

Integrated Design Solutions, LLC
Architecture, Engineering, Interiors & Technology

1441 West Long Lake, Suite 200, Troy, MI 48098
tel 248.823.2100 - fax 248.823.2200
www.ids-troy.com

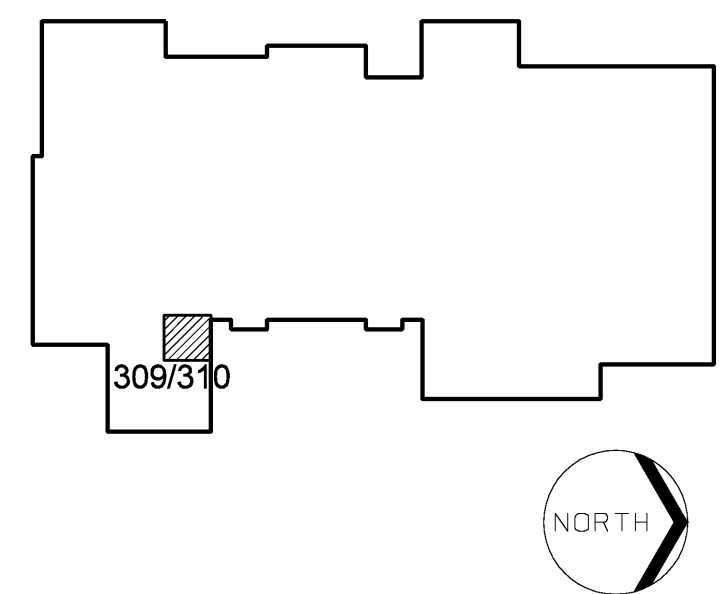


LINDEN COMMUNITY SCHOOLS

2013 Sinking Fund Projects

Linden, Michigan

Key Plan



LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION
EM	SELF-CONTAINED, UNIT INVERTER (BATTERY PACK) CONCEALED INSIDE FIXTURE CHANNEL. TO PROVIDE BATTERY BACK-UP TO (2) T-8 LAMP AT 1350 INITIAL LUMENS (MINIMUM) FOR 90 MINUTE BATTERY LIFE (MINIMUM) PROVIDE WITH SEALED, RECHARGEABLE, MAINTENANCE-FREE NICKEL CADMIUM BATTERIES; SOLID STATE CHARGER; LOW VOLTAGE DISCONNECT; INDICATING LAMP; TEST SWITCH; FULL SELF DIAGNOSTICS; 277 VOLT OPERATION. MANUFACTURER: BODINE 8505T

