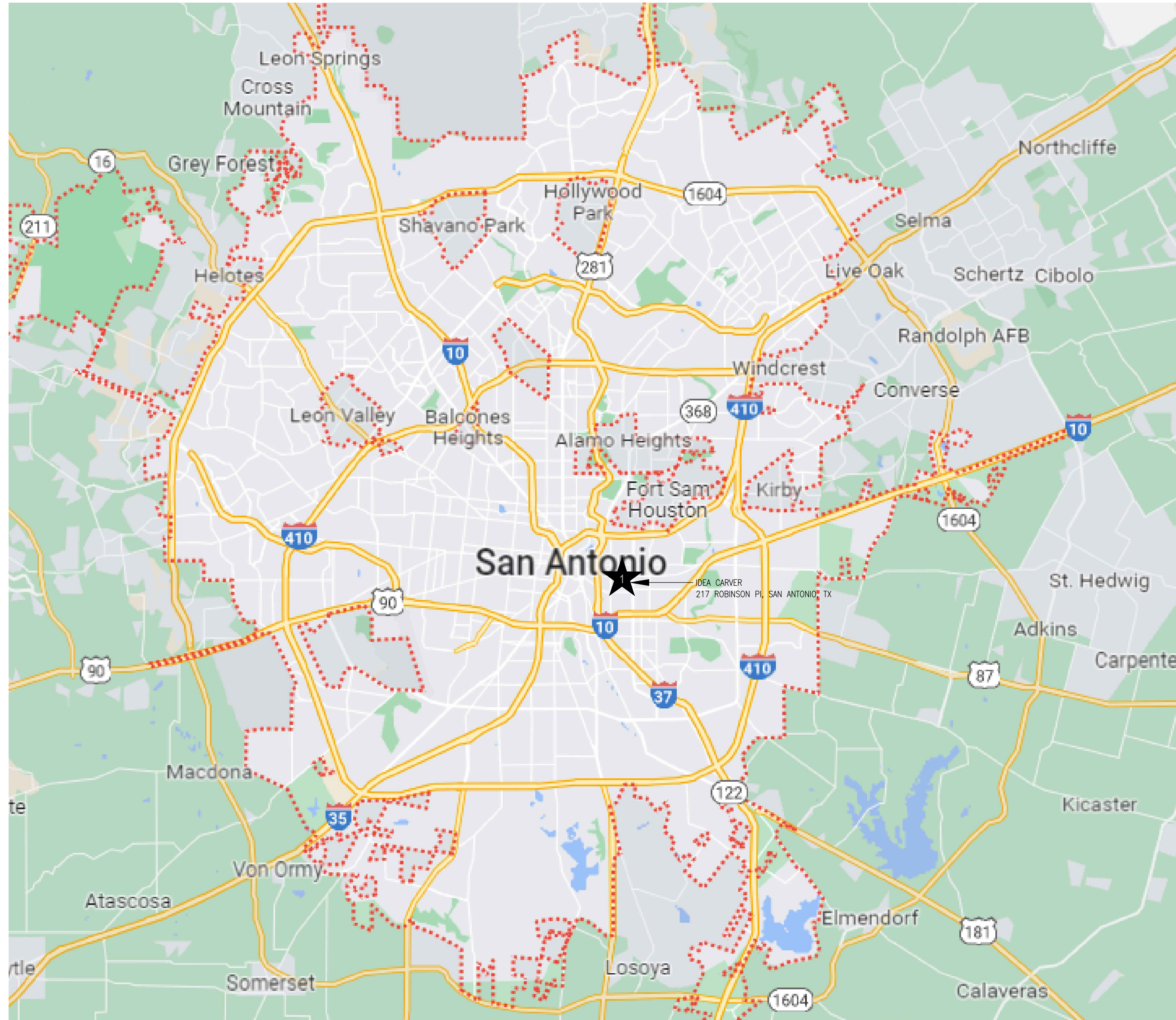
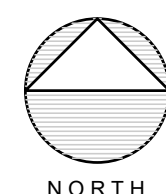


# IDEA PUBLIC SCHOOLS

## SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES IDEA CARVER - CSP#30-SAELU-0524



VICINITY MAP - SAN ANTONIO



### DATE OF ISSUE

SEPTEMBER 06, 2024

### LIST OF DRAWINGS

COVER	COVER SHEET	E4.02	IDEA CARVER RENOVATION - LIGHTING PLAN BUILDING "C"
ES1.01	IDEA CARVER SITE PLAN	E5.01	IDEA CARVER DEMOLITION - LIGHTING PLAN BUILDING "D"
E1.01	ELECTRICAL GENERAL NOTES, DETAILS, SYMBOLS LEGEND & ABBREVIATIONS	E5.02	IDEA CARVER RENOVATION - LIGHTING PLAN BUILDING "D"
E2.01	IDEA CARVER DEMOLITION - LIGHTING PLAN BUILDING "A"	E6.01	IDEA CARVER DEMOLITION - LIGHTING PLAN BUILDING "E"
E2.02	IDEA CARVER RENOVATION - LIGHTING PLAN BUILDING "A"	E6.02	IDEA CARVER RENOVATION - LIGHTING PLAN BUILDING "E"
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E3.02	IDEA CARVER RENOVATION - LIGHTING PLAN BUILDING "B"	E7.02	LUMINAIRE IMAGES
E4.01	IDEA CARVER DEMOLITION - LIGHTING PLAN BUILDING "C"	E8.01	ELECTRICAL DETAILS
		E9.01	COMCHECK

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ERICH HOLMSTEN	TREASURER

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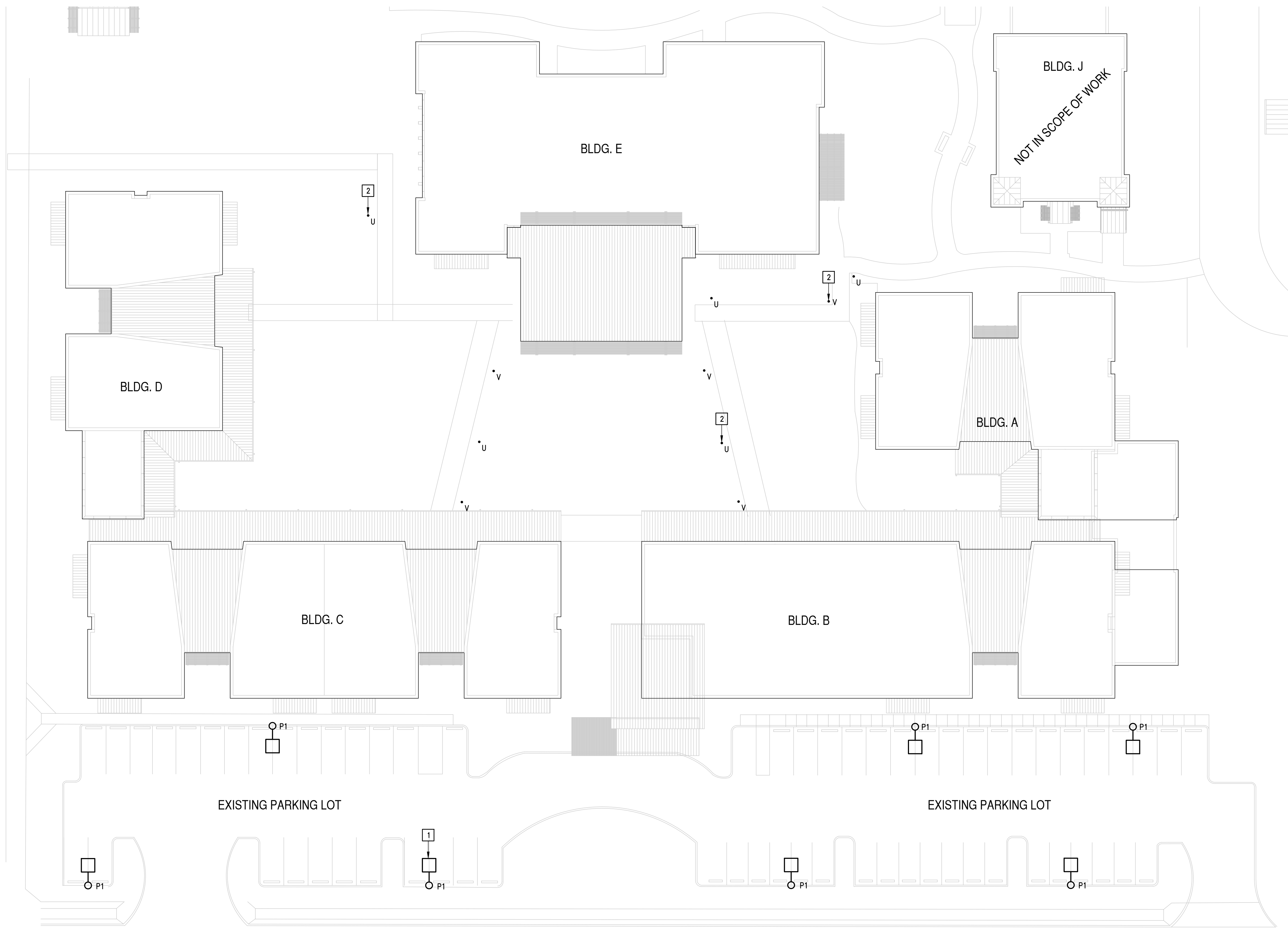
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CAD FILE: COVER

SHEET:





**KEYED NOTES:**

- 1 DISCONNECT AND REMOVE EXISTING LIGHT POLE. PROVIDE NEW SOLAR LIGHT POLE AS SCHEDULE - TYPICAL.
- 2 ALTERNATE #1: PROVIDE NEW LED BULB LIGHT AS SCHEDULE - TYPICAL.

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**IDEA PUBLIC SCHOOLS**  
**SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES**  
**IDEA CARVER**

SAN ANTONIO



DATE: SEPTEMBER 06, 2024

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PROJECT NO.: 23v81

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**ES1.01**

**01 ELECTRICAL SITE PLAN**  
SCALE: 1" = 20'





**DEMOLITION GENERAL NOTES:**

- PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER DRAWINGS AND SPECIFICATIONS.
- IF REMOVAL OF EXISTING ELECTRICAL SYSTEMS REQUIRES EXISTING ELECTRICAL SYSTEMS DOWNSTREAM TO REMAIN INOPERABLE, PROVIDE J-BOXES, CONDUIT WIRING AND SPLICES ABOVE ACCESSIBLE CEILINGS IN ORDER TO CONTINUE OPERATION.
- PROVIDE BLANK COVER PLATE FOR UNUSED BACK BOXES. PAINT TO MATCH EXISTING WALLS.
- WHERE WALL SWITCHES ARE INDICATED THE EXISTING LIGHT SWITCH(ES) & COVER PLATE(S) SHALL BE REMOVED.
- REMOVED MATERIALS SHALL BELONG TO OWNER. DELIVER THEM TO OWNER'S DESIGNATED LOCATION. IF OWNER DOES NOT WANT THE REMOVED MATERIALS THEN REMOVE THEM FROM SITE & PROPERLY DISPOSE OF THEM.
- CONTRACTOR SHALL PROVIDE AN INVENTORY OF ALL EXISTING LIGHTING PRIOR TO REMOVAL. CONTRACTOR SHALL NOTE BY ROOM THE LIGHT FIXTURE TYPE & QUANTITY, LAMP TYPE & QUANTITY PER FIXTURE. SUBMIT INVENTORY TO ENGINEER.
- TEMPORARILY REMOVE EXISTING CEILING TILES FOR DEMOLITION AND INSTALLATION OF NEW WIRING WHERE APPLICABLE. REINSTALL EXISTING CEILING TILES AFTER WORK HAS BEEN COMPLETED.
- PROVIDE BLANK WALL PLATES FOR EXISTING J-BOXES NO LONGER REQUIRED. PROVIDE COLOR FINISH TO MATCH EXISTING.
- IF REMOVAL OF EXISTING ELECTRICAL SYSTEMS REQUIRES EXISTING ELECTRICAL SYSTEMS DOWNSTREAM TO REMAIN INOPERABLE, PROVIDE J-BOXES, CONDUIT, WIRING AND SPLICES ABOVE CEILING IN ORDER TO CONTINUE OPERATION.

**CEILING DEMOLITION GENERAL NOTES:**

- PRIOR TO REMOVAL OF CEILINGS REQUIRED FOR NEW LIGHTING & ELECTRICAL WORK PREPARE REFLECTED CEILING PLAN SKETCH SHOWING LOCATIONS OF ALL CEILING COMPONENTS AND DEVICES TO BE RE-USED INCLUDING BUT NOT LIMITED TO: EXISTING LIGHT FIXTURES, SPEAKERS, FIRE ALARM DEVICES, EMERGENCY LIGHTING, WIRELESS ACCESS POINTS, ETC. IF ANY OF THE ABOVE ITEMS ARE IN NON-WORKING CONDITION, SUBMIT A WRITTEN REPORT TO OWNER/ENGINEER.
- CONTRACTOR TO EVALUATE CEILING GRID CEILING TILES PRIOR TO REMOVAL AND DOCUMENT ALL BROKEN, CRACKED, MISSING TILES, ETC. AND PROVIDE REPORT TO OWNER AND ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR DETERMINING THEIR OWN ROUTES FROM POWER SOURCE.
- WHERE NEW CEILING MOUNTED LIGHT FIXTURES ARE INDICATED TO BE INSTALLED, CONTRACTOR SHALL REMOVE EXISTING CEILING TILE AND PROVIDE A NEW CEILING TYPE. (MATCH EXISTING)
- WHERE CEILING GRID MOUNTED DEVICES ARE EXISTING TO BE REMOVED, REPLACE EXISTING CEILING TILE OF REMOVED DEVICE. MATCH TYPE AND COLOR OF EXISTING TILES. ANY OTHER CEILING TILE THAT IS REMOVED OR BROKEN BY THE CONTRACTOR TO BE REPLACED.

**ELECTRICAL GENERAL NOTES:**

- ALL ELECTRICAL WORK SHALL BE UNDER THE MASTER ELECTRICIAN WHO PULLED THE PERMIT AND ITS JOURNEYMAN ELECTRICIANS.
- UNLESS NOTED OTHERWISE, MINIMUM POWER CIRCUIT IS TO BE #12 THWN WITH #12 GROUND IN 3/4" CONDUIT, WITH THE EXCEPTION THAT ANY CIRCUIT LONGER THAN 100 FEET SHALL BE MINIMUM #10 AWG WITH #10 GROUND WIRE. CIRCUIT LONGER THAN 200 FEET SHALL BE MINIMUM #8 AWG WITH #10 GROUND WIRE MINIMUM.
- ALL EXISTING ID NAMETAGS AND CIRCUIT IDENTIFICATION MUST BE REVISED TO REFLECT CURRENT CONDITIONS FOR ALL EQUIPMENT WHICH IS NEW, REPLACED, OR DEMOLISHED. REMOVE ID NAMETAGS FOR DEMOLISHED EQUIPMENT. REPLACE EXISTING NAMETAGS WITH NEW FOR REPLACED EQUIPMENT, IF REPLACEMENT EQUIPMENT HAS DIFFERENT NAME. PROVIDE NEW NAMETAGS FOR ALL NEW EQUIPMENT. ALL CIRCUIT BREAKER DIRECTORIES FOR PANELS IN WHICH NEW WORK TAKES PLACE ARE TO BE REPLACED WITH NEW DIRECTORIES WHICH LIST EXISTING CIRCUITS AND NEW. ALL UNUSED CIRCUITS ARE TO BE MARKED AS 'SPARE' IN THE DIRECTORIES. DIRECTORIES ARE TO BE COMPUTER GENERATED; NO HAND WRITTEN DIRECTORIES ARE ACCEPTABLE.
- HAND-WRITTEN CIRCUIT BREAKER DIRECTORIES WILL NOT BE ACCEPTED. DIRECTORIES MUST BE COMPUTER GENERATED AND PRINTED TO REFLECT FINAL INSTALLED CONDITIONS.
- MARK ALL J-BOXES WITH INDELIBLE INK, INDICATING POWER CIRCUITRY INFORMATION. LABEL ALL EQUIPMENT ITEMS PER SPECIFICATIONS.
- ALL EXTERIOR RACEWAYS ABOVE GROUND SHALL BE RIGID GALVANIZED.
- UNDER NO CIRCUMSTANCES SHALL MORE THAN THREE CIRCUITS SHARE THE SAME NEUTRAL, AND SUCH CIRCUITS MUST BE SEPARATE PHASE.
- SINCE ELECTRICAL CHARACTERISTIC OF EQUIPMENT (SUCH AS HORSEPOWER, KW, AMPERAGE, VOLTAGE, ETC.) SUBMITTED MAY DIFFER FROM THOSE SPECIFIED IN DRAWINGS, CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND OTHER CONTRACTORS TO ENSURE COMPATIBILITY BETWEEN ELECTRICAL AND MECHANICAL EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
- USE LONG-SWEEPS FOR ALL CHANGES IN DIRECTION ON CONDUIT RUNS.
- ALL INTERIOR RACEWAYS SHALL BE EMT.
- FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
- PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER DRAWINGS AND SPECIFICATIONS.
- ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
- ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
- CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
- COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
- SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
- CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
- MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
- AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH INTERCOM CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
- FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
- ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
- EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
- SLEEVE ALL EXTERIOR WALL PENETRATIONS.
- WHERE NEW DIMMING CONTROLS ARE PROVIDED, PROVIDE NEW 0-10V WIRING IN RACEWAY TO EACH LIGHT FIXTURE AND DIMMING MODULE.

**CODES AND ORDINANCES:**

- PERFORM ALL WORK PER CITY OF SAN ANTONIO APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS. 2021 INTERNATIONAL BUILDING CODE (IBC)  
2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC)  
2021 INTERNATIONAL FIRE CODE (IFC)  
2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
- CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
- NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.

**COORDINATION:**

- COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
- TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING STAGE.
- CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, EXISTING CONDITIONS, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
- MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
- ALL WORK THAT COULD DISRUPT SCHOOL INSTRUCTION SHALL BE SCHEDULE FOR AFTER SCHOOL OR DURING HOLIDAY HOURS. COORDINATE SCHEDULING WITH SCHOOL PRINCIPAL.

**SPARE MATERIALS:**

PROVIDE ADDITIONAL DEVICES DESCRIBED BELOW THAT MATCH PRODUCTS INSTALLED & THAT ARE PACKAGED WITH A PROTECTIVE COVERING FOR STORAGE & IDENTIFIED WITH LABELS DESCRIBING THE CONTENTS. INCLUDE THE INSTALLATION COST IN THE BID PROPOSAL.

