65	1124	1069	1048	1070
75	581	543	531	582
85	104	116	101	144
90	9	14	9	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2279	27
0 - 40	3763	44	
0 - 60	6730	79	
0 - 90	8527	100	
0 - 180	8530	100	



75 LED Narrow Strip

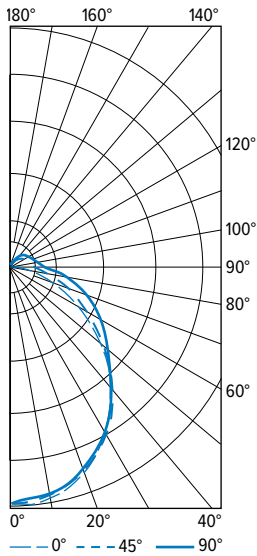
75R-4-L85/835 Total Luminaire Output: 8098 lumens; 56.2 Watts | Efficacy: 144 lm/W | 80 CRI; 3500K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	2594	2594	2594	
5	2622	2585	2553	246
15	2503	2497	2480	703
25	2256	2306	2324	1059
35	1915	2042	2111	1264
45	1481	1673	1824	1281
55	1003	1296	1488	1135
65	620	942	1117	891
75	267	630	775	613
85	63	401	501	378
90	9	311	407	
95	1	249	329	225
105	0	150	219	136
115	0	94	149	83
125	0	53	102	47
135	0	28	63	24
145	0	12	35	10
155	0	6	16	3
165	0	0	4	0
175	0	0	0	0
180	0	0	0	

	ZONE	LUMENS	% FIXTURE
LUMEN SUMMARY	0 - 30	2008	25
	0 - 40	3272	40
	0 - 60	5688	70
	0 - 90	7570	94
	90 - 120	443	6
	90 - 150	524	7
	90 - 180	527	7
	0 - 180	8098	100

75S-4-L85/835 Total Luminaire Output: 8098 lumens; 56.2 Watts | Efficacy: 144 lm/W | 80 CRI; 3500K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	2732	2732	2732	
5	2756	2720	2682	258
15	2633	2611	2579	734
25	2351	2362	2323	1083
35	1969	2010	1965	1247
45	1516	1554	1583	1209
55	1053	1160	1291	1051
65	618	840	1022	826
75	270	542	745	563
85	47	323	491	332
90	0	246	390	
95	0	230	344	223
105	0	200	291	185
115	0	171	256	149
125	0	139	216	110
135	0	96	166	71
145	0	58	113	38
155	0	36	63	16
165	0	17	31	4
175	0	0	0	0
180	0	0	0	

	ZONE	LUMENS	% FIXTURE
LUMEN SUMMARY	0 - 30	2075	26
	0 - 40	3321	41
	0 - 60	5581	69
	0 - 90	7301	90
	90 - 120	557	7
	90 - 150	777	10
	90 - 180	797	10
	0 - 180	8098	100



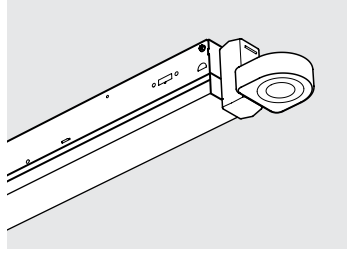
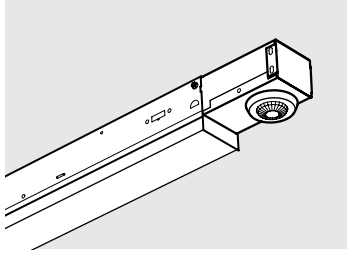
75 LED Narrow Strip

CONTROL DETAILS


SENSOR PLACEMENT

AVI-LVFA-PIR | LV-ZLS05 | WS-FSP | VDO

LV-OSFHU



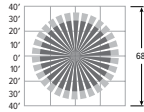
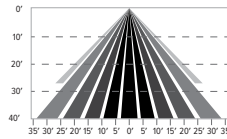
AVI-LVFA-PIR

SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 45'
LENS	Single lens detects high and low bay motion.
DETECTION ANGLE	360°
TEMPERATURE RANGE	-30° to 70°C
RELATIVE HUMIDITY	90 to 95% at 30°C
COMMISSIONING	App (iOS or Android)
SYSTEM REQUIREMENTS	Avi-On wireless fixture controls plus desktop and mobile apps
MANUFACTURER	Avi-On
 Bluetooth™ Lighting Controls	

SENSOR COVERAGE PATTERNS

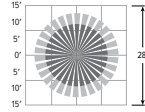
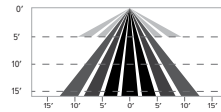
Large motion

40' height: ø68' coverage



Small motion

15' height: ø28' coverage



SENSOR DETAIL

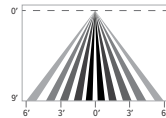


VDO

SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 12'
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 55°C
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	App (iOS or Android)
MANUFACTURER	Lutron

SENSOR COVERAGE PATTERNS

9' height: ø12' coverage



MOTION SENSOR COVERAGE

CEILING HEIGHT	COVERAGE AREA (SQ FT)
8'	114
9'	144
10'	178
12'	256

SENSOR DETAIL



VIVE CONTROL OPTIONS

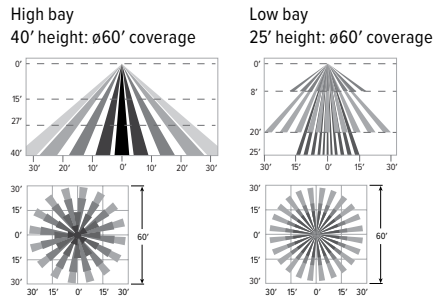
CATALOG NUMBER	DESCRIPTION
VDO	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC), for use with sensor-ready driver
VRF	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF), for use with sensor-ready driver
VDO/DBI	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC) and digital link interface, for use with Lutron Hi-lume 1% EcoSystem dimming LED driver
VRF/DBI	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and digital link interface, for use with Lutron Hi-lume 1% EcoSystem dimming LED driver



LV-OSFHU-ITW-120-347

SPECIFICATIONS	
TYPE	PIR Motion
MOUNTING HEIGHT	8' – 40'
LENS	Interchangeable high bay, low bay or aisle mask
DETECTION ANGLE	360°
TEMPERATURE RANGE	-10° to 71°C
RELATIVE HUMIDITY	20% to 90% non-condensing
MANUFACTURER	Leviton

SENSOR COVERAGE PATTERNS



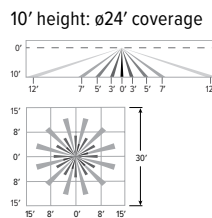
SENSOR DETAIL



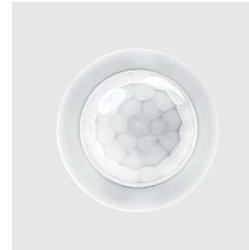
LV-ZLS05-ILW

SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 10'
DETECTION ANGLE	120°
TEMPERATURE RANGE	-20° to 70°C
COMMISSIONING	DIP switches or optional remote: ZLSOR-RA1
MANUFACTURER	Leviton

SENSOR COVERAGE PATTERNS



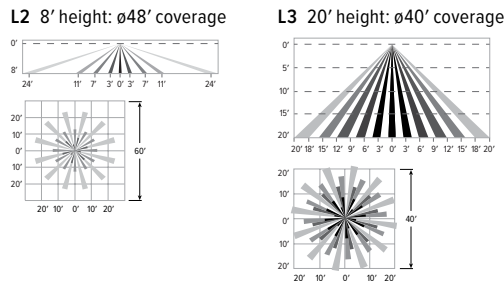
SENSOR DETAIL



WS-FSP-311-L3-120/277

SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 20'
DETECTION ANGLE	360°
TEMPERATURE RANGE	-40° to 75°C
COMMISSIONING	App (iOS or Android)
MANUFACTURER	Wattstopper

SENSOR COVERAGE PATTERNS



SENSOR DETAIL



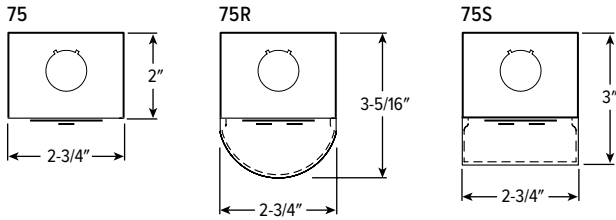
ADDITIONAL DRIVER OPTIONS

Note: Lumen restrictions apply, consult product builder at hew.com/product-builder.

CATALOG NUMBER	DESCRIPTION
DRV	Driver prewired for non-dimming applications
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible, 120V only)
DIM TRC	Line voltage dimming driver (TRIAC compatible, 120V only)
DA	Dimming driver with 12V auxiliary
DSR	Sensor-ready driver
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LTE LINE	Lutron Hi-lume 1% 2-wire dimming driver forward phase line voltage controls (120V only)
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver
ELDO SOLOB	EldoLED Solodrive, 0.1% dimming driver for 0-10V controls
ELDO SOLOB DALI	EldoLED Solodrive, 0.1% dimming driver for DALI controls
ELDO ECO1	EldoLED Ecodrive, 1% dimming driver for 0-10V controls
ELDO ECO1 DALI	EldoLED Ecodrive, 1% dimming driver for DALI controls

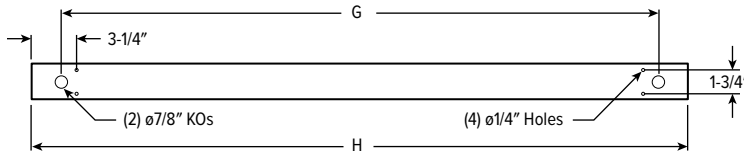


CROSS SECTIONS



FIXTURE DETAILS

BACKVIEW

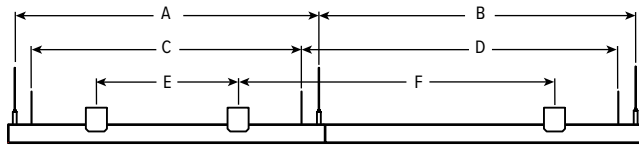


	7/8" KOs (G)	ACTUAL FIXTURE LENGTH (H)
2'	18-3/8"	22-1/2"
3'	29-1/2"	33-9/16"
4'	40-1/2"	44-5/8"
8'	85-1/8"	89-1/4"

MOUNTING DETAILS

STAND ALONE

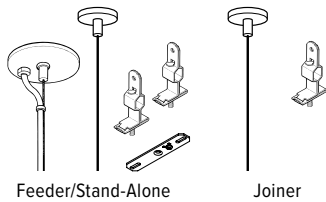
SUBSEQUENT



MOUNTING LENGTH

	AIRCRAFT CABLE		VBY HANGER		315 SPACER	
	A	B	C	D	E	F
2'	21-1/2"	22-1/2"	19"	22-1/2"	10"	22-1/2"
3'	32-1/2"	33-9/16"	30-1/16"	33-9/16"	21"	33-9/16"
4'	43-5/8"	44-5/8"	41-1/4"	44-5/8"	32"	44-5/8"
8'	88-3/16"	89-1/4"	85"	89-1/4"	77"	89-1/4"

STANDARD HARDWARE FOR SUSPENDED PRODUCT (Grid and Hardpan)



Notes:

- Fixtures are provided with adjustable length aircraft cables and mounting hardware, must specify.
- Electrical supply is brought into the feeder fixture, either as part of a row or as a stand-alone unit. Joiner fixtures complete the row.
- The feeder kits are standard with a 5" canopy to cover the junction box and a 2" canopy at the non-feed point. No J-box is required at non-feed points.

CORD FOR SUSPENDED PRODUCT

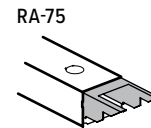
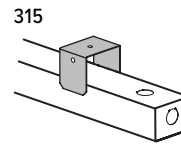
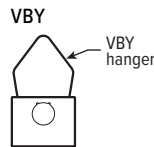
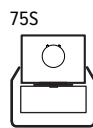
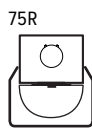
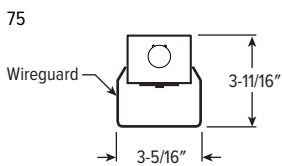
Units specified with aircraft cable require cord. Please specify cord type using ordering information below. Long fixture rows may require multiple feed points based on 18ga conductor size.

EXAMPLE: S2438/W					
CORD TYPE	LENGTH	# OF COND.	WIRE SIZE	COLOR	
S	24	3	18	/W White /B Black	
	48	4	18		
	96	5D ¹	18 ¹		
		6D ¹	18 ¹		

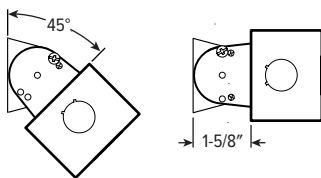
¹ Includes (2) 22ga purple & pink dimming conductors

MOUNTING ACCESSORIES DETAILS

WG-75



45AMB

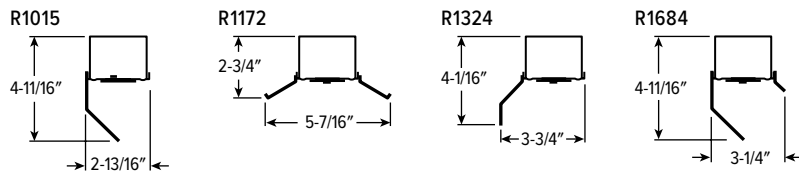


QUICK CONNECT OPTIONS

Note: Quick-connect wiring required for row mounting. All QC harnesses contain (5) 16ga conductors plus ground.

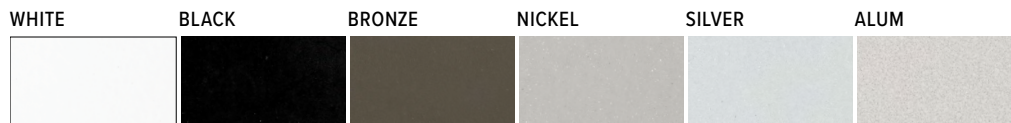
DESIGNATION	NUMBER OF 16GA WIRES (EXCLUDING GROUND)	WIRE COLOR/POWER SUPPLY FACTORY CONNECTIONS	TYPICAL USE
QCBW	2	Black, White	On/off switching (DRV) or line voltage dimming (DIM LINE)
QCRW	2	Red, White	Alternating circuits on/off switching (DRV) or line voltage dimming (DIM LINE)
QCBRW	3	Black, Red, White	On/off switching (DRV) or line voltage dimming when equipped with EM battery packs
QCBW/PK	4	Black, White, Purple, Pink	Single circuit with 0-10V 4-wire low voltage dimming (DIM)
QCRW/PK	4	Red, White, Purple, Pink	Alternating circuits on/off switching with 0-10V 4-wire low voltage dimming (DIM)
QCBRW/PK	5	Black, Red, White, Purple, Pink	On/off switching when equipped with EM battery packs and 0-10V 4-wire dimming (DIM)
QCBW/RPK	5	Black, White, Red, Purple, Pink	On/off switching and 0-10V 2-wire dimming (DIM) and 2-wire 0-10V tunable
QCUU	N/A	N/A	QC harness passes through fixture, but is not connected to it

SPECIAL REFLECTORS



Reflectors are ordered separately, only available with 75, cannot be used with wireguard accessories.
Example: R1172-4-75LED REFL

FINISH OPTIONS



For custom color, please specify RAL code or a manufacturer code with description. All custom colors other than RAL require two sample swatches, minimum 1" square.



CAST ALUMINUM LED EXIT SIGN

Code: CA



FEATURES

- UL 924, NEC and NFPA 101 Life Safety Code
- Listed for damp location
- NiCad 4.8V 700mAh battery backup option
- Universal 120/277 VAC operation
- LED Energy savings
- Universal canopy included
- Spec grade cast aluminum housing
- Universal knock-out chevrons
- Push-to-test switch
- Charge rate / power on LED indicator light

WARRANTY INFORMATION

Any component that fails due to manufacturer's defect is guaranteed for 1 year. The warranty only covers products installed and maintained in accordance with the instructions provided by their respective manufacturer and no warranty is made with respect to any of our products that are otherwise installed or maintained. For full warranty details, visit our Warranty Section.

Clean lines, durable material and energy saving LEDs make this unit one of our best selling exit sign series! Available in a variety of colors to complement your space.



Conformance to Codes and Standards

The CA series is UL listed and meets or exceeds the following: UL 924, NEC, OSHA and NFPA 101 Life Safety Code requirements.

Compatible Battery: BAA-48R

ORDERING INFORMATION

Series	Face Color	Housing Color	Sides	Voltage	Options
CA-R (Red)	Aluminum (Standard)	Black (Standard)	Single (Standard)	120/277V	ST (Self Testing)
CA-G (Green)	B (Black)	A (Aluminum)	Double		
	W (White)	W (White)			

CONSTRUCTION

The CA series is constructed from spec grade die-cast aluminum housing. Aluminum face with black housing is standard.

ILLUMINATION

The LED series illumination is achieved by use long-lasting, efficient ultra bright red or green LEDs. Color-matched diffuser eliminates hot spots and striations, providing optimal light output.

ELECTRICAL COMPONENTS

Dual voltage input 120/277 VAC operation. LED display indicates AC/ON. An external push button test switch with battery backup units allows maintenance personnel to quickly determine the operational status of the unit. Unit offers surge protected, solid state circuitry.

EMERGENCY OPERATION

Upon failure of the normal utility power, an internal solidstate transfer switch automatically provides uninterrupted emergency operation for at least 90 minutes. The fully automatic solid-state, two-rate charger initiates battery charging to recharge a discharged battery in 24 hours.

BATTERY - BATTERY BACKUP

The CA series is designed with a maintenance-free NiCad battery that provides a minimum emergency duration of 90 minutes. Recharge time of the battery is 24 hours. Operational temperature range is 20°F (-7°C) to 95°F (35°C).

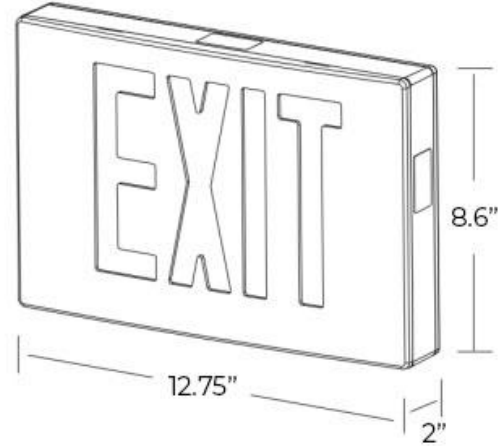
SELF-TESTING OPTION

Unit continuously monitors the AC power, battery supply voltage, emergency lamp condition and charging circuit. If failure is detected, the indicator will show status and correct when adjusted. Unit will automatically perform testing for five minutes every 28 days and 90 minutes every six months.

INSTALLATION

The CA is suitable for surface wall, side and top mounting via included canopy. Snap together design allows for quick and easy installation. Knock-out chevrons for customized egress signage.

DIMENSIONS



Weight : 8.00 lb

3170 Scott St, Vista, CA 92081
Phone: 877-352-3948 | Fax: 877-352-3949
info@exitlightco.com

! WARNING
Risk of Electrical Shock

Disconnect power from circuit breaker or fuse before installing or servicing any light fixture.

Installation Instructions for a Pre-wired Recessed Remodeler Fixture

Existing Fixture: If possible remove the existing frame that is in the ceiling. If it can't be removed, disconnect the frame from its power source and slide it out of the way. Remove old ballasts/drivers that might contain any hazardous materials, and dispose of properly.

Size	Flange OD	Ceiling Hole	Ceiling Thickness
6"	7"	6" to 6-3/4"	3/4" Max
7"	7-7/8"	6-3/4" to 7-3/4"	3/4" Max
8"	8-7/8"	7-3/4" to 8-3/4"	3/4" Max
9"	10"	8-7/8" to 9-7/8"	3/4" Max
10"	11-1/8"	10" to 11"	3/4" Max

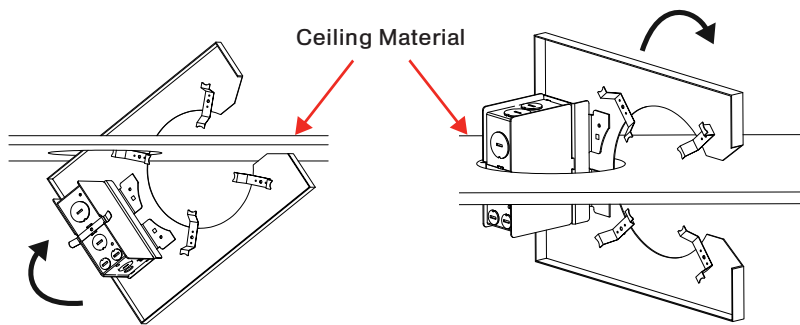


Fig. 1

Fig. 2

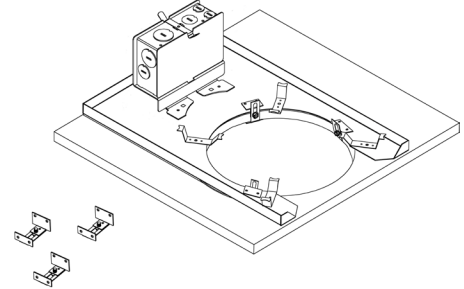


Fig. 3

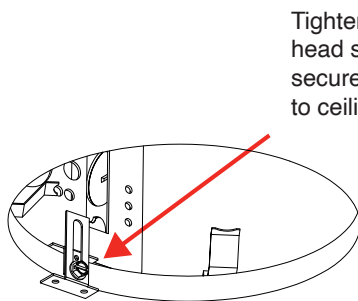


Fig. 3a

Tighten 1/4" hex head screw to secure housing to ceiling material.

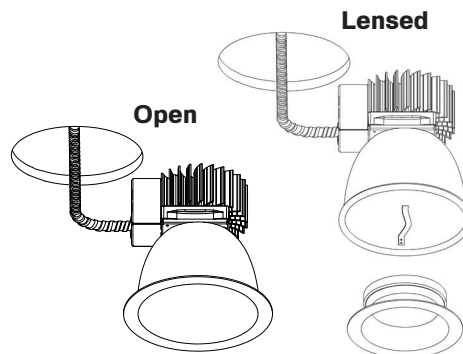


Fig. 4

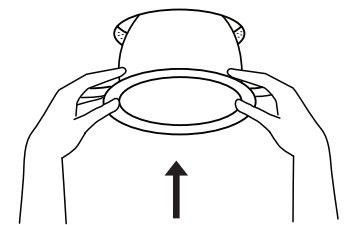


Fig. 5

New Remodeler Fixture: Pull the existing wiring down through the ceiling hole and make proper electrical connections within the new remodeler fixture's junction box per local codes.

1. Insert the remodeler frame through the ceiling hole and position it as shown in **Figures 1, 2 and 3.**
2. Attach the remodeler clamps provided to secure the frame to the ceiling. **Figure 3a**
3. Let the LED heatsink assembly hang out of ceiling cut-out. Attach the LED heatsink assembly to the open reflector, via key-hole slots and screws. If you have a lensed trim, the lensed splay must be pulled out of the reflector to attach and tighten the screws. **Figure 4.**



WARNING

Risk of Electrical Shock

Disconnect power from circuit breaker or fuse before installing or servicing any light fixture.

Any issues with the reflector holding into the ceiling, remove the reflector by slightly rotating as pulling downward as shown in **Figure 6** and try one of the following trouble shooting tips.

If the reflector does not sit flush against the finished side of the ceiling the remodeler frame may be lifting above the ceiling material while the reflector is being inserted. Frame must be securely held to the ceiling material with the remodeler clamps in **step 2**. Also check for any obstructions preventing the reflector flange from reaching the ceiling surface such as un-even plaster or if the rough cut hole has been painted and has formed a hard edge. Remove any obstructions.

A ceiling hole that is larger than the specified range listed may need the a larger remodeler fixture or the use of a "goof ring". Note that the remodeler clamps grab onto the edge of the ceiling material as shown in **Figure 3a**. A large ceiling hole may not allow the supplied clamps to secure the frame to the ceiling and alternate methods may be required.

If the Reflector is not securely held into the ceiling the roto-clips on the remodeler frame must not be engaging with the reflector. Start by checking that all 4 roto-clips are snapped into place and pointing toward the center of the ceiling hole as shown in **Figure 7**. Please note that if you rotated the reflector while removing from the ceiling the clips may have rotated out of position. If the ceiling is above the listed maximum thickness the roto-clips may not reach the surface of the reflector. You can rotate the clips 180 degrees to the long setting. **It is strongly suggested that you first try rotating just two of the clips as shown in Figure 8**. Rotating all 4 clips may cause damage to the reflector. If rotating the clips doesn't accommodate the thicker ceiling, a frame extender may be required. Contact factory with exact ceiling thickness.

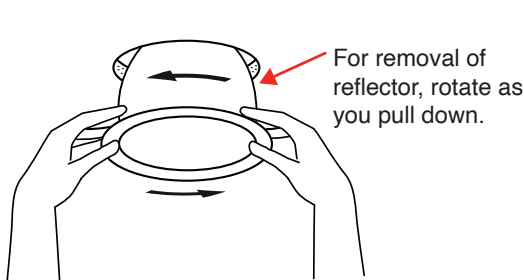
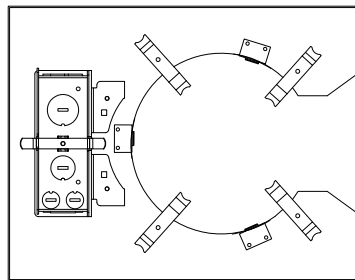
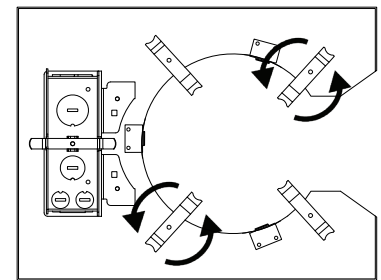


Fig. 6



Standard Short Position

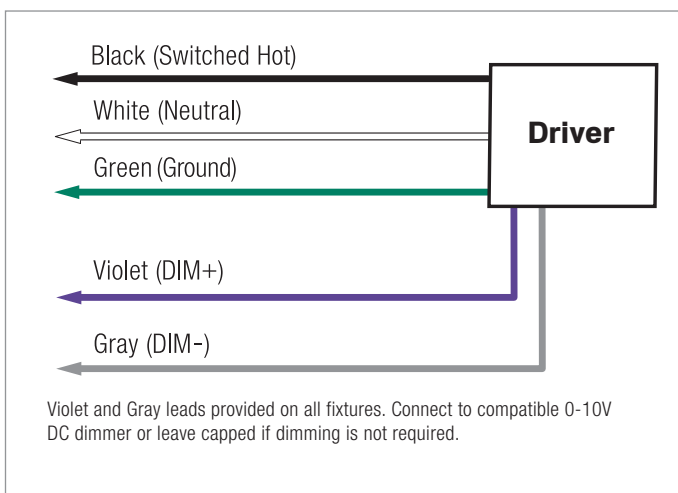
Fig. 7



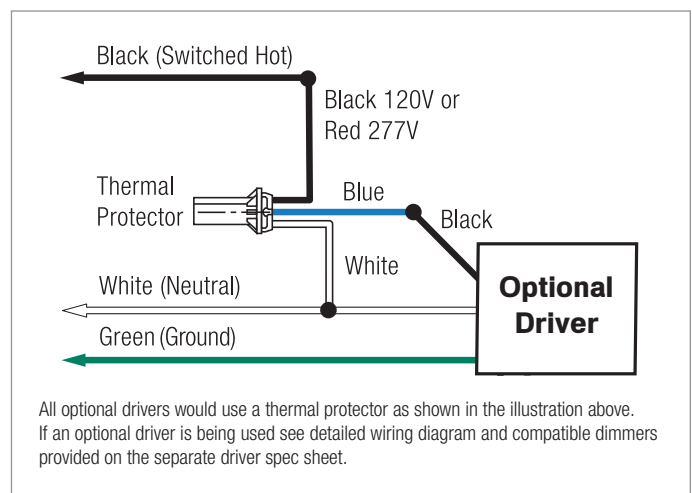
Two Clips in Long Position

Fig. 8

Standard driver 0-10V dimming



Optional driver using thermal protector



RECESSED

components

Project:

Type:

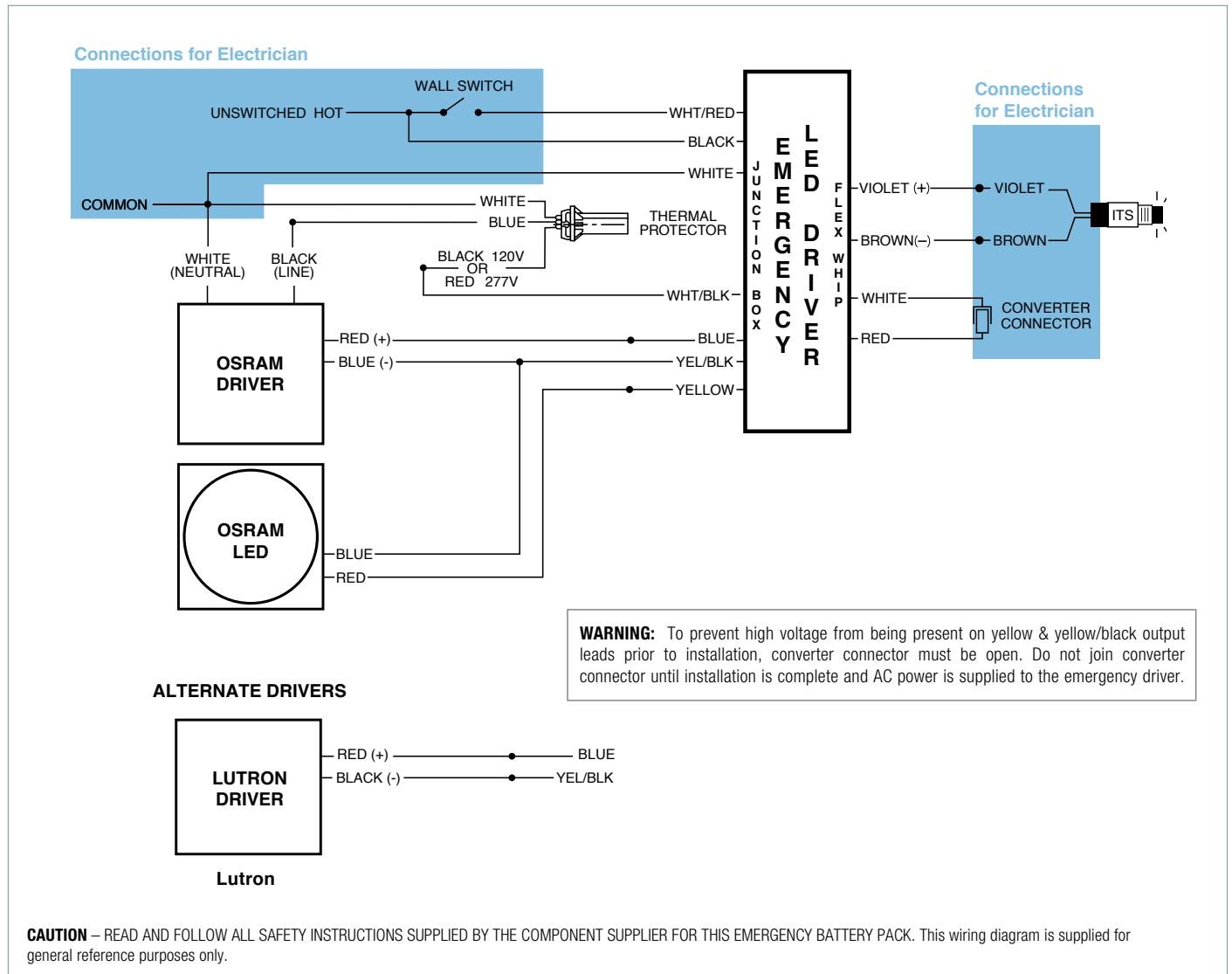
Catalog number:

specifications

LED, SYL module & Bodine® Emergency Battery Pack

Bodine® BSL17 Emergency Battery Pack

LEM Wiring Diagram for Fixtures with the OSRAM/Sylvania SYL Module and OSRAM Driver
120V or 277V



RECESSED

architectural

Project: _____

Type: _____

Catalog number: _____

LED 6" open remodeler 1100, 1500, 2000 or 3000 lumens



frame-in kit

The LED6-R series remodeler fixture is designed to install through a hole in an existing ceiling. The "U" shaped frame is inserted through the hole and is secured with factory supplied remodeler clamps (shipped loose). See remodeler information sheet for detailed instructions.

This fixture is universal 120-277V when using the standard 0-10V dimming driver. Voltage must be specified when using optional drivers. A (3) designated fixture will have a 347V driver with 0-10V DC dimming (1%-100%).

5-year LED component warranty details at atlantic-lighting.com/main/support.