GENERAL NOTES

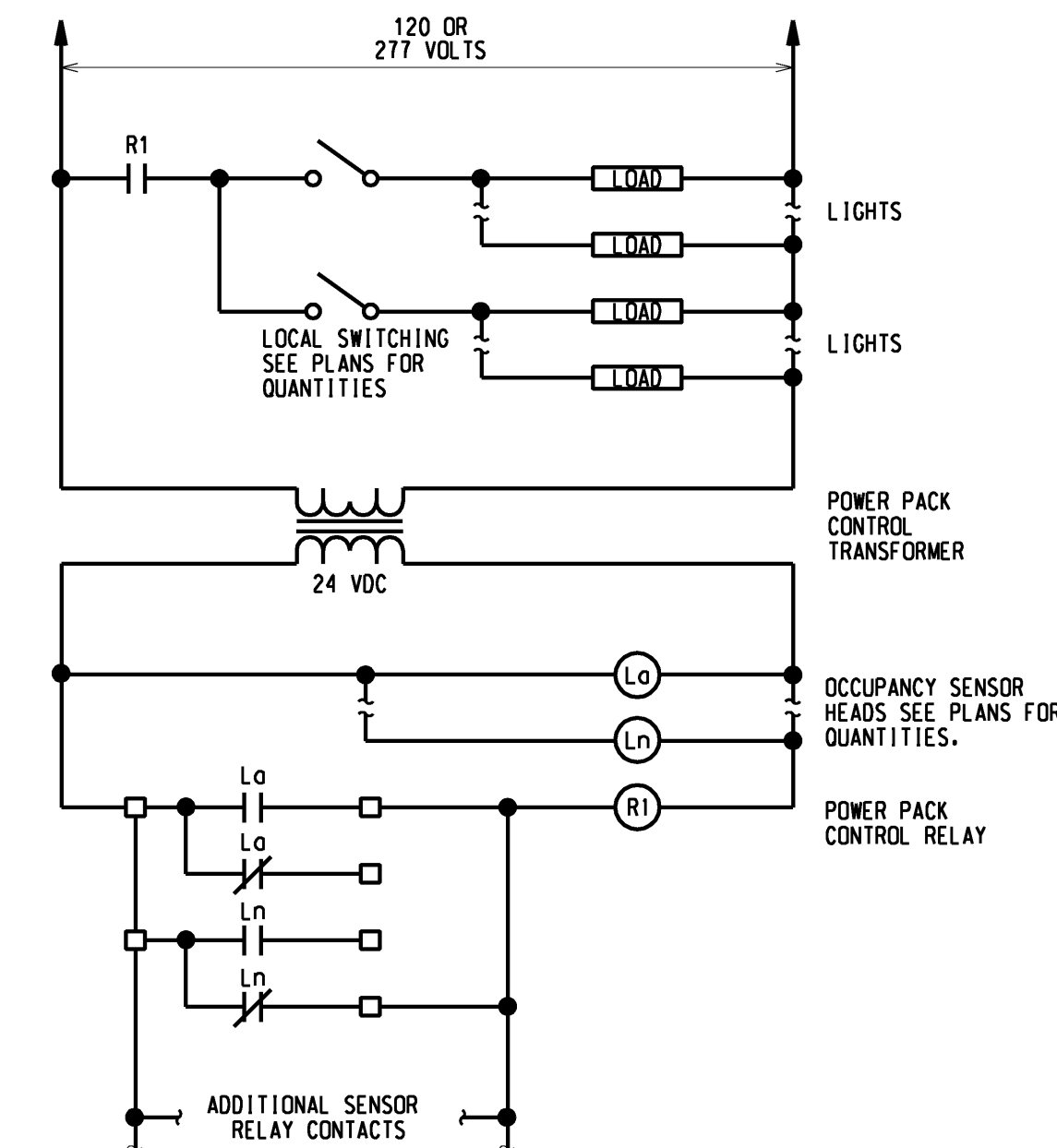
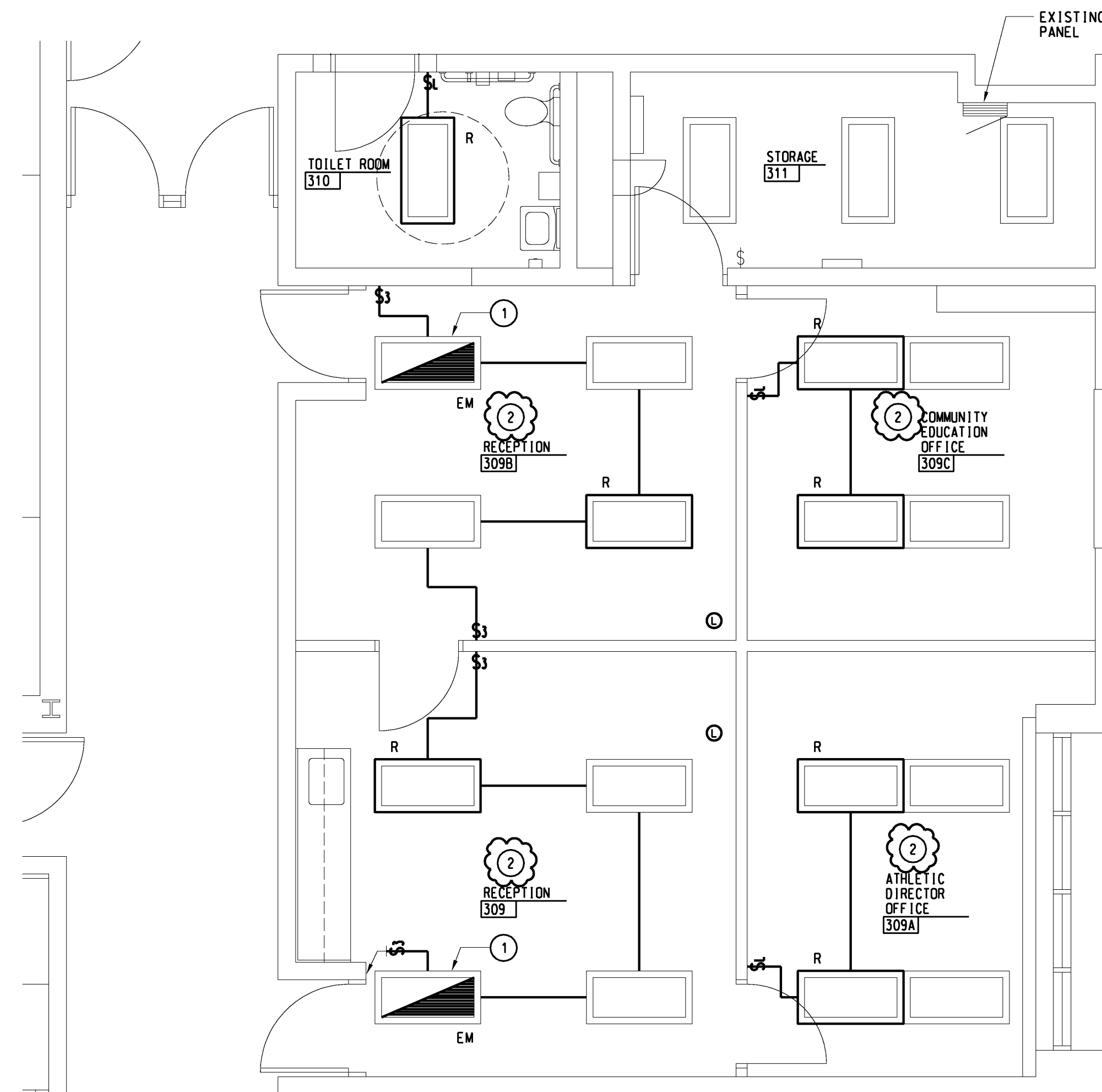
- LIGHT LINE WEIGHT INDICATES EXISTING EQUIPMENT TO REMAIN, HEAVY LINE WEIGHT INDICATES NEW ELECTRICAL EQUIPMENT. THE LETTER (R) INDICATES NEW LOCATION OF EQUIPMENT RELOCATED.
- ALL BRANCH CIRCUITS SHALL CONSIST OF A MINIMUM OF 2#12AWG AND 1#12AWG GROUND IN 1/2" CONDUIT TO A 20A-1P CIRCUIT BREAKER UNLESS NOTED OTHERWISE.
- ALL NEW ELECTRICAL DEVICES SHALL BE FLUSH MOUNTED. ALL CONDUIT AND WIRING SHALL BE CONCEALED IN WALLS.
- ELECTRICAL CONTRACTOR SHALL RING OUT ALL CIRCUITS IN ALL EXISTING PANELBOARDS AFFECTED BY THE SCOPE OF THIS PROJECT AND PROVIDE UPDATED TYPED PANELBOARD DIRECTORIES. REPLACE ALL INOPERATIVE OR DEFECTIVE CIRCUIT BREAKERS AND PROVIDE BLANK COVERS WHERE BREAKERS HAVE BEEN REMOVED.
- CONNECT LIGHTING FIXTURES TO EXISTING LIGHTING BRANCH CIRCUITS. PROVIDE SWITCHING AS INDICATED. 277 VOLT, 20A-1P BRANCH CIRCUITS SHALL NOT BE LOADED IN EXCESS OF 4400VA. CLEAN AND RELAMP ALL EXISTING FIXTURES.