- A. WIRELESS VACANCY SENSOR: 5% OF THE QUANTITY INSTALLED.
- B. WIRELESS CORNER VACANCY SENSOR: 5% OF THE QUANTITY INSTALLED.
- E. POWER PACK SWITCHING MODULE: 5% OF THE QUANTITY INSTALLED.
- F. WIRELESS ON/OFF SWITCH: 5% OF THE QUANTITY INSTALLED.
- G. WIRELESS DIMMING SWITCH: 5% OF THE QUANTITY INSTALLED.
- H. VACANCY WALL SENSOR SWITCH: 5% OF THE QUANTITY INSTALLED.
- I. DAYLIGHT CEILING SENSOR: 5% OF THE QUANTITY INSTALLED.
- J. PVC, EMT & RMC RACEWAYS: 500 FT OF 1" OF EACH TYPE TOTAL INCLUDING TRENCHING, HANGERS, ETC.
- K. LIGHT FIXTURES AND LAMPS: 5% OF THE QUANTITY INSTALLED.

**SCOPE OF WORK**

- GENERAL: THE "SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES - IDEA CARVER" CONSISTS OF EXISTING SINGLE-STORY BUILDINGS. THESE BUILDINGS WILL GENERALLY BE OPERATED FROM 7:00AM TO 5:00PM. (MONDAY THROUGH FRIDAY) WITH OCCASIONAL AFTER HOURS AND WEEKENDS USE.
- ELECTRICAL: PROVIDE ALL MATERIALS AND LABOR ASSOCIATED WITH COMPLETE OPERATIONAL ELECTRICAL DISTRIBUTION SYSTEM. MAJOR ITEMS OF WORK INCLUDE, BUT ARE NOT LIMITED TO:
  - (a) ELECTRICAL SERVICE: TO REMAIN AS IS.
  - (b) DEMOLITION: DISCONNECT AND REMOVE EXISTING LIGHT FIXTURES AND LAMPS AS NOTED ON DRAWINGS. DISPOSE OF LAMPS AND BALLAST.
  - (c) INTERIOR LIGHTING SYSTEMS: PROVIDE NEW LED TYPE LIGHT FIXTURES AND OR NEW LED REPLACEMENT LAMPS AS NOTED ON PLANS.
  - (d) EXTERIOR LIGHTING SYSTEMS: PROVIDE NEW LED TYPE LIGHT FIXTURES AND OR NEW LED REPLACEMENT LAMPS AS NOTED ON PLANS.
  - (e) INTERIOR LIGHTING CONTROLS (SWITCHES, VACANCY SENSORS, DAYLIGHT SENSORS, ETC.): DISCONNECT AND REMOVE EXISTING LIGHTING CONTROLS. PROVIDE NEW AS NOTED ON PLANS. SPECIFICATIONS: IN SOME CASES, THEY WILL BE CEILING MOUNTED, AND OTHERS WALL MOUNTED. IT'S THE INTENT FOR THEM TO BE WIRELESS AND WIRED TO AUTOMATICALLY CONTROL THE LUMINAIRES IN THEIR RESPECTIVE AREAS.
  - (f) EXTERIOR LIGHTING CONTROLS: DISCONNECT AND REMOVE EXISTING CONTROLS. PROVIDE NEW LIGHTING CONTACTORS CONTROLLED VIA NEW LIGHTING CONTROLS SYSTEM.
  - (g) POWER SYSTEMS: PROVIDE MISCELLANEOUS DUPLEX RECEPTACLES FOR CONNECTING LIGHTING CONTROLS EQUIPMENT.
  - (h) COMMISSIONING: PROVIDE FOR THE LIGHTING EQUIPMENT AND LIGHTING CONTROLS AS REQUIRED PER IECC 2021.

**ABBREVIATIONS:**

ACL	ABOVE CEILING LINE	COND.	CONDUIT
AFF	ABOVE FINISHED FLOOR	GYP.	GYPSUM BOARD
B.	BOTTOM	ID	IDENTIFICATION
BLC.	BELOW CEILING LINE	NTS	NOT TO SCALE
C.	CONDUIT OR COMMON	RM.	ROOM
CLG.	CEILING OR COOLING	S.A.C.	SUSPENDED ACOUSTICAL CEILING
EMT	ELECTRICAL METALLIC TUBING	U.N.O	UNLESS NOTED OTHERWISE
EXP.	EXPOSED	RP	RELAY PANEL

**LIGHTING SYMBOL LEGEND:**

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	2'x4' LIGHT FIXTURE - TYPE AS NOTED	----
	EMERGENCY 2'x4' LIGHT FIXTURE-TYPE AS NOTED CONNECT BATTERY PACK TO BE ON AT ALL TIMES (UNSWITCHED)	----
	2'x2' LIGHT FIXTURE - TYPE AS NOTED	----
	SURFACE/WRAPAROUND LIGHT FIXTURE	----
	SURFACE/WRAPAROUND EMERGENCY LIGHT FIXTURE CONNECT BATTERY PACK TO BE ON AT ALL TIMES (UNSWITCHED)	----
	SINGLE FACE EXIT SIGN CEILING OR WALL MOUNTING (DIRECTIONAL ARROWS WHERE INDICATED)	12" ABV. EGRESS OPENING
	DOUBLE FACE EXIT SIGN CEILING OR WALL MOUNTING (DIRECTIONAL ARROWS WHERE INDICATED)	12" ABV. EGRESS OPENING
	EMERGENCY LIGHTING UNIT	8'-0" AFF
	WALL MOUNT LIGHT FIXTURE - TYPE AS NOTED	----
	DOWN/PENDANT/SURFACE LIGHT FIXTURE - TYPE AS NOTED	----
	PENDANT/RECESSED LINEAR LIGHT FIXTURE - TYPE AS NOTED	----
	LIGHT POLE - TYPE AS NOTED	----

**NOTES:**

- REFERENCE LIGHT FIXTURE SCHEDULE FOR ALL MOUNTING HEIGHTS.

**GENERAL SYMBOL LEGEND:**

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
-----	UNDERGROUND RACEWAY	AS REQUIRED
=====	CONCEALED RACEWAY	AS REQUIRED
	CONDUIT OR EMT HOMERUN TO PANELBOARD CONCEALED IN WALLS OR ABOVE CEILING. LONG CROSSMARKS DENOTE NUMBER OF "HOT" CONDUCTORS SHORT CROSSMARKS INDICATE NEUTRALS AND DOTS INDICATE NUMBER OF GROUND CONDUCTORS. ARROW INDICATES HOME RUN TO ELECTRICAL PANEL.	AS REQUIRED
	ELECTRICAL PANELBOARD - SURFACE MOUNTED	AS REQUIRED
	ELECTRICAL PANELBOARD - RECESSED/FLUSH MOUNTED	AS REQUIRED
	TIME CLOCK	AS REQUIRED
	LIGHTING CONTACTOR	AS REQUIRED
	DIGITAL OUTDOOR PHOTO CELL WALL MOUNTED	----

**LIGHTING CONTROL SYMBOLS:**

SYMBOL	DESCRIPTION	
	WIRELESS VACANCY SENSOR - LUTRON MODEL #LRF2-OCR2B-P-WH	CLG.
	WIRELESS CORNER VACANCY SENSOR - LUTRON MODEL #LRF2-OKLB-P-WH	CLG.
	POWER PACK SWITCHING MODULE - LUTRON MODEL #RMJS-8T-DV-B	ABV. CLG.
	WIRELESS ON/OFF SWITCH - LUTRON MODEL #PJ2-2B-GWH-L01 (CW-1-WH)	48" AFF
	WIRELESS DIMMING SWITCH - LUTRON MODEL #PJ2-3BRL-GWH-L01 (CW-1-WH)	48" AFF
	VACANCY WALL SENSOR SWITCH - LUTRON MODEL #MS-OPS6M2-DV-WH (CW-1-WH)	48" AFF
	WIRELESS HUB - LUTRON HJS-2-FM	CLG.
	WIRELESS DAYLIGHT SENSOR - LUTRON LRF2-DCRB-WH	CLG.

**NOTES:**

- 48" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE. REFERENCE LIGHTING CONTROL SCHEMATIC DETAILS FOR ALL LUTRON CONTROLS WIRING REQUIREMENTS.







IDEA PUBLIC SCHOOLS  
SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES  
IDEA CARVER

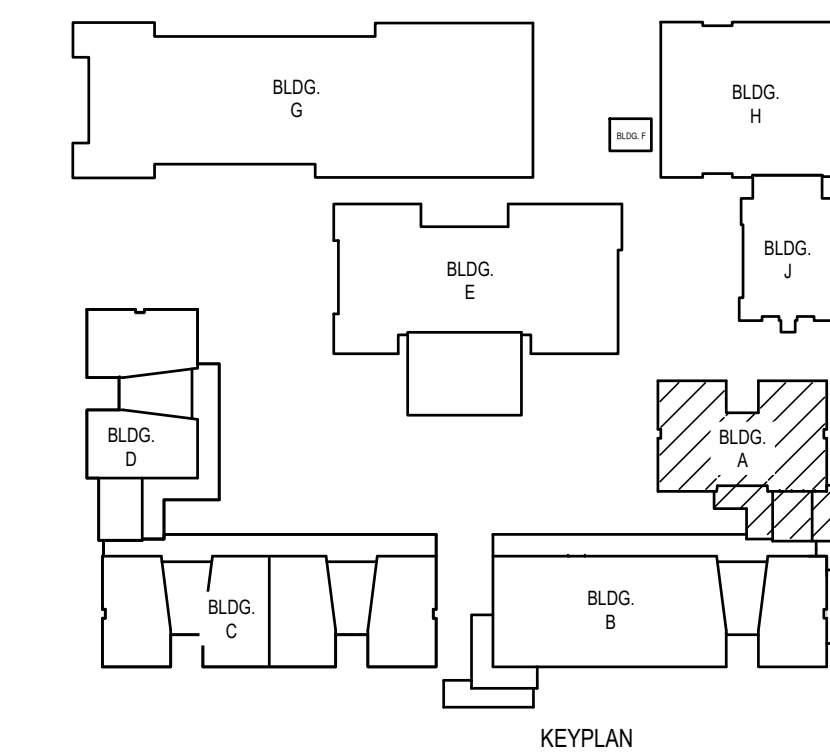


DEMOLITION KEYED NOTES:

- ① DISCONNECT AND REMOVE EXISTING LIGHTING FIXTURE, LIGHTING SWITCHES AND EMERGENCY LIGHT FIXTURE FOR REPLACEMENT - TYPICAL.
- ② DISCONNECT AND REMOVE EXISTING OCCUPANCY SENSOR AND ASSOCIATED POWER PACK FOR REPLACEMENT.
- ③ DISCONNECT AND REMOVE EXISTING EXIT LIGHT FIXTURE FOR REPLACEMENT - TYPICAL.
- ④ REMOVE EXISTING LIGHT FIXTURE BULB FOR REPLACEMENT - TYPICAL.
- ⑤ ALTERNATE #1: REMOVE EXISTING EXTERIOR LIGHT FIXTURE FOR REPLACEMENT - TYPICAL.



IDEA CARVER  
DEMOLITION - LIGHTING PLAN (BUILDING A)  
01 SCALE: 1/8" = 1'-0"



KEYPLAN





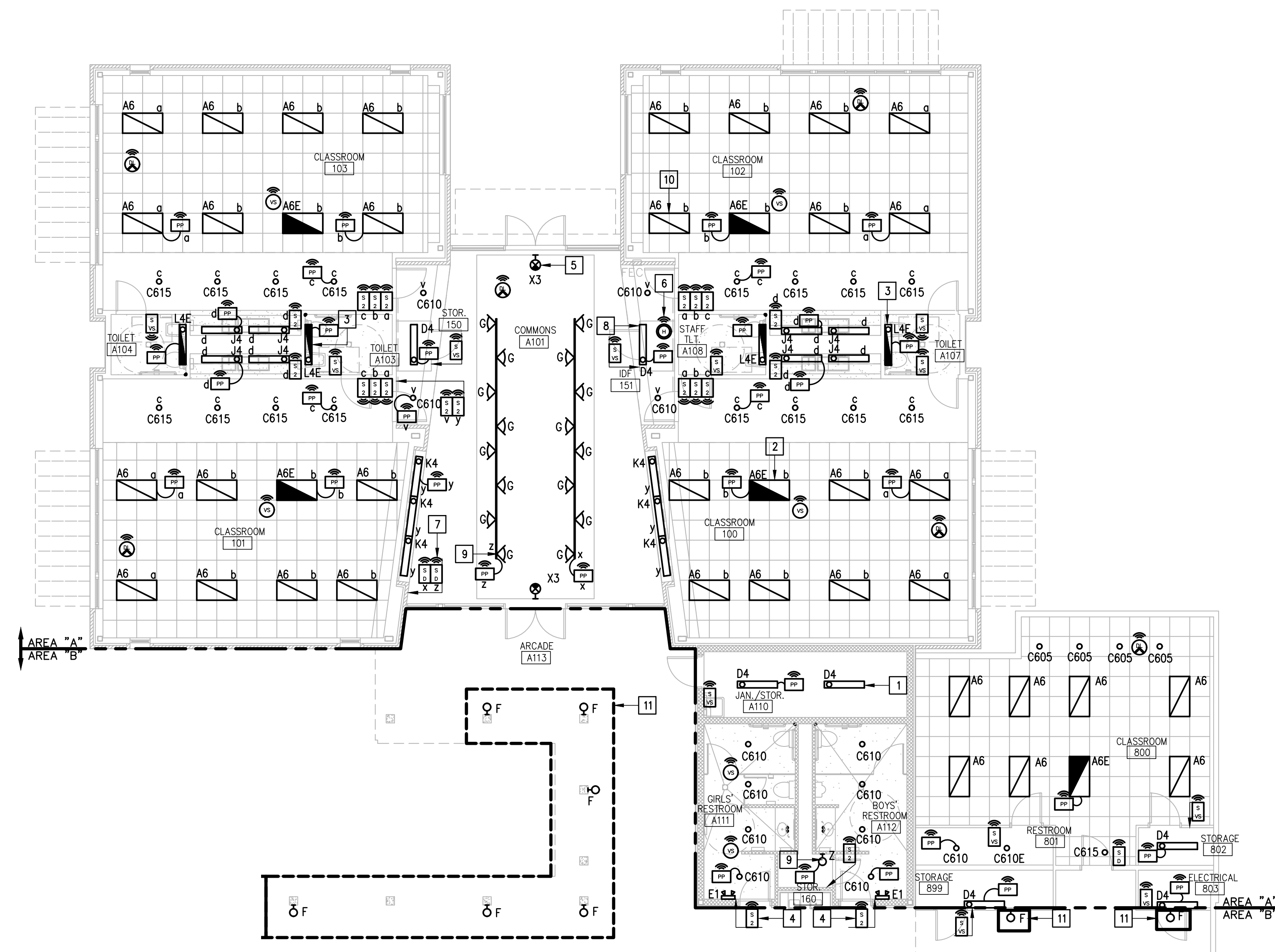
IDEA PUBLIC SCHOOLS  
SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES  
IDEA CARVER

GENERAL NOTES:

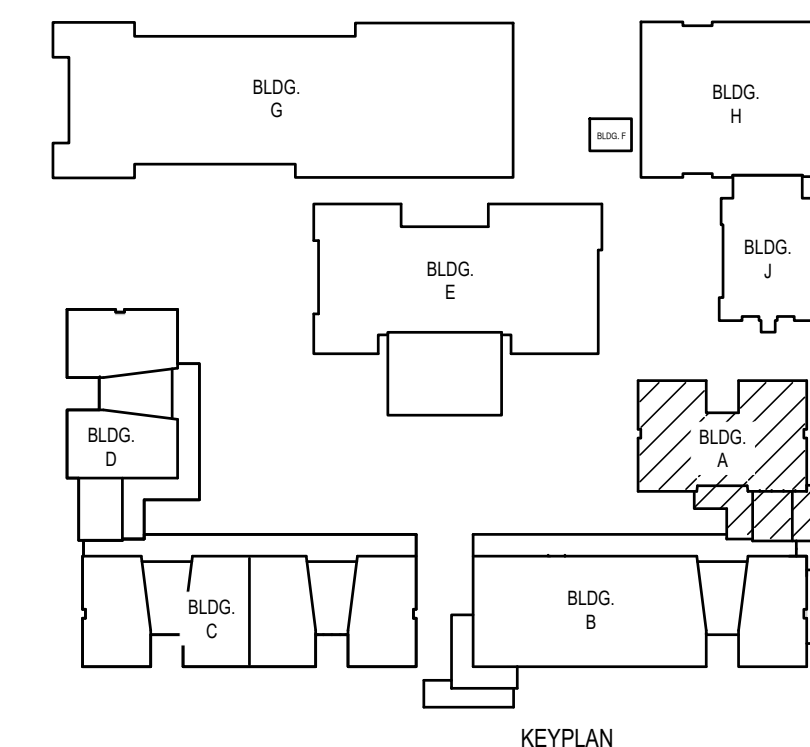
1. LIGHTING BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" - 2#12 & #12G. 20A/277V HOMERUNS EXCEEDING 200FT THE WIRE SIZE SHALL BE #10 & #8 FOR 275'.
2. INTERIOR LIGHTING CONTROLS SHALL BE VACANCY SENSORS.
3. RETAIN AND REUSE EXISTING LIGHTING BRANCH CIRCUITS. IF EXISTING BRANCH CIRCUITS DO NOT REACH NEW LIGHT FIXTURES POINT OF CONNECTION PROVIDE A JUNCTION BOX ABOVE CEILING TO SPLICE AND EXTEND WIRING. THE INTENT IS TO REPLACE LIGHT FIXTURE ONE FOR ONE.
4. PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND NEW WALL DIMMING SWITCHES (WHERE NOTED).
5. DOWNLIGHTS: IS EXISTING APERTURE DON'T MATCH NEW LIGHT FIXTURE-CONTRACTOR TO MODIFY AS REQUIRED.