OSRAM Sylvania LED Module



- 80+ CRI
- 90 CRI option offered. Lower lumen output and reduced lumens per watt will be experienced with this option.
- Rated Life: 50,000 hours at 70% lumen maintenance (L70) when maintained in a 45°C ambient environment with open air flow. Ambient temperatures lower than 45°C may extend life of module.

OSRAM Sylvania Electronic LED Driver

- Dimmable, instant 100% light, (1%-100%) via: 0-10V protocol. Contact factory for optional dim-to-off and soft-start programming. See driver spec.

Passive Heat Sink

- Black anodized aluminum

This LED fixture is intended for non-IC applications, insulation must be kept 3" away from fixture on all sides. Not for use within

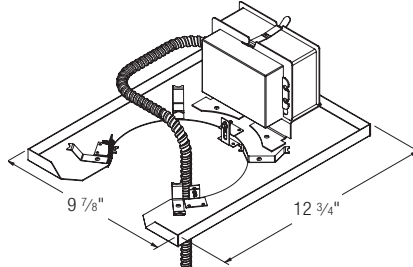
Listed for Damp Location. Listed to UL 1598 and Canadian standards. ENERGY STAR® qualified (120V/277V, 80 CRI and with standard driver only). Photometrics at atlantic-lighting.com.

Specifications and dimensions subject to change without notice.

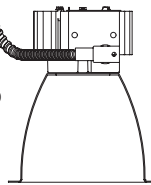


R.O. Ø 6" to 6 3/4"
Maximum ceiling
thickness: 3/4"

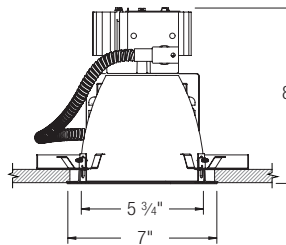
1. Secure frame to ceiling.



2. Attach LED module to reflector.



3. Insert reflector into frame/ceiling.



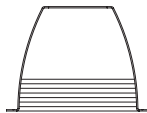
TRIM KIT

open reflector



R6LED10 Standard open
60° beam angle

baffled reflector



R6LED11 Black multi-groove baffle
R6LED12 White multi-groove baffle

Note: Polished flange not available on baffled reflector.

Precision spun .052 aluminum self-flanged reflector offered in clear with optional finishes, and in white. Flange is white as factory standard, optional polished flange will match reflector finish. Contact factory for optional reflector colors.

Remodeler reflector has key slots to secure to LED module prior to installation of trim.

ordering data

FRAME-IN KIT

SERIES

LED6-R

LED6-R Architectural 6" LED remodeler

LUMENS*

SYL11 1100 lumen module
SYL15 1500 lumen module
SYL20 2000 lumen module
SYL30 3000 lumen module

COLOR TEMPERATURE

27K 2700K
3K 3000K
35K 3500K
4K 4000K
5K 5000K

VOLTAGE

U Universal 120V-277V
1 120V
2 277V
3 347V

DIMMING

0-10V DC standard, leave box blank

2WR 2-wire. TRIAC forward-phase or ELV reverse-phase (100-1%) (120V only)

LDE Lutron® EcoSystem® (100%-1%, Fade-to-Black™)

LTE Lutron® 2-wire forward-phase (100%-1%) (120V only)

DAL DALI (Type 6, IEC62386) Driver; Dimming to 0.1%

DMX DMX Driver with RDM capability; Dimming to 0.1%

Must specify voltage with optional dimming.

ADVANCED DIMMING

V010 Lutron Vive enabled for use with standard 0-10V driver.

VECO Lutron Vive enabled for use with optional LDE driver.

Contact factory for zone and other control options.

OPTIONS

9CR 90 CRI, effects lumens per watt. Not offered in 5K

LEM Emergency Pack 7W, IOTA (ILB-CP07 or equivalent). Increases fixture length.

ILEM The LEM option with test button in open reflector.

GR6X Goof ring for 6" reflector indicate OD required.

TRIM KIT

Refer to left for part numbers. Specify finish & other below.

Finishes

CL Specular clear
SS Semi-specular clear
HZ Haze clear (etched)
WH Matte white

Other

PF Polished flange
ITS Internal test switch hole. Must be specified with ILEM.
GS Gasket under flange

P/N Example: LED6-R-SYL20-27K-U / R6LED10-CL

LED6-R-SYL20-27K-U / R6LED10-CL

series	lumens	voltage	advanced	trim kit	finish	other
		temp	options			



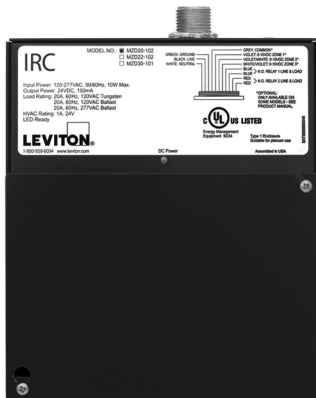
ATLANTIC
LIGHTING

T: 508 678-5411 | F: 508 678-5408 www.atlantic-lighting.com

030921 NP15-044

Integrated Room Control (IRC)

Featuring 0-10V Dimming and Demand Response Capabilities



DESCRIPTION

The Leviton Integrated Room Control (IRC) combines single room occupancy sensing, daylight harvesting, 0-10V dimming, Partial ON, Partial OFF and demand response capabilities into a single, easily installed package. IRC features several methods of Ladderless Commissioning™ for install-and-forget convenience, including the AutoCal™ feature which automatically sets the maximum light output levels and calculates light loss factor for accurate lumen maintenance. The IRC ships as either custom kits or a complete kit with a factory configured occupancy sensor, photocell and 4-button switch. The 4-button switch provides ON, raise, lower and OFF functionality. The performance, features and capabilities of the IRC product provide a simple and cost-effective stand-alone energy management solution to maximize energy efficiency and meet energy code mandates for virtually any commercial room control application.

STANDARDS AND COMPLIANCE

- Can be used to comply with IECC, ASHRAE 90.1, and 2019 Title 24, Part 6, 0-10V dimming, daylight harvesting, partial-ON, partial-OFF, demand response and stairwell application control requirements
- UL and cUL listed
- Backed by a Limited Five-Year Warranty

INSTALLATION STEPS

1. Physically install unit and any peripherals
2. Terminate power & control wiring
3. Enable AutoCal & Auto-Burn-In
4. Power up system
5. Installation & configuration complete!

FEATURES

- Stand-alone simplified daylight harvesting with full range dimming
- Demand response capabilities
- 2 or 3 zone control for LED lighting
- Kitted with factory configured sensor, photocell and 4-button switch
- 4-button switch available with ON, Bright, Dim and ON/OFF buttons with optional engraving
- 2 entry stations for individual manual zone control included with 2 zone, 2 relay kit (RCD20-102)
- Provides plug load control when paired with OPP20 Super Duty Power Pack
- Cost-effective energy code compliance
- Ladderless Commissioning provides install-and-forget convenience
- Convenient occupancy sensor and photocell integration
- AutoCal automatic photocell target level calibration
- Accepts external time clock input to provide an OFF sweep function or modify the partial OFF function
- Simplified integration with emergency systems
- Controls maximum lighting output for additional energy savings potential and task tuning
- Daylight switching, full range 0-10V dimming
- Partial-ON control for initial light level in either manual switch or occupancy sensor auto modes
- Partial-OFF control for minimum continuous light level
- Adjustable minimum light level shut off value
- Emergency input drives auxiliary zones to full

PRODUCT DATA



LOAD RATINGS

- 20A per relay, 120/277V
- 15A per relay, 347V
- Fluorescent: 0-10VDC 120V, 1,920W max load
- Fluorescent: 0-10VDC 277V, 4,432W max load
- LED: 0-10VDC 120V, 960W max load
- LED: 0-10VDC 277V, 2,216W max load
- Electronic Ballasts, CFL, LED: 120VAC-1,2000W max load (10A)
- Electronic Ballasts, CFL, LED: 277VAC-2770W max load (10A)
- LED, fluorescent, non-dimmed and 0-10V sinking for LED or fluorescent dimming control (Max 100mA), 2 or 3 zones
- 120mA power output for operation of occupancy sensors, photocells, etc.

POWER

- Input Power: 120/277, 347V for Canadian models; 10W Max, 50/60 Hz
- Output Power: 2 or 3 zones up to 20A 120/277V, 2 or 3 zones up to 15A 347V (Canadian models)
- Available Peripheral Power: 120mA, 24V

DIMENSIONS

- 6.65" (168.91mm)L x 8.65" (219.71mm)H x 2.1" (56.13mm)D
- Shipping Weight: 4lbs
- Unit Weight: 3.3lbs
- 1/2" & 3/4" concentric conduit knockouts
- 1/2" nipple with pigtails for easy line voltage connections

ORDERING INFORMATION

ROOM-IN-A-BOX KITS - Order a Complete System with One Part Number

CAT. NO.	DESCRIPTION
RCD20-102	IRC Dimming Room Control Kit, includes Low Voltage devices; 2 Zone Room Controller w/(2) 0-10V outputs and (2) 120/277V relays, M/T Occupancy Sensor (OSC20-M0W), 4 Button Switch (RLVSW-4LW), Photocell (ODCOP-00W), 120/277VAC, 50/60Hz
RCD30-101	IRC Dimming Room Control Kit, includes Low Voltage devices; 3-Zone Room Controller w/(3) 0-10V outputs and (1) 120/277V relay, M/T Occupancy Sensor (OSC20-M0W), 4 Button Switch (RLVSW-4LW), Photocell (ODCOP-00W), 120/277VAC, 50/60Hz
RCD20-C02	IRC Dimming Room Control Kit, includes Low Voltage devices; 2-Zone Room Controller w/(2) 0-10V outputs and (2) 347V relays, M/T Occupancy Sensor (OSC20-M0W), 4 Button Switch (RLVSW-4LW), Photocell (ODCOP-00W), 347VAC Canadian model, 50/60Hz
RCD30-C01	IRC Dimming Room Control Kit, includes Low Voltage devices; 3-Zone Room Controller w/(3) 0-10V outputs and (1) 347V relay, M/T Occupancy Sensor (OSC20-M0W), 4 Button Switch (RLVSW-4LW), Photocell (ODCOP-00W), 347VAC Canadian model, 50/60Hz

INDIVIDUAL IRC FOR KITS

CAT. NO.	DESCRIPTION
MZD20-102	IRC Dimming Version, 2 zone, 2 relay, 120V or 277VAC
MZD30-101	IRC Dimming Version, 3 zone, 1 relay, 120V or 277VAC
MZD20-C02	IRC Dimming Version, 2 zone, 2 relay, 347VAC
MZD30-C01	IRC Dimming Version, 3 zone, 1 relay, 347VAC

Leviton Manufacturing Co., Inc. Lighting & Controls

20497 SW Teton Avenue, Tualatin, OR 97062 tel 800-736-6682 tech line (6:00AM-4:00PM PT Mon-Fri) 800-959-6004

Leviton Manufacturing Co., Inc. Global Headquarters

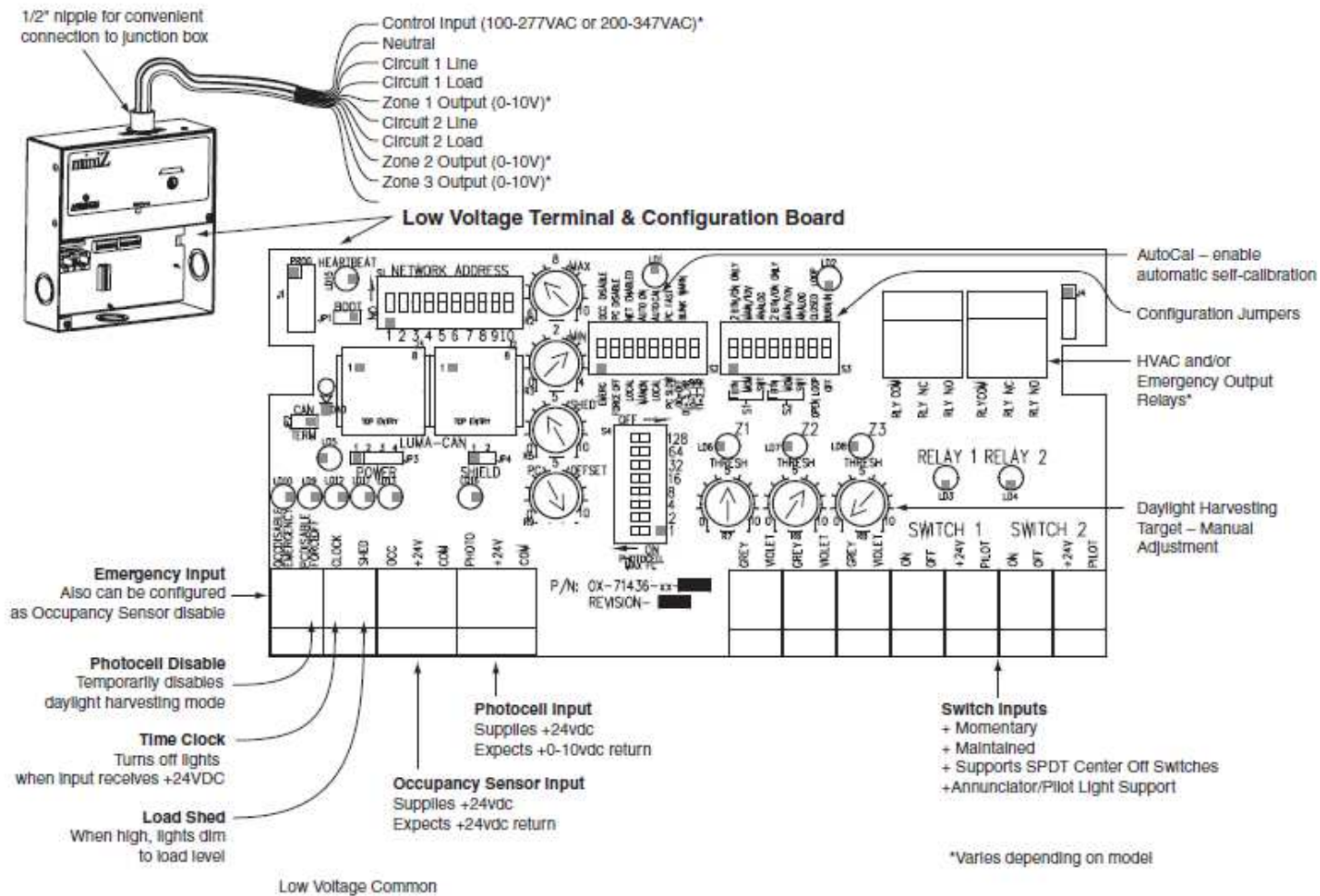
201 North Service Road, Melville, NY 11747-3138 tel 800-323-8920 tech line (8:30AM-7:00PM ET Mon-Fri) 800-824-3005

Visit our Website at: www.leviton.com/IRC

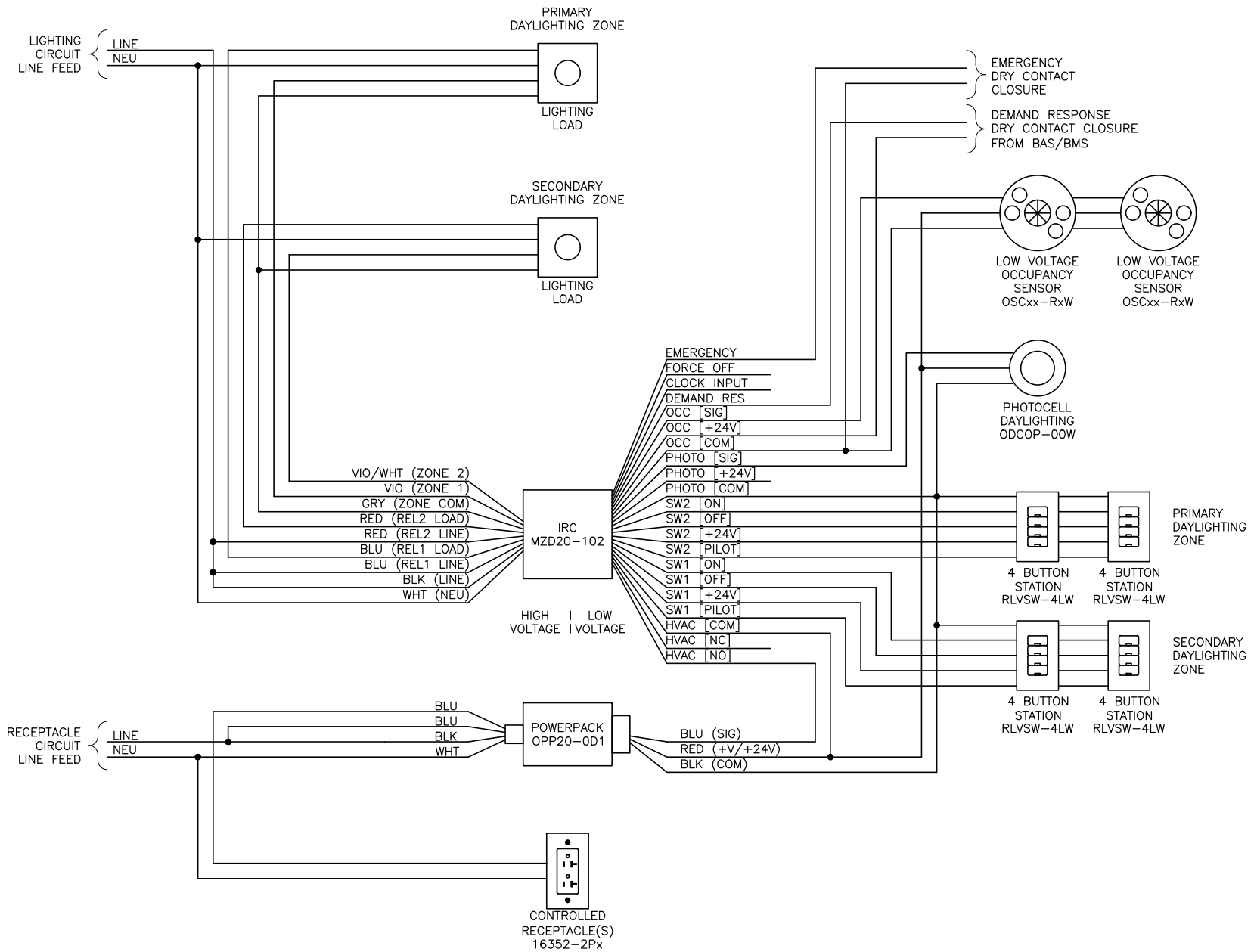
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G-9267C/K20-aa
REV NOV 2020

What's under the hood?



OPEN OFFICE—IRC



Decora® Multi-Technology Wall Switch Occupancy Sensor



Description

The Leviton Decora® Multi-Technology Wall Switch Occupancy Sensor (OSSMT) is used to provide automatic lighting control for energy savings and convenience in a variety of commercial applications. Designed for “install-and-forget” use, the OSSMT automatically analyzes room conditions and adapts to errors or changing environment.

Passive Infrared (PIR) technology provides immunity to false ON through a specialized Fresnel lens which divides the field-of-view into sensor zones. When a person passes into or out of a sensor zone, the sensor detects motion and switches the lights ON.

Ultrasonic (U/S) technology provides maximum sensitivity and range in difficult spaces with irregular shaped rooms and partitions that can block the PIR field-of-view.

A pair of U/S sensors will detect Doppler shifts caused by motion in a space preventing false OFF. These sensors are more sensitive to small movements since they do not rely on zones.

Applications

- Retrofit
- Private and executive offices
- Conference rooms
- Storage areas
- Restrooms
- Classrooms
- Lounges
- Training areas
- Multi-location switching (similar to 3-way)

Features

- Fast, simple installation: fits in a standard wall box and replaces a single-pole wall-switch; neutral and no neutral options available. Sensor can be ganged together with other units in a multiple-switch wall plate.
- Low-profile design eliminates obtrusive “scanning-device” look. Elegant Decora wallplates complement any interior for sleek aesthetics; uses Decora wallplates and coordinates with Leviton’s popular line of Decora wiring devices.
- Convenient push button provides manual-ON/OFF light switching at any time
- Segmented Fresnel lens provides optimum sensitivity and performance. Designed with an extensive “minor motion” area where even slight body movements will be detected.
- Vandal resistant PIR lens
- Patented blinders: adjustable horizontal field-of-view (PIR may be adjusted between 180° and 60° of arc by using integral blinders located on either side of the lens), no masking required
- Manual-ON/auto-OFF mode for installations where manual-ON switching is required but auto-OFF switching is still desired for 2019 Title 24, Part 6 energy savings
- LED indicator light flashes when sensor detects motion to verify detection is active. Green flashes for Ultrasonic, red flashes for PIR.
- Time: the delayed OFF time is preset at 30 minutes in the Auto Adapting mode. A choice of four delayed-OFF time settings are available: 30-seconds (for walking test purposes only), 10, 20 and 30 minutes for fixed time and auto adapting. The LED will flash when the adjusting knob is set to the indicated time value.
- Ambient light recognition: integrated light sensor prevents lights from turning on when the room is adequately illuminated by natural light.
- Self-adaptive technology: callbacks for adjustment are eliminated. Time delay and sensitivity settings are continually adjusted to occupant patterns of use in auto adapt mode.

Leviton Manufacturing Co., Inc. Global Headquarters

201 North Service Road, Melville, NY 11747-3138 **tel** 800-323-8920 **tech line** (8:30AM-7:00PM ET Mon-Fri) 800-824-3005

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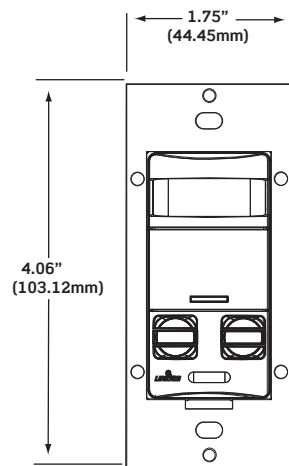
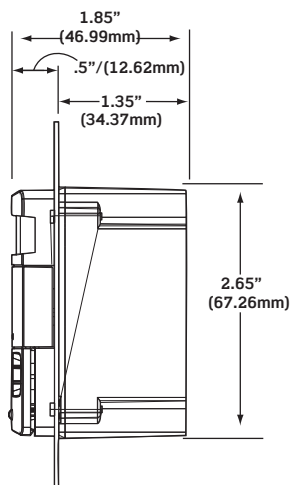
Features, cont'd

- Exclusive walk-through feature provides increased energy savings by not leaving the lights ON for an extended period after only momentary occupancy
- Vacancy confirmation: when the time out expires and the relays turn OFF, a 30-second (OSSMT-G) or 40- second (OSSMT-M) vacancy confirmation exists to turn the relays back on
- False detection circuitry
- Small motion sensitivity (U/S): ultrasonic technology provides excellent minor motion sensitivity
- Ability to disable U/S (OSSMT-M). For added flexibility, OSSMT-G has the ability to disable both PIR and U/S
- Presentation mode feature: f or slide or film presentations, allows push buttons to turn lights OFF and keep them OFF while the room is occupied
- Exclusive Leviton High Inrush Stability (H.I.S.) circuitry specifically designed to handle today's high inrush electronic ballast loads and offer unmatched durability and service
- True Zero-Cross Relay switches at the zero crossing point of the AC power curve to ensure maximum contactor life and compatibility with electronic ballasts
- Tested and complies with NEMA WD 7-2011 Occupancy Sensor Testing Standard

How the OSSMT-MD Automatically Adapts

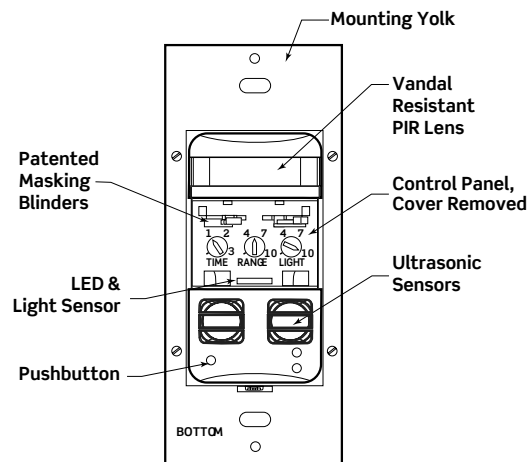
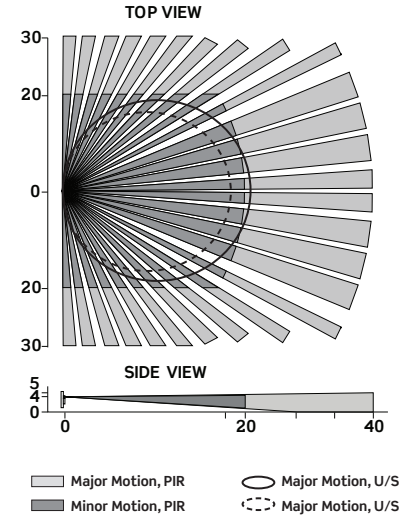
Condition	Example	Adaptive Reaction
False-ON: Sensor incorrectly turns the lights ON	The sensor detects movement in the corridor or hallway and the room light turns ON	After an initial movement is sensed, if another movement is not sensed within the timer setting the delayed off-time setting is automatically reduced
False-OFF: Sensor incorrectly turns the lights OFF	The sensor does not detect movement because an occupant is virtually motionless and the lights turn OFF	If motion is detected shortly after the lights go OFF, the current delayed off-time setting is increased

Dimensions Diagram



Field-of-View

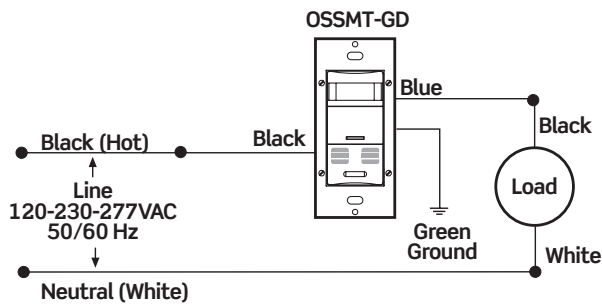
The OSSMT provides a 180° field-of-view with a maximum coverage area of approximately 2,400 square feet. The maximum sensing distance in front of the sensor is 40 feet, and side to side is 30 feet. The "minor motion" zone detects relatively small body movements and allows the lights to stay ON even though a person may not be moving or walking around the room. The "major motion" zone exhibits a lesser degree of sensitivity and requires larger movements.



Installation

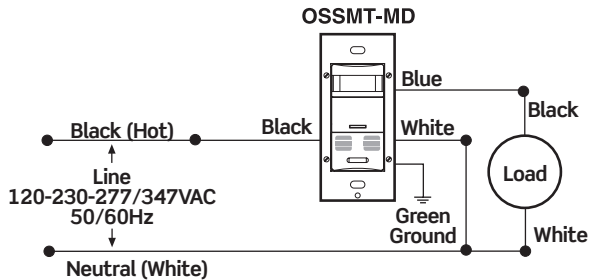
The OSSMT is preset to deliver optimum performance in a wide variety of applications without requiring any adjustments during installation. Exclusive self-adjusting operating features will automatically compensate for real-time occupancy patterns to provide maximum convenience and energy savings. The unit may replace a single-pole wall switch mounted in a standard wall box. The OSSMT-MD must have a neutral and be properly grounded in order to operate. The OSSMT-GD does not require a neutral for installation. The unit's integral blinders may be used to restrict the field of view to prevent unwanted detection of traffic. It should be positioned at least 6 feet away from HVAC registers. Note that whenever the unit is powered up, it will take approximately 1 minute to begin normal operation.

Wiring Diagram

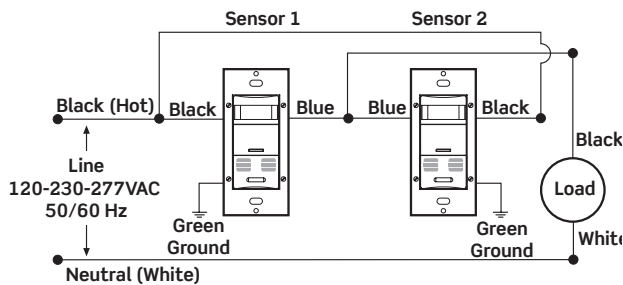


Note: Ground wire must be connected.

OSSMT-GD Wall Switch Occupancy Sensor Wiring Diagram, Single Location Control



OSSMT-MD Wall Switch Occupancy Sensor Wiring Diagram, Single Location Control



Note: Ground wire must be connected.

OSSMT-GD Wall Switch Occupancy Sensor Wiring Diagram, Two Location Control

Specifications

Electrical			
Line Voltage	120-230-277/347 VAC		
Power Consumption		U/S & PIR	PIR Only
OSSMT-MD	120V 277V	390mW 480mW	190mW 270mW
OSSMT-M3	347V	500mW	350mW
OSSMT-GD	120V 277V	110mW 340mW	70mW 310mW
Operational Frequency	50/60 Hz		
Ultrasonic Operational Frequency	40 kHz		
Wire Designation	Line-Black Neutral-White Load-Blue Ground-Green		
Load Rating	Incandescent/Tungsten: 800W @ 120V Fluorescent: 1200VA @ 120V 2700VA @ 277V, 1500VA @ 347V Motor: 1/4 HP @ 120V		
Environmental			
Operating Temperature Range	32 to 104°F (0 to 104°C)		
Storage Temperature Range	14 to 185°F (-10 to 85°C)		
Relativity Humidity	20-90% non-condensing		
Other			
Listings	OSSMT-MD: UL/cUL OSSMT-GD: ETL/cETL Listed, CSA OSSMT-M3: cETL listed, CSA, FCC compliant, tested to NEMA WD 7-2011		
Energy Codes	Can be used to comply with IECC, ASHRAE 90.1, and 2019 Title 24, Part 6 occupancy sensing requirements		
Warranty	Limited Five-Year Warranty		

Ordering Information

Decora Multi-Technology Wall Switch Occupancy Sensor	
Cat. No.	Description
OSSMT-MDx	Multi-Technology Wall Switch Occupancy Sensor
OSSMT-GDx	No Neutral, Multi Technology Wall Switch Occupancy Sensor
OSSMT-M3x	Multi-Technology Wall Switch Occupancy Sensor, 347V

Leviton Manufacturing Co., Inc. Lighting & Controls

20497 SW Teton Avenue, Tualatin, OR 97062 **tel** 800-736-6682 **tech line** (6:00AM-4:00PM PT Mon-Fri) 800-959-6004

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201 North Service Road, Melville, NY 11747-3138 **tel** 800-323-8920 **tech line** (8:30AM-7:00PM ET Mon-Fri) 800-824-3005

Visit our Website at: www.leviton.com/sensors

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UPC Code : 078477180570

Country Of Origin : Please Contact Customer Service.

Available Colors :



OSC10-M0W

Occupancy Sensor, Multi-Technology (PIR/US), Ceiling Mount, 1000SF, White

Occupancy Sensor lighting control, Ceiling Mounted, Multi-technology, 24VDC, 35mA power consumption, 1000 sq ft, 360 degree (major motion: PIR: 40' diameter; U/S: 46'Lx23'W, minor motion: U/S: 34'Lx17'W), red LED=PIR, green LED-U/S, auto adapting, walk-through, time delay 30s-30m, test mode (6s time delay for 15m with auto exit), connect gray wire for photocell ambient light hold-off. 360 degree harmonic wheel (rotatable), mounting height 8'-10', cUL/NOM/ANCE listed, CEC Title 24 compliant
Color: off-white.

The most advanced sensor available. Combines multi-technology with all-digital architecture. Eliminates false triggering. The result is a trouble-free, "install and forget" solution for lighting control.

Technical Information

Product Features

Application : Cafeterias, Classrooms, Computer rooms, Conference rooms, Day care centers, Filing rooms, Workspaces, Open warehouses, Offices with cubicles, Open areas, Restrooms, Stairwells, Storage rooms, Executive, open and private offices

Color : White

Grade : Commercial

Mounting : Ceiling Mount

Mounting Height (Ft.) : 8-12 FT

Product Line : OSC10

Sensor Technology : Multi-Technology: Passive Infrared (PIR)/Ultrasonic (US)

Sensor Type : Occupancy

Time Delay : 30s-30m

Performance Specifications

Coverage (Sq.Ft.) : 1000

Pattern : 360°

Title 24 Compliant : Yes

Electrical Specifications

Frequency : 40kHz

Power Consumption : 35mA

Voltage : 24 VDC

Standards and Certifications

Listings : cUL/US Certified, can be used to comply with Title 24, Part 6 occupancy sensing requirements

Mechanical Specifications

Mounting Type : Ceiling Mount

Size : Width 4.20" (106.68mm), Depth 1.57" (39.90mm)

Environmental Specifications

Operating Temperature : 0°C to 40°C

Relative Humidity : 0% to 95% non-condensing

Type

Product Type : Occupancy Sensor

Warranty

Warranty : 5-Year Limited

Features and Benefits

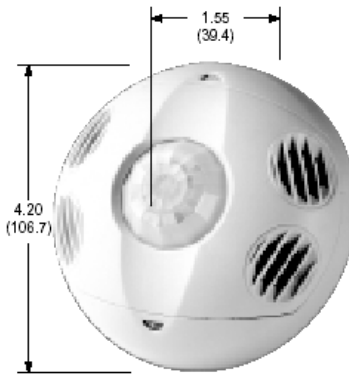
- Small Size: Installed sensor appears almost invisible.
- Fast Simple Installation: Easy ceiling mount, three wire connection (low voltage) and twist-lock sensor attachment.
- Accurate, Consistent Switching: Occupant complaints are eliminated; lights are on when room is occupied, off when empty. annoying false-offs are minimized and lights on at night is eliminated.
- Self-Adapting: An internal microprocessor continually analyzes, evaluates and adjusts settings. Performance is kept at a maximum and user complaints are eliminated.
- Maximum Reliability, Low Cost: All digital circuitry uses a minimum of components.