- CIRCUIT NEW RECEPTACLES TO EXISTING BRANCH CIRCUIT PANELS. VERIFY EXACT CIRCUIT NUMBERS IN THE FIELD AND CONNECT TO EXISTING SPARE CIRCUIT BREAKERS. 120 VOLT, 20A-1P BRANCH CIRCUITS SHALL NOT BE LOADED IN EXCESS OF 1500VA.
- PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR WITHIN THE RACEWAY, ALONG WITH THE PHASE CONDUCTORS, FOR ALL BRANCH CIRCUITS. PROVIDE A SEPARATE DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT PHASE CONDUCTOR.
- PROVIDE CONDUIT BUSHINGS AND PULL STRINGS IN ALL EMPTY TELECOMMUNICATIONS CONDUITS.
- WHERE CONDUITS PENETRATE FIRE WALLS, THE WALL SHALL BE SEALED TO BE EQUAL OR GREATER THAN THE ORIGINAL FIRE RATING OF THAT WALL.
- REMOVE AND REPLACE ALL EXISTING CEILING TILES AS REQUIRED FOR THE INSTALLATION OF ELECTRICAL EQUIPMENT.
- OBTAIN APPROVAL FROM THE OWNER PRIOR TO INTERRUPTING EXISTING ELECTRICAL SERVICES. ALL ELECTRICAL SERVICE INTERRUPTIONS AND CONNECTIONS TO EXISTING SYSTEMS SHALL BE PERFORMED DURING AT A TIME SUITABLE TO THE OWNER.
- PROVIDE BOX EXTENSIONS ON ALL EXISTING OUTLETS AS REQUIRED TO ACCOMMODATE FURRED OUT WALLS.
- PROVIDE NEW FIRE ALARM DEVICES COMPATIBLE IN MAKE, MODEL AND MANUFACTURER, WITH THE EXISTING FIRE ALARM SYSTEM.