KEYED NOTES:

- 1 PROVIDE UNISTRUT/THREADED ROD AND SUSPEND LIGHT FIXTURE AT 9'-0" AFF. COORDINATE INSTALLATION WITH HVAC DUCT WORK.
- 2 CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH - TYPICAL.
- 3 PROVIDE NEW FIXTURE TYPE "L4E" AT EXISTING LOCATION - TYPICAL.
- 4 PROVIDE CLEAR LOCKING COVER.
- 5 PROVIDE NEW EXIT LIGHT AT EXISTING LOCATION - TYPICAL.
- 6 PROVIDE WALL MOUNTED AND 20A DUPLEX RECEPTACLE ADJACENT. CONNECT TO NEAREST EXISTING 120V NON-GFCI BRANCH CIRCUIT. CAT5 CABLEING TO HUB TO BE PROVIDED BY OWNER.
- 7 TO CONTROL CORRIDOR LIGHTING. PROVIDE NEW WALLPLATE. EXISTING SWITCH FAN REMAIN AS IS.
- 8 PROVIDE NEW FIXTURE TYPE "D4" AT EXISTING LOCATION - TYPICAL.
- 9 PROVIDE NEW LED RETROFIT LAMP FIELD VERIFY/CONFIRM - TYPICAL.
- 10 CONNECT NEW LIGHT FIXTURES TO EXISTING BRANCH CIRCUITS - TYPICAL.
- 11 ALTERNATE #1: PROVIDE NEW LED FIXTURE IN EXISTING LIGHT FIXTURE TYPE "F" - TYPICAL.



IDEA CARVER  
01 RENOVATION - LIGHTING PLAN (BUILDING A)  
SCALE: 1/8" = 1'-0"



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PROJECT NO.: 23v81  
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SHEET:



DEMOLITION KEYED NOTES:

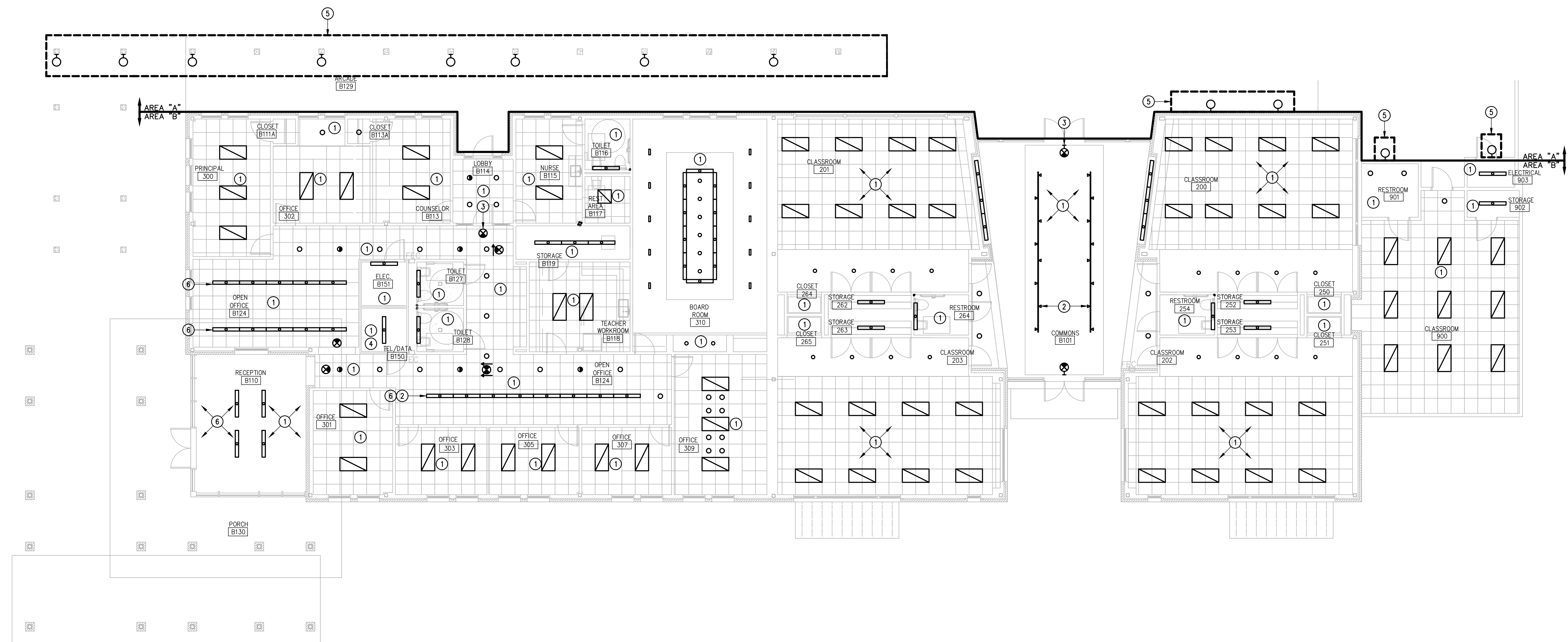
- ① DISCONNECT AND REMOVE EXISTING LIGHTING FIXTURE, LIGHTING SWITCHES AND EMERGENCY LIGHT FIXTURE FOR REMOVAL - TYPICAL.
- ② REMOVE EXISTING LIGHT FIXTURE BULB FOR REPLACEMENT - TYPICAL.
- ③ DISCONNECT AND REMOVE EXISTING EXIT LIGHT FIXTURE - TYPICAL.
- ④ DISCONNECT AND REMOVE EXISTING LIGHTING CONTACTORS AND TIME CLOCK. SEE DETAIL.
- ⑤ ALTERNATE#1: REMOVE EXISTING EXTERIOR LIGHT FIXTURE FOR REPLACEMENT - TYPICAL.
- ⑥ DISCONNECT AND REMOVE FLUORESCENT BALLAST. NEW LED LAMPS TO BE CONNECTED LINE VOLTAGE.



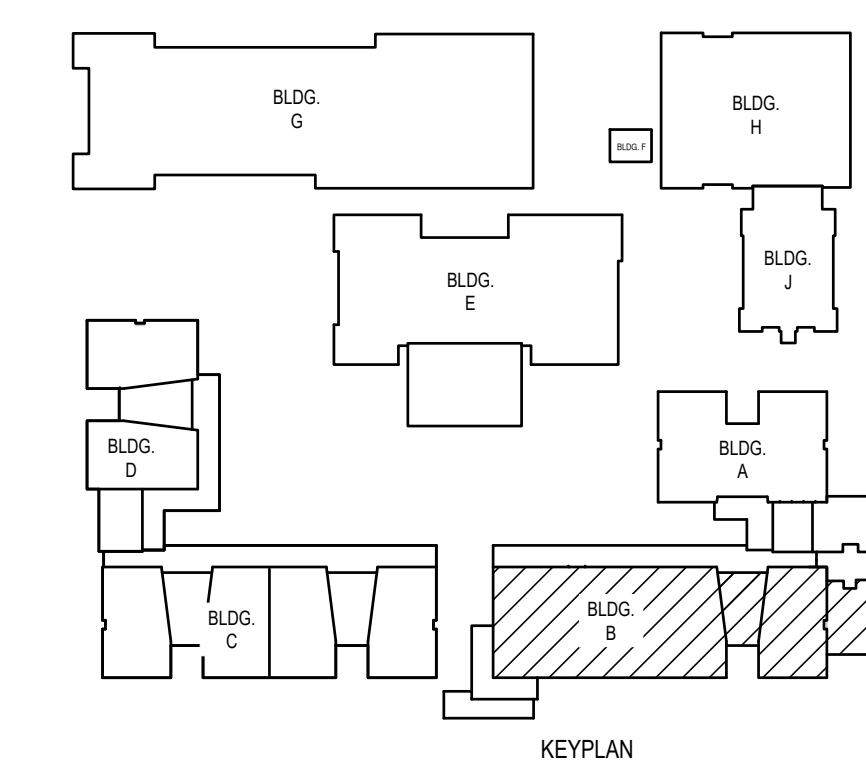
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IDEA PUBLIC SCHOOLS  
 SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES  
 IDEA CARVER

SAN ANTONIO



IDEA CARVER  
 01 DEMOLITION - LIGHTING PLAN (BUILDING B)  
 SCALE : 1/8" = 1'-0"  
 PLAN NORTH



**ethos**  
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 SHEET:

E3.01



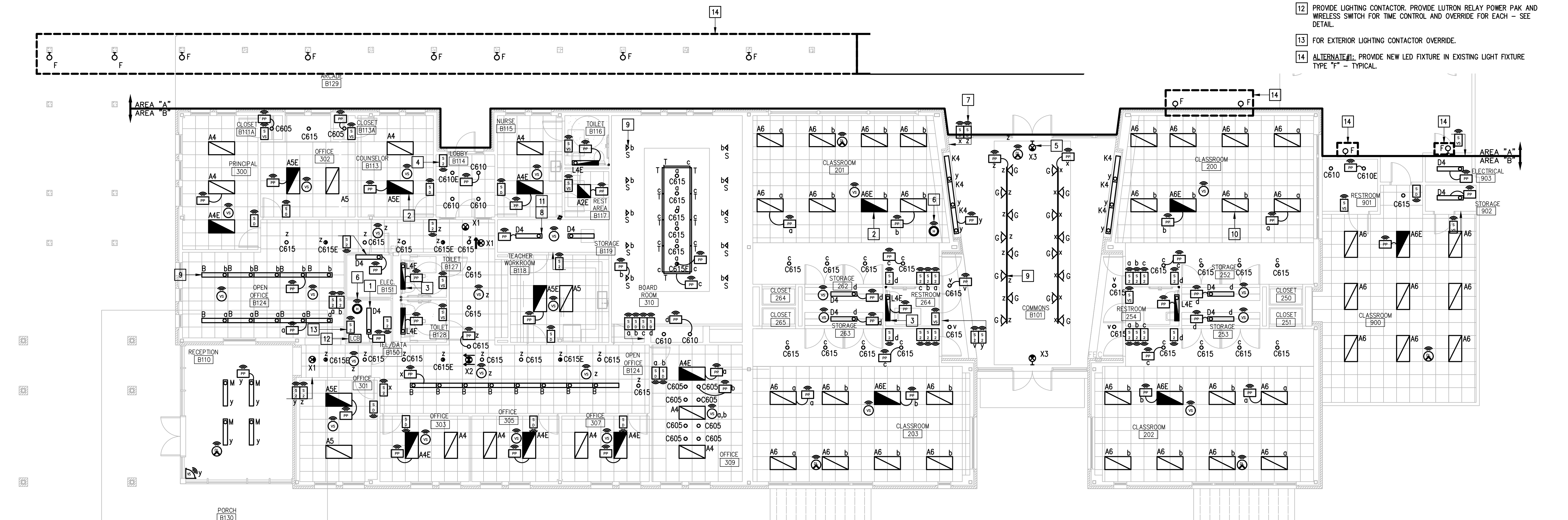


GENERAL NOTES:

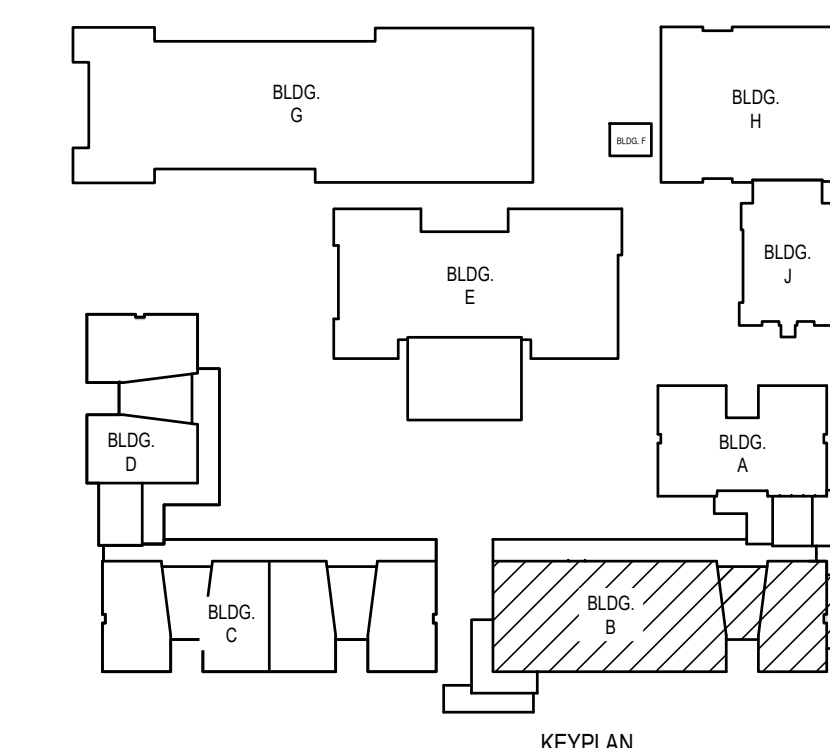
1. LIGHTING BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" - 2#12 & #12G. 20A/277V HOMERUNS EXCEEDING 200FT THE WIRE SIZE SHALL BE #10 & #8 FOR 275'.
2. INTERIOR LIGHTING CONTROLS SHALL BE VACANCY SENSORS.
3. RETAIN AND REUSE EXISTING LIGHTING BRANCH CIRCUITS. IF EXISTING BRANCH CIRCUITS DO NOT REACH NEW LIGHT FIXTURES POINT OF CONNECTION PROVIDE A JUNCTION BOX ABOVE CEILING TO SPLICE AND EXTEND WIRING. THE INTENT IS TO REPLACE LIGHT FIXTURE ONE FOR ONE.
4. PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND NEW WALL DIMMING SWITCHES (WHERE NOTED).
5. DOWNLIGHTS: IS EXISTING APERTURE DON'T MATCH NEW LIGHT FIXTURE-CONTRACTOR TO MODIFY AS REQUIRED.

KEYED NOTES:

- 1 PROVIDE UNISTRUT/THREADED ROD AND SUSPEND LIGHT FIXTURE AT 9'-0" AFF. COORDINATE INSTALLATION WITH HVAC DUCT WORK.
- 2 CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH - TYPICAL.
- 3 PROVIDE NEW FIXTURE TYPE "L4E" AT EXISTING LOCATION - TYPICAL.
- 4 PROVIDE CLEAR LOCKING COVER.
- 5 PROVIDE NEW EXIT LIGHT AT EXISTING LOCATION - TYPICAL.
- 6 PROVIDE WALL MOUNTED AND 20A DUPLEX RECEPTACLE ADJACENT. CONNECT TO NEAREST EXISTING 120V NON-GFCI BRANCH CIRCUIT. CAT6 CABLING TO HUB TO BE PROVIDED BY OWNER.
- 7 TO CONTROL CORRIDOR LIGHTING. PROVIDE NEW WALLPLATE. EXISTING SWITCH FAN REMAIN AS IS.
- 8 PROVIDE NEW FIXTURE TYPE "D4" AT AT EXISTING LOCATION - TYPICAL.
- 9 PROVIDE NEW LED RETROFIT LAMP FIELD VERIFY/CONFIRM - TYPICAL.
- 10 CONNECT NEW LIGHT FIXTURES TO EXISTING BRANCH CIRCUITS - TYPICAL.
- 11 PROVIDE NEW BRANCH CONNECTION AS NECESSARY.
- 12 PROVIDE LIGHTING CONTACTOR. PROVIDE LUTRON RELAY POWER PAK AND WIRELESS SWITCH FOR TIME CONTROL AND OVERRIDE FOR EACH - SEE DETAIL.
- 13 FOR EXTERIOR LIGHTING CONTACTOR OVERRIDE.
- 14 ALTERNATE #1: PROVIDE NEW LED FIXTURE IN EXISTING LIGHT FIXTURE TYPE "F" - TYPICAL.



IDEA CARVER  
RENOVATION - LIGHTING PLAN (BUILDING B)  
01 SCALE: 1/8" = 1'-0"



KEY PLAN





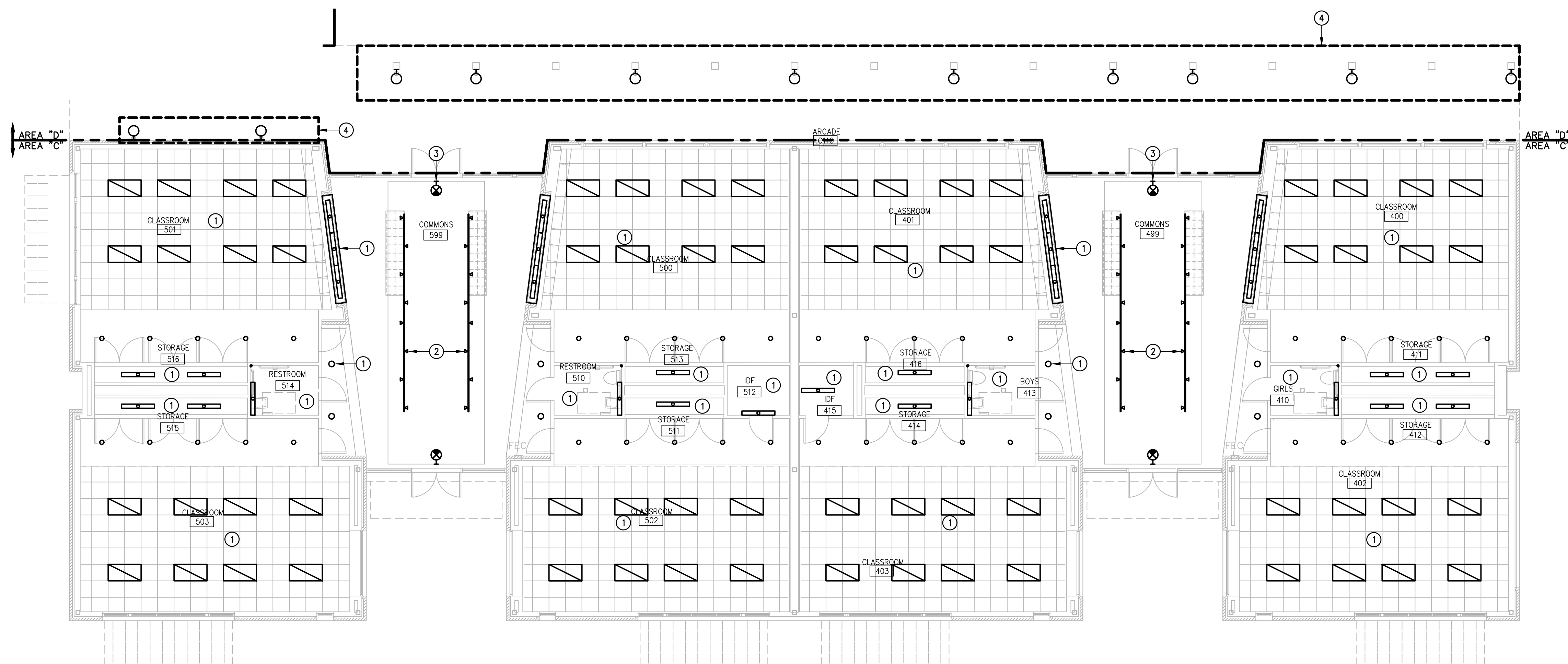
TEXAS

IDEA PUBLIC SCHOOLS  
SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES  
IDEA CARVER

