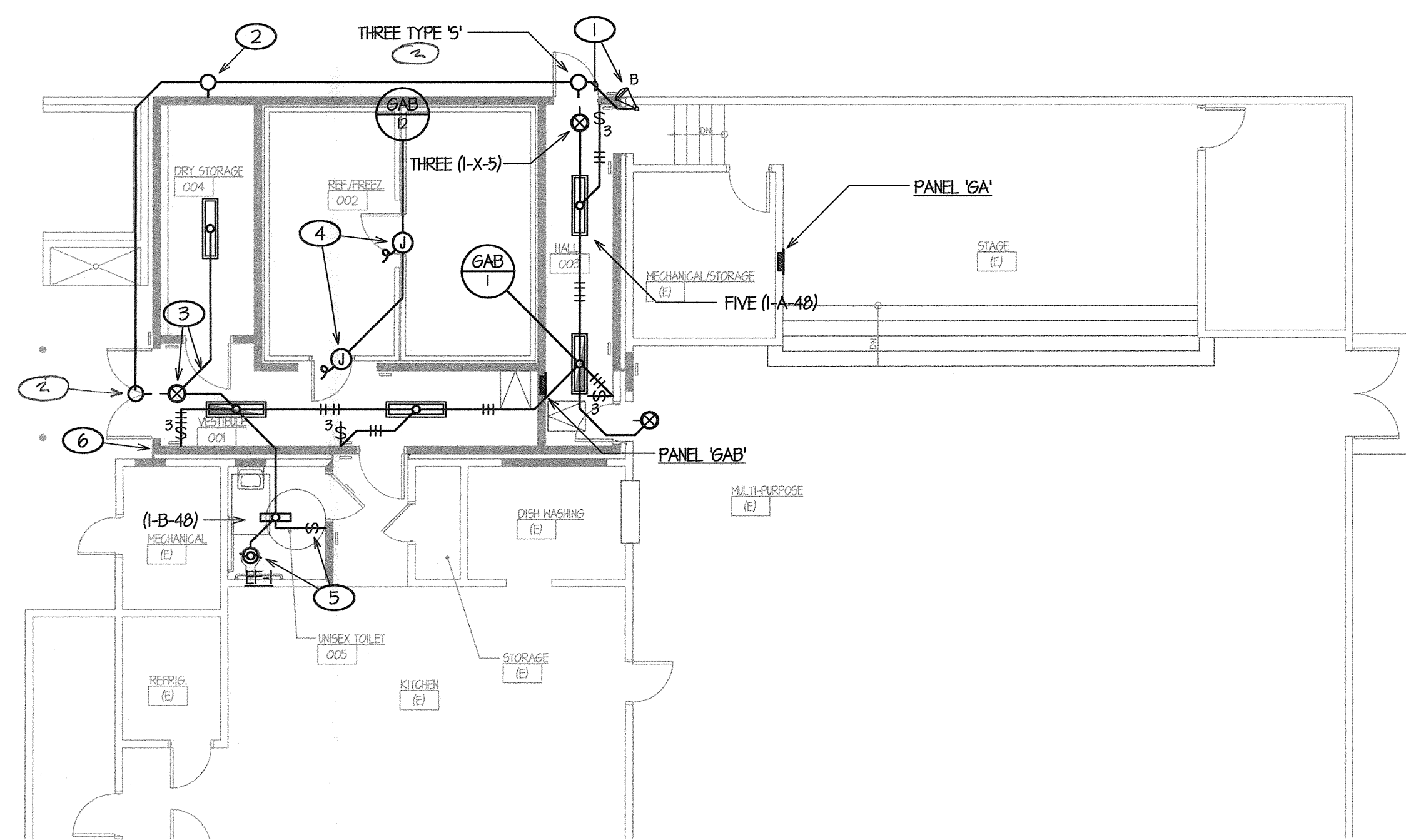


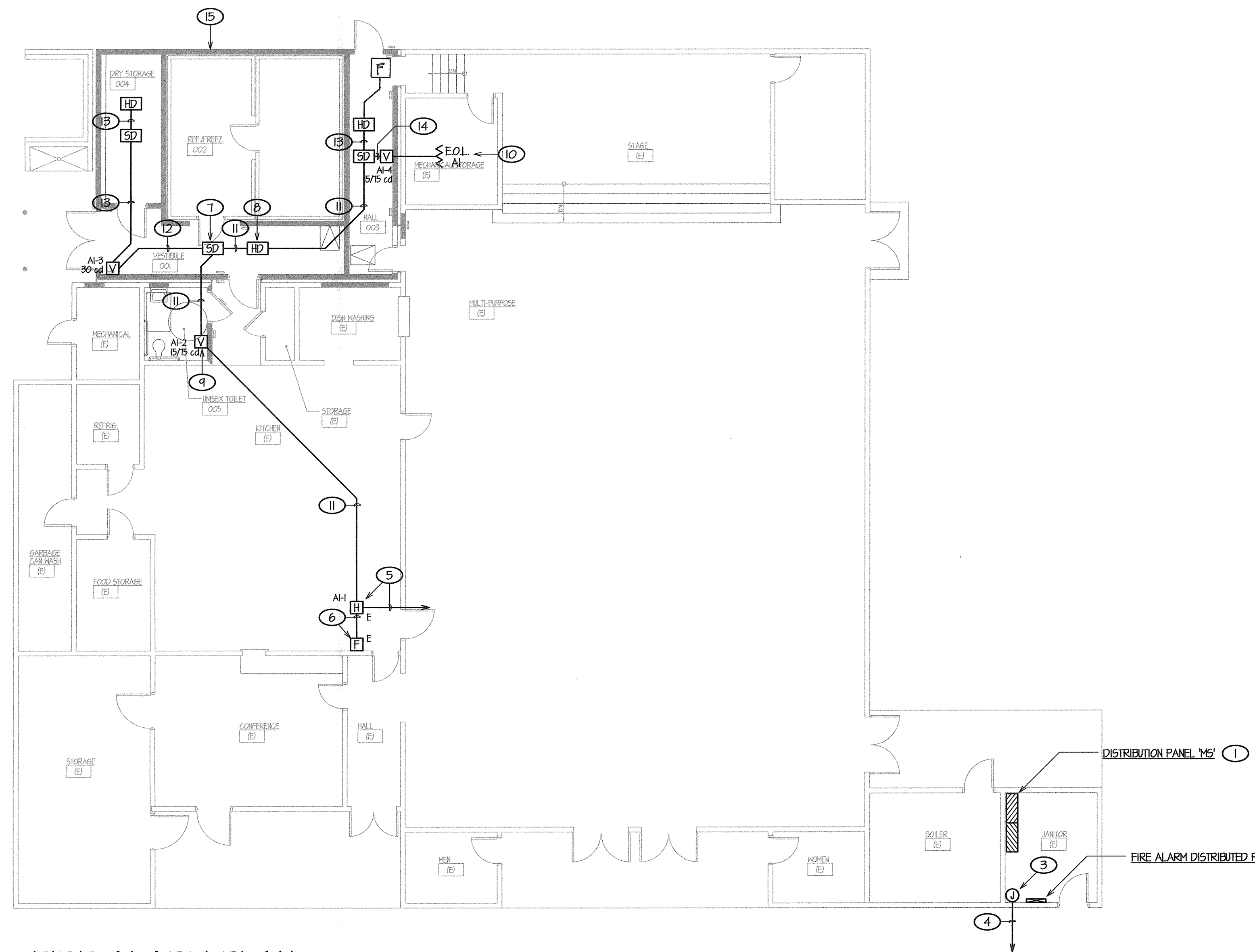
# LIGHTING PLAN



- ### LIGHTING PLAN NOTES
- PICK UP AND EXTEND EXISTING EXTERIOR LIGHTING CIRCUIT SWITCHED AND UNSWITCHED CONDUCTORS TO NEW TYPE 'S' LIGHTING FIXTURES AS REQUIRED AND CONNECT NEW FIXTURES TO EXISTING CIRCUIT.
  - PROVIDE NEW EXTERIOR WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK PER SPECIFICATIONS AND CONNECT TO EXISTING EXTERIOR LIGHTING CIRCUIT AS SHOWN.
  - BUILDING INTERIOR EMERGENCY EGRESS LIGHTS AND/OR ILLUMINATED EXIT SIGNS SHOWN ARE CONNECTED TO THE UNSWITCHED CIRCUIT CONDUCTOR FOR EMERGENCY BATTERY SYSTEM OPERATION, PER 4/E4.01. EMERGENCY EGRESS LIGHTS ARE SHOWN PARTIALLY SHADED, TYPICAL WHERE SHOWN.
  - CONNECT NEW WALK-IN REFRIGERATOR AND FREEZER 120V LIGHTING AND CONTROLS PER WALK-IN MANUFACTURER'S WRITTEN INSTRUCTIONS.
  - PROVIDE NEW LIGHT SWITCH FIXTURE AND CONNECT AS SHOWN. CONNECT NEW EXHAUST FAN POWER PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
  - INFILL DENOTES 1-HOUR FIRE RATED WALL ASSEMBLY. WHERE OUTLETS OR CONDUITS PENETRATE FIRE RATED ASSEMBLIES, INSTALLATION SHALL PROVIDE REQUIRED 24" MINIMUM SEPARATION FOR OUTLETS PER 3/E5.01, AND SEAL PENETRATIONS PER 4/E5.01.