KEYNOTES

- LIGHTING PLAN
- FURNISH AND INSTALL NEW EMERGENCY LIGHTING BATTERY PACK TYPE "EM" IN EXISTING LIGHTING FIXTURE.
 - REINSTALL ALL EXISTING LIGHTING FIXTURES IN SAME LOCATION ONCE CEILING WORK IS COMPLETE.

LIGHTING PLAN

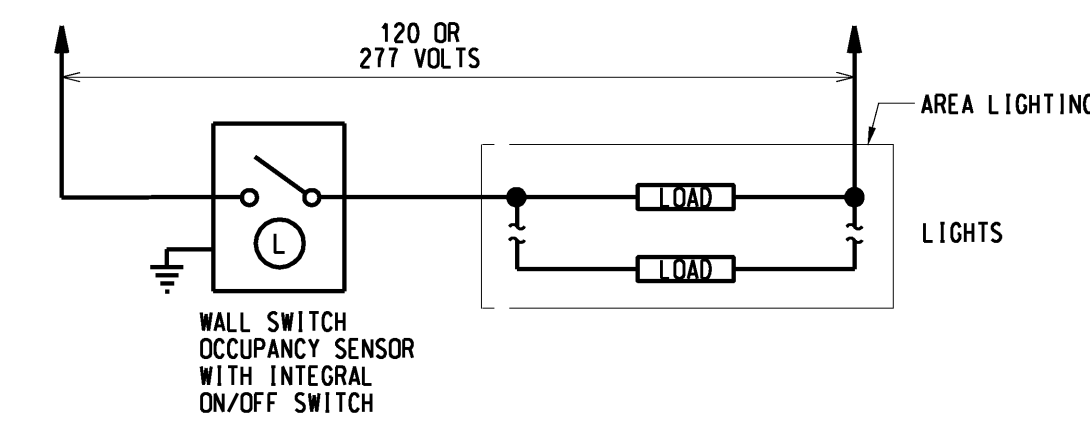
1/4" = 1'-0"



CEILING OCCUPANCY SENSOR(S) AND LOCAL SWITCHING FOR LIGHTING CONTROL

NO SCALE

- NOTES:
- ALL LOW VOLTAGE WIRING SHALL BE #18 AND MINIMUM.