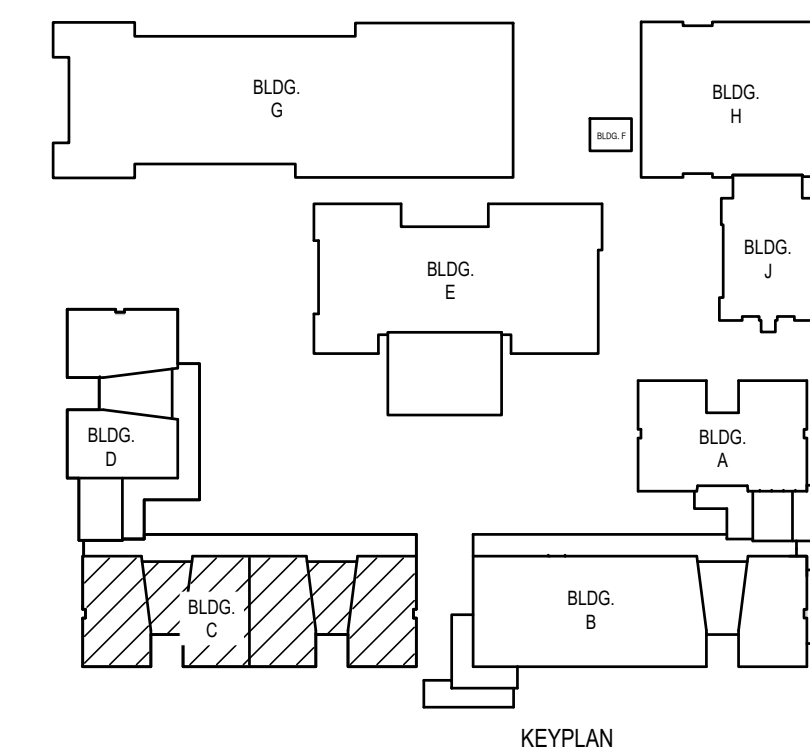
SAN ANTONIO

DEMOLITION KEYED NOTES:

- ① DISCONNECT AND REMOVE EXISTING LIGHTING FIXTURE, LIGHTING SWITCHES AND EMERGENCY LIGHT FIXTURE FOR REMOVAL - TYPICAL.
- ② REMOVE EXISTING LIGHT FIXTURE BULB FOR REPLACEMENT - TYPICAL.
- ③ DISCONNECT AND REMOVE EXISTING EXIT LIGHT FIXTURE - TYPICAL.
- ④ ALTERNATE#1: REMOVE EXISTING EXTERIOR LIGHT FIXTURE FOR REPLACEMENT - TYPICAL.



IDEA CARVER  
01 DEMOLITION - LIGHTING PLAN (BUILDING C)  
SCALE: 1/8" = 1'-0"



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HARLINGEN, TX  
PHONE: 361-230-3485  
TEXAS REGISTERED  
ENGINEERING FIRM  
F-15998

DATE: SEPTEMBER 06, 2024

CHECKED BY: G.Q.

DRAWN BY: R.E.

PROJECT NO.: 23v81

CAD FILE:  
SHEET:

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 SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES  
 IDEA CARVER

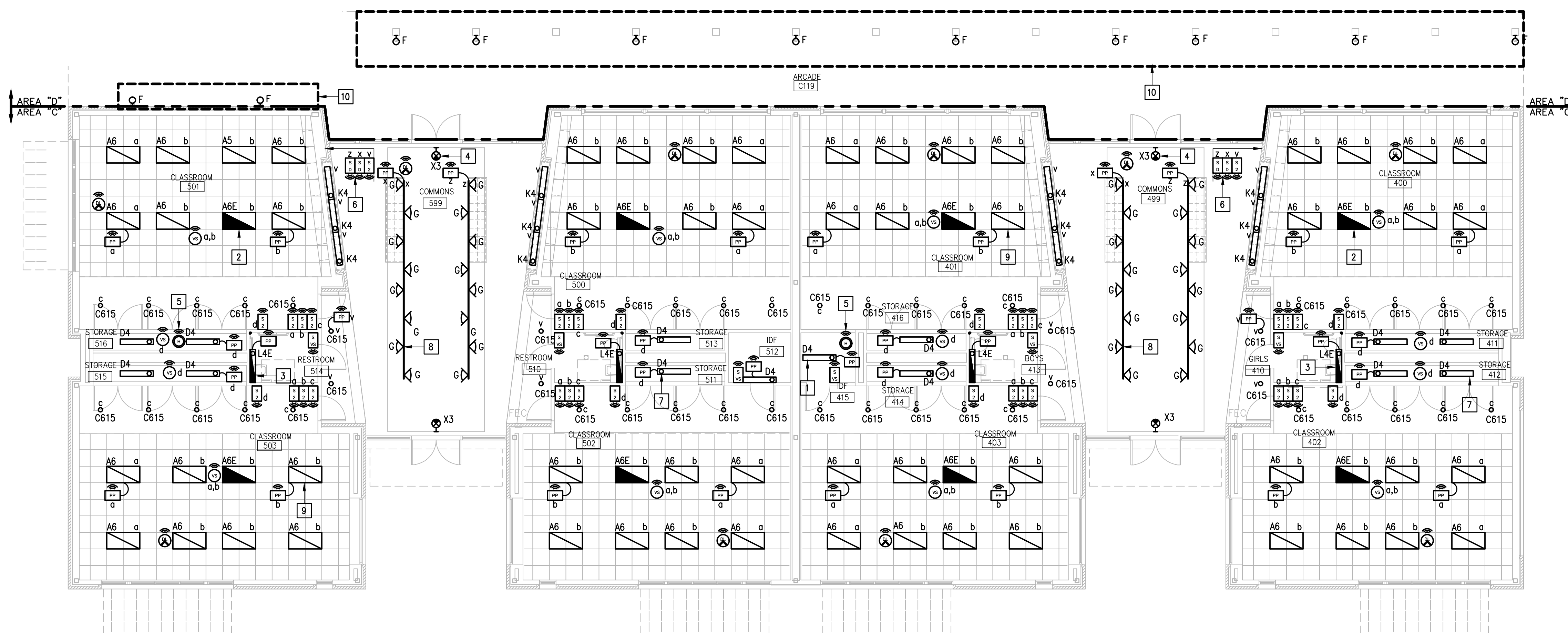


GENERAL NOTES:

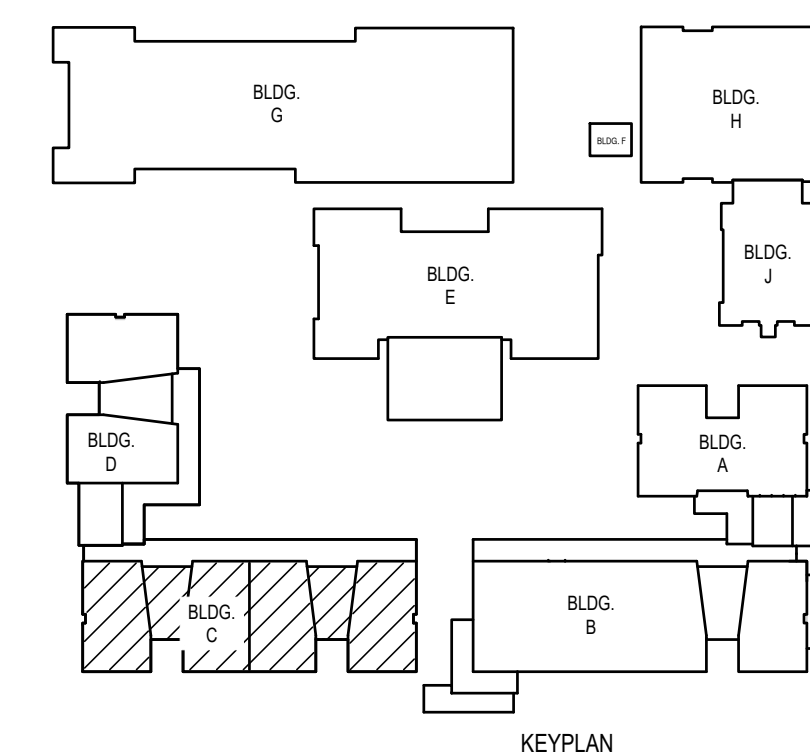
- LIGHTING BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" - 2#12 & #12. 20A/277V HOMERUNS EXCEEDING 200FT THE WIRE SIZE SHALL BE #10 & #8 FOR 275'.
- INTERIOR LIGHTING CONTROLS SHALL BE VACANCY SENSORS.
- RETAIN AND REUSE EXISTING LIGHTING BRANCH CIRCUITS. IF EXISTING BRANCH CIRCUITS DO NOT REACH NEW LIGHT FIXTURES POINT OF CONNECTION PROVIDE A JUNCTION BOX ABOVE CEILING TO SPLICE AND EXTEND WIRING. THE INTENT IS TO REPLACE LIGHT FIXTURE ONE FOR ONE.
- PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND NEW WALL DIMMING SWITCHES (WHERE NOTED).
- DOWNLIGHTS: IS EXISTING APERTURE DON'T MATCH NEW LIGHT FIXTURE-CONTRACTOR TO MODIFY AS REQUIRED.

KEYED NOTES:

- PROVIDE UNISTRUT/THREADED ROD AND SUSPEND LIGHT FIXTURE AT 9'-0" AFF. COORDINATE INSTALLATION WITH HVAC DUCT WORK.
- CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH - TYPICAL.
- PROVIDE NEW FIXTURE TYPE "L4E" AT EXISTING LOCATION - TYPICAL.
- PROVIDE NEW EXIT LIGHT AT EXISTING LOCATION - TYPICAL.
- PROVIDE WALL MOUNTED AND 20A DUPLEX RECEPTACLE ADJACENT. CONNECT TO NEAREST EXISTING 120V NON-GFCI BRANCH CIRCUIT. CAT5 CABLING TO HUB TO BE PROVIDED BY OWNER.
- TO CONTROL CORRIDOR LIGHTING. PROVIDE NEW WALLPLATE. EXISTING SWITCH FAN REMAIN AS IS.
- PROVIDE NEW FIXTURE TYPE "D4" AT AT EXISTING LOCATION - TYPICAL.
- PROVIDE NEW LED RETROFIT LAMP FIELD VERIFY/CONFIRM - TYPICAL.
- CONNECT NEW LIGHT FIXTURES TO EXISTING BRANCH CIRCUITS - TYPICAL.
- ALTERNATE #1: PROVIDE NEW LED FIXTURE IN EXISTING LIGHT FIXTURE TYPE "F" - TYPICAL.



IDEA CARVER  
 RENOVATION - LIGHTING PLAN (BUILDING C)  
 01 SCALE: 1/8" = 1'-0"

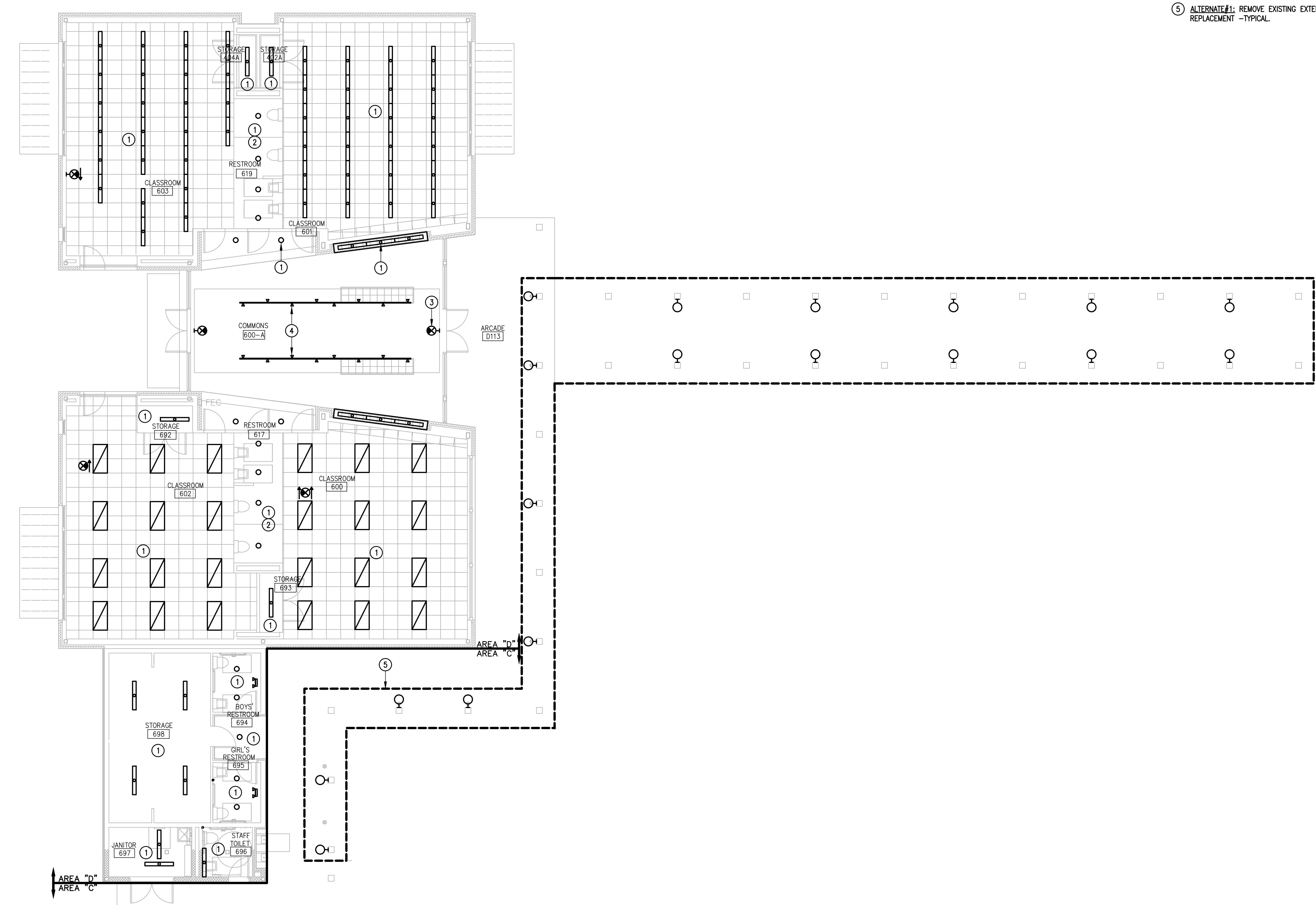


KEYPLAN

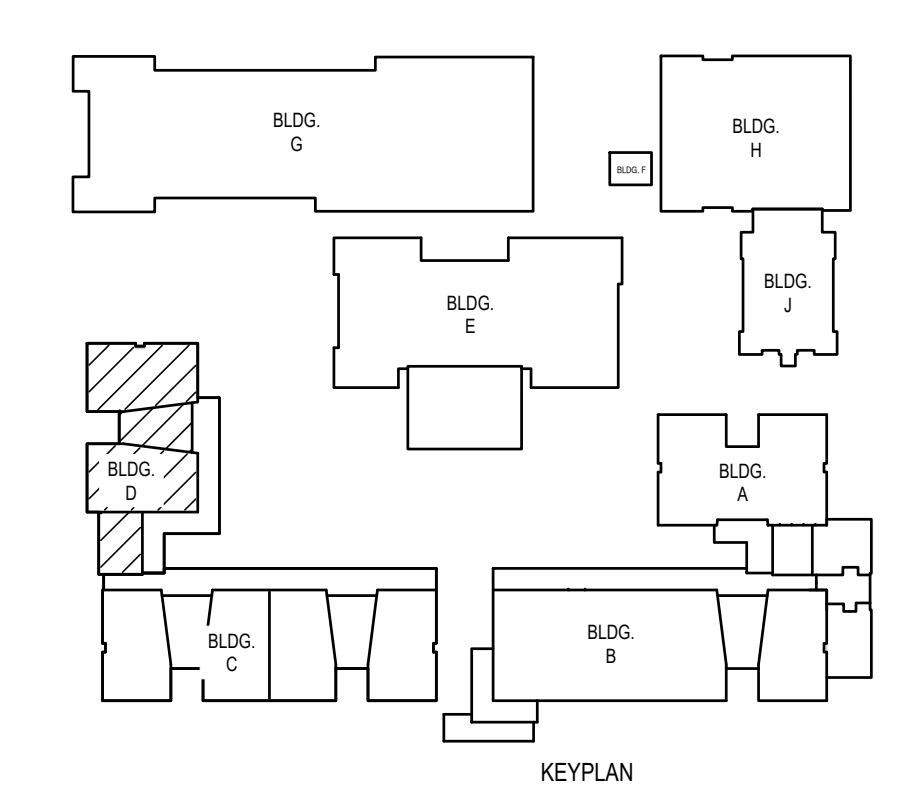


DEMOLITION KEYED NOTES:

- ① DISCONNECT AND REMOVE EXISTING LIGHTING FIXTURE, LIGHTING SWITCHES AND EMERGENCY LIGHT FIXTURE FOR REMOVAL - TYPICAL.
- ② DISCONNECT AND REMOVE EXISTING OCCUPANCY SENSOR AND ASSOCIATED POWER PACK.
- ③ DISCONNECT AND REMOVE EXISTING EXIT LIGHT FIXTURE - TYPICAL.
- ④ REMOVE EXISTING LIGHT FIXTURE BULB FOR REPLACEMENT - TYPICAL.
- ⑤ ALTERNATE#1: REMOVE EXISTING EXTERIOR LIGHT FIXTURE FOR REPLACEMENT - TYPICAL.