SCALE: 1/8"=1'-0"

# FIRE ALARM PLAN



### FIRE ALARM SYSTEM REQUIREMENTS

THE FIRE ALARM SYSTEM SHALL CONFORM TO CALIFORNIA BUILDING CODE, SECTION 9012.3; CALIFORNIA ELECTRICAL CODE, ARTICLE 760 AND CALIFORNIA FIRE CODE, CHAPTERS 9 AND 14.

INSTALLATION OF THE FIRE ALARM SYSTEM SHALL NOT COMMENCE UNTIL DETAILED PLANS AND SPECIFICATIONS, INCLUDING CALIFORNIA STATE FIRE MARSHAL LISTINGS FOR EACH COMPONENT OF THE SYSTEM HAVE BEEN APPROVED BY THE DIVISION OF THE STATE ARCHITECT - OFFICE OF REGULATION SERVICES.

DURING INSTALLATION OF THE FIRE ALARM SYSTEM, CONSTRUCTION PERSONNEL SHALL FOLLOW THE FIRE SAFETY REQUIREMENTS OF CALIFORNIA FIRE CODE CHAPTER 14 IN ORDER TO PROVIDE REASONABLE SAFETY TO LIFE AND PROPERTY DURING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS.

THE ALARM SYSTEM SHALL ACTIVATE A MEANS OF WARNING THE HEARING IMPAIRED COMPLYING WITH NFPA 72, CHAPTER 10, SECTION 10.5 VISUAL CHARACTERISTIC REQUIREMENTS. FLASHING VISUAL NOTIFICATION APPLIANCES SHALL HAVE A FLASH RATE NOT EXCEEDING TWO FLASHES PER SECOND (2 HZ) NOR BE LESS THAN ONE FLASH EVERY SECOND (1 HZ).

THE ALARM SYSTEM SHALL ACTIVATE A MEANS OF WARNING ALL OCCUPANTS COMPLYING WITH NFPA 72 CHAPTER 10, SECTION 10.4 AUDIBLE CHARACTERISTIC REQUIREMENTS. ALL NORMALLY OCCUPIED AREAS SHALL BE PROVIDED WITH AUDIBLE NOTIFICATION APPLIANCES SUFFICIENT TO GENERATE AUDIBLE DECIBEL LEVELS OF AT LEAST 15 dba ABOVE AMBIENT NOISE LEVELS. IF TESTING RESULTS DETERMINE FIRE ALARM AUDIBILITY DOES NOT MEET REQUIRED MINIMUM SOUND LEVELS, ADDITIONAL AUDIBLE NOTIFICATION APPLIANCES MAY BE REQUIRED TO BE INSTALLED BY THE ENFORCING AGENCY PER CALIFORNIA FIRE CODE.

FIRE ALARM SYSTEM SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATION SHALL BE LISTED AS EITHER A ULX (CENTRAL STATION) OR UL5 (REMOTE AND PROPRIETARY) BY UNDERWRITERS LABORATORY (UL) OR SHALL COMPLY WITH THE REQUIREMENTS OF FM 3011.

UPON COMPLETION OF THE INSTALLATION OF THE FIRE PROTECTIVE SIGNALING EQUIPMENT, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING FIRE AGENCY PER NFPA 72, CHAPTER 14 AND THE D.S.A. INSPECTOR OF RECORD. TESTING SHALL INCLUDE VISUAL INSPECTIONS PER TABLE 14.3.1 AND PERFORMED USING METHODS INDICATED IN TABLE 14.4.2.2 AS WELL AS A READ-OUT VERIFICATION FORM FROM THE MONITORING CENTRAL STATION SERVICE.