- Non-Volatile Memory: Learned and adjusted settings saved in protected memory. Power outages will not cause status loss.
- Ambient Light Recognition: The photocell prevents lights from turning on when room is adequately lit by natural light.
- Excellent Warranty: 5-Year Limited warranty.
- Typical Applications: Cafeteria, Computer Room, Conference Rooms, Office Private, Office Executive, Office w/Cubicles, Office Open, File Room, Classroom, Lounge, All Restroom types, Open Area, Work Space General, Workout Facility or Gymnasium

Patents*

CA115944	US7800049
CA122495	USD561630
MX24023	USD573053

*This list is provided for patent marking purposes only. A good faith effort is made to maintain the accuracy and completeness of this list. No legal inference should be drawn from the omission of a patent from this list.



SPECIFICATION SUBMITTAL

JOB NAME:		CATALOG NUMBERS:	
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JOB NUMBER:		<input type="text"/>	<input type="text"/>

Leviton Manufacturing Co., Inc.

201 North Service Road, Melville, NY 11747

Telephone: +1-800-323-8920 · FAX: +1-800-832-9538 · Tech Line (8:30AM-7:30PM E.S.T. Monday-Friday):

+1-800-824-3005

Leviton Manufacturing of Canada, Ltd.

165 Hymus Boulevard, Pointe Claire, Quebec H9R 1E9 · Telephone: +1-800-469-7890 ·

FAX: +1-800-824-3005 · www.leviton.com/canada

Leviton S. de R.L. de C.V.

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1797 · www.leviton.com.mx

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www.leviton.com/international/contacts/



OSP20-DA0

Occupancy Sensor Power Pack, 20 amp, Made in USA



20A fluorescent/incandescent, 120/220/277 Volt AC 60Hz, 1HP @ 120VAC, 2HP @ 240VAC, Power Pack for Occupancy Sensor, Power Supply Output: 150mA, Made in USA, Title 24 Compliant, ASHRAE 90.1 Compliant

Technical Information

Standards and Certifications

Title 24 Compliant : Yes

USMCA Compliant : Yes

Product Features

Color : Black

Made in USA : Yes

Product Line : OSP20

Sensor Type : Power Pack

Electrical Specifications

Frequency : 50/60Hz

Voltage : 120/230/277 VAC

Mechanical Specifications

Neutral Wire Connection : Required

Color :  Black

UPC Code : 078477508909

Country Of Origin : United States

SPECIFICATION SUBMITTAL

JOB NAME:		CATALOG NUMBERS:	
<input type="text"/>		<input type="text"/>	<input type="text"/>
JOB NUMBER:	<input type="text"/>	<input type="text"/>	<input type="text"/>

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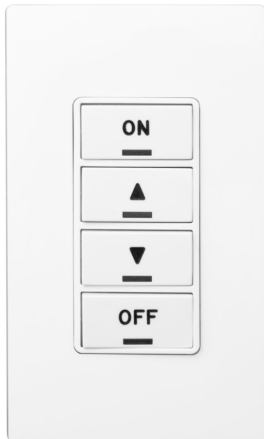
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RLVSW-4LW

IRC Low Voltage Dimming Switch, 4 Button. Compatible with 4 Button Color Change Kits (RDGSW-4Ex). Color: White. Includes a matching screwless snap-on wall plate.



UPC Code : 078477706572

Country Of Origin : Mexico

The Integrated Room Control (IRC) Lighting Controllers are Decora[®] devices for controlling non-dimmable and dimmable luminaries connected to the IRC Controller. The IRC Lighting Controllers provide a unique control station with multi-function capabilities available in 1-, 2- and 4-button configurations. The devices come in white with a matching wallplate and color change kits are available.

Technical Information

Product Features

Color : White

Product Line : IRC

Product Type : Keypad Room Controller

Features and Benefits

- Function description: ON—all lights to daylight harvesting level, Bright—raise light levels with press hold or multiple press, temporary override of daylight harvesting level, Dim—lower light levels with press hold or multiple press, temporary override of daylight harvesting level, OFF—turn off lights
- Designer Decora styling complements any interior for sleek aesthetics
- Entry station utilizes industry standard buttons for room lighting control
- Can be used with stand-alone IRC System
- Enables Ladderless Commissioning™ of IRC Systems. Modify the daylight harvesting target level with the 4-button controller

Patents*

N_A

*This list is provided for patent marking purposes only. A good faith effort is made to maintain the accuracy and completeness of this list. No legal inference should be drawn from the omission of a patent from this list.

SPECIFICATION SUBMITTAL

JOB NAME: <input type="text"/>	CATALOG NUMBERS: <input type="text"/>	
JOB NUMBER: <input type="text"/>	<input type="text"/>	<input type="text"/>

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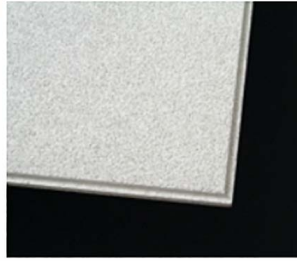


Cirrus Open Plan - Item #558

[Back to Product Line](#)



- MINERAL FIBER
 - Cirrus
 - Dune
 - Fine Fissured
 - Health Zone Ultima
 - Mesa
 - School Zone Fine Fissured
 - Ultima
 - Ultima with AirGuard Coating
- FIBERGLASS
 - Capz
 - Optima
 - TechZone
- BIOACOUSTIC
 - Tierra



RESOURCES

DOWNLOADS:

- Revit/BIM
- CAD Drawings
- Data Page
- Installation Instructions
- MSDS
- Warranty

TOOLS:

[Calculate Recycled Content & LEED](#)

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ENLARGE

Item # 558

View all Mineral Fiber, Fiberglass, BioAcoustic

LIVE CHAT

OFFLINE

[Email a TechLine Expert](#)

Call 1-877-ARMSTRONG

VISUAL SELECTION	
Dimensions:	24 x 24 x 7/8 IN
Grid Face:	9/16 IN
Edge Profile:	Beveled Tegalur Download dwg format
Available Colors:	<input type="radio"/> White

PERFORMANCE SELECTION	
Acoustics NRC:	0.75
Acoustics CAC:	35
Acoustics AC:	170
Fire Resist/ Flame spread:	Class A (UL)
Light Reflect:	0.85
Humidity Resistance:	HumGuard Plus
Anti-microbial:	BioBlock+

PHYSICAL DATA	
Material:	Mineral Fiber, Wet-formed
Texture:	Fine
Pattern:	No Pattern
Surface Finish:	Factory applied latex paint
Weight:	1.40 (lbs/sqft)
Sqft (Sqft/Carton):	40.0
ASTM Classification:	Type: III, Form: 1, Pattern: EIC
Insulation Value:	R Factor-BTU: 2.3 BTU, R Factor-Watts: 0.40 WAT
Hardware Friendly (Y/N):	N
Warranty:	30 Year Guarantee Against Visible Sag Against Mold/Mildew & Bacteria

Color Selection - WH - White

Main Beams - 7500

Cross Tees - XL7520 and XL7540

Wall Molding - 7804

RECOMMENDED GRID SYSTEMS

Silhouette XL 9/16" Bolt Slot - 1/8" Reveal	Trimlok 9/16" Screw-Slot	Silhouette XL 9/16" Bolt Slot - 1/8" Reveal	Sonata 9/16" Dimensional Tee
Suprafine XL 9/16" Exposed Tee	Interlude XL 9/16" Dimensional Tee	Suprafine ML 9/16" Exposed Tee	

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Anemostat®
SUBMITTAL
 A MESTEK COMPANY

1220 Watson Center Road • Carson, CA 90745-4206
 (310) 835-7500 • FAX (310) 835-0448
 air@anemostat.com • www.anemostat.com

Model **PG-22-MRI**
PARAGON DIFFUSER
 1/8" PLAQUE DROP
 SUPPLY / RETURN
 NOMINAL 24 X 24

DIFFUSERS

PRODUCT FEATURES

- Unit manufactured entirely of aluminum materials
- Non-Removable inner plaque assembly
- Optional aluminum blankoff baffles, field installed

CONSTRUCTION DETAILS

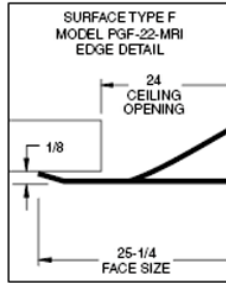
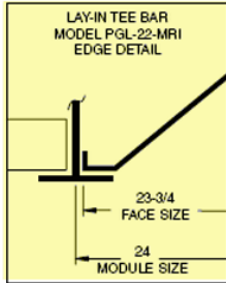
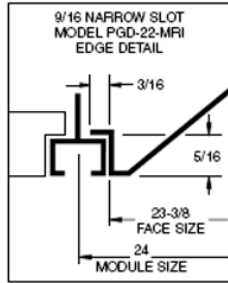
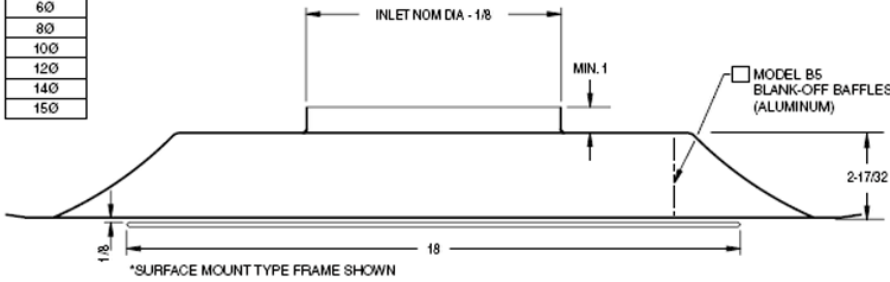
- Material: Aluminum
 Finish: White (std)
 Custom Colors (opt)

MODELS

- PGD-22-MRI** 9/16" Narrow Slot
 PGL-22-MRI Lay-In T-Bar
 PGF-22-MRI Surface Mount

AVAILABLE INLET SIZES
40
50
60
80
100
120
140
150

← **REFERENCE DRAWING FOR INLET SIZE**



U.S. COURTHOUSE FOR THE D.C. CIRCUIT REPLACE CEILING LIGHT SYSTEM AT CHAMBERS 4311

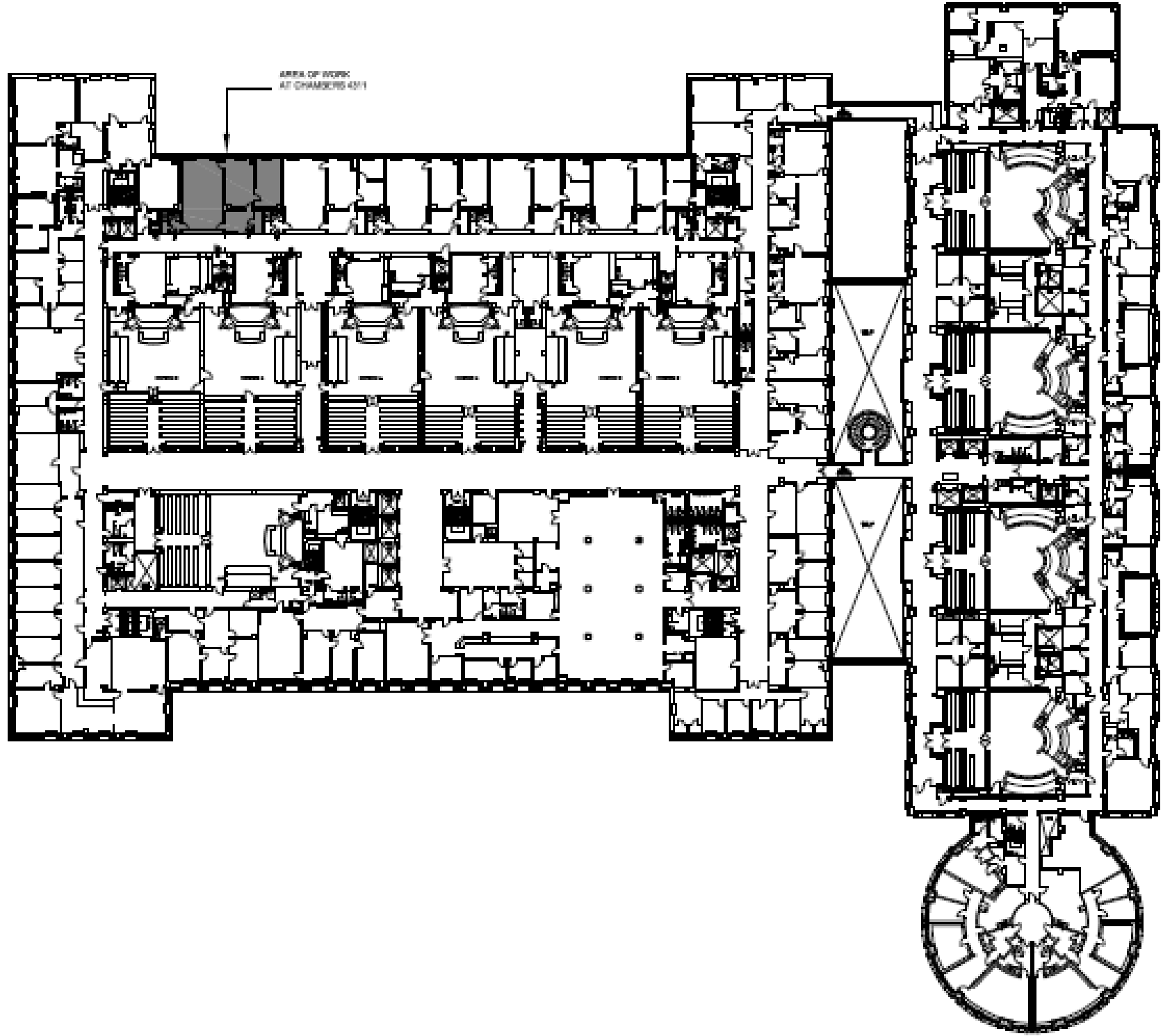
333 CONSTITUTION AVE., NW
WASHINGTON D.C. 20001

INDEX OF DRAWINGS:

- C01 -COVER SHEET AND INDEX OF DRAWINGS
- G0.1 -GENERAL NOTES
- G0.2 -GENERAL NOTES
- A1 .0 -ARCHITECTURAL REFLECTED CEILING PLAN & DETAILS
- E1 .0 -ELECTRICAL NOTES AND SYMBOLS
- E1 .1 -ELECTRICAL RISER DIAGRAM, PANEL AND LIGHTING SCHEDULE
- E2.0 -ELECTRICAL EXISTING LIGHTING PLAN
- E3.0 -ELECTRICAL NEW LIGHTING PLAN
- M1 .0 -MECHANICAL NOTES AND SYMBOLS
- M2.0 -MECHANICAL PLAN

**100% FINAL DESIGN FOR
CONSTRUCTION**

6.1.2022

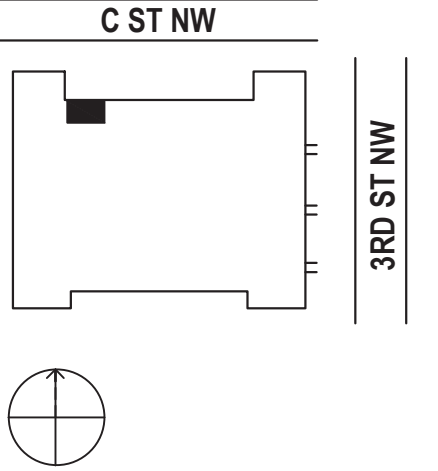


CONSULTANTS
MEP
MEP DESIGNS, INC.
8551 RALEIGH LN.
SUITE 200
MANASSAS, VA 20109

PROJECT
REPLACE CEILING LIGHT
SYSTEM AT USDC
CHAMBERS 4311

UNITED STATES COURTHOUSE
333 CONSTITUTION AVE. NW
WASHINGTON, DC 20001

KEYPLAN



100% FINAL DESIGN
FOR CONSTRUCTION
6.1.22

ISSUE CHART

100% CONSTRUCTION DOCUMENTS	6.1.22
DESIGN INTENT DRAWINGS	6.4.21
MARK	ISSUE
	DATE

Drawn	MEP
Checked	MEP
Approved	MEP

TITLE

COVER SHEET AND
INDEX OF DRAWINGS

SHEET NUMBER

C01

ABBREVIATIONS LEGEND

NOTE 1: ABBREVIATIONS WHEN USED IN COMPOSITION MAY INCLUDE PERIODS FOR CLARIFICATION
 NOTE 2: ABBREVIATIONS MAY BE DIFFERENT WHEN A PART OF A LEGEND

AC	AIR CONDITIONING(ED)	GA	GAGE	RH	RIGHT HAND ROOM
ACST	ACCESSIBLE	GALV	GALVANIZED	RM	ROOM
AD	ACOUSTICAL	GEN	GENERAL	RO	ROUGH OPENING
ADJ	ADJUSTABLE/ ADJACENT	GFRC	GLASS FIBER REINFORCED CONCRETE	ROW	RIGHT OF WAY
AFC	ABOVE FINISHED FLOOR	GFRC	GLASS FIBER REINFORCED GYPSUM	RTF	RUBBER TILE FLOOR REVEAL
AF	ABOVE FINISHED GRADE	GL	GLASS	RVL	REVEAL
AGGR	AGGREGATE	GL BLK	GLASS BLOCK	S	SOUTH
AHU	AIR HANDLING UNIT	GLU LAM	GLUED LAMINATED WOOD	SAN	SANITARY
ALT	ALTERNATE	GR LN	GRADE LINE	SC	SOLID CORE
ALUM	ALUMINUM	GRFL	GROUND FLOOR	SCHED	SCHEDULE
ANOD	ANODIZED(D)	GSSB	GYPSUM SHEATHING BOARD	SECT	SECTION
APC	ACOUSTICAL PANEL CEILING	GT	GREASE TRAP	SF	SQUARE FOOT(FEET)
APPROX	APPROXIMATE	GYP BD	GYPSUM BOARD	SGL	SINGLE
ARCH	ARCHITECT(URAL), ARCHITECT	GYP PLAS	GYPSUM PLASTER	SHR	SHOWER
ASPH	ASPHALT	H	HIGH	SHT	SHEET
ATC	ACOUSTICAL TILE CEILING	HB	HOSE BIBB	SMIR	SIMILAR
AUTO	AUTOMATIC	HC	HOLLOW CORE	SJ	SLIP JOINT, SCORED JOINT
AWT	ACOUSTICAL WALL TREATMENT	HDW	HARDWARE	SPC	SPECIFICATION
		HDWD	HARDWOOD	SPKR	SPEAKER
		HM	HOLLOW METAL	SQ	SQUARE
		HORIZ	HORIZONTAL	SST	STAINLESS STEEL
		HPT	HIGH POINT	STA	STAIR
		HSKPG	HOUSEKEEPING	STC	SOUND TRANSMISSION CLASS STANDARD
		HT	HEIGHT	STD	STANDARD
		HVAC	HEATING, VENTILATION, AIR CONDITIONING	STL	STEEL
		HW	HOT WATER	STOR	STORAGE
				STRUCT	STRUCTURAL
				SUSP	SUSPENDED
				SV	SHEET VINYL
				SYMM	SYMMETRICAL
				T	TREAD
				TA	TOILET ACCESSORY
				TA&B	TOP & BOTTOM TONGUE & GROOVE
				T&G	TONGUE & GROOVE
				TEL	TELEPHONE
				TEMP	TEMPORARY
				TK	TERRAZZO
				TKH	THICK
				TI	TENANT IMPROVEMENT
				TLT	TOILET
				TO	TOP OF TOPOGRAPHY, TOPOGRAPHIC
				TRTD	TREATED
				TS	TUBE STEEL
				TV	TELEVISION TYPICAL
				U	HEAT TRANSFER COEFFICIENT
				UH	UNIT HEATER
				UL	UNDERWRITER'S LABORATORIES UNLESS NOTED OTHERWISE UTILITY
				UNEX	UNEXCAVATED UNLESS NOTED OTHERWISE
				UNFIN	UNFINISHED UNLESS NOTED OTHERWISE
				UNO	UNO
				UTIL	UTILITY
				VB	VINYL BASE
				VC	VINYL COMPOSITION TILE
				VNT	VENTILATION
				VERT	VERTICAL
				VEST	VESTIBULE
				VIF	VERIFY IN FIELD
				VNR	VENEER
				VOL	VOLUME
				VWC	VINYL WALL COVERING
				W	WEST
				W/	WITHOUT
				WC	WATER CLOSET
				WD	WOOD
				WG	WALL GUARD
				WH	WATER HEATER
				WI	WROUGHT IRON
				WSC	WAINSCOT
				WT	WEIGHT
				WWF	WELDED WIRE FABRIC
				WWW	WELDED WIRE MESH
				X	BY
				YD	YARD
				YR	YEAR
				ZN	ZINC

MATERIALS AT LARGE SCALES

	STRUCTURAL CONCRETE
	TERRAZZO
	CUT STONE
	CAST STONE
	BRICK, COMMON FACE
	BRICK, GLAZED
	CONCRETE MASONRY UNIT
	STRUCTURAL CLAY TILE
	STEEL
	ALUMINUM/ORNAMENTAL METAL
	CONTINUOUS WOOD FRAMING
	BLOCKING OR SHIM
	FINISH WOODWORK
	PLYWOOD
	GYPSUM BOARD OR SHEATHING
	RIGID INSULATION
	BATT INSULATION
	GLASS BLOCK
	ACOUSTICAL CEILING
	SPRAY-ON FIREPROOFING OR INSULATION

SYMBOLS LEGEND

	COLUMN GRID DESIGNATION
	PARTITION TAG
	FLOOR DRAIN
	ARCHITECTURAL WOODWORK
	NOTE TAGS
	WALL / DETAIL SECTION TAGS
	DETAIL DESIGNATION ENLARGED PLAN TAG
	EXTERIOR ELEVATION TAG
	INTERIOR ELEVATION TAG
	DOOR IDENTIFICATION TAG
	EQUIPMENT DESIGNATION
	TOILET ACCESSORY TAG
	NORTH ARROW

APPLICABLE CODES

ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING:

- GENERAL SERVICES ADMINISTRATION P-100, FACILITIES STANDARDS FOR THE PUBLIC BUILDING SERVICE 2021 OR MOST RECENT EDITION
- OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION AND GENERAL INDUSTRY; 29 CFR PARTS 1926 AND 1910
- GSA'S NCR SAFETY AND HEALTH SPECIFICATION 01546
- INTERNATIONAL BUILDING CODE(IBC), INTERNATIONAL FIRE CODE (IFC), AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) NATIONAL FIRE CODES AND STANDARDS
- 40 CFR 61 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS
- 40 CFR 763 ASBESTOS
- 49 CFR 107 HAZARDOUS MATERIALS PROGRAM PROCEDURES
- 49 CFR 172 HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS, HAZARDOUS MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE INFORMATION, AND TRAINING REQUIREMENTS

ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE IBC, IFC, AND THE NFPA CODES AND STANDARDS. GSA'S FIRE PROTECTION ENGINEERS ARE THE AUTHORITY HAVING JURISDICTION (AHJ) FOR ALL GSA OWNED FACILITIES. GSA NCR & NATIONAL OFFICE GUIDANCE & POLICIES SHALL BE FOLLOWED AS WELL. EGRESS ISSUES SHALL MEET NFPA 101 (LIFE SAFETY CODE)

COMPLIANCE WITH REGULATIONS: ALL WORK, INCLUDING CONTACT WITH AND HANDLING OF HAZARDOUS MATERIALS, THE DISTURBANCE OR DISMANTLING OF STRUCTURES CONTAINING HAZARDOUS MATERIALS, AND/OR THE TRANSPORT AND DISPOSAL OF HAZARDOUS MATERIALS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF 29 CFR 1910/1926, AND 40 CFR 761/260-271.

- ALL THERMAL SYSTEMS INSULATION (I.E., BOILER INSULATION, DUCT INSULATION, PIPE INSULATION), SURFACING MATERIALS (I.E., PLASTER AND SPRAYED-ON FIREPROOFING) AND MISCELLANEOUS MATERIALS (I.E., ASPHALT FLOORING, CEILING TILES, ADHESIVES AND MASTICS, DRYWALL, ROOFING, GASKETS AND CEMENT BOARD), INSTALLED NO LATER THAN 1980, MUST BE CONSIDERED ASBESTOS CONTAINING UNLESS PROVEN OTHERWISE IN ACCORDANCE WITH 29 CFR 1926.1101.
- ALL FINISHED/PAINTED SURFACES OF BUILDINGS CONSTRUCTOR PRIOR TO 1978 SHALL BE CONSIDERED FINISHED WITH LEAD BASED PAINT UNLESS PROVEN OTHERWISE. WORK INVOLVING THE DISTURBANCE, DISMANTLING OR DEMOLITION OF LEAD BASED PAINT SHALL COMPLY WITH 29 CFR 1926.62, AS WELL AS GSA SPECIFICATION 02090 (LEAD BASED PAINT ABATEMENT PROCEDURES). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY TEST AND CHARACTERIZE THE WASTE BY THE TOXICITY CHARACTERISTICS LEACHING PROCEDURES (TCLP) - LEAD.

WORK INVOLVING THE DISTURBANCE, DISMANTLING OR DEMOLITION OF ASBESTOS CONTAINING MATERIALS OR STRUCTURES CONTAINING ASBESTOS; AND/OR THE REMOVAL AND DISPOSAL OF ASBESTOS, SHALL ALSO COMPLY WITH THE REQUIREMENTS OF 40 CFR PART 61, SUBPARTS A AND M, AND 29 CFR 1915.1001 (WHERE APPLICABLE), AS WELL AS GSA SPECIFICATION 02085 (ASBESTOS ABATEMENT PROCEDURES).

PROJECT SCOPE

PARTIAL INTERIOR RENOVATION OF EXISTING INTERIOR CEILING, ARCHITECTURAL WORK INCLUDES SELECTIVE DEMOLITION WITH CONSTRUCTION OF A NEW DRYWALL CEILING AND LAY-IN CEILING TILES. FINISHES LIMITED TO PATCHING AND PAINTING OF EXISTING PLASTER CEILING. FINAL CONDITION IS WARM, LIT SHELL.

ELECTRICAL WORK INCLUDES THE INSTALLATION OF A LIGHTING SYSTEM, WIRING, AND CONTROLS. AS SHOWN.

MECHANICAL WORK INCLUDES THE INSTALLATION OF CEILING DIFFUSERS.

SCOPE DOES NOT INCLUDE MODIFICATIONS TO PLUMBING.

SCOPE DOES NOT INCLUDE MODIFICATIONS TO BUILDING EXTERIOR.

CONSULTANTS

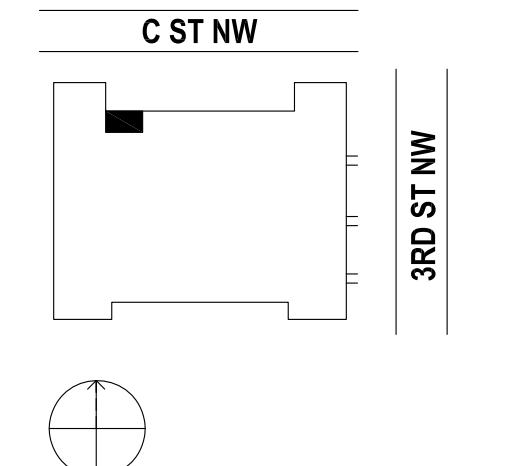
MEP
MEP DESIGNS, INC.
 8551 RIXLEW LN.
 SUITE 200
 MANASSAS, VA 20109

PROJECT

REPLACE CEILING LIGHT SYSTEM AT USDC CHAMBERS 4311

UNITED STATES COURTHOUSE
 333 CONSTITUTION AVE. NW
 WASHINGTON, DC 20001

KEYPLAN



100% FINAL DESIGN FOR CONSTRUCTION 6.1.22

GENERAL PROJECT NOTES

- REFER TO COMPLETE SET OF ISSUED CONTRACT DOCUMENTS FOR APPLICABLE NOTES, ABBREVIATIONS, AND SYMBOLS.
- DO NOT SCALE THE DRAWING. IF DIMENSIONS ARE IN QUESTION. OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING.
- DIMENSIONS SHOWN ON THE FLOOR PLANS FOR NEW CONSTRUCTION ARE TO THE FACE OF CONCRETE OR MASONRY WALLS, UNLESS OTHERWISE INDICATED. DIMENSIONS IN RENOVATED AREAS ARE FROM FINISH FACE OF EXISTING WALLS AND TO FINISH FACE OF NEW STUD WALLS, UNLESS OTHERWISE INDICATED.
- FIELD MEASURE AND CONFIRM DIMENSIONS FOR OWNER PROVIDED EQUIPMENT AND FURNISHINGS. COORDINATE WITH THE OWNER ON DELIVERY AND INSTALLATION OF OF/CI EQUIPMENT. MINIMUM REQUIRED OPENINGS AND ACCESSIBLE ROUTES TO THE INSTALLATION AREA SHALL BE COORDINATED WITH THE SUPPLIER.
- FINISH FLOOR ELEVATIONS ARE TO TOP OF CONCRETE SLAB UNLESS OTHERWISE NOTED.
- COORDINATE EXACT SIZE AND PLACEMENT OF EQUIPMENT BASE AND HOUSEKEEPING PADS WITH EQUIPMENT TO BE PROVIDED.
- WHERE NEW GYPSUM BOARD PARTITIONS ARE A CONTINUATION OF AN EXISTING PARTITION OR COLUMN ENCASEMENT, THE FACE OF THE NEW GYPSUM BOARD SHALL BE ALIGNED WITH THE FACE OF THE EXISTING SURFACE. WHERE A ONE HOUR PARTITION IS SHOWN AS A CONTINUATION OF A TWO-HOUR PARTITION OR COLUMN ENCASEMENT, THE FACE OF THE GYPSUM BOARD SHALL BE OFFSET AS REQUIRED TO PROVIDE FACE ALIGNMENT OF GYPSUM BOARD ON BOTH SIDES.
- LEVEL FLOORS SO THAT THEY DO NOT EXCEED A 1/4" VARIANCE IN A 10'-0" RADIUS.
- PIPING LOCATED ABOVE GRADE AND INSIDE THE BUILDING SHALL BE CONCEALED IN FURRED SPACES WITH THE EXCEPTION OF PIPING IN STAIRWAYS, EQUIPMENT ROOMS AND POWERHOUSE. COORDINATE WITH OTHER TRADES TO PROVIDE FURRING FOR PIPING INSTALLED IN FINISHED AREAS.
- PARTITION TYPES AND FIRE RESISTIVE RATINGS INDICATED ON A WALL ARE TO BE CONTINUOUS FOR THE LENGTH AND HEIGHT OF A PARTITION.
- APPROVE FLOOR OUTLET LOCATIONS WITH ARCHITECT AND BUILDING MANAGEMENT PRIOR TO CORE DRILLING.
- OPENINGS IN A RATED WALL, FLOOR, CEILING AND ROOF ASSEMBLIES SHALL BE SEALED WITH A FIRE RESISTANT JOINT SYSTEMS OR PROTECTED WITH A FIRE RATED CHASE.
- WHERE MATERIALS ARE APPLIED TO, OR ARE IN DIRECT CONTACT WITH WORK INSTALLED BY ANOTHER SUBCONTRACTOR, COMMENCEMENT OF WORK IMPLIES ACCEPTANCE OF THE SUBSTRATE AS SUITABLE FOR THE APPLICATION INTENDED.
- ISOLATE DISSIMILAR METALS TO PREVENT GALVANIC CORROSION.
- COORDINATE LOCATION OF SEALANT AND COMPATIBILITY OF SEALANTS WITH ADJACENT WORK, INCLUDING MATERIALS AND OTHER CONTIGUOUS SEALANTS.
- MAINTAIN THE FIRE RATING OF CONSTRUCTION AROUND CABINETS, PANELS, AND BOXES RECESSED IN FIRE RATED WALL, FLOOR, AND CEILING ASSEMBLIES.