IDEA CARVER  
 DEMOLITION - LIGHTING PLAN (BUILDING D)  
 01 SCALE : 1/8" = 1'-0"  
 PLAN NORTH



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 IDEA CARVER  
 SAN ANTONIO TEXAS

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 CHECKED BY: G.Q.  
 DRAWN BY: R.E.  
 PROJECT NO.: 23v81  
 CAD FILE:  
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TEXAS

IDEA PUBLIC SCHOOLS  
SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES  
IDEA CARVER

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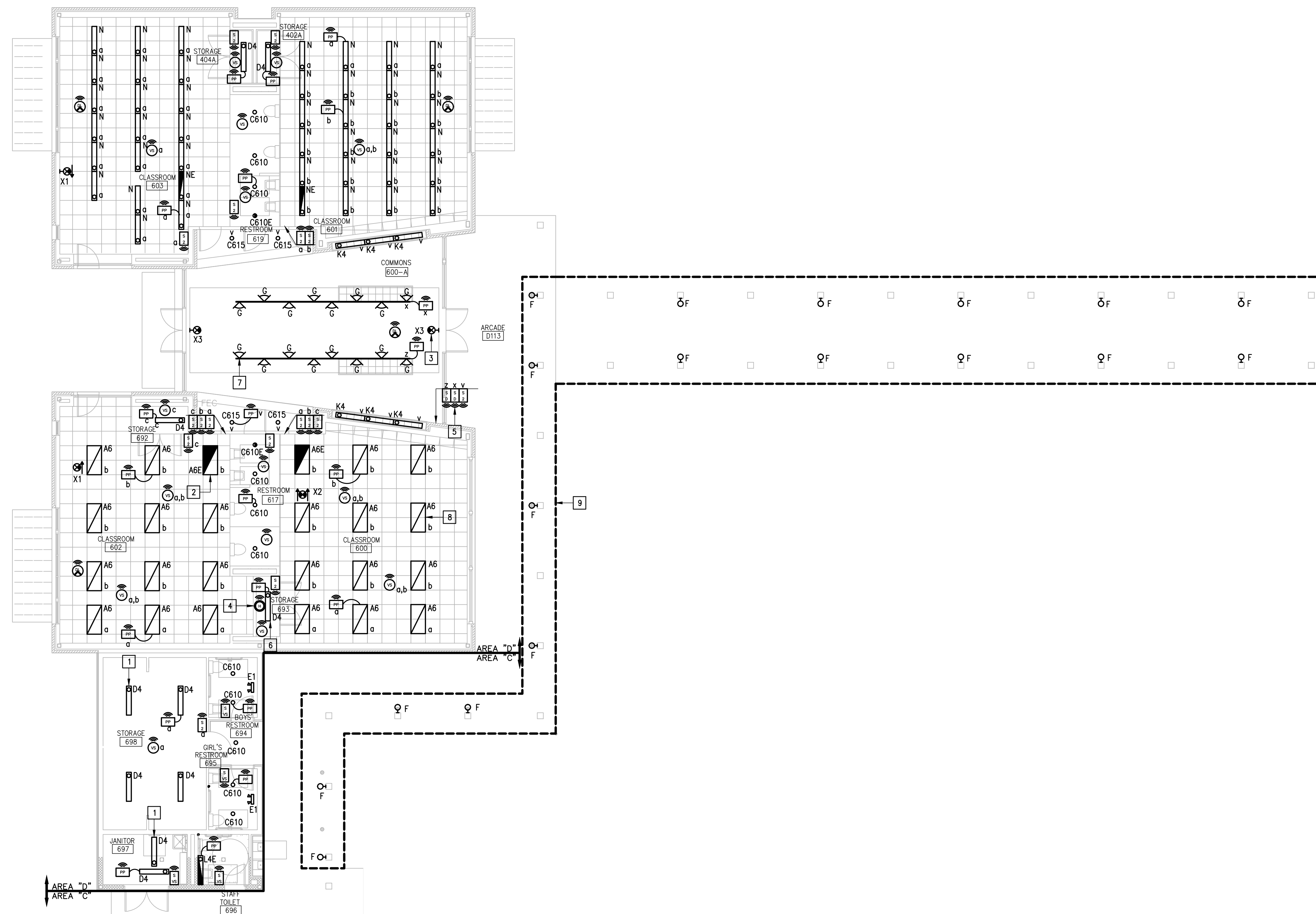
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GENERAL NOTES:

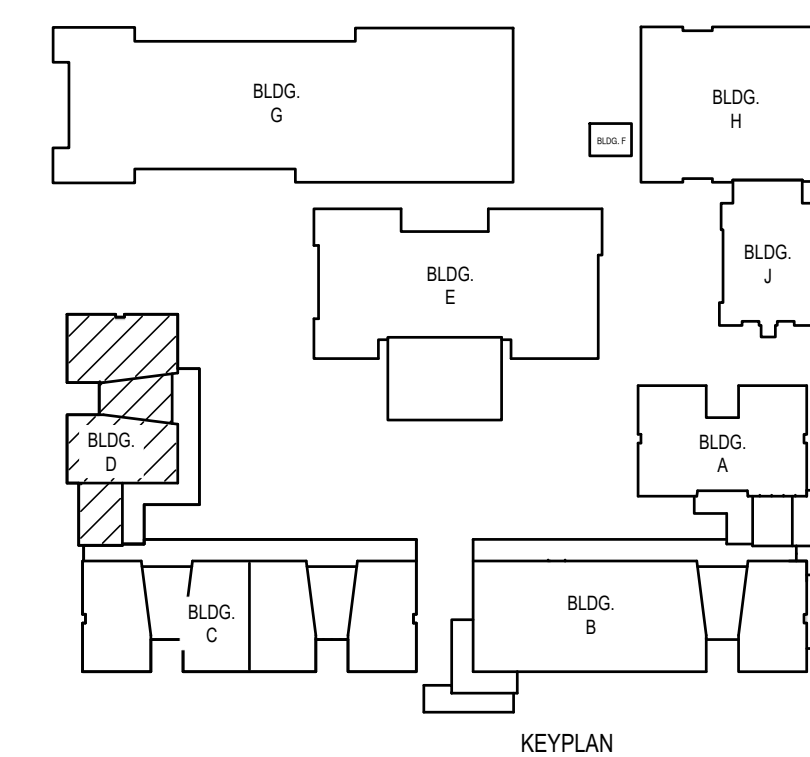
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- INTERIOR LIGHTING CONTROLS SHALL BE VACANCY SENSORS.
- RETAIN AND REUSE EXISTING LIGHTING BRANCH CIRCUITS. IF EXISTING BRANCH CIRCUITS DO NOT REACH NEW LIGHT FIXTURES POINT OF CONNECTION PROVIDE A JUNCTION BOX ABOVE CEILING TO SPLICE AND EXTEND WIRING. THE INTENT IS TO REPLACE LIGHT FIXTURE ONE FOR ONE.
- PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND NEW WALL DIMMING SWITCHES (WHERE NOTED).
- DOWNLIGHTS: IS EXISTING APERTURE DON'T MATCH NEW LIGHT FIXTURE--CONTRACTOR TO MODIFY AS REQUIRED.

KEYED NOTES:

- PROVIDE UNISTRUT/THREADED ROD AND SUSPEND LIGHT FIXTURE AT 9'-0" AFF. COORDINATE INSTALLATION WITH HVAC DUCT WORK.
- CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH - TYPICAL.
- PROVIDE NEW EXIT LIGHT AT EXISTING LOCATION - TYPICAL.
- PROVIDE WALL MOUNTED AND 20A DUPLEX RECEPTACLE ADJACENT. CONNECT TO NEAREST EXISTING 120V NON-GFCI BRANCH CIRCUIT. CAT6 CABLING TO HUB TO BE PROVIDED BY OWNER.
- TO CONTROL CORRIDOR LIGHTING. PROVIDE NEW WALLPLATE. EXISTING SWITCH FAN REMAIN AS IS.
- PROVIDE NEW FIXTURE TYPE "D4" AT EXISTING LOCATION - TYPICAL.
- PROVIDE NEW LED RETROFIT LAMP FIELD VERIFY/CONFIRM - TYPICAL.
- CONNECT NEW LIGHT FIXTURES TO EXISTING BRANCH CIRCUITS - TYPICAL.
- ALTERNATE #1: PROVIDE NEW LED FIXTURE IN EXISTING LIGHT FIXTURE TYPE "F" - TYPICAL.



IDEA CARVER  
RENOVATION - LIGHTING PLAN (BUILDING D)  
01 SCALE: 1/8" = 1'-0"



KEYPLAN



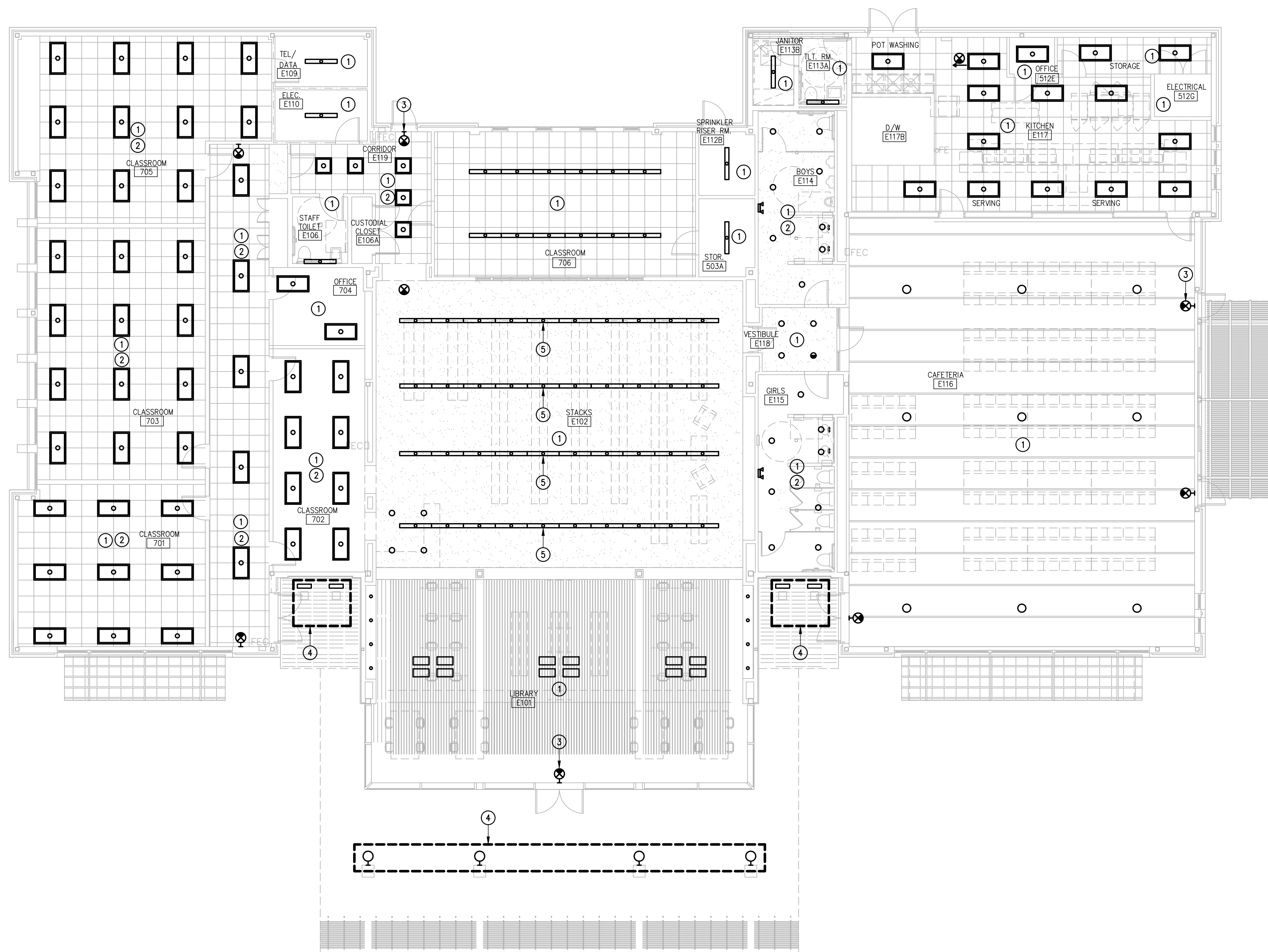


IDEA PUBLIC SCHOOLS  
SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES  
IDEA CARVER

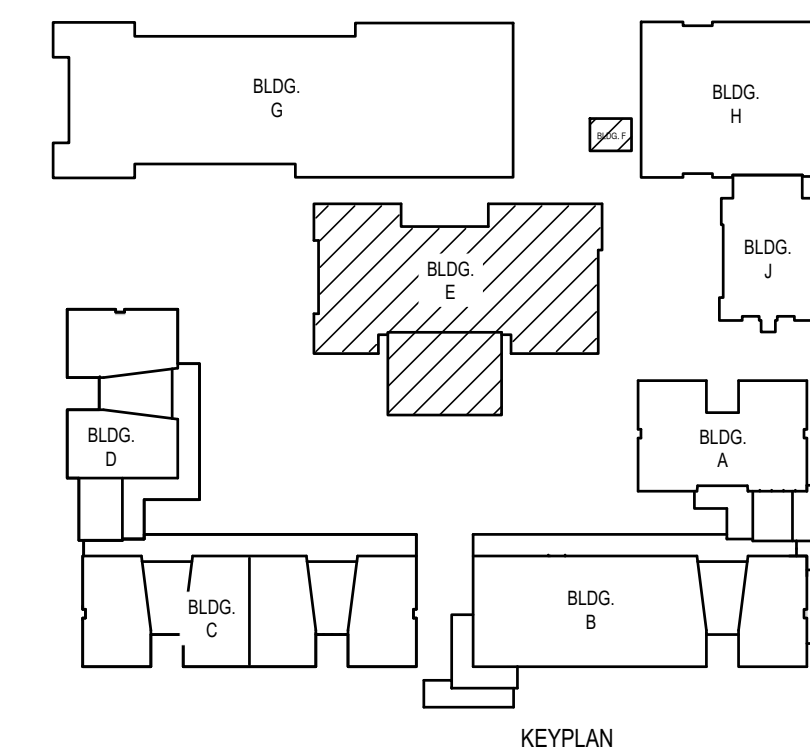


DEMOLITION KEYED NOTES:

- 1 DISCONNECT AND REMOVE EXISTING LIGHTING FIXTURE, LIGHTING SWITCHES AND EMERGENCY LIGHT FIXTURE FOR REMOVAL - TYPICAL.
- 2 DISCONNECT AND REMOVE EXISTING OCCUPANCY SENSOR AND ASSOCIATED POWER PACK.
- 3 DISCONNECT AND REMOVE EXISTING EXIT LIGHT FIXTURE - TYPICAL.
- 4 ALTERNATE #1: DISCONNECT AND REMOVE EXISTING EXTERIOR LIGHTING FIXTURE FOR REPLACEMENT - TYPICAL.
- 5 DISCONNECT AND REMOVE FLUORESCENT BALLAST. NEW LED LAMPS TO BE CONNECTED LINE VOLTAGE.



IDEA CARVER  
01 DEMOLITION - LIGHTING PLAN (BUILDING E)  
SCALE: 1/8" = 1'-0"



KEYPLAN





IDEA PUBLIC SCHOOLS  
SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES  
IDEA CARVER  
SAN ANTONIO



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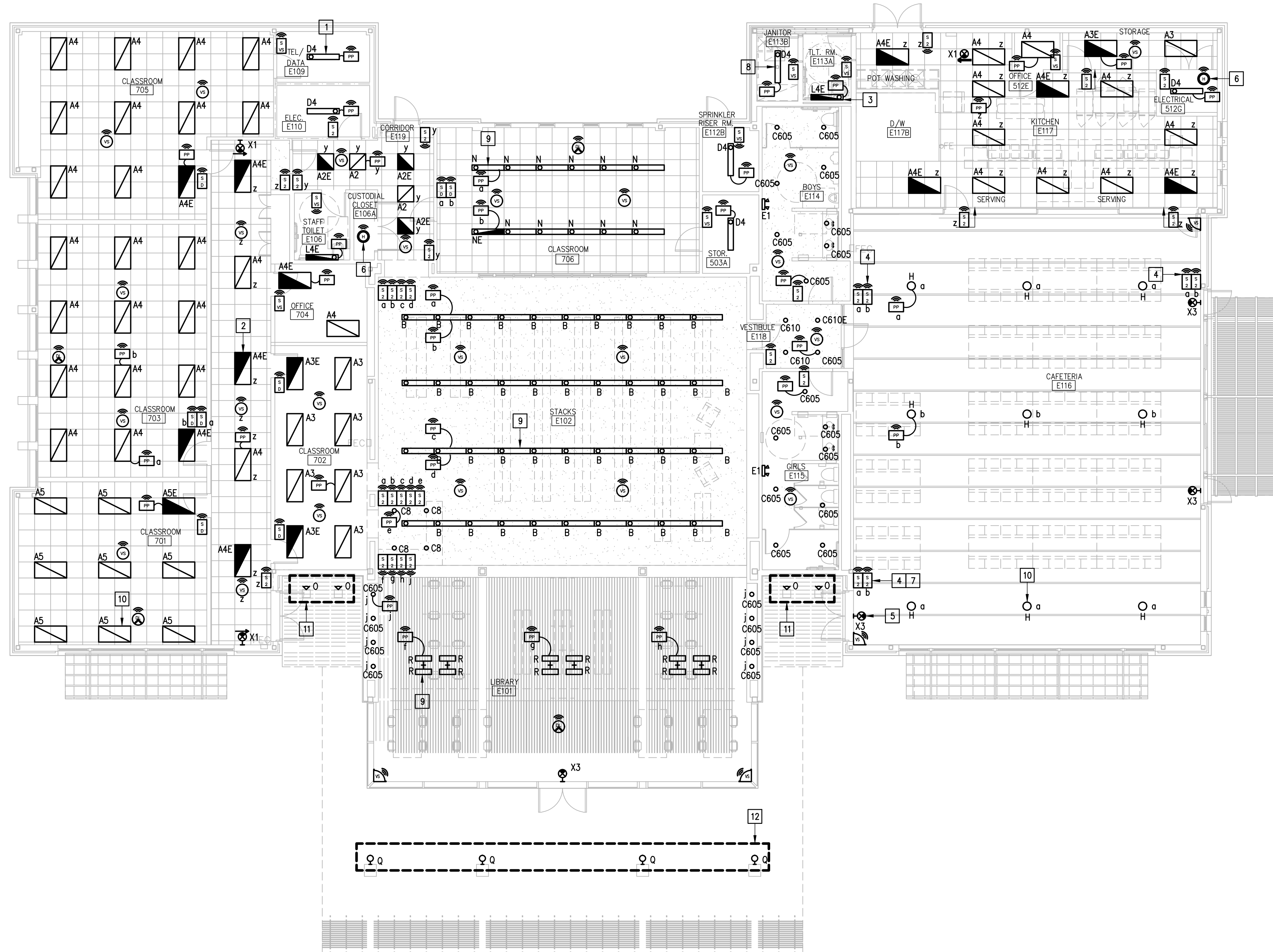
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GENERAL NOTES:

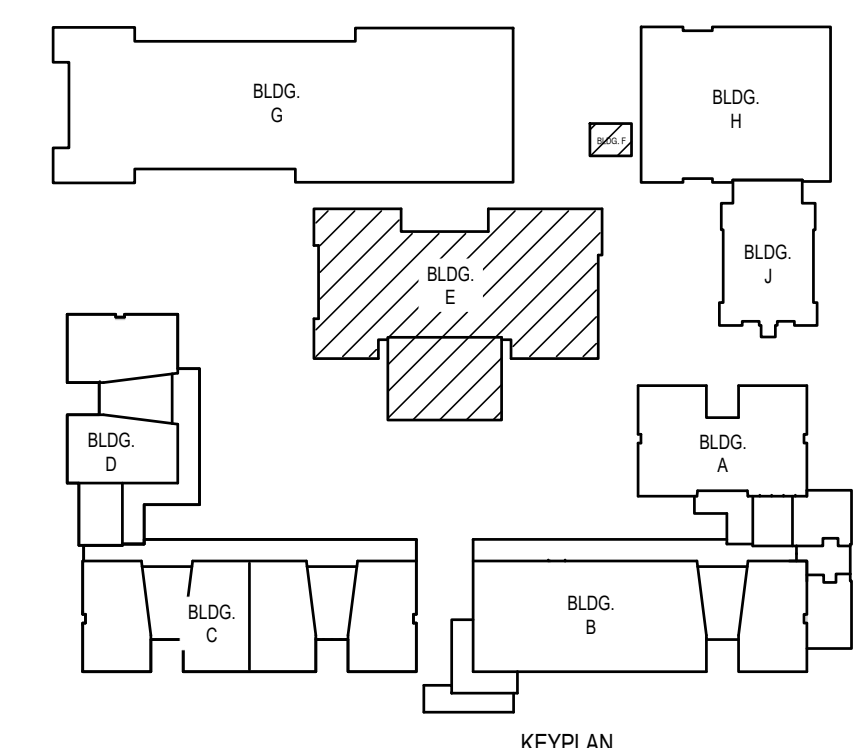
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2. INTERIOR LIGHTING CONTROLS SHALL BE VACANCY SENSORS.
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4. PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND NEW WALL DIMMING SWITCHES (WHERE NOTED).
5. DOWNLIGHTS: IS EXISTING APERTURE DON'T MATCH NEW LIGHT FIXTURE-CONTRACTOR TO MODIFY AS REQUIRED.