CONTRACTOR SHALL SUPPLY ALL NECESSARY TESTING EQUIPMENT TO PERFORM THE NFPA 72 TESTING REQUIREMENTS, INCLUDING A SOUND LEVEL METER TO CHECK ACCEPTABLE SOUND LEVELS OF ALL AUDIBLE DEVICES.

CONTRACTOR SHALL PROVIDE A FULL RECORD OF COMPLETION AND COMPLIANCE PER NFPA 72, CHAPTER 10, SECTION 10.10.2 AND THE CALIFORNIA FIRE CODE, SECTION 901 TO THE OWNER.

- ### FIRE ALARM PLAN NOTES
- EXISTING DISTRIBUTION PANEL BOARD TO REMAIN. PROVIDE NEW CIRCUIT BREAKER FOR NEW FIRE ALARM CONTROL PANEL PER ITEM (2) BELOW. REFER TO SITE ELECTRICAL PLAN, SHEET E1.01 AND FIRE ALARM SINGLE LINE DIAGRAM, SHEET E3.01 FOR COORDINATION/REFERENCE.
  - PROVIDE NEW FIRE ALARM DISTRIBUTED POWER MODULE PER SPECIFICATIONS AND INSTALL PER 4/E4.01. PROVIDE NEW 20A CIRCUIT BREAKER PER SPECIFICATIONS AND INSTALL TO ADJACENT DISTRIBUTION PANEL IN THIS ROOM, MATCHING EXISTING EQUIPMENT MANUFACTURER AND I.C. RATING, CONTRACTOR SHALL FIELD VERIFY ALL. RUN 1/2" C. 2 #12 CU THIN + 1 #12 CU GROUND TO DISTRIBUTION PANEL AND CONNECT TO 20A CIRCUIT BREAKER. PROVIDE RED COLOR CIRCUIT BREAKER HANDLE AND DISCONNECT LOCATION LABELING PROVIDE DISCONNECT LOCATION LABELING PER N.F.P.A. 72, 10.5.5.2. ADDITIONALLY, CONTRACTOR SHALL PROVIDE AND INSTALL A LISTED LOCK OUT DEVICE COMPATIBLE WITH THE CIRCUIT BREAKER FOR ADDED PROTECTION. EXTEND 1/2" C. 2 #12 CU THIN (NOTIFICATION) FROM 'DPM' TO WALL MOUNTED FIRE ALARM PULL BOX, ITEM (3) BELOW AND EXTEND NEW FIRE ALARM CIRCUITING AS SHOWN. REFER TO FIRE ALARM SINGLE LINE DIAGRAM, SHEET E3.01 FOR COORDINATION/REFERENCE.
  - EXISTING PULL BOX MOUNTED ON WALL THROUGH WHICH EXISTING FIRE ALARM CIRCUIT CONDUCTORS ENTER BUILDING. EXTEND NEW FIRE ALARM CONDUCTORS PER PLAN TO EXISTING DEVICES AS SHOWN.
  - EXISTING 1" C. FROM EXISTING FIRE ALARM MASTER CONTROL PANEL 'FACP' AND FIRE ALARM DISTRIBUTED POWER MODULE 'DPM' TO REMAIN. PULL OUT EXISTING NOTIFICATION CIRCUIT WIRING FROM 'DPM' AND INITIATION CIRCUIT WIRING FROM 'FACP' COMPLETE AND REPLACE WITH NEW 2 #12 CU THIN (NOTIFICATION) AND ONE 1" C. GABLE (INITIATION) TO FIRE ALARM PULL BOX, ITEM (3) ABOVE AND EXTEND CIRCUIT TO NEW NOTIFICATION APPLIANCES AS SHOWN.
  - EXISTING FIRE ALARM NOTIFICATION APPLIANCE SHOWN FOR CLARITY. REPLACE EXISTING FIRE ALARM CIRCUIT WIRING IN EXISTING CONDUIT WITH 2 #12 CU THIN (NOTIFICATION) AND ONE 1" C. GABLE (INITIATION) TO FIRE ALARM PULL BOX, ITEM (3) ABOVE AND EXTEND CIRCUIT TO NEW NOTIFICATION APPLIANCES AS SHOWN.
  - EXISTING FIRE ALARM INITIATION DEVICE SHOWN FOR CLARITY. REPLACE EXISTING WIRING IN EXISTING CONDUIT BETWEEN THIS DEVICE AND NOTIFICATION APPLIANCE ITEM (5) ABOVE, WITH ONE 1" C. GABLE (INITIATION). INSTALL FIRE ALARM INTERFACE MODULE AND RECONNECT PULL STATION TO NEW INITIATION CIRCUIT CONDUCTORS AS REQUIRED.
  - PROVIDE FIRE ALARM SMOKE DETECTORS PER SPECIFICATIONS, INSTALL PER 2/E5.01 AND CONNECT PER FIRE ALARM SINGLE LINE DIAGRAM, I/E5.01, TYPICAL WHERE OCCURS.
  - PROVIDE FIRE ALARM HEAT DETECTORS PER SPECIFICATIONS, INSTALL PER 2/E5.01 AND CONNECT PER FIRE ALARM SINGLE LINE DIAGRAM, I/E5.01, TYPICAL WHERE OCCURS.
  - PROVIDE FIRE ALARM VISIBLE NOTIFICATION APPLIANCES PER SPECIFICATIONS, INSTALL PER 2/E5.01 AND CONNECT PER FIRE ALARM SINGLE LINE DIAGRAM, I/E5.01, TYPICAL WHERE OCCURS.
  - PROVIDE FIRE ALARM END OF LINE RESISTOR PER SPECIFICATIONS, INSTALL AT THIS LAST NOTIFICATION DEVICE IN THE NOTIFICATION CIRCUIT AND CONNECT PER MANUFACTURER'S WRITTEN INSTRUCTIONS. REFER TO FIRE ALARM SINGLE LINE DIAGRAM, I/E5.01 FOR COORDINATION/REFERENCE.
  - 3/4" C. 2 #12 CU THIN (NOTIFICATION), ONE 1" C. GABLE (INITIATION).
  - 3/4" C. 4 #12 CU THIN (NOTIFICATION), ONE 1" C. GABLE (INITIATION).
  - 3/4" C. ONE 1" C. GABLE (INITIATION).
  - 3/4" C. 2 #12 CU THIN (NOTIFICATION).
  - INFILL DENOTES 1-HOUR FIRE RATED WALL ASSEMBLY. WHERE OUTLETS OR CONDUITS PENETRATE FIRE RATED ASSEMBLIES, INSTALLATION SHALL PROVIDE REQUIRED 24" MINIMUM SEPARATION FOR OUTLETS PER 3/E5.01, AND SEAL PENETRATIONS PER 4/E5.01.