ISSUE CHART

100% FINAL FOR CONSTRUCTION	6.1.22
DESIGN INTENT DRAWINGS	6.4.21
MARK	ISSUE
	DATE

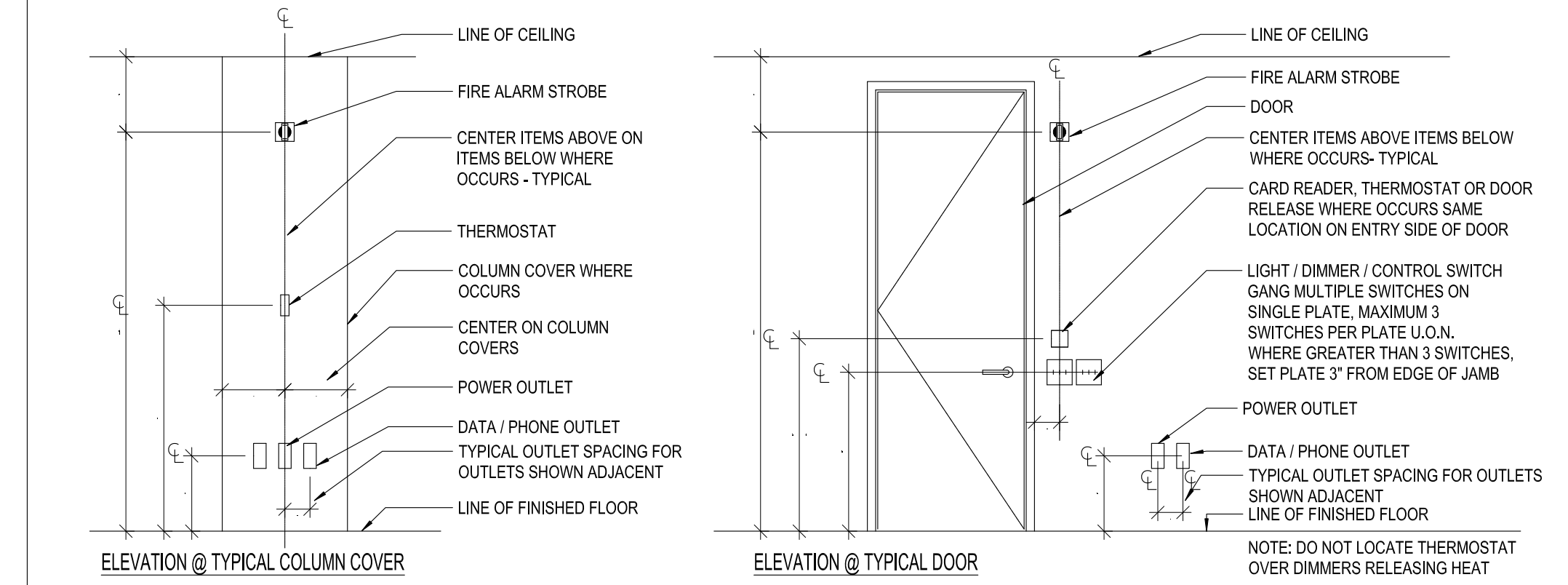
Drawn
 Checked
 Approved

TITLE SHEET INDEX, SYMBOLS & ABBREVIATIONS

SHEET NUMBER

G0.1

MOUNTING HEIGHTS DIAGRAMS PER ABAAS GUIDELINES



THE DIAGRAMS ARE GUIDELINES FOR THE PROPER MOUNTING HEIGHTS OF EQUIPMENT AND PLUMBING FIXTURES. THE ITEMS SHOWN ARE LOCATED FOR ACCESSIBILITY, SAFETY AND CONFORMANCE WITH APPLICABLE CODES AND STANDARDS INCLUDING ABAAS CODE REQUIREMENTS. IN NO CASE SHALL THIS INFORMATION SUPERSEDE REQUIREMENTS OF APPLICABLE CODES, STANDARDS OR AUTHORITIES, IF A CONFLICT IS FOUND.

- IF FIELD CONDITIONS CREATE CONFLICTS WITH THE REQUIRED MOUNTING HEIGHTS, NOTIFY ARCHITECT PRIOR TO INSTALLATION.
- ALL OUTLETS, CABINETS, SWITCHES, ALARMS AND SIGNALS NOT DIMENSIONED ON DRAWINGS SHALL BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.
- ALL ITEMS SHALL ALIGN HORIZONTALLY AND VERTICALLY IF MORE THAN ONE ITEM IS LOCATED ON A WALL, U.N.O. FIRE ALARM DEVICES TO BE LOCATED OUT OF ALIGNMENT WITH OTHER WALL DEVICES SHALL BE REVIEWED WITH ARCHITECT PRIOR TO INSTALLATION.
- THE DIAGRAMS OF THIS SHEET IS TO ESTABLISH GUIDELINES FOR THE LOCATION OF DEVICES GENERALLY THROUGHOUT THE PROJECT. THESE DIMENSIONS SHALL BE TYPICAL UNLESS NOTED OTHERWISE ON DRAWINGS FOR SPECIFIC LOCATIONS.
- CONFIRM LOCATION OF ANY DEVICES THAT ARE SCHEDULED TO BE INSTALLED IN ANY FINISH OTHER THAN GWB WITH ARCHITECT PRIOR TO INSTALLATION.

NOTE: DO NOT LOCATE THERMOSTAT OVER DIMMERS RELEASING HEAT

GENERAL NOTES

- THE CONTRACT DOCUMENTS DEFINE THE DESIGN INTENT AND SCOPE OF THE WORK AND SHALL BE CONSIDERED AS A WHOLE IN DEFINING THE PROJECT. THOUGH PORTIONS OF THE WORK HAVE BEEN DIVIDED INTO DIFFERENT TRADES AS IS CUSTOMARY, REQUIREMENTS FOR EACH TRADE MAY HAVE INFORMATION PERTINENT TO THAT TRADE IN OTHER PORTIONS OF THE CONTRACT DOCUMENTS.
- THESE NOTES APPLY TO THE CONTRACT DOCUMENTS, REFER TO ARCHITECTURAL AND OTHER CONTRACT DOCUMENTS FOR ADDITIONAL GENERAL NOTES, SCOPE, ABBREVIATIONS AND SYMBOLS.
- STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS ARE OF EQUAL IMPORTANCE WITH ARCHITECTURAL DRAWINGS IN DEFINING THE WORK OF THE CONTRACT DOCUMENTS. REVIEW THE ARCHITECTURAL DRAWINGS BEFORE THE INSTALLATION OF STRUCTURAL, MECHANICAL AND ELECTRICAL WORK. IF A DISCREPANCY BETWEEN THE ARCHITECTURAL DRAWINGS AND THE ENGINEERING DRAWINGS IS FOUND, NOTIFY ARCHITECT REQUESTING CLARIFICATION PRIOR TO INSTALLATION OF THAT WORK. WORK INSTALLED IN CONFLICT WITH THE ARCHITECTURAL DRAWINGS SHALL BE CORRECTED BY CONTRACTOR AT HIS EXPENSE AND AT NO ADDITIONAL COST TO OWNER OR ARCHITECT.
- IN CASE OF CONFLICT BETWEEN ARCHITECT'S AND ENGINEER'S DRAWINGS IN LOCATION OF MATERIALS OR EQUIPMENT, THE ARCHITECTURAL DRAWINGS SHALL GOVERN.
- DRAWINGS OF BASE BUILDING CONDITIONS ARE BASED ON EXISTING BUILDING DRAWINGS AND ON LIMITED FIELD OBSERVATION BY ARCHITECT. ACTUAL CONDITIONS MAY DIFFER FROM THOSE SHOWN. IF DISCREPANCIES ARE FOUND BETWEEN THE DOCUMENTS AND ACTUAL CONDITIONS AT THE SITE, NOTIFY ARCHITECT IMMEDIATELY.
- IF DOCUMENTS ARE AT VARIANCE WITH ONE ANOTHER ON A PARTICULAR ITEM OR ITEMS, THE BETTER QUALITY OR MORE EXPENSIVE OF THE CONDITIONS SHALL GOVERN. ITEMS OR EQUIPMENT SPECIFIED UNDER ONE TRADE SHALL BE BINDING AS IF SPECIFIED UNDER ALL APPLICABLE TRADES.
- PROVIDE MEANS AND METHODS TO PERFORM AND PROVIDE THE WORK INCLUDING HOISTING, CARTING, ELEVATOR SERVICE, STANDARD AND OVERTIME SERVICES BY BUILDING MANAGEMENT AND OVERTIME CHARGES AND EXPENSES WHEN REQUIRED IN ORDER TO MEET THE CONSTRUCTION SCHEDULE.
- FILE, OBTAIN, AND PAY FEES FOR CONTROLLED INSPECTIONS AND FINAL WRITE-OFFS FOR PROJECT COMPLETION, INCLUDING INSPECTION COSTS NECESSARY TO OBTAIN CERTIFICATE OF OCCUPANCY, PROVIDE COPIES OF TRANSACTIONS TO ARCHITECT AND BUILDING MANAGEMENT.
- JURISDICTION SHALL CONFORM TO LOCAL BUILDING CODES AND ORDINANCES AND OTHER AGENCIES HAVING JURISDICTION. ADHERE TO OSHA RULES AND REGULATIONS.
- MAINTAIN FOR ENTIRE LENGTH OF THE WORK EXITS, EXIT LIGHTING, FIRE PROTECTIVE DEVICES AND ALARMS TO CONFORM TO LOCAL BUILDING CODE REQUIREMENTS.
- BASE BUILDING CORE WALLS, DOORS AND HARDWARE ARE NOT IN CONTRACT AND ARE EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
- PROVIDE BRACING AND PROTECT EXISTING WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTION, AND/OR MISALIGNMENT IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS, AND GOOD PRACTICE.
- PERFORM WORK SO AS TO NOT UNDERMINE THE STRUCTURAL INTEGRITY OF THE BUILDING.
- PROVIDE NEW WORK CONSISTENT WITH EXISTING CONSTRUCTION FOR CODE COMPLIANCE. MAINTAIN BUILDING CONSTRUCTION TYPE AS NOTED ON CODE ANALYSIS. WHERE BUILDING IS TYPE I OR TYPE II CONSTRUCTION TYPE PROVIDE MATERIALS MEETING CODE REQUIREMENTS FOR ELEMENTS OF NON-COMBUSTIBLE MATERIALS.
- WHERE PENETRATIONS OCCUR AT RATED ENCLOSURES, MAINTAIN CONTINUITY OF THE RATING.
- REFER TO FIRE RATING SCHEDULE ON BUILDING CODE ANALYSIS FOR REQUIRED FIRE RATING OF VARIOUS STRUCTURAL ELEMENTS AND REQUIRED UL DESIGN NUMBER. PROVIDE RATED ASSEMBLIES THAT COMPLY WITH UNDERWRITERS LABORATORIES (UL) TESTED ASSEMBLIES AND IN THE ABSENCE OF A TESTED ASSEMBLY, PROVIDE CERTIFICATE OF EQUIVALENCY FROM UL OR ICC.
- EXCEPT WHEN COMPLETELY ENCLOSED WITHIN FIRE RATED CONSTRUCTION, SEAL OFF OPENINGS IN FLOOR SLABS, INCLUDING SPACES BETWEEN CONDUIITS, PIPING, AND OTHER SYSTEMS WITH APPROVED FIRE RATED PENETRATION SEALANT SYSTEMS TO MAINTAIN FIRE RATING CONTINUITY OF THE FLOOR CONSTRUCTION.
- PROVIDE FIRE RESISTIVE (LABELED) DOORS WITH APPROPRIATE UL OR OTHER RATING AGENCY LABEL ACCEPTABLE TO GOVERNMENT AUTHORITIES AFFIXED TO BOTH DOOR AND FRAME AT FIRE RATED PARTITIONS.
- FIRE RATING INDICATIONS ON A WALL MEAN THE ENTIRE LENGTH AND HEIGHT OF WALL IS TO BE FIRE RATED.
- FIRESTOP OPENINGS IN CONCRETE SLAB TO MEET FIRE RESISTANCE RATING OF FLOOR CONSTRUCTION.
- INSTALL PIPING, DUCTS, AND OTHER SYSTEMS THAT PENETRATE FLOOR SLABS AND FIRE RATED PARTITIONS IN A MANNER THAT WILL PRESERVE THE FIRE RESISTIVE AND STRUCTURAL INTEGRITY OF THE CONSTRUCTION.
- MAINTAIN FIRE RATED RATING AROUND SHAFTS TO MATCH EXISTING ADJACENT CONSTRUCTION.
- PROVIDE INTERIOR FINISH MATERIALS PER CODE REQUIREMENTS FOR FLAME SPREAD / SMOKE DEVELOPED PER LIMITS NOTED ON CODE ANALYSIS BASED ON ASTM E-94 TEST METHOD. COMPLETELY COVER FOAMED PLASTIC INSULATION (URETHANE, POLYSTYRENE, POLYISOCYANURATE OR OTHER TYPE) WITH A MINIMUM 1/2 INCH THICKNESS OF GYPSUM WALLBOARD. PROVIDE CEILING AND INSULATION ABOVE CEILING THAT ARE NON-COMBUSTIBLE.
- BUILDING IS PROTECTED WITH AN AUTOMATIC SPRINKLER SYSTEM. PROVIDE NEW SPRINKLER LAYOUTS TO MEET BUILDING CODE REQUIREMENTS FOR A 100% SPRINKLERED BUILDING. EXTEND AND MODIFY EXISTING SPRINKLER SYSTEM TO MAINTAIN COMPLETE COVERAGE. PROVIDE ADDITIONAL SPRINKLER HEADS TO MEET PERFORMANCE AND AESTHETIC REQUIREMENTS FOR SPRINKLER HEAD LOCATION. INSTALL SPRINKLER HEAD PER FINAL LAYOUTS ON APPROVED SHOP DRAWINGS MEETING JURISDICTIONAL REQUIREMENTS AND LAYOUT REQUIREMENTS.
- PROVIDE WOOD MATERIALS TO MEET APPLICABLE CODES. BLOCKING SHALL BE FIRE RETARDANT TREATED WOOD IN ACCORDANCE WITH LOCAL BUILDING CODES.
- FRAME DUCTWORK AT PARTITION LOCATIONS AND BRACE STUDS AS REQUIRED FOR RIGID CONSTRUCTION. PROVIDE TRANSFER DUCTS IN SLAB TO SLAB PARTITION AS REQUIRED BY MECHANICAL SYSTEMS. NOTIFY ARCHITECT IF TRANSFER DUCT IS IN CONFLICT WITH AN ARCHITECTURAL CONDITION.
- PATCH SURFACES WHERE SURFACES ARE DAMAGED IN THE PERFORMANCE OF WORK IN A MANNER SUITABLE TO RECEIVE SCHEDULED FINISHES AND TO MATCH ADJACENT NON-DAMAGED SURFACES, AND TO NOT BE APPARENT FROM WITHIN 3' OF SURFACE.
- SURVEY AND VERIFY THAT WALL BASE DOES NOT VARY BY PLUS OR MINUS 3/4". TOP OF WALL BASE DATUM AND OTHER DATUMS ARE TO BE LEVEL FROM SPACE TO SPACE AND DETERMINED FROM A SINGLE CONTROL LINE THROUGHOUT THE ENTIRE PROJECT.
- COORDINATE EQUIPMENT BASE AND HOUSEKEEPING PADS WITH MECHANICAL, PLUMBING AND ELECTRICAL WORK. INSTALL PADS BENEATH THE FULL PROJECTED AREA OF EQUIPMENT.
- COORDINATE MECHANICAL AND ELECTRICAL FLOOR, ROOF AND WALL SLEEVES AND MECHANICAL SHAFTS WITH MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, STRUCTURAL AND ARCHITECTURAL DRAWINGS.
- ISOLATE DISSIMILAR METALS FROM EACH OTHER TO AVOID MOLECULAR BREAKDOWN.
- PROVIDE FIRE DAMPERS MATCHING FIRE RATING FOR ADJACENT CONSTRUCTION THAT ARE FIRE DEPARTMENT LISTED AND APPROVED AT LOCATIONS SHOWN AND WHEREVER AIR DUCTS PENETRATE FIRE-RATED WALLS OR CEILING.
- PROVIDE STIFFENERS, BRACINGS, BACKING PLATES AND SUPPORTING BRACKETS REQUIRED FOR THE PROPER INSTALLATION OF CASEWORK, AS WELL AS WALL-MOUNTED OR SUSPENDED MECHANICAL, ELECTRICAL AND/OR MISCELLANEOUS EQUIPMENT WHETHER SHOWN OR NOTED.
- WHETHER OR NOT EXPLICITLY INDICATED, PROVIDE SAFETY GLAZING WHEN GLAZING IS WITHIN 18" OF FLOOR OR WITHIN 3'-0" HORIZONTAL DISTANCE FROM ANY DOOR. SUPPLY A CERTIFICATE TO ACCOMPANY GLAZING PRODUCTS STATING THAT PRODUCTS CONFORM TO APPLICABLE CONSUMER PRODUCT SAFETY STANDARDS. COORDINATE LOCATION OF PERMANENT STAMPS ON GLASS WITH ARCHITECT.

- SEAL, CAULK OR WEATHER-STRIP EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, BETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF, BETWEEN WALL PANELS, AT PENETRATION OF UTILITIES THROUGH THE ENVELOPE, TO PREVENT AIR LEAKAGE/INFILTRATION.
- PROVIDE SEALANT JOINTS THAT MAINTAIN CONTACT WITH ADJOINING PARTS WITHIN ALLOWABLE DIMENSIONAL CHANGES IN THE JOINT SIZE. PROVIDE SEALANT JOINTS THAT MAINTAIN DURABILITY AND INTEGRITY UNDER ANY AND ALL CONDITIONS.
- INSTALL SEALANTS WITH APPROPRIATE BACK-UP JOINT FILLERS. TOOL JOINTS PER SEALANT MANUFACTURER'S RECOMMENDATIONS.
- DETAIL DRAWINGS AS SHOWN INDICATE DESIGN INTENT AND ARE SCHEMATIC. COORDINATE CONNECTIONS, ANCHORS, AND SECUREMENT WITH STRUCTURAL FRAMING AND OTHER BUILDING COMPONENTS TO PROVIDE A COMPLETE, RIGID ASSEMBLY.
- PROVIDE INTERIOR PARTITION CONSTRUCTION THAT WITHSTANDS MINIMUM INWARD AND OUTWARD ACTING PRESSURES OF 5 PSF AND 10 PSF AT ELEVATOR SHAFT WALL.
- APPLY, INSTALL, CONNECT, ERECT, CLEAN, AND CONDITION MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS. IN CASE OF CONFLICT BETWEEN MANUFACTURER'S INSTRUCTIONS AND CONTRACT DOCUMENTS, OBTAIN WRITTEN CLARIFICATION FROM ARCHITECT BEFORE PROCEEDING
- DO NOT SCALE DRAWINGS. DRAWINGS ARE NOT NECESSARILY TO SCALE. VERIFY CONDITIONS AND DIMENSIONS AT JOB SITE PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES ARE FOUND, NOTIFY ARCHITECT FOR CLARIFICATION BEFORE COMMENCING WORK. EXPLICIT DIMENSIONS TAKE PRECEDENCE OVER SCALE.
- "TYPICAL" OR "TYP" MEANS THAT CONDITION IS REPRESENTATIVE FOR SIMILAR CONDITIONS THROUGHOUT, UNLESS OTHERWISE NOTED. DETAILS ARE USUALLY KEYED AND NOTED "TYP" WHERE THEY FIRST OCCUR.
- "SIMILAR" OR "SIM" MEANS COMPARABLE CHARACTERISTICS FOR CONDITIONS NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLANS AND ELEVATIONS.
- "ALIGN" MEANS TO ACCURATELY LOCATE FINISH FACES IN THE SAME PLANE.
- BASE BUILDING COLUMN CENTER LINES ARE SHOWN TO AID IN DIMENSIONING. VERIFY EXACT LOCATIONS IN FIELD.
- DIMENSIONS AND NOTES FOR A GIVEN CONDITION ARE TYPICAL FOR SIMILAR CONDITIONS, UNLESS OTHERWISE NOTED.
- MAINTAIN DIMENSIONS MARKED "CLEAR". DIMENSIONS MARKED "CLEAR" ARE TO BE WITHIN 1/16" ALONG FULL HEIGHT AND FULL WIDTH OF WALLS.
- DIMENSIONS NOTED AS "HOLD" ARE REQUIRED CLEARANCES THAT MUST BE ACCURATELY MAINTAINED.
- REFER TO ENLARGED DRAWINGS AND ELEVATIONS FOR ADDITIONAL INFORMATION CONCERNING DIMENSIONS.
- VERIFY DIMENSIONS SHOWN AS "VIF" IN THE FIELD. VERIFY DIMENSIONS NOTED AS CLEAR, CRITICAL, HOLD AND MINIMUM DURING LAYOUT OF WORK. COORDINATE WITH OTHER WORK, FURNITURE, FILES AND BUILT IN ITEMS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT OF ANY DISCREPANCY PRIOR TO PROCEEDING.
- FIELD VERIFY DIMENSIONS AT MILLWORK. WORK NOTED "BY OTHERS" OR "NIC" WILL BE PROVIDED BY TENANT OR UNDER SEPARATE CONTRACT. COORDINATE AND SCHEDULE THIS WORK WITH TENANT AND TENANT'S SEPARATE CONTRACTORS TO ASSURE ORDERLY SEQUENCE OF INSTALLATION.
- DRAWINGS AT A LARGER SCALE TAKE PRECEDENCE OVER DRAWINGS AT SMALLER SCALE. WHERE INCONSISTENCIES ARE FOUND IN THE DRAWINGS, REQUEST CLARIFICATION FROM ARCHITECT PRIOR TO PROCEEDING.
- DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE SHOWN. WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED, NOTIFY ARCHITECT OF REQUIRED CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
- FINISH FLOOR ELEVATIONS ARE TO TOP OF FINISH, UNLESS OTHERWISE NOTED.
- SURVEY EXISTING WINDOW TREATMENTS FOR ANY DAMAGE PRIOR TO START OF WORK. NOTIFY ARCHITECT OF SURVEY BY CLEARLY INDICATING ON A PLAN PRE-EXISTING DAMAGE. PROTECT FROM DAMAGE WINDOW TREATMENTS DURING THE WORK.
- PROVIDE REQUIREMENT TO THE EFFECT CUTTING, CORING AND DEEP DRILLING OF BUILDING STRUCTURE IS TO BE ASSESSED AND APPROVED IN WRITING BY A STRUCTURAL PE LICENSED IN THE JURISDICTION OF THE PROJECT AT THE COST OF GC OR OWNER AS APPROVED BY THE OWNER.
- REQUIRED TO RECEIVE CLARIFICATION FROM THE ARCHITECT WHERE CONFLICTS ARE FOUND TO OCCUR BETWEEN DISCIPLINES OR SYSTEMS IN THE FIELD. CONFIRM THAT FA STROBES ARE STILL LOCATED IN ACCORDANCE WITH THE AHJ IF PROPOSED TO BE INSTALLED AT MODIFIED LOCATION FROM THAT INDICATED ON THE PERMIT SET.
- THE EFFECT THAT CUTTING, CORING, AND DEEP DRILLING OF BUILDING STRUCTURE TO BE ASSESSED AND APPROVED IN WRITING BY STRUCTURAL PE LICENSED IN THE JURISDICTION OF THE PROJECT AT THE COST OF GC OR OWNER AS APPROVED BY OWNER.
- REQUIRED TO RECEIVE CLARIFICATION FROM THE ARCHITECT WHERE CONFLICTS ARE FOUND TO OCCUR BETWEEN DISCIPLINES OR SYSTEMS IN THE FIELD. CONFIRM FIRE ALARM STROBES ARE STILL LOCATED IN ACCORDANCE WITH THE AHJ IF PROPOSED TO BE INSTALLED AT MODIFIED LOCATION FROM THAT INDICATED ON THE DOCUMENT.

DEMOLITION GENERAL NOTES

- FURNISH LABOR AND MATERIALS AS REQUIRED TO COMPLETE DEMOLITION AND REMOVAL OF ITEMS AS SHOWN OR NOTED ON DRAWINGS.
- EXECUTE WORK WITHIN BUILDING REGULATIONS FOR DEMOLITION AND REMOVAL OF DEBRIS. COORDINATE DEMOLITION WORK AND RUBBISH REMOVAL WITH BUILDING MANAGEMENT.
- MAKE NECESSARY ARRANGEMENTS WITH BUILDING MANAGEMENT FOR USE OF ELEVATORS. DO NOT CARRY MATERIALS UNDER OR ON TOP OF ELEVATORS.
- ERECT NECESSARY TEMPORARY PARTITIONS TO PROTECT AREAS NOTED AS EXISTING TO REMAIN. COORDINATE WITH OWNER AND ARCHITECT TO ESTABLISH LOCATION AND TYPE OF TEMPORARY PROTECTION REQUIRED.
- PROTECT THE PROPERTY, INCLUDING BUT NOT LIMITED TO FLOORS, CEILING TILES, GYPSUM BOARD SOFFITS, PUBLIC TOILETS, ELEVATORS, DOORS, FRAMES AND OTHER PROPERTY THROUGHOUT THE WORK.
- PROVIDE TEMPORARY LIGHTING AS REQUIRED TO PERFORM THE WORK AND TO MEET CODE REQUIREMENTS FOR EGRESS.
- REMOVE ALL MATERIALS, FIXTURES AND EQUIPMENT AS PART OF THE DEMOLITION WORK.
- VERIFY WEIGHT AND STRUCTURAL LIMITATIONS, CLEARANCES AND MANEUVERING ACCESS SPACE AS REQUIRED FOR REMOVAL OF LARGE EQUIPMENT/FURNISHINGS FROM BUILDING PREMISES. BREAKDOWN ITEMS FOR REMOVAL TO MEET BUILDING RESTRICTIONS AND SITE CONDITIONS.
- COORDINATE DEMOLITION WORK WITH OTHER WORK. REMOVE EXISTING CONSTRUCTION AS REQUIRED TO PROVIDE FINAL FINISHED PRODUCT INTENDED IN THIS CONTRACT AND TO COMPLETE NEW WORK. DRAWINGS DO NOT NECESSARILY SHOW COMPLETE DEMOLITION WORK REQUIRED, BUT RATHER SHOWN INTENT OF DEMOLITION AND NEW CONSTRUCTION. DEMOLISH TO A POINT TO PROVIDE SUITABLE TRANSITION AND BONDING OF EXISTING WORK TO NEW WORK.
- AREAS OF DEMOLITION SHALL BE LEFT BROOM CLEAN DAILY.
- IMMEDIATELY REPAIR ANY DAMAGES CAUSED TO ADJACENT FACILITIES BY DEMOLITION OPERATIONS.
- REPAIR DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED AT NO COST TO OWNER OR ARCHITECT.

- COORDINATE DEMOLITION AND REMOVALS WITH BUILDING MANAGEMENT TO NOT DISRUPT SERVICES TO BUILDING OCCUPANTS OR CAUSE EXCESSIVE NOISE. SHUTDOWNS OR TEMPORARY SERVICE CURTAILMENT SHALL REQUIRE WRITTEN AUTHORIZATION BY BUILDING MANAGER. ABIDE BY STANDARD RULES AND REGULATIONS SET FORTH BY BUILDING MANAGEMENT FOR SUCH OPERATIONS IN THE BUILDING.
- PERFORM CUTTING, CHASING, DRIVING AND OTHER NOISY DEMOLITION OF WALLS, SLABS, AND OTHER CONSTRUCTION. REQUIRING USE OF JACKHAMMERS OR OTHER HEAVY TOOLS AFTER NORMAL WORKING HOURS. WORK SHALL BE SCHEDULED WITH BUILDING MANAGEMENT.
- SALVAGE ITEMS NOTED FOR REUSE. STORE AND PROTECT SALVAGED ITEMS ON SITE. TAKE PRECAUTIONS TO PRESERVE AND MAINTAIN EXISTING FINISH, OPERATIONAL CHARACTERISTICS AND APPEARANCE OF ITEMS. REFURBISH SALVAGED ITEMS TO MATCH NEW ITEMS AND TO ENSURE ITEMS ARE IN GOOD WORKING ORDER PRIOR TO INSTALLATION. WHERE ITEMS CANNOT BE REFURBISHED, NOTIFY ARCHITECT PRIOR TO PROCEEDING WITH THIS WORK.
- COORDINATE WITH BUILDING MANAGEMENT FOR STORAGE LOCATION FOR SALVAGED ITEMS FOR REUSE OR FOR TURN-OVER TO BUILDING OWNER PRIOR TO DEMOLITION.
- PROVIDE FILTERING OF RETURN AIR DURING WORK PER BUILDING REGULATIONS FOR DEMOLITION AND CONSTRUCTION. MAINTAIN AND CHANGE FILTER MEDIA AS NEEDED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- REFER TO ENGINEERING DRAWINGS FOR ADDITIONAL DEMOLITION WORK.
- INSPECT, TEST AND DISCONNECT UTILITY SERVICES AT MAIN SOURCE OR MAIN BRANCH WITHOUT DISRUPTING UTILITY SERVICES FOR THE BUILDING. SECURELY CAP AND/OR VALVE-OFF UTILITY SERVICE BEHIND FINAL FINISHED SURFACES OF INTENDED CONSTRUCTION OR, ONLY WHEN NOTED, AT FINISHED FACE PRIOR TO DEMOLITION OPERATIONS. INDICATE PERMANENTLY ABANDONED UTILITIES ON RECORD DRAWING TO BE SUBMITTED TO BUILDING MANAGER.
- DEMOLITION AND REMOVAL OPERATIONS SHALL NOT UNDERMINE THE STRUCTURAL INTEGRITY OF THE BUILDING.
- COORDINATE WITH OWNER FOR TURN-OVER OF AREA FOR DEMOLITION TO VERIFY THAT OWNER HAS REMOVED ITEMS THAT WERE SCHEDULED TO BE REMOVED BY THE OWNER.
- WHERE ITEMS REMAIN IN DEMOLITION AREAS THAT APPEAR TO BE WORKING AND SUITABLE FOR FUTURE USE, NOTIFY OWNER AND ARCHITECT TO VERIFY DISPOSITION PRIOR TO REMOVAL OR DEMOLITION.
- DO NOT MIX RUBBISH WITH THAT OF THE BUILDING OCCUPANTS', AND CART REMOVALS AND DEBRIS AWAY FROM THE BUILDING PREMISES AND DISPOSED OF LEGALLY.
- IMMEDIATELY CLEAN, REMOVE, AND LEGALLY DISPOSE OF DEBRIS AFTER A MAJOR DEMOLITION OPERATION BEFORE COMMENCEMENT OF THE NEXT NORMAL WORKING DAY ON FLOORS WHERE THERE ARE OCCUPANTS. CLEAR REMOVALS, RUBBISH AND DEBRIS FROM PREMISES PRIOR TO THE COMMENCEMENT OF NORMAL WORKING HOURS. VACUUM CLEAN CARPETING SOILED BY HIS OPERATIONS ON FLOORS WHERE THERE ARE OCCUPANTS.
- REMOVE FROM SITE CONTAMINATED, VERMIN- INFESTED OR DANGEROUS MATERIALS ENCOUNTERED AND LEGALLY DISPOSE OF BY SAFE MEANS.
- KEEP PREMISES CLEAN AND DO NOT LET DEBRIS, RUBBISH, EXCESS CONSTRUCTION MATERIAL ACCUMULATE NOR OBSTRUCT EXITS AND EXIT PASSAGEWAYS.
- CAREFULLY REMOVE AND STORE FOR TENANT'S REUSE EXISTING WHOLE CEILING TILES. DISPOSE OF PARTIAL TILES
- REMOVE EXISTING FIRE EXTINGUISHERS AND CABINETS FROM WALLS SCHEDULED TO BE DEMOLISHED. SALVAGE AND STORE FOR RELOCATION. VERIFY NEW LOCATIONS WITH ARCHITECT.
- REMOVE FLOOR PROTRUSIONS, INCLUDING ABANDONED OUTLETS & CONDUITS.
- PROTECT EXISTING WINDOW SYSTEM AND GLAZING FROM DAMAGE DURING DEMOLITION.
- PROTECT EXISTING WINDOW SOLAR SHADE (HORIZONTAL MINI BLINDS) FROM DAMAGE DURING DEMOLITION.
- COORDINATE WITH TELEPHONE COMPANY FOR THEIR REMOVALS.
- REMOVE EXISTING FLOOR COVERING WHERE NEW FLOOR COVERING IS INDICATED ON FINISH PLAN. REMOVE PADDING BELOW CARPET SCHEDULED AS NEW. PREPARE SLAB FOR NEW FLOORING.
- STRIP EXISTING FLOORING AS INDICATED. CLEAN WAX FROM EXISTING WALL SURFACES AND REMOVE SURFACE STAINING. CLEAN EXISTING TRANSITION STRIPS AND POLISH FLOORS TO BRIGHT FINISH.
- WHERE BASE OR WALLCOVERING IS REMOVED FROM EXISTING GYPSUM WALLBOARD CONSTRUCTION, PATCH SMOOTH TO MATCH ADJACENT NON-DAMAGED CONSTRUCTION SO AS TO NOT TELEGRAPH THROUGH NEW BASE OR WALLCOVERING WHERE SCHEDULED. PRIME AND PAINT SURFACES AND PREP FOR NEW FINISHES SO THAT SUBSTRATE SURFACES BELOW NEW WALL COVERING MATCH IN VISCOSITY AND ACCEPT ADHESIVE IN A SIMILAR MANNER WITHOUT TELEGRAPHING THROUGH NEW WALLCOVERING INSTALLATION.