KEYED NOTES:

- 1 PROVIDE UNISTRUT/THREADED ROD AND SUSPEND LIGHT FIXTURE AT 9'-0" AFF. COORDINATE INSTALLATION WITH HVAC DUCT WORK.
- 2 CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH - TYPICAL.
- 3 PROVIDE NEW FIXTURE TYPE "L4E" AT EXISTING LOCATION - TYPICAL.
- 4 PROVIDE CLEAR LOCKING COVER.
- 5 PROVIDE NEW EXIT LIGHT AT EXISTING LOCATION - TYPICAL.
- 6 PROVIDE WALL MOUNTED AND 20A DUPLEX RECEPTACLE ADJACENT. CONNECT TO NEAREST EXISTING 120V NON-GFCI BRANCH CIRCUIT. CAT6 CABLING TO HUB TO BE PROVIDED BY OWNER.
- 7 TO CONTROL CAFETERIA LIGHTING. PROVIDE NEW WALLPLATE. EXISTING SWITCH FAN REMAIN AS IS.
- 8 PROVIDE NEW FIXTURE TYPE "D4" AT EXISTING LOCATION - TYPICAL.
- 9 PROVIDE NEW LED RETROFIT LAMP FIELD VERIFY/CONFIRM - TYPICAL.
- 10 CONNECT NEW LIGHT FIXTURES TO EXISTING BRANCH CIRCUITS - TYPICAL.
- 11 ALTERNATE#1: PROVIDE NEW FIXTURE TYPE "O" AT EXISTING LOCATION - TYPICAL.
- 12 ALTERNATE#1: PROVIDE NEW FIXTURE TYPE "Q" AT EXISTING LOCATION - TYPICAL.



IDEA CARVER  
RENOVATION - LIGHTING PLAN (BUILDING E)  
01 SCALE : 1/8" = 1'-0"



KEYPLAN

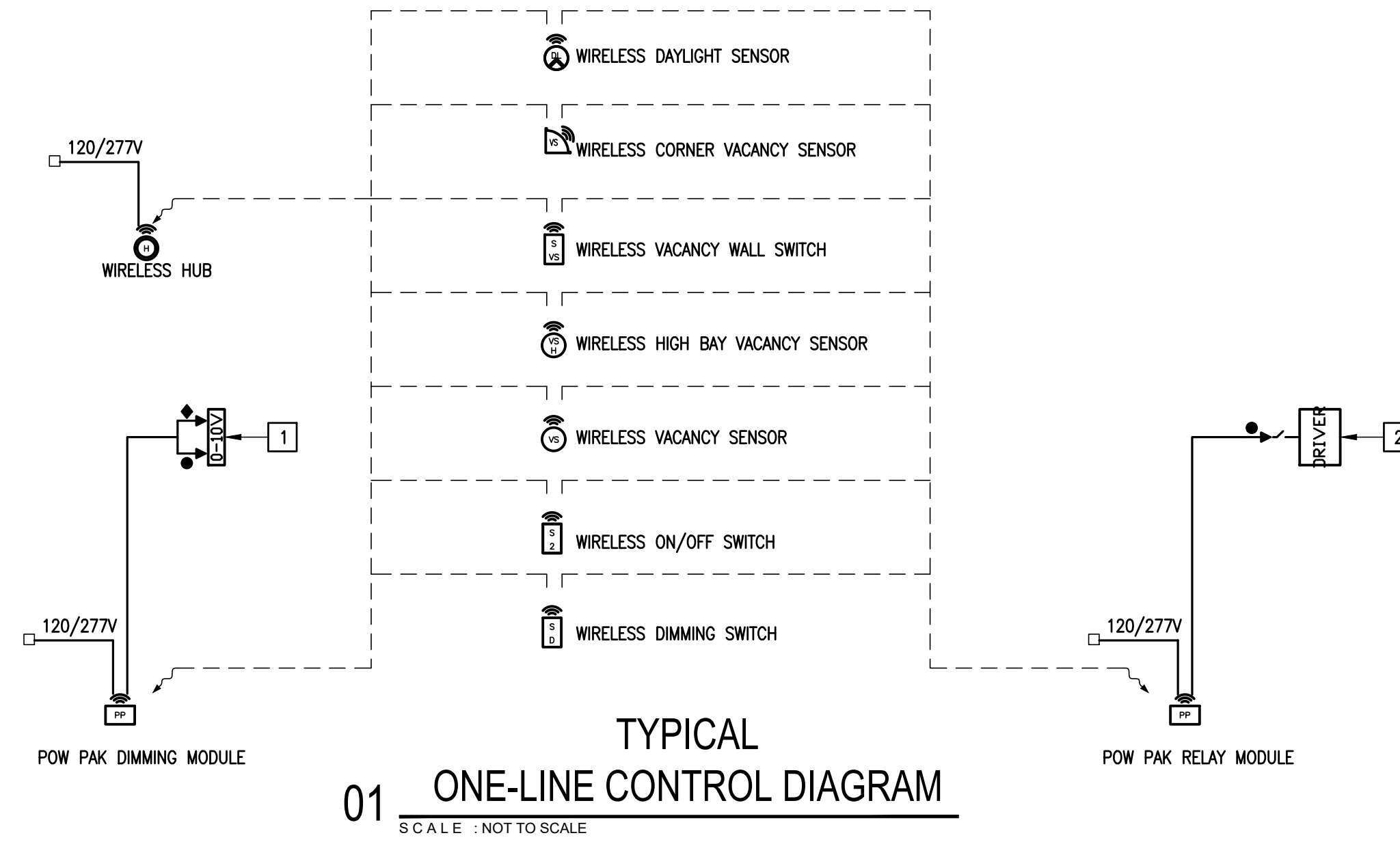


**KEYED NOTES:**

- 1 LED LIGHT FIXTURE DIMMING DRIVER. REFER TO LIGHTING PLANS FOR QUANTITIES
- 2 LED LIGHT FIXTURE DRIVER. REFER TO LIGHTING PLANS FOR QUANTITIES.

**LINE TYPE LEGEND:**

LINE	DESCRIPTION
---	RF (RADIO FREQUENCY) CONNECTION
---	WIRED CONNECTION
●	2#12 & #12G
◆	0-10V SIGNAL: 2#18



**LUTRON LRF2 CEILING WIRELESS SENSOR**

**02**  
SCALE: NOT TO SCALE



**LUTRON LRF2 WALL WIRELESS VACANCY SENSOR**

**03**  
SCALE: NOT TO SCALE



**LUTRON RMJS-8T DIMMING MODULE**

**04**  
SCALE: NOT TO SCALE



**LUTRON HJS WIRELESS VIVE HUB**

**05**  
SCALE: NOT TO SCALE



**LUTRON PJ2-3BRL WIRELESS DIMMING SWITCH**

**06**  
SCALE: NOT TO SCALE



**LUTRON PJ2-2B WIRELESS SWITCH**

**07**  
SCALE: NOT TO SCALE



**LUTRON VACANCY WALL SWITCH MS-OPS6M2-DV-WH**

**08**  
SCALE: NOT TO SCALE



**LUTRON LRF2 WIRELESS DAYLIGHT SENSOR**

**09**  
SCALE: NOT TO SCALE

**LUMINAIRE SCHEDULE**

CALLOUT	LAMP	DESCRIPTION	DRIVER	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTES	LUMENS	LUMEN MAINTENANCE	HOURS
A2	LED	2'X2' LAY-IN TROFFER	0-10V	RECESSED	SIGNIFY: 2FGXG30L840-2-RS-UNV-DIM	22	MULTIPLE		3040	L70	100,000
A2E	LED	2'X2' LAY-IN TROFFER	0-10V	RECESSED	SIGNIFY: 2FGXG30L840-2-RS-UNV-DIM-BSL10LST	22	MULTIPLE	PROVIDE WITH AN EMERGENCY BATTERY PACK.	3040	L70	100,000
A3	LED	2'X4' LAY-IN TROFFER	0-10V	RECESSED	SIGNIFY: 2FGXG38L840-4-RS-UNV-DIM	27	MULTIPLE		3820	L70	100,000
A3E	LED	2'X4' LAY-IN TROFFER	0-10V	RECESSED	SIGNIFY: 2FGXG38L840-4-RS-UNV-DIM-BSL10LST	27	MULTIPLE	PROVIDE WITH AN EMERGENCY BATTERY PACK.	3820	L70	100,000
A4	LED	2'X4' LAY-IN TROFFER	0-10V	RECESSED	SIGNIFY: 2FGXG43L840-4-RS-UNV-DIM	31	MULTIPLE		4341	L70	100,000
A4E	LED	2'X4' LAY-IN TROFFER	0-10V	RECESSED	SIGNIFY: 2FGXG43L840-4-RS-UNV-DIM-BSL10LST	31	MULTIPLE	PROVIDE WITH AN EMERGENCY BATTERY PACK.	4341	L70	100,000
A5	LED	2'X4' LAY-IN TROFFER	0-10V	RECESSED	SIGNIFY: 2FGXG48L840-4-RS-UNV-DIM	36	MULTIPLE		4863	L70	100,000
A5E	LED	2'X4' LAY-IN TROFFER	0-10V	RECESSED	SIGNIFY: 2FGXG48L840-4-RS-UNV-DIM-BSL10LST	36	MULTIPLE	PROVIDE WITH AN EMERGENCY BATTERY PACK.	4863	L70	100,000
A6	LED	2'X4' LAY-IN TROFFER	0-10V	RECESSED	SIGNIFY: 2FGXG54L840-4-RS-UNV-DIM	41	MULTIPLE		5450	L70	100,000
A6E	LED	2'X4' LAY-IN TROFFER	0-10V	RECESSED	SIGNIFY: 2FGXG54L840-4-RS-UNV-DIM-BSL10LST	41	MULTIPLE	PROVIDE WITH AN EMERGENCY BATTERY PACK.	5450	L70	100,000
B	LED	REPLACEMENT BULB	0-10V	RETROFIT	PHILIPS: 14.5T8/COR/48-840/MF21/G/DIM25/1	42	MULTIPLE	PROVIDE FIVE BULBS.DISCONNECT AND REMOVE FLUORESCENT BALLAST.	6300		
C8	LED	8" DOWNLIGHT	0-10V	RECESSED	SIGNIFY: M8RDL059CSWCLWHZ10U	6.1	MULTIPLE		500	L80	72,000
C605	LED	6" DOWNLIGHT	0-10V	RECESSED	SIGNIFY: M6RDL059CSWCLWHZ10U	6.1	MULTIPLE		500	L80	72,000
C610	LED	6" DOWNLIGHT	0-10V	RECESSED	SIGNIFY: M6RDL109CSWCLWHZ10U	10.9	MULTIPLE		1000	L80	72,000
C610E	LED	6" DOWNLIGHT	0-10V	RECESSED	SIGNIFY: M6RDL109CSWCLWHZ10U-EM6R	10.9	MULTIPLE	PROVIDE WITH AN EMERGENCY BATTERY PACK.	1000		
C615	LED	6" DOWNLIGHT	0-10V	CEILING	SIGNIFY: M6RDL109CSWCLWHZ10U	15.5	MULTIPLE		1500	L80	72,000
C615E	LED	6" DOWNLIGHT	0-10V	CEILING	SIGNIFY: M6RDL109CSWCLWHZ10U	15.5	MULTIPLE	PROVIDE WITH AN EMERGENCY BATTERY PACK.	1500	L80	72,000
D4	LED	WALL BRACKET	0-10V	WALL	SIGNIFY: FSS440L840-UNV-DIM	30	MULTIPLE		4077	L70	50,000
E1	LED	EMERGENCY LED LIGHT	0-10V	SURFACE	EELP: EM20-E-HO-SD-WG-E-S	5.4	MULTIPLE	PROVIDE WIRE GUARD.	550		
F	LED	SCONCE	0-10V	WALL	GARDCO: GCS A02-840T4M UNV MG	5	MULTIPLE	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR.STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	450		
G	LED	LED RETROFIT LAMP	0-10V	CEILING	PHILIPS: PAR16E26 X3	4.2	MULTIPLE	PROVIDE ONE BULB.	400		
H	LED	PENDANT LIGHT	0-10V	PENDANT	BROWNLEE: 2700 -TG-L52-GYC-40K-UP1	52	MULTIPLE		3945	L70	100,000
J4	LED	UNDERCABINET LED FIXTURE	0-10V	SURFACE	KELVIX: UC40-3040-010V-120277-WH	20	MULTIPLE		1444		
K4	LED	4' WRAPAROUND	0-10V	SURFACE	KELVIX: QX-550-40K-4-01V-120277-SV	18	MULTIPLE		2019		50,000
L4E	LED	4' WRAPAROUND	0-10V	SURFACE	ELITE: 4-0W1B-LED-2000L-DIM10-MVOLT-40K-85	21	MULTIPLE	PROVIDE WITH AN EMERGENCY BATTERY PACK	2000	L70	50,000
M	LED	REPLACEMENT BULB	0-10V	RETROFIT	PHILIPS: 14.5T8/COR/48-840/MF21/G/DIM25/1	70	MULTIPLE	PROVIDE FIVE BULBS.DISCONNECT AND REMOVE FLUORESCENT BALLAST.	10500		
N	LED	SUSPENDING LINEAR LIGHT	0-10V	PENDANT	4-OC1R-LED-3000L/4000L/5000L-DIM10-MVOLT-35L/40K/50K-85-SYM-WH	31	MULTIPLE		4249		
NE	LED	SUSPENDING LINEAR LIGHT	0-10V	PENDANT	4-OC1R-LED-3000L/4000L/5000L-DIM10-MVOLT-35L/40K/50K-85-SYM-WH-0-EMG-LED-10W	31	MULTIPLE		4249		
O	LED	WALLWASH LIGHT	0-10V	SURFACE	KELVIX: Z7AC-2-9-W-Z-40-50-S2-TG	18	MULTIPLE	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS.STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	1800		
P1	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	SONARAY: SR-2-060P-T3-7-40-ALM-L W.M: R76601125-F-M-VDI-BC	60	MULTIPLE	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 25' ROUND TAPERED ALUMINUM & RATED FOR 100MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. PROVIDE BASE PLATE ADAPTER.STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	12771		
Q	LED	SCONCE	0-10V	WALL	SOLERA: SPRUCE 18W 2076 4000K UNV WM CPL U WL TP	18	MULTIPLE	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR.STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	2076		
R	LED	LED RETROFIT LAMP	0-10V	PENDANT	INCLUDE AN ALLOWANCE OF \$400 PER FIXTURE		MULTIPLE	VERIFY TO MATCH EXISTING BULB DIMENSIONS & SOCKET CONNECTION TYPE.	0		
S	LED	LED RETROFIT LAMP	0-10V	RETROFIT	INCLUDE AN ALLOWANCE OF \$300 PER FIXTURE	64	MULTIPLE	VERIFY TO MATCH EXISTING BULB DIMENSIONS & SOCKET CONNECTION TYPE.	0		
T	LED	TAPE LIGHT	0-10V	SURFACE	KELVIX: RX277 40K 500 H240	22	MULTIPLE	PROVIDE PLASTIC MOUNTING BASE & JUMPER CABLES TO TURN CORNERS MODEL#RX277-CH-PL-2M/RX277-JP-6	2000		
U	LED	LED RETROFIT LAMP		RETROFIT	PHILIPS: 15GC/LED/840/ND E26 BB 6/1	15	MULTIPLE	VERIFY TO MATCH EXISTING BULB DIMENSIONS & SOCKET CONNECTION TYPE.	2500		25,000
V	LED	LED RETROFIT LAMP		RETROFIT	PHILIPS: 25GC/LED/830/ND E26 BB 6/1	25	MULTIPLE	VERIFY TO MATCH EXISTING BULB DIMENSIONS & SOCKET CONNECTION TYPE.	3600		25,000
X1	LED	SINGLE SIDED EXIT SIGN		WALL/CEILING	EELP LIGHTING: CAHAU1RBEMSD	5	MULTIPLE	PROVIDE WITH A UNIVERSAL MOUNTING CANOPY, LIGHT EMITTING DIODES, & A NI-CAD BATTERY PACK.	0		
X2	LED	DOUBLE SIDED EXIT SIGN	ELECTRONIC	WALL/CEILING	EELP LIGHTING: CAHAU2RBEMSD	5	MULTIPLE	PROVIDE WITH A UNIVERSAL MOUNTING CANOPY, LIGHT EMITTING DIODES, & A NI-CAD BATTERY PACK.	0		
X3	LED	SINGLE SIDED EXIT SIGN		WALL/CEILING	EELP LIGHTING: XC2RB-LED-HO	5	MULTIPLE	PROVIDE WITH A UNIVERSAL MOUNTING CANOPY, LIGHT EMITTING DIODES, & A NI-CAD BATTERY PACK.	0		
Z	LED	LED RETROFIT LAMP	0-10V	WALL	PHILIPS: 11A19/CNG/840/FR/P/E26/D12/1CT	11	MULTIPLE	VERIFY TO MATCH EXISTING BULB DIMENSIONS & SOCKET CONNECTION TYPE.	1100		15,000

- GENERAL NOTES:**
- OTHER LIGHT FIXTURE MANUFACTURERS THAN THOSE LISTED ON THIS SCHEDULE ARE REQUIRED TO OBTAIN PRIOR APPROVAL BY SUBMITTING CUT SHEETS OF THEIR SUBSTITUTIONS AT LEAST (10) BUSINESS DAYS PRIOR TO BID. CUT SHEETS SHALL INDICATE/HIGHLIGHT PHOTOMETRIC CURVE, EFFICIENCY & CONSTRUCTION FOR DIRECT COMPARISON WITH SPECIFIED FIXTURES.
  - EXTRA MATERIALS: SEE SPECIFICATIONS.
  - EMERGENCY BATTERY PACKS SHALL BE COMPLETE FACTORY INSTALLED WITH NI-CAD BATTERY, CHARGER INDICATING LIGHT, ELECTRONIC CIRCUITRY, 1400 LUMENS OUTPUT, 90 MINUTES DURATION & FIVE FULL YEARS WARRANTY.
  - INCLUDE VERIFICATION OF LIGHT FIXTURE EFFICIENCY IN LIGHT FIXTURE SUBMITTALS BY ATTACHING ONE OF THE FOLLOWING:
    - \* SCREENSHOT OF DLC WEBSITE LISTING FOR SPECIFIC LIGHT FIXTURE. CAN BE FOUND AT [HTTPS://WWW.DESIGNLIGHTS.ORG](https://www.designlights.org)
    - \* SCREENSHOT OF ENERGY STAR WEBSITE LISTING FOR SPECIFIC LIGHT FIXTURE. CAN BE FOUND AT [HTTPS://WWW.ENERGYSTAR.GOV](https://www.energystar.gov)
    - \* PART EFFICIENCY DOCUMENTATION IN THE FORM OF LM-79 OR LM-80 DOCUMENTS WITH ADDITIONAL DOCUMENTATION DISPLAYING THE LINK BETWEEN THE PART AND THE LIGHT FIXTURE.