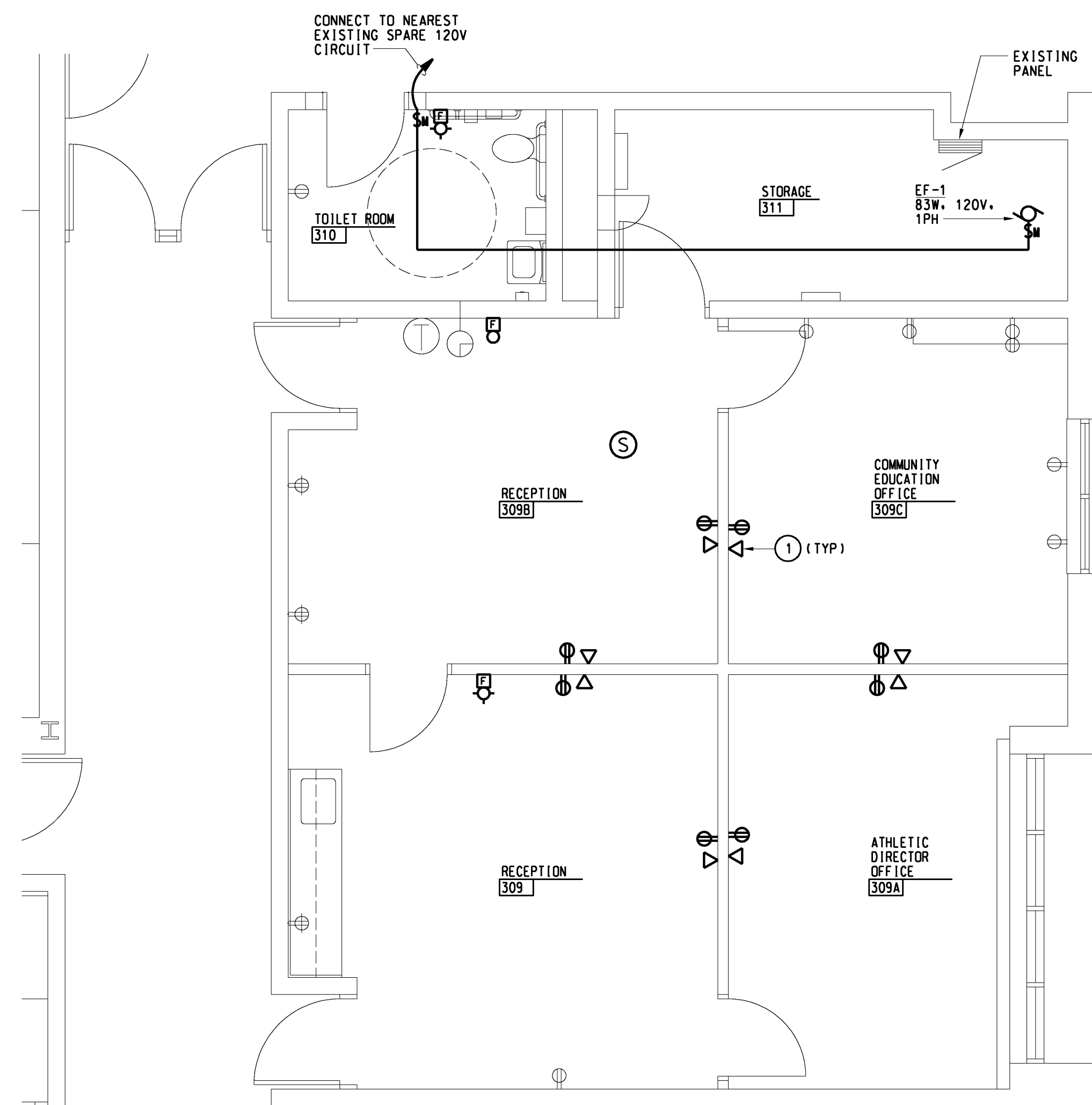


WALL OCCUPANCY SENSOR FOR SINGLE LEVEL LIGHTING CONTROL

NO SCALE

KEYNOTES

- POWER PLAN
- FURNISH AND INSTALL 4 1/8" SQUARE BY 2 1/8" DEEP BOX WITH SINGLE GANG REDUCING RING AND EMPTY 3/4" CONDUIT STUBBED INTO CEILING SPACE AND TERMINATED WITH FIBER BUSHING. DATA CABLING AND TERMINATIONS PROVIDED BY OWNER.