CONSTRUCTION GENERAL NOTES

- DOOR NUMBERS ARE THE SAME AS THE ROOM NUMBER AT ROOMS WITH ONE DOOR. ROOMS WITH MULTIPLE DOORS HAVE A DESIGNATION AT THE DOOR UNLESS OTHERWISE NOTED.
- LAYOUT PARTITIONS FOR ARCHITECT TO REVIEW FOR DESIGN INTENT. DO NOT PROCEED WITH INSTALLATION OF STUDS WITHOUT THIS REVIEW APPROVAL. COORDINATE AND VERIFY CONDITIONS TO ENSURE PROPER FIT. REVIEW FOR DESIGN INTENT DOES NOT RELEASE CONTRACTOR FROM RESPONSIBILITY TO MAINTAIN CRITICAL DIMENSIONS AND CLEARANCES.
- WHERE INTERIOR PARTITIONS ARE TO ALIGN WITH BASE BUILDING PARTITIONS OR COLUMNS, CONSTRUCT ALIGNMENT SO AS NOT TO SHOW A TRANSITION.
- WHERE A WALL IS SHOWN IN ALIGNMENT WITH MORE THAN ONE COLUMN OR CORE ELEMENT WHICH ARE NOT ALIGNED, LAYOUT PARTITIONS ALONG THE ENTIRE LENGTH ALIGNING WITH THE FURTHEST PROJECTION. FURR OUT OTHER SURFACES FOR ALIGNMENT.
- PRIOR TO FINAL FINISHING, PATCH AND REPAIR PARTITIONS TO A SMOOTH CONDITION.
- PATCH, REPAIR & LEVEL BASE BUILDING CONCRETE SLAB TO A SMOOTH CONDITION AND PREPARE TO RECEIVE NEW FINISH.
- PARTITIONS ARE DIMENSIONED TO FACE OF FINISH, UNLESS OTHERWISE NOTED.
- PARTITIONS DIMENSIONED TO CENTERLINE OF STUD ARE SO NOTED.
- LOCATE PARTITIONS PERPENDICULAR TO BUILDING PERIMETER CENTERED ON CENTER LINE OF COLUMN OR WINDOW MULLION, UNLESS OTHERWISE NOTED.
- LOCATE DOORS 4" FROM FACE OF INTERSECTING PARTITION TO EDGE OF DOOR WHEN DOOR IS CLOSED, UNLESS OTHERWISE NOTED.
- PROVIDE ADDITIONAL STUDS AT PARTITIONS OR BRIDGING BETWEEN STUDS FOR SUPPORT OF JUNCTION BOXES TO MEET LOCATIONS SHOWN ON ARCHITECTURAL POWER AND COMMUNICATION PLANS AND ARCHITECTURAL ELEVATIONS.
- UNDERCUT DOORS TO CLEAR TOP OF FLOOR FINISHES BY 1/4" MAXIMUM, UNLESS OTHERWISE NOTED.
- PROVIDE METAL BACKING PLATES OR SOLID WOOD BLOCKING (FIRE TREATED) IN PARTITIONS FOR MILLWORK AND WALL ATTACHED ITEMS. COORDINATE PLACEMENT OF BLOCKING FOR MILLWORK PRIOR TO CLOSING WALLS.
- INSTALL NEW GYPSUM BOARD CONSTRUCTION ADJOINING EXISTING CONSTRUCTION IN THE SAME PLANE FLUSH WITH NO VISIBLE JOINTS UNLESS OTHERWISE NOTED.
- COORDINATE DEPTH AND SIZES OF RECESSES WITH SPECIFIED EQUIPMENT.

- EXPOSED GYPSUM BOARD EDGES SHALL HAVE METAL TRIM. PROVIDE CORNER BEADS ALONG FULL LENGTH OF OUTSIDE CORNERS AND J BEADS OR FAST MASK ALONG ENDS OF GYPSUM BOARD. TAPE, SPACKLE AND SAND JOINTS. PROVIDE PARTITIONS WITH A SMOOTH FINISH CONDITION READY FOR PAINT AND FINISH MATERIAL APPLICATION, UNLESS OTHERWISE NOTED.
- EXPOSED WOOD SHALL BE FINISH GRADE HARDWOOD - FILLED, SANDED, PRIMED AND READY FOR SCHEDULED FINISH.
- FOR BUILT-IN WORK SURROUNDED BY PARTITION, INCLUDING BUT NOT LIMITED TO APPLIANCES AND FILES, CONFIRM THAT FLOOR SLAB DOES NOT VARY BY MORE THAN 1/4" IN 20'-0" NON-CUMULATIVE. NOTIFY ARCHITECT IF THIS TOLERANCE IS EXCEEDED.
- SEAL PENETRATIONS IN GYPSUM BOARD CONSTRUCTION ABOVE FINISHED CEILING TO PREVENT SOUND LEAKAGE AT ACOUSTICAL PARTITIONS AND AT DEMISING PARTITIONS, UNLESS OTHERWISE NOTED.
- DOOR OPENINGS ARE GENERALLY DIMENSIONED TO CENTERLINE OF OPENING. DOOR OPENINGS THAT ARE NOT DIMENSIONALLY LOCATED ARE TO BE CENTERED BETWEEN WALLS OR POSITIONED WITH ONE JAMB AGAINST AN ADJACENT WALL OR COLUMN AS SHOWN ON THE PLANS AND/OR DETERMINED BY THE DETAILS.
- WHEN UNDIMENSIONED PARTITIONS APPEAR IN CONJUNCTION WITH DOOR OPENINGS, DOOR WIDTH AND DOOR FRAME DETAILS DETERMINE LOCATION OF ADJACENT WALLS AND FRAMES.

REFLECTED CEILING PLAN GENERAL NOTES

- REFER TO MOUNTING DIAGRAMS FOR LOCATION OF SWITCHES, DIMMERS, THERMOSTATS AND OUTLETS, GANG ITEMS UNDER SINGLE PLATE.
- REFER TO ELECTRICAL DRAWINGS FOR LOCATION OF EXIT LIGHTS.
- FOR DIFFUSERS, LIGHT FIXTURE TYPES, SWITCHING AND OTHER ITEMS IN THE CEILING, RE: MECHANICAL AND ELECTRICAL DRAWINGS.
- VERIFY WITH ARCHITECT LOCATION OF VISIBLE CEILING ELEMENTS NOT SHOWN ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION.
- VERIFY CLEARANCE OF CEILING ELEMENTS FOR LOCATIONS SHOWN PRIOR TO INSTALLATION.
- COORDINATE LENGTHS OF UNDER CABINET LIGHTS WITH MILLWORK.
- TYPICAL COVERPLATE AND DEVICE FINISH, WHITE, UNLESS OTHERWISE NOTED.
- CEILING GRID MAINS OCCUR AT 4'-0" O.C. DO NOT CUT MAINS.
- LOCATE SPRINKLER HEADS, EXIT SIGNS, CEILING STROBES, LIGHT FIXTURES, AUDIO-VISUAL DEVICES, SMOKE DETECTORS AND OTHER DEVICES EXPOSED AT ACOUSTICAL PANEL CEILING IN THE CENTER OF THE ACOUSTICAL CEILING PANEL, UNLESS OTHERWISE NOTED.
- FIELD VERIFY LOCATION OF ACCESS PANELS, AND MARK ON SLAB FOR ARCHITECT'S REVIEW. DO NOT PROCEED WITHOUT ARCHITECT'S APPROVAL OF LOCATIONS.
- INSTALL SIGHT BAFFLES AT RETURN AIR SLOTS. PAINT ANY AREA OR ITEM VISIBLE FROM THE ROOM SIDE FLAT BLACK.
- CEILING SUPPORT SYSTEM ARE NOT DESIGNED OR INTENDED TO SUPPORT THE WEIGHT OF ADDITIONAL EQUIPMENT, CABLE CONDUIT, LIGHTS, MECHANICAL EQUIPMENT OR OTHER CONSTRUCTION. SUPPORT THESE ITEMS INDEPENDENTLY FROM THE STRUCTURE ABOVE.
- PROVIDE COVE LIGHTING, UNDERCABINET LIGHTING AND OVERCABINET LIGHTING CONTINUOUS ACROSS ENTIRE LENGTH OF ELEMENT AND WIRED THROUGH THE SIDE OF THE FIXTURES, UNLESS OTHERWISE INDICATED. NO MORE THAN 2 INCHES OF EXPOSED CABLE SHALL BE VISIBLE.
- ARCHITECTURAL REFLECTED CEILING PLANS SHOW DESIGN INTENT FOR LINEAR DIFFUSERS LENGTHS AND LOCATION INCLUDING ACTIVE, RETURN AIR AND BLANK LENGTHS. RE: MECHANICAL DOCUMENTS FOR LENGTHS OF ACTIVE LINEAR DIFFUSERS, REQUIRED RETURN AIR SLOTS, TYPES AND ADDITIONAL INFORMATION.
- VERIFY THAT AIR DEVICES FIT IN CEILING AS INDICATED BEFORE PROCEEDING WITH FRAMING CEILING. NOTIFY ARCHITECT IF RELOCATION IS REQUIRED OR IF SHIFTING OF GRID OR OTHER ELEMENT ARE NECESSARY.
- PAINT METAL CLOSURES, WALL ANGLES, REVEALS, AND MISCELLANEOUS TRIM IN CEILING TO MATCH CEILING.
- PAINT NEW AND EXISTING CONSTRUCTION VISIBLE THROUGH DIFFUSERS AND RETURNS INCLUDING DUCTWORK NON-SPECULAR BLACK.
- DO NOT SUPPORT CEILING SYSTEM FROM ANY DUCTWORK OR MECHANICAL UNIT. PROVIDE SUPPLEMENTAL FRAMING FOR CEILING SUPPORT AT EXPANSES OF DUCTWORK, MECHANICAL UNITS AND OTHER EXPANSES. DO NOT ALLOW CEILING SYSTEM TO COME INTO CONTACT WITH DUCTWORK OR MECHANICAL UNITS.
- LIGHTING FIXTURES ARE DIMENSIONED TO CENTER OF FIXTURE, UNLESS OTHERWISE NOTED.
- PROVIDE ACCESS PANELS AS REQUIRED BY APPLICABLE CODES AND AS REQUIRED FOR MECHANICAL EQUIPMENT. ACCESS PANELS SHALL BE CONCEALED TYPE. REVIEW LOCATIONS WITH ARCHITECT PRIOR TO PROCEEDING.
- INDICATED DIMENSIONS ARE TO THE CENTER LINE OF SWITCH OR CLUSTER OF SWITCHES, UNLESS OTHERWISE NOTED.
- FINISHED CEILING SHALL BE TRUE, LEVEL, AND FREE FROM DAMAGED, WARPED OR SOILED TILES.
- INSTALL EDGE MOLDING AT INTERSECTION OF CEILING AND VERTICAL SURFACE. USE MAXIMUM LENGTHS, STRAIGHT, TRUE AND LEVEL. MITER CORNERS. PROVIDE MOLDING AT OTHER JUNCTIONS WITH CEILING FINISHES.
- LAY DIRECTIONAL PATTERN UNITS ONE WAY WITH PATTERN AS INDICATED BY ARCHITECT UNLESS OTHERWISE NOTED.

CONSULTANTS

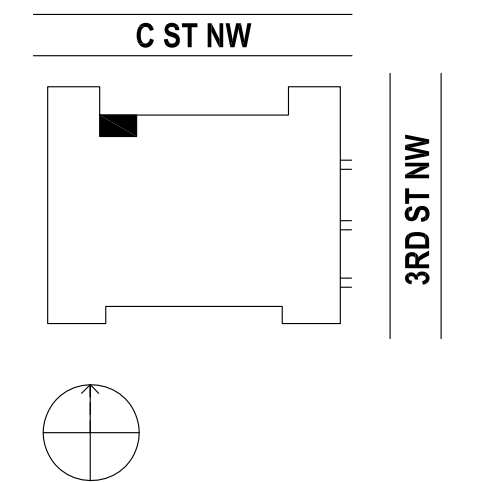
MEP
MEP DESIGNS, INC.
8551 RIXLEW LN.
SUITE 200
MANASSAS, VA 20109

PROJECT

REPLACE CEILING LIGHT SYSTEM AT USDC CHAMBERS 4311

UNITED STATES COURTHOUSE
333 CONSTITUTION AVE. NW
WASHINGTON, DC 20001

KEYPLAN



100% FINAL DESIGN FOR CONSTRUCTION 6.1.22

ISSUE CHART

MARK	ISSUE	DATE
	100% FINAL FOR CONSTRUCTION	6.1.22
	DESIGN INTENT DRAWINGS	6.4.21

Drawn

Checked

Approved

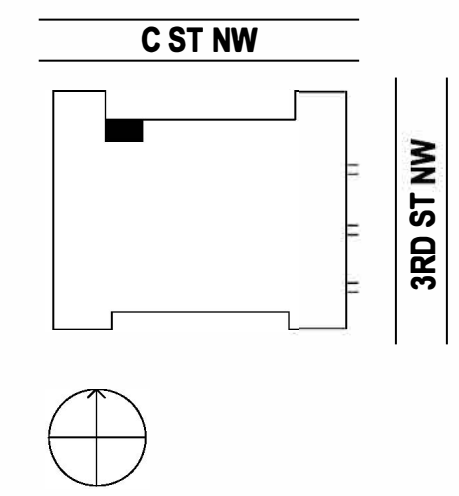
TITLE

GENERAL NOTES

SHEET NUMBER

G0.2

KEYPLAN



100% FINAL DESIGN
FOR CONSTRUCTION
6.1.22

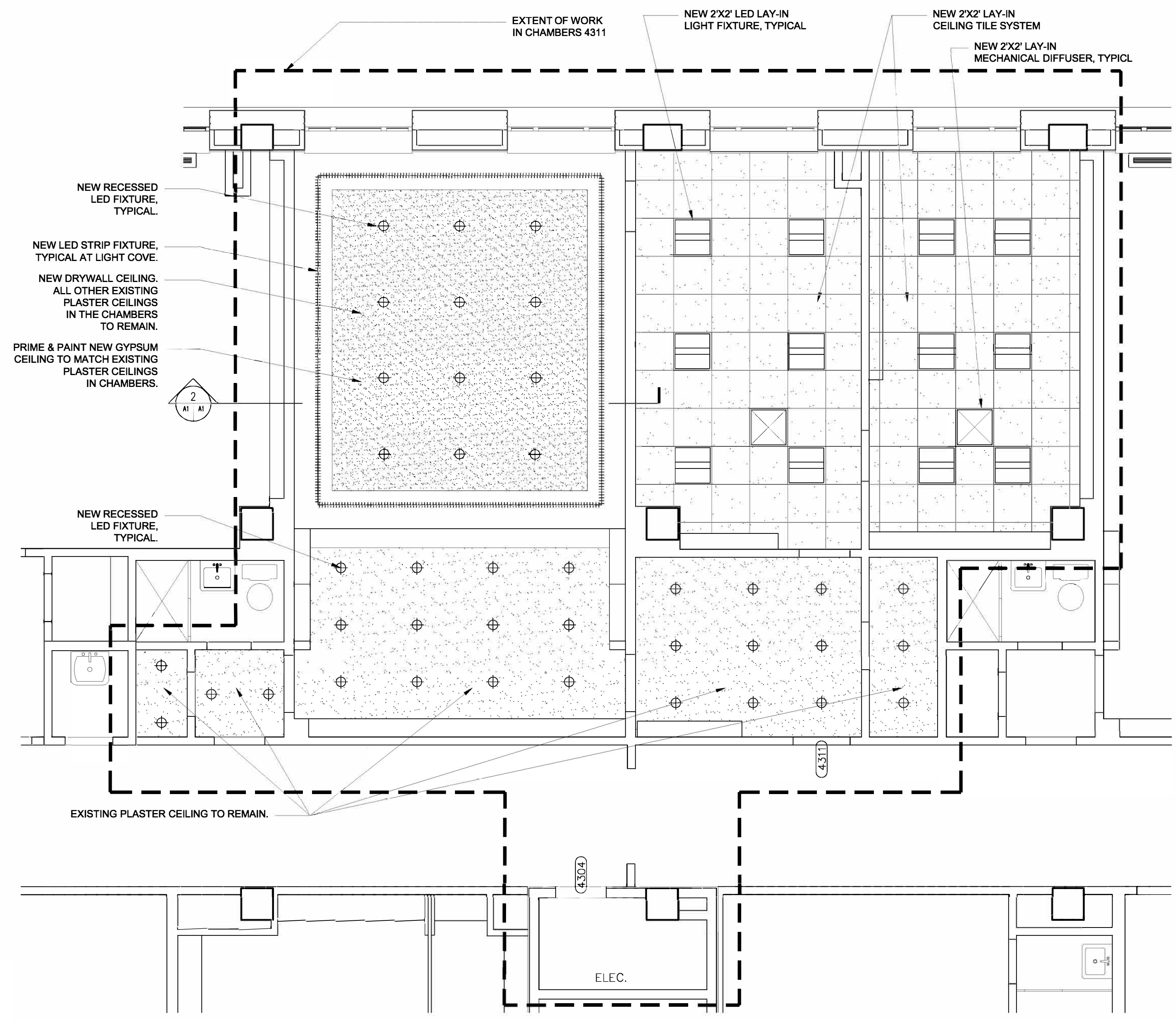
ISSUE CHART

100% CONSTRUCTION DOCUMENTS	6.1.22
DESIGN INTENT DRAWINGS	6.4.21
MARK	ISSUE
	DATE

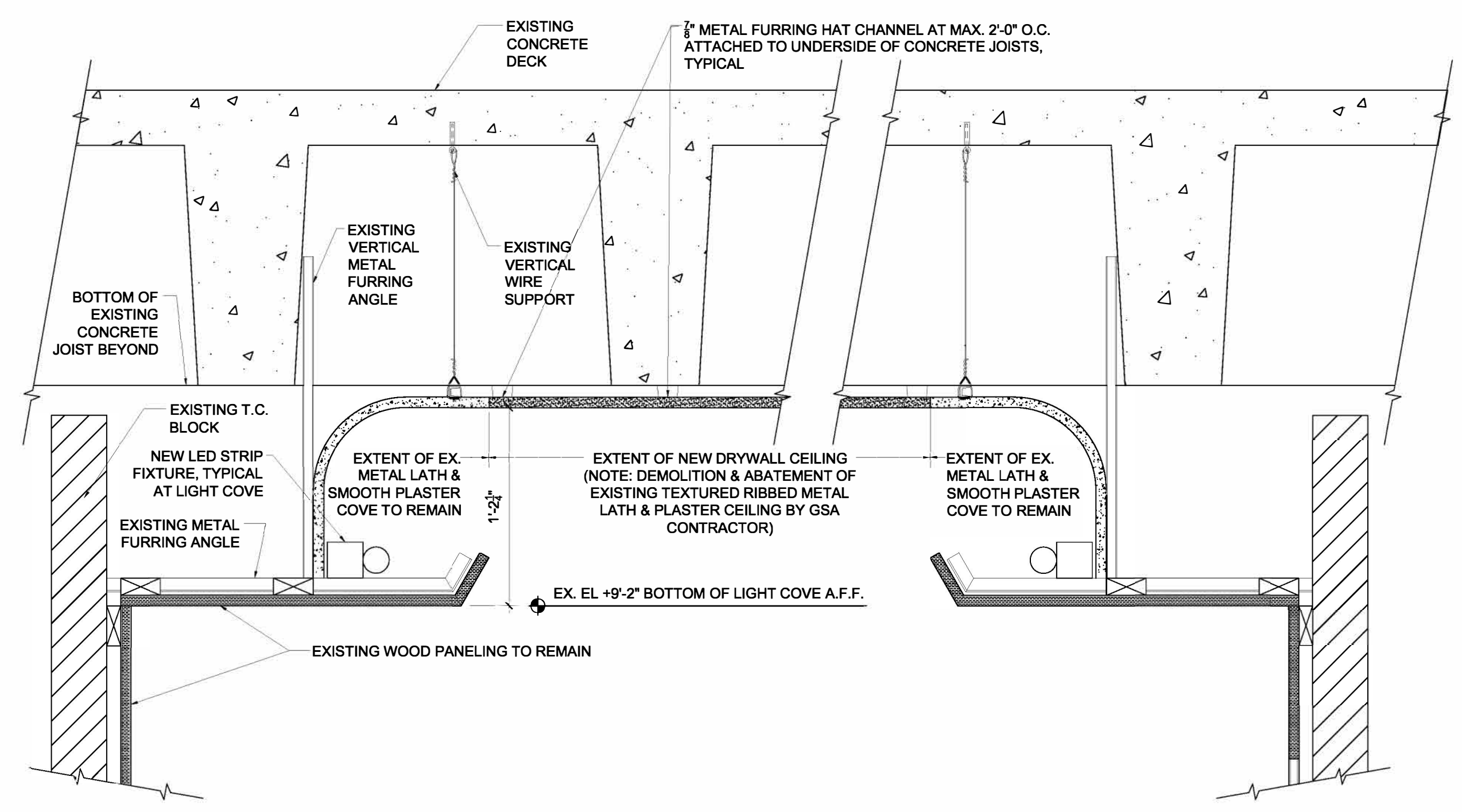
Drawn	MEP
Checked	MEP
Approved	MEP

TITLE

SHEET NUMBER
A1.0



1 REFLECTED CEILING PLAN AT CHAMBERS 4311
A1 SCALE: 1/4" = 1'-0"



2 NEW GWB CEILING AT EXISTING PLASTER LIGHT COVE
A1 SCALE: 1-1/2" = 1'-0"

MATERIAL & EQUIPMENT SCHEDULE		
SYMBOL	MANUFACTURER CATALOG NUMBER	REMARKS
	ARMSTRONG COMMERCIAL CEILING TILES & WALLS - MODEL CIRRUS OPEN PLAN #558	COLOR - WHITE; MAIN BEAMS - 7500; CROSS TEES - XL7520 & XL7540; WALL MOLDING - 7804; TILE SIZE - 24"X24"X7/8"; EDGE PROFILE - BEVELED REGULAR; AND GRID FACE - SUPRAPFINE XL 9/16" EXPOSED TEE.
	ANEMOSTAT- MODEL PG-22-MRI PARAGON DIFFUSER 1/8" PLAQUE DROP SUPPLY/RETURN NOMINAL 24"X24"	
	CERTAINTED CORP. - GYPSUM CEILING BOARD	ASTM C 1396/C 1396M; THICKNESS - 1/2"; LONG EDGES - TAPERED; GYPSUM BOARD FINISH LEVEL 4 AT CEILING SURFACES EXPOSED TO VIEW.

3 MATERIAL & EQUIPMENT SCHEDULE
A1 NTS

- NOTES:
- LABEL ALL LIGHT FIXTURES AT ELECTRICAL PANEL, TYPICAL
 - EXISTING TEXTURED PLASTER CEILING IN THE JUDGE'S OFFICE TO BE REMOVED BY GSA CONTRACTOR. NEW DRYWALL CEILING TO BE INSTALLED BY COURT CONTRACTOR.
 - PAINT ALL DRYWALL AND PLASTER CEILINGS TO MATCH THE EXISTING CEILING COLOR AND TOUCH UP WALLS AS NECESSARY WITH PAINT TO MATCH THE EXISTING WALLS.
 - PROVIDE NEW CODE COMPLIANT WIRING FOR NEW LIGHT FIXTURES BACK TO GSA ELECTRICAL CLOSET, TYPICAL

ABBREVIATIONS	
A	AMPS
ABV	ABOVE
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
ARCH	ARCHITECT, ARCHITECTURAL
BKR	BREAKER
C	CONDUIT
CLG	CEILING
DISC	DISCONNECT
DN	DOWN
DP	DISTRIBUTION PANEL
DS	DISCONNECT SWITCH
DWG	DRAWING
EA	EACH
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMT	ELECTRICAL METALLIC TUBING
EQPT	EQUIPMENT
EX	EXISTING
GFI	GROUND FAULT INTERRUPTER
GND, G	GROUND
HP	HORSEPOWER
HZ	HERTZ
KAIC	KILO-AMPS INTERRUPTING CAPACITY
KVA	KILOVOLT-AMPS
KW	KILOWATT
LFMC	LIQUIDTIGHT FLEX. METALLIC CONDUIT
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MSG	MAIN SWITCHGEAR
MTD	MOUNTED
N	NEUTRAL
NL	NIGHT LIGHT
NTS	NOT TO SCALE
P	POLES
PH, ⚡	PHASE
PNL	PANEL
REC	RECESSED
RECP	RECEPTACLE
RL	RELOCATE(D)
RM	REMOVE(D)
RMC	RIGID METALLIC CONDUIT (GALVANIZED)
SN	SOLID NEUTRAL
SWBD	SWITCHBOARD
TEL	TELEPHONE
TYP	TYPICAL
V	VOLT
VA	VOLT-AMPERE
W	WIRES
WP	WEATHER PROOF
XFMR	TRANSFORMER

ELECTRICAL GENERAL SYMBOLS	
SYMBOL	DESCRIPTION
	20A, 120V SINGLE RECEPTACLE
	20A, 120V DUPLEX RECEPTACLE
	20A, 120V GFI DUPLEX RECEPTACLE
	DUPLEX REC. W/INSULATED GROUND
	CEILING MTD. REC. 20A, 120V
	QUAD RECEPTACLE
	SPECIAL RECEPTACLE
	DUPLEX REC. FLOOR MOUNTED
	QUAD REC. FLOOR MOUNTED
	JUNCTION BOX
	DATA/PHONE OUTLET
	PHONE OUTLET
	DATA OUTLET
	DATA OUTLET FLOOR MOUNTED
	TV OUTLET
	DENOTES WATERPROOF
	EXHAUST FAN
	SWITCH CONTROL a..l & n...z INDICATE SWITCH NAME (NUMBER)
	MOTOR STARTER SWITCH
	SINGLE SWITCH
	4-WAY SWITCH
	TIMER SWITCH
	SINGLE DIMMER SWITCH
	3-WAY DIMMER SWITCH
	MOTION/VACANCY SENSOR SWITCH
	MOTION SENSOR CEILING MOUNTED
	MOTION/VACANCY SENSOR & DIMMER SWITCH
	MOTION/VACANCY & 3WAY-DIMMER SWITCH
	DAYLIGHT SENSOR
	DISCONNECT SWITCH FUSED TYPE AF-FRAME SIZE, AT-TRIP SIZE
	DISCONNECT SWITCH UNFUSED TYPE 000-FRAME SIZE
	SINGLE PH. HOMERUN
	SINGLE/TWO PH. HOMERUN, 1 CIRC.
	THREE PH. HOMERUN, 1 CIRC.
	SINGLE/TWO PH. HOMERUN, 2 CIRC.
	THREE PH. HOMERUN, 3 CIRC.
	REMOTE BATTERY PACK
	ELECTRICAL PANEL RECESSED MOUNTED
	ELECTRICAL PANEL SURFACE MOUNTED
	EMERGENCY PANEL SURFACE MOUNTED
	WATER HEATER

ELECTRICAL SYSTEMS GENERAL SPECIFICATIONS

I. GENERAL

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ISSUE IN FORCE OF THE NATIONAL ELECTRICAL CODE, IBC CODE, REGULATION OF LOCAL AUTHORITIES HAVING JURISDICTION AND OSHA REGULATION.
- FURNISH AND INSTALL ALL LABOR, MATERIAL AND EQUIPMENT AND SERVICES NECESSARY FOR COMPLETE AND SAFE INSTALLATION OF THE ELECTRICAL SYSTEM INDICATED ON THE DRAWINGS AND NOTED IN THE SPECIFICATION HEREINAFTER.
- ELECTRICAL DRAWINGS ARE CONSIDERED DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK AND SYSTEMS. REFER TO ARCHITECTURAL DRAWINGS TO VERIFY LOCATION OF EQUIPMENT, ETC. CHECK DRAWINGS OF OTHER TRADES TO VERIFY EXACT CONDITION.
- QUALITY OF MATERIALS SHALL BE NEW, BEST OF THEIR RESPECTIVE KIND, FREE FROM DEFECTS, AND LISTED BY UNDERWRITERS LABORATORIES, INC. OR BEARING THEIR LABEL.
- TESTS: PERFORM AS NOTED AND IN PRESENCE OF OWNER'S REPRESENTATIVE. PROVIDE ALL REQUIRED LABOR AND MATERIAL REPAIR OR REPLACE DEFECTIVE WORK AS DIRECTED.
- ALL NEW WORK TO BE INSTALLED WITH MINIMUM INTERFERENCE TO OTHER TRADES.
- LABEL ALL J-BOXES WITH PANEL DESIGNATOR/CIRCUIT NUMBERS AND EQUIPMENT SERVED.

II. MATERIALS AND NOTES

A. WIRING, DISTRIBUTION EQUIPMENT AND DEVICES

- CONDUCTORS: COPPER, IN ACCORDANCE WITH ASTM STANDARDS, SIZE REFERENCES AWG. CONDUCTORS NO. 10 AND SMALLER SIZE SOLID, NO. 8 AND LARGER STRANDED. INSULATION OF CONDUCTORS SHALL BE THERMOPLASTIC, TYPES THHN, THHW, OR THWN MIN. SIZE: NO. 12.
- ALL CONDUCTORS SHALL BE IDENTIFIED BY PHASE AND SYSTEM AT ALL POINTS OF ACCESS. COMPLY WITH NEC 210.5(C) AND 215.12(C). COLOR CODED AS FOLLOWS:
120/208V: A0=BLACK, B0=RED, C0=BLUE, NEUTRAL=WHITE, GROUND=GREEN.
277/480V: A0=BROWN, B0=ORANGE, C0=YELLOW, NEUTRAL=GRAY, GROUND=GREEN
- ANY BRANCH CIRCUIT THAT IS OVER 100 FEET OF CIRCUIT LENGTH SHALL HAVE CONDUCTORS ONE SIZE LARGER.
- METAL CLAD (MC) USED FOR BRANCH CIRCUITS ONLY WHERE PERMITTED BY CODE. MIN. SIZE: NO. 12.
- RACEWAYS: ELECTRIC METALLIC TUBING (EMT), GALVANIZED, THREADLESS, MINIMUM 3/4 INCH EXCEPT AS NOTED OR REQUIRED FOR WIRING. FLEXIBLE STEEL CONDUIT, CONTINUOUS SINGLE STRIP, GALVANIZED, MINIMUM 3/4 INCH SIZE EXCEPT AS NOTED OR REQUIRED FOR WIRING.
- WIRING DEVICES: ALL DEVICES SHALL BE THE PRODUCT OF SAME MANUFACTURER. WALL SWITCHES SHALL BE SINGLE POLE, 20 AMPERE, 120-277V VOLT, SIMILAR TO LEVITON 1221-2A, RECEPTACLES-DUPLEX, 2 POLE, 3 WIRE, GROUNDED, 20 AMPERE, 125 VOLT, SIMILAR TO LEVITON NO. 5340-IVORY.
- LIGHTING FIXTURES AND LAMPS: FURNISH AND INSTALL COMPLETE SYSTEM OF LIGHTING FIXTURES, LAMPS, ACCESSORIES AND SUPPORTS AS SPECIFIED AND INDICATED.
- INDIVIDUAL TELEPHONE AND DATA OUTLETS SHALL CONSIST OF A 4"x4"x2-1/8"D JUNCTION BOX WITH A PLASTER RING AND A 3/4", MINIMUM, CONDUIT WITH PULLSTRING TO AN ACCESSIBLE CEILING SPACE OR A TELEPHONE OR DATA TERMINAL BOARD AS NOTED ON THE DRAWINGS.
- MOUNTING HEIGHTS FOR ELECTRICAL DEVICES SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE ON THE ELECTRICAL OR ARCHITECTURAL DRAWINGS OR REQUIRED TO MATCH EXISTING INSTALLATIONS OR HANDICAPPED CODES:

WALL SWITCHES	42" ABOVE FINISHED FLOOR
WALL RECEPTACLES	18" AFF WITH LONG AXIS VERTICAL
ABOVE COUNTER RECEPTACLES	6" ABOVE COUNTERS WITHOUT BACKSPASHES OR 4" ABOVE BACKSPASH FOR COUNTERS WITH BACKSPASHES
TELEPHONE AND DATA OUTLETS	18" ABOVE FINISHED FLOOR

B. GROUNDING SYSTEM:

- GENERAL: FURNISH AND INSTALL COMPLETE SYSTEM OF GROUND CONDUCTORS AND ACCESSORIES TO EFFECTIVELY AND PERMANENTLY GROUND RACEWAYS.
- DISTRIBUTION EQUIPMENT AND LIGHTING FIXTURES OF THE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
- EQUIPMENT: GROUND NON-CURRENT CARRYING METAL PARTS OF RACEWAYS, WIRING DEVICES AND ALL LIGHTING FIXTURES. TEST FOR CONTINUITY; PROVIDE WRITTEN CERTIFICATION OF COMPLIANCE.
- ALL BRANCH CIRCUITS AND FEEDERS SHALL HAVE A GREEN INSULATED EQUIPMENT GROUND CONDUCTOR RUN TOGETHER WITH THE CIRCUIT CONDUCTORS.