01 LIGHT FIXTURE TYPE "A2", "A2E" IMAGES  
SCALE : NOT TO SCALE



02 LIGHT FIXTURE TYPE "A3", "A3E", "A4", "A4E", "A5", "A5E", "A6", "A6E" IMAGES  
SCALE : NOT TO SCALE



03 LIGHT FIXTURE TYPE "B" IMAGE  
SCALE : NOT TO SCALE



04 LIGHT FIXTURE TYPE "C605", "C610", "C610E", "C615", "C615E", "C8" IMAGES  
SCALE : NOT TO SCALE



05 LIGHT FIXTURE TYPE "D4" IMAGE  
SCALE : NOT TO SCALE



06 LIGHT FIXTURE TYPE "E1" IMAGE  
SCALE : NOT TO SCALE



07 LIGHT FIXTURE TYPE "F" IMAGE  
SCALE : NOT TO SCALE



08 LIGHT FIXTURE TYPE "G" IMAGE  
SCALE : NOT TO SCALE



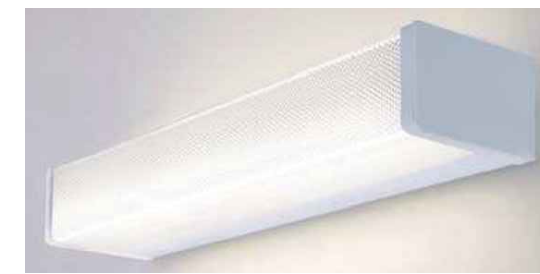
09 LIGHT FIXTURE TYPE "H" IMAGE  
SCALE : NOT TO SCALE



10 LIGHT FIXTURE TYPE "J4" IMAGE  
SCALE : NOT TO SCALE



11 LIGHT FIXTURE TYPE "K4" IMAGE  
SCALE : NOT TO SCALE



12 LIGHT FIXTURE TYPE "L4E" IMAGE  
SCALE : NOT TO SCALE



13 LIGHT FIXTURE TYPE "M" IMAGE  
SCALE : NOT TO SCALE



14 LIGHT FIXTURE TYPE "N" & "NE" IMAGE  
SCALE : NOT TO SCALE



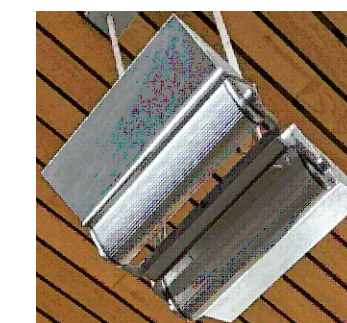
15 LIGHT FIXTURE TYPE "O" IMAGE  
SCALE : NOT TO SCALE



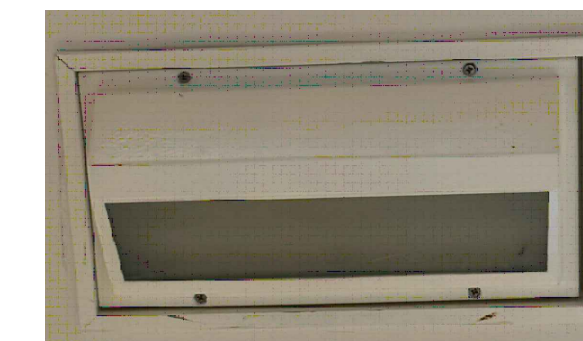
16 LIGHT FIXTURE TYPE "P1" IMAGES  
SCALE : NOT TO SCALE



17 LIGHT FIXTURE TYPE "Q" IMAGE  
SCALE : NOT TO SCALE



18 LIGHT FIXTURE TYPE "R" IMAGE  
SCALE : NOT TO SCALE



19 LIGHT FIXTURE TYPE "S" IMAGE  
SCALE : NOT TO SCALE



20 LIGHT FIXTURE TYPE "T" IMAGE  
SCALE : NOT TO SCALE



21 LIGHT FIXTURE TYPE "U" IMAGE  
SCALE : NOT TO SCALE



22 LIGHT FIXTURE TYPE "V" IMAGE  
SCALE : NOT TO SCALE



23 LIGHT FIXTURE TYPE "X1", "X2" IMAGE  
SCALE : NOT TO SCALE



24 LIGHT FIXTURE TYPE "X3" IMAGE  
SCALE : NOT TO SCALE



25 LIGHT FIXTURE TYPE "Z" IMAGE  
SCALE : NOT TO SCALE

NO. REVISION: BY:

COPY NO:



IDEA PUBLIC SCHOOLS  
SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES  
IDEA CARVER

TEXAS

SAN ANTONIO



1126 SOUTH COMMERCE ST.  
HARLINGEN, TX  
PHONE: 361-230-3425  
TEXAS REGISTERED  
ENGINEERING FIRM  
F-15998

DATE: SEPTEMBER 06, 2024

CHECKED BY: G.Q.

DRAWN BY: R.E.

PROJECT NO.: 23v81

CAD FILE:

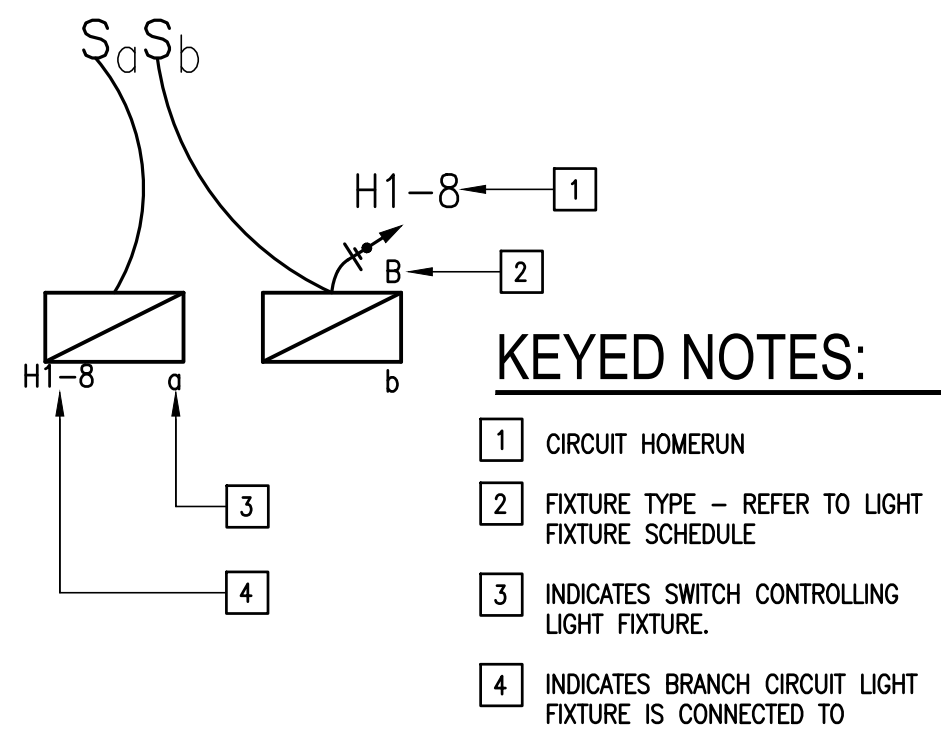
SHEET:

E7.02



**NOTES:**

1. INSTALL ALL ROUGH-INS IN STRICT ACCORDANCE WITH MANUFACTURER PUBLISHED TEMPLATES. PROVIDE MOCK-UP FOR OWNER REPRESENTATIVE APPROVAL.
2. TEMPLATE TO BE PROVIDED BY PROJECTOR MANUFACTURER/OWNER. COORDINATE WITH OWNER PRIOR TO ANY ROUGH-IN.
3. ROUGH-INS ARE LOCATED ON LEFT OR RIGHT HAND SIDE OF MARKER BOARD. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS.
4. PROVIDE A DATA CONNECTOR AND CAT6 WIRING AT PROJECTOR MOUNT.



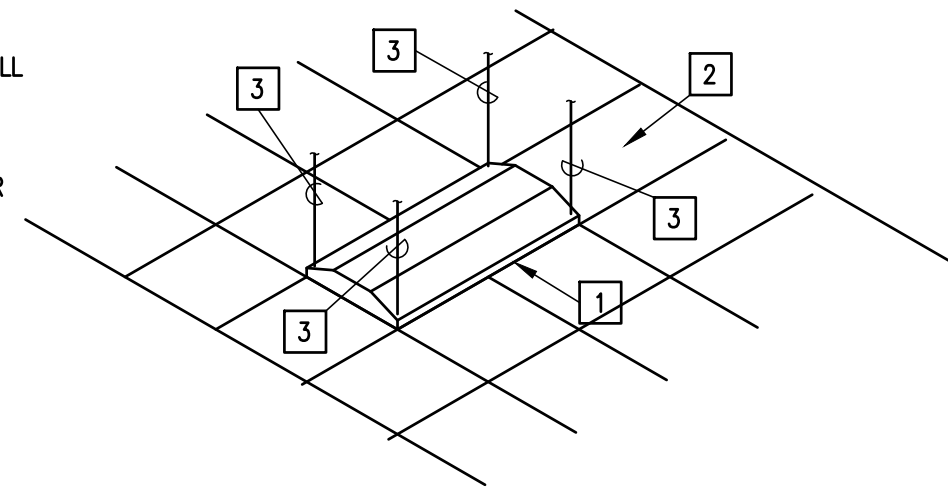
**KEYED NOTES:**

1. CIRCUIT HOMERUN
2. FIXTURE TYPE -- REFER TO LIGHT FIXTURE SCHEDULE
3. INDICATES SWITCH CONTROLLING LIGHT FIXTURE.
4. INDICATES BRANCH CIRCUIT LIGHT FIXTURE IS CONNECTED TO

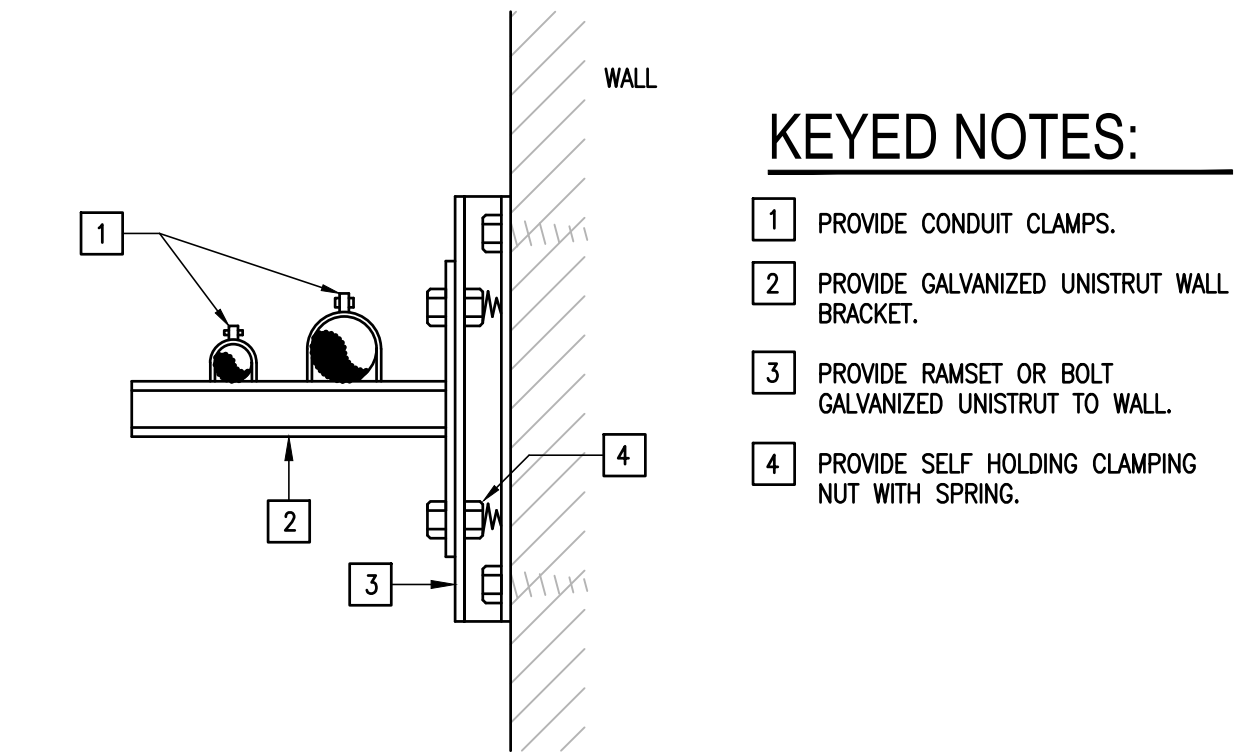
01 LIGHTING LEGEND DETAIL  
SCALE : NOT TO SCALE

**KEYED NOTES:**

1. PROVIDE 2'x4' AND OR '2'x2' LAY-IN LED FIXTURE
2. SUSPENDED CEILING
3. PROVIDE TIE WIRE, CONNECT TO ALL FOUR CORNERS OF FIXTURE TO STRUCTURE ABOVE, INDEPENDENT OF CEILING SUPPORTS. ALL TIE WIRES TO BE PAINTED ORANGE OR OTHER EFFECTIVE MEANS OF IDENTIFICATION SO OTHER TRADES CANT BE ATTACHED TO IT.



02 TYPICAL LAY-IN FIXTURE SUPPORT  
SCALE : NOT TO SCALE



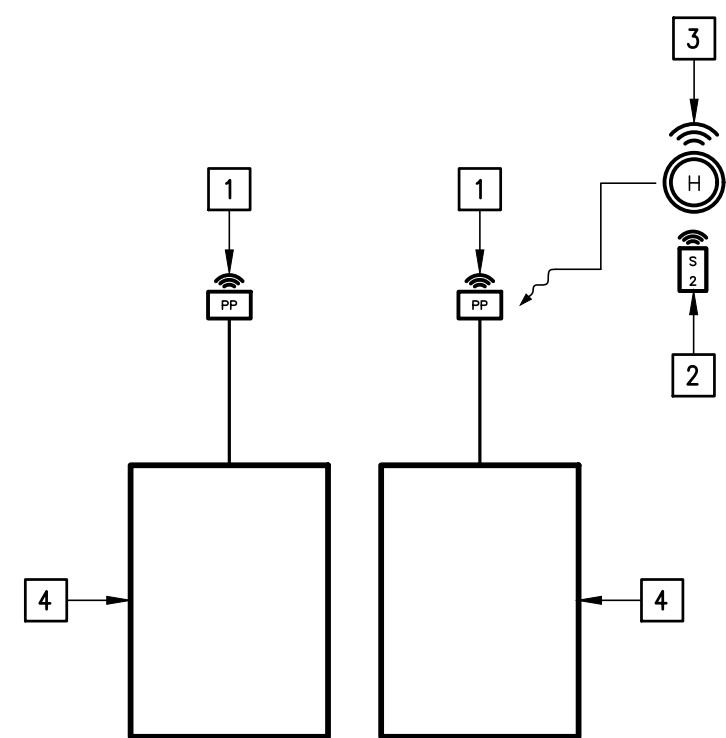
**KEYED NOTES:**

1. PROVIDE CONDUIT CLAMPS.
2. PROVIDE GALVANIZED UNISTRUT WALL BRACKET.
3. PROVIDE RAMSET OR BOLT GALVANIZED UNISTRUT TO WALL.
4. PROVIDE SELF HOLDING CLAMPING NUT WITH SPRING.

03 RACEWAY RUNS SUPPORT DETAIL  
SCALE : NOT TO SCALE

**UPGRADES KEYED NOTES:**

1. PROVIDE POWER PACK FOR CONTROLLING LIGHTING CONTACTOR.
2. PROVIDE LUTRON WIRELESS PICO SWITCH FOR LIGHTING CONTACTOR OVERRIDE.
3. TIME SCHEDULES FOR CONTACTORS VIA LUTRON VIVE HUB.
4. PROVIDE NEW 277V, 30A, 6-POLE, ELECTRONICALLY HELD LIGHTING CONTACTOR. RECONNECT EXISTING BRANCH CIRCUITS.