SCALE: 1/8"=1'-0"

**WE**  
WATERS ENGINEERING, INC.  
Consulting Electrical Engineer  
P.O. BOX 690  
Visalia, California 93219-0690  
Telephone (559) 733-4133  
Facsimile (559) 733-4135  
E-mail: waterseng@comcast.net

#2012-02

Ownership of Documents  
This document, the ideas and designs incorporated herein, as an instrument of Professional Service is the property of Integrated Designs by SOMAM Inc. and is not to be used, in whole or in part for any other project without written authorization.  
© COPYRIGHT 2012

integrated designs by SOMAM, Inc.  
ARCHITECTURE • INTERIOR DESIGN • CONSTRUCTION MANAGEMENT  
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN • CONSTRUCTION MANAGEMENT  
601 N. Fresno, Suite 130 - Fresno, California 93710  
Phone (559) 439-0881 Fax (559) 439-0887 E-Mail: design@somam.com  
www.integrateddesigns.com

Revision	Revision Description	Rev. Date	Rev. Date

Sheet Title: LIGHTING AND FIRE ALARM PLANS  
Project Name & Address: MT. VERNON ELEMENTARY SCHOOL KITCHEN ADDITION  
BAKERSFIELD CITY SCHOOL DISTRICT  
2161 POPTOMAC AVENUE BAKERSFIELD CA.

Issue Date: 07/19/12  
Date: 07/19/12  
Designer: VWW  
DR: VWW  
PC: CJM

DSA Identification Stamp:  
FILE #: 15-6  
IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES  
03-114521  
AC: FLS SS  
DATE: 8/11/12  
TRACKING #: - - -

Stamp(s):  
REGISTERED PROFESSIONAL ENGINEER  
WATERS ENGINEERING, INC.  
No. E 14975  
Exp. 6/30/13  
ELECTRICAL  
STATE OF CALIFORNIA  
LICENSED ARCHITECT  
WATERS ENGINEERING, INC.  
No. C 28966  
Exp. 5-31-13  
STATE OF CALIFORNIA

Job No.: 3990  
Sheet No.: E3.01  
Release: -