III. INSTALLATION:

- ALL POWER WIRING SHALL BE INSTALLED IN AN APPROVED RACEWAY, EXCEPT WHERE TYPE MC CABLE IS ALLOWED AS SPECIFIED. ALL CONTROL WIRING SHALL BE INSTALLED IN AN APPROVED RACEWAY, EXCEPT THAT LOW VOLTAGE CONTROL WIRING MAY BE INSTALLED WITHOUT A RACEWAY, IN CONCEALED ACCESSIBLE LOCATIONS. WHEN A UL-LISTED PLENUM RATED CABLE IS USED, CONDUITS SHALL BE CONCEALED TO THE MAXIMUM EXTENT POSSIBLE AND WHEN EXPOSED, SHALL BE RUN PARALLEL AND PERPENDICULAR TO BUILDING LINES. ALL CONDUIT AND TYPE MC CABLES SHALL BE INDEPENDENTLY SUPPORTED FROM THE BUILDING STRUCTURE. SUPPORTS SHALL BE INDEPENDENT FROM THE CEILING SYSTEM SUPPORTS.
- RIGID METALLIC CONDUITS (RMC) CONDUIT SHALL BE USED FOR RACEWAYS WHERE EXPOSED TO WEATHER, DAMP, AND WET CONDITIONS, WHERE EXPOSED BELOW 8'-0", AND WHERE SUBJECT TO PHYSICAL DAMAGE.
- ELECTRICAL METALLIC TUBING (EMT) SHALL BE USED FOR RACEWAYS INDOORS WHERE CONCEALED OR EXPOSED, EXCEPT IN DAMP OR WET LOCATIONS OR WHERE SUBJECT TO PHYSICAL DAMAGE.
- FLEXIBLE CONDUIT, IN LENGTHS NOT TO EXCEED 48", SHALL BE USED TO EXTEND CONDUIT CONNECTIONS TO MOTORS, TRANSFORMERS AND OTHER PERMANENTLY CONNECTED APPLIANCES, EQUIPMENT OR DEVICES WHICH ARE VIBRATION PRODUCING OR REQUIRE ACCESS FOR MAINTENANCE OR ADJUSTMENT. LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE USED FOR ALL FLEXIBLE CONNECTIONS IN DAMP OR WET AREAS.
- SCHEDULE 40 PVC CONDUIT MAY BE USED FOR CONDUIT INSTALLED BELOW GRADE OR CAST IN CONCRETE SLABS. PVC CONDUIT SHALL NOT BE RUN EXPOSED OR IN CONNECTED APPLIANCES, EQUIPMENT OR DEVICES WHICH ARE VIBRATION PARTITIONS OR PLENUMS.
- MINIMUM CONDUIT SIZE SHALL BE 3/4" FOR POWER WIRING, FOR TELEPHONE AND DATA, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- OUTLET AND JUNCTION BOXES SHALL BE MINIMUM 4" SQUARE OR OCTAGONAL WITH 2-1/8" DEEP WITH COVER PLATES OR PLASTER RINGS AS REQUIRED. LARGER BOXES SHALL BE PROVIDED WHERE REQUIRED BY THE NEC. DEEP BOXES SHALL BE PROVIDED FOR ALL OUTLET AND JUNCTION BOXES USED IN SUSPENDED CEILING SPACES.
- HORIZONTAL RUNS OF METALLIC CONDUIT NOT MORE THAN 10 FEET APART. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS. PASS RACEWAYS OVER WATER, STEAM OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 3 INCHES OF STEAM OR HOT WATER PIPES, OR APPLIANCES, EXCEPT CROSSINGS WHERE RACEWAY SHALL BE AT LEAST 1 INCH FROM PIPE COVER.
- CUT CONDUIT ENDS SQUARE, REAM SMOOTH. DRAW UP TIGHT WITH CONDUIT COUPLINGS.
- LEAVE WIRE SUFFICIENTLY LONG TO PERMIT MAKING FINAL CONNECTIONS. IN RACEWAYS OVER 50 FEET IN WHICH WIRING IS NOT INSTALLED, FURNISH FISH WIRE.
- SET BOXES SQUARE AND TRUE WITH BUILDING FINISH. ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRONS.

- LOCATIONS INDICATED FOR LOCAL WALL SWITCHES ARE SUBJECT TO MODIFICATIONS. AT OR NEAR DOORS, INSTALL SWITCH ON SIDE OPPOSITE HINGE. VERIFY FINAL DOOR HINGE LOCATION IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION.
- LOCATE JUNCTION AND PULL BOXES NOT EXPOSED IN FINISHED SPACES. WHERE NECESSARY, REROUTE CONDUITS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT. PROVIDE PULL BOXES AS INDICATED AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE AND COORDINATE LOCATIONS WITH OTHER TRADES. COVERS OF JUNCTION AND PULL BOXES SHALL BE ACCESSIBLE. FOR EMPTY RACEWAYS RUNS, PROVIDE PULL BOXES AS REQUIRED. COORDINATE LOCATIONS WITH OTHER TRADES.
- SUPPORT JUNCTION AND PULL BOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON CONDUITS.
- CONTRACTOR TO UPDATE TYPED SCHEDULES FOR ALL PANELBOARDS UTILIZED AT COMPLETION OF PROJECT, INDICATING ACTUAL AS-BUILT CONDITIONS. SCHEDULES SHALL INCLUDE CIRCUIT NUMBER, EQUIPMENT SERVED, BREAKER TRIP SETTING AND WIRE AND CONDUIT SIZES.
- ELECTRICAL CONNECTIONS TO TENANT FURNISHED EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL VERIFY THE ROUGH-IN REQUIREMENTS FOR EQUIPMENT AS FURNISHED AND SHALL PROVIDE ROUGH-IN AND FINAL CONNECTIONS AS REQUIRED. MISCELLANEOUS ELECTRICAL CONTROLS AND EQUIPMENT SHALL BE FURNISHED AND INSTALLED AS NOTED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MISCELLANEOUS CONTROL POWER CONNECTIONS TO EQUIPMENT FURNISHED BY THE CONTRACTOR OR THE TENANT, GENERAL CONTRACTOR OR OTHER CONTRACTORS. HVAC TEMPERATURE CONTROLS, CONTROL DEVICES AND CONTROL WIRING SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING POWER CONNECTIONS TO THE HVAC TEMPERATURE CONTROLS, AS REQUIRED.

TENANT DESIGN NOTES

I. DEMOLITION AND REMODELING

- CONTRACTOR SHALL REMOVE ALL DEVICES INCLUDING SWITCHES, ETC. WITHIN PARTITIONS INDICATED TO BE DEMOLISHED.
- THE CONTRACTOR SHALL MAINTAIN CONTINUITY OF ALL CIRCUITS AFFECTED BY DEMOLITION, THE INTEGRITY TO OTHER AREAS SHALL NOT BE COMPROMISED.
- WHERE EXISTING ELECTRICAL DEVICES ARE BEING REMOVED AND JUNCTION BOXES ARE NOT BEING REUSED, THE ELECTRICAL CONTRACTOR SHALL REMOVE EXISTING WIRE AND CABLE, PROVIDE BLANK COVER PLATE AND PAINT TO MATCH EXISTING.
- EXISTING CIRCUITING THAT SERVES BASE BUILDING EQUIPMENT (MECHANICAL EQUIPMENT, ELEVATORS, STAIRS, LIFE SAFETY SYSTEMS, ETC.) AND ALL OTHER LANDLORD CONTROLLED DEVICES SHALL REMAIN FULLY OPERABLE.
- CONTRACTOR SHALL REMOVE ALL UNUSED CONDUIT, WIRE AND CABLE.
- CONCEALED CONDUIT MAY BE LEFT ABANDONED IN PLACE AS LONG AS NOT INTERFERING WITH NEW WORK. REMOVE ALL WIRING AND CAP ENDS OF CONDUIT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL DEBRIS RELATED TO ELECTRICAL DEMOLITION.
- THE CONTRACTOR SHALL NOT INTERRUPT THE POWER SERVING OCCUPIED AREAS INCLUDING OTHER FLOORS. CONTRACTOR SHALL PROVIDE TEMPORARY FEEDS AS REQUIRED IN ORDER TO MAINTAIN CONTINUITY OF POWER TO THESE AREAS. ALL POWER SHUTDOWNS SHALL BE COORDINATED WITH THE OWNER.
- ALL EXISTING LIFE SAFETY DEVICES AND WIRING SHALL REMAIN IN SERVICE. PROVIDE TEMPORARY SUPPORTS FOR EXISTING DEVICES AND WIRING IF SUPPORTING STRUCTURES (WALLS, CEILINGS, ETC.) ARE TO BE DEMOLISHED.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL FIRE AND SMOKE RATED ASSEMBLIES WITHIN THE BUILDING AFFECTED BY WORK UNDER THIS CONTRACT. PATCH AND/OR REPAIR ALL FIRE AND SMOKE RATED ASSEMBLIES AS REQUIRED TO MAINTAIN EXISTING OR NEW RATING.
- CONTRACTOR SHALL SUBMIT AN INVENTORY TO OWNER OF ALL ELECTRICAL DEVICES, EQUIPMENT, ETC. BEING REMOVED.
- ELECTRICAL CIRCUITS BEING REMOVED SHALL BE REMOVED BACK TO POWER SOURCE.
- ALL BREAKERS THAT BECOME 'SPARE' AFTER DEMOLITION AND NEW WORK IS COMPLETE SHALL BE SWITCHED TO THE 'OFF' POSITION AND LABELED 'SPARE' IN THE PANEL SCHEDULE.
- ALL ITEMS FROM DEMOLITION SHALL BE SALVAGED FOR REUSE. CONTRACTOR SHALL CONFER WITH BUILDING OWNER IF ANY QUESTIONS ARISE PRIOR TO DESTROYING AN ITEM.

GSA NOTES

- BUILDING IS LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES, THEREFORE ALL HISTORIC MATERIALS AND FINISHES NEED TO BE PRESERVED AND PROTECTED FOR THE DURATION OF THE PROJECT.
- LIGHTING FIXTURES SHOULD BE APPROVED BY THE DESIGNLIGHTS CONSORTIUM (DLC WITH A DLC PREMIUM CERTIFICATION, FOLLOWED BY A STANDARD DLC RATING IF PREMIUM IS NOT AVAILABLE - AS THE FIRST PRIORITY - AND ENERGY STAR CERTIFIED IF DLC IS NOT AVAILABLE. LIGHTING - INCLUSIVE PROJECT SHOULD USE EFFICIENT LIGHT- EMITTING DIODE (LED) FIXTURES AND AUTOMATIC LIGHTING CONTROLS (I.E. EITHER OCCUPANCY OR VACANCY SENSORS - THE PREFERENCE IS FOR VACANCY SENSORS) THAT ARE LINKED TO THE BUILDING AUTOMATION SYSTEM, IF PRESENT. WHEN RETROFITTING AN EXISTING LIGHTING FIXTURE WITH NEW LED BULBS OR TUBULAR LED'S, SECTION 6.3.2.2 OF THE P100 MUST BE FOLLOWED. INTERIOR LIGHTING COLOR TEMPERATURE IS RECOMMENDED TO BE 3500K AND NOT TO EXCEED 4000K. INDOOR LIGHTING SHOULD BE ON MOTION DETECTION CONTROLS AND DAYLIGHT CONTROLS IF WITHIN 10 FEET OF A WINDOW OR SKYLIGHT.
- ALL WOODWORK IN IN THE CHAMBERS AND OFFICES TO BE PROTECTED FOR THE DURATION OF THE PROJECT.
- COORDINATE THE COLOR TEMPERATURE FOR THE NEW LIGHTS TO MATCH THE COLOR TEMPERATURE OF THE OTHER LIGHTING PROJECTS AND EXISTING LIGHTS IN ADJACENT SPACES.

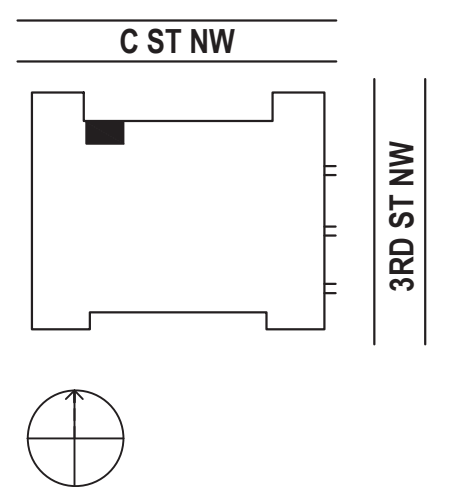
CONSULTANTS
MEP
MEP DESIGNS, INC.
8551 RIXLEW LN.
SUITE 200
MANASSAS, VA 20109

PROJECT

REPLACE CEILING LIGHT SYSTEM AT USDC CHAMBERS 4311

UNITED STATES COURTHOUSE
333 CONSTITUTION AVE. NW
WASHINGTON, DC 20001

KEYPLAN



100% FINAL DESIGN FOR CONSTRUCTION 6.1.22

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MARK	ISSUE	DATE

Drawn	MEP
Checked	MEP
Approved	MEP

TITLE

NOTES AND SYMBOLS

SHEET NUMBER

E1.0

APPLICABLE CODES:
2018 PBS P100 CODE
2020 National Electrical Code.
ASHRAE 90.1-2016
ASHRAE 55-2010

SCOPE OF WORK:
REPLACING EXISTING FLUORESCENT LIGHTS WITH LED FIXTURES AND CHANGING THE LIGHTING CONTROL METHODS TO COMPLY WITH THE 2018 PBS P100.

PANELBOARD SCHEDULE																	
PANEL LC4 FED FROM:		200A BUS	200A MCB	120Y/208V			3φ-4W-SN			MAINS: MCB			MTD.: REC			42KAIC	
LOAD DESCRIPTION	LOAD (KVA)			WIRE SIZE	CKT BRK	POLE	PHASE			CKT NO	POLE	CKT BRK	WIRE SIZE	LOAD (KVA)			LOAD DESCRIPTION
	A Ø	B Ø	C Ø				A	B	C					A Ø	B Ø	C Ø	
NORTH CORR. SOUTH SIDE	0				20	1	1				17	1	20				NORTH CORR. NORTH SIDE
CORR. B459 - JAN. CL. & TOILETS			0		20	1	2				18	1	20			0	CORR. B430
LAW CLK B435			0		20	1	3				19	1	20			0	JURY RM. B469 - TOILETS B470-71
WAIT RM. B473 - CORR. B435	0				20	1	4				20	1	20			0	RECESS LTS. JUDGES OFF. B442
COVE LTS. JUDGES OFF. B442			0		20	1	5				21	1	20			0	COVE LTS. JUDGES OFF. B442
SECRETARY & WAIT. RM. B432-33			0		20	1	6				22	1	20			0	COVE LTS. JUDGES OFF. B431
COVE LTS. JUDGES OFF. B431	0				20	1	7				23	1	20			0	BOOTH B413-14, ENT. B416, MEN & WOM. TOILET B419-20
WOM. TOIL. B422 - COAT RM. & TOILET			0		20	1	8				24	1	20			0	BOOTH B409, 410, 411, 412
LAWYERS LOUNGE - CENTER B424			0		20	1	9				25	1	20			0	LAWYERS LOUNGE NORTH B424
LAWYERS LOUNGE - NORTH B424	0				20	1	10				26	1	20			0	PRESS ROOM B415
LAWYERS LOUNGE - SOUTH			0		20	1	11				27	1	20			0	CIVIL WIT. CONF. RM. B408
CIVIL WIT. CONF. RM. B407			0		20	1	12				28	1	20			0	JURY RM. B464, TOILET B462-63
HOLD CELL B466 - PRIS. PASS. B467	0				20	1	13				29	1	20			0	SPARE
SECRETARY & WAIT RM. B443-45			0		20	1	14				30	1	20			0	SPARE
BATTERY LIGHTS			0		20	1	15				31	1	20			0	SPARE
SPARE			0		20	1	16				32	1	20			0	SPARE
	0.00	0.00	0.00											0.00	0.00	0.00	

TOTAL [KVA]	0.00	0.00	0.00	=	0.0KVA	=	0.0 A
AMPS/PHASE	0.0A	0.0A	0.0A				
% FROM TOTAL LOAD	####	####	#####				

LIGHTING FIXTURES SCHEDULE											
DESIG.	SYMBOL	MANUFACTURER CATALOG NUMBER	LAMPS			[V]	WATTS /FIXT.	NO. FIXT	TOTAL WATTS	REMARKS	
			TYPE	NO	WATTS /LAMP						
A	⊕	ATLANTIC LIGHTING - LED 6" OPEN REMODELER LEDB-R-SYL11-4K-U / DAL (LEM) ADD "LEM" FOR EMERGENCY LIGHTS	LED	1	12	120	12	40	480	DIMMING 0...10V TO 0.1%. TRIM FINESSES-MATTE WHITE EMERGENCY LIGHTS "EM" SHALL BE PROVIDED WITH BUILT-IN BATTERY PACK.	
B	—	WILLIAMS 75 LED NARROW STRIP 75-4-L30/840-QC-ELDO SOLOB DALI COVE LIGHTS	LED	1	20	120	20	14	280	DIMMING 0...10V TO 0.1% ELDOLED SOLODRIVE FOR DALI CONTROLS	
C	☐	LITHONIA - 2BLT2R 40L MVOLT E21 LP840 (EL14L) ADD "EL14L" FOR EMERGENCY LIGHTS	LED	1	39	120	39	12	468	DIMMING 0...10V TO 1%, PROVIDE 1400LUMEN BATTERY PACK FOR FIXTURE MARKED WITH "EM".	
EX	⊗	THE EXIT LIGHT CO. CAST ALUMINUM RED LED EXIT SIGN	LED	0	5	120	0	2	0		
TOTAL							68	FIXT	1,228	KVA	

PANELBOARD SCHEDULE																	
PANEL RC4 FED FROM:		100A BUS	100A MCB	120Y/208V			3φ-4W-SN			MAINS: MCB			MTD.: REC			42KAIC	
LOAD DESCRIPTION	LOAD (KVA)			WIRE SIZE	CKT BRK	POLE	PHASE			CKT NO	POLE	CKT BRK	WIRE SIZE	LOAD (KVA)			LOAD DESCRIPTION
	A Ø	B Ø	C Ø				A	B	C					A Ø	B Ø	C Ø	
SPARE			0		20	1	1				11	1	20			0	UNDER FLOOR DUCT RECEPTACLE
RECEPTACLE WEST CORR. NORTH			0		20	1	2				12	1	20			0	RECEPTACLE NORTH CORR. WEST
RECEPTACLE JURY RM. B464-B435			0		20	1	3				13	1	20			0	RECEPTACLE JRY RM. B469 & WAIT. RM.
RECEPTACLE LAWYERS LNGE. & JUDGE OFF. B431	0				20	1	4				14	1	20			0	SPARE
RECEPTACLE LAWYERS LNGE. ROBING RM. SECY B433 & WAIT RM.			0		20	1	5				15	1	20			0	SPARE
RECEPTACLE PRESS RM. B415 - BOOTH & LAWYERS LOUNGE			0		20	1	6				16	1	20			0	SPARE
RECEPTACLE PRESS RM. B415 & BOOTHS	0				20	1	7				17	1	20			0	SPARE
RECEPTACLE BOOTHS & CIVIL WIT. RM. B407			0		20	1	8				18	1	20			0	SPARE
RECEPTACLE B442-443-444-450 WEST			0		20	1	9				19	1	20			0	SPARE
RECEPTACLE B443 - WAIT. RM. & WIRE C1	0				20	1	10				20	1	20			0	SPARE
SPACE			0		20	1					1	20			0	SPARE	
SPACE			0		20	1					1	20			0	SPARE	
SPACE			0		20	1					1	20			0	SPARE	
SPACE			0		20	1					1	20			0	SPARE	
SPACE			0		20	1					1	20			0	SPARE	
SPACE			0		20	1					1	20			0	SPARE	
SPACE			0		20	1					1	20			0	SPARE	
SPACE			0		20	1					1	20			0	SPARE	
SPACE			0		20	1					1	20			0	SPARE	
	0.00	0.00	0.00											0.00	0.00	0.00	

TOTAL [KVA]	0.00	0.00	0.00	=	0.0KVA	=	0.0 A
AMPS/PHASE	0.0A	0.0A	0.0A				
% FROM TOTAL LOAD	####	####	#####				

EXISTING PANEL SCHEDULE NOTES:

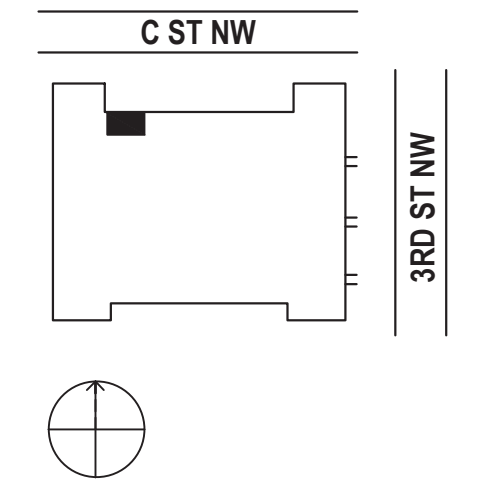
1. THE PANELBOARD IS EXISTING AND IS SHOWN FOR INFORMATION ONLY.
2. NO NEW LOADS WILL BE ADDED IN THIS PANEL.
3. ELECTRICAL CONTRACTOR SHALL TRACE ALL EXISTING LIGHTING CIRCUITS USED IN THIS PROJECT AND SHALL UPGRADE THE EXISTING PANEL SCHEDULE.

LIGHTING SCHEDULE NOTES:

1. COORDINATE WITH THE ARCHITECT PRIOR ORDERING THE NEW LIGHTING FIXTURES.
2. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH LIGHTING AND LIGHTING CONTROL MANUFACTURERS THE COMPATIBILITY BETWEEN THE LIGHTING FIXTURES, DIMMERS, AND MOTION SENSORS PRIOR ORDERING THESE DEVICES.
3. ELECTRICAL CONTRACTOR TO PRESENT SAMPLES TO THE ARCHITECT FOR EVERY FIXTURE PRIOR ORDERING AND INSTALLING.

PROJECT
REPLACE CEILING LIGHT SYSTEM AT USDC CHAMBERS 4311
UNITED STATES COURTHOUSE
333 CONSTITUTION AVE. NW
WASHINGTON, DC 20001

KEYPLAN



100% FINAL DESIGN
FOR CONSTRUCTION
6.1.22

ISSUE CHART

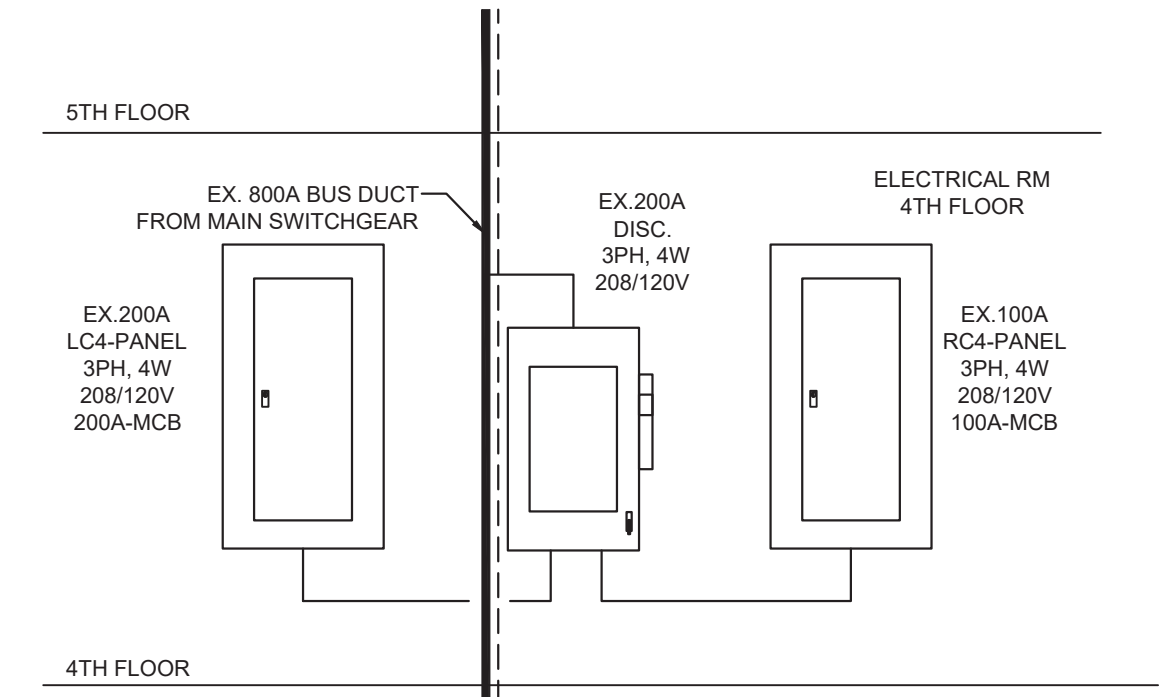
100% CONSTRUCTION DOCUMENTS	6.1.22
DESIGN INTENT DRAWINGS	6.4.21
MARK	ISSUE
	DATE

Drawn	MEP
Checked	MEP
Approved	MEP

TITLE
RISER DIAGRAM, PANEL AND LIGHTING SCHEDULE

SHEET NUMBER

E1.1

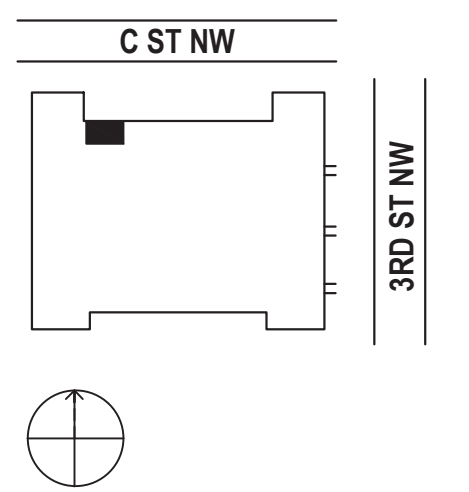


EXISTING PARTIAL RISER DIAGRAM
1
E1.1 SCALE: N.T.S.

RISER DIAGRAM NOTES:

1. ALL EQUIPMENTS SHOWN IN THIS RISER ARE EXISTING TO REMAIN
2. NO WORK WILL BE PERFORMED ON THE EXISTING RISER.

KEYPLAN



100% FINAL DESIGN
 FOR CONSTRUCTION
 6.1.22

ISSUE CHART

100% CONSTRUCTION DOCUMENTS	6.1.22
DESIGN INTENT DRAWINGS	6.4.21
MARK	ISSUE DATE

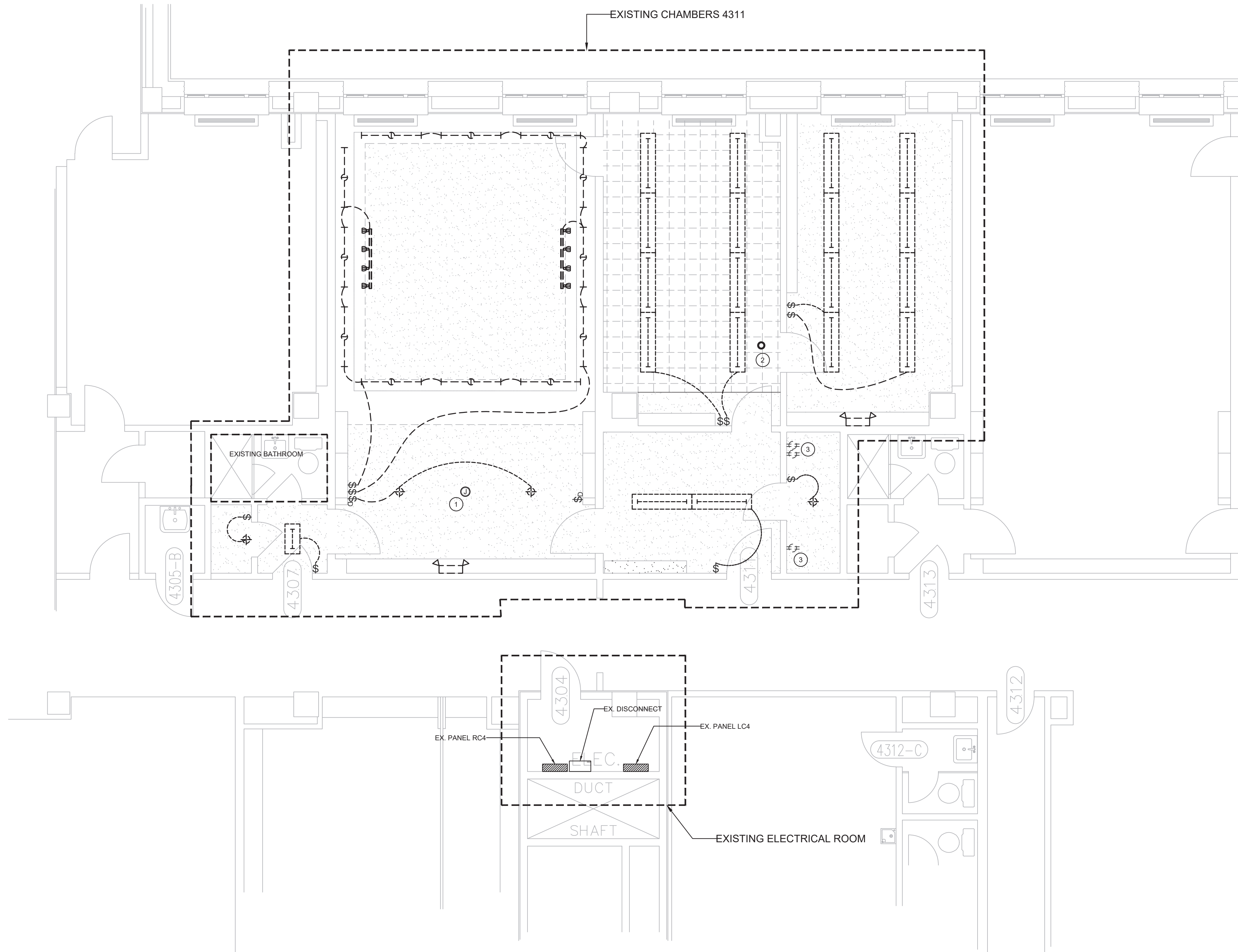
Drawn	MEP
Checked	MEP
Approved	MEP

TITLE

CHAMBERS 4311
 EXISTING PLAN

SHEET NUMBER

E2.0



LIGHTING DEMOLITION NOTES:

- ALL LIGHTS AND SWITCHES FROM THE SUITE 4311 WILL BE REMOVED.
- ALL EXISTING LIGHTING WIRING WILL BE REMOVED.
- EXISTING LIGHTING HOMERUNS WILL BE KEPT FOR EACH ROOM. THE NEW LIGHTS WILL BE CONNECTED TO THE EXISTING HOMERUN IN EACH AREA.
- EXISTING BATHROOM IS NOT IN THE SCOPE OF WORK AND ALL LIGHTS AND SWITCHES WILL REMAIN AS IS.

KEYED NOTES:

- EXISTING JUNCTION BOX WILL BE REMOVED WITH THE ASSOCIATED WIRES BACK TO THE SWITCH.
- EXISTING SPEAKER CONNECTED TO THE FIRE ALARM SYSTEM WILL REMAIN AND SHALL BE ACTIVE DURING CONSTRUCTION. TYPICAL FOR ALL FIRE ALARM AND SECURITY CONCEALED DEVICES.
- EXISTING DAMAGED RECEPTACLES AND WIRING WILL BE REMOVED. THE ELECTRICAL CONTRACTOR WILL INSTALL NEW RECEPTACLE. WILL INTERCEPT THE BRANCH CIRCUIT IN THE WALL AND WILL EXTEND THE WIRES TO THE NEW INSTALLED RECEPTACLE. REFER TO THE NEW PLAN FOR THE RECEPTACLE LOCATION.