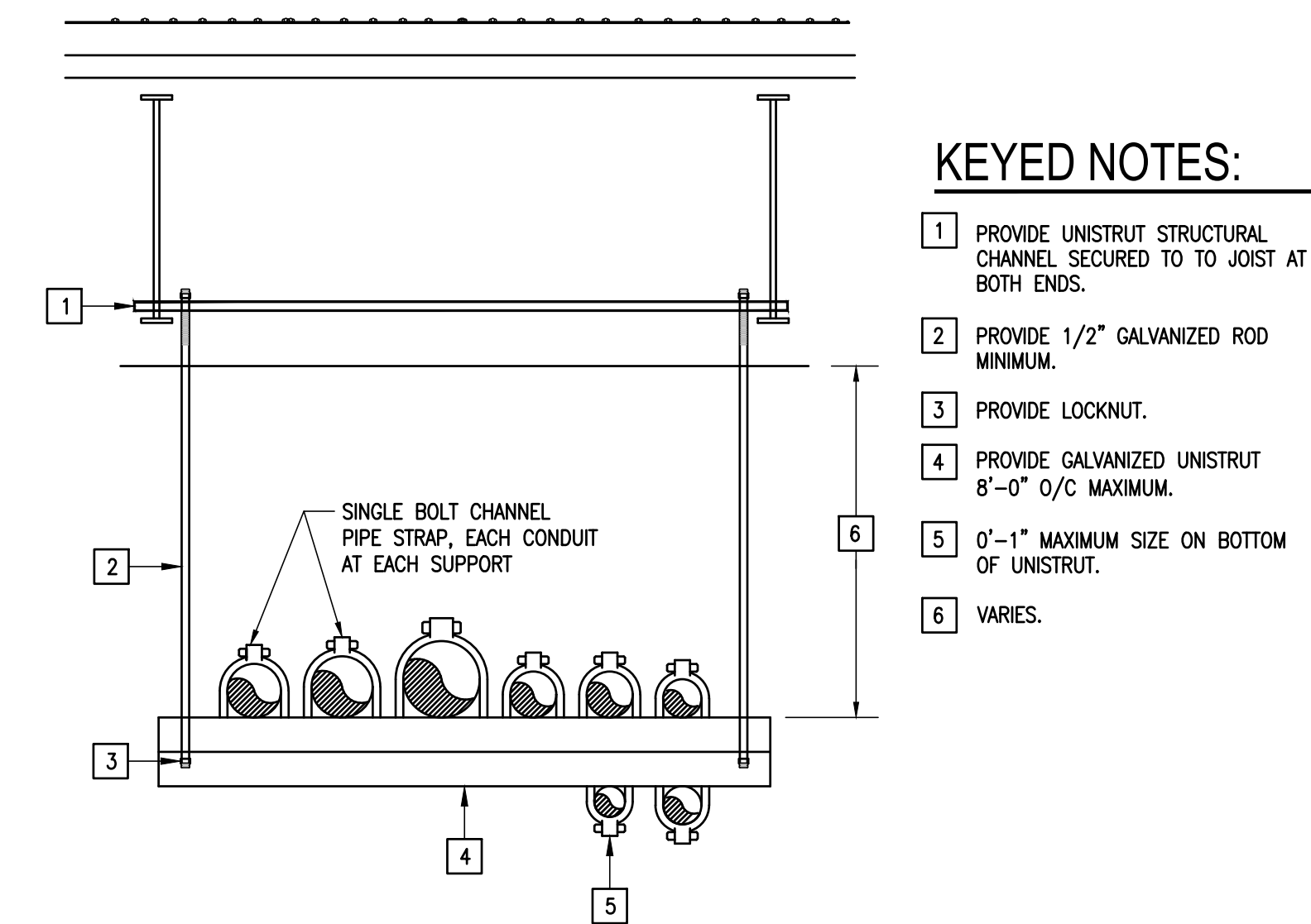
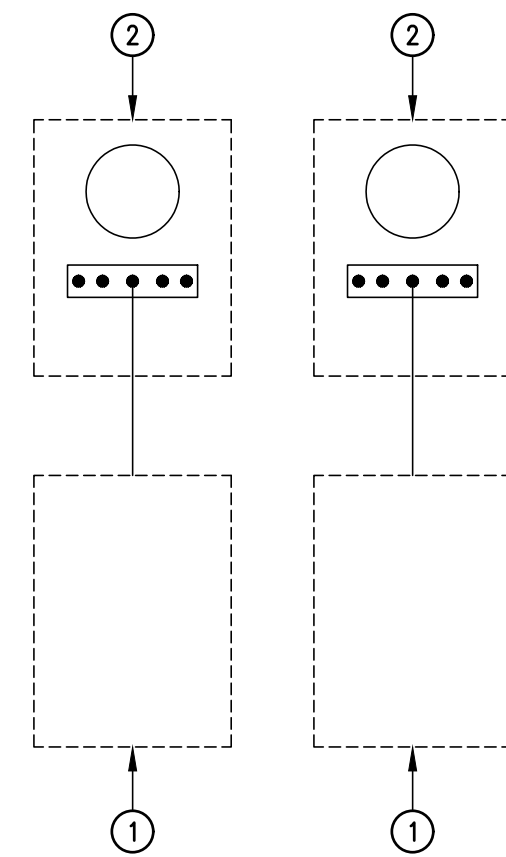
**GENERAL UPGRADES NOTES:**

1. QUANTITY OF EXISTING CIRCUITS VARY BY BUILDING FIELD. VERIFY.
2. IF EXISTING BRANCH CIRCUITS DO NOT REACH NEW POINTS OF CONNECTION SPLICE EXISTING WIRING AND PROVIDE NEW WIRING AS NECESSARY. MATCH EXISTING BRANCH CIRCUITS WIRE SIZES.
3. NEW TIME CONTROL TO BE VIA LUTRON VIVE HUB. COORDINATE SCHEDULES WITH CAMPUS FACILITY MANAGER (FM).

04 BUILDING "B" EXTERIOR LIGHTING CONTROLS SCHEMATIC  
SCALE : NONE

**DEMOLITION KEYED NOTES:**

1. DISCONNECT AND REMOVE EXISTING LIGHTING CONTACTOR TEMPORARILY DISCONNECT EXISTING BRANCH CIRCUITS.
2. DISCONNECT AND REMOVE EXISTING ELECTROMECHANICAL TIME CLOCK ALONG WITH RELATED SUPPORT HARDWARE, RACEWAYS AND WIRING.



**KEYED NOTES:**

1. PROVIDE UNISTRUT STRUCTURAL CHANNEL SECURED TO TO JOIST AT BOTH ENDS.
2. PROVIDE 1/2" GALVANIZED ROD MINIMUM.
3. PROVIDE LOCKNUT.
4. PROVIDE GALVANIZED UNISTRUT 8"-0" O/C MAXIMUM.
5. 0'-1" MAXIMUM SIZE ON BOTTOM OF UNISTRUT.
6. VARIES.

05 HORIZONTAL RACEWAYS SUPPORT DETAIL  
SCALE : NOT TO SCALE





# COMcheck Software Version COMcheckWeb Interior Lighting Compliance Certificate

**Project Information**  
 Energy Code: 2021 IECC  
 Project Title: IDEA PS-CARVER CAMPUS ELECTRICAL AND LIGHTING UPGRADES  
 Project Type: Alteration

Construction Site: 217 Robinson Pl San Antonio, Texas 78202  
 Owner/Agent: Antonio Guevara IDEA PUBLIC SCHOOLS  
 Designer/Contractor:

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-BUILDING "A" (Common Space Types:Classroom/Lecture/Training)	6221	0.71	4417
2-BUILDING "B" (Common Space Types:Office - Enclosed)	10983	0.74	8127
3-BUILDING "C" (Common Space Types:Classroom/Lecture/Training)	9524	0.71	6762
4-BUILDING "D" (Common Space Types:Classroom/Lecture/Training)	5576	0.71	3959
5-BUILDING "E" (Common Space Types:Dining Area - General)	11867	0.43	5103
Total Allowed Watts =			28368

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
<b>BUILDING "A" (Common Space Types: Classroom/Lecture/Training, 6221 sq.ft.)</b>				
LED: A6: 2'x4' LAY-IN TROFFER: Other:	1	35	41	1435
LED: A6E: 2'x4' LAY-IN TROFFER: Other:	1	5	41	205
LED: C605: 6" DOWNLIGHT: Other:	1	4	6	24
LED: C610: 6" DOWNLIGHT: Other:	1	13	11	143
LED: C610E: 6" DOWNLIGHT: Other:	1	1	11	11
LED: C615: 6" DOWNLIGHT: Other:	1	17	15	255
LED: D4: WALL BRACKET: Other:	1	7	30	210
LED: G: REPLACEMENT BULB: Other:	1	16	4	67
LED: J4: UNDERCABINET LED FIXTURE: Other:	1	8	20	160
LED: K4: 4' WRAPAROUND: Other:	1	6	18	108
LED: L4E: 4' WRAPAROUND: Other:	1	4	21	84
LED: Z: REPLACEMENT BULB: Other:	1	1	11	11
<b>BUILDING "B" (Common Space Types: Office - Enclosed, 10983 sq.ft.)</b>				
LED: A2E: 2'x2' LAY-IN TROFFER: Other:	1	1	22	22
LED: A4: 2'x4' LAY-IN TROFFER: Other:	1	9	31	279
LED: A4E: 2'x4' LAY-IN TROFFER: Other:	1	6	31	186
LED: A5: 2'x4' LAY-IN TROFFER: Other:	1	3	36	108
LED: A5E: 2'x4' LAY-IN TROFFER: Other:	1	4	36	144
LED: A6: 2'x4' LAY-IN TROFFER: Other:	1	36	41	1476
LED: A6E: 2'x4' LAY-IN TROFFER: Other:	1	5	41	205
LED: B: REPLACEMENT BULB: Other:	3	18	42	756

Project Title: IDEA PS-CARVER CAMPUS ELECTRICAL AND LIGHTING UPGRADES Report date: 09/06/24  
 Data filename: Page 1 of 8

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
<b>BUILDING "C" (Common Space Types: Classroom/Lecture/Training, 9524 sq.ft.)</b>				
LED: C605: 6" DOWNLIGHT: Other:	1	10	6	60
LED: C610: 6" DOWNLIGHT: Other:	1	6	11	66
LED: C610E: 6" DOWNLIGHT: Other:	1	2	11	22
LED: C615: 6" DOWNLIGHT: Other:	1	40	15	600
LED: C615E: 6" DOWNLIGHT: Other:	1	6	15	90
LED: D4: WALL BRACKET: Other:	1	10	30	300
LED: G: REPLACEMENT BULB: Other:	1	16	4	67
LED: K4: 4' WRAPAROUND: Other:	1	6	18	108
LED: L4E: 4' WRAPAROUND: Other:	1	5	21	105
LED: M: REPLACEMENT BULB: Other:	5	4	70	280
LED: S: WALLWASH: Other:	1	10	50	500
LED: T: TAPE LIGHT: Other:	1	10	22	220
<b>BUILDING "D" (Common Space Types: Classroom/Lecture/Training, 5576 sq.ft.)</b>				
LED: A6: 2'x4' LAY-IN TROFFER: Other:	1	56	41	2296
LED: A6E: 2'x4' LAY-IN TROFFER: Other:	1	8	41	328
LED: C615: 6" DOWNLIGHT: Other:	1	48	15	720
LED: D4: WALL BRACKET: Other:	1	14	30	420
LED: G: REPLACEMENT BULB: Other:	1	32	4	134
LED: K4: 4' WRAPAROUND: Other:	1	12	18	216
LED: L4E: 4' WRAPAROUND: Other:	1	4	21	84
<b>BUILDING "E" (Common Space Types: Dining Area - General, 11867 sq.ft.)</b>				
LED: A2: 2'x2' LAY-IN TROFFER: Other:	1	22	22	44
LED: A2E: 2'x2' LAY-IN TROFFER: Other:	1	3	22	66
LED: A3: 2'x4' LAY-IN TROFFER: Other:	1	7	27	189
LED: A3E: 2'x4' LAY-IN TROFFER: Other:	1	3	27	81
LED: A4: 2'x4' LAY-IN TROFFER: Other:	1	33	31	1023
LED: A4E: 2'x4' LAY-IN TROFFER: Other:	1	10	31	310
LED: A5: 2'x4' LAY-IN TROFFER: Other:	1	5	36	180
LED: A5E: 2'x4' LAY-IN TROFFER: Other:	1	1	36	36
LED: B: REPLACEMENT BULB: Other:	3	40	42	1680
LED: C8: 8" DOWNLIGHT: Other:	1	4	6	24
LED: C605: 6" DOWNLIGHT: Other:	1	24	6	144
LED: C610: 6" DOWNLIGHT: Other:	1	3	11	33
LED: C610E: 6" DOWNLIGHT: Other:	1	1	11	11
LED: D4: WALL BRACKET: Other:	1	6	30	180
LED: H: PENDANT LIGHT: Other:	1	9	52	468
LED: L4E: 4' WRAPAROUND: Other:	1	2	21	42
LED: N: SUSPENDED LINEAR LIGHT: Other:	1	11	31	341
LED: NE: SUSPENDED LINEAR LIGHT: Other:	1	1	31	31
LED: O: WALLWASH LIGHT: Other:	1	4	18	72
LED: R: INDIRECT ASTMMETRIC LUMINAIRE: Other:	1	12	100	1200
Total Proposed Watts =				21708

Project Title: IDEA PS-CARVER CAMPUS ELECTRICAL AND LIGHTING UPGRADES Report date: 09/06/24  
 Data filename: Page 2 of 8

**Interior Lighting PASSES**

**Interior Lighting Compliance Statement**  
 Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

RAUL ESPINOSA Signature: *Raul Espinosa* Date: 09/06/2024

Project Title: IDEA PS-CARVER CAMPUS ELECTRICAL AND LIGHTING UPGRADES Report date: 09/06/24  
 Data filename: Page 3 of 8

# COMcheck Software Version COMcheckWeb Exterior Lighting Compliance Certificate

**Project Information**  
 Energy Code: 2021 IECC  
 Project Title: IDEA PS-CARVER CAMPUS ELECTRICAL AND LIGHTING UPGRADES  
 Project Type: Alteration  
 Exterior Lighting Zone: 4 (High activity metropolitan commercial district (LZ4))

Construction Site: 217 Robinson Pl San Antonio, Texas 78202  
 Owner/Agent: Antonio Guevara IDEA PUBLIC SCHOOLS  
 Designer/Contractor:

A Area Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
Parking area	23117 ft2	0.08	Yes	1849
Walkway < 10 feet wide	10357 ft of	0.7	Yes	7250
Total Tradable Watts (a) =				9099
Total Allowed Watts (a) =				9099
Total Allowed Supplemental Watts (b) =				900

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.  
 (b) A supplemental allowance equal to 900 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
<b>Proposed Exterior Lighting Power</b>				
<b>Area Category</b>				
Parking area (23117 ft2): Tradable Wattage				
LED: P1: POLE: Other:	1	7	60	420
Walkway < 10 feet wide (10357 ft of walkway length): Tradable Wattage				
LED: F: SCONCE: Other:	1	49	5	245
LED: Q: SCONCE: Other:	1	4	18	72
LED: J: REPLACEMENT BULB: Other:	1	5	15	75
LED: V: SUSPENDED LINEAR LIGHT: Other:	1	5	25	125
Total Tradable Proposed Watts =				937

**Exterior Lighting PASSES**

**Exterior Lighting Compliance Statement**  
 Compliance Statement: The proposed exterior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

RAUL ESPINOSA Signature: *Raul Espinosa* Date: 09/06/2024

Project Title: IDEA PS-CARVER CAMPUS ELECTRICAL AND LIGHTING UPGRADES Report date: 09/06/24  
 Data filename: Page 4 of 8

# COMcheck Software Version COMcheckWeb Inspection Checklist

Energy Code: 2021 IECC  
 Requirements: 100.0% were addressed directly in the COMcheck software  
 Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. <b>Location on plans/spec:</b> E7.01
C103.2 [PR8]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. <b>Location on plans/spec:</b> Sheet E2.01 thru E6.02
C405.6 [PR16]	Group R-2 dwelling units have separate electrical meters.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.

**Additional Comments/Assumptions:**

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: IDEA PS-CARVER CAMPUS ELECTRICAL AND LIGHTING UPGRADES Report date: 09/06/24  
 Data filename: Page 5 of 8

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3 [EL22]	Spaces required to have light distribution controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. <b>Location on plans/spec:</b> Sheet E2.01 thru E6.02
C405.2.1 [EL18]	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, corridors, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. <b>Location on plans/spec:</b> Specification 260924 Lighting Controls
C405.2.1 [EL19]	Occupancy sensors control function in warehouses: In warehouses, the lighting in aislesways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more within 20 minutes of when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor. Lights not turned off by occupant sensors is done so by time-switch.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.2.1 [EL20]	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) general lighting in each zone permitted to turn on upon occupancy in control zone, 3) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 4) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. <b>Location on plans/spec:</b> Sheet E2.01 thru E6.02
C405.2.2 [EL21]	Each area not served by occupancy sensors (per C405.2.1.1) have time-switch controls and functions detailed in sections C405.2.2.1.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. <b>Location on plans/spec:</b> Sheet E2.01 thru E6.02

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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.4 [EL23]	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight-responsive control function and section C405.2.3.2 Sidelit zone.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. <b>Location on plans/spec:</b> Sheet E2.01 thru E6.02
C405.2.5 [EL27]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. <b>Location on plans/spec:</b> Sheet E2.01 thru E6.02
C405.2.7 [EL28]	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting >= 30%.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. <b>Location on plans/spec:</b> Sheet E2.01 thru E6.02
C405.7 [EL26]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.8 [EL27]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.9.1 [EL28]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.10 [EL29]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.1.1 [EL30]	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.11 [EL31]	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.

**Additional Comments/Assumptions:**

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TEXAS

IDEA PUBLIC SCHOOLS  
 SAN ANTONIO ELECTRICAL AND LIGHTING UPGRADES  
 IDEA CARVER  
 SAN ANTONIO



DATE: SEPTEMBER 06, 2024  
 CHECKED BY: G.Q.  
 DRAWN BY: R.E.  
 PROJECT NO.: 23v81  
 CAD FILE: R.E.  
 SHEET: E9.01