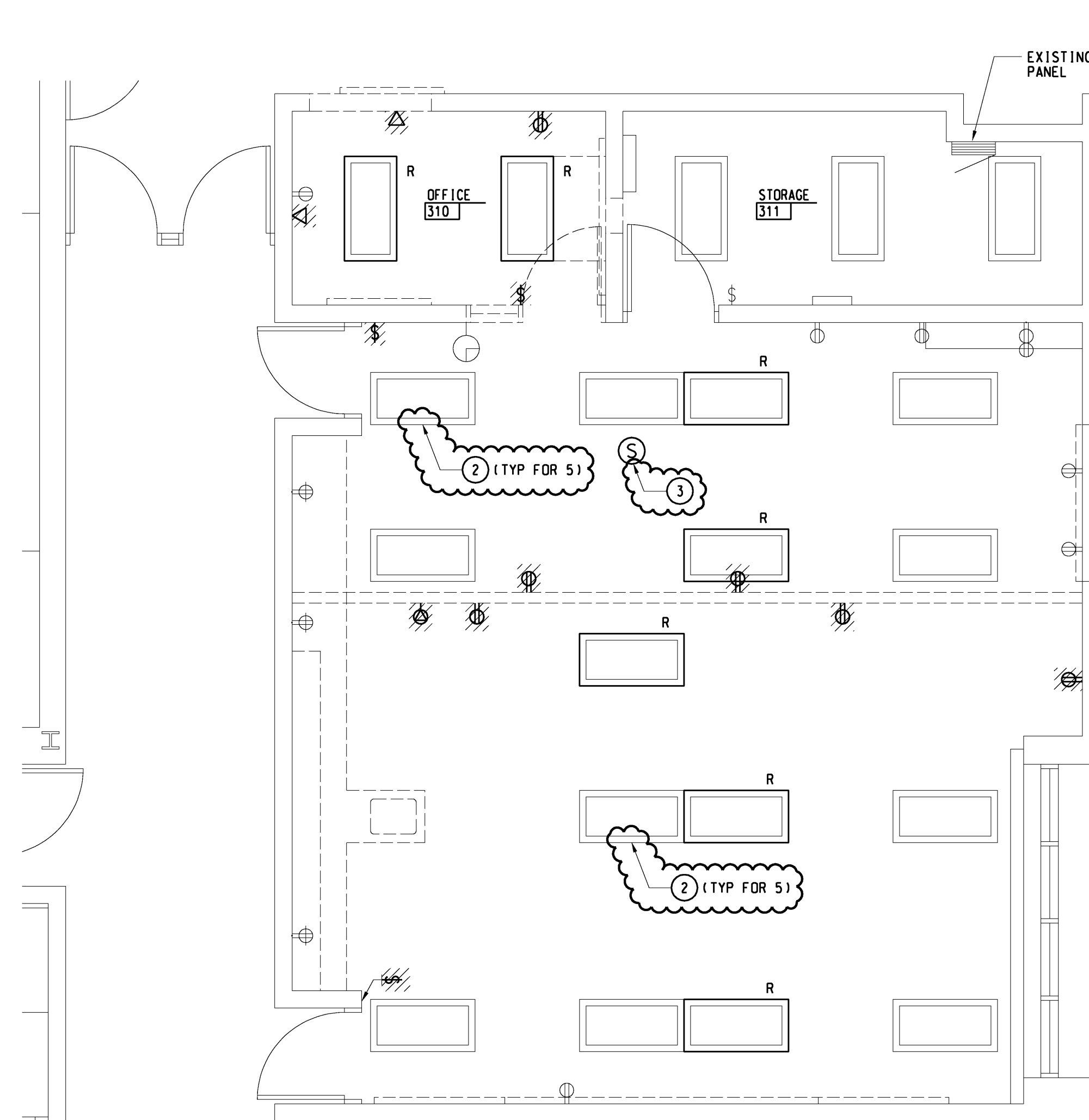


POWER AND AUXILIARY SYSTEM PLAN

1/4" = 1'-0"

DEMOLITION PLAN

1/4" = 1'-0"