1
 E2.0
**CHAMBERS 4311
 EXISTING LIGHTING PLAN**
 SCALE: 1/4" = 1'-0"

I. GENERAL MECHANICAL NOTES

GENERAL

- A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ISSUE IN FORCE OF IBC & IMC CODE, VUSBC CODE, NFPA REGULATIONS, LOCAL FIRE MARSHAL'S OFFICE, REGULATIONS OF LOCAL AUTHORITIES HAVING JURISDICTION AND THE OWNERS INSURANCE UNDERWRITER.
- B. FURNISH AND INSTALL ALL LABOR, MATERIAL, AND EQUIPMENT AND SERVICES NECESSARY FOR COMPLETE AND SAFE INSTALLATION OF THE MECHANICAL SYSTEM(S) INDICATED ON THE DRAWINGS AND NOTED IN THE SPECIFICATIONS HEREINAFTER.
- C. MECHANICAL DRAWINGS ARE CONSIDERED DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK AND SYSTEMS. REFER TO ARCHITECTURAL DRAWINGS TO VERIFY LOCATION OF EQUIPMENT, ETC.
- D. NO CHANGES SHALL TAKE PLACE WITHOUT THE WRITTEN PERMISSION FROM THE ARCHITECT
- E. CONTRACTOR ASSUMES RESPONSIBILITY FOR PROPER ARRANGEMENT OF DUCTS, ETC., TO CONNECT APPROVED EQUIPMENT IN A PROPER AND APPROVED MANNER. FOLLOW EQUIPMENT MANUFACTURER'S DETAILED INSTRUCTIONS AND THE CONTRACT DOCUMENTS. NOTIFY THE ARCHITECT BEFORE PROCEEDING. NO EQUIPMENT INSTALLATION OR CONNECTIONS SHALL BE MADE IN A MANNER THAT VOIDS THE MANUFACTURER'S WARRANTY.
- F. QUALITY OF MATERIALS SHALL BE NEW, BEST OF THEIR RESPECTIVE KIND, FREE FROM DEFECTS AND LISTED BY ARI OR APPROPRIATE TESTING AGENCY.
- G. THE CONTRACTOR AGREES THAT HE AND HIS SUBCONTRACTORS WILL PROVIDE AND MAINTAIN A SAFE PLACE TO WORK AND WILL COMPLY WITH ALL LAWS AND REGULATIONS OF ANY GOVERNMENTAL AUTHORITIES HAVING JURISDICTION THEREOF. THE CONTRACTOR AGREES TO HOLD HARMLESS THE ENGINEER AND OWNER FROM ANY LIABILITY, LOSS, DAMAGE OR EXPENSE, ARISING FROM A FAILURE OR ALLEGED FAILURE ON THE PART OF THE CONTRACTOR, OR SUBCONTRACTORS TO PROVIDE AND MAINTAIN A SAFE PLACE TO WORK OR TO COMPLY WITH LAWS AND REGULATIONS OF GOVERNMENTAL AUTHORITIES HAVING JURISDICTION THEREOF.
- H. THE CONTRACTOR SHALL SUPPLY TO THE OWNER RELEVANT DRAWINGS, MANUALS AND A WRITTEN NARRATIVE OF SYSTEMS OPERATION AS A CONDITION OF COMPLETION OF WORK AND PRIOR TO FINAL PAYMENT.
- I. PERFORM TESTS AS NOTED AND/OR REQUIRED IN PRESENCE OF THE OWNER'S REPRESENTATIVE. PROVIDE ALL REQUIRED LABOR AND MATERIAL. REPAIR OR REPLACE DEFECTIVE WORK AS DIRECTED. SYSTEMS SHALL OPERATE SATISFACTORILY AS DESIGNED AND INTENDED. REPORT ANY DEFICIENCIES TO ARCHITECT.

COORDINATION

- A. COORDINATE THE WORK OF THIS SECTION WITH THE WORK OF OTHER SECTIONS IN AMPLE TIME FOR PROPER INSTALLATION AND CONNECTION, AND FOR THE PROVISION OF ALL OPENINGS REQUIRED IN FLOORS AND WALLS.
- B. VERIFY AND BECOME THOROUGHLY FAMILIAR WITH THE BUILDING SYSTEMS IN ORDER TO PROVIDE FOR PROPER DUCTWORK AND CEILING INTERCONNECTIONS WHERE APPLICABLE.
- C. VERIFY THE HEIGHT OF NEW DUCTWORK TO ASCERTAIN THAT IT DOES NOT CONFLICT WITH THE INSTALLATION OF LIGHT FIXTURES, CEILING SYSTEMS OR OTHER NEW TENANT CONSTRUCTION. PROMPTLY NOTIFY THE ARCHITECT, IN WRITING, OF ANY POTENTIAL CONFLICTS.
- D. CAREFULLY CHECK THE DOCUMENTS OF OTHER SECTIONS TO ASCERTAIN THE REQUIREMENTS OF ANY MATERIALS OR EQUIPMENT BEING FURNISHED AND INSTALLED BY THAT SECTION AND PROVIDE THE PROPER INSTALLATION OR CONNECTIONS INCLUDING CONTROLS.
- E. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF SUPPLY AND RETURN AIR DEVICES AND THERMOSTATS. REFER TO THE ARCHITECTURAL DRAWINGS FOR EQUIPMENT FINISHES AND MATERIALS NOT SPECIFIED HEREIN.
- F. PROVIDE REQUIRED SUPPORTS AND HANGERS FOR DUCTWORK, PIPING AND EQUIPMENT, SUCH THAT LOADING WILL NOT EXCEED ALLOWABLE LOADING OF STRUCTURE. SUBMITTAL OF A BID SHALL BE DEEMED A REPRESENTATION THAT THE CONTRACTOR SUBMITTING SUCH BID HAS ASCERTAINED ALLOWABLE LOADINGS AND HAS INCLUDED IN HIS ESTIMATES, THE COSTS ASSOCIATED IN FURNISHING REQUIRED SUPPORTS. ALL DUCTWORK, PIPING AND EQUIPMENT SUPPORTS SHALL BE INDEPENDENT OF THE CEILING SUPPORT SYSTEM.
- G. SCHEDULE ALL WORK CONNECTING WITH EXISTING SYSTEMS TO ENSURE A MINIMUM OF SERVICE INTERRUPTION. ALL INTERRUPTIONS OF SERVICES (POWER, WATER, HVAC, ETC.) AND ALL WORK IN OCCUPIED TENANT SPACES (E.G. PLUMBING OR ELECTRICAL WORK IN AN OCCUPIED TENANT'S SPACE BELOW A SPACE UNDER CONSTRUCTION) MUST BE SCHEDULED THROUGH THE BUILDING MANAGER.
- H. FURNISH ACCESS DOORS TO THE GENERAL CONTRACTOR, FOR INSTALLATION BY THE APPROPRIATE TRADES, IN LOCATIONS WHERE ACCESS IS REQUIRED TO MECHANICAL AND PLUMBING EQUIPMENT WHICH WOULD BE OTHERWISE INACCESSIBLE. CARE SHOULD BE TAKEN IN LOCATING MECHANICAL AND PLUMBING SYSTEMS TO MINIMIZE THE NUMBER OF ACCESS DOORS REQUIRED. FINAL LOCATIONS OF ACCESS DOORS IN FINISHED AREAS SHALL BE APPROVED BY THE ARCHITECT. ACCESS DOORS SHALL BE AS SPECIFIED BY THE ARCHITECT. WHERE NO ARCHITECTURAL ACCESS DOOR SPECIFICATIONS EXISTS, THEN ACCESS DOORS SHALL BE AS FOLLOWS: DRYWALL PARTITIONS - INRYCO/MILCON STYLE DW ; DRYWALL CEILINGS - INRYCO/MILCON STYLE DW OR STYLE WB-PL DIRECTED BY ARCHITECT; PLASTER WALLS OR CEILINGS -INRYCO/MILCON STYLE WB-PL.

SUBMITTALS AND APPROVALS

- A. APPROVALS FOR EQUIPMENT WILL NOT BE GIVEN UPON SUBMISSION OF MANUFACTURERS' NAMES. APPROVALS FOR EQUIPMENT WILL BE GIVEN ONLY AFTER RECEIPT OF COMPLETE AND SATISFACTORY SUBMITTALS. APPROVALS FOR EQUIPMENT WILL BE GRANTED IF SUCH EQUIPMENT CONFORMS TO THE PERFORMANCE REQUIREMENTS, SPACE CONDITIONS, WEIGHT REQUIREMENTS AND QUALITY REQUIREMENTS.
- B. NOTIFY THE ARCHITECT, IN WRITING, WITHIN 5 DAYS OF AWARD OF CONTRACT, OF THE PROPOSED DELIVERY SCHEDULE FOR ANY EQUIPMENT OR MATERIAL, WHICH WILL PREVENT THE INSTALLATION FROM BEING COMPLETED AT THE TIME OF THE SCHEDULED PROJECT COMPLETION.
- C. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE FOLLOWING MATERIALS AND EQUIPMENT:
 - C.1.FLEXIBLE DUCT
 - C.2.AIR DEVICES
 - C.3.TEMPERATURE CONTROLS
 - C.4.TESTING AND BALANCING REPORTS

- D. DUCTWORK, PIPING AND EQUIPMENT INSTALLED WITHOUT APPROVAL THEREOF SHALL BE DONE AT THE RISK OF THIS CONTRACTOR AND THE COST OF REMOVAL OF SUCH EQUIPMENT OR RELATED WORK WHICH IS JUDGED UNSATISFACTORY FOR ANY REASON SHALL BE AT THE EXPENSE OF THIS CONTRACTOR.

TESTING AND BALANCING

- A. AN INDEPENDENT CONTRACTOR WITH NEBB OR AABC CERTIFICATION SHALL FULLY TEST ALL SYSTEMS BEING ADDED OR MODIFIED IN THE SCOPE OF WORK FOR PROPER OPERATION AND SHALL DEMONSTRATE SUCH PROPER OPERATION TO THE TENANT AND ENGINEER'S REPRESENTATIVE. ANY SYSTEMS WHICH DO NOT TEST OUT SATISFACTORILY SHALL BE REPAIRED OR REPLACED AND RETESTED.
- B. ALL SYSTEM AND EQUIPMENT INSTALLED ON THE PROJECT SHALL BE BALANCED AND/OR ADJUSTED TO PROVIDE PROPER OPERATION OR FUNCTION IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, AND MANUFACTURER'S RECOMMENDATIONS.
- C. SUBMIT TO THE OWNER THREE (3) COPIES OF BALANCING AND TESTING RECORDS SPECIFIED HEREIN SHOWING THE MECHANICAL SYSTEMS HAVE BEEN BALANCED AND ARE DELIVERING SPECIFIED QUANTITIES.
- D. ADJUST AND CALIBRATE THE TEMPERATURE CONTROL SYSTEM FOR PROPER OPERATION AND AS REQUIRED TO MAINTAIN 75°F IN ALL OCCUPIED SPACES.
- E. AFTER ADJUSTMENTS ARE COMPLETED, THE MECHANICAL SYSTEMS SHALL BE TESTED, THE FINAL BALANCE REPORT SHALL INCLUDE AND IDENTIFY EQUIPMENT LOCATION, SERVICE, MANUFACTURER AND MODEL NUMBER. IN ADDITION, THE FOLLOWING INFORMATION SHALL BE INCLUDED:

E.1. AIR DEVICES:

- E.1.1 EACH AIR DEVICE SHALL BE IDENTIFIED AS TO LOCATION AND SERVICE.
- E.1.2 SIZE, TYPE AND MANUFACTURER OF AIR DEVICE LISTED
- E.1.3 REQUIRED CFM AND TEST RESULTANT CFM EACH DEVICE

E.2. DUCT SMOKE DETECTORS:

- E.2.1 PRESSURE DIFFERENTIAL ACROSS INLET AND OUTLET TAPS OF DETECTORS.
- F. AFTER THE SYSTEMS HAVE BEEN BALANCED AND ALL ADJUSTMENTS COMPLETED, RUN A SIX HOUR TEST ON BOTH HEATING AND COOLING CYCLE TO DETERMINE IF SYSTEM IS RESPONDING TO TEMPERATURE CONTROLS. THERMOSTAT TEMPERATURE READING, AND AN INDEPENDENT TEMPERATURE MEASUREMENT AT THE THERMOSTAT SHALL BE RECORDED AT EACH THERMOSTAT.

HVAC TEMPERATURE CONTROLS

- A. FURNISH AND INSTALL HVAC TEMPERATURE CONTROLS AS REQUIRED TO PROVIDE A COMPLETE AND WORKING TEMPERATURE CONTROL SYSTEM FOR THE TENANT SPACE.
- B. ALL TEMPERATURE CONTROL SYSTEM COMPONENTS SHALL BE FURNISHED, INSTALLED, CALIBRATED AND TESTED BY THIS CONTRACTOR.
- C. THERMOSTAT LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS. MOUNT THERMOSTATS 4'-0" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED.
- D. PROVIDE INITIAL SETUP AND PROGRAMMING OF ALL CONTROLS AND DEMONSTRATE TO OWNER.
- E. DUCT SMOKE DETECTORS: PROVIDE WHERE SHOWN ON THE DRAWINGS, IONIZATION TYPE AIR DUCT SMOKE DETECTORS. DETECTION CHAMBER SHALL BE CAPABLE OF BEING REMOVED WITHOUT BREAKING CONDUIT CONNECTIONS, OR REQUIRING AN ACCESS PANEL IN THE DUCT. DETECTOR SHALL BE OF SUCH DESIGN THAT PARTICLES OF DUST AND INSECTS LARGER IN SIZE THAN 200 MICRONS SHALL BE INCAPABLE OF FREE ENTRY INTO THE SMOKE CHAMBER AND ITS SENSITIVITY SHALL NOT BE AFFECTED BY CHANGES IN AIR VELOCITY ENCOUNTERED IN THE AIR DUCT OR BY RAPID CHANGES OF AIR PRESSURE, TEMPERATURE OR HUMIDITY. THE DETECTOR SHALL HAVE TWO SETS OF ALARM RELAY CONTACTS AND FRONT ACCESSIBILITY FOR ALL REQUIRED MAINTENANCE. DETECTOR SHALL BE EST DH 400 ADCDP OR APPROVED EQUAL.

HVAC EQUIPMENT

GENERAL

- A. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL REQUIREMENTS.
- B. EACH PIECE ON NEW HVAC EQUIPMENT SHALL HAVE A SCREW SECURED, ENGRAVED PLASTIC NAMEPLATE. NAMEPLATES SHALL INDICATE EQUIPMENT TYPE, DESIGNATION, VOLTAGE AND BRANCH CIRCUIT NUMBER. NAMEPLATES SHALL BE CLEARLY VISIBLE ON EQUIPMENT AS INSTALLED. NEW NAMEPLATES AND DESCRIPTIONS SHALL MATCH THE STYLE OF EXISTING NAMEPLATES.

DUCT, PIPING AND EQUIPMENT:

- A. CAREFULLY CHECK THE DOCUMENTS TO ASCERTAIN THE REQUIREMENTS OF ANY MATERIALS OR EQUIPMENT BEING FURNISHED OR INSTALLED AND PROVIDE THE PROPER INSTALLATION OR CONNECTIONS INCLUDING CONTROLS.
- B. PROVIDE 1" ACOUSTIC LINING IN THE MAIN SA & RA DUCTS TO 10 FT OF THE AIR HANDLER.
- C. INSTALL EXTERNAL DUCT WRAP INSULATION WITH VAPOR BARRIER ON ALL SUPPLY AND RETURN DUCT THAT IS NOT LINED AS SHOWN IN INSULATION SCHEDULE.
- D. REFRIGERANT PIPES SHALL BE COPPER TYPE-L FOR REFRIGERATION APPLICATIONS. CONNECTIONS SHALL BE EITHER COMPRESSION OR SWEAT TYPE. INSULATE REFRIGERANT SUCTION WITH RUBATEX R-1800RS, ARMSTRONG TYPE II OR APPROVED EQUAL CLOSED CELL INSULATION SIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION ADHESIVE. THE INSULATION, WHERE EXPOSED TO THE OUTDOORS, SHALL BE FINISHED WITH TWO COATS OF MANUFACTURER'S FINISH COATING, VINYL-LACQUER COATING OR APPROVED EQUAL.
- E. CONDENSATE PIPING SHALL BE PVC OR COPPER TYPE L.
- F. FURNISH AND INSTALL PRE-MOLDED FIBERGLASS PIPE INSULATION OR VAPOR BARRIER ON ALL PIPING LISTED BELOW:

PIPING TYPE	INSULATION THICKNESS
A/C CONDENSATE	1/2"
- G. VOLUME DAMPERS: PROVIDE ADJUSTABLE DAMPERS AT ALL DUCTWORK JUNCTIONS ON LOW PRESSURE SUPPLY DUCTWORK.

AIR DISTRIBUTION EQUIPMENT

SHEET METAL DUCTWORK

- A. FURNISH AND INSTALL NEW DUCTWORK AS SHOWN ON THE DRAWINGS. ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL, CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE (SDCS), THE ASHRAE GUIDE AND DATA "HANDBOOK OF FUNDAMENTALS" (LATEST EDITION) AND NFPA 90A "STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS" (LATEST EDITION). DUCTWORK SHALL BE SUITABLE FOR PRESSURES UP TO 2" WG AT VELOCITIES UP TO 2500 FPM.
- B. DUCT SIZES SHOWN ON THE DRAWINGS ARE FREE AIR STREAM DIMENSIONS. WHERE DUCT LINER IS SPECIFIED, INCREASE DUCT SHEET METAL DIMENSIONS ACCORDINGLY. DUCTWORK UPSTREAM OF HVAC TERMINAL UNITS, AND OUTSIDE AIR DUCTWORK SHALL BE DESIGNED FOR VELOCITIES UP TO 2500 FPM AND PRESSURES UP TO 3" WG. DUCTWORK DOWNSTREAM OF HVAC TERMINAL UNITS SHALL BE DESIGNED FOR VELOCITIES TO 2500 FPM AND PRESSURES UP TO 2" WG. INTERIOR EXHAUST AND TRANSFER FAN DUCTWORK SHALL BE DESIGNED FOR VELOCITIES UP TO 2500 FPM AND PRESSURES UP TO 1" WG.
- C. ROUTE ALL DUCT TIGHT TO UNDERSIDE OF STRUCTURE, UNLESS OTHERWISE NOTED. ALL DUCTWORK SHALL BE TOP LEVEL WITH BOTTOM AND SIDE TRANSITIONS ONLY.

- D. BALANCING DAMPERS SHALL BE PROVIDED IN ALL ZONES OF MULTI-ZONE AIR HANDLING UNITS AND WHERE SHOWN ON THE DRAWINGS.
- E. TURNING VANES SHALL BE INSTALLED IN ALL ABRUPT ELBOWS AND BEND OF 48 DEGREES OR GREATER AND WHERE SHOWN ON THE DRAWINGS AND SHALL BE FABRICATED WITH ELGEN, SHEET METAL PRODUCTS OR APPROVED EQUAL SINGLE VANE. TURNING VANES ARE NOT REQUIRED IN STANDARD RADIUS ELBOWS.
- F. ALL RETURN AIR DUCT OPENINGS ABOVE CEILING SHALL BE COVERED WITH 1/2" MESH SCREEN.
- G. ALL ROUND RUNOUTS AND FLEXIBLE DUCTWORK TO A SINGLE CEILING DIFFUSER SHALL BE SAME SIZE AS DIFFUSER NECK.
- H. INSTALL CEILING AIR DEVICES IN GRID AS CLOSE AS POSSIBLE TO LOCATION SHOWN ON PLAN. COORDINATE LOCATION WITH LIGHT FIXTURES AND SPRINKLER HEADS.
- I. SIZES: WHEN PIPE OR DUCT SIZE IS NOT INDICATED, SIZE THAT SECTION EQUAL TO THE ADJACENT UPSTREAM SIZE, UNLESS OTHERWISE APPROVED BY THE ENGINEER. DUCT RUN OUTS SHALL BE MINIMALLY SIZED ACCORDING TO NECK SIZE OF THE RESPECTIVE DIFFUSER.

LEAKAGE

- A. ALL DUCT JOINTS SHALL BE SEALED WITH HARDCAST 601.
- B. CONTRACTOR SHALL INSPECT ALL DUCTWORK, FITTINGS, INSULATION AND VAPOR BARRIER FOR DEFECTS OR LEAKAGE AND SEAL, CAP, RE-INSULATE, AND TAPE OVER AS REQUIRED TO PROVIDE REASONABLY WELL SEALED DUCT SYSTEM WITH APPROPRIATE INSULATION AND VAPOR BARRIER.
- C. ALL PRESSURIZED PIPING SHALL BE LEAK TESTED PRIOR TO ENCLOSURE OR COVER-UP. PIPING SHALL BE LEAK TESTED FOR 24 HOURS UNDER A HYDROSTATIC PRESSURE OF 150% OF THE SYSTEM DESIGN WORKING PRESSURE. CARE SHALL BE TAKEN TO PROTECT ANY EQUIPMENT WHICH MAY BE DAMAGED BY HYDROSTATIC TESTING.
- D. LEAKAGE TESTING FOR ALL DUCTWORK SHALL BE BY PHYSICAL SENSATION AND SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.
- E. PERFORM ALL TESTING AFTER THE SEALS HAVE CURED COMPLETELY AND BEFORE COVERING WITH INSULATION OR CONCEALING IN MASONRY.

FLEXIBLE DUCT

- A. FLEXIBLE CONNECTORS: PROVIDE FLEXIBLE CONNECTORS AT THE INLET AND OUTLET CONNECTION FOR EACH FAN AND AIR HANDLING UNIT. EACH FLEXIBLE CONNECTOR SHALL ALLOW 1" OF FREE MOVEMENT AND SHALL BE COMPLETELY AIR TIGHT. PROVIDE NEOPRENE COATED GLASS FABRIC MATERIAL, MINIMUM 30 OZ. PER SQUARE YARD. CONTRACTOR SHALL BRACE DUCTWORK (AS REQUIRED) AT ALL FLEXIBLE CONNECTORS TO ENSURE THAT DUCTWORK IS KEPT IN ALIGNMENT.
- B. FLEXIBLE DUCT: PROVIDE INSULATED U.L. LISTED CLASS 1 DUCT COMPLYING WITH NFPA 90A. MAXIMUM LENGTH SHALL BE 10 FEET. FLEXIBLE AIR CONNECTORS SHALL NOT BE ACCEPTABLE. FLEXMASTER, THERMAFLEX, WIREMOLD, OR CLEVAFLEX.
- C. TURNING VANES: PROVIDE TURNING VANES MANUFACTURED OF GALVANIZED STEEL PER SMACNA IN ALL MITERED ELBOWS 30 DEGREES OR MORE.

AIR DEVICES:

- A. STEEL CONSTRUCTION WITH ENAMEL FINISH (COLOR BY ARCHITECT).
- B. ACCEPTABLE MANUFACTURERS: TITUS, PRICE, KRUEGER, TUTTLE & BAILEY, METALAIR, ANEMOSTAR OR CARNES.
- C. FURNISH AND INSTALL AIR DISTRIBUTION DEVICES AS SCHEDULED ON THE DRAWINGS AND REQUIRED. DEVICES SHALL BE COMPLETE WITH ALL REQUIRED MOUNTING ACCESSORIES FOR INSTALLATION IN THE ACTUAL CONSTRUCTION AT THE INSTALLATION LOCATION. DEVICES SHALL BE SUITABLE FOR MOUNTING IN THE CEILING OR WALL TYPE FOR WHICH THEY WILL BE INSTALLED. COORDINATE MOUNTING TYPES WITH THE ARCHITECTURAL DRAWINGS.
- D. ALL AIR DEVICES SHALL BE SELECTED TO PROVIDE A NC OF 30 OR LESS AT INDICATED CFM AND SHALL INCLUDE BALANCING DAMPERS AND OTHER TYPICAL ACCESSORIES AS REQUIRED.
- E. ALL CEILING AND WALL-MOUNTED AIR DEVICES SHALL BE PAINTED WHITE OR OFF WHITE, UNLESS SPECIFIED OTHERWISE, AND ALL AIR DEVICES SHALL BE THE SAME COLOR.

DUCT INSULATION SCHEDULE		
SERVICE	LOCATION	MINIMUM R-VALUE
SUPPLY AIR	UNCONDITIONED	8
RETURN AIR	ATTIC OR	8
TRANSFER AIR	OUTSIDE OF BUILDING	8
OUTDOOR AIR		4
SUPPLY AIR	UNCONDITIONED	6
RETURN AIR	SPACES INCLUDING	6
TRANSFER AIR	BASEMENTS, CRAWL SPACES,	6
OUTDOOR AIR	GARAGES AND ABOVE CEILINGS	2

- 1. UNCONDITIONED SPACES REFERS TO SPACES THAT SEPARATE CONDITIONED SPACE FROM OUTSIDE I.E. VENTILATED CRAWL SPACES; FRAMED CAVITIES WITHIN EXTERIOR WALLS; OR CEILING ASSEMBLIES SEPARATING CONDITIONED FLOOR SPACE FROM UNCONDITIONED ATTIC.
- 2. WHERE REQUIRED AS SPECIFIED IN NOTES OR DRAWINGS DUCT LINER SHALL BE INSTALLED OF EQUAL VALUE TO REQUIRED INSULATION R-VALUE OR SO THAT THE COMBINED R-VALUE OF DUCT LINER PLUS INSULATION MEETS OR EXCEEDS VALUES INDICATED ABOVE.

MECHANICAL ABBREVIATIONS AND SYMBOLS

AHU	AIR HANDLING UNIT		SUPPLY AIR DIFFUSER
AMB	AMBIENT		RETURN AIR GRILL
BLDG	BUILDING		EXHAUST AIR GRILL
BTU	BRITISH THERMAL UNIT		FLEXIBLE DUCT
CFM	CUBIC FEET PER MINUTE		FLEXIBLE DUCT CONNECTION
CU	CONDENSER UNIT		SUPPLY OR OUTSIDE AIR DUCT UP
DH	DUCT HEATER		SUPPLY OR OUTSIDE AIR DUCT DOWN
DIA	DIAMETER		RETURN AIR DUCT UP
DIFF	DIFFUSER		RETURN AIR DUCT DOWN
DN	DOWN		EXHAUST AIR DUCT UP
DWG	DRAWING		EXHAUST AIR DUCT DOWN
EA	EXHAUST AIR		EXHAUST AIR DUCT DOWN
EG	EXHAUST GRILLE		DRAWING NOTE REFERENCE
EF	EXHAUST FAN		MECHANICAL EQUIPMENT REFERENCE, 'a' DENOTES TYPE, 'b' DENOTES NUMBER
EW	ELECTRIC WALL HEATER		AIR DISTRIBUTION DEVICE REFERENCE, 'a' DENOTES TYPE, 'b' DENOTES CFM, 'c/d' DENOTES NECK SIZE
EX, (E)	EXISTING		DUCT SMOKE DETECTOR
F	FAHRENHEIT, FAN		VOLUME DAMPER
FCU	FAN COIL UNIT		SPIN-IN FITTING
FLEX	FLEXIBLE		MOTORIZED CONTROL DAMPER
FT	FOOT, FEET		THERMOSTAT OR ROOM TEMPERATURE SENSOR
HP	HORSE POWER, HEAT PUMP		CO2 SENSOR
HTG	HEATING		CONNECT TO EXISTING
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING		EXISTING TO BE REMOVED
HZ	HERTZ		EXISTING TO REMAIN
IN	INCH		NEW
KW	KILOWATT		UNDER CUT DOOR, 'a' DONATES SIZE
MA	MAKE-UP AIR		DUCT HEATER
MAX	MAXIMUM		BACK DRAFT DAMPER
MBH	THOUSANDS OF BTU'S		DISCONNECT FROM EXISTING
MECH	MECHANICAL		FIRE DAMPER
NTS	NOT TO SCALE		PULL STATION
OA	100% OUTSIDE AIR UNIT		
OE RA	OPEN END RETURN		
PH	PHASE		
(R), (RE)	RELOCATED		
RTU	ROOF TOP UNIT		
(RX)	REMOVE EXISTING		
RA	RETURN AIR		
RD	RETURN DIFFUSER		
RAG	RETURN AIR GRILLE		
RPM	REVOLUTIONS PER MINUTE		
SA	SUPPLY AIR		
SD	SUPPLY DIFFUSER		
SP	STATIC PRESSURE		
TA	TRANSFER AIR		
TOT	TOTAL		
TSTAT	THERMOSTAT		
TYP	TYPICAL		
VD	VOLUME DAMPER		
W	WATT, WIDTH		
WI	WITH		
W/O	WITHOUT		

SCOPE NARRATIVE:

- TWO EXISTING WALL MOUNTED SUPPLY DIFFUSERS WILL DEMOLISHED AND 2 NEW CEILING MOUNTED DIFFUSERS WILL BE INSTALLED IN THE EXISTING OFFICES.

APPLICABLE CODES:
2018 PBS P100 CODE
2020 National Electrical Code.
ASHRAE 90.1-2016
ASHRAE 55-2010

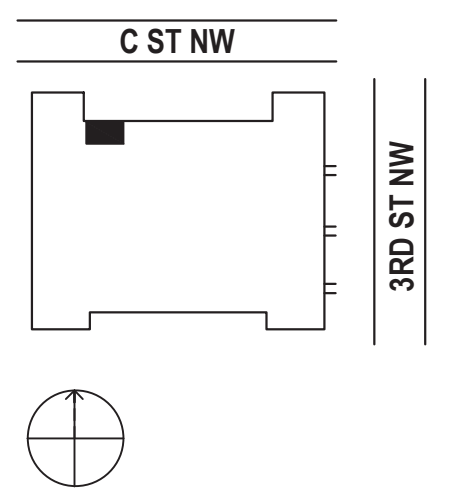
- NOTES:**
1. METALLIC FLEXIBLE DUCTWORK SHALL BE ATTACHED USING A MINIMUM OF THREE #8 SHEET METAL SCREWS EQUALLY SPACED AROUND THE DUCTWORK CIRCUMFERENCE. DUCTWORK LARGER THAN 12" SHALL HAVE A MINIMUM OF FIVE #8 SHEET METAL SCREWS. SCREWS SHALL BE LOCATED AT LEAST 1" FROM THE DUCTWORK END.
 2. NON-METALLIC FLEXIBLE DUCTWORK SHALL BE SECURED TO THE SLEEVE OR COLLAR USING A DRAW BAND. IF THE DUCTWORK COLLAR EXCEEDS 12", THE DRAW BAND MUST BE POSITIONED BEHIND A BEAD ON THE METAL COLLAR.
 3. INSULATION AND VAPOR BARRIERS PRESENT ON FACTORY-FABRICATED DUCTWORK SHALL BE FITTED OVER THE CORE CONNECTION AND SHALL BE SUPPLEMENTARY SECURED WITH A DRAW BAND.
 4. FLEXIBLE DUCTWORK SEALING SHALL BE A CLASS 'B' SEAL FOR LOW PRESSURE DUCTWORK.
 5. SUPPORT SYSTEM SHALL NOT DAMAGE OR CAUSE OUT-OF-ROUND SHAPE.
 6. FLEXIBLE DUCTWORK SHALL BE A MAXIMUM OF 8'-0" IN LENGTH AND SHALL NOT BE USED AS AN ELBOW.

CONSULTANTS
MEP
 MEP DESIGNS, INC.
 8551 RIXLEW LN.
 SUITE 200
 MANASSAS, VA 20109

PROJECT
REPLACE CEILING LIGHT SYSTEM AT USDC CHAMBERS 4311

UNITED STATES COURTHOUSE
 333 CONSTITUTION AVE. NW
 WASHINGTON, DC 20001

KEYPLAN



100% FINAL DESIGN
 FOR CONSTRUCTION
 6.1.22

ISSUE CHART

MARK	ISSUE	DATE
	100% CONSTRUCTION DOCUMENTS	6.1.22
	DESIGN INTENT DRAWINGS	6.4.21

Drawn	MEP
Checked	MEP
Approved	MEP

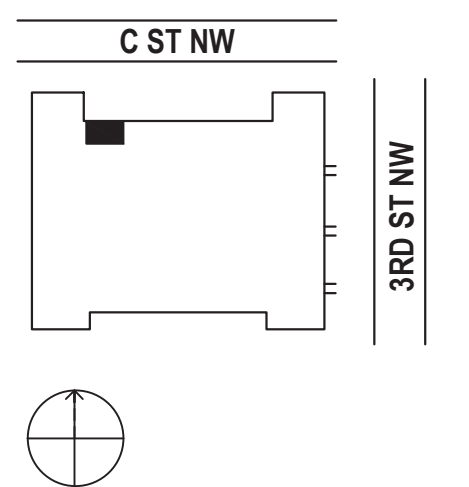
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CHAMBERS 4311 MECHANICAL NOTES AND SYMBOLS

SHEET NUMBER

M1.0

- MECHANICAL GENERAL NOTES:**
- ALL HVAC WORK AND EQUIPMENT ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
 - ALL EXISTING LOUVERED DOOR WILL REMAIN
- MECHANICAL NOTES:**
- EXISTING WALL MOUNTED SUPPLY DIFFUSER WILL BE REMOVED WITH THE BRANCH DUCT UP TO THE MAIN DUCT. NEW FLEXIBLE FLEXIBLE DUCT WILL BE ROUTED FROM THE MAIN DUCT TO THE NEW CEILING MOUNTED SUPPLY DIFFUSER. MECHANICAL CONTRACTOR WILL INSTALL A VOLUMETRIC DAMPER IN AN ACCESSIBLE LOCATION FOR THE NEW DIFFUSER IN ORDER TO BE ABLE TO BALANCE THE AIR FLOW. THE MECHANICAL CONTRACTOR SHALL RE-BALANCE THE HVAC SYSTEM AS INDICATED IN THESE DRAWINGS AND IN ACCORDING TO THE BASE BUILDING MECHANICAL DRAWINGS. MECHANICAL CONTRACTOR TO VERIFY EXISTING CONDITIONS DURING DEMOLITION PROCESS AND TO PROVIDE A MIN Ø8" FLEXIBLE DUCT CONNECTION TO THE MAIN DUCT.

KEYPLAN



100% FINAL DESIGN
 FOR CONSTRUCTION
 6.1.22

ISSUE CHART

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DESIGN INTENT DRAWINGS	6.4.21
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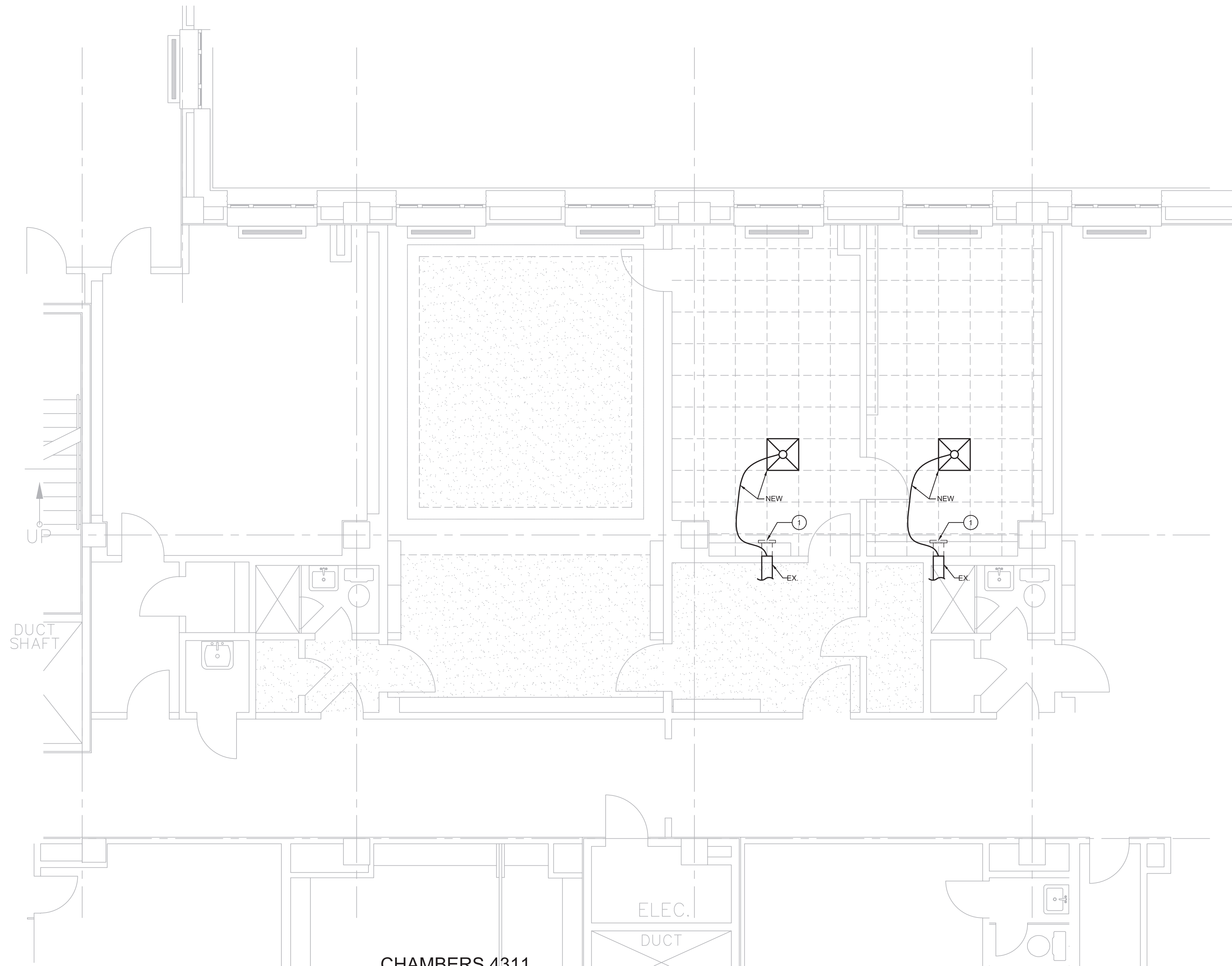
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CHAMBERS 4311
 MECHANICAL PLAN

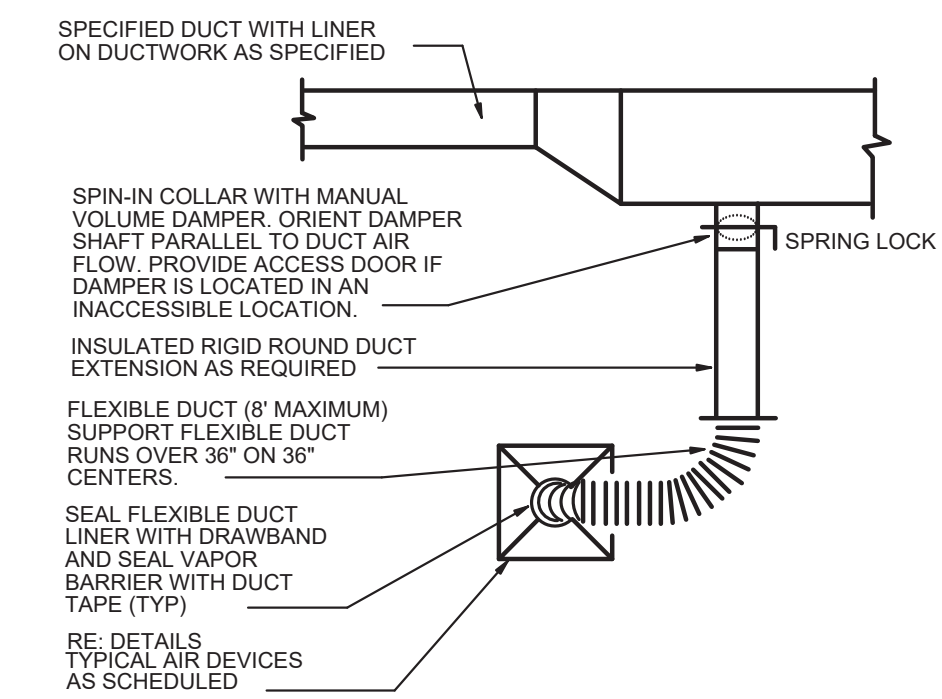
SHEET NUMBER

M2.0



**CHAMBERS 4311
 MECHANICAL PLAN**

1
 M2.0 SCALE: 1/4" = 1'-0"



**TYPICAL AIR DEVICE
 FLEXIBLE CONNECTION**

2
 M2.0 SCALE: N.T.S.

AIR DISTRIBUTION DEVICE SCHEDULE

UNIT NO.	SERVICE	TYPE	NECK	FACE IN SQFT.	MANUFACTURER MAKE
A	SUPPLY	PERFORATED, LAY-IN MOUNT	SEE PLAN	24"x24"	TITUS MODEL PAS

"REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210 Wage Determination No.: 2015-4281 Revision No.: 24 Date Of Last Revision: 06/27/2022
Daniel W. Simms Director	Division of Wage Determinations

Note: Contracts subject to the Service Contract Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658.

If the contract is entered into on or after January 30 2022 or the contract is renewed or extended (e.g. an option is exercised) on or after January 30 2022:	With certain exceptions Executive Order 14026 applies to the contract. The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination if it is higher) for all hours spent performing on the contract in 2022.
If the contract is entered into on or after January 30 2022 or the 2022 and the contract is not renewed or extended on or after January 30 2022:	With certain exceptions Executive Order 13658 applies to the contract. The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination if it is higher) for all hours spent performing on the contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

States: District of Columbia Maryland Virginia

Area: District of Columbia Statewide
 Maryland Counties of Calvert Charles Prince George's
 Virginia Counties of Alexandria Arlington Fairfax Falls Church Fauquier
 Loudoun Manassas Manassas Park Prince William Stafford

****Fringe Benefits Required Follow the Occupational Listing****

OCCUPATION CODE - TITLE	FOOTNOTE	RATE
01000 - Administrative Support And Clerical Occupations		
01011 - Accounting Clerk I		19.39
01012 - Accounting Clerk II		21.79
01013 - Accounting Clerk III		24.36
01020 - Administrative Assistant		37.47
01035 - Court Reporter		28.71
01041 - Customer Service Representative I		16.73
01042 - Customer Service Representative II		18.25
01043 - Customer Service Representative III		20.48
01051 - Data Entry Operator I		16.64
01052 - Data Entry Operator II		18.16
01060 - Dispatcher Motor Vehicle		23.00
01070 - Document Preparation Clerk		18.23
01090 - Duplicating Machine Operator		18.23

01111 - General Clerk I	17.51
01112 - General Clerk II	19.12
01113 - General Clerk III	21.47
01120 - Housing Referral Assistant	25.33
01141 - Messenger Courier	19.79
01191 - Order Clerk I	16.71
01192 - Order Clerk II	18.23
01261 - Personnel Assistant (Employment) I	19.76
01262 - Personnel Assistant (Employment) II	22.10
01263 - Personnel Assistant (Employment) III	24.63
01270 - Production Control Clerk	26.81
01290 - Rental Clerk	18.17
01300 - Scheduler Maintenance	20.31
01311 - Secretary I	20.31
01312 - Secretary II	22.72
01313 - Secretary III	25.33
01320 - Service Order Dispatcher	20.56
01410 - Supply Technician	37.47
01420 - Survey Worker	21.30
01460 - Switchboard Operator/Receptionist	17.45
01531 - Travel Clerk I	19.03
01532 - Travel Clerk II	20.71
01533 - Travel Clerk III	22.45
01611 - Word Processor I	18.62
01612 - Word Processor II	20.92
01613 - Word Processor III	23.39
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer Fiberglass	28.60
05010 - Automotive Electrician	26.35
05040 - Automotive Glass Installer	24.82
05070 - Automotive Worker	24.82
05110 - Mobile Equipment Servicer	21.35
05130 - Motor Equipment Metal Mechanic	27.74
05160 - Motor Equipment Metal Worker	24.82
05190 - Motor Vehicle Mechanic	27.74
05220 - Motor Vehicle Mechanic Helper	19.53
05250 - Motor Vehicle Upholstery Worker	23.17
05280 - Motor Vehicle Wrecker	24.82
05310 - Painter Automotive	26.35
05340 - Radiator Repair Specialist	24.82
05370 - Tire Repairer	15.88
05400 - Transmission Repair Specialist	27.74
07000 - Food Preparation And Service Occupations	
07010 - Baker	17.31
07041 - Cook I	17.78
07042 - Cook II	20.67
07070 - Dishwasher	14.59***
07130 - Food Service Worker	14.77***
07210 - Meat Cutter	20.41
07260 - Waiter/Waitress	14.12***
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	23.06
09040 - Furniture Handler	14.06***
09080 - Furniture Refinisher	22.12
09090 - Furniture Refinisher Helper	16.39
09110 - Furniture Repairer Minor	19.45
09130 - Upholsterer	19.86
11000 - General Services And Support Occupations	
11030 - Cleaner Vehicles	14.32***
11060 - Elevator Operator	15.64
11090 - Gardener	23.36
11122 - Housekeeping Aide	15.64
11150 - Janitor	15.64
11210 - Laborer Grounds Maintenance	17.44
11240 - Maid or Houseman	14.58***

11260 - Pruner	16.35
11270 - Tractor Operator	21.37
11330 - Trail Maintenance Worker	17.44
11360 - Window Cleaner	16.64
12000 - Health Occupations	
12010 - Ambulance Driver	23.71
12011 - Breath Alcohol Technician	25.31
12012 - Certified Occupational Therapist Assistant	35.59
12015 - Certified Physical Therapist Assistant	30.02
12020 - Dental Assistant	23.78
12025 - Dental Hygienist	50.57
12030 - EKG Technician	37.13
12035 - Electroneurodiagnostic Technologist	37.13
12040 - Emergency Medical Technician	23.71
12071 - Licensed Practical Nurse I	22.63
12072 - Licensed Practical Nurse II	25.31
12073 - Licensed Practical Nurse III	28.22
12100 - Medical Assistant	18.95
12130 - Medical Laboratory Technician	28.82
12160 - Medical Record Clerk	22.95
12190 - Medical Record Technician	27.06
12195 - Medical Transcriptionist	20.72
12210 - Nuclear Medicine Technologist	43.13
12221 - Nursing Assistant I	13.87***
12222 - Nursing Assistant II	15.59
12223 - Nursing Assistant III	17.01
12224 - Nursing Assistant IV	19.11
12235 - Optical Dispenser	25.02
12236 - Optical Technician	21.36
12250 - Pharmacy Technician	18.40
12280 - Phlebotomist	21.37
12305 - Radiologic Technologist	37.13
12311 - Registered Nurse I	30.40
12312 - Registered Nurse II	36.78
12313 - Registered Nurse II Specialist	36.78
12314 - Registered Nurse III	44.14
12315 - Registered Nurse III Anesthetist	44.14
12316 - Registered Nurse IV	52.91
12317 - Scheduler (Drug and Alcohol Testing)	31.36
12320 - Substance Abuse Treatment Counselor	28.68
13000 - Information And Arts Occupations	
13011 - Exhibits Specialist I	24.30
13012 - Exhibits Specialist II	30.10
13013 - Exhibits Specialist III	36.82
13041 - Illustrator I	22.26
13042 - Illustrator II	27.57
13043 - Illustrator III	33.73
13047 - Librarian	42.46
13050 - Library Aide/Clerk	17.98
13054 - Library Information Technology Systems Administrator	38.33
13058 - Library Technician	23.37
13061 - Media Specialist I	27.67
13062 - Media Specialist II	30.94
13063 - Media Specialist III	34.50
13071 - Photographer I	20.30
13072 - Photographer II	22.87
13073 - Photographer III	28.64
13074 - Photographer IV	34.67
13075 - Photographer V	41.62
13090 - Technical Order Library Clerk	22.57
13110 - Video Teleconference Technician	30.04
14000 - Information Technology Occupations	
14041 - Computer Operator I	22.89
14042 - Computer Operator II	25.63

14043 - Computer Operator III		28.56
14044 - Computer Operator IV		31.72
14045 - Computer Operator V		35.16
14071 - Computer Programmer I	(see 1)	26.99
14072 - Computer Programmer II	(see 1)	
14073 - Computer Programmer III	(see 1)	
14074 - Computer Programmer IV	(see 1)	
14101 - Computer Systems Analyst I	(see 1)	
14102 - Computer Systems Analyst II	(see 1)	
14103 - Computer Systems Analyst III	(see 1)	
14150 - Peripheral Equipment Operator		22.89
14160 - Personal Computer Support Technician		31.72
14170 - System Support Specialist		38.69
15000 - Instructional Occupations		
15010 - Aircrew Training Devices Instructor (Non-Rated)		36.47
15020 - Aircrew Training Devices Instructor (Rated)		44.06
15030 - Air Crew Training Devices Instructor (Pilot)		52.81
15050 - Computer Based Training Specialist / Instructor		36.47
15060 - Educational Technologist		46.20
15070 - Flight Instructor (Pilot)		52.81
15080 - Graphic Artist		36.01
15085 - Maintenance Test Pilot Fixed Jet/Prop		51.76
15086 - Maintenance Test Pilot Rotary Wing		51.76
15088 - Non-Maintenance Test/Co-Pilot		51.76
15090 - Technical Instructor		31.61
15095 - Technical Instructor/Course Developer		38.67
15110 - Test Proctor		25.52
15120 - Tutor		25.52
16000 - Laundry Dry-Cleaning Pressing And Related Occupations		
16010 - Assembler		17.13
16030 - Counter Attendant		17.13
16040 - Dry Cleaner		19.57
16070 - Finisher Flatwork Machine		17.13
16090 - Presser Hand		17.13
16110 - Presser Machine Drycleaning		17.13
16130 - Presser Machine Shirts		17.13
16160 - Presser Machine Wearing Apparel Laundry		17.13
16190 - Sewing Machine Operator		20.38
16220 - Tailor		21.20
16250 - Washer Machine		17.94
19000 - Machine Tool Operation And Repair Occupations		
19010 - Machine-Tool Operator (Tool Room)		29.55
19040 - Tool And Die Maker		35.89
21000 - Materials Handling And Packing Occupations		
21020 - Forklift Operator		22.18
21030 - Material Coordinator		26.81
21040 - Material Expediter		26.81
21050 - Material Handling Laborer		15.98
21071 - Order Filler		16.60
21080 - Production Line Worker (Food Processing)		22.18
21110 - Shipping Packer		18.17
21130 - Shipping/Receiving Clerk		18.17
21140 - Store Worker I		16.31
21150 - Stock Clerk		20.29
21210 - Tools And Parts Attendant		22.18
21410 - Warehouse Specialist		22.18
23000 - Mechanics And Maintenance And Repair Occupations		
23010 - Aerospace Structural Welder		40.71
23019 - Aircraft Logs and Records Technician		32.27
23021 - Aircraft Mechanic I		38.65
23022 - Aircraft Mechanic II		40.71
23023 - Aircraft Mechanic III		42.69
23040 - Aircraft Mechanic Helper		27.20
23050 - Aircraft Painter		36.70
23060 - Aircraft Servicer		32.27

23070 - Aircraft Survival Flight Equipment Technician	36.70
23080 - Aircraft Worker	34.57
23091 - Aircrew Life Support Equipment (ALSE) Mechanic I	34.57
23092 - Aircrew Life Support Equipment (ALSE) Mechanic II	38.65
23110 - Appliance Mechanic	22.74
23120 - Bicycle Repairer	17.40
23125 - Cable Splicer	36.39
23130 - Carpenter Maintenance	27.29
23140 - Carpet Layer	22.54
23160 - Electrician Maintenance	29.95
23181 - Electronics Technician Maintenance I	32.91
23182 - Electronics Technician Maintenance II	34.94
23183 - Electronics Technician Maintenance III	36.78
23260 - Fabric Worker	25.98
23290 - Fire Alarm System Mechanic	29.84
23310 - Fire Extinguisher Repairer	23.94
23311 - Fuel Distribution System Mechanic	37.07
23312 - Fuel Distribution System Operator	28.53
23370 - General Maintenance Worker	23.48
23380 - Ground Support Equipment Mechanic	38.65
23381 - Ground Support Equipment Servicer	32.27
23382 - Ground Support Equipment Worker	34.57
23391 - Gunsmith I	23.94
23392 - Gunsmith II	27.83
23393 - Gunsmith III	31.11
23410 - Heating Ventilation And Air-Conditioning Mechanic	30.17
23411 - Heating Ventilation And Air Contidioning Mechanic (Research Facility)	31.78
23430 - Heavy Equipment Mechanic	29.18
23440 - Heavy Equipment Operator	26.20
23460 - Instrument Mechanic	33.14
23465 - Laboratory/Shelter Mechanic	29.55
23470 - Laborer	16.48
23510 - Locksmith	32.72
23530 - Machinery Maintenance Mechanic	30.29
23550 - Machinist Maintenance	30.16
23580 - Maintenance Trades Helper	18.27
23591 - Metrology Technician I	33.14
23592 - Metrology Technician II	34.91
23593 - Metrology Technician III	36.61
23640 - Millwright	29.89
23710 - Office Appliance Repairer	22.96
23760 - Painter Maintenance	22.38
23790 - Pipefitter Maintenance	30.60
23810 - Plumber Maintenance	29.07
23820 - Pneudraulic Systems Mechanic	31.11
23850 - Rigger	31.05
23870 - Scale Mechanic	27.83
23890 - Sheet-Metal Worker Maintenance	29.04
23910 - Small Engine Mechanic	22.69
23931 - Telecommunications Mechanic I	37.06
23932 - Telecommunications Mechanic II	39.03
23950 - Telephone Lineman	37.13
23960 - Welder Combination Maintenance	27.58
23965 - Well Driller	27.13
23970 - Woodcraft Worker	31.11
23980 - Woodworker	23.94
24000 - Personal Needs Occupations	
24550 - Case Manager	20.75
24570 - Child Care Attendant	15.17
24580 - Child Care Center Clerk	18.91
24610 - Chore Aide	14.42***

24620 - Family Readiness And Support Services Coordinator	20.75
24630 - Homemaker	20.75
25000 - Plant And System Operations Occupations	
25010 - Boiler Tender	37.98
25040 - Sewage Plant Operator	28.29
25070 - Stationary Engineer	37.98
25190 - Ventilation Equipment Tender	26.74
25210 - Water Treatment Plant Operator	28.29
27000 - Protective Service Occupations	
27004 - Alarm Monitor	23.83
27007 - Baggage Inspector	19.39
27008 - Corrections Officer	29.35
27010 - Court Security Officer	30.66
27030 - Detection Dog Handler	21.69
27040 - Detention Officer	29.35
27070 - Firefighter	31.96
27101 - Guard I	19.39
27102 - Guard II	21.69
27131 - Police Officer I	33.25
27132 - Police Officer II	36.96
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	16.91
28042 - Carnival Equipment Repairer	18.48
28043 - Carnival Worker	12.94***
28210 - Gate Attendant/Gate Tender	18.07
28310 - Lifeguard	12.75***
28350 - Park Attendant (Aide)	20.22
28510 - Recreation Aide/Health Facility Attendant	14.76***
28515 - Recreation Specialist	25.05
28630 - Sports Official	16.10
28690 - Swimming Pool Operator	21.48
29000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker And Bracer	34.82
29020 - Hatch Tender	34.82
29030 - Line Handler	34.82
29041 - Stevedore I	32.51
29042 - Stevedore II	36.97
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist Center (HFO) (see 2)	46.70
30011 - Air Traffic Control Specialist Station (HFO) (see 2)	32.20
30012 - Air Traffic Control Specialist Terminal (HFO) (see 2)	35.47
30021 - Archeological Technician I	20.86
30022 - Archeological Technician II	23.34
30023 - Archeological Technician III	28.90
30030 - Cartographic Technician	28.90
30040 - Civil Engineering Technician	32.88
30051 - Cryogenic Technician I	32.01
30052 - Cryogenic Technician II	35.36
30061 - Drafter/CAD Operator I	20.86
30062 - Drafter/CAD Operator II	23.34
30063 - Drafter/CAD Operator III	26.01
30064 - Drafter/CAD Operator IV	32.01
30081 - Engineering Technician I	22.92
30082 - Engineering Technician II	25.72
30083 - Engineering Technician III	28.79
30084 - Engineering Technician IV	35.64
30085 - Engineering Technician V	43.61
30086 - Engineering Technician VI	52.76
30090 - Environmental Technician	28.90
30095 - Evidence Control Specialist	28.90
30210 - Laboratory Technician	28.21
30221 - Latent Fingerprint Technician I	37.63
30222 - Latent Fingerprint Technician II	41.56
30240 - Mathematical Technician	35.01

30361 - Paralegal/Legal Assistant I	23.32
30362 - Paralegal/Legal Assistant II	28.90
30363 - Paralegal/Legal Assistant III	35.35
30364 - Paralegal/Legal Assistant IV	42.76
30375 - Petroleum Supply Specialist	35.36
30390 - Photo-Optics Technician	28.90
30395 - Radiation Control Technician	35.36
30461 - Technical Writer I	28.83
30462 - Technical Writer II	35.27
30463 - Technical Writer III	42.68
30491 - Unexploded Ordnance (UXO) Technician I	29.68
30492 - Unexploded Ordnance (UXO) Technician II	35.91
30493 - Unexploded Ordnance (UXO) Technician III	43.04
30494 - Unexploded (UXO) Safety Escort	29.68
30495 - Unexploded (UXO) Sweep Personnel	29.68
30501 - Weather Forecaster I	32.01
30502 - Weather Forecaster II	38.93
30620 - Weather Observer Combined Upper Air Or	(see 2) 26.01
Surface Programs	
30621 - Weather Observer Senior	(see 2) 28.90
31000 - Transportation/Mobile Equipment Operation Occupations	
31010 - Airplane Pilot	35.91
31020 - Bus Aide	16.18
31030 - Bus Driver	23.52
31043 - Driver Courier	20.34
31260 - Parking and Lot Attendant	15.09
31290 - Shuttle Bus Driver	19.93
31310 - Taxi Driver	17.71
31361 - Truckdriver Light	22.24
31362 - Truckdriver Medium	24.14
31363 - Truckdriver Heavy	23.78
31364 - Truckdriver Tractor-Trailer	23.78
99000 - Miscellaneous Occupations	
99020 - Cabin Safety Specialist	17.51
99030 - Cashier	13.79***
99050 - Desk Clerk	14.61***
99095 - Embalmer	34.10
99130 - Flight Follower	29.68
99251 - Laboratory Animal Caretaker I	16.35
99252 - Laboratory Animal Caretaker II	17.88
99260 - Marketing Analyst	37.55
99310 - Mortician	34.10
99410 - Pest Controller	21.91
99510 - Photofinishing Worker	18.65
99710 - Recycling Laborer	22.98
99711 - Recycling Specialist	28.16
99730 - Refuse Collector	20.81
99810 - Sales Clerk	14.24***
99820 - School Crossing Guard	18.02
99830 - Survey Party Chief	31.00
99831 - Surveying Aide	19.26
99832 - Surveying Technician	29.45
99840 - Vending Machine Attendant	17.03
99841 - Vending Machine Repairer	21.64
99842 - Vending Machine Repairer Helper	17.03

***Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$15.00 per hour) or 13658 (\$11.25 per hour). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 and 13658 are not currently being enforced as to contracts or contract-like instruments entered into

with the federal government in connection with seasonal recreational services or seasonal recreational equipment rental for the general public on federal lands.

Note: Executive Order (EO) 13706 Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Service Contract Act for which the contract is awarded (and any solicitation was issued) on or after January 1 2017. If this contract is covered by the EO the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness injury or other health-related needs including preventive care; to assist a family member (or person who is like family to the employee) who is ill injured or has other health-related needs including preventive care; or for reasons resulting from or to assist a family member (or person who is like family to the employee) who is the victim of domestic violence sexual assault or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: \$4.80 per hour up to 40 hours per week or \$192.00 per week or \$832.00 per month

HEALTH & WELFARE EO 13706: \$4.41 per hour up to 40 hours per week or \$176.40 per week or \$764.40 per month*

*This rate is to be used only when compensating employees for performance on an SCA-covered contract also covered by EO 13706 Establishing Paid Sick Leave for Federal Contractors. A contractor may not receive credit toward its SCA obligations for any paid sick leave provided pursuant to EO 13706.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor 3 weeks after 5 years and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor wherever employed and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of eleven paid holidays per year: New Year's Day Martin Luther King Jr.'s Birthday Washington's Birthday Memorial Day Juneteenth National Independence Day Independence Day Labor Day Columbus Day Veterans' Day Thanksgiving Day and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE NUMBERED FOOTNOTES IN PARENTHESES RECEIVE THE FOLLOWING:

1) COMPUTER EMPLOYEES: This wage determination does not apply to any individual employed in a bona fide executive administrative or professional capacity as defined in 29 C.F.R. Part 541. (See 41 C.F.R. 6701(3)). Because most Computer Systems Analysts and Computer Programmers who are paid at least \$27.63 per hour (or at least \$684 per week if paid on a salary or fee basis) likely qualify as exempt computer professionals under 29 U.S.C. 213(a)(1) and 29 U.S.C. 213(a)(17) this wage determination may not include wage rates for all occupations within those job families. In such instances a conformance will be necessary if there are nonexempt employees in these job families working on the contract.

Job titles vary widely and change quickly in the computer industry and are not determinative of whether an employee is an exempt computer professional. To be exempt computer employees who satisfy the compensation requirements must also have a primary duty that consists of:

(1) The application of systems analysis techniques and procedures including consulting with users to determine hardware software or system functional specifications;

(2) The design development documentation analysis creation testing or modification of computer systems or programs including prototypes based on and related to user or system design specifications;

(3) The design documentation testing creation or modification of computer programs related to machine operating systems; or

(4) A combination of the aforementioned duties the performance of which requires the same level of skills. (29 C.F.R. 541.400).

Any computer employee who meets the applicable compensation requirements and the above duties test qualifies as an exempt computer professional under both section 13(a)(1) and section 13(a)(17) of the Fair Labor Standards Act. (Field Assistance Bulletin No. 2006-3 (Dec. 14 2006)). Accordingly this wage determination will not apply to any exempt computer employee regardless of which of these two exemptions is utilized.

2) AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

**** HAZARDOUS PAY DIFFERENTIAL ****

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance explosives and incendiary materials. This includes work such as screening blending dying mixing and pressing of sensitive ordnance explosives and pyrotechnic compositions such as lead azide black powder and photoflash powder.

All dry-house activities involving propellants or explosives. Demilitarization modification renovation demolition and maintenance operations on sensitive ordnance explosives and incendiary materials. All operations involving re-grading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with or in close proximity to ordnance (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands face or arms of the employee engaged in the operation irritation of the skin minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving unloading storage and hauling of ordnance explosive and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance explosives and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract by the employer by the state or local law etc.) the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition where uniform cleaning and maintenance is made the responsibility of the employee all contractors and subcontractors subject to

this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount or the furnishing of contrary affirmative proof as to the actual cost) reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However in those instances where the uniforms furnished are made of "wash and wear" materials may be routinely washed and dried with other personal garments and do not require any special treatment such as dry cleaning daily washing or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract by the contractor by law or by the nature of the work there is no requirement that employees be reimbursed for uniform maintenance costs.

**** SERVICE CONTRACT ACT DIRECTORY OF OCCUPATIONS ****

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations" Fifth Edition (Revision 1) dated September 2015 unless otherwise indicated.

**** REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE Standard Form 1444 (SF-1444) ****

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e. the work to be performed is not performed by any classification listed in the wage determination) be classified by the contractor so as to provide a reasonable relationship (i.e. appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination (See 29 CFR 4.6(b)(2)(i)). Such conforming procedures shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees (See 29 CFR 4.6(b)(2)(ii)). The Wage and Hour Division shall make a final determination of conformed classification wage rate and/or fringe benefits which shall be paid to all employees performing in the classification from the first day of work on which contract work is performed by them in the classification. Failure to pay such unlisted employees the compensation agreed upon by the interested parties and/or fully determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract. (See 29 CFR 4.6(b)(2)(v)). When multiple wage determinations are included in a contract a separate SF-1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).
- 2) After contract award the contractor prepares a written report listing in order the proposed classification title(s) a Federal grade equivalency (FGE) for each proposed classification(s) job description(s) and rationale for proposed wage rate(s) including information regarding the agreement or disagreement of the authorized representative of the employees involved or where there is no authorized representative the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.
- 3) The contracting officer reviews the proposed action and promptly submits a report of the action together with the agency's recommendations and pertinent information including the position of the contractor and the employees to the U.S. Department of Labor Wage and Hour Division for review (See 29 CFR 4.6(b)(2)(ii)).
- 4) Within 30 days of receipt the Wage and Hour Division approves modifies or disapproves the action via transmittal to the agency contracting officer or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour Division's decision to the contractor.

6) Each affected employee shall be furnished by the contractor with a written copy of such determination or it shall be posted as a part of the wage determination (See 29 CFR 4.6(b)(2)(iii)).

Information required by the Regulations must be submitted on SF-1444 or bond paper.

When preparing a conformance request the ""Service Contract Act Directory of Occupations"" should be used to compare job definitions to ensure that duties requested are not performed by a classification already listed in the wage determination. Remember it is not the job title but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split combine or subdivide classifications listed in the wage determination (See 29 CFR 4.152(c)(1))."