GENERAL NOTES

- DEMOLITION
- LIGHT LINE WEIGHT INDICATES EXISTING EQUIPMENT TO REMAIN. PLAN SLASH MARKS INDICATE EQUIPMENT TO BE DISCONNECTED AND REMOVED. THE LETTER (R) INDICATES EXISTING EQUIPMENT TO BE RELOCATED.
 - UNLESS OTHERWISE NOTED DISCONNECT AND REMOVE ALL ELECTRICAL DEVICES AS INDICATED OR REQUIRED TO FACILITATE NEW CONSTRUCTION INCLUDING HANGERS, MOUNTING HARDWARE, PULL BOXES, JUNCTION BOXES, CONDUIT, WIRING, ETC. FROM THE POWER SOURCE TO THE UTILIZATION EQUIPMENT.
 - WHERE REMOVAL OF CONDUIT AND WIRING AFFECTS THE OPERATION OF "UPSTREAM" AND/OR "DOWNSTREAM" UTILIZATION EQUIPMENT WHICH HAS NOT BEEN NOTED TO BE MOVED, PROVIDE ADDITIONAL CONDUIT AND WIRING TO RESTORE THE "UPSTREAM" AND "DOWNSTREAM" UTILIZATION EQUIPMENT TO ITS NORMAL OPERATION.
 - FOR LIGHTING REMOVE SWITCH, COVERPLATE, AND WIRING TO NEAREST JUNCTION BOX IN THE CEILING SPACE. DEVICE BOX AND CONDUIT TO CEILING SPACE SHALL REMAIN. LIGHTING BRANCH CIRCUITS SERVING THE AREA SHALL REMAIN FOR REUSE.
 - CEILING GRIDS AND PADS ARE EXISTING TO REMAIN UNLESS OTHERWISE NOTED ON ARCH. DRAWINGS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REINSTALLATION OF EXISTING ACoustICAL CEILING PANELS AND GRIDS REQUIRED FOR THE INSTALLATION OF ALL ELECTRICAL WORK. IN AREAS NOT SHOWN AS REPLACED BY ARCH TRADES, ANY BROKEN/SCRATCHED OR DAMAGED PANELS SHALL BE REPLACED WITH NEW MATCHING EXISTING. EXISTING ACoustICAL CEILING PANELS ALREADY SCRATCHED/DAMAGED OR BROKEN SHALL BE DOCUMENTED WITH OWNER/OWNER'S REPRESENTATIVE PRIOR TO BEGINNING ANY WORK.
 - AFTER REMOVAL OF SURFACE MOUNTED ELECTRICAL EQUIPMENT PATCH HOLE IN MASONRY OR GYP. BOARD WALLS AND PAINT TO MATCH EXISTING WALL FROM NEAREST VERTICAL AND HORIZONTAL MORTAR JOINT OR CORNER.

KEYNOTES

- DEMOLITION
- FURNISH AND INSTALL NEW EMERGENCY LIGHTING BATTERY PACK TYPE "EM" IN EXISTING LIGHTING FIXTURE.
 - CONTRACTOR OPTION: GENERAL CONTRACTOR MAY OPT TO REMOVE AND INSTALL CEILING GRID. EXISTING LIGHTING FIXTURES SHALL BE DISCONNECTED AND REMOVED OR TEMPORARILY RAISED AND SUPPORTED ABOVE THE CEILING AS REQUIRED TO ACCOMMODATE CEILING WORK. REFER TO ARCH DRAWINGS AND REFLECTED CEILING PLANS.
 - DISCONNECT AND REMOVE EXISTING CEILING MOUNTED SPEAKER. REINSTALL IN SAME LOCATION ONCE CEILING WORK IS COMPLETE.

ALL DEMOLITION AND NEW ELECTRICAL WORK SHALL BE BY OWNER.

Project Administrator: Seal:
K. Delzer
Project Designer:
M. Nowicki
Project Architect / Engineer:
M. Nowicki

Drawn By:
T. Manardo
C.M. Review:
R. Bracci

Approved: Signature:
R. Bracci
Drawing Scale: Date:
1/4"=1'-0"

Issue Date: Issued for:
03-11-13 Quality Management Review
03-14-13 Plan Review
03-15-13 Bids
03-28-13 Addendum No 1

© 2013 Integrated Design Solutions, LLC
IDS Drawing Title

Electrical Demolition and New Work Plans

IDS Project Number Drawing Number

13101-1000 E1.